

Chapter 10: Synthesis and Discussion

TOPOGRAPHICAL AND ENVIRONMENTAL SETTING

The Roman settlement seems to have been sited to take best advantage of the local topography by being positioned at the top and on the upper slopes of a south-east facing valley side. The soils of the area, mostly clay silts, are not particularly well-drained, and the ridge top position offered the best location in relation to this problem. Moreover, a localised patch of better-draining third terrace gravel was also available for use and was exploited for the focal road junction area of the Roman settlement. It may have been these characteristics that had recommended the area for use as part of a system of fields, perhaps as early as the middle Bronze Age (see below). Little is known of the wider environmental setting at that time though analogous activity at nearby Brisley Farm may have been fairly closely preceded by tree clearance. There is no direct evidence for the physical character of the Westhawk Farm area in the Iron Age. By the early Roman period the site seems to have been set in a largely open landscape. Pollen evidence from water-hole 796 indicated that a wide range of woody plants was growing in the catchment, of which the most abundant trees and shrubs were oak, hazel and willow, but the representation even of these was at a fairly low level. By the mid to late 2nd century levels of woodland pollen, and particularly oak, had declined further, emphasizing the impression of an (at least locally) open landscape.

MORPHOLOGICAL ASPECTS

Pre-road features

The only archaeological features which demonstrably predated the Roman road alignment in Area B were a group of linear features assigned to the prehistoric Period 1 on the basis of the distinctive character of their fills, which were of a light colour and contrasted markedly with the fills of all later features. Put together, the features with these characteristics formed a pattern with its slightly irregular long axis aligned NE-SW, indicated most clearly by feature 1640/10100, which with related features was traced for a distance of at least 330 m down the axis of Area B – following the topographical trend of the site. Lesser lengths of ditch were aligned parallel and at right-angles to this feature, the only exception to this pattern being a fairly short length of ditch underlying the later road and aligned almost exactly north-south. While this alignment was anomalous the fill of the feature was consistent with those of the rest of this group and so it is included with them.

No dating evidence was recovered from any of the component features of this group. A number of potentially pre-Roman discrete features included a shallow pit, 8241, which produced flint-tempered pottery lacking diagnostic sherds but assigned on the basis of its general characteristics to the middle Bronze Age. It is not clear if this feature was associated with the ditches, but the character of its main fill was comparable with the fills of these features. Their extent and the lack of associated finds and settlement-related features support their interpretation as part of a field system. This comprised parts of three parallel alignments, of which the central was the most clearly defined, with lesser ditches, mostly at right-angles, running between these lines. Two ditches extended in a north-westerly direction beyond the observed NE-SW alignments, but no such features were seen extending downslope on the south-east side of the system.

The boundaries presumably belonged to a coaxial field system comparable to those which are being increasingly recognised both in the Thames Valley and in north Kent (Yates 1999; 2001). These systems originate in the middle Bronze Age but become more common in the later Bronze Age, though it is not certain that they are exclusively of this date. On this basis the Westhawk Farm field system could have been as early as the middle Bronze Age. This is not demonstrable conclusively on present evidence, though the ceramic material from a small number of features perhaps associated with the field system is consistent with such a date. A later Bronze Age or even later date is possible. The presence of the field system indicates extensive exploitation of the Weald Clay rather earlier than might have been anticipated, and further evidence of this is seen at Brisley Farm, only *c* 750 m distant, where features forming part of an extensive field system were laid out following woodland clearance (Johnson 2002). A middle Bronze Age date is likely for that system, component features of which had similar leached fills and a similar alignment to their counterparts at Westhawk Farm (Casper Johnson, pers. comm.; for the comparability of the alignments see Champion 2007, 101). At Westhawk Farm only a small number of features were positively identified as tree-holes, and it is possible that this area was relatively clear of trees rather before the field system was put in place. Whatever the precise date of the Westhawk Farm and Brisley Farm features, however, the analogies with the Thames Valley systems suggest an association with animal husbandry rather than arable agriculture (Yates 2001, 65-66). It is possible, on the basis of their alignments, that the features at these two sites were part of the

same system of land division, but this is not demonstrable on present evidence.

Road network

There is no direct evidence to demonstrate how long the Period 1 field system remained in use. The subsequent Roman road followed the general trend of the field system alignment, but this may have been simply because both reflected the underlying topography. At one point, on the north-west side of the Canterbury road towards the south-west end of the settlement, the line of one of the field system ditches was perpetuated in the early Roman period, but only from the point at which it was cut by the earliest roadside ditch. In detail, the alignment of the Canterbury road disregarded the underlying features, and it is likely that at least some components of the field system were no longer significant elements in the early Roman landscape. Equally, the survival of *any* such components after a millennium or perhaps even longer argues for continued maintenance of the system over an extended period, and perhaps particularly the survival of hedgerows.

It is clear that the line of the Canterbury road was established in Phase 2 of Period 2, that is, in the pre-Flavian period, even if it was not necessarily surfaced at that time. It is possible that the route was of pre-Roman origin, forming a logical south-westerly extension of the 'natural' route up the Stour valley from Canterbury providing access to the resources of the Weald. Be that as it may, the early Roman date contradicts the view of Cleere and Crossley (1985, 62-64), who followed Margary (1947; cf. 1948, 208) in seeing the Weald-Canterbury road (his (1973) route 130) and route 13 (Weald-Rochester via Maidstone) as late additions to the scheme of Roman roads in the eastern Weald (see Fig. 1.2). Whether or not route 130 reached its full westerly extent (as far as Benenden) in the early Roman period is unclear. Its completion should, however, have post-dated the construction of the north-south route 13 at that point, on the basis of the relationship between the two.

The same argument applies to the relationship between route 130 and Margary route 131, from Lympne to Maidstone. The latter is clearly the later of the two main roads at Westhawk Farm, now that the absence of a straightforward crossroads here has been established. Why the southerly section of this route, from Lympne, should have been aligned directly on the settlement at Westhawk Farm while the northerly section, from Maidstone, was not, is unclear. It is just possible that the northerly section could have predated the establishment of significant settlement at Westhawk Farm, but this would make it a very early road indeed given the likelihood that settlement was well-established here before the Flavian period. Such an early date for the northern part of the Maidstone-Lympne road seems unlikely.

The date of the southern section of route 131 is also uncertain, but the evidence of the geophysical

survey reveals a fairly clearly-defined road line with only slight indications of features not respecting its position. This parallels the situation for route 130, the early date of which is not now in doubt. The apparently coherent plan of the central part of the settlement at Westhawk Farm (see below) suggests that the two roads may have been fairly closely contemporary.

Junction zone

It is unfortunate that knowledge of the area surrounding the junction of routes 130 and 131, which seems likely to have been the focus of the settlement, is based almost exclusively on the results of the geophysical survey and therefore has no chronological dimension. The junction area was enclosed by linear boundaries which in places are very well-defined on the geophysical survey, particularly at the points where the area is entered from the south-east by the road from Lympne and from the south-west by the road from the Weald. Including the widths of the two roads, this defined area was up to c 70 m across and at least c 190 m NE-SW. Several minor enclosures of uncertain function were located within the northern part of this defined area, and a number of significant discrete magnetic anomalies were more widely distributed, principally in the south-eastern half of the area. Some of these may represent significant structural and other activity, but even so there is a strong impression of a well-defined focal space, not all of which is likely to have been occupied by buildings. Relatively few such spaces have been identified in the 'small towns' of Roman Britain, though they have been claimed for Dorchester-on-Thames (Frere 1985, 98-100), Godmanchester (Green 1975, 204), Alcester, Warwicks (Booth 1994, 173-174), Heybridge, adjacent to the temple complex (Atkinson and Preston 1998, 107) and Catterick (Wilson 2002a, 76). They are likely to have been more common than appears at present, given that they probably served (among other functions) as market places (cf Burnham 1987, 180). The Westhawk Farm space, if correctly identified, is, however, the largest known example in a 'small town' or similar context.

Although the presence of defining ditches helps to identify the focal junction area on the geophysical survey plan the degree of definition of this area seems a little unusual. The apparent scale of the ditches hints that access to the area may have been constrained, particularly given the emphasis on the enclosing features in the vicinity of the roads entering them. This may have implications for the overall nature of the settlement (see below). There is no particular indication from the geophysical survey that the boundary defining the junction area was superimposed on an earlier settlement layout - the configuration of the detectable features is such that they could all have related to the junction area layout after its main boundary was established.

Major boundaries north-west of the Canterbury Road

The geophysical survey demonstrates that the north-western side of the Canterbury road was defined by a ditch or ditches along its entire length. Excavation in Area B, however, revealed that these ditches were not continuous throughout the life of the settlement. In particular, there was no north-west roadside ditch at the northern end of Area B in Phases 2 or 3 of Period 2 (though further south-west the earliest roadside ditches were of Phase 2). The principal early ditch alignment north-west of the road at this point diverged from the road edge some 95 m from the edge of the excavation and ran in a more northerly direction. This alignment then almost certainly formed the north-western boundary of the settlement proper, set back roughly 40-45 m from the road edge on a line followed by the recent hedge and treeline. The date of the earliest north-west roadside ditches evident in the geophysical survey of Area A is therefore unknown since they could not be correlated with excavated features in Area B.

The early settlement boundary as seen at the north-west corner of Area B originated in Phase 2 and was modified in Phase 3, but was out of use at the latest by Phase 4, when it was cut by boundaries roughly at right-angles to the road - though features associated with plot NW3 already cut the boundary in Phase 3. Further north, however, in the vicinity of Area C, for example, this boundary was probably never superseded and is likely to have remained in use, probably with repeated redefinition, as the main settlement boundary up to the late Roman period, although insufficient of the ditch sequence was seen next to excavation Area C for this to be certain.

Major boundaries south-east of the Canterbury Road

South-east of the Canterbury road the arrangement of boundaries was much less coherent. At the south-western end of the site the presence of an early post-conquest ditch line, corresponding to the one on the other side of the road, is assumed, but over most of its length this feature had been removed by later cuts in the roadside ditch sequence. This earliest ditch stopped about 145 m short of the north-east margin of Area B and turned south-eastwards towards the first of a complex and long-lived sequence of roughly rectilinear enclosures which lay at the southern margin of the shrine area (see below). There was no discernible definition of the road margin in the latter area until the early 3rd century.

At the north-east margin of Area B a further complex sequence of ditches appears to have formed the south-western side of a large sub-rectangular enclosure which the geophysical survey suggests fronted the Canterbury road for a distance of just over 100 m. This enclosure was probably double ditched, though the evidence is only reasonably clear for the excavated south-west side and on the road-fronting north-west

side. The geophysical survey evidence for the north-east side is obscured by a modern field boundary, and the south-eastern side of the putative enclosure does not appear on the geophysical survey at all, though the existence of this side is strongly indicated by the ditches of the south-west side turning sharply to the north-east beneath building R at the north-east margin of Area B. The maximum dimensions of the enclosure can thus be estimated at roughly 110 m by 65 m. A single boundary perpendicular to the road line appears to bisect the enclosure, but the significance of this is unclear and the relative chronology of the features is of course unknown.

The southern margin of the defined road junction area lay between *c* 40 m and 55 m north-east of the probable north-east side of this enclosure. This boundary was not at right-angles to the line of the Canterbury road, but was parallel to two linear features (or in one case possibly an alignment of discrete features) lying between it and the probable double-ditched enclosure to the south. The reason for this change of alignment is unclear. The easterly extent of these alignments is also uncertain. Outside (ie east of) the enclosed junction area the geophysical survey reveals a variety of features, some fairly clearly related to the Lympne road and others less clearly associated and less readily interpreted. There is no indication of a single settlement boundary defining the south-east side of the site to correspond with that seen to the north-west. A fairly substantial linear feature aligned roughly NNE-SSW can be traced for a length of some 80 m towards the bottom of the slope close to the Whitewater Dyke, but this appears to be too isolated from other features to have served as a major boundary for the settlement as a whole.

Plot divisions

A particular feature of the site plan as revealed by the geophysical survey and amplified in places by excavation is the occurrence of property units or plots defined by ditches laid out, for the most part, at right-angles to the alignment of roadside ditches. Such plots are of course a common characteristic of roadside settlements or 'small towns'. The geophysical survey hints at the existence of plots established at right-angles to the line of the Lympne road, particularly on its northern side, but their detailed layout is unclear. The best evidence is found on the north-west side of the Canterbury road, though in the vicinity of the focal road junction area of the settlement the definition of plot boundaries was variable. Plots identifiable with reasonable confidence here ranged from *c* 27-34 m in width at the road frontage, and a hypothetical block of six plots covering a distance of some 170 m just north of the bend in the Canterbury road alignment had a notional average plot width of *c* 28 m (allowing for the reconstruction of one boundary where the geophysical survey is obscured by a modern hedge-line). North of here the plot boundary spacing was less consistent. Two larger plots were located opposite the point where the Lympne

road entered the junction area, the first apparently almost 50 m wide and the one to the north of it some 34 m wide. A hypothetical subdivision of the first of these would produce two plots much nearer to the notional average plot width of *c* 28 m, but there is no clear evidence for such a division on the geophysical survey. There is a suggestion of a slight offset in the alignment of the north-west roadside ditch at the junction of these two larger plots, and it may be that the more regular arrangement seen further south changed here.

Further south still, evidence for systematic roadside plot divisions in Area B is again confined to the north-west side of the Canterbury road. There were two distinct groups of plots here, defined as north-west and south-west groups. At the north-west corner of Area B at least three rather irregular plots were defined by ditches by Phase 4. The two northernmost plots of this group (NW1 and NW2) were both *c* 20 m wide, but in neither case did the boundary ditches extend straightforwardly to meet the roadside ditch. Plot NW2 adjoined ironworking structure I in plot NW3, so its south-west boundary, associated directly with structure I, was therefore already in existence in Phase 3. Plot NW3 was in turn defined on its south-west side by a slighter linear feature which did reach to the road frontage and extended back from it to the limit of the excavated area, a distance of some 45 m. The plots in this part of the site were therefore all relatively deep - at least 45 m - and narrow; that containing structure I being only 11-12 m wide (although a later redefinition of this boundary with a fenceline increased the width to *c* 15-16 m). Their boundaries disregarded the earlier major settlement boundary, which they overlay.

It is not clear that the north-west plot group formed part of a continuous block with the plots seen further north in Area A. The distance between the northern boundary of Plot NW1 and the most southerly of the group of six '28 m unit' plots discussed above is just over 40 m. This would allow for two plots of *c* 20 m width, but there is no indication of a boundary defining such units on the geophysical survey and its existence is at best speculative.

South-west of the plots in the vicinity of structure I there is no indication of formal planning for some 60-70 m, at which point a block of six south-west plots, of which the northern four were particularly well-defined, is encountered. The most southerly plot (SW6) was a unit that had been in existence from Phase 2. Curiously, the redefinition of the north-east side of this plot in Phase 4, approximately contemporary with the layout of the other five, was at a marked angle to the line of the associated roadside ditch, contrasting not only with the precisely perpendicular layout of the other plot boundaries, but also with the original definition of the plot, which had been at right-angles to the roadside ditch alignment. This is the exact reverse of the development sequence which might have been expected, but there is no doubt about the stratigraphic sequence upon which the present interpretation is based.

Despite the broad regularity of appearance of these plots their frontage widths were slightly variable, being (from the north) *c* 16 m, 17 m, 18 m, 22 m, 18 m and 20 m (the last figure assumes that the south-west 'boundary' of plot SW6, not certainly redefined after Phase 2, was in some way still in use). Plot SW3 seems to have been subdivided lengthways, giving two very narrow blocks, and it is possible that this subdivision was in place from the initial establishment of the plots, though it seems improbable that these were intended to be two separate units. The depth of the plots is also unclear and may have been equally variable. Their north-west ends lay outside the limit of the excavation area, and while limited additional work was permitted by the developers it was not possible to provide conclusive evidence for all the plots. Plot SW2 was shown to be some 80 m deep, but there was no continuation of a rear boundary for plot SW1 from the north-east corner of SW2. Indeed the north-east boundary ditch of plot SW1 was seen to terminate some 67 m from the roadside ditch, but with no apparent trace of a return south-westwards from this point to mark the rear boundary of the plot. It is thus possible that the degree of definition of the rear boundaries of these plots was very variable and a uniform depth cannot be assumed for all of them (a similar lack of uniformity was observed amongst the admittedly less regular plots of the south-central group). This and the variation in width may suggest that despite being quite closely contemporary the plots were not laid out as a single operation.

Analysis of the relationships of the SW plot group boundaries, albeit hampered by truncation of the evidence by later features, allows a tentative reconstruction of part of the sequence of layout. Plots SW3 and SW4 may have lain at the heart of the scheme, assuming that the longitudinal division of plot SW3 was a secondary feature. The layout of the primary boundaries of plots SW2 and SW1 suggests that these were additions to the series of plots, though it is most likely that they will have followed in quick succession (see above). This argument is based on the termination of boundary ditches in relation to (presumably) already established plot corners. It is curious that the ditches/gullies were not apparently dug in such a way as to achieve a consistent flow of water for drainage purposes, but a similar discontinuity of drainage ditches in line with plot boundaries has been noted elsewhere, for example at Alchester (Oxfordshire), where it was interpreted as indicating that responsibility for boundary maintenance lay with individual plot owners or tenants (Booth *et al.* 2001, 430).

The relationship of the south-west plot boundaries to associated structures may shed further light on the nature of land tenure within this part of the settlement. It seems fairly clear that structures A and B at the south-western end of the site were extant before the establishment of the south-west plots. They may indeed have been out of use by Phase 4, which would help to explain why the somewhat notional plot SW6 was not apparently defined on its south-west side

except by a relict prehistoric feature. Further circular structures are indicated in plots SW4 (structure C) and SW3 (structure E). If it is assumed that the component gullies of the latter did relate to a complete circular building (see discussion of structures below) then it must have been removed to make way for the plot SW2/SW3 boundary, if it was not already out of use when the boundaries were established. The latter alternative is perhaps more likely. The almost total absence of traces of structure E within plot SW2 can be accounted for by the nature of Phase 4-5 use of that part of the plot, as mentioned above. The pottery from the gully fills of structure E, while consistent in date with the use of the area after the establishment of the plot boundaries in Phase 4, may consist of intrusive material.

The status of structure C in relation to the establishment of the plots is less certain. It is notable that it was centrally placed within plot SW4 and may therefore have post-dated the establishment of the boundaries, though given a terminal date of *c* AD 170 for the associated or later grave 8160 this would imply a fairly (but not impossibly) short life for the structure. Another possibility, however, is that the structure was already standing when the plots were laid out and that this process respected the position of the structure. It is even possible, given the suggestion that plots SW3 and SW4 may have been primary components in the scheme, that structure C acted in effect as the starting point for the layout of the entire block of south-west plots.

Plots SW1-SW4 certainly or probably contained buildings, though the nature of any structure in plot SW1 remains obscure. The majority of the dating evidence associated with components of the putative structure G was assigned to Phase 3, and it is possible that this, like structure E to the south-west, predated the establishment of the south-west plots. There was no clear evidence of any structural features in plot SW5, and a relatively low level of activity here (and even more so in the area of the putative plot SW6 after Phase 3) is suggested by a lack of evidence for reworking of the roadside boundaries after the beginning of Phase 4, in contrast with the situation from plot SW4 north-eastwards.

Opposite the block of south-west plots, parallel ditches on the south-east side of the Canterbury road defined a single plot some 20 m wide and *c* 65 m deep, perhaps originating as early as Phase 3 but continuing into Phase 5 (plot SE1). These ditches (including a probable secondary phase of the south-western one) did not extend right up to the contemporary south-east roadside ditch(es), but in Phase 5 the latter feature terminated fairly close to the point where the north-east corner of the plot would have been had the features met. There were few significant features within the 'plot', however, so the purpose of its establishment is unclear.

The block of south-central (SC) plots was considerably less coherent in its layout than those discussed already, but nevertheless was far from being completely random in plan. Throughout the Roman pe-

riod these plots had a common boundary with the southern margin of the shrine area (see below), effectively equivalent to the road frontage alignments of the other plot groups, though less rigidly constrained in their position. Indeed it is possible to interpret some of the duplicated gullies, particularly in Phase 3, as defining a trackway running east-west along the northern margin of these plots and therefore separating them from the shrine area, although an interpretation of these features as marking successive stages of the plot boundaries is preferred here.

In the early phases of Period 2 the ditches defining parts of these plots were directly continuous with the south-east roadside ditches. The Phase 2 south-east roadside ditch, in particular, doubled right back on itself, in the process defining three (rather irregular) sides of an early version of plot SC1. From as early as Phase 3, however, the curvilinear plot SC1 boundaries were replaced by a rectilinear layout, setting the tone for the development of these plots through the rest of the Roman period. Despite the heterogeneous nature of the definition of these enclosures, and their differing chronological development, from Phase 3 onwards they can be seen as occupying a fairly consistently-defined, slightly wedge-shaped block of land extending up to 140-150 m west to east from the line of the Canterbury road. At the western end of this block plot SC1 was from *c* 31 m to 35 m deep in Phase 3, while at the eastern end in Phase 4 plot SC6 was *c* 50 m deep. Irregular and discontinuous but nevertheless relatively consistently-aligned ditches and gullies at the southern margin of the 'wedge' indicate that it had a maximum depth of *c* 60 m.

Boundaries at the northern margin of this area showed a slow, but steady northward progression through Period 2. More importantly, perhaps, the lateral boundaries between plots were also fluid in a manner that contrasts markedly, for example, with the definition of boundaries in the SW plot series. It is not clear, however, that this arises from any major difference in the use of the two plot groups, though the particular concentration of circular structures in the SC plots might be a slight hint of such a distinction (see further below). Another possibility, however, relates to ownership, with the implication that changing patterns of ownership or tenancy of the SC plots resulted in frequent adjustments to plot sizes, whereas the arrangement of the SW plots, in contrast, was much more stable, for example possibly suggesting that these plots remained in single ownership over a sustained period. Other interpretations of this variation may be possible, however.

Shrine/Temple area

A preliminary discussion of the shrine area has already been published (Booth 2001). The most significant characteristic of this area seems to be the way in which it was kept clear of unrelated features. The fact that waterhole 9179 always lay within the area strengthens the case for seeing this feature as having a functional link with the shrine enclosure, though

there was nothing in the range or (generally small) quantities of finds from the waterhole to indicate any specific association with religious activity. Nevertheless, as noted previously (*ibid.*, 20), a water source within a temple complex could have been important for a variety of ritual and other purposes, even if it was not in itself a focus of devotion (Derks 1998, 207-208). The lack of closely dated material from the early fills is unfortunate, as it does not clarify the question of whether the waterhole was a secondary feature or if it was already in place by the time the shrine complex was constructed.

The southern extent of the shrine area was defined at least in part as early as Phase 2 and while there was subsequent encroachment on this side this was on a relatively modest scale. The original location of its north-east boundary is not known, but may have lain in the same area as, and have been truncated by, the earliest stage of the double ditched enclosure at the north-east margin of Area B, which is assigned to Phase 3. At this time there was apparently no formal demarcation of the Canterbury road adjacent to the shrine area and the south-easterly limit of the area, probably (if defined at all) lying beyond the edge of the excavation, is not known.

The shrine could have been accessed from the Canterbury road, though this would have been the least satisfactory approach in terms of the formal layout of the complex with its south-east facing emphasis (cf Smith 2001, 7). A well-defined trackway leading into the shrine area from the south was probably in existence as early as Phase 3 and its alignment was then maintained carefully for the duration of activity in this part of the site. The trackway was aligned approximately on the south corner of the shrine enclosure and would have been a suitable access to the shrine area. The south-eastern alignment of the shrine complex, while conforming to a widely observed pattern (cf Booth 2001, 19), also provides a clue about the layout of the settlement in this area. The geophysical survey shows a (discontinuous) projection of the line of the redefined (Phase 4) northern side of the shrine enclosure running south-eastwards almost as far as the Whitewater Dyke. Two other extensive linear features converge on the same point from slightly further north within the Roman settlement, one of these having the appearance of another north-south aligned trackway. The point of convergence might very likely have been a ford, perhaps of pre-Roman origin, across the Whitewater Dyke. The projected position of this feature would have been very close to the central axis of the shrine complex and it is arguable that this location was a key factor in the precise siting of the shrine and its enclosure, given that a south-east facing vista would have been available from almost any point within the overall settlement area. Moreover, access to the shrine area from this direction would follow the main axis of its layout, a principle that is observed in many classical and Roman provincial contexts (cf Smith 2001, 25). There are two further possible inferences from this hint of an axial approach to the shrine complex from

the Whitewater Dyke. One is that access to it from the Canterbury road may have been restricted in some way that did not leave any archaeologically detectable trace, given that a major concern with demarcation is such a common feature of cult complexes (eg *ibid.*, 17). The second is that the shrine served a wider community than just that of the Westhawk Farm settlement, and that some of these people reached it from the other side of the valley.

Cemeteries and other burial areas

Eight cremation burials and two inhumations were found at various locations with the Area B excavation. These fall broadly into three groups. The first, comprising cremation graves 8955, 9940, 9860 and 1007 and inhumation grave 8520, were spread across a distance of c 100 m in marginal locations at the southern extremity of the settlement. The second 'group' comprised inhumation grave 8160, associated with structure C in plot SW4 and a possible cremation 10337 in plot SW5 to the south-west. The third group of three cremation graves (210, 220 and 1261) lay close together within the large double-ditched north-eastern enclosure, on its south-west side. The last of these was assigned to Phase 2 on the basis of the likely date of the cremation urn, while the nearby burials were assigned to Phases 4 and 5, though they were probably quite close in date, falling a little before and a little after AD 200. Whether the double-ditched enclosure had a specific funerary function is unknown, but from its size (as suggested by the geophysical survey) and its position in relation to the overall settlement plan this seems unlikely. The remaining burials were all certainly or probably of Phase 3 or 4 date.

The excavation of Area C revealed a more concentrated area of burials, interpreted as a small cemetery. The late Iron Age rich burial 9200 lay little more than 40 m away, but because the immediate context of that feature is unknown it is unclear if the location of the Area C cemetery reflected an already established tradition of burial in the area, or if the association was fortuitous. At nearby Brisley Farm, for example, the late Iron Age high status burials formed a focus for ritual (but not apparently burial) activity into the Flavian period (Casper Johnson, pers. comm.). The majority of the eleven cremation and eight inhumation graves in Area C were contained within a well-defined enclosure, but two cremation graves, 5220 and 5240, lay to the north-east, outside the cemetery enclosure. Five successive phases of burial, based on the dating of associated (principally ceramic) material, have been identified within the cemetery giving a broad date range of mid 1st to early-mid 4th century. There was no concentration of burials in any particular phase. It should be noted that the description of these features has been based on the premise that deposits containing cremated human remains represented cremation burials. This cannot be assumed automatically, however, particularly since the quantities of bone recovered are in some cases very

small. It is quite possible that some of these deposits were of pyre debris rather than formal cremation burials. The poor preservation of some of these deposits makes interpretation more difficult, so any attempt to quantify burials and pyre debris deposits is of limited value. For present purposes those deposits which contain evidence for the presence of substantial parts of one or more pottery vessels, for example, have been considered to be burials, regardless of the quantity of cremated bone surviving.

Layout of cemetery enclosure

The principal boundary of the cemetery was that on its south-east side, represented by NE-SW boundary ditch 5174, most likely a continuation of ditch 840 which originated in the north-east corner of Area B. Ditch 5174 was dated to Phase 3 and cut - and was therefore later than - 5270, a SE-NW aligned gully (see below). It is most likely, however, that the principal north-east to south-west boundary was initially defined earlier, before the creation of the cemetery, by a ditch which lay parallel to the Canterbury road, but just beyond the south-east limit of Area C. Gully 5270 was not itself dated, though it was at right-angles to this putative early NE-SW ditch and presumably linked to it. As such it may have formed the primary north-east boundary of the cemetery area, but it may also have predated the cemetery and been (initially) unrelated to it. Gully 5270 was succeeded by a more formal enclosure, still assigned to Phase 2 of the settlement sequence. This consisted of gullies 5250, 5171, 5172 (and re-cut 5173) and 5168. Gullies 5250 and 5171 did not respect the alignment dictated by the main NE-SW boundary ditch, but the remaining gullies, originating at the northern terminus of 5171, did reflect the alignment of the ditch, turning at right-angles to enclose the north-east area of the cemetery.

This configuration produced a distinctive plan that has a striking parallel at Pepper Hill, a cemetery associated with the small town of Springhead. The boundaries of both cemeteries have a marked dog-leg of very similar proportions in their outer sides - that is those furthest away from the nearby road lines (Biddulph forthcoming). The significance of this is uncertain, but the similarity seems too marked to be purely fortuitous. At Pepper Hill the area of the re-entrant boundary was partly occupied by a cobbled surface overlying probable pre-Roman features (ibid.) and the possibility that some kind of shrine or other religious focus was located here was considered (eg OAU 2000, 458), but the detailed interpretation of the area is uncertain. No features of any kind were located in the equivalent area at Westhawk Farm, but it should be remembered that post-Roman truncation of the whole of Area C was particularly severe, so surfaces here would probably have been completely removed. An absence of deep-cut features at this point seems likely, however.

No defined entrance to the cemetery area was identified within Area C, and even though the junction

between gullies 5250 and 5171 lay just beyond the excavation area, it is unlikely to have afforded sufficient space to have formed a practical entrance. The profiles of all of the gullies suggest that they acted as drainage channels as well as defining the cemetery. It would have been impractical therefore to create a break for access. It is possible that there was a form of walkway that spanned a section of gully. Gully 5173, which was re-cut into the top of 5172 as it extended to the north-east, was most likely dug because this part of the enclosure silted up before other areas. All other areas of the gully enclosure ran downslope towards the main boundary ditch (there was a drop of 0.3 m in base level from gully 5171 to the ditch 5174). Gully 5172 running to the north-east, was, however, dug in a flat area and was therefore more prone to silting from standing water within its base.

Orientation and spatial organisation of burials

The majority of the inhumations were aligned east-west apart from Phase 2 inhumation 5130, aligned north-south, and Phase 6 inhumation 5140 on a NW-SE alignment. Within the cemetery enclosure there were two distinct rows of burials. Inhumation groups 5160, 5190 and 5100 formed a north-south row parallel to enclosure gully 5171, but to the west of these a row of seven cremations was noticeably not quite parallel to the axis of the gully but was aligned instead NNE/SSW.

All the graves were well spaced with no intercutting of burials, even between those of different phases. It would seem therefore that while the cemetery was in infrequent use throughout the life of the settlement, with graves ranging in date from Phase 2 to Phase 6, the graves were sufficiently clearly marked that intercutting did not occur.

Chronology

The row of inhumations respecting the alignment of gully 5171 suggest that the enclosure was already established before any burials were placed within the area, that is, during Phase 2. Of these, only grave 5190 is securely dated to Phase 2, with 5160 and 5100 dated broadly to Phases 2-4 and 3-5 respectively. Apart from this row of possible early phase graves, the other burials form no discernible chronological pattern of interment. The lack of pottery vessels in the majority of the inhumations makes refined phasing impossible. Seven inhumation burials had no complete ceramic vessels, but produced between 32 g and 150 g of pottery sherds within the backfill, only giving a broad *terminus post quem* for each. There is no evidence to suggest that the pottery fragments come from earlier truncated features, but nevertheless they may represent residual material.

The cremation graves within the cemetery range in date from possibly as early as Phase 2 (cremation groups 5110, 5120 and 5230) to Phase 6 (group 5090), with all phases in between represented by at least two examples. The contemporary practice of crema-

tion and inhumation from the early Roman period onwards is paralleled quite widely in the region, most particularly at the major cemeteries of Pepper Hill and Ospringe (Biddulph forthcoming; Whiting *et al.* 1931).

The small number of burials suggests little more than intermittent use of the cemetery. Their density in relation to the space available contrasts markedly with the situation observed at Pepper Hill, in which burials were very densely packed (although the density of burials there may have been exceptional). A possible explanation is that the Area C cemetery was exclusive to a particular family group or groups or (perhaps less likely) to people of a specific social status within the settlement. It cannot have been the only established cemetery area associated with the settlement. The wider use of the area north-west of the settlement for burials is indicated by the 1960s find of a cremation at Westhawk Farm itself, as well as by the find of a complete samian Drag 18/31 dish (see Fig. 8.28) from a point only *c.* 50 m south of the Farm and *c.* 20 m from the edge of Area B and presumably outside the line of the north-west settlement boundary, recovered from a service trench during the recent housing construction. This vessel is most likely to have derived from a burial.

No infant or immature burials were identified, which could be a reflection of religious practice or an indication of alternative burial sites for infants within a different area of the settlement (for example within domestic features such as ditches and pits), or its environs. Alternatively, preservation factors need to be borne in mind since the cemetery area had suffered severe truncation due to post-Roman ploughing. This could have removed archaeological features which were not cut as deeply as the surviving burials. Since infant burials are typically shallower than those of older individuals they would have been particularly prone to truncation. The whole of the cemetery area had also been disturbed by root action, modern drainage channels and animal burrows. In some cases this meant that the true shape of features had been lost. The cut for cremation grave 5090, for example, had been heavily disturbed on its south-eastern edge making identification of its original profile impossible in excavation. A further preservation factor of particular relevance to infant burials relates to the survival of bone, however. The 'inhumations graves' within the cemetery area were defined principally on the basis of the grave-like form of cut features. The small features required to contain infant burials (if present) could, without bone or grave goods, have been indistinguishable from any one of several other feature types. On this basis it is quite possible that burial group 5060, a small pit identified as a possible cremation grave on the basis of associated pottery, but containing no burnt bone, was in fact an infant inhumation burial. Alternatively, features containing no bone but otherwise identical to cremation graves can be interpreted as cenotaphs, which represented the graves of individuals whose remains were unavailable for burial (McKinley 2004, 306-7).

Marginal Areas

The margins of the settlement of Westhawk Farm are variously defined. North-west of the focal road junction area a major boundary was probably maintained throughout the Roman period, its line surviving into modern times. The original south-west end of this boundary, as revealed in Area B, was superseded in the course of Phase 3, however (see above), and it is unclear how, if at all, it was replaced in this part of the settlement. Further south-west, but still north-west of the axial Canterbury road, there may never have been any formal definition of the settlement area. The block of south-west plots, possibly established as a single operation in the second half of the 2nd century, nevertheless did not have a single, coherent rear boundary and was not clearly linked into any other systems of boundary definition.

South-east of the Canterbury road at the southern edge of the settlement there was again no clear definition of its margins. Several ditch alignments in Area B tailed off into apparently open space and scattered burials (see above) suggest the marginal nature of this area without defining it closely. The most southerly feature in this part of the site was an isolated, small *c.* 12 m square enclosure with an opening on its north-west side, dated, very tentatively, to the 2nd century (on the basis of a small and scrappy pottery assemblage from the ditch fill). This feature had the appearance of a funerary monument, with comparisons in sites ranging from the late Iron Age - such as King Harry Lane (Stead and Rigby 1989) and Westhampnett (Fitzpatrick 1997, 16-17) - to the late Roman period - for example at Lankhills (Clarke 1979, 97), but the only internal feature was a small central cut interpreted as a probable posthole. A possible parallel for this situation can be found in a recently-excavated cemetery at Wall, Staffordshire, where only one of four square funerary enclosures contained a central burial (excavation in advance of M6 Toll construction; OWA 2003), the others having less well-defined central features. It is notable, however, that the square ditched enclosures surrounding the two late Iron Age inhumations at nearby Brisley Farm were continuous and considerably smaller in size than the Westhawk Farm feature. If the Westhawk Farm feature had been a mortuary enclosure this interpretation might have interesting implications for the understanding of the site, but the absence of any other significant features in the vicinity makes assessment of its real significance very difficult. A 'domestic' interpretation remains possible, and has been suggested for very similar enclosures, such as a late 2nd century BC example at Soupier Le Parc, near Soissons, with an equal lack of identifiable internal features (Haselgrove 1996, 144-5).

The whole of the south-east side of the settlement appears to have been without formal coherent definition, unless the ditch seen in the geophysical survey running parallel to the Whitewater Dyke (see Chapter 3) was a boundary feature, which seems unlikely. Southward running trackways, one south and one

north-east of the shrine area, appear to have provided access to the surrounding fields and perhaps to other specific settlements, potentially, in the case of the more northerly track, by way of a ford across the Whitewater Dyke. The geophysical survey data do not permit detailed interpretation of marginal activities in the area between this trackway and the Lymgne road.

This area relatively close to the Whitewater Dyke might have been suitable for structures such as a bathhouse, the presence of which is suspected on the basis of tile and the less conclusive, but still suggestive, window glass evidence. There is no particular indication of the presence of such a structure in the geophysical survey results, however, so while its existence seems very likely, its location remains unknown.

STRUCTURAL ASPECTS

A substantial number of structural elements were revealed by the excavation. All related to buildings in timber, many of which were poorly preserved as a result of plough truncation. Some 21 'structures' were labelled by letters. The structures were of a variety of forms and not all such groups of features formed coherent plans. In addition, further structures may have remained unnoticed among the more ephemeral features on the site; small groups of two and three postholes which may have had structural significance but could not be interpreted beyond this were not assigned structure numbers, nor were several probable or possible fencelines.

The 21 'structures' comprise ten certain or probable circular or subcircular buildings, the polygonal shrine, eight rectilinear buildings and two 'uncertain' groups of postholes, one perhaps from a rectilinear structure and the other of uncertain form.

'Circular' structures (A, C, E, H, K, L, N, O, P and T)

The 'circular' buildings were all identified entirely or in part by gullies. Judging from their profiles and the character of their fills most if not all of these features are likely to have been for drainage around the structure rather than being wall trenches. Only in two cases (L and P) were the gullies more or less entirely present. Structure O was surrounded by an unusually substantial gully of sub-square plan, but this contained no certainly identifiable internal features, so while it is very likely that it enclosed a structure the form of this structure, whether circular or (sub)-rectangular, is unknown. On the basis of the character of other structures in this part of the site, however, a circular plan seems more likely, although the arrangement of component features associated with structure T, both closely adjacent and approximately contemporaneous, may also hint at a slightly more rectilinear plan.

The internal diameters of identified circular gullies, or diameters extrapolated from surviving gully

segments, varied widely from *c* 7 m to *c* 12 m (Table 10.1). There was no clear chronological patterning with relation to variation in gully diameter (eg an increase in size through time), nor in terms of a preference for circular rather than other building plans. Such variations were therefore presumably functionally or socially determined.

Structure P was the best defined and preserved circular structure, as well as the latest in date, being the only one whose construction (rather than possible continued use) was assigned to Phase 5. Arcs of stakeholes survived at three points around the perimeter of the structure. It is assumed that these indicate the position of the wall line, which thus suggests a building of *c* 10 m diameter, with the wall set very close to the associated drainage gully. There was inconclusive evidence for a central post. A construction based on stakes (presumably supporting a wattle and daub wall) might nevertheless have been sufficiently substantial to carry the roof span of this building. It is unlikely that the building was of double-ring type (cf Guilbert 1981) since given the survival of (part of) the outer stake wall the inner posts should certainly have been present. It is uncertain if stake walled construction was standard in the round structures of Westhawk Farm since the evidence elsewhere does not survive at all well. This very characteristic might, however, be indicative of stake wall construction on the basis that some evidence should have survived had buildings been based routinely upon larger upright posts, although an alternative interpretation of the circular and penannular gullies is that they could have surrounded buildings of mass wall construction (eg of cob). These, having no substantial sub-surface component, would have left no trace in the archaeological record of the site.

A probable stake-supported wall construction, 7.8 m in diameter probably with a central post was assigned to the late Iron Age-early Roman Period 1 at the Marlowe Car Park, Canterbury (Blockley *et al.* 1995, 33-34). The evidence for two probable late Iron Age circular or sub-circular buildings underlying the villa at Thurnham varied somewhat, in ways at least superficially similar to the situation at Westhawk Farm. One was clearly defined by a gully with an internal diameter of *c* 12.0-12.5 m, while a second was only partly defined by a gully. In neither case were other structural components evident, however (Lawrence forthcoming).

The general characteristics of the mostly poorly preserved circular structures of Westhawk Farm are thus paralleled in the late Iron Age of the region, as would be expected. The occurrence of circular structures in Lowland Britain well into the Roman period (in the present context throughout the period of occupation, though this did not extend into the 4th century here) and in the setting of a major nucleated settlement, whatever its precise status, is no longer remarkable (see, for example, Burnham 1988, 38; Mahany 1994, 148; Booth *et al.* 2001, 435-6), such structures even occurring in early Roman London and other major cities (Perring *et al.* 1991, 101). In Es-

Table 10.1 'Circular' structures: Summary information.

Structure	Group nos.	General location	General type	Dimensions (internal diameter of gullies)	Components	Phase	Comments
A	8790	Plot SW6	Circular	Dia c 9.5 m	Penannular gully	3	Entrance to N
C	9280	Plot SW4	Circular	Dia c 12 m	Gully segments	3	Burial within area of structure
E	10250 10260	Plot SW3 (and SW2)	Circular	Dia c 12 m	Gully segments	3	About half survives, adjacent to D
H	8250	NW undivided roadside area	?Circular	Dia c 9 m	Gully fragments	3	Only southern half survives, gully slightly angular in plan. Not certainly a structure
K	9990	Plot SC1	Circular	Dia c 12 m	Gully	3	
L	8270	Plot SC2/SC3	Circular	Dia c 11-12 m	Gully, central post	3	Truncated
N	9970	Plot SC5	Circular	Dia c 7 m	Gully	3	Truncated
O	7660	Plot SC4	?Circular	Dia c 10 m	Penannular gully, pits posthole and hearth	4	SE entrance
P	7500	Plot SC4	Circular	Dia c 10 m	Gully, postholes, stakeholes	5	SW entrance, succeeds O
T		Plot SC5	?Circular	?Dia c 7-8 m	Gully, postholes	4	

sex, a number of Roman-period circular structures of post or slot construction have been recorded, including at Orsett 'Cock' (Carter 1998, 33), Stansted (Havis and Brooks 2004, 273) and Strood Hall on the route of the A120 Trunk Road, where structures continued to occur well into the 2nd century AD (Biddulph 2007, 87). Circular structures were numerous at Heybridge in the late Iron Age-early Roman phase, where it was noted that, as in most cases at Westhawk Farm, they were generally set back from the road frontages of the plots in which they lay (Atkinson and Preston 1998, 94). While the chronology of this early phase of settlement at Heybridge remains a little unclear some of the circular buildings were certainly of Roman date (*ibid.*, 105) and the temple structure remained of this form throughout the Roman period (*ibid.*, 98-101). In Kent, however, the relative lack of knowledge of 'small towns' (except Springhead) means that such evidence has not been encountered previously here.

The incomplete nature of many of the curvilinear gullies and the general absence of evidence for identifiable internal features makes discussion of aspects of the probable circular structures such as their function effectively impossible. Even simple questions such as the orientation of entrances can only be addressed in a limited number of cases. It is assumed that the curvilinear gullies were penannular, but this is only reasonably certain for structures L, O and P. In these cases entrance positions, as defined by the break in the gully, were approximately east-facing (structure O) and roughly south-west facing for structures L and P, although this is not absolutely certain in the former example. Structure T, if correctly interpreted, also had a roughly south-facing entrance. Elsewhere a north-east or NNE direction can be suggested for structure A, but there is no certainty in relation to any of the other structures. Only in the case of structure O, therefore, is there a clear correlation with a well-established preference for Iron Age round-houses to face east or south-east (cf Oswald 1997, 87). The Westhawk Farm data are insufficient to demonstrate any clear pattern, but they might suggest at least a partial breakdown of a culturally determined pattern. It is just possible, however, that the apparent doorway orientations of structures L, P and T, in particular, were significant in facing away from the shrine area to which they were adjacent. Their doorway alignments may have been affected by the same underlying reasoning which required the continued demarcation of the shrine area on its south side (but not, for example, to the north-west). In this respect it is not clear that structures fronting onto the north-east and north-west sides of the shrine area were affected by the same possible taboo. A similar variety of house orientations in relation to a shrine location can be seen for example in the late Iron Age settlement at Stansted (Airport Catering Site), where there was considerable variety of entrance alignment, with some structures facing the possible shrine and others facing away from it (Brooks and Bedwin 1989, 9-11; Havis and Brooks 2004).

A number of the 'circular' structures remain problematic. Not all the curving gullies can be proved to have defined such structures, though this is generally thought likely. The gully lengths defining 'structure H', however, were particularly irregular in plan. This and the presence of a possible clay lining to these gullies, an unparalleled occurrence on the site, may suggest that they were not associated directly with a structure. Further south-west the gullies associated with 'structure E' were more regularly curvilinear in plan, but if contemporary with the adjacent plot boundary to the north-east (group 9570/9580 - see discussion of this relationship under 'South-west roadside plots', Chapter 3 above) can only have defined a semicircular structure. It is more likely, however, that this structure originated in Phase 3 and predated the plot boundaries (and the immediately adjacent structure D to the south-west). There are slight hints from plot SW2 that the structure did continue into that area, its north-easterly extension being almost completely truncated or obscured by the activity associated with the extensive hollow which occupied the south-western side of that plot. A problem is caused by the fact that the dating evidence associated with structure E was fairly consistently of Phases 4 to 5, suggesting use contemporary with the plots rather than earlier. The surviving components of the structure were very shallow, however, and it is quite possible that they were contaminated by material derived from immediately adjacent intensive activity in and around structure D.

Rectangular Structures

The rectangular structures identified on the site were mostly of relatively simple plan and construction, the latter being based generally on upright posts set in the ground. One such building, however, was in what may have been a distinct regional structural tradition. Probable and possible rectilinear structures located in the northern corner of Area B were potentially less straightforward in construction and one of these, Structure I, incorporated slots amongst its structural features.

Small four- and six-post structures

A single four-post structure (structure S) was identified in one of the plots on the south side of the shrine area. The structure, roughly 2.5 m square, was assigned to Phase 2. Such structures occur in late Iron Age settlements such as that preceding the villa at Keston, where ten four-post structures were assigned to the pre-Roman farmstead, with the possibility that one of them was of the subsequent early Roman phase. They were square or rectangular in plan and ranged from c 1.5-2.95 m across (Philp *et al.* 1991, 25-29). Two four post structures were found in the corresponding late Iron Age phase at Thurnham (Glass 1999, 201; Lawrence forthcoming). Two more examples, from a probable farmstead at Queen Elizabeth Square, Maidstone, were either late Iron Age or

possibly (on the basis of associated pottery) early Roman in date (Booth and Howard-Davis 2003) and are thus comparable with the Westhawk Farm structure. The continued use of these structures into the early Roman period thus seems clear. There is no evidence to indicate the function of the Westhawk Farm example, but there is no particular reason to doubt the generally accepted interpretation as a granary.

A similar interpretation may apply to the six post structure M, located in a comparable position to that of structure S, that is, towards the 'rear' of a plot (SC5) fronting on to the south side of the shrine area. The structure, which was not excavated, was *c* 3 m square and was assigned, on the basis of its spatial relationship with adjacent features, to Phase 3. The type is comparable to that of structure S (above), while a fairly precise parallel in terms of plan and dimensions is known from Keston. Like the four-post structures from that site the latter was assigned to the late Iron Age (Philp *et al.* 1991, 29). A more local example is from Waterbrook Farm, Ashford, where a six-post structure roughly 3 m by 4 m was either free standing or (less likely) formed a component of a larger structure with associated gullies and postholes. This was of late Iron Age or early Roman date (Rady 1996).

Larger post-built structures

A rather larger simple six-post structure (structure J) was found in a very different location, fronting the Canterbury road in the north-west corner of Area B. This structure, *c* 6.3 m square, was based on substantial posts (on average *c* 0.3 m across). No related features or deposits survived to evidence its function or details of construction. With regard to the latter, however, it appears comparable to the slightly larger ironworking building structure R. This was identical in width, and was at least 6 m long (if of three bays) or possibly longer, its north-east end lying outside the excavated area. In both buildings it is likely that the two post-rows not only carried the principal structural members, but also marked the position of the external walls, rather than forming 'arcades' as in an aisled building. In the case of structure J this interpretation is suggested by the alignment of the structure in relation to adjacent boundaries and drainage gullies - so, for example, a plot boundary ditch was aligned precisely upon the proposed north-east wall of the structure and must have been determined by it. In the case of structure R the edge of a contemporaneous gully on the north-west side (1200) varied from 1.0-1.4 m from the centre-line of the probable wall. This gully and a comparable feature set rather further from the south-west wall of the building seem certain to have been for drainage rather than carrying structural elements. It is possible that there was some sort of extension of the structure to the south-west side of building R in order to provide some protection for the smelting furnaces positioned there. The south-west end bay of structure R was approximately 2.2 m deep (based on centre to centre measurements of the post-pits), while the next bay was some 2.6 m deep.

(Only part of the third bay lay within the excavated area). It is not known if this variation was significant. It is assumed however, that each pair of posts carried a simple roof truss and that the posts were also linked longitudinally with wall plates. There is no evidence for the nature of the walling. The internal arrangements of this building have been discussed in detail by Paynter (Chapter 7 above).

The largest excavated structure on the site, structure D, appears to be of a slightly different type of timber building. Essentially it was based on paired posts like structures J and R, but in addition had two substantial uprights in each of the short axes. This characteristic is shared by several other Roman buildings in Kent which have either one or two such uprights. The known examples are generally very consistent in their dimensions, the Keston north timber building being the largest (Table 10.2). This was the only example to have a significant addition to the basic plan, in the form of (secondary) 'corridors' on two sides. It was also one of the latest in use, though again there was considerable homogeneity in the group; three buildings fall entirely within a date range from *c* mid 2nd century to early-mid 3rd, the Keston north building was constructed within this range but continued in use perhaps up to the beginning of the 4th century (Philp *et al.* 1991, 90), while the Smeeth building, also constructed in the later 2nd century, may have remained in use even later (Diez forthcoming).

The precise significance of this distinctive ground plan is uncertain. The spacing of the posts in all cases makes it clear that the opposed posts in the long walls carried roof trusses in the same way as in other posthole structures discussed above, or as in aisled buildings (which these were not, as is demonstrable from the occurrence of closely adjacent surrounding drainage gullies in the Westhawk Farm and Smeeth examples, and down one side of the Thurnham building (Glass 1999, 204; Lawrence forthcoming)). The additional short axis posts therefore appear to be structurally redundant. They are generally of the same size as the other posts and are thus unlikely to have simply carried door frames. It is possible that they provided some additional support for the ridge (presumably via a collar and further members in the cases with two intermediate posts in the short axis), but it is hard to see why this was required, and none of the buildings has evidence for such supports in any of the 'internal' roof trusses. The extra posts may hint at a hipped roof construction in which there was a perceived need for reinforcement of the end walls against the outward (as opposed to vertical) thrust imposed by the hipped ends of the roof, but this is far from certain. It is even possible that the feature was simply intended to achieve a visual effect. Its relatively localised occurrence seems to hint at a distinct regional tradition, though the distance between the Ashford area examples and Thurnham and Keston (overall some 70 km) is such as to suggest that this was quite widespread in Kent. With the exception of Westhawk Farm the known examples all occur in

Table 10.2 Post-built structures: Examples from Kent with intermediate posts in short axis wall lines.

Site	Structure	Dimensions (m)	Posts in long axis	'Inner' posts in short axis	Date	Reference	Comment
Westhawk Farm Thurnham Bower Road, Smeeth	Structure D	c 14 x 7	5	2	AD 150-250	Lawrence forthcoming Diez forthcoming	2 additional posts in NE side
	Building group 550	c 15 x 7	6	1	2 C - ?early 3 C		
		c 20 x 7.5	8	2	late 2 C		
Keston	Centre timber building	c 14.6 x 6.8	6	1	Period Va c mid 1 C - 2 C	Philp <i>et al</i> 1991, 59-61	
Keston	North timber building	c 21.4 x 7.5 without additions	10	2	Period VI end 2 C - early 4 C	Philp <i>et al</i> 1991, 81-90	'corridors' added to N and W sides

rural settlement contexts, but the Westhawk building shows that the type was also appropriate to nucleated settlement, although the functional distinction between rural and many aspects of nucleated settlements is largely meaningless. At Westhawk Farm the building was presumably at least in part domestic in function, as was probably also the case at Smeeth. At Thurnham and Keston the emphasis seems to have been principally agricultural, but there is no reason why these structures, like aisled buildings, should not have been multifunctional.

It is possible that the Phase 2 posthole structure B also belongs to this group, but it appears to be distinct from the structures discussed above on criteria of size, scale of component features (the postholes were very small) and chronology, being assigned, albeit tentatively, to the pre-Flavian Phase 2. This structure had approximate dimensions of 5 m by 10 m, though the plan was not complete. It did have a central post in its one certainly identified short axis (and a possible corresponding feature in the other short wall was also identified tentatively), and in this sense may have been related to the other structures. A further possible example of the type was located at the southern end of plot SC5, probably in Phase 3. The component features, which were mostly unexcavated, were interpreted primarily as linear arrangements of small pits and postholes and a six-post structure (structure M). This is possible, but an alternative, if rather speculative, interpretation of these features as elements of a larger structure was also considered. This would have given a structure *c* 13.5 m east-west by 5.5 m north-south, with projected post spacings of 1-2 m centre to centre (typically *c* 1.5 m) and two additional posts in each short wall. Of this arrangement four posts out of a hypothetical nine survived in each long side, while all four additional short axis posts were represented. Comparison with the data in Table 10.2 above shows that this hypothetical structure is narrower and has more closely spaced posts than the other buildings in this group. There was no sign of the stone post-pit packing seen in Building D. These considerations need not invalidate the interpretation, but they may support the alternative view that the identified features constituted fortuitous alignments of pits and a smaller structure.

The enigmatic structure F in plot SW2 may also be considered here. This consisted of a single row of four substantial post-pits, in scale and general character reminiscent of those of the broadly contemporaneous structure D in the adjacent plot. The post-pits were up to 1.28 m across and 0.36 m deep while the diameter of the post voids was on average 0.4 m. No associated structural features whatsoever were identified. It seems highly improbable that such features simply carried a line of freestanding posts. The most likely explanation of this evidence, therefore, is that they supported the ridge of a structure whose other components were relatively shallow and had been completely removed by post-Roman ploughing. The general dimensions of such a structure may be suggested by its positioning in relation to the prob-

ably contemporaneous plot SW1/SW2 boundary and the roadside gully 10040 to the south-east. The latter extended some 8 m from the north-east corner of plot SW2 up to a probable entrance into the plot. A structure some 9-10 m long (the centre to centre spacing of the end posts was *c* 9.2 m) and 6 m wide with the post-row down the centre would have fitted comfortably into the north-east corner of the plot, in a mirror image position to that of building D in plot SW3. Why the structural type varied from that of the remaining rectilinear post-built buildings is not known. It is emphasised that this interpretation is speculative, but it seems to make the best use of the available evidence.

Sill-beam structures

This structural category is probably the least well understood on the site since structures based on horizontal timbers set in shallow slots were most vulnerable to erosion by ploughing (with the obvious exception of putative, entirely 'above ground' mass wall structures). Possible structures within this group, including structure U (see below) and two small square or sub-square groups of features in plots SC2 and SC5 respectively, were characteristically also associated with postholes, but in the absence of stratigraphic sequences which would have enabled the relationships of these different types of features to be determined, the significance of this association is uncertain. The two feature types might, for example, have represented structures (or other features such as fence-lines) of quite different phases, but the incorporation of vertical earth-fast posts in the sill beam structures remains a distinct possibility, though the identified post spacing does not imply closely-spaced studs set into the sill beams, as seen for example in a 2nd century structure at Canterbury (Blockley *et al.* 1995, 130-131). The only fairly certainly identified structure in the sill beam structure category, therefore, was the ironworking building I, although aspects of it remain problematic. The principal difficulty is to distinguish between those linear features which held or probably held horizontal timbers and those which served other functions, particularly as drainage gullies. Parts of three sides (NW, NE and SE) were defined by slots, apparently supplemented by vertical timbers in postholes. The maximum length of the structure (NW-SE) was probably *c* 7 m and it was probably no more than *c* 5 m wide and could have been as narrow as 3 m across. In view of the evidence for iron smelting and smithing within the structure (for discussion of the internal layout see Paynter, Chapter 7 above) it is quite likely that the south-west side was partly open, as in building R, which may explain the paucity of structural evidence, and particularly the lack of a timber slot, at this point.

The somewhat speculative structure U was based on three certain or probable beam slots. These were notably regularly spaced, but not exactly parallel, nor did they in combination form a completely regular rectangle, although the plan had none of the

'extravagant irregularity' of buildings such as the well-known barrack I at Longthorpe (Frere and St Joseph 1974, 30). The nature of any structure based on these slots, if the features are to be seen as belonging to a single structure, is quite unknown, however. Their spacing, approximately 11 m from centre to centre, would seem to be excessively wide for the horizontals in the slots to have supported the ends of longitudinal joists, unless there were intermediate supporting components which left no trace. The measurement is, however, a recognisable module; for example it is exactly twice the width of the posthole structures J and R, perhaps suggesting the availability of a stock of timber of standardised sizes, though it is possible that this correspondence was only coincidental. As indicated above, the relationship of the slots to rows of postholes on the same general alignment, but not so evenly spaced, is unknown.

Shrine

The 'shrine' structure (structure Q) has been discussed at some length elsewhere (Booth 2001) and this will not all be repeated here. Further analysis has not resolved the major questions relating to its structure or internal phasing. These remain intractable in the absence of basic evidence for stratigraphic relationships between discrete cut features, the paucity of dating material and the lack of close and better-preserved structural parallels. Interpretation of the structure as a shrine is based almost entirely on morphological criteria, although there are additional scraps of evidence which could be complementary but do not amount to a conclusive case in their own right (see below).

The structure itself had three main components, a polygonal outer wall, a group of inner posts (not all obviously related in a single scheme) and a central feature probably containing a very large post. In summary the careful axial arrangement of the central post, the polygonal structure and the surrounding enclosure ditch argue for, but do not prove, their contemporaneity as a single complex (Booth 2001, 12). The problem of the relative (and absolute) chronology of the structural components is shared by some analogous sites such as Heathrow (Grimes and Close-Brooks 1993). An alternative approach is to see the shrine consisting of successive structural phases, potentially of increasing complexity, perhaps on the model of sites such as Gournay-sur-Aronde (Brunaux *et al.* 1985; see Derks 1998, 170-175 for reassessment of the sequence and Woolf 2000, 622 for emphasis of the rarity of such sequences, even with recent work). The precise function and chronological placing of some of the 'internal' postholes at Westhawk Farm is particularly unclear and it is accepted that not all of these need have belonged to the original scheme. Within this broad framework there is clearly scope for much minor variation in phasing and therefore of understanding of the physical appearance of the structure. In this context the major outstanding question is whether or not it was roofed. The answer to

this question is in turn partly dependent upon interpretation of the large central post - was this intended to be a massive feature at the heart of the structure or was its principal visual and symbolic significance in its height? On most sites in which large posts occur these seem to have been freestanding rather than incorporated in structures (Booth 2001, 14), a characteristic which suggests an emphasis on height rather than bulk. Sites with free-standing posts include Ivy Chimneys, Witham (Turner 1999, 40), Chelmsford (Wickenden 1992, 19-20), both in Essex, Wood Lane End, Hemel Hempstead, Hertfordshire (Neal 1984, 205-6) and, in less certainly 'ritual' contexts, Alcester, Warwickshire (Cracknell 1989, 30), Wavendon Gate, Milton Keynes (Williams *et al.* 1996, 68-70), Heybridge, Essex (Atkinson and Preston 1998, 99, 105) and Thurnham, Kent (Lawrence forthcoming). At Heybridge proximity to the temple (although the post did not lie within the temple enclosure) may still suggest a 'ritual' association, and a similar association, though not demonstrable on present evidence, is possible for the Alcester example as well. A ritual association is very likely at Wavendon Gate and while interpretation of the Thurnham example is less clear, a symbolic function of some kind seems likely. Despite its location within a 'structure' the Westhawk Farm post should presumably be seen as of considerable height, suggesting that it is more likely to have been surrounded by screens, or possibly just by free-standing posts, than by a roofed building. Similarly the 1st century circular 'cella' and axially aligned square enclosure at Heybridge have been interpreted as functioning as screening walls rather than roofed structures (Atkinson and Preston 1998, 96).

The slightly irregular polygonal plan may be another factor militating against an interpretation of the structure as being roofed, but this is far from conclusive. It seems likely that all the known examples of stone built polygonal shrines and temples in Roman Britain were roofed. These were usually more regular in their plans than the Westhawk Farm structure, and the latter remains without precise parallels for its form, whether in timber or stone. The closest comparable example may be the polygonal shrine (Temple 2) at Chanctonbury, Sussex, now more clearly understood from recent work (Rudling 2001). This building is most readily interpreted as having nine sides (there is still some uncertainty about this). At *c.* 11.4 m across it is a little smaller than Westhawk Farm (*c.* 13 m by 16 m) but a broad similarity of plan is evident. However, the Chanctonbury structure was stone-founded and had a rectangular 'porch' attached to its east-facing side. A date around the middle of the 2nd century AD is possible for its construction, and use may have continued through the 3rd century, but not certainly thereafter.

Relative sequence, chronology and function of structural types

The relatively poor preservation of many of the structures at Westhawk Farm does not permit de-

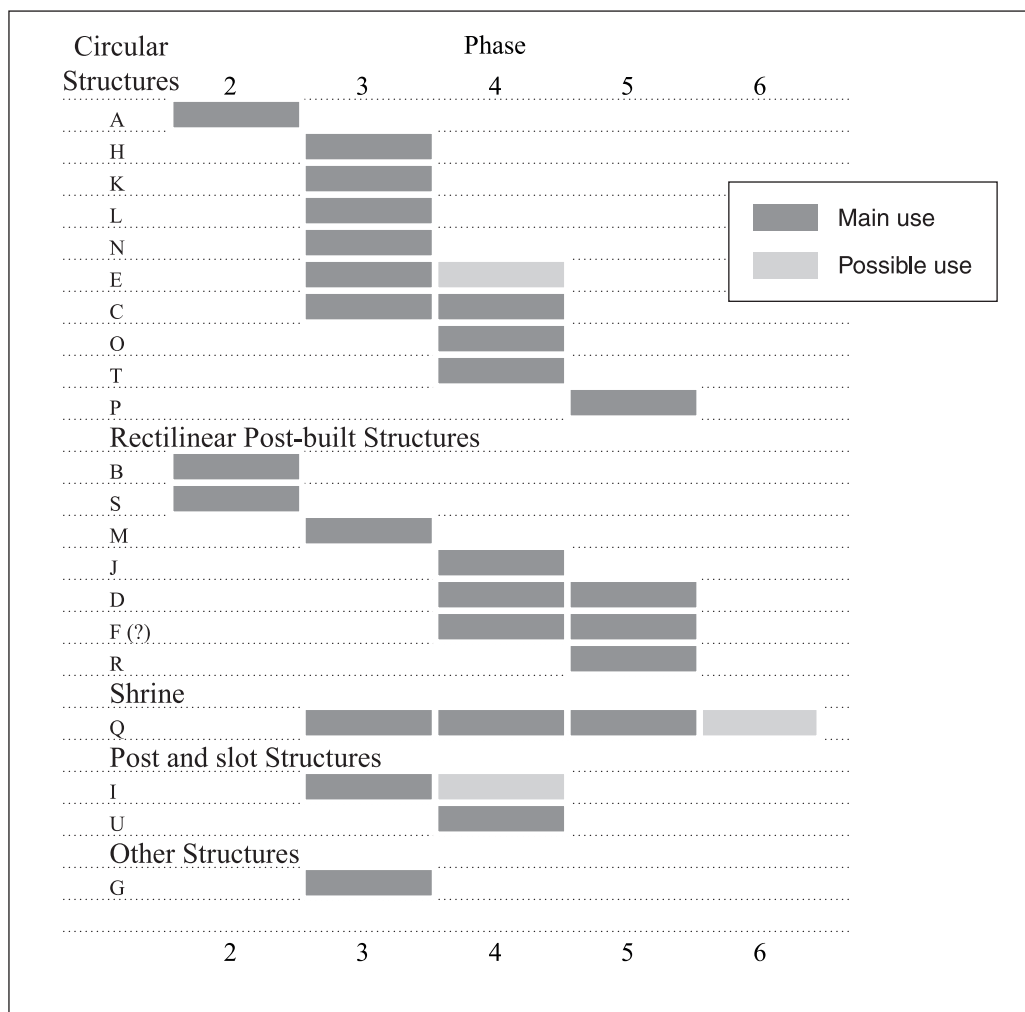


Figure 10.1 Chronological range of structures by structural type.

tailed analysis of their characteristics, but a number of broad conclusions can be drawn (Fig. 10.1). The most significant is that a pre-Roman circular building tradition, which possibly encompassed a fairly wide range of detailed structural variation, was in use throughout the period of occupation of the excavated part of the settlement, up to about the middle of the 3rd century AD. Moreover, new buildings in this tradition continued to be erected as late as those of other types. Roughly speaking, circular structures, which amounted to 50% of the 'identified' structures in Area B, accounted for about half the buildings thought to be in use in any one phase. This is most clearly demonstrable in Phases 3 and 4, when the numbers are highest and therefore most reliable. In terms of cumulative frequency over time, however, 70% of all the circular buildings were in existence before the end of Phase 3, whereas only 43% of the rectilinear post-built structures were so. This suggests, as far as the figures will allow, a slight increase in the importance of post-built structures from the middle of the 2nd century onwards, but this was far from overwhelming.

The less easily categorised buildings (in terms of their structural type), such as the shrine and the post

and slot structure I, are both assigned to Phase 3. Overall there was more new construction within this than in any other phase, which is unsurprising as this was the time at which relatively intensive development was really getting under way in this part of the settlement, after a modest start in the early post-conquest Phase 2. It was at this time, therefore, that the widest variety of structural types and construction techniques was in evidence. Subsequent development, as seen particularly in Phase 4, served principally to underline the importance of the two main structural traditions present, circular building and rectilinear posthole construction.

Direct evidence for structural function is almost non-existent in most cases. It can be demonstrated most reliably for the ironworking buildings I and R and inferred for the shrine structure Q and for the 'granary' structures S and M on the basis of morphological parallels with other sites. For the other rectilinear post-built structures it has been suggested that building D, a distinct sub-type, was probably at least part domestic in function. It is no more than an assumption that structure F, contemporary with building D and in a comparable roadside location, was

similarly multifunctional, though this is plausible. This leaves structures B and J. Structure J occupied a road-frontage location close to an area associated with metalworking, although it may have been built after that activity (in structure I) had ceased. At just over 6 m square it would have been small for a domestic unit, though perhaps not impossibly so, but in an area not obviously associated with domestic activity some other function may be just as likely. Structure B seems to have been associated with the closely adjacent circular structure A, although the precise relative and absolute chronology of these buildings is uncertain. Their relative functions are equally uncertain, but the juxtaposition of circular structure N (albeit poorly defined) and the probably contemporary six post granary structure M suggests an analogy. On this basis structure A might have been a domestic unit with structure B an associated agricultural building.

Generally, therefore, the evidence tends to suggest that several of the rectilinear post-built structures were not primarily domestic in function, with building D (and possibly structure F) perhaps the main exceptions to this generalisation. The corollary of this is that the round structures probably formed the domestic component in most of the settlement units defined in Area B. Such a conclusion is simplistic and contains the risk of a circular argument, but is nevertheless attractive, though the evidence to prove it is inadequate. If it is accepted even as a rough guide, however, it is clear that there are insufficient buildings to house a significant population in this part of the site; indeed this is true even on the most optimistic assessment of the number of domestic structures present. One possible explanation of this is that the relatively marginal location of Area B resulted in a fairly thinly spread and intermittent pattern of domestic activity. An alternative view is that truncation of the archaeological deposits has resulted in the complete removal of some structural traces and the reduction of others to a point at which their original significance is unrecognisable. This may apply particularly in the case of small rectilinear buildings. Some groups of probable postholes or short lengths of slot or gully may originally have supported or related to buildings, particularly in the area of the south-central plots, and such evidence has been interpreted in this way at Neatham, for example (cf Millett and Graham 1986, 13-19), but at Westhawk Farm the surviving evidence is inadequate to sustain a confident interpretation in individual cases. The scale of the project did not allow for the very detailed examination of some feature groups which might have helped to enhance the identification of structures.

ECONOMY

Agriculture

The site was utilised for stock raising, as suggested by the presence of a field system, perhaps as early as the middle Bronze Age. Currently there are no data

to indicate the nature of any local environmental changes between the Bronze Age and the Roman period. Presumably the area was still suitable for pastoral farming at the time that the Roman settlement was established. Unfortunately the soil conditions resulted in the almost total loss of faunal remains which would have informed discussion of this aspect of the agricultural economy. However, the pollen and insect remains from both waterholes 9179 and 796 indicate the presence of pasture in the near vicinity, and the pollen evidence suggests that this was herb-rich in character. The principal domestic animal species identified on the site could therefore have been pastured close to it, if not actually within the margins of the settlement.

Arable agriculture is also indicated by a range of plant and other remains. The pollen evidence shows that cereals were being cultivated and/or processed in, or close to, the settlement. This picture is amplified by the evidence of charred plant remains, which indicate relatively widespread crop processing. This activity was underway from as early as Phase 2 of Period 2, particularly south of the shrine area, though rich deposits of crop processing debris were also encountered in plot NW2 in Phase 4. The principal cereal crop was spelt wheat, represented both by grain and chaff. Emmer wheat and barley were also present, but in much smaller quantities, and occasional (probably wild) oats may have been deliberately collected or at least tolerated within cultivated crops. The combination of elements present suggested that whole ears of wheat and barley were represented amongst the material recovered.

These crops were associated with 'a relatively mature and varied weed flora', consisting principally of characteristic arable weeds, including species such as corn cockle that are generally regarded as Roman introductions to Britain. Overall, however, the cereal remains are regarded as representing a continuation of Iron Age agricultural traditions into the Roman period and there is no reason to suppose that cereal production was not part of the range of agricultural activities carried out by inhabitants of the settlement. This continuation of tradition can be seen also in the structural record, with structures M and S, probably small granaries, essentially of pre-Roman type. Interestingly the insect remains from waterhole 796 included an example of *Tenebroides mauritanicus*, a significant grain store pest, which was almost certainly a Roman introduction to Britain and is interpreted as showing the use of grain from a major store. This presumably represented a development in grain storage provision from that indicated by structures M and S. Alternatively, had the insect been imported to Westhawk Farm in a consignment of grain rather than living in stored grain on the site, as is possible, this might have implications for the ability or need of the settlement to be completely self-supporting in cereals.

Apart from cereals there was evidence for other edible plant species. With Roman introductions such as cherry and dill it is perhaps less easy to be certain

that they were grown at or near the site, though there is no reason why this should not have been the case.

The physical processes of agriculture or horticulture are directly represented in the artefactual record only by part of a spade iron which, while recovered from a post-medieval context, was very likely of Roman date. Conversion of grain to flour is indicated by a range of querns, and fragments of four millstones are noteworthy. They hint at the presence of a mill, perhaps on the Whitewater Dyke, though the use of animal powered mills is also a possibility.

Other activities

There is very little evidence for craft activities within the excavated part of the settlement, with the clear exception of ironworking, discussed separately below. A couple of fragments of copper alloy hint at working of that material, and possible carpenter's tools of iron included a chisel and an awl. The presence in grave 5090 of beads of lignite, probably from a relatively local source, raises the possibility that this material was worked by a craftsman within the settlement.

Trade and market functions would normally be expected to have been located within major settlements. The excavated evidence sheds light on this in two ways. An unusually high representation of weighing equipment may have been related to marketing or perhaps, as suggested by Hilary Cool (see Chapter 5 above), to a more official aspect of such activity such as the collection and recording of goods for the *annona militaris*. Trade and other connections are identified most readily in a range of artefacts that can be assigned to sources with varying degrees of accuracy. The material ranges from the locally available, though extremely important, commodity of salt, indicated by the presence of very small quantities of briquetage possibly deriving from the Lydd area in Romney Marsh, up to imported pottery. A relatively wide range of connections is indicated by the querns and millstones, which were drawn from sources as far afield as the Pennines and the Rhineland, though both Millstone Grit and Niedermendig lava are found quite widely in Kent and do not constitute particularly exotic materials. More striking, perhaps, is the preference (in terms of the numbers of stones represented) for Lodsworth stone over the more locally available Folkestone Greensand. This may reflect a trading connection with Sussex also evident in aspects of the pottery supply (and a relative absence of communication with the Folkestone area indicated also by a lack of sand-tempered 'Belgic' wares from that area), and it may be no coincidence that East Sussex ware products were apparently replacing East Kent ones from about the mid 2nd century while the first Lodsworth querns appear in Phase 4 (AD 150-200) contexts.

The great majority of the pottery from the site was in handmade or wheel-turned grog-tempered wares. The majority of these cannot be assigned with confidence to known sources, which probably ranged from East Kent to East Sussex and can therefore be

described as local to regional in distribution. There are slight hints that some of this production could have been very locally based, however, and a small group of flagons from Area C may have derived from another local production in a very different tradition. Finer 'Romanised' wares were drawn from north Kent and the Canterbury area in the early Roman period, supplemented by a range of continental imports: Gallo-Belgic white wares, Central Gaulish beakers and South Gaulish samian, but always in small quantities. South Spanish olive oil amphorae and southern Gaulish wine amphorae were also present. At a slightly later date Patchgrove ware vessels may have arrived on site as containers for some kind of commodity; this function was not unique to vessels imported from across the English Channel.

The range of imported pottery expanded slightly in the first half of the 2nd century to include Central and East Gaulish samian ware and Cologne and Argonne beakers. The last of these, together with beakers from Colchester, were only present in minute quantities, however, as were North Gaulish grey wares and mortaria from several different sources. After c AD 200 imported material consisted only of very small numbers of Moselkeramik beakers, a little East Gaulish samian and probably some Dressel 20 amphorae.

Coarse wares continued to be drawn from across Kent and East Sussex. North Kent remained a major source of reduced wares, but Canterbury declined in importance as a source after the 2nd century. Later Roman coarse wares from outside the region consisted of small quantities of Dorset BB1 and a few sherds of Portchester D/Overwey sandy buff/orange fabric from Surrey. Occasional sherds of Nene Valley colour-coated ware, a mortarium from the same source and two sherds of Hadham oxidised ware complete the range of non-local later Roman fabrics. The general scarcity of such fabrics, and the absence of others such as Oxford products, significant in view of the ubiquity of these wares from the late 3rd century, is a consequence of the lack of late Roman activity on the site.

The pottery was therefore drawn from a fairly wide range of sources but, for the most part, those lying outside the region were only represented by small quantities of material, which does not suggest sustained contact at an intensive level. The principal standard imported ceramics, samian ware and Dressel 20 olive oil amphorae, occurred more consistently, as might be expected. The presence of the latter in some quantity is one characteristic which distinguishes Westhawk Farm from contemporary lower status rural settlements, such as Bower Road, Smeeth (Diez forthcoming) or Runhams Farm, Lenham (Philp 1994) and even from some villa assemblages, such as Thurnham (Lawrence forthcoming). Overall, however, the range of pottery found at the site is unremarkable, particularly considering the size of the assemblage.

Iron industry

There are two main questions relating to the evidence for iron production at Westhawk Farm. The

first is to assess the importance of iron production in the economy of the settlement as a whole; the second is to determine the framework within which iron production took place. Neither question can be answered simply.

An attempt has already been made to calculate the approximate volume of iron production represented by the quantities of slag recovered in the excavation of Area B. This is hampered by two principal unknown factors; the extent of removal of slag from the site in the Roman period for such purposes as road surfacing, a well-known characteristic of many roads in the Weald (Margary 1973, 21), and the extent to which on-site slag heaps may have been reduced, dispersed and removed by post-Roman activity, ranging from deliberate recycling to fortuitous attrition by agricultural processes. Neither of these unknowns can be quantified with any degree of certainty. It is clear that the Canterbury road within the settlement originally incorporated slag in its construction and the quantity of this may have been substantial, but the extent to which this material was used as metalling beyond the confines of the settlement is less certain. The use of slag has been noted at a number of points along the line of the road, for example some 16 km west of Westhawk Farm near Benenden (Aldridge 2002). While that material must have derived from iron producing sites in the vicinity, Margary notes 'scattered flint and slag metalling' around Harlakenden Farm and Criol Farm, only *c* 4-5 km west of Westhawk (Margary 1973, 48). In the absence of evidence for other iron producing sites in that immediate area it is possible that this material derived from Westhawk Farm, in which case a rather more substantial level of output than demonstrated by the excavated material may be implied. The extent of post-Roman loss of slag deposits is simply unknowable.

It is possible, however, to attempt to understand the spatial extent of iron production within the settlement. With regard to this it is worth noting that had the 1998 excavation of Area B – in which both workshop structures (I and R) were examined – constituted the entire sample of this area a significantly different conclusion might have been reached about the importance of iron production at the site. As it is, a tripling of the excavated extent of Area B in the 1999 excavation produced no further significant iron production debris and certainly no further structural evidence for such production. Examination of the structural evidence and iron slag distribution across the whole of the excavated area can now be compared with the site wide coverage of the geophysical survey to allow identification of potential foci of further ironworking.

Overall, the evidence of the geophysical survey suggests that there may have been up to six locations which can be interpreted as suggesting significant ironworking, although a more realistic estimate is that perhaps only two of these are likely to have been comparable to the concentrations of activity seen around structures I and R. If this is accepted,

and it is of course speculative, it may be admissible to multiply the known volume of production by a factor of two, or at most by a factor of four if all six possible 'hot spots' had in fact represented ironworking foci. On any calculation or estimate (and Paynter's estimate of total slag volume across the site is problematic because it assumes an even distribution of ironworking which seems, both on general grounds and on the basis of the geophysical survey data just discussed, improbable (see Chapter 7)) it must be admitted that compared with the volume of production that can be demonstrated for a number of Wealden sites (cf Hodgkinson 1999, 70-71) the likely output of Westhawk Farm was low, and indeed minimal in comparison with that of the major centres.

The excavated plan of Area B shows that a significant part of the area contained no evidence for iron production. It is unclear how far this evidence is necessarily representative – the peripheral location of much of Area B should be borne in mind here – but it is of interest that on the basis of the geophysical survey evidence the two most likely candidates for ironworking foci comparable to those of structures I and R both lay south-west of the focal junction area of the settlement and that all but two of the possible concentrations of marked magnetic anomalies lay outside that area. It may be purely coincidental that both the known ironworking areas and many of the possible ones are centred very roughly 100 m apart, but this spacing may have some implication for understanding the layout of the settlement, especially along its south-eastern margin, where the fairly regular spacing appears to be particularly marked. The absence of a chronological dimension to most parts of the distribution makes further speculation meaningless, however.

In sum, the evidence indicates that while ironworking may have been relatively widespread across parts of the settlement there were no more concentrated locations of such activity than that around structure R. Extrapolating from the data gathered there a basic level of iron production can be suggested – on the (unproven) assumptions that the nature, intensity and chronological range of ironworking activity in each likely area was similar. The numbers of workers involved in these workshops need only have been relatively small in total, as demonstrated by Paynter (Chapter 7 above) and even allowing for the involvement of other members of the settlement's population in related activities such as ore gathering and charcoal burning (again unproven assumptions) it is hard to see how Westhawk Farm can be characterised as an iron producing site, rather than a site in which iron producing was one of a number of important activities. Inclusion of the site in Burnham and Wachter's (1990) category of 'specialized sites: industrial', for example, would probably be a mistake, and indeed the adequacy of the evidence for some of the sites thus categorised by Burnham and Wachter may be questioned. In particular there are no criteria for defining a threshold beyond which the industrial capacity of a particular settlement can be identified

as providing the *basis* for the existence of the settlement, rather than comprising a normal level of craft or service activity to be found in most 'small towns' (cf Booth 1998, 617). This important question is certainly relevant to Westhawk Farm.

A further aspect of iron production activity relates to its impact on the woodland environment. As noted above there seems to have been a consistent decline in tree cover in the area through the early Roman period. Use of the resource for charcoal burning prior to iron production presumably played a part in this process, but is unlikely to have been the only factor at work, others being requirements for domestic fuel and perhaps clearance for expanding arable agriculture related to the needs of the burgeoning settlement. The charcoal from Westhawk provides no evidence that the needs of the site were such that woodland management practices were required to accommodate them, although this does not exclude the possibility that such practices were used (Challinor above). The preferential use of oak is clear. These trends are in line with the wider picture from the Weald (Sim and Ridge 2002, 38-42).

Despite the suggestion that iron production may not have been the primary economic activity of the site it is still important to establish the basis on which this production was carried on and its relationship, if any, to the larger scale production of the Weald to the west. The latter has been discussed at length elsewhere, for example by Cleere and Crossley (1985) who have characterised the Weald as divided into two geographical groups, of which the eastern, centred on an area roughly 30 km south-west of Westhawk Farm, is thought to have operated under the direct control of the *Classis Britannica* (ibid., 68-70). The view that the fleet was directly involved in Wealden iron production has been widely accepted (eg Salway 1981, 637-9; Jones and Mattingly 1990, 192; Hingley and Miles 2002, 164) and with some reservation by Frere (1987, 210, 287) and Schrüfer-Kolb (2004, 127-8), though other scholars have been less certain (eg Millett 2007, 178-9).

It is true that iron production was not normally an imperial monopoly and that state involvement in mineral extraction concentrated principally on precious metals (Healy 1978). Nevertheless it is clear that there were exceptions to this, for example in central Noricum, where much of the area occupied by the most important iron mines formed part of a large imperial estate (Alföldy 1974, 115). This was administratively separated from the rest of the province and, whatever the details of the mode of exploitation, the state mines in this area are likely to have belonged to the *fiscus* (imperial treasury) (Dušanić 1977, 81). The *ferriariae Noricae* were managed by large lease holders (*conductores*) whose staff included procurators, but by the early 3rd century a system of direct (state) management had probably been adopted (ibid., 82).

There is much less direct evidence for the status of the iron production sites in the Weald, but a case has been made that this area, too, may have been an imperial estate (Cleere and Crossley 1985, 67-69). The only

(civilian) official directly attested on a Wealden site, at Beauport Park (Brodribb and Cleere 1988, 261-2), has a title (*vilicus* – the only recorded instance in Roman Britain) encountered several times in the context of iron production in Pannonia both before and after this came under direct imperial administration (Dušanić 1977, 84). The role of the *Classis Britannica* in such a scenario remains less clear, however, even though it has been argued that 'all large-scale mining operations in the early Empire required a substantial military presence' (Edmondson 1989, 97). It need not be supposed that fleet personnel provided the labour force at the Wealden production sites, though the evidence of barrack-like structures at Bardown might suggest this (Cleere and Crossley 1985, 74). Equally, the suggestion that the fleet was primarily responsible for the distribution of Wealden iron, much of it as direct export to the continent (ibid., 83) is not proven, even though this is possible. That the fleet had some role in supporting and perhaps administering the industry seems certain, however. This is most clearly demonstrated by the occurrence of stamped tiles at a small number of potentially key sites in the eastern Weald. The overall distribution of these tiles (Peacock 1977; Crowley and Betts 1992) is sufficiently restricted to suggest that it is far from random and may have been quite carefully controlled. Although *Classis Britannica* stamped tiles are absent at Westhawk Farm, the fabric typical of them is represented there, as is another unusual fabric/form combination also noted at sites such as Beauport Park, the site with the largest collection of CLBR stamped tiles (see Harrison, Chapter 6 above). The excavated ceramic building material assemblage suggests a low level of use of tile within Area B of the site, but it contains components strongly suggestive of the presence of a bath-house somewhere within the confines of the settlement, a suggestion supported by the occurrence of window glass. Such structures, of which the Beauport Park one is the best-known, are of course characteristic of the major Wealden sites at which stamped CLBR tiles have been found. A bath-house at Westhawk Farm need not have been associated specifically with the ironworking establishments there, but such an association is certainly possible.

BURIAL RITES

Burial 9200

A striking contrast is formed by burial 9200 and the two sword burials at nearby Brisley Farm. As far as the limitations of the dating evidence will allow these three high status burials were exactly contemporaneous (one and possibly both of the warrior burials being provisionally dated AD 30-50), but greater differences in burial rite between the two sites would be hard to imagine. The Brisley Farm burials have themselves been characterised by their excavator as remarkably different from each other (Stevenson and Johnson 2004; Casper Johnson pers. comm.), but from the perspective of Westhawk Farm these

differences seem much less significant than the similarities. Nevertheless there are points of similarity even between the Brisley Farm and Westhawk Farm burials, the most obvious being the inclusion of a pig's head, although it is impossible to be certain if the Westhawk example was complete, or only half, like that from the smaller (and possibly later) of the two Brisley Farm graves. Burial 9200 was originally seen as lying broadly within the regional late Iron Age 'Aylesford Culture' tradition of burial (cf Whimster 1981, 147-166) on the basis of the presence of the bucket and other object types found in some burials in that tradition, but there are problems with accommodating it precisely within the scheme set out by Whimster. These are compounded by the fact that understanding of the Westhawk burial is compromised by poor preservation, exacerbated by the circumstances of recovery, but it is clear that the range of objects placed in the grave was wide. In particular, some of the extremely fragmentary copper alloy pieces are likely to have derived from objects which do not have straightforward domestic functions but might have been associated with ceremonial and status display.

One aspect of the question of the associations of the burial relates to the location of the cremated remains. These, and indeed most of the other objects in the grave, seem to have been in a box; the container was not, as so often, a ceramic vessel. Since 9200 cannot be associated either with the simplest unurned Aylesford burials or, probably, with the 'group of very much more wealthy burials in which the unenclosed ashes lie surrounded by their accompanying grave goods' (ibid., 157) – essentially those of Stead's 'Welwyn' phase of the Aylesford culture (Stead 1967) – it may perhaps be linked with a more nebulous group of 'unurned cremations associated with a more restricted group of material' (Whimster 1981, 158), exemplified by burials at King Harry Lane, where 66 out of 455 cremations were 'separate' (that is, with ashes uncontained) but with one or more pots in the grave. These included the most elaborate burials from the site (Stead and Rigby 1989, 83), but none of these was contained in a box in the fashion of the Westhawk burial.

The wooden box, estimated at 350 mm wide by 450 mm long, falls outside the size range of caskets permitted by Borrill (1981, 304). However, it was small compared with other boxes – averaging 625 mm wide and 758 mm long as calculated from a list of 20 boxes (Philpott 1991, table 2) – and was similar to caskets in other respects. Like many, the box was decorated, albeit somewhat plainly with copper alloy sheeting. A possible lion-headed mount (no. 15) may have adorned the box, but this is not certain. Boxes of any kind, and certainly boxes containing the majority of grave goods and cremated remains – as opposed, perhaps, to timber lined and/or roofed chambers as at King Harry Lane (Stead and Rigby 1989, 81) – were at best extremely rare in Aylesford culture graves. A 'warrior burial' (of Aylesford culture type in contrast to those from Brisley Farm) from Colches-

ter and dated AD 43-60 contained at least one box and is among the earliest examples (Crummy 1993, 495). Philpott (1991, 17) sees the rite as introduced to Britain in the wake of the Roman conquest, though with no clear indication of its origin, and growing in popularity from the late 1st century AD. This developed Roman-period tradition was particularly common in Essex and Hertfordshire, but was also found in Sussex and Kent, not least at Westhawk Farm itself, where there were examples in the adjacent Area C cemetery and in at least one of the late 2nd century cremations in Area B.

The Westhawk burial is also anomalous with regard to pottery. The presence of multiple vessels in cremation burials is a regular feature of the Aylesford tradition, whereas here only a single vessel was present. Moreover this was a platter, rather than one of the closed forms (jar or beaker) that seem to have been most characteristic of Aylesford type burials. The particular fabric represented, micaceous *terra nigra*, is in fact relatively uncommon in grave assemblages, with certainly attested examples only at King Harry Lane, Baldock and Hurstbourne Tarrant, Hampshire (Jane Timby, pers. comm.). In general terms, however, it is notable that Ashford lies very close to a focal area for the distribution of Gallo-Belgic wares in Britain (Fitzpatrick and Timby 2002, 168, fig. 14.4). It is also notable that the tradition of burials incorporating a jug and patera set as seen at Westhawk Farm continued into the Roman period (Philpott 1991, 123-124), principally associated with cremation burials, and was well-established in Kent, for example in two of the three very rich cremation burials from the recent A2 excavations near Springhead, probably dating to the period c AD 50-60 (Allen 2007).

The state of many of the objects makes assessment of their condition at the time of burial difficult. In general there is little reason to suppose that the objects placed in the burial were not complete, but there are hints that this may have been true of the patera; these are the presence of a piece of fabric inside the handle and overlapping the edge of its point of attachment to the side of the vessel, and the absence of the (usually decorated) end of the handle, normally a substantial casting that would have been expected to have survived the processes of decay which had affected other parts of the copper alloy vessels.

Despite the problems of preservation the animal remains provide useful information about aspects of the burial. Sheep or lamb, pig and bird were all placed on the pyre. Sheep and bird also occurred as pyre goods in some of the Roman-period cremations, but pig did not. Pig and lamb were also included with the goods placed in grave 9200. The only identifiable fragments of pig were teeth, and although this may simply relate to preservation factors it is likely that only the pig's head was placed in the grave – the size of the grave would certainly have been insufficient to accommodate an adult pig (see also above). At the King Harry Lane cemetery, Verulamium, pig skulls were found exclusively with male burials (Pearce 1997, 177), though it should be

noted that the material in question there consisted of pyre goods as the evidence for unburnt animal bones was lost (*ibid.*, 176). This association supports the identification of the occupant of grave 9200 – slightly uncertain on the basis of the surviving cremated bone – as a male.

Area B and C cemeteries

Inhumation and cremation graves were placed within the cemetery throughout the life of the settlement, both traditions therefore coexisting. The only distinction made between the two here was that the majority of inhumation graves were concentrated in the central area of the enclosure, while the cremation graves were generally located around the north-western edge. No such clear spatial distinction between cremation and inhumation graves was noticed at Pepper Hill, although there cremation graves were more commonly located adjacent to the cemetery boundary than elsewhere. This is reminiscent of the situation at Westhawk Farm, though not so starkly demonstrated.

At least three inhumation graves (groups 5130, 5190 and 8520) date to the 1st century AD. Evidence in south-eastern Britain of early Roman inhumation graves remains unusual compared with cremation burials, but Westhawk Farm adds to an expanding list of sites. Pepper Hill is exceptional in that inhumation formed the majority rite during the early Roman period; over 130 such graves were encountered, compared with 60 cremation graves (Biddulph forthcoming). Further inhumation graves, observed as isolated graves or small groups are known at Monkton (Perkins 1985, 54-9), Mill Hill, Deal (Parfitt 1995, 156), and Chilham (Ashbee 1996). Philpott (1991, 57) regards early Roman inhumation as a continuation of Iron Age 'native' tradition, and in view of the Brisley Farm warrior graves and large late Iron Age inhumation cemeteries at Deal and Sittingbourne (Parfitt 1995), this conclusion is difficult to avoid. However, the individuals buried at Westhawk Farm, or their mourners, did not reject Roman funerary custom altogether, as the flagon and samian platter in grave 8520 appear to indicate.

Boxes found in graves were typically larger than caskets – and the box from grave 9200 – and tended to be undecorated (Borrill 1981, 304). At Westhawk Farm, Area C produced one certain box burial (5220), while a probable box burial (220) came from Area B. The soil stain in the former measured 0.85 m by 0.7 m, while the size of the suspected box in the latter is estimated at 0.60 m by 0.60 m. A further two graves, 5240 and 9860, were square in plan and may also have contained boxes. Box burials are concentrated in Hertfordshire and Essex; Philpott (1991, 16-21) records few from Kent, and then largely from Canterbury, although examples outside urban centres have begun to emerge since that survey. The cemetery at Each End, Ash produced a box burial (Hicks 1998, 113). At least three were buried at Pepper Hill; the furniture associated with a further seven cremation

graves at that site was much smaller and better identified as caskets (Biddulph forthcoming).

Pottery in cremation burials

The bone from the Area C cremation burials was placed within urns, except in Group 5210. Five cremation graves, groups 5050, 5110, 5120, 5230 and 5240, contained a cinerary urn only, and three graves, groups 5060, 5070, and 5080, had a cinerary urn and a single ancillary vessel. Group 5210, as already mentioned, had no cinerary urn but did have an associated ceramic vessel. Grave 5090 contained the cinerary urn and lid with two further vessels, and grave 5220 contained the urn and three ancillary vessels (Table 10.3).

The paucity of pottery grave goods in inhumation burials – just two groups (5130 and 8520) contained vessels – appears to reflect a tradition in which formal grave goods were not essential, unlike the cremation burials of the Aylesford tradition, which were characterised by ceramic vessels. The mass of broken pottery incorporated into the backfill of group 8160, however, suggests that ceramics were required at a different stage of the funeral. The assemblage consisted of over 2000 sherds (from an absolute minimum of 37 vessels) and included a strong dining and drinking element. Like similarly broken pottery from graves at Alton, Hampshire (Millett 1986, 82), Colchester (Crummy 1993, 493) and Pepper Hill (Biddulph forthcoming), the pottery from group 8160 may represent the remains of a funerary feast. It was this stage of the funeral, in which the deceased was remembered and new social memories were created (cf Williams 2004), that pottery played an essential role.

The range of pottery from the burials overall is consistent with the types of pottery selected at most cemeteries in Kent. Some 60% of Westhawk Farm's ceramic grave goods were drinking-related (flagons, beakers and cups). Eating-related vessels – platters and dishes in this case – accounted for a further 31% of the assemblage. Jars and lids made up the remaining vessels. The composition, compared by broad functional category, is near-identical to the assemblages from Each End, Ash (Savage 1998), and Pepper Hill. The assemblages from Ospringe (Whiting *et al.* 1931) and Monkton (Perkins 1985) are close to Westhawk, although both have a stronger drinking element. The similarity across these assemblages reveals that pottery selection was standardised to a large extent; chronology and local variations in ceramic supply probably accounted for most of the differences. The absence of certain pottery at Westhawk Farm, in particular lamps, which appear most frequently at major urban centres, including London, Colchester and Chichester, provides an obvious indication that funerary assemblages can be differentiated to some degree in terms of status. However, the Westhawk Farm assemblage also contained a relatively high proportion of samian vessels. Although samian is by no means unusual in graves of any status, it was the preferentially selected ceramic in relatively high-status burials (cf Biddulph 2005). The

Table 10.3 Summary of finds assemblages from graves (Excludes graves with no finds or with small assemblages of miscellaneous pots/herds).

Group	Phase	Pottery					Other 'grave goods'		Comment
		'Urn'	Flagon	Drinking vessel	Dish	Other	Pyre	Grave	
AREA C									
Cremations									
5110	2-3	1							
5120	2-5	1							
5230	2-5	1							
5220	3	1	1	1	1		sheep, bird	hobnails	box burial
5240	3	1							
5080	4-5	1	1						
5050	5	1					intaglio		
5060	5		1	1					possibly infant inhumation
5070	5	1		1					
5210	5	none		1					
5090	6	1	1	1		lid	sheep, bird	cu armlet, 'jet' bead armlet & necklace	
Inhumations									
5130	2	N/A		1					
AREA B									
Cremations									
1261	2	none				jar			
1007	2-3	1							
9860	3	none	1			jar			
9940	3	1	1	1					
210	4	1		3	3			cu needle, hobnails	possible box burial
220	5	1		3	6		animal bone	hobnails	probable box burial
Inhumations									
8520	3	N/A	1	1	1				
8160	4	N/A	numerous					fe awl	coffin (stain)

over-representation of the ware at Westhawk Farm hints at a special status for the site, possibly deriving from its religious or industrial role (see below). Malcolm Lyne and Joanna Bird (see Chapter 6) note the presence of an unusually large number of repaired samian vessels, all from non-funerary deposits. The pottery deposited in graves was, in contrast, whole, though often worn. These vessels, which probably saw household use first, were therefore in relatively good condition - perhaps the finest that mourners had to offer - and might well have been specially reserved for funerary use.

Personal possessions within cremation burials

Only three cremation graves in the Area C cemetery, 5220, 5050 and 5090, produced non-ceramic finds. Grave 5220 had been placed within a box which measured 0.7 m by 0.85 m, and two clusters of hobnails from a pair of shoes were placed at the northernmost edge of the box, beside the cremation urn. Soil conditions precluded any survival of leather and the distribution of nails was not sufficiently secure to allow the nailing pattern or the size of the shoes to be determined. The distribution of hobnails in cremation graves represents a common tradition in small towns and rural settlements in the south-east of Eng-

land during the late 1st to early 2nd century (Philpott 1991). Nailed shoes were also placed beneath one of the pottery vessels in box burial 220 in Area B.

Cremation 5090 produced personal ornaments from within the funerary urn, placed above the cremated remains, consisting largely of jet, and occasional lignite beads. An armlet was made from three large, oval, ridge-backed beads, on which traces of gold leaf remained, and a further twenty-four flat elliptical beads. A necklace made from 183 cylinder beads, and a copper-alloy armlet had also been placed with the cremated remains. None of the items had been present on the pyre. In contrast, the single non-ceramic object from cremation 5050, a small intaglio, appears (unusually) to have been a pyre good.

None of the burials, apart from box cremation 5220 which produced nine nails, contained any coffin or box fittings, suggesting (but not proving) that burial within a coffin was not a common practice here. A coffin was present in grave 8160 (Fig. 8.36) in Area B, but was evidenced by a stain rather than by the presence of nails.

Distribution of burials

The distribution of burials across the excavated part of the site is characteristic of Romano-British nucleated

settlements in suggesting a combination of relatively informal alongside more closely defined practices. The spread of burials at the southern fringes of the settlement indicates the marginal nature of this area. It is more difficult to account for the group of three cremation graves just north-east of the shrine area, but without evidence on the nature of the enclosure within which they lay (almost entirely outside the excavated area) little can be said. In no sense, however, should any of these burials necessarily be regarded as 'randomly placed' or of low status. Both in the context of rural settlement and in relation to nucleated sites of all types careful consideration of burial location seems increasingly likely, even if the factors determining these locations are not always clear (Pearce 1999, 157-159; Esmonde Cleary 2000). At Westhawk Farm this is most clearly shown by the apparent association of inhumation 8160 with structure C, but can be suggested for the others. The potential importance of burial 8160 is emphasised by the substantial pottery assemblage contained within the grave fill. Such assemblages can indicate the holding of a funerary feast in part reflecting the esteem in which the deceased was held, but while eating and drinking vessels were well-represented, jars were still the dominant vessel type, suggesting that the group was more typical of general domestic material. If so its interpretation is more problematical, but it is possible that its character, combined with the location of the burial within the house site, indicates some kind of ritual of termination of use of the building, perhaps involving a large part of the pottery assemblage associated with it.

The majority of the burials encountered lay within a small, defined cemetery located characteristically, just beyond the formal boundary of the settlement. On present evidence, however, this was clearly not a major cemetery for the Westhawk Farm community, but one used by an individual family or other social grouping over a sustained period. A fairly close parallel can be seen in a small cemetery of some 30 individuals lying immediately outside a major settlement boundary at Alchester, though that cemetery was not clearly defined by further boundaries (Booth *et al.* 2001, 152-158). Chance finds outside the excavated area indicate the wider use of the zone north-west of the settlement boundary for burials, although whether these formed part of a larger formal cemetery is unknown. Despite its small size, however, the defined group of burials seems, both on the basis of its enclosure and its location beyond the principal settlement boundary, to justify definition as a formal cemetery rather than as a group of 'backland' burials, of a type noted by Esmonde Cleary (2000, 129) as being particularly characteristic of small towns.

Chronology

The dated excavated burials span almost the entire period of the known life of the settlement, from Phase 2 to Phase 6 of Period 2. As far as possible, burials were assigned to a single phase, but 8 of the

19 burials in the Area C cemetery could not be so closely defined. There was no chronological distinction between inhumation and cremation graves, both rites being found together throughout Period 2, both within Area C and elsewhere. The main discernible chronological pattern relates to the use of different parts of the site for burial. No burials within the southern part of the settlement or at its margins occurred later than the early 3rd century. Cremation grave 220 adjacent to building R was assigned to Phase 5, but is probably to be dated within the early years of that phase. Otherwise, Phase 5 and later burials were only encountered in the Area C cemetery. This distinction may reflect a reduction in the level of occupation of the southern end of the site after the end of the 2nd century, though a closer correlation with the occupation sequence would have shown burials here ceasing *after* the end of Phase 5 (but the total number of burials involved may be too small to sustain detailed analysis of their chronological trends). A more interesting possibility is that the distinction between the two parts of the site indicates a move towards formalisation of the location of burial, a trend which on this evidence would start in the early 3rd century. Without evidence for further cemeteries associated with the settlement, however, this must remain speculative.

GENERAL DISCUSSION

Chronological summary of development

In outline the development of the settlement may be summarised as follows. It was established within a generation of the Roman conquest in an area which was already widely if not densely settled. The role of an immediately adjacent late Iron Age settlement focus, probably of high status (on the basis of a single surviving burial), in determining the location of the Roman settlement is unknown. The burial (9200) is the clearest single indicator of the presence of such a settlement at Westhawk Farm. Another indicator is the quarter-stater of Eppillus. The evidence for intensive activity at Brisley Farm and at other sites in the immediate area may, however, indicate the existence of a concentration of population in the area sufficiently large to influence the general alignment of roads (see below) regardless of the extent of settlement at Westhawk Farm itself.

The pottery assemblage from Area B included material which could be of pre-conquest date, but the case for occupation of that date in Area B remains unproven since none of this pottery was from contexts demonstrably earlier than the main components of the Roman settlement plan. The most important of those components, which determined the enduring form of the settlement layout, were the two major road alignments, both of which were probably established in Phase 2 (that is, before *c* AD 70). The Canterbury road was partly defined by roadside ditches at this time, but a feature diverging from this alignment formed an early boundary on the north-west

side of the settlement in the vicinity of the road junction area. The way in which the latter area was defined in the earliest phase of the settlement, and the extent of settlement or other activity within or adjacent to it, is unknown. At the south-west margin of the settlement, however, two structures (A and B) were in use in an area subsequently incorporated in a block of plots on the north-west side of the Canterbury road, while on the south-east side of the road at least one settlement unit, probably of agricultural character, was also of pre-Flavian date. This lay at the southern edge of what already seems to have been a partly-defined open space, later occupied by a shrine. A small cemetery was established outside the main north-west settlement boundary very early in the life of the site.

Phase 3, dated *c* AD 70-150, saw most of the main features of the settlement in place. These included the shrine structure, set in a small enclosure within a much wider space, the north-east side of which was defined by a substantial double-ditched enclosure that fronted onto the Canterbury road. Trackways leading from beyond the settlement up to the shrine area, or relating to a crossing of the White-water Dyke which may have assumed added importance through having the axis of the shrine complex aligned upon it, were almost certainly (in one case) or probably (in ?two others) in place at this time. Domestic/agricultural activity continued in the complex on the south side of the shrine area. On the opposite side of the road from the latter, overlying the early settlement boundary, an iron-producing workshop (structure I) was established. This housed both smelting and related smithing activities. There was relatively little clear evidence of intensive activity further south-west of this building, but two circular structures (C and E) may already have been in existence in the area later occupied by the south-west block of roadside plots. Parallel boundaries, forming a single plot (plot SE1), were perhaps laid out opposite these structures at this time, though the dating is less secure (a later date is possible), but did not apparently enclose structures or other major features.

Phase 4 saw a number of developments in the northern corner of Area B. The iron-working building continued in use in the early part of this phase, but was then apparently abandoned, while the surrounding area was incorporated within a series of plots laid out approximately at right-angles to the line of the Canterbury road. Further south-west the establishment of a block of five or six further plots, mostly of very regular layout, is also dated to this phase. These contained timber structures of a variety of types, one of which, a circular structure possibly in use from the previous phase, was then abandoned and a burial inserted within its outline. On the south-east side of the road, however, there is less evidence for significant new development, though occupation continued in the settlement area south of the shrine complex (at least one new circular structure was attributable to this phase) and the north-east and north-west sides of the shrine enclosure were redefined.

In Phase 5, the last phase of large-scale occupation of this part of the settlement (*c* AD 200-250), intensive activity continued in some of the south-west roadside plots next to the Canterbury road. Opposite this area plot SE1 also remained in use, containing a number of pits dated to this phase. On the south side of the shrine area the latest building (structure P), still of circular plan, overlay earlier boundaries defining the edge of that area while to the north-east, on the opposite side of the shrine area, a new iron-working structure (R) overlay the south corner of the Phase 3 and later double ditched enclosure. Like the Phase 3-4 establishment (structure I), structure R accommodated both smelting and smithing activities. The occurrence of an iron billet in the area of structure P, if not certainly derived from it, hints that the two structures may have been associated in some way.

Subsequent activity in Area B was at a very low level. No new structures can be assigned to the later 3rd or 4th centuries, and even finds of this date were very localised, occurring principally in a small number of upper fills of features which had originated in earlier phases. The most important of these was a waterhole adjacent to the north-west side of the Canterbury road on the axis of the shrine structure opposite. Fourth century deposits in its upper fills contained large numbers of redeposited 2nd century coins suggested to be derived from the nearby shrine. The only activity attributable to the latest Roman phase (7) in Area B was the apparent removal of the large post which had been a focal feature within the shrine complex. Elsewhere, metal-detected finds of 4th century coins suggested continuing activity within the focal part of the settlement (Area A), but even there such material was scarce and none of the identifiable coins was later than the mid 4th century. The cemetery in Area C remained in use into Phase 6 but probably not thereafter; the latest burials, including a cremation burial of an adult male associated with black jewellery, being most likely of early 4th century date.

The character of early and later post-Roman activity is unknown. Limited activity of 13th century date, possibly indicating adjacent settlement, was located at the extreme southern end of Area B. Extant and earlier patterns of post-medieval field boundaries may have related to the pattern of land use established at that time, although the principal Roman boundary on the north-west side of the settlement survived in part as a modern alignment. The lasting significance of the Canterbury road is less clear, however. One post-medieval field boundary followed its south-east edge for some distance within Area B, but it is arguable that the general trend of the post-medieval boundaries was determined as much by the topographical logic of the site as by surviving Roman features.

Settlement character, size and morphology

The principal characteristics used to assess the broad nature of the settlement include its size, layout, struc-

tural density and diversity and economic character (cf Booth 1998, 613-615). The settlement was substantial, perhaps covering up to c 15 ha (see below) and, while comprising areas of contrasting morphology, contained significant zones of systematic layout, most particularly in the form of rows of fairly regular plots laid out along the north-west side of the Canterbury road. The evidence from the south-westernmost block of these plots indicates that most of them probably contained a structure or structures, but that the road frontage was not necessarily densely built-up here. There may have been more intensive use of the frontage closer to the focal area of the settlement, but it is clear that in the relatively marginal part of the site represented by Area B there were always open spaces between structures, and that these spaces were not always intensively used. The insect evidence from the two water holes indicated not only the presence of open grazed areas but, in the case of waterhole 9179, a complete absence of species indicative of settlement, though Robinson (Chapter 9 above) notes that comparable evidence comes from some other Roman nucleated settlements such as Scole, Norfolk and Elms Farm, Heybridge, Essex.

The range of structures included specialist buildings such as the shrine, a possible bathhouse (outside the excavated area) and iron producing workshops, as well as domestic and agricultural buildings and buildings which may have combined several functions. The economic character of the settlement reflected this structural diversity, with evidence for agricultural production, for iron production and, to a lesser extent, for trade. Overall these characteristics reveal a large and complex nucleated settlement which, notwithstanding the 'rural' character of some of its marginal areas, can reasonably be placed within the broad 'small town' category, albeit in the middle or lower order settlement categories as used by Burnham in his 1993 review (Burnham 1993, 103). The excavators of the comparable (though larger) site of Heybridge have chosen to characterise this as a 'market village' rather than a 'small town' (Atkinson and Preston 1998, 109), but the distinction is more one of terminology than substance. It is notable that at both sites the shrine or temple constitutes the principal, if not the only, 'public' building. At Westhawk Farm the lack of evidence for the focal area of the settlement means that this was not certainly the case here, but this phenomenon is also seen in some other 'small town' contexts (Burnham 1988) and may be considered a characteristic of them.

The Canterbury road was traced over a distance of some 700 m through the proposed development area, and on its north-west side was bounded by settlement evidence for almost the whole of this length. A fairly conservative estimate, based on the excavated and geophysical survey data, suggests a settlement area of c 12 ha within the original development proposal area (Areas A and B). This excludes the cemetery in Area C and takes no account of the extent of further possible cemeteries at the north-west margin of the settlement.

The settlement extended beyond Area A north-eastwards along the line of the Canterbury road into Ashford, but for how far is unclear. The narrow projection from the south-west side of Ashford parish as defined in the 19th century, which has been shown to be broadly coincident with the extent of the Roman settlement to the south-west, may be taken as a hint of its possible extent to the north-east. On this basis the settlement may have stretched at least another 250 m north-eastwards beyond Area A and a minimum site area of some 15 ha can be proposed.

Comparative settlement sizes in Kent are not easily calculated. The defences of Rochester enclosed approximately 9.5 ha (Burnham and Wachter 1990, 78), but there is little clear indication of extramural settlement there. On the basis of recent work (Boyle and Early nd; Davies 2001; Glass 1999; Philp and Chenery 1997; Smith 1997 and recent unpublished work by Wessex Archaeology) the extent of the 'small town' of Springhead may have been similar to that of Westhawk Farm (the well-known focal area covers some 3-4 ha) and is unlikely to have been larger. The roadside settlement near Syndale Park, Ospringe, possibly the *Durolevum* of the *Antonine Itinerary*, may have extended some 400 m along the line of Watling Street (its east and west limits defined by cemeteries) and at most c 100 m south of that road line (Sibun 2001, 191). The areas of seven 'small towns' in Essex, calculated from mapping by Wickenden (1996, 78-79) range from roughly 48 ha to 12 ha. The three smallest sites, Braintree, Great Dunmow and Kelvedon, are all between c 12 and 16 ha in extent and are thus closely comparable to Westhawk Farm in this regard at least.

The three Essex sites are all located at road junctions and in this respect, too, are comparable with Westhawk Farm. While the existence of the road junction seems to have been fundamental to the establishment of settlement at Westhawk Farm there is no clear indication of further development or elaboration of the road network around the junction area. In this sense the site belongs rather to Group I (simple road junction frontages) in Burnham's categorisation of 'small town' settlement plans (Burnham 1987, 159-162), rather than the 'developed' sites of Group III, while containing some hints of development. The existence in the southern part of the settlement of a number of trackways, identified principally from the geophysical survey, may be seen to support the latter view, but none of these appears to be of more than very local significance, nor do they link directly to the major road axes.

Political/military connections

Direct evidence for military or civil official links is slight, but there are a few hints of such links amongst the artefactual record. In view of its position on the regional road network, the relative proximity of Lympe (assumed, on the basis of *RIB* 66, to be a base of the *Classis Britannica*; see also Peacock 1977, 246), the clear evidence for ironworking and the known

association of the British fleet with ironworking sites (in some cases), the question of official involvement at Westhawk Farm has remained a subject of lively speculation throughout the excavation and more recently. The most clearly demonstrable connection is through the occurrence of tiles in a fabric (fabric 22) found elsewhere bearing the CLBR stamp of the *Classis Britannica*. The quantity of this material at Westhawk Farm was small, although slightly larger amounts of tile fabric 23, including distinctive combed bricks of a type found at Beauport Park in association with stamped *Classis Britannica* tiles, also occurred. While suggestive, the presence of this material does not demonstrate an official connection as it cannot be certain how far bricks and tiles produced from the Fairlight Clays were exclusively intended for use in an official context. Nevertheless, such a connection would commonly be assumed (cf Brodribb 1979, 141) and has been emphasised by Peacock (1982, 144-5), and the known distribution of CLBR stamps is still consistent with this connection, even allowing for the presence of examples from London, since these might have derived from a small number of military-related construction projects (Crowley and Betts 1992, 222).

The artefacts from the site include no items with direct military associations. They do include, however, a knee brooch, a type thought perhaps to have been worn particularly by soldiers, or officials of some other kind (see Cool, Chapter 5). A 3rd century intaglio from a cremation grave in Area C forms another unusual object/context combination possibly indicative of a military association. Additionally, analysis of the metal objects from the site indicates a strikingly high concentration of weighing equipment, and finally the coin assemblage has an overall profile which is most closely comparable with a number of sites which are either demonstrably military (such as the *Classis Britannica* fort at Dover) or have close military associations.

The evidence of individual objects need not indicate more than the presence of one or two possible military personnel at best. Such a presence is increasingly recognised as a characteristic of major centres in the middle part of the Roman period in Britain (Bishop 1991; cf. Booth *et al.* 2001, 442-3) and is not in itself remarkable. Taken in combination with the other evidence, however, it is suggestive of an aspect of the life of the settlement which is perhaps most apparent from the coin loss evidence. The pattern that this displays is completely at odds with that from other civilian settlements in the region. It suggests either that the whole community had a military cast to it or, perhaps rather more likely in view of the lack of other evidence, that those elements of the population (of what has, on other criteria including aspects of the finds evidence, been characterised as a 'rural' settlement) who were using coin in the 1st and 2nd centuries were dependent on a characteristically 'military' pattern of supply.

The conflicting strands of evidence are hard to interpret, but some characteristics of the finds assem-

blages are so unusual when compared with 'normal' nucleated settlements that they cannot be ignored. There is nevertheless no justification for seeing Westhawk Farm as a 'military' settlement, but perhaps rather as a site containing amongst others a (probably relatively small) community of military or official personnel with an important role in regulating certain aspects of activity within the settlement. The unusually pronounced definition of the focal area of the settlement, and in particular the possible emphasis on the entrances into this area, may be a reflection of such regulatory activities. On present evidence it is most likely that this would have related principally to the production of iron. Given that the overall evidence for the scale of such production at Westhawk Farm remains quite modest, however, it is suggested that these personnel had a wider remit in relation to the administration of iron production across the region. Exactly how this may have linked with possible administrative functions at sites in the Weald such as Beauport Park is, of course, quite unknown. It is equally speculative to suggest that such activity could be seen in the context of the administration of an imperial estate, but this remains a possibility for consideration. Despite the efforts of Taylor (2000) and others (cf Millett 1990, 120-121) to deconstruct the imperial estate interpretation of the Fenland, for example, and in particular Stonea as an imperial estate centre, the real point is that we do not have any meaningful model for the archaeological manifestation of imperial estates, particularly in the north-west provinces, and indeed it is likely that many different patterns of settlement and structure type could occur in such a context, given the variety of forms of land tenure attested within imperial estates in other parts of the empire (Crawford 1976). The suggestion (see Cool, Chapter 5 above) that the quantities of weighing equipment present might indicate a special function such as involvement in the *annona militaris* would not be incompatible with other administrative functions related to the procurement of materials such as iron.

Socio-economic status

The possible military connections and administrative functions discussed above will have had some impact on wider aspects of the status of the site, but apart from specific characteristics, such as the coin loss pattern, the evidence for such impacts is relatively slight. The absence of evidence for any local administrative function of the sort sometimes associated with major nucleated settlements is unsurprising since any such evidence, even if archaeologically recoverable, is likely to have been located in the focal area of the settlement not examined. The central open space, suggesting a significant market function, may be such an indicator, but need not have been a direct reflection of any formal administrative status enjoyed by the settlement.

The three main aspects of the excavated evidence that shed light on the wider socio-economic status

of the inhabitants of Westhawk Farm are the structures, the burials and other artefactual evidence, all of which have been discussed above. The structures are all simple in plan and the majority are of a conservative (approximately circular) form reflecting pre-Roman traditions. Rectilinear buildings were all of modest size. The floor area of the largest of these, structure D, is almost exactly equivalent to that of an 11 m diameter circular building (c 95-100 sq. m). A number of the circular structures from Westhawk were of this order of size. Therefore, unless structure D had an upper storey, which seems unlikely, it did not offer any significant increase in accommodation, despite its radically different plan form. It did, of course, have significantly different possibilities for the organisation of its internal space, but no evidence for this (or of internal organisation in the other structures, except for those associated with ironworking) survived. Overall, therefore, the buildings do not suggest a radical change in character from regional pre-Roman traditions. Exceptions to this generalisation may have been located in the focal area of the settlement, but apart from that consist only of the putative bath building. This might have been intended for the general use of the inhabitants of the site, but it is possible that it was specifically associated with that section of the community involved in ironworking.

The sample of burials is too small to allow extensive generalisation about the overall population of Westhawk Farm. Nevertheless, and despite the fact that funerary rites and assemblages were often manipulated by the living to suggest that the status of the deceased was different from that which he or she actually held, the surviving evidence indicates some variety of status and reflects the range of burial types seen in much larger assemblages, such as that from Pepper Hill, Springhead. This range extends from burials with no associated grave goods to those with significant numbers of vessels (7 and 10 respectively in graves 210 and 220 in Area B) and the exceptional deposit in grave 8160. The presence of an intaglio (placed on the pyre) and jet and lignite beads in burials in the Area C cemetery are indicative of some degree of personal wealth. There is, however, no Roman equivalent to the immediately adjacent high status late Iron Age burial; it is perhaps unlikely that people of this character were resident at Westhawk Farm rather than in rural estate centres in the surrounding countryside.

The remaining artefactual material from the site provides, if anything, less evidence for socio-economic variety than seen in the burial assemblages. Most groups of material are relatively small, but the non-ferrous objects suggest an interesting picture of a mixed community with some conservative, rural characteristics (which appear consistent with, for example, the structural evidence) and other more urban characteristics, suggested by the toilet and weighing equipment, for example. One of the best indicators of general site character, however, is the pottery, principally because the size of the assemblage allows fairly secure conclusions to be drawn. As already discussed,

the assemblage indicates a reasonably wide range of trading connections, but the volume of much of this trade was not significant. The material can, however, be compared with assemblages from some fifteen Channel Tunnel Rail Link Section 1 sites which have been recorded to a similar standard (Booth forthcoming). Examination of these assemblages in terms of their 'fine and specialist' ware component, potentially a useful indicator of status (cf Booth 1991; 2004) reveals that with the exception of the cemetery at Pepper Hill, Springhead, these wares (samian ware, fine wares, white and white-slipped wares, amphora and mortarium fabrics) comprise between 0.4% and 11.3% of the total sherds of all but the smallest (and therefore statistically invalid) assemblages. Chronological factors result in sites with only very early Roman occupation having very low fine and specialist ware levels, while late Roman assemblages generally have a higher baseline level of these wares regardless of status. The extremes of the CTRL fine and specialist ware representation range are readily interpreted in these terms.

Westhawk Farm, with 5.1% of fine and specialist wares (by sherd count) lies right in the middle of the CTRL range. Sites in the geographical vicinity include the villa at Thurnham (5.9%), early Roman rural settlements, apparently of low status, at Snarkhurst Wood and Beechbrook Wood (2.7% and 1.3% respectively) and two other rural settlements with rather longer date ranges, at Leda Cottages and Bower Road, Smeeth (5.0% and 4.4% respectively). Overall these figures indicate relatively little inter-site variation based on status, as far as this can be determined from morphological characteristics. The distinction in ceramic terms between Thurnham and other, nearby, contemporary rural settlements, for example, is slight, and is demonstrable more in terms of the presence of a wider range of non-local fabrics than a notable quantitative increase in fine and specialist wares. The Westhawk data fit this pattern. In detail Westhawk has a higher proportion of samian ware (2.4% of the site sherd total) than all but one of the CTRL sites (and the exception, Leda Cottages, with 2.7%, may be anomalous) and amphorae (1.2% of sherds) are also comparatively well-represented (they are indeed totally absent from 8 of the 14 CTRL sites), but in other respects the fine and specialist ware component of the Westhawk Farm assemblage is unremarkable. Only with respect to samian ware and amphorae (principally olive oil containers of Dressel 20 form) could it be argued that the potential market function and perhaps other aspects of the Westhawk Farm settlement resulted in the presence of above-average quantities, and these quantities are not themselves noteworthy in absolute terms. There is thus little indication that the pottery assemblage of the settlement had a distinct character. Pottery supply seems to have operated within a general regional framework rather than being modified in any notable way at the behest of the site's inhabitants. The requirements of the latter seem to have been in line with those of other parts of the spectrum of regional

rural society. If there were groups within the population of Westhawk Farm who had rather different and distinctive ceramic preferences, the archaeological evidence for them is submerged in the general mass of the material; such groups were clearly either of small size or their rubbish disposal activities were not located in or near the excavated parts of the site.

Other social aspects

The evidence discussed so far suggests a mixed community. Some of the more readily identified elements within it, such as ironworkers and probable military/administrative personnel, were probably quite few in number, the latter perhaps particularly so. It is likely that the community retained a significant agricultural component. While the evidence for this is not as good as could be wished the general proposition is supported by aspects of the site such as the long-term survival of a native housing tradition (circular buildings) and also by the wider picture that suggests the disappearance of some local settlements (particularly Brisley Farm), with the presumption that their inhabitants may have relocated themselves to Westhawk Farm. Such relocation could have involved a change in individuals' basic livelihood, but there is no particular reason to think that this was the case. Some (but not all) aspects of the small finds assemblages have also been characterised as indicating a 'conservative' community, consistent with the evidence of building traditions. The survival of circular buildings into the Roman period has many parallels, as discussed above. However, there are as yet few sites from Kent that show the continuation of the tradition so late into the Roman period (that is, into the 3rd century) even in a rural context, let alone in the context of a substantial nucleated settlement. It is uncertain whether this simply reflects a paucity of comparable excavated evidence, or whether Westhawk Farm is genuinely unusual in this way. Here the pre-conquest building tradition survived the imposition of rectilinear building types and co-existed with them over an extended period. The extent to which the rectangular buildings can be regarded as 'Romanised' and alien is probably relatively limited, however, and it has already been suggested that one building type, represented by (almost) the largest structure on the site, was of a form that may have been a regional development within the Roman period.

The largest excavated 'structure' in terms of ground area was, however, the polygonal shrine, although it is doubtful that this was completely (if at all) roofed (see above). The importance of the location of this structure, and the extent and the long-term (relative) integrity of the associated open area, discussed above, indicate the significance of this feature for the settlement as a whole. Understanding the associated cult is, however, extremely problematic, since there is no obvious votive material associated with the structure and the unfortunate absence of faunal remains removes another possible line of enquiry into the nature of activities associated with it. The remarkable

concentration of coins in waterhole 796, quite close to the shrine on the opposite side of the Canterbury road and (perhaps fortuitously) on the central axis of the shrine and its enclosure, is strongly suggestive of votive material, albeit with some indications of re-deposition. It is not clear, however, if the waterhole was a focus for votive deposition in its own right, or was used as a final resting place for material that had originally been deposited in and around the polygonal shrine. If the former, the coins shed no further light on the nature of the cult of the shrine. It is possible that, as has been suggested at Heybridge (Atkinson and Preston 1998, 98-100), the cult did not involve extensive votive deposition (Booth 2001, 18), but this would be quite unusual for a shrine which is clearly of much more than domestic significance (G Woolf, pers. comm.). The relatively poor preservation of this part of the site may be the principal factor in significant loss of the relevant material. The presence of nuts of *pinus pinea* in the central feature, discussed previously (Booth 2001, 18-19) is, however, a pointer to the nature of religious practice. While there is increasingly widespread evidence for finds from potential domestic as well as religious and funerary contexts it would be perverse to interpret the only find of *pinus pinea* from Westhawk in this way. The associations with known temples and shrines do not allow the use of cones of *pinus pinea* to be linked with a specific deity, but the fact that the cones were at least initially imported into Roman Britain argues for a more cosmopolitan aspect to the cult than might have been guessed from the form of the shrine. The integration of other aspects of religious practice into wider north-west European norms is also indicated in a small way by the presence within the settlement of a fragment from a pipeclay figurine.

Hilary Cool (Chapter 5 above) has discussed the unusual character of the grave goods associated with the adult male cremation grave 5090, and parallels for the association of male burials with 'jet' jewellery and (sometimes) other objects. In one case the individual has been interpreted possibly as a castrated devotee of Cybele (Cool 2002, 41-2). It is not completely impossible that the Westhawk Farm individual should be seen in a similar way, although it would be mischievous to make too much of the association of the pine with the worship of Cybele (Kislev 1988, 77). Whatever his religious affiliations, this person is a reminder that some of the inhabitants of Westhawk Farm may have been rather more colourful than our evidence generally suggests.

The place of the site in the regional settlement pattern

The roadside settlement of Westhawk Farm is the first site of its type to be identified in Kent south of the Downs. Its location in relation to the major road pattern is entirely logical in terms of the sort of distribution of such settlements that can be seen for example in East Anglia (eg Gurney 1995, 54; Plouviez 1995, 65-70; Millett 1995, 31-34; Going 1996, 96) or in the

midlands, but in Kent the distribution of such sites is essentially confined to the line of Watling Street in the north of the county (Smith 1987, 132-9), with another possible roadside settlement at Hersden some 6 km north-east of Canterbury (*Archaeologia Cantiana* 122 (2002), 346-7) and a further probable example at Dover, though the true scale of civilian settlement there is not easy to judge. The existence of additional major settlements in the region may be predicted, perhaps for example at Lympne or Folkestone (Rigold 1972; Burnham 1989, 16) and at Maidstone (see above), but whether such sites existed further west in the Weald is perhaps questionable. On this basis Westhawk Farm may have been sited at an interface between a distinctly 'Wealden' settlement pattern and the heartland of the Cantiaci to the east. The character of settlement in the latter area, however, was by no means uniform, for while the Medway valley and parts of the northern coastal belt contained a number of villas the Chartland and the Downs to the north-east of Ashford were not characterised by such sites. On present evidence, settlement of any kind on the clay with flints of the Downs does not seem to have been very common.

As for the settlement pattern of the Weald itself, far too little is known in detail for its characteristics to be clear and again there may have been considerable local diversity. The extent to which the settlement pattern was dominated by sites devoted to iron production is unknown, but an admixture of agricultural settlements must be likely (eg Aldridge 1998). With regard to the iron producing sites, these varied considerably in size, but how this translates into structure density and morphology is simply not known. It remains possible, therefore, that a further site or sites of similar character to Westhawk Farm could have been located in this area serving as a local centre at a communications node – on which basis sites at Bodiam (Lemmon and Hill 1966) or Little Farningham Farm, Cranbrook (Aldridge 2001) might be amongst the best contenders – but it is equally possible that the nature of activity in this area did not require such centralised facilities. Even more speculative is the question of whether the apparent lack of focal settlements in the area was a consequence of its possible status as an imperial estate, or whether the character of the settlement pattern was determined simply by the nature of the economic basis of its component sites.

Whatever its status in terms of land ownership, however, the evidence of size, settlement morphology and functional diversity, both from structures and artefacts, indicate that Westhawk Farm served some if not most of the roles normally associated with a small town or local centre. These would have included provision of services by craftsmen providing for the surrounding communities, which may have been largely agricultural in character but possibly included other sites at which iron production was a major concern. The range of craftsmen conceivably included a specialist producing black jewellery from locally available lignite. The existence of a market

centre may be implied by the definition of the focal road junction area. It is also possible that local administrative functions were performed here, perhaps alongside specialised administration specifically related to iron production in the area. The shrine complex, a significant feature of the south-western part of the settlement throughout its life and, interestingly, perhaps surviving as late as any activity within the settlement as a whole, may have been an important focus not only for the people of Westhawk Farm itself but for a wider community.

While serving as a local or regional service centre for a range of agricultural and perhaps other communities it should not be forgotten that the establishment and development of the Westhawk Farm settlement would have had a more direct effect on some of these sites. This can be seen at Brisley Farm, where occupation was in decline in the later 1st century AD and did not continue after the early 2nd century (Casper Johnson, pers. comm.). At Waterbrook Farm, east of Westhawk Farm, settlement of late Iron Age-early Roman date similarly ceased in the early 2nd century at the latest (Rady 1996, 39). This was the time of major expansion at Westhawk Farm, and while it is impossible to prove it is quite likely that at least some of the population of these sites were drawn to the developing centre. The consequences of such a move for the continued agricultural exploitation of these sites are unclear. Another consequence of the development of Westhawk Farm, however, might have been to provide an impetus to increased agricultural production elsewhere in the area. This assumes that the settlement was not entirely self sufficient in agricultural produce, an assumption which cannot be proved from evidence within the site itself, but can perhaps be suggested retrospectively from the decline of some rural settlements in the region contemporary with or consequent upon the major decline of the site from the mid 3rd century (see below).

The end of the settlement and its implications for the region

The early end of occupation at Westhawk Farm has been noted several times already. Although (as again already indicated) the evidence is strongest for the peripheral area of the settlement, it still seems clear that by the middle of the 4th century at the latest the site as a whole was a mere shadow of its former self. As far as the main excavated area is concerned, occupation had effectively ceased by the middle of the 3rd century. This characteristic is very striking. Does it conform to a wider pattern or is it peculiar to this site?

There is increasing evidence for differences in the broad character of settlements in eastern and western Britain with regard to questions such as patterns of coin loss (eg Reece 1995b). Such evidence can be taken to suggest a decline in the level of activity in a number of major settlements in eastern England before the end of the 4th century, in contrast to the situation observed further west (eg Reece 1998, 421;

Moorhead 2001, 95-6). In Norfolk, however, this is not particularly apparent before the last quarter of the 4th century at the earliest (Davies and Gregory 1991, 91) and a similar pattern can be observed for Suffolk (Plouviez 1995, 74-5 and 78). At Heybridge, Essex, in contrast, peripheral areas of the settlement were largely abandoned by *c* AD 200 (Atkinson and Preston 1998, 100). Occupation of the central area continued right through to the end of the Roman period, however, and coin loss seems generally to have followed a fairly 'normal' pattern (*ibid.*, 105). Interestingly, the temple at Heybridge was seen as 'perhaps the only building which survived through the whole of this later period' (*ibid.*, 101).

With the possible exception of Heybridge none of this evidence indicates settlement decline as early as it appears at Westhawk Farm. Within Kent most of the evidence from a range of sites, particularly in the northern part of the county, seems to follow a fairly 'normal' chronology, with structural sequences and coin loss patterns indicating occupation as far as the well-known limitations of the dating evidence allow it to be traced. Thus late Roman sequences can be observed at Canterbury and at Springhead (Burnham and Wachter 1990, 198), although certain late Roman activity at the latter site may have been localised (OWA 2006) and the suggestion that parts of the settlement may have been in decline is mirrored precisely by the scarcity of late Roman burials in the associated Pepper Hill cemetery. Meanwhile at Rochester the structural evidence for late Roman activity is unclear, but there are substantial numbers of late coins (Flight and Harrison 1978, 37, 44-54). A similar situation prevails at a variety of villas (Detsicas 1983, 181-2) including Lullingstone, where the coins cover the full range of the Roman period up to and including the House of Theodosius (Reece 1987).

Further south, however, the situation appears to be rather different. The evidence for significant decline in the level of activity at Westhawk Farm is notably coincident with the demise of a number of iron-producing sites in the Weald to the west and south-west. These include the important sites of Bardoun and Beauport Park, the 'closure' of which is dated between AD 220 and AD 240 (Cleere and Crossley 1985, 84-5), while at Little Farningham Farm, Cranbrook, occupation may have ceased 'by the second half of the second century' (Aldridge 2001, 155). It is well known that the *Classis Britannica* fort at Dover had ceased to be occupied by the early 3rd century, a date of *c* AD 210 for its abandonment being favoured by the excavator and subsequent commentators (Philp 1981, 94-7). The very striking similarity between the profile of coin loss there and that at Westhawk Farm has been noted above (coins from the *Classis Britannica* fort of the period *c* 218-259 (12 out of 86 coins from the site) were all from deposits post-dating the demolition of the Period III fort or were unstratified (*ibid.*)). It is possible that the fleet retained an existing base at Lympne, or transferred its base there (Detsicas 1983, 176) up until its disappearance from records about AD 250 (Cleere

1989, 22). At the Dover 'Painted House' site the *mansio* buildings outlived the *Classis Britannica* fort but were superseded by the construction of the Saxon Shore fort, perhaps about AD 270 (Philp 1989, 282-3) or possibly a little later (Wilkinson 1994, 71-2).

Closer to Westhawk Farm, three rural settlement sites recently examined in Headcorn and Ulcombe parishes are dated between the mid 1st and the early 3rd centuries (Aldridge 1998, 7) and at Runhams Farm, Lenham, the occupation was essentially of 1st-2nd century date, with only limited evidence of later activity (Philp 1994, 42-44). The best evidence, however, now comes from Channel Tunnel Rail Link (CTRL) Section 1, which contained a significant number of rural settlement sites. At Bower Road, Smeeth, occupation was on a much reduced scale after about AD 270 (Diez forthcoming), while the main villa building at Thurnham seems not to have been occupied after the later 3rd century, although there was some occupation of the site into the late 4th century (Lawrence forthcoming). Many of the sites with less substantial structural evidence had more restricted chronological ranges, however. Consideration of the pottery evidence from the 15 principal CTRL assemblages (see above) shows that of the 6 assemblages in which late Roman material was present at all only one (Hazells Road, in north Kent near Springhead) consisted principally of pottery of this date. In all other cases, including Thurnham and Bower Road mentioned above, late Roman material was much less common than earlier pottery. In other words, out of 15 sites, 9 had no occupation at all after the 2nd century and a further 5 had activity at a significantly reduced level by the 4th century if not earlier. This evidence complements and expands that of Pollard's study of Roman pottery in Kent (1988), which included relatively few assemblages from this area, of which only Lympne, Dover and a group of sites at Wye contained significant 4th century components. It can now be seen that the dearth of specifically 4th century sites is indeed as significant as it initially appeared. A number of other rural settlement sites in the area east of Westhawk Farm saw either a cessation or a significant change in the character of activity in the later Roman period (K Parfitt, pers. comm.), although this cannot as yet be quantified.

The later part of the chronological range of Westhawk Farm thus appears to be closely (though not necessarily exactly) correlated with that of a number of major iron producing sites in the Weald, with the (possibly related) *Classis Britannica* fort at Dover, other non-Wealden iron-producing sites such as Lenham and Wye (Detsicas 1983, 176), and also with a number of other rural settlements, such as Smeeth, in the immediate area, although yet others, including many of the CTRL sites and further sites in the Maidstone area such as Queen Elizabeth Square (Booth and Howard-Davis 2004) had already ceased to be occupied by the end of the 2nd century (at the very latest). It is less clear if the development sequence of other sites a little further east is comparable, but this is possible. The pattern, therefore, appears to

be a sub-regional one. It cannot be certain, however, that a single explanation will account for what must, within this sub-region, have amounted to a significant disruption of the settlement pattern, probably in two distinct phases, roughly of mid 2nd and mid 3rd century date. The broad synchronicity of the abandonment of a large part of the Westhawk Farm settlement and a number of the most important iron producing sites in the eastern Weald, subsequent to (though not necessarily consequent upon) the abandonment of the *Classis Britannica* fort at Dover, certainly suggests that some reorganisation of the iron industry might be invoked as a contributory factor to the 3rd century phase of site contraction and/or abandonment. In the case of Westhawk Farm it is unclear if it was the iron production itself or, perhaps more likely, this in conjunction with a range of associated support services, whose removal precipitated a significant decline in the scale of activity in the settlement. Its effective demise as a major local centre, however, inevitably had a consequence for components of the surrounding settlement pattern, perhaps including sites such as Smeeth, for whose agricultural surplus Westhawk Farm likely served as a major market.

Whether the effects of this development were sufficient to provoke the sort of changes seen a little further afield at sites like Thurnham, is unclear, but this is possible. There, and presumably elsewhere in the vicinity of Westhawk Farm and in the eastern Weald, though the evidence is largely lacking at present, some occupation continued. The countryside cannot have been totally abandoned; nevertheless the scale of disruption of the settlement pattern is such that there is likely to have been some localised depopulation, at least. This raises a wide range of questions about the mechanisms of such an operation. Was this a gradual trend or a well-defined, sharp change? Were people impelled or induced to relocate and, if so, how and how far? Was this simply a local phenomenon or did, for example, specialist ironworkers and their dependants move out of the region altogether to other centres for their trade? Was the motive force behind these developments provided by free-market economics, local elite control, state control or some other mechanism? The evidence from Westhawk Farm cannot itself answer these questions, but in combination with other new data for the region it does at least allow them to be framed more clearly.