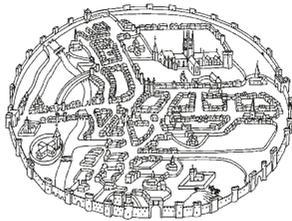


CANTERBURY'S ARCHAEOLOGY 2008 – 2009

33rd annual report of the Canterbury Archaeological Trust





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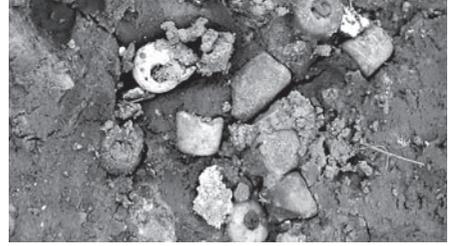
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33rd ANNUAL REPORT



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EXCAVATION

Thanet Earth, Monkton

Jon Rady

The background and earlier stages of this project were detailed in last year's report (Rady 2009). A description of the investigations carried out from April 2008 and a summary of the discoveries as a whole can now be presented. The site, known as 'Thanet Earth', is a large, 90 hectare (c 222 acres) industrial-agricultural development, between Birchington and Monkton (near Margate)

on the Isle of Thanet, Kent (TR 289 667 centred), which involved the formation of eight extensive plateaus, seven for large greenhouses and one for a packhouse. These required considerable re-modelling of the landscape through cut and fill works, with the higher parts of each area excavated to formation level, and the resultant spoil placed on the lower areas to form a consistent level platform across each site, upon which the various facilities could then be built. Further areas involved were seven large ponds (for the collection and re-use of the rainwater from each greenhouse), three overflow

ponds and a new access road along the eastern side of the site.

All areas destined for ground reduction, or to be disturbed by new or rerouted service easements were examined archaeologically by a process of strip, map and sample excavation such as is commonly employed in Kent, and to a specification supplied by KCC Heritage. By the middle of October 2008, 460,940 square metres of the Thanet landscape had been examined in detail, with nearly 5,000 features sample excavated and recorded.

Stratigraphic analysis of the features examined at Thanet Earth is still ongoing, and much more work needs to be carried out on the artefactual and other assemblages before a more definitive picture of the various phases and their chronology will emerge. The following description is therefore only an interim statement, based on the present state of knowledge of the site.

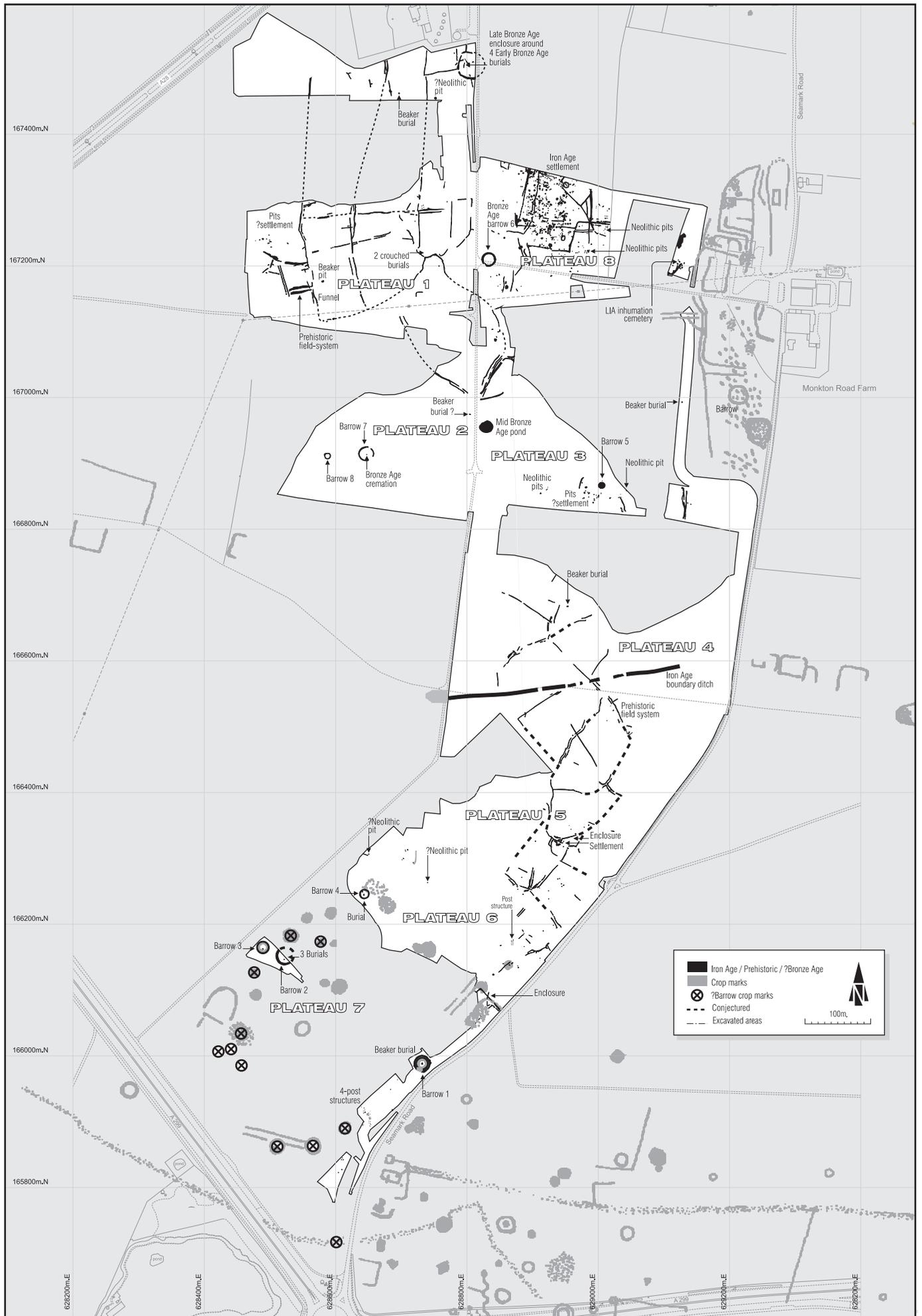
Late Neolithic/early Bronze Age features

Apart from a few potentially Neolithic pits, the earliest demonstrable remains discovered at Thanet Earth so far, date from the final Neolithic/early Bronze Age period (c 2500–1850 BC). These features primarily consisted of ring-ditches, representing the ploughed out remnants of round barrows or funerary mounds, of which six were either completely or partially excavated, and crouched inhumation burials, either associated with these monuments, or isolated burials in so-called 'flat graves'. Seven of these interments were typical Beaker period burials, that is, they were accompanied primarily by a ceramic beaker vessel and in some cases other grave goods.

Barrow 1 and the background to these monuments in Thanet was described in last year's report. Two other ring-ditches, probably of a similar period were found on Plateau 7 (Barrows 2 and 3) and one each on Plateau 6 (Barrow 4), Plateau 3 (Barrow 5) and Plateau 8 (Barrow 6). Apart from Barrow 5, these monuments were situated on ridges of higher ground or the more elevated slopes of valleys, though never at the highest points. These locations, often 'false crests' in the local topography would in most cases enable the mounds to be seen from some distance.



Barrows 2 (top) and 3 after excavation, looking east. Scales 2m.



Barrow 2

Barrow 2, about 30m in diameter, with about half of its single ditch circuit exposed, was located at the extreme north-west end of Plateau 7 and was the largest of the barrows examined. The ditch was correspondingly massive at 2.4m wide and 1.3m deep (on average) with sides cut steeply to a flat base. The primary fills contained very few finds apart from a few Bronze Age potsherds, some animal bone and possible flint knapping waste. The upper fills were more productive, and included a discrete deposit of midden waste, including pottery, worked flints, animal bone and fired clay. Such deposits within the secondary fills of barrow ditches are usually interpreted as the remains of ritual feasting held near to the barrow when the ditch was obviously still open. The latest fills in the ditch yielded a fragment of human skull, more likely to have been redeposited from a burial within the mound as it was levelled, rather than purposely interred in the ditch, along with a concentration of flint-tempered sherds possibly of a later Bronze or early Iron Age date.

All of the barrow mounds on Thanet were levelled in antiquity, probably by a combination of ploughing and erosion. However, Barrow 2 provides evidence that some mounds may have survived to relatively recent times, as do perhaps two (probably middle Bronze Age) barrows on Plateau 2 (Rady 2009, 19). A 0.1m deep eroded lynchet which followed the internal circumference of the ditch on its southern side was set back about a metre into the interior. This had left a higher level of natural chalk within the ring-ditch interior, relative to the lynchet base on the inside of the ditch and the chalk exterior to the barrow generally, presumably implying that the area beneath the mound had been protected from plough truncation. Further, an eroded hollow way, running north-south skirted the western edge of the barrow cutting into the upper fills of the ditch, suggesting the mound was present, albeit perhaps degraded, when the route was in use. Dating evidence suggests that this trackway was in use during the medieval period.

At least some of these upstanding monuments appear to have provided markers in the landscape long after their original use, acting as navigation points across what was probably fairly featureless ground at a time when much of the area seems to have been denuded of its trees (as it remains today). There is evidence to suggest that much of the upper downland of Thanet had been deforested from the Iron Age, if not before (Moody 2008, 118). These lines of sight appear to have formed into established trackways from continual use, at least by the medieval period, and in the case of Barrow 5 (below) may well have had an influence on the position of the parish boundary.

At least five burials were associated with Barrow 2, although none were well preserved. Near the centre of the ring-ditch were two intercutting graves. The earlier grave (S7151), aligned north-west to south-east was, oval in plan, 0.69m wide, 1m long and 0.4m deep. Virtually nothing remained of an interment apart from



One of the Bronze Age burials cutting a ditch of the prehistoric field system on Plateau 1.

a few scraps of bone recovered from the lower fills. This feature was partially cut by a subrectangular grave (S7143), 1.4m long and just over 1m wide, with its longitudinal axis orientated north-east to south-west. The feature, only 0.12m deep, contained a crouched, juvenile inhumation with its head at the south-west end. It was in a poor state of preservation and the skull and neck had slumped into the earlier grave which suggests either the secondary burial was inserted not long after the first, before its fill had time to compact, or that the earlier burial had been exhumed. This raises interesting issues about the funerary re-use of these monuments (also possibly present in Barrow 1). Despite the central position of both burials and the clear importance of the large barrow there were no accompanying grave goods.

Three other interments were found closer to the edge of the barrow. The southernmost grave (S7157) about 5m from the inside edge of the barrow ditch, consisted of a subrectangular cut, 1.78m long, 1.48m wide and 0.38m deep with its longitudinal axis orientated approximately north-west to south-east. Lying on the base of the grave was a single crouched adult inhumation with the head at the north-west, facing south-west. The overall size of the grave was larger than the space required for the skeleton and may have been intended to accommodate degradable ritual offerings accompanying the body.

Another inhumation (S7573) was found roughly centrally between this and the more central interments and appeared to be oval in shape, 0.91m wide, 1.14m long and 0.11m deep with its longitudinal axis orientated approximately north-west to south-east. This grave contained a single, disarticulated, badly decayed inhumation that comprised skull fragments and a few unidentifiable long bones. The overall disposition of the skeleton was not clear but it was probably in crouched position with the head at the south-east end, facing west. A Beaker pottery sherd was the only other find in the burial. Immediately adjacent on the west was Grave S7646. The true shape and extent of this cut remained unknown

due to heavy truncation, and the feature essentially comprised of a small patch of fragmentary bone within a shallow scoop 0.5m wide, 0.6m long and 0.09m deep. The few bone fragments identified were thought to represent the sparse remains of a very badly decayed, disarticulated skeleton. A few other shallow features of various sizes and shapes found mostly to the west of the burials might represent extremely truncated graves but they contained no human remains. The more peripheral burials and the more central secondary grave S7143 are probably later burials inserted into the pre-existing mound, although it is not yet possible to identify which of the burials was interred first.

Barrow 3

The second barrow exposed on Plateau 7 (Barrow 3) remained as a 19m diameter ring-ditch, completely exposed just 14m north-west of Barrow 2. The 2m wide ditch of this monument was much deeper than anticipated for its scale at about 1.5m–1.7m, slightly deeper than the Barrow 2 ditch. The profile of the ditch was also reminiscent with the familiar steep-sided edges, here nearly vertical towards the flat base. There is tentative suggestion of a later v-shaped recut in the fill sequence, but this may be due to the depth of the ditch in relation to its width, causing a steep angle of rest on the upper surface of the eroded infill material. In addition, this postulated recut was not particularly evident around the full circuit.

The upper levels of the primary fills of the ditch produced a human skull and lower arm bone fragments, again perhaps eroded from a burial within the mound. Above these levels was a discrete deposit of charcoal-rich silt with a markedly higher quantity of finds. This c 0.4m thick layer, similar in many respects to the midden deposit within the ditch fill of Barrow 2, was found within a c 7m length of the ditch and included animal bone (possibly including dog jaws) and some large pottery sherds, probably of prehistoric date. This may be interpreted as evidence

Opposite: Prehistoric features.

for adjacent feasting and possibly for the subsequent selection and deposition of particular items within the half silted barrow ditch. Elsewhere within the barrow finds were in low density, as is typical of all of the other barrow ditches at Thanet Earth, comprising flint debitage and very occasional small potsherds.

The barrow ditch encircled a slightly off-centre inhumation burial, subrectangular in shape, 1.76m by 0.96m in extent and aligned north-west to south-east. The grave was only 0.16m deep and contained a poorly preserved skeleton that had been interfered with or robbed so that only fragments of bone survived. These consisted of lower flexed legs, from which it is postulated that the missing head would have been at the north-western end. Two probable satellite cremation burials were situated just to the west of the barrow ditch, with another cut into the upper fill of the eastern side of the ditch. They were roughly circular in shape and all about 0.5m in diameter. The fills were virtually identical, and although no burial urns were present, two yielded human bone as well as shellfish and charcoal. These are likely to represent continued use of the barrow for burial into the middle or even late Bronze Age/early Iron Age.

Barrows 2 and 3 formed part of a cluster of at least five barrows (based on aerial photographs) in the north-west corner of Plateau 7 and south-west corner of Plateau 6 (here with Barrow 4).

Barrow 4

This monument, located 145m to the north-east of Barrows 2 and 3 (on Plateau 6) was fully exposed and consisted of a single, circular ring-ditch 15m in diameter. The barrow ditch was 1.7m wide and 0.76m deep (on average) with a flat base and gradual to steep-sided profile, primarily filled with naturally accumulated chalk rubble and discoloured clay silt deposits which contained a few worked and burnt flints. They were indicative of the accumulation of sediments following erosion of the ditch and central mound. These were sealed by a series of slightly different middle fills which yielded small quantities of worked and burnt flint, prehistoric pottery and animal bone. The uppermost layers consisted of mostly sterile clay although one sherd of early Bronze Age pottery was retrieved, perhaps disturbed from within the central mound. These final deposits were indicative of gradual backfilling of the ditch caused in part from natural weathering, but perhaps also during periods of purposeful levelling of the mound through continuous agricultural action.

A single grave was located slightly off-centre within the interior area of the barrow. It was subrectangular, 1.27m by 0.7m and aligned north to south on its longitudinal axis. The grave, 0.33m deep, contained the well-preserved remains of an articulated adult inhumation lying crouched on the base facing south-east with the head at the north end. No grave goods were found.

Two clusters of human bone were also found as surface finds within the interior area of the barrow. The first cluster consisted of fifteen small fragments of bone located slightly east of the central burial. Little trace of a cut could be identified although the remains

were found within a shallow scoop in the natural clay. The second cluster was slightly to the south. Both finds were likely to represent the heavily truncated remains of two burials, disturbed by continuous agricultural action such as ploughing.

Barrow 5

Barrow 5 on Plateau 3, about 700m north of Barrow 4, was a less substantial monument comprising a 10m diameter ring-gully some 0.7m wide and 0.4m deep. Interestingly, the barrow ditch was dug as a series of interlinked elongated pit segments which echoes earlier (late Neolithic) practices and which might intimate that this feature was earlier than the somewhat larger ring-ditches found elsewhere. Lying slightly north of the centre of the ring-ditch were two inhumation burials, unfortunately both poorly preserved. Both consisted of subrectangular cuts, the westernmost grave measuring 1.66m by 0.96m and 0.44m deep, with its longitudinal axis approximately north-west to south-east. Lying on the base of the grave was a single, crouched juvenile inhumation with the head at the north-west end facing east.

The second grave was approximately 0.4m to the east, 2m by 1.06m in extent and 0.54m deep, with its longitudinal axis orientated near north-south. A single crouched, adult inhumation was situated at the south end of the grave with fragmentary traces of the skull suggesting that it was probably facing east with the head to the south. The skeleton was accompanied by a crushed ceramic beaker located at the south end of the grave beneath the lower legs and a copper alloy pin (SF38) located below the femur and pelvis. The large space at the north end of the grave suggests that further unpreserved offerings may also have accompanied the body.

The disposition of the burials, although on slightly different orientations, suggests that they must either have been excavated at the same time (thus avoiding intercutting) or the later burial placed with some knowledge of the location of the first. This would have been far less problematic than for the secondary burials in the larger barrows, since the mound must have been much smaller based on the minimal scale of the ditch. The barrow was located on the west side of the valley that runs through the north-eastern area of the site, and was on the line of the medieval parish boundary, here represented by a ditch (extending north from Plateau 4), that cut through the east edge of the barrow but could have avoided a small mound. This placement is unlikely to be a coincidence and would suggest there was a mound over the burials surviving long enough to provide a landmark for a later boundary reference.

Barrow 6

Barrow 6, located on Plateau 8 (370m north-west of Barrow 5) was formed by a complete ring-ditch 21m in diameter. The width of the ditch varied between 1.8 and 2.5m, with the depth between 0.72 and 1.12m. Generally the wider, deeper portions of the ditch were identified on the western side of the barrow as the ground level in this area sloped gently down from west to east. The primary fills of the ditch were virtually

identical with little variation observed, generally consisting of sterile laminated deposits (apart from a few worked flints and animal bone fragments) that were comprised of banded layers of clay silts mixed with occasional deposits of chalk. It is likely that these were derived from the barrow ditch and mound, the result of natural erosion, though the symmetry of deposition meant that no differentiation between the interior and exterior of the barrow could be deduced.

The middle fills, consisting of mixed deposits of silty clays, may have been deliberate infills but no datable material was recovered from these deposits. The upper fills consisted of generally homogenous deposits of silty clay that contained a small quantity of pottery, one sherd of which was Anglo-Saxon in date. No associated burials survived in relation to this monument, although its scale suggests that it was of the same early Bronze Age date as the others.

Once again the barrow was clearly still visible and used as a marker into much later periods. Several unurned cremations were found within 50m of the barrow, but few other features of the prehistoric period. However, the barrow later attracted both an early Roman mortuary enclosure (containing three cremations) and an early Saxon settlement with at least two sunken-featured buildings. Enclosure ditches associated with the Roman phase skirted the seemingly still extant barrow mound and cut into its silted up ditches.

Compared to the concentrations of barrows known near the southern, higher area of the site (of which Barrows 1 to 4 form a part), Barrow 6 is one of a more dispersed spread of similar features, mostly known from cropmarks in fields to the immediate north and west of the development (Kent HER TQ 26 NE 176). It can be noted that the density of barrows increases on the higher ridge north-east towards Birchington, where the topography is somewhat similar to the southern part of the site.

Simple Beaker burials

Beaker burials within so-called 'flat graves' (*ie* without a surrounding ring-ditch) have been found across the site, but with something of a cluster in the northern area. There has been some discussion about whether such burials were in reality 'flat', that is to say, whether they originally had small mounds over them, or very shallow encircling ring-ditches subsequently removed by erosion (Clark 2008, 92–3). Whatever the situation, they are clearly different to Beaker interments within the larger barrows, either primary or secondary and, more often than not, are seemingly isolated in the landscape. Only about a dozen Beaker burials have been previously examined on Thanet, and the project has significantly added to this number, with eight being located on the site (not counting those within barrows), although one crouched inhumation on Plateau 2 did not have an associated beaker, but is almost certainly of the period.

One Beaker burial of this type was found on the eastern side of Plateau 3, one on Plateau 4 and five in the northern part of Plateau 1, all situated on the lower slopes of the two shallow valleys that extend north-south across the northern part of the

site. The burials on Plateaus 2–4 were seemingly isolated crouched inhumations in shallow, mostly subrectangular grave cuts measuring between 1.5–2.5m long and 0.75–1.4m wide with those on Plateaus 3 and 4 accompanied by a single decorated beaker placed near the head. The isolated burial at the northern end of Plateau 1 was somewhat different, however. Here the body had been placed in a crouched position within a circular pit about 1.7m in diameter and 0.6m deep accompanied by two minimally decorated beakers, again placed near the head. The burial had then been sealed by a layer of black silty clay containing much carbon, which had stained the edges of the cut. The base of the pit was burnt red in places, perhaps suggesting that the feature had been used as a fire pit before its subsequent use for burial. Whether the burning of the pit edges, the burial itself and the ensuing deposition of the carbon-rich layer were linked in some way (for example representing different stages of an extended mortuary ritual) or whether a non-funerary feature had been re-used is at present uncertain.

A cluster of three more burials were found about 100m to the north-east of the 'fire-pit' burial, the only burial group of this period found on the site. They were all crouched inhumations, no more than 4m apart and approximately arranged in a line north to south. The two northernmost burials were placed in shallow subrectangular graves about 1.8m long, 0.7m wide and no more than 0.4m deep, and were accompanied by beakers, laid at the feet in one case, by the head in the other (one being a particularly large example). Amber beads, probably from a necklace, were also recovered from the neck area of the former. The third burial was just offset to the south in a near circular grave cut about 1m in diameter and 0.3m deep, and although this had no associated vessel, fragments of beaker pottery were found in the grave backfill.

Close by to the west and seemingly associated with these burials was another subrectangular cut measuring 1.5m by 0.9m and only 0.17m deep; this also contained a Beaker vessel, but there was no trace of a skeleton. It seems likely that this feature was also a grave, and that the remains of the body had completely decayed or perhaps had been disinterred in antiquity. This cluster of graves was found within an ostensibly later subcircular enclosure (probably of late Bronze Age date; see below), lying close to its entrance. This association seems unlikely to be coincidental and it may be that the graves were marked in some way and that they were deliberately incorporated into the later construction, perhaps displaying an awareness of (and respect for) ancestral forebears amongst the people of the late Bronze Age. Alternatively, it may be that the enclosure was originally contemporaneous with the burial group and had been remodelled in the later Bronze Age or early Iron Age.

Detailed analysis and radiocarbon dating of these Beaker burials remains to be carried out, but as can be seen there is quite a lot of variation in their internal arrangements, such as the location of the associated beakers (if present), but there is a quite common trait, that of orientation. Most of the graves (including those within the barrows) were aligned north-west/

south-east or north-south, the only exception being the interment on Plateau 4. In addition, the bodies were mostly interred with heads to the north (where this could be deduced) with again only one or two exceptions including the grave on Plateau 4. There was an approximately equal division between those buried on their left sides and those buried on their right. The north-south orientation of Beaker graves seems to be the predominant trait on Thanet (although east-west alignments do also occur; see for example Bennett *et al* 2008, 15–21; Moody 2008, 79–91; TFTA undated), whereas most, if not all, previously recorded examples have been interred on their left hand sides; the reasons for these various dispositions are as yet unclear.

Two other crouched burials were also found on (Plateau 1), though none of these were associated with beakers, and it is possible that they date to a later part of the Bronze Age (below). A better chronology for these and the other prehistoric burials from the site may only be possible after they have been radiocarbon dated.

Settlement evidence is still rare for this period in Kent, (as elsewhere in the country; Champion 2007, 85–6), and Thanet is no exception; no Beaker period settlement has yet been discovered (Moody 2008, 82). Most aspects of society and how or if the landscape was organised remain enigmatic; Thanet Earth has provided little evidence, as apart from the burials only a few other features containing Beaker material were found. The funerary evidence, although diverse (Parker Pearson 1999a, 86–90), is therefore the main source of information for the period, with the potential for providing an understanding of various aspects of contemporary society. Certainly for the very early Beaker period it is possible to envisage the use of Beaker material culture alongside Neolithic material culture (and a largely Neolithic way of life), with the gradual adoption of the former by social groups during the course of the early Bronze Age (or 'Chalcolithic').

Middle to late Bronze Age

Potentially middle to later Bronze Age features, such as the two ring-ditches (Barrows 7 and 8) and

the more certainly dated pond on Plateau 2 were described in last year's report, as was the settlement focus on Plateau 5 (Rady 2009). Further settlement of the period may be indicated by a number of partially revealed enclosures and other features on the eastern rim of Plateau 6, just to the north of Barrow 1, but the dating evidence is presently insecure.

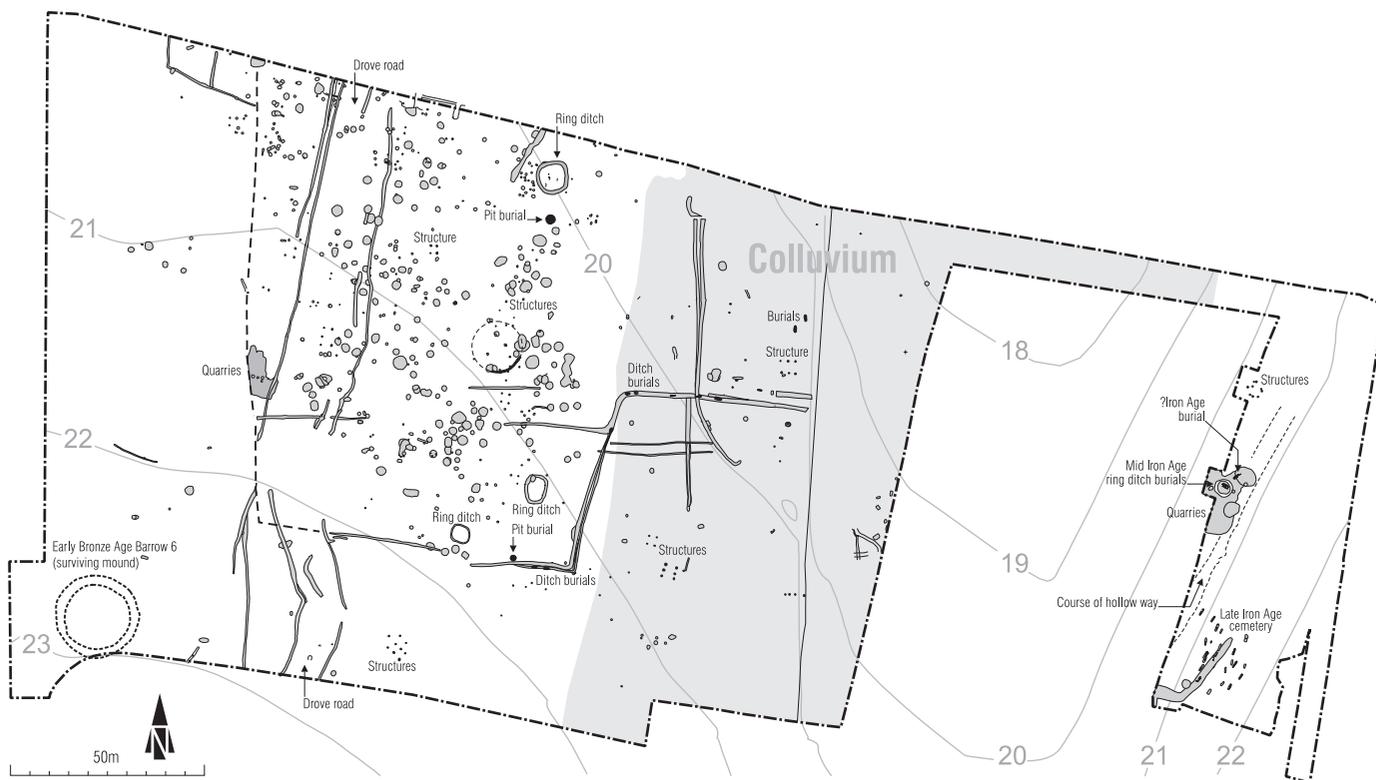
Field system

Further analysis of an intermittent network of meandering ditches, found over much of the site, is required before they can be more closely dated, although they would almost certainly seem (on stratigraphic grounds) to predate the Iron Age. These features were generally very shallow and usually contained little dating evidence, but what there is suggests a middle to late Bronze Age origin, although some parts of the system on Plateaus 1 and 8 might belong to the Iron Age. These sinuous ditches probably represent the eroded remnants of field boundaries, or where paired, droveways for controlling livestock, a type of field system that is common in southern England, and being increasingly recognised in Kent. This wide ranging organisation of the landscape, not seen before this period, perhaps reflects a 'profound change in many features of society' (Champion 2007, 97–101).

The chronology of the origin and adaptation of field systems of the Bronze/early Iron Age has proved difficult to determine in many previous excavations, due to lack of dating evidence (partly because of small sample sizes), scarcity of absolute dating (such as radiocarbon dating) and other factors such as the tendency for curation and/or residuality in the assemblages (Yates 2007, 139–40). Some important confirmation of date has been provided at Thanet Earth by the discovery of two adjacent burials, cut into the fill of a field ditch of the system on Plateau 1. The alignment of the burials with the ditch indicates that although the ditch was at least partially silted, the boundary was certainly still present. Both burials were prehistoric crouched inhumations, one with legs so unnaturally flexed that they must have been very tightly bound together. Radiocarbon dating of one of the burials has confirmed they are middle Bronze



The crouched burial on Plateau 1. (Scale 0.5m).



The Iron Age settlement on Plateau 8 and associated features.

Age and quite early in the period (c 1500–1400 cal BC), which confirms that at least this part of the field system is of this date or earlier. At the north-eastern limit of the site, the relationship of the subcircular, possibly late Bronze Age, enclosure with some of the immediately adjacent field ditches also signals their coeval nature, although some of the ditches here were cut by the ringwork (and therefore earlier).

The orientation of this field system trends most prominently to a north-west/south-easterly alignment, with associated perpendicular elements, the former cutting across the grain of the contours. Apart from elements of the system on Plateau 1, the arrangement is looser than the more rigidly coaxial fields and droves commonly seen elsewhere, which tend to ignore topography (Yates 2007, 15), but similar, more curvilinear arrangements are not unknown (*ibid*, 89). The more regular north–south alignments in the northern part of the site may indicate that parts of the system are later in date, perhaps later Bronze or early Iron Age, as ditches of this period associated with the major settlement to the east (below) are more prominently disposed in this way, as are the much later Roman and medieval fields (as is the modern arrangement in this part of the site).

The ditches would have possessed a low adjacent bank, derived from the upcast of ditch excavation, probably surmounted by a hedge (a wattle fence has been suggested on some sites; Yates 2007, 142) providing a more definite boundary than a ditch alone. Many of the features found in other similar stock-handling field systems can be discerned (particularly on Plateau 1), perhaps here with an emphasis on sheep rearing, such as the meandering drove roads, funnel shaped ‘crushes’ to coerce the livestock into specific areas and possibly ‘races’ used for the inspection and sorting of sheep (Prior 2001, 415–8), although there

does not seem to be a great number of water holes that are usually associated with such systems.

Settlement enclosure

In the north-eastern corner of the site was a subcircular ditched enclosure, probably of late Bronze Age date, surrounding an area 41 m long and at least 28 m broad (its eastern side lay outside the area of excavation). It may represent a small domestic settlement, though this is inferred from a comparison with other, similar enclosures where such an interpretation is possible; here, the interior of the enclosure revealed few features apart from a charcoal-filled pit, but this could quite easily be due to subsequent truncation. In Kent subcircular enclosures of a similar scale, 40–50 m across, are known from Highstead (two enclosures of about the same size as the Thanet Earth example, one (A24) also being of very similar shape (Bennett *et al* 2007, 25–6)), from Chalk Farm, Ramsgate, (c 50 m diameter; Shand 2001) and others have been found both on Thanet and elsewhere in north-east Kent (Champion 2007, 105). They represent part of the proliferation of settlement sites that can be seen during this period, particularly along the coastal margins. If this enclosure does represent a domestic settlement, which seems likely, it is interesting to note the seemingly deliberate use of a location previously used for four Beaker burials (see above).

Iron Age settlement and landscape (c 800 BC–100 BC)

Re-aligning the landscape

At some time, possibly in the early Iron Age, a more east–west/north–south landscape orientation appears

to emerge, particularly in the central area of the site when a major boundary defined by an east–west aligned ditch (on the junction between Plateaus 4 and 5), was imposed on the landscape. This ditch, 3 m wide and 2 m deep, was traced for nearly 350 m along the southern edge of Plateau 4 and probably had an associated bank to the south. Such extensive linear earthworks, often cutting through earlier field systems, as here, and sometimes called ‘ranch boundaries’ are typical of the early-middle Iron Age in southern Britain (Cunliffe 2005, 420–1), and suggest the emergence of a different socio-economic pattern, requiring the separation of the landscape into more well-defined territories (*ibid*, 30). This major boundary influenced the development of the subsequent Roman, Saxon and medieval landscapes, a fact confirmed by its partial incorporation as a section of the parish boundary between Monkton and St Nicholas-at-Wade.

Heavily eroded lengths of ditch at the western side of Plateau 6 may represent further field boundaries of this period, but they were extremely fragmentary; Iron Age field ditches however, are known from elsewhere in Thanet (Moody 2008, 120).

Isolated timber structures

The structural evidence from the southern part of the site is represented by isolated buildings, a small number of simple square and rectangular post-built structures, including a concentration of four-post structures about 100 m south-east of Barrow 1 and another post-built timber structure on the east side of Plateau 5. The latter comprised a row of four posts with two more perpendicular to the end posts, forming a rectangle 2.5 m wide and about 6 m long. Such features are usually interpreted as raised granaries, fodder stores or even mortuary platforms

and usually date from the later Bronze to middle Iron Age; similar features were found on Plateau 8 (below). The structures were almost certainly outliers of a more concentrated area of settlement that remains undetected.

An Iron Age settlement

The main evidence for Iron Age activity however, comes from Plateau 8. This important settlement site is one of the few more extensive Iron Age settlements presently known from Thanet (Moody 2008, 118–24). These are often associated with hollow ways, sometimes metallated in the latter part of the period, and it seems likely that the Roman period hollow ways or trackways located on the site (below) have their origin in this period if not before. Although the duration and development of occupation on this plateau has not yet been fully determined, settlement evidence originates in the early Iron Age (or perhaps before) and there would appear to be significant middle Iron Age (c 500–300 BC) activity. Settlements of the latter period are still particularly rare in east Kent (Champion 2007, 118–20).

The site seems to be mostly contained within at least two phases of rectilinear ditched compounds or fields, with a linked curvilinear driveway flanking the west side, all aligned broadly east–west or north–south. The full extent of these compounds was not exposed, but they enclosed an area at least 140m across and in excess of 120m north to south, with the drive extending both north and south of the settlement area. The ditches of this system were not particularly substantial, usually between 0.7 and 1.5m wide and less than about 0.5m deep, too small to have possessed any defensive function.

About 330 pits, mostly of Iron Age date and a similar number of post-holes were excavated, most, but not all set within the enclosed area. Many of the pits, particularly the larger ones, which are similar to Iron Age pits found elsewhere in Thanet and further afield, were probably used for storage (often as grain silos for seed corn retained over winter for spring sowing) and many were large bell-shaped pits typical of the period. Some of the biggest were almost 2m deep and in at least one case severely undercut at the base, possibly to provide cool storage niches

or larders. This perhaps suggests the storage of foodstuffs other than grain.

Large quantities of burnt flint, animal bone (sheep, cattle and pig) and pottery were recovered from the site, a large percentage from the pits. Much of the pottery includes hand-made rusticated wares typical of the middle Iron Age with several sherds painted red (one with linear decoration). However, occupation may have extended into the late Iron Age as some of the large pits in the western area of the cluster contain sherds of wheel-thrown vessels and at least two contained very early 'potin' coins, dated to c 100 BC. A third potin came from one of the settlement's eastern ditches. This is significant as it suggests that this settlement was a primary focus of occupation at Thanet Earth for a considerable period.

Other finds included quantities of non-ferrous slag, possibly indicating some semi-industrial processes taking place on site and almost all of the sampled contexts have provided moderate to plentiful quantities of charred grain, including barley and wheat; chaff and weed seeds indicate waste from crop processing. Other contexts have also provided evidence of other seeds, pulses and even fruit stones. Fish and seafood generally did not appear to form any part of the diet however, a trait noticed on other Iron Age sites (Allison 2009i, 48–9).

Although no definite remains of dwelling houses were identified, a range of other post-hole structures typical of such settlements were present and included at least nine four-post structures and three six-post structures, mainly located on the fringes of the settlement core. One short length of shallow curving ditch in the centre of the area, however, might represent the eaves-drip gully of a round-house of approximately 12m diameter. The location was relatively clear of other features and seemingly respected by an east–west ditch to the south and a series of storage pits to the east.

In addition, three complete ring-ditch features (RD 1–3) were located near the eastern and southern limits of the settlement. These seemed too small (less than 10m diameter) to have been eaves-drip gullies for round-houses, which in any case are predominantly penannular. All were oval or subcircular in form and one, about 7.5m by 6m

Triangular Iron Age loomweights recovered from some of the pits on Plateau 8.



in extent, enclosed two post-holes that may have formed elements of a specialist structure such as a shrine or platform for excarnation. Ritual activity is also suggested by articulated bone deposits within storage pits, including complete dog skeletons in two pits and human skeletons in two others; most of these features would appear to date from the middle Iron Age on the present evidence. Other pits contained often complete triangular loomweights (the most common form in the early to middle Iron Age). Previous work on large Iron Age sites such as Danebury where 'recurring patterns of deposition ... enabled consistent behaviour to be distinguished from casual rubbish disposal' (Cunliffe 2005, 570) have led to the now widely accepted belief that many such objects deposited in pits may have been ritually placed, perhaps as an offering rather than as deposition of domestic refuse.

The perimeter ditches around the settlement focus were also used for inhumation burials with six individuals laid supine and one crouched within the shallow (c 0.4m deep) eastern and western ditches. At least three interments were within graves cut into, but still aligned with, the partially silted ditch. These have all previously been assumed to be contemporary with the Iron Age settlement but a recently acquired radiocarbon date on one of these has indicated it is probably Roman; the remainder await clarification of their exact date.

A more complete understanding of the development of this settlement therefore awaits full analysis of the finds and skeletal assemblages, so for example, the exact chronological relationship of the enclosure or field ditches to the numerous other features is presently unclear, as hardly any stratigraphic relationships between the ditches and other features



Recording a large Iron Age storage pit of the Plateau 8 settlement.



Excavation of a human burial in one of the Iron Age pits.

exist. Early to middle Iron Age sites are often unenclosed by ditches (Champion 2007, 106–7) and this may have been the case here for much, if not all the period of occupation.

The settlement was obviously a major centre during this period, possibly central to a territory or estate partly defined by the major boundary ditch on Plateau 4, 640m to the south. The quantity of pits within a restricted area and in particular the presence of the very large storage pits (more typical of the storage facilities within the hillforts of Wessex than of local sites such as Highstead) may indicate that the site was a congregation centre for commerce, feasting and other social interactions. The potin coins in particular suggest that this site may have been involved with trade, whilst at this early stage of analysis it already appears probable that some of the pottery was imported from the Continent. Detailed analysis of the finds in terms of imports and any other indications of feasting and status will be of particular interest as, even taking into account the length of time the site was occupied, the number and size of the storage facilities suggests the site may have influenced or controlled a sizable territory.

Iron Age burials

Apart from the human remains interred in ditches and pits described above, the area to the east of the settlement appears to have been set aside for burial, with inhumations found on both sides of the shallow valley that directly borders the settlement here. Three inhumations were located on the fringes of the settlement to the north-east, two aligned north–south, the other east–west. The date of these has not yet been firmly established, but on present evidence they would appear to be Iron Age.

On the other side of the valley, about 280m to the east of the settlement, a small ring-ditch (4.6m in diameter) was found cutting into a prehistoric quarry. Slightly off centre within the ring-ditch was a double inhumation burial. Two adult males appeared to have been buried at the same time with one individual having an arm laid over the other. There was little evidence to date either ring-ditch or burials (no grave goods were present), but radiocarbon dating of one of the inhumations has shown that it dates to the middle Iron Age period, contemporary with the settlement evidence to the west. A similarly dated or slightly later grave in a ring-ditch of comparable diameter is also known from one of the Iron Age cemeteries at Mill Hill, Deal (see below; Parfitt 1995, 24–5).

A few metres to the north, also in a grave cut into the quarry, were the poignant remains of a young woman with a newborn/stillborn baby below the pelvis. This mother and child may be roughly contemporary with the double burial, given the proximity and similar bone condition. In this last respect, if these burials are indeed of Iron Age date, the relatively well preserved nature of these skeletons in comparison with some later burials nearby (see below) is slightly perplexing, though bone preservation can vary quite considerably depending on local soil conditions and other factors.



The mid Iron Age double burial at the eastern end of Plateau 8. Looking east. Scale 0.5m.

It may be that these burials form part of a more extensive middle Iron Age inhumation cemetery on this side of the valley, but as most of the valley itself was outside of the area to be developed, this zone was not fully examined.

Immediately to the south of these burials a well-defined cluster of a further twenty-four inhumation burials along with an urned cremation was located, forming what appears to be a complete cemetery. Some of these burials (including the cremation) were cut through the terminal end of a boundary ditch that may be associated with the earlier-middle Iron Age phase to the west. The graves appeared to be deliberately located on the east side of a hollow way, dated by its post-use silts to the Roman period, but as noted above these trackways almost certainly have an earlier origin.

The chalk cut graves, all aligned north–south, were unusual in their extremely narrow oval forms. The preservation of human bone within was variable but generally poor, some of the very shallow graves containing no surviving bone while others held complete individuals. All of the burial positions were extended but, unusually, many were buried on their sides. Two of the burials were interred head to head and may have been related. Apart from two brooches which on initial examination appear to be of late Iron Age date, none of the graves contained any grave goods and few other finds were recovered. However, a recently acquired radiocarbon date on one of the skeletons has confirmed the suspected late Iron Age date of the cemetery.

Inhumation burials and particularly cemeteries of this period are uncommon, but this group would appear to belong to a localised tradition of burial confined to east Kent and Thanet (Champion 2007, 123). This tradition, which may be due to continental influences, has been best demonstrated at Mill Hill near Deal, which has produced evidence for middle and late Iron Age inhumations in two separate cemeteries dating mostly from the second century BC (although some might be earlier; Parfitt

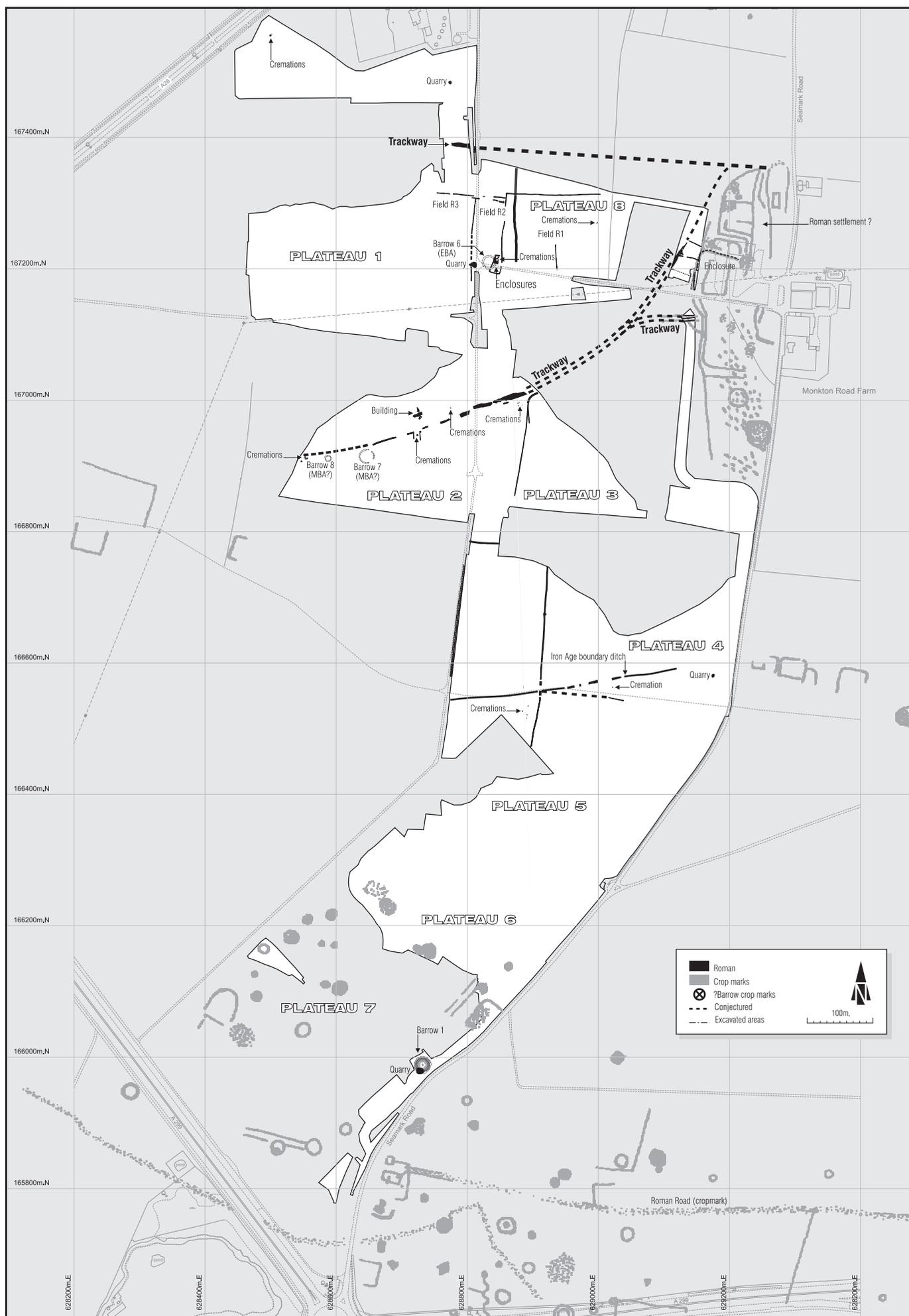
1995, 155–6). These graves were generally small and narrow, as here, and also frequently contained no grave goods (*ibid*, 25). It seems reasonable to suppose that this cemetery is also related to the later phases of the excavated Iron Age settlement, although a connection with the known cropmark complex immediately to the east cannot be ruled out.

Roman settlement (AD 43–410)

Many of the Roman discoveries were described in last year's report – further excavation in 2008 yielded additional details of the Roman landscape but no major settlement evidence. At the eastern end of Plateau 8 additional elements of the ditched paddock-like enclosures (first examined earlier in the year) were revealed and an adjacent hollow way that appears to represent the western extent of the cropmark complex situated just to the east of the examined area, under Monkton Road Farm. Much, if not all of this focus can now be stated as Roman with some confidence, although the late Iron Age burials described above may intimate an earlier origin. Further, an early Roman coin was found by metal detector nearby with a third-century coin in a feature within the 'paddocks' adjacent to the hollow way. The hollow way may be a continuation of that found in Plateaus 2 and 3 (Rady 2009, 18–19) although here it was unmetalled.

Recognition of the cropmark complex as Roman (possibly continuing into later periods) allows the sparse Roman remains across the Thanet Earth site to be placed within a wider landscape context. These include another metalled hollow way at the north-east side of the Plateau 1 site, some 400m west of the cropmark enclosure. The track was orientated roughly east–west (just north of Plateau 8), extending towards the northern limit of the Monkton Road Farm cropmarks. To its south, a number of ditches appear to be of late Iron Age or Roman date, these forming fragments of a rectilinear field system on a similar north–south/east–west alignment, that could be

Opposite: Roman features.





The rich Roman cremation burial found at the north end of the site. An upper tier of vessels and other objects have been removed. Looking west. Scale 0.1m.

traced to the south as far as Plateau 5; one of these ditches contained an Anglo-Saxon *sceatta*, which if not intrusive, suggests that they survived in the landscape for a considerable time. The southern hollow way crosses this grid at an oblique angle, perhaps confirming the route's more ancient origin. In a similar fashion, a long north–south ditch alignment of the system, respects the position of the large Iron Age ditch boundary on Plateaus 4 and 5. The ditches of this alignment terminated just north and south of the feature, the southern terminal perhaps indicating the extent of the adjoining bank.

Roman burials

Possibly associated with the cropmark site was a small (c 10m square) ditched mortuary enclosure cut into the silted ditch of the Bronze Age barrow on Plateau 8 (Barrow 6) and thus situated immediately adjacent to its remnant mound, which must have still been visible. Three shallowly buried Roman cremations were found within, suggesting use as a burial plot. One contained cremated bone with the charred remains of a box, five pottery vessels, two hobnail shoes and an iron implement, whilst another also contained the remains of a box and cremated bone, this time with two pottery vessels (one a samian bowl of later first- or second-century date) and a broken glass vessel. A further small enclosure immediately to the south may represent an extension to this enclosure but no burials or other features were found within. This clustering around the barrow brings to mind the common association of Anglo-Saxon cemeteries with such earlier funerary monuments, and perhaps similar impulses influenced the location of the enclosures and burials. The east side of the first enclosure was formed by part of a north–south ditch which extended across Plateau 8. This ditch must also have had a Roman origin, although an eighth-century Anglo-Saxon coin within its upper fill suggests it also remained as a landscape feature into the Anglo-Saxon period (below).

A single richly furnished early Roman cremation burial was also excavated in the extreme north-western corner of the site, although there was some evidence that additional burials had been erased by ploughing in the immediate vicinity. The cremated bone of at least one (possibly two) individuals within

a pit was accompanied by nine pottery vessels (including two platters, a cup and six jars), three brooches (including two thistle brooches), a lead spindlewhorl and fifteen beads (made from amber possibly from the Baltic region).

This isolated find and the metallated trackways extending west from the site suggest Roman settlements to the west and north. There are a number of known contenders for this occupation including a possible Roman villa or farm, about 700m to the north of Plateau 1 (TR 26 NE 71), and various rectilinear cropmarked enclosures to the west (such as TR 26 NE 51 and 1043) which could be of a similar period.

Anglo-Saxon settlement (AD 410–1066)

Jon Rady and Andrew Richardson

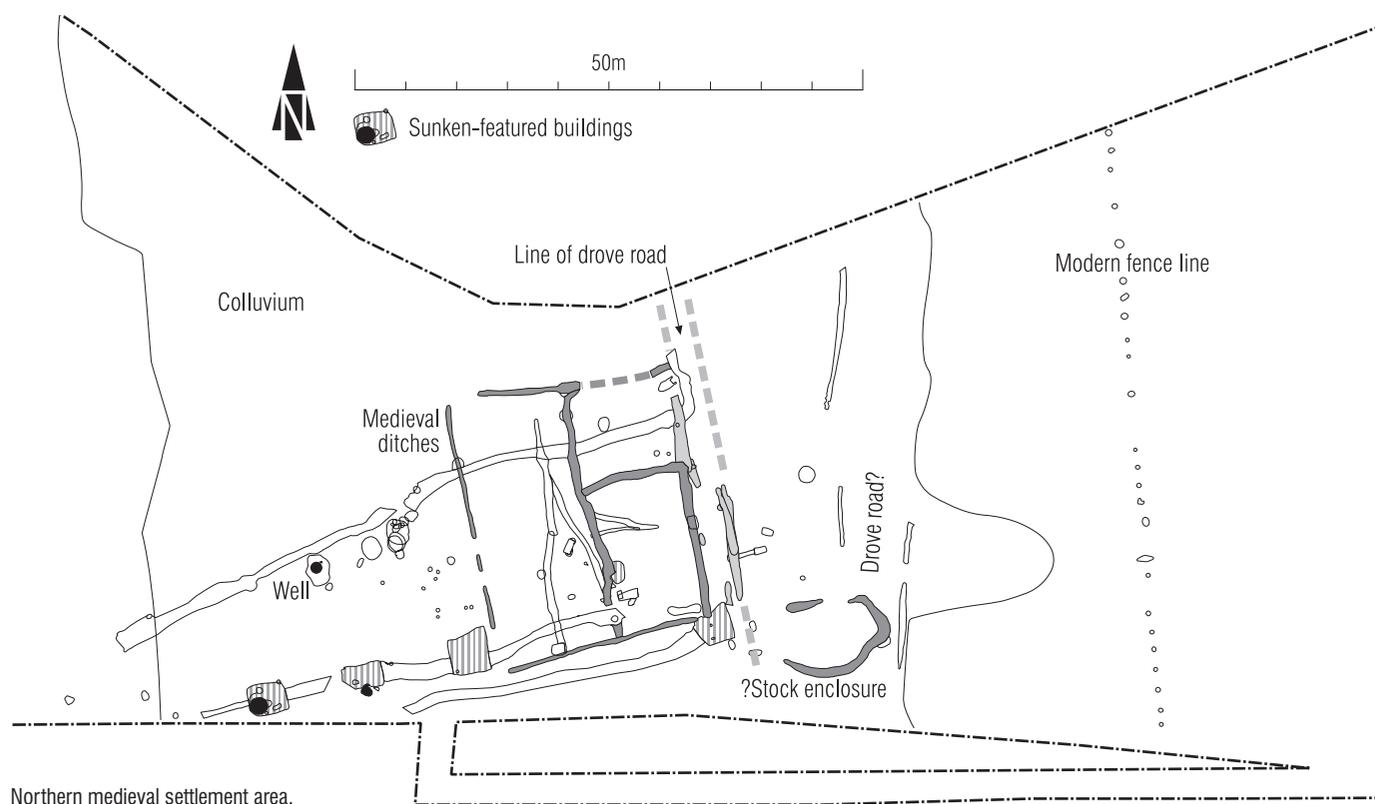
The subsequent Anglo-Saxon period is only marginally represented at Thanet Earth, although a number of interesting finds, possibly from very early in the period were made, mostly on Plateau 8. Virtually no Anglo-Saxon remains were found anywhere else (apart from a few features on Plateau 1), and it is possible that little activity took place over the site as a whole, apart perhaps for agriculture. Some of the Roman and

earlier boundaries certainly continued in existence as landscape features, such as the Iron Age boundary at the southern edge of Plateau 4 and the Roman ditch containing the eighth-century *sceatta* (which indicates that this feature was still open long after the Roman period), but no new extensive field system (or one that has survived) was imposed on the landscape. That farming took place on or near the site is confirmed by environmental finds (such as grain) from some of the Anglo-Saxon features on Plateau 8, but how extensive this was is not readily apparent. However, generally there is no evidence for a large scale abandonment of the farmed landscape at the end of the Roman occupation (Welch 2007, 195), though the situation between the later decades of the fourth century and the period of early Anglo-Saxon settlement remains little understood (Millet 2007, 184).

Although Thanet is well known for its rich Anglo-Saxon cemeteries, settlement sites are still rare, as in Kent generally. Structural evidence is scattered and (apart from a possible nucleated settlement at Manston Road near Ramsgate) only represented by apparently isolated sunken-featured buildings, mostly of the two-post type (Moody 2008, 170). At Thanet Earth, cutting the southern side of the southernmost Roman enclosure adjacent to Barrow 6 was an early Anglo-Saxon sunken-featured structure. The cut for this building was subrectangular, 3.4m long, 2.8m wide and c 0.3m deep, with vertical sides and a flat floor. The structural arrangement of the building was unusual, for it not only had the more common post-holes at each of its longitudinal ends (normally considered to have supported a gabled roof), but three more down each side and one in the south-west corner. This arrangement is not typical of sunken-featured buildings with more than two posts (although there is much variation), as the other three corners had no post settings, the additional post-holes set some way inside the structure away from the cut edge. Even if these extra post-holes are secondary additions, this is possibly the highest number of structural post-holes recorded from a building of this type and date in Kent, although later Anglo-Saxon cellared buildings can have more (for example one in Canterbury; Bennett 1980, 409). In



The nine-post Anglo-Saxon sunken-featured building during excavation. Looking south.



addition a large number of stake-holes, presumably associated with internal structures (such as looms) were cut into the floor, which was covered with domestic debris containing animal bone, abundant shellfish, and charcoal. Environmental samples yielded significant amounts of charred cereal grain, various pulses and seeds; these plant residues have yet to be analysed in detail. An iron knife, a bead, a late Roman coin of Allectus (AD 293–296), a bone weaving point and a collection of late Roman and early Anglo-Saxon pottery was also recovered from the backfill. One of the sherds was a large fragment of bossed urn which should date to the fifth or possibly early sixth century. Another significant find from this structure was a fragment of chainmail recovered from an environmental sample of the fill. Whilst there is a possibility that this represents a curated fragment of late Roman chainmail, its presence at such a location is a surprise, as chainmail is rarely found in even the highest status early Anglo-Saxon burials (the primary exception being Mound 1 at Sutton Hoo). The find at Thanet Earth may suggest that chainmail was actually in more common circulation than the burial record suggests, but presumably it was not normally considered appropriate for deposition in the grave.

A second smaller two-post sunken-featured structure (2.3 by 2.2m in extent) was found just to the west of the enclosure, to the south-west of Barrow 6; this was probably too small to represent any form of domestic residence. This structure seems to have been backfilled fairly rapidly, but quantities of small animal remains from the larger building (again from environmental samples) including as yet unidentified lizard bones, suggest a longer process, with animals inhabiting and dying within voids in gradually accumulating loose backfill.

Two other possible structures of likely Anglo-Saxon date were found further north on Plateau 8, but neither

had surviving post settings, being merely shallow scoops in the ground both of which possessed a metal floor. Other related features included a well and part of an oval enclosure, both a short distance to the south-east. Immediately to the west, the upper fills of a large Roman quarry also seemed to be contemporary, suggesting that it was used as a midden during the Anglo-Saxon period.

The medieval period

A fairly detailed summary of the medieval evidence was given in the last report (Rady 2009, 23–5) and it is not proposed to repeat that here. Rather, a fuller description of some of the more complex areas and unusual associated structures and features will give a better impression of the intensity of activity over the few hundred years between the eleventh and early fourteenth century.

Landscape organisation

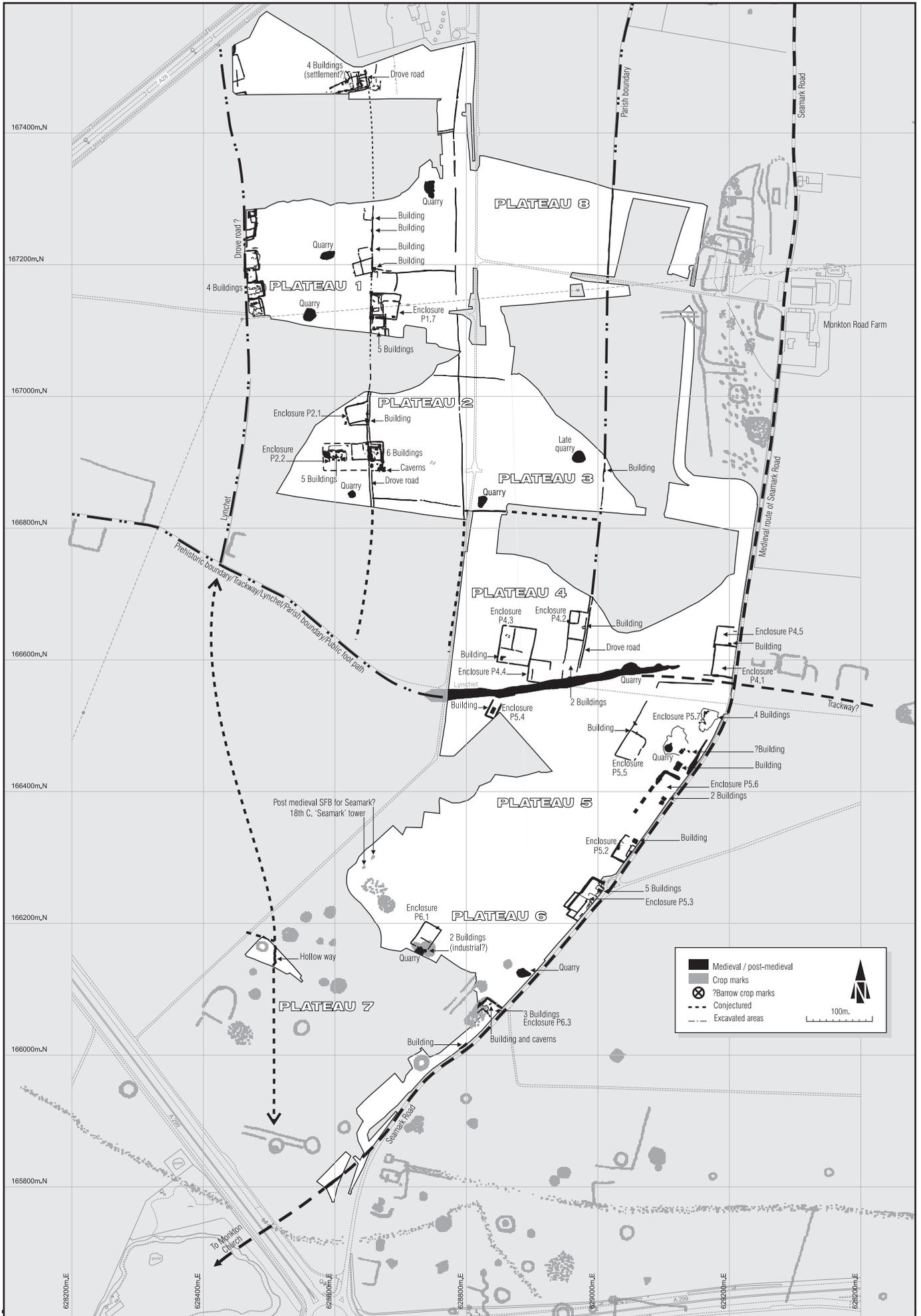
The site is divided into northern and southern segments by the major east–west aligned boundary originating from the large Iron Age ditch and its bank, part of which forms the dividing line between the parishes of Monkton and St Nicholas-at-Wade. This boundary, almost certainly utilized as a trackway by the medieval period, is shown to continue eastwards by the position of rectangular, probably medieval cropland enclosures in fields on the east side of Seamark Road. Other enclosures are visible on air photographs to the west, flanking this line. Seamark Road was also undoubtedly an ancient route between Monkton and Birchington, revealed as a hollow way in the southern part of the site, and bounded on the west by a line of medieval enclosures and their associated buildings.

To the north and west of the parish boundary (in the parish of St Nicholas-at-Wade), the land was partly divided up into a grid of rectangular fields, aligned north–south, some flanked by double ditched drove roads. There was almost certainly another drove road to the west of Plateaus 1 and 2, just outside the site boundary, probably a continuation of the route seen as a hollow way cutting across the edge of Barrow 2 on Plateau 7. This ordered grid appeared to be completely absent in the parish of Monkton. These drove roads and their ditches were bordered by strings of enclosures, all associated with structures, with some areas more redolent of settlement sites containing wells, quarries, pits and other features. To the south, apart from the concentration along Seamark Road, the enclosures were more isolated and scattered.

Northern settlement area

In the pond area north of Plateau 1, a complex zone of features, mostly medieval in date, was revealed in the area of colluvium at the valley base. These features, particularly the ditches were generally shallow and relationships between them were often difficult to ascertain in the field, the fills usually near identical and consisting mostly of eroded colluvial material. Indeed, the site may have been particularly wet during the winter months, subject to flooding and abandoned relatively quickly, a possibility that may be confirmed by dating of the comparatively large pottery assemblage from this area.

The bulk of the remains were located to the west of the line of the drove road that extended from Plateau 2 to the south, and consisted of a complex of intercutting and overlapping enclosure and boundary ditches, often intermittent due to truncation. Other ditches, particularly those following the valley base





Remains of the medieval timber building in Enclosure P1.7 under excavation. (Looking west or south).

and short lengths of gully springing laterally from the main alignments, may have been required for drainage in this relatively low lying position. These, as well as the drove road ditches were recut, either on identical or slightly shifted alignments on a number of occasions, perhaps attesting to the unstable nature of the subsoil.

There was a greater concentration of settlement-type features in this complex compared to some of the other areas of medieval activity, these including at least one well (bored to a depth of 14m), a cess pit, scattered rubbish pits and pit complexes, post-holes and at least five structures of sunken-featured form. Four of these were arranged at intervals along and cutting an east–west aligned boundary or field ditch. The two westernmost buildings were similar to the more common form found at Thanet Earth (and elsewhere in Kent; Rady 2009, 24–5), with a large oven in one corner of the sunken area and adjacent smaller hearth, although there were significant differences in details.

The far western building, about 3.8m long and 3.1m wide, possessed the remains of a large domed oven in its south-western corner, with its superstructure composed of baked clay and chalk, a mixture that has been termed ‘clunch’, used in various forms in many of the structures found on the site. There was evidence that this was a replacement for an earlier oven in the same location, and the clay and flint oven base (or ‘hotplate’) had been renewed on a number of occasions. A smaller hearth was located adjacent to the main oven, as in other examples, and a possible further hearth was located along the southern edge of the structure. The evidence here, and elsewhere in Kent, suggests that these buildings were most likely bakeries (Schuster and Stevens 2009), (with the smaller side hearths being used to ‘raise the dough’ prior to baking in the main oven) although kitchens, malting houses or breweries have also been suggested. Many might have been multifunctional. Environmental analysis may eventually identify possible functions for some structures; this particular building for example, yielded significant quantities of grain and pulses from its occupation deposits, as well as eggshells.

The adjacent building to the east was similar, c 4.1m long and 2.5m wide, but here the main, heavily

truncated oven, about 1m in diameter, appeared to be external to the main cut of the sunken structure on its south side, and raised above the floor of the building. A smaller, subsidiary oven was present in the south-west corner. The two buildings further west were heavily truncated, although one appeared to be mostly featureless internally, whilst the other was too fragmentary to definitively reconstruct, although it did have evidence for the usual type of oven.

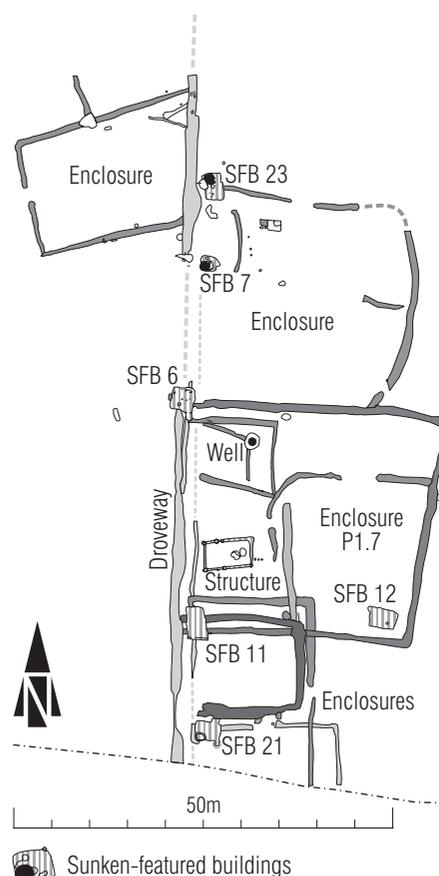
Another structure was evident to the east, here cutting the western drove road ditch at its intersection with the southernmost boundary ditch; this suggests that this structure was later than the others. This position for the placement of buildings, cutting one or other of the drove road ditches and often in the corner of flanking enclosures is quite common on the site and perhaps explained in terms of shelter from prevailing winds, as in these positions the structures would have been in the lee of any banks and surmounting hedges. However, this arrangement would also seem to indicate that the drove routes had gone out of use by this phase, at least for the movement of livestock, although it is notable that the structures, or at least their sunken element, never block the track entirely (although it is possible that their superstructure did). This building, 3.9m wide, 3.6m long and 0.7m deep aligned roughly east–west contained no evidence for ovens or hearths, although two roughly rectangular-shaped sunken areas were observed at the north-west and the south-east ends. They may have represented work areas for specific tasks. The occupation tread of the building yielded fragments of quernstone (suggesting an association with milling and baking?) and an as yet unidentified carved chalk object decorated with incised lines.

Plateau 1 enclosure complex

About 300m to the south of this area on Plateau 1 was another focus of medieval activity, here all constrained to the east of the drove road. A succession of at least four overlapping ditched enclosures (which extended south of the area examined towards Plateau 2), was revealed after some of the colluvium in this area had been reduced. Two superimposed enclosures to the south appeared to be the earliest, although another even earlier enclosure may be represented by a

north–south aligned ditch that was mostly excised by the later enclosure ditches. These enclosures, which extended east from the droveway by about 18 to 24m, were replaced by a much larger overlapping enclosure (P1.7) to the north. This feature, nearly 40m square internally, was subdivided by an arrangement of ditches and its south-western corner occupied by one of the few medieval structures at Thanet Earth that was not of the sunken-featured type.

This subrectangular structure, aligned east–west and 7.9m long by 4.6m wide was delineated by a 0.3–0.8m wide trench, 0.3m deep. This trench probably held the timber uprights for the structure (known as post-in-trench construction) a quite common form of arrangement, although as no remains of post-settings were discerned (except at the corners and at two discrete locations on the long sides), it is possible that the trench originally contained some form of sill beam. The quite large corner post-settings presumably held the principal structural uprights, which seem to have rotted *in situ*, although the impressions or ‘ghosts’ of the original timbers were barely discernible. On the north side of the foundation trench was a 0.2m wide break in the otherwise continuous trench, the gap flanked by two post-holes, presumably representing a doorway, although rather narrow. A third, inserted post-hole here suggests that this entrance was widened to about 0.6m. Two other post-holes on the southern side of the structure may represent an opposed doorway about 0.9m wide, a common arrangement in Anglo-Saxon and early medieval buildings, although



Plateau 1 medieval enclosure complex.

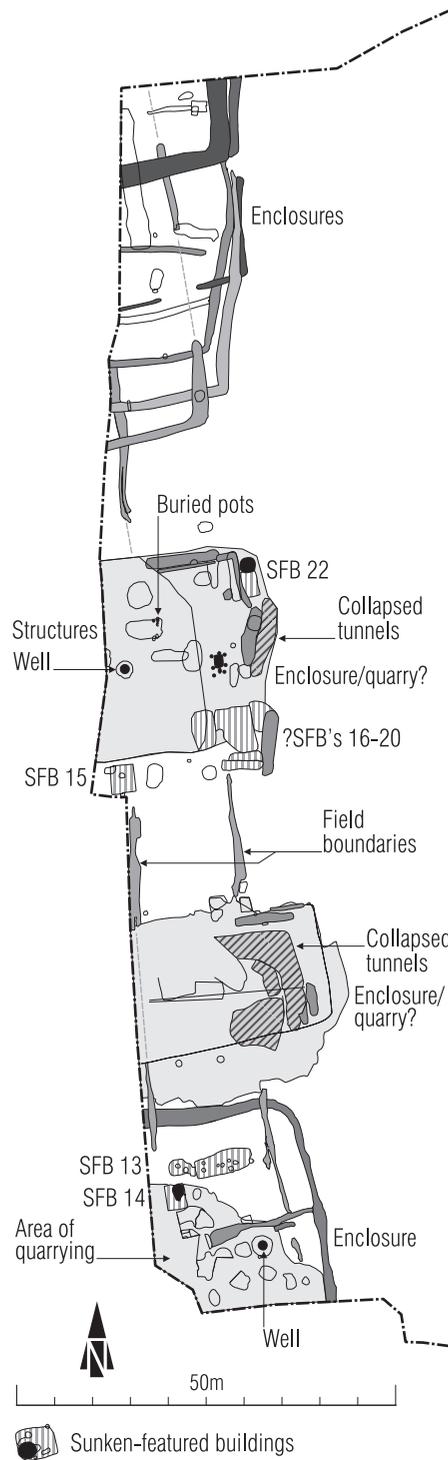
Opposite: Medieval/post-medieval features.

the trench was continuous at this point. Apart from a number of pits at the eastern end, the structure was featureless internally.

This structure can be compared to a form of earthfast timber buildings common from the Anglo-Saxon to early medieval periods (James *et al* 1984), with similarities to some of the twelfth- to thirteenth-century structures found about 1.5km to the south-east on the Monkton–Mount Pleasant road scheme (Bennett 2008), although these did not generally have a near continuous trench defining their perimeter (evidence for end wall lines is often conspicuous by its absence in such structures). The two post-holes in the north corners were eventually recut and this must represent a major repair to the structure, which would indicate some longevity. Large structural post-holes in the four corners are not particularly typical of such buildings however, although building IIA at Monkton–Mount Pleasant was similar in this respect, and of a comparable size. The opposing doors would have marked the position of the cross passage, dividing the building into two unequal sized rooms, the larger the equivalent of the medieval hall, the smaller comprising a service room (or rooms) where food was stored and prepared (*ibid*, 338–9). The arrangement suggests that the structure was a domestic dwelling, while occupation of some permanence is also indicated by the presence of a well in the north-west corner of the enclosure.

As elsewhere, a group of subrectangular sunken-featured structures was also evident in this complex. One of these, a simple rectangular form with no internal features but with a stepped entrance in its north-west corner was situated in the south-eastern extremity of Enclosure P1.7. Two other structures appear to be later, cutting both the enclosure and driveway ditches. One building, aligned north–south on the south-east corner of the enclosure cut the eastern drove ditch and was 3.30m wide, 4.20m long and 0.90m deep. The structure was partitioned at its northern end (by a wall constructed from ‘clunch’) into the two unequal sized compartments that in other structures contained the larger oven and smaller side hearth combination, but here there was no evidence that any such facilities had ever been constructed. There was also no indication of an entrance into the structure, although one may have been situated at the southern end, where a linear slot, extending across the entire width of the sunken area, suggested that a timber wall may have been situated here. The function of this structure, assuming it was not abandoned before any hearths or ovens were built within, remains unknown.

Another sunken-featured structure was situated in the exact north-west corner of Enclosure P1.7, but on the east side of the drove. A ramped entrance extending from its south-east corner (utilizing the remnant of the drove ditch) was flanked by two post-holes presumably representing a doorway and evidence for roof support was provided by a post-hole, centrally located within the base. Two undercut alcoves on its east and west sides may have been for storage. Again there were no standard ovens or hearths in this building, although there was a patch of ashy deposit on the floor. It is undoubtedly significant that none of the structures in this group contained



A string of medieval enclosures along the western side of the site.

substantial ovens or hearths, particularly as buildings immediately to the north of this complex did so, but the reasons for this are presently unclear.

A further building, also devoid of any ovens, was situated about 15m to the south of Enclosure P1.7 and proved to be one of the more unusual structures, suggesting that the entire complex was used for different purposes to some of those elsewhere. This subrectangular building, aligned east–west and cutting the line of the eastern drove ditch was 4.2m long, 3.2m wide and relatively deep at 1.16m. A linear extension in the north-east corner represented the ramped entrance way, which cut across the south

side of an additional small enclosure (imprinted over the earlier two in this position), the contiguous fills at this point indicating this ditch was open at the same time as the building.

Extending from the south-east corner of the main cut was a circular underground chamber, about 1.25m in diameter with its base just below the main floor level. One potential interpretation for this chamber is that it was a larder for keeping perishable goods cool. In addition, the south-west corner of the sunken area was occupied by a free-standing clunch-built structure, formed against the edge of the main cut for the building and surviving to the stripped ground level. This odd, oval-shaped construction, about 1.9m across, was hollow with clunch walls between 0.2 and 0.4m thick. A rectangular access slot, 0.6m wide was formed in the wall at the base of the structure's east side and there was a shelf-like recess at the back. Although this feature was in an analogous position to the ovens found in many other structures, there was no evidence of burning on any faces of the walls or on the base. Even low firing temperatures usually leave some evidence (usually a reddening of exposed surfaces) and although it is possible a lower heat was applied in some fashion that has left no trace (apart from some possible soot deposits at the rear), it seems that some other interpretation of this feature must be sought. In any event, the construction was not an original feature of the building as its walls were erected over a thin, discrete layer of carbon-rich material (which only survived under the wall) that is the only indication of some earlier process.

To the immediate north of this area were four more sunken-featured structures, two being of the standard type containing ovens. These again were strung along the line of the driveway. One contained a semi-articulated dog skeleton in its backfill, not a particularly unusual find on archaeological sites, except that in this case the carcass had been cut in two through its midriff and buried in the exact centre of, and aligned with the structure, but with the rear half placed the wrong way round. Such an interment is redolent of the more common Iron Age or Roman dog burials, often interpreted with ritualistic connotations (Fulford 2001). It may also be noted that bisected dog corpses do appear in religious and superstitious rituals in a number of cultures at various times (see for example Parker Pearson 1999b, 2).

Strings of enclosures

About 160m to the west of the central drove road, the western edge of the plateau (and to a lesser extent the pond areas to the north) was entirely occupied by a north–south arranged string of adjacent enclosures and other complexes, all of which were only partially revealed within the site area. These seem to have been superimposed over an earlier arrangement of medieval ditched field boundaries aligned in similar fashion, and it seems likely that a further driveway (perhaps still marked by an extant lynchet to the south of Plateau 2), bounded these on the west.

Each of these areas, which appear to be constrained by a near north–south aligned boundary that was undefined in the ground (none of this activity



The clunch-built structure in the corner of medieval sunken-featured building 21. Scales 1m and 0.5m.

extended much more than 20m from the western edge of site), exhibited different characteristics. The northern complex (in the main plateau area) presented numerous overlapping enclosure and boundary ditches, but apart from a few pits there were few associated features and no buildings, although these may have been located closer to the postulated western drove, in similar fashion to elsewhere. Some of the pits may have been water holes and there was some evidence that animals had been penned here, both suggesting that the primary function of these enclosures and boundaries was stock management.

To the south of this was a further area of intense activity, similar in many ways to the two farmstead sites recorded on Plateau 2 (Rady 2009, 19–20). A large hollow, 26m from north to south, had formed in the relatively solid chalk here, its depth (up to 1m) and the presence of a number of amorphous scoops and hollows suggesting that much of it had been caused by quarrying, rather than just erosion through protracted occupation. This area did not seem to be bounded by any enclosure ditches, although the regular rectangular shape of the depression suggested that it may have originally been enclosed, the ditches mostly removed by later truncation. A number of intercutting linear features in the north- and south-eastern corners of the area may be all that remains of any such enclosure.

A sunken-featured structure was positioned north to south in the north-east corner of the complex. This consisted of a subrectangular cut, truncated to the west by later features, 2.4m wide, 3.8m long and 0.28m deep. This was associated with the remnant base of a large circular oven that was external to the north-eastern corner of the sunken part of the structure, with an aperture into the main area. There was no evidence for the usual smaller side hearth in this building, although it is possible that this had been removed by the later features. To the immediate south of the building and possibly contemporary, was a very deep linear feature, aligned north–south along the edge of the area. This feature was 10.2m long, averaging 1.8m wide and was 1.27m deep at its southern terminus, sloping to 2.9m deep at the

northern end. The edges of the cut were near vertical and undercut in places and its base was flat. The shape and depth of this feature and the nature of its fills suggested that it was another subterranean chamber or tunnel, similar to those found on Plateau 2 (Rady 2009, 20), that had collapsed in antiquity. The function of these is not exactly clear but storage seems a likely option.

Apart from a few pits containing domestic refuse such as pottery, animal bone and marine shell, other features included a well at the western side of the area, and towards the centre of the site, a subrectangular six-post structure about 2.8m across. These posts were evenly distributed around the edge of a platform of densely packed flints, possibly the base of a different type of oven or hearth, and although there was no particular indication that this was within a building, it seems likely that this was all that remained of a more extensive structure.

Also possibly within a structure were two adjacent small and shallow pits that each contained the truncated remnant of a large pottery vessel of late thirteenth-/early fourteenth-century date, inserted upright and tightly fitted into the pit. Similar features have been found elsewhere on Thanet Earth (also in pairs), and on similarly dated settlements in Kent, often within buildings (John Cotter, *pers comm*). Various functions for these have been proposed, including ritualistic purposes, but here the vessels were probably used for storing liquids.

A number of other possible sunken-featured structures were recorded along the south side of the area, including three in the south-east corner, but these only consisted of relatively featureless (though cleanly cut) intercutting rectangular hollows, with a more definite small structure to the west.

About 17m to the south was a similar sized and shaped area of quarrying, which presented a number of perplexing characteristics during excavation. Again, traces of a possible enclosure were represented by shallow linear features on the north and east sides, bordering a much deeper area cut into the chalk. Along the south and east sides of

this complex were at least two much larger adjacent linear features, both around 2m wide and about 2m deep. Both features had flat bases, but whilst the outer of the two possessed a more ditch-like profile, the inner deeper feature had near vertical sides. Both features were atypical of most of the other medieval ditches in the area (although some of the larger ones on Plateau 5 were similar), and it seems possible that both were the result of quarrying. The inner feature however, was similar in many ways to the putative underground chamber found in the more northerly complex, although not as deep. No structures were evident in this area.

The southernmost complex consisted of a partially exposed ditched enclosure, of which the south-western half had been incompletely quarried away. This quarrying had removed most of yet another structure, of which only the oven base survived. A scatter of truncated pits and a well (bored to a depth of 27m) also remained in the southern corner. About 4m to the south of the northern side of the enclosure and aligned with the ditch was a postulated sunken-featured structure of unusual design.

The building was composed of a slightly irregular subrectangular cut (more rounded at its eastern end), 7.65m long, 3.2m wide and 0.32m deep, which had steep sides and a flat bottom. Immediately adjacent on the west and connected by a 1.1m wide passage 1.2m long with a slightly raised floor, was a further subrectangular sunken area 2.1m wide, 2.95m long and of identical depth to the eastern chamber. A 0.75m wide step on the far west side indicated the likely entrance way. Four east to west aligned post-holes were situated down the centre of the eastern chamber, possibly indicating support for a pitched roof, although there was no other evidence for the arrangement of the superstructure. The feature did not have any internal features such as hearths, although there were a number of other post-holes cutting the floor area and a small pit or subterranean niche cut into its eastern end. This feature was similar in its use of interconnected chambers to some of the Roman sunken-featured structures found on the Monkton–Mount Pleasant road scheme (Hicks 2008, figs 2/17–2/18) although it was definitely medieval in date.

Unusual structure on Plateau 6

A number of other more unusual medieval structures were found elsewhere, such as the feature inserted into the upper northern edge of a large quarry on Plateau 6. This consisted of two main components; to the north was a large semicircular cut 3.7m wide at the surface and over 1m deep, its northern edge severely undercut by about a metre, forming a large crescent-shaped underground recess about 0.5m deep. Adjacent to the south was a subrectangular cut 2.2m wide, 4.8m long and just over 1m deep that created a flat platform between the semicircular feature to the north and the quarry to the south. The southern edge of the feature was bordered by a slot that cut into the natural chalk along the length of the base and which was abutted by the middle backfills of the quarry. This probably represents some form



The post-medieval brick-built seamark, with the earlier cross shaped foundation, probably for a windmill. Looking south. Scales 2m.

of timber partition or revetment. To the north side was a low wall, cut out of the natural chalk, with an aperture 0.5m wide which formed the entrance to the remains of a large hearth, 2m in diameter, situated in the northern chamber. Layers of ash from the hearth were contiguous in both chambers indicating that both functioned together, whilst the stratification within the quarry suggested that it was only partially backfilled whilst the structure was in use.

The function of this complex and the form of its superstructure, if indeed it had any, remains ambiguous. Some form of drying building, perhaps for crops has been suggested and seems quite feasible, but this does not explain its juxtaposition with the quarry to the south, unless this was just a readily available pit from which a below ground structure could be conveniently formed. The arrangement may indicate an integrated quarrying and burning process, such as the production of quicklime from the natural chalk. Before the use of industrial scale or continuous limekilns in the post-medieval period, quicklime was produced in various forms of clamp-type or pyre-kilns, often used only once or twice for local supply and it is possible that the Plateau 6 structure is a variant of such a kiln.

Including this complex (but not the underground chambers), just over seventy medieval sunken-featured structures of various forms have now been recognised at Thanet Earth. Some of the more featureless of these may not have been interpreted as structures if found individually, but the common positioning of the obvious buildings (along the droveways and in the corners of enclosures) strongly suggests that the simple rectangular sunken forms without any evident internal components such as ovens or hearths, but in identical positions, are also structural.

The medieval occupation of the site has not yet been adequately explained, although a probable ecclesiastic connection has already been mentioned (Rady 2009, 25). The religious establishments which held much of the land in Thanet at this time as agricultural estates, would have divided and let various blocks of land to tenant farmers and

smallholders. This would explain the ordered layout of much of the site during this period, the regular spacing of many of the buildings along the droveways perhaps suggesting that each serviced the needs of individual smallholders operating in the adjacent fields or property blocks. A similar controlled division of the landscape can be seen in the careful spacing of the enclosures along Seamark Road, and also perhaps explains concentrations of activity in locations where it might not be expected, such as the base of the valley to the north of Plateau 1. Here, all of the structures were confined to the west of the drove road in an area of unstable ground probably subject to flooding, but it may not have been possible for the occupiers, as tenants, to move the few metres to the east, where ground conditions were preferable.

Post-medieval seamarks

The remains of an eighteenth- or nineteenth-century seamark (from which Seamark Road got its name) was found and excavated on Plateau 6. This feature, possibly the only one ever to be formally excavated, was an aid to navigation for ships in the estuary and a tower or beacon which would have been used to triangulate position with other 'seamarks' along the coast such as St Nicholas-at-Wade church or the Reculver towers. The site seems to have been long used for this purpose, as a possible earlier version was also located and such a facility appears to be shown on Thomas Elmham's map of c 1400 (reproduced in Davis 1934). Cartographic evidence suggests that it had been demolished by the early twentieth century.

The earlier structure consisted of a cross-shaped foundation, 8.5m across. The flat-based trench was only about 0.2m deep and was almost certainly dug to house a wooden cross-trestle to found a vertical upright (with bracing struts from the ends of each arm of the cross). This form in plan is typical of cross-trestle foundations for windmills, and as such it is possible that the feature represents a simple windmill, one of which is also shown in the area

on the Elmham and later maps. However given the similarity of position, it seems reasonable to interpret this foundation as a windmill used as a seamark. The foundation or its robbing, yielded various objects including, clay pipes, brick and peg-tile fragments, pottery dating from AD 1525–1625, a copper alloy jetton of Hans Krauwinkel (AD 1586–1635) and a James I coin (AD 1603–1625). These finds probably relate to the demolition of the structure, and suggest this version of the seamark went out of use in the early seventeenth century. This feature was cut by the circular construction pit for the later seamark which comprised a solid circular brick-built foundation over a metre deep and about 3.3m in diameter with a large hole, 0.85m across, in its centre. This formed the base of a tower mentioned by Hasted (1800, 237). A series of square post-holes around its perimeter may have been for supporting struts.

About 15m to the north-east of the seamark was another sunken-featured structure, this time probably dating to the post-medieval period and subsequently rebuilt. Owing to its location and surprising date, the building was undoubtedly related to the windmill or seamark and suggests that it was used by the person responsible for maintaining the beacon or acted as a store.

The earliest structure consisted of a subrectangular cut 4.4m long, 3.9m wide and 0.75m deep aligned north-west to south-east. The entrance was probably to the south but if so had been removed by later modifications. Several internal post-holes, including four at each corner suggested an at least partially timber-framed superstructure, unlike the earlier, medieval buildings which probably had low clunch-based walls. No closely datable material was recovered from the backfill, the date only indicated by brick fragments.

This building backfill was cut during the construction of a second building, also sunken, that could be more closely dated to the eighteenth/early nineteenth century from clay pipe fragments and a few pottery sherds. The feature consisted of a subrectangular flat-based cut 2.6m long, 2.4m wide and 0.77m deep with a stepped and ramped access way 3.6m long on its south side.

These two late examples of sunken-featured structures, bring an end to the remarkable recurrent use of such buildings, which in this part of Thanet at least, lasts from the Roman to the post-medieval period.

Acknowledgements

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The Meads, Sittingbourne

Tania Wilson

In May 2008 the Trust was commissioned to undertake a watching brief during groundworks for a development at a site in Sittingbourne known as the Meads. The groundworks were in advance of the construction of shops and housing on behalf of Marshgate Developments, and the erection of a public house by Marston's Inns and Taverns. Observations made during the course of the watching brief led to the surprise discovery of a Bronze Age barrow and a hitherto unknown Anglo-Saxon cemetery.

The area of the Meads, situated north of Sittingbourne between Bobbing and Milton Regis, has high archaeological potential. Aerial photographs of the area have revealed cropmarks of four ring-ditches situated to the north and south of Staplehurst Road (NMR TQ 86 SE 30), one of which lay within the development area. Within the locality numerous discoveries have been made in the past, including finds dated to the Lower Palaeolithic, Mesolithic and Bronze Age periods (Wessex Archaeology 1993; Wymer and Bonsall 1977; Jessup 1930). Roman Watling Street lies to the south and, during 1879 a significant Roman cemetery was discovered nearby (Payne 1886) and in 1882, not far from this cemetery, two burials of Anglo-Saxon date were found (*ibid*). To the east of the Meads lies the Anglo-Saxon royal estate of Milton Regis and adjacent to the site the medieval manor house of Bobbing Court.

In addition to the wealth of discoveries made nearby, numerous discoveries of Bronze Age, Roman and Anglo-Saxon date have been made further afield demonstrating that the Sittingbourne area has long been a focus for settlement. In more recent times, however, the land at the Meads was extensively quarried for brickearth. This practice was at its height during the second half of the nineteenth century when Sittingbourne played a key role in the production of yellow Kent Stock bricks. Many of the archaeological discoveries within the area were made during this time as a direct result of brickearth digging.

A history of quarrying within the development area led, therefore, to an assumption that any potential archaeological remains had been destroyed. This was supported by the findings of recent archaeological investigations relating to the construction of the B2006 Staplehurst Road (Stevens 1995; 1996) and the housing development to the north of the present site (Hutchings 2001), both of which produced nothing more than a few flint artefacts.

The archaeological watching brief at the Meads involved monitoring the removal of the topsoil and subsoil deposits and the installation of services. As the work progressed it became apparent that the quarrying activity was restricted to the removal of brickearth alone, and that the underlying Head gravel deposits remained intact. As a result, archaeological features that extended beyond the base of the brickearth into the gravel deposits had survived, and the basal remains of a ring-ditch and numerous grave-shaped features were revealed. As a consequence of this discovery, and the fact that it was not possible to preserve the

remains *in situ*, a full-scale excavation was deemed necessary. Excavation commenced in June 2008 and was completed by the end of December.

Fieldwork results

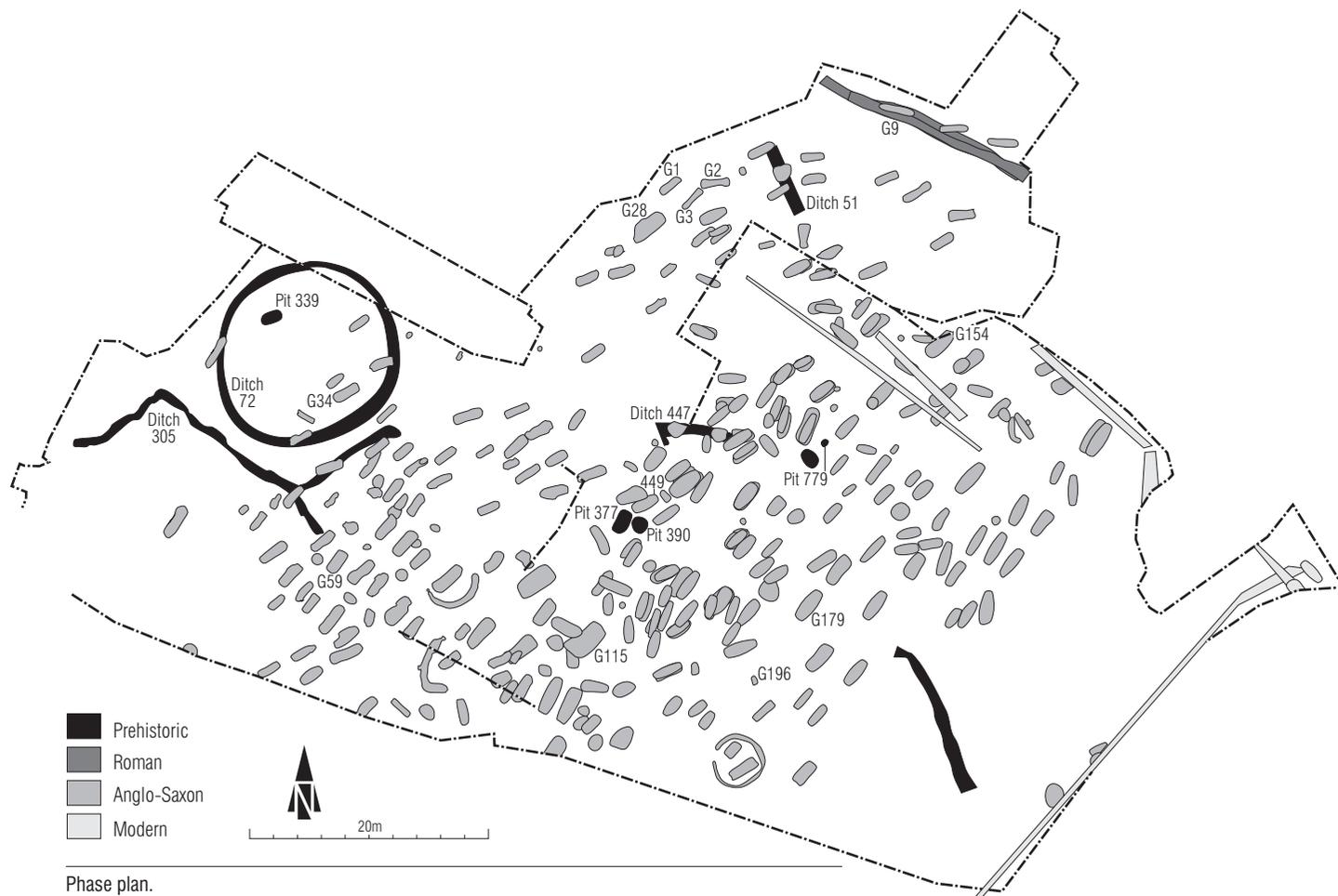
Following the removal of the overlying deposits it became evident that the gravel formed a natural ridge which crossed the site on a rough north-east to south-west alignment. To the east of this ridge the land falls away. This ridge may once have been more apparent in the landscape: the ring-ditches identified in aerial photographs of the area appear to follow its alignment.

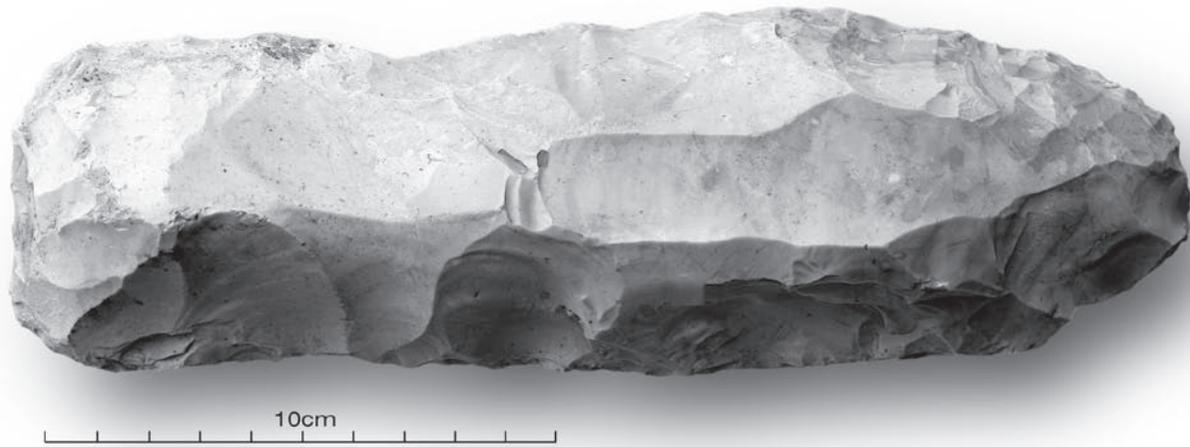
The quarrying of the brickearth had resulted in the archaeological features being heavily truncated; some features survived to a depth of just a few centimetres whilst deeper features were better preserved. The depth of brickearth lost through quarrying is uncertain.

The majority of the features had been backfilled with gravel and this proved a challenge in terms of locating and identifying them. However the greatest impact of the gravel subsoil on the archaeological remains was an almost complete loss of organic material, in particular skeletal material.

Earliest archaeology

The earliest activity recorded at the site was represented by a surface find of a flint Tranchet axe. The axe, along with a microburin recovered from the fill of the ring-ditch, is Mesolithic in date and





The Neolithic axe recovered by one of the site contractors.

suggests that the area was at least visited during this period.

Prehistoric features

A range of features of prehistoric date was encountered across the area of excavation. To the east the partial remains of two ditches were identified (51 and 447/819), both on a rough north-west to south-east alignment. Interestingly the southernmost of the two (447/819) appears to be segmented at its north end. Pottery recovered from these ditches has been tentatively dated to the Neolithic period. A small pit (779) located close to the south ditch produced a fine flint scraper of Neolithic date, and a number of other small pits or post-holes scattered across the site are potentially

associated with this phase of activity. In an area just to the north of the excavation, a stray find of a Neolithic flint axe was made by one of the groundworks staff.

South of the segmented stretch of ditch and central to the area of excavation lay a cluster of burials of Beaker period date. The first, in a subrectangular pit aligned north-west to south-east (377), contained a single decorated beaker placed towards the south end of the grave. No skeletal remains survived, but the size of the grave would be sufficient to contain a crouched inhumation. At a later date a second burial was placed above the first. This burial, which lay close to the surface of the gravel, was fragmentary but consisted of a small pit (375) with a single decorated beaker containing cremated remains.

To the east of these burials lay a subcircular pit (390) containing a small collection of sherds from a decorated beaker and a barbed and tanged arrowhead. Given the contents of this pit it is thought likely that it represents a third burial. To the north of these graves lay the remains of a fourth burial (449). This grave had been cut by a later Anglo-Saxon grave but was probably subrectangular and aligned roughly east to west. The fragmentary remains of a decorated beaker were located towards the east end and a barbed and tanged arrowhead lay nearby.

A ring-ditch (72), representing the remains of a Bronze Age barrow, was located to the west of the excavation area. The ditch measured approximately 16m in diameter and survived to a maximum depth of c 0.6m. Excavation revealed that the ditch had become at least partially infilled before being



The Bronze Age barrow fully excavated. Looking south-east. Inset: decorated beaker *in situ*.



An Anglo-Saxon penannular ditch with a central grave. Scale 2m.



Excavation of a grave with partial skeletal remains.

renewed by means of a recut at a later date. A central burial was not located within the interior of the ditch. However a subrectangular feature located to the north-east was probably a grave (339). Despite a lack of skeletal material or grave goods, the shape and size of the feature suggests that it contained a crouched inhumation.

A series of ditches located immediately to the south of the ring-ditch was recorded (305). Aligned north-west to south-east and north-east to south-west, the ditches probably represent the partial remains of a late Bronze Age field system. The ditches appear to respect the barrow suggesting that it was still visible when the field system was laid out.

Roman features

Activity of Roman date was poorly represented at the Meads. A single ditch located to the north of

the excavation area and aligned roughly north-west to south-east has been tentatively dated to this period (9). North of the excavation, but within the development area, a vessel dated to the mid second to third century was uncovered by the site contractors. The vessel, unfortunately unearthed by a mechanical excavator, was probably complete and apparently empty. Inspection of the find spot suggested that it had been placed within a small pit.

Anglo-Saxon cemetery

The first graves to be identified were located within the area of the barrow, but it soon became apparent that these were part of an extensive cemetery. In all, 228 Anglo-Saxon graves were excavated.

The cemetery did not appear to extend west of the barrow and the main body of the cemetery lay centrally within the excavation area, apparently

following the trend of the ridge. The majority of the graves were aligned north-east to south-west, though a small number lay roughly east-west. Based on the layout of the grave goods, it appears that in general the head of each interment was placed towards the west. The grave distribution is uneven but a series of possible rows is discernable. This formal layout could indicate that the positions of the graves were marked in some way. Only a very small number of intercutting graves were encountered, also perhaps suggesting the use of grave markers. Initial indications are that the cemetery was in use for a relatively long time (a discussion of the development of the cemetery is presented below).

Three small penannular ditches enclosing graves were located towards the southern limit of the excavation. These graves would probably have been covered with earthen mounds. The easternmost of these was unusual in the fact that it enclosed two



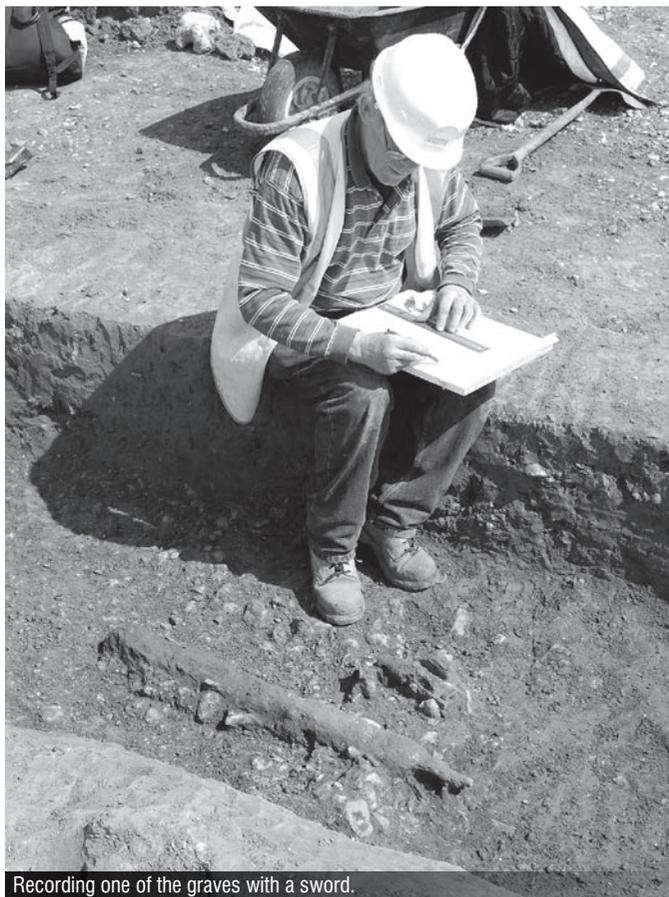
General view across the site, looking north-east.



Frankish bottle *in situ*.



Brooch and beads *in situ*.



Recording one of the graves with a sword.



Lifting one of the swords.

individual graves, one of which (based on its size) may have been the grave of a child.

Within a small number of graves, patterns of soil differentiation suggested that they contained a coffin or some form of timber structure. Iron nails and other iron fittings likely to be associated with timber features were recovered from several graves. Despite the poor survival of organic remains, one grave produced a section of charred wood which lay against the side of the grave.

Preservation of the skeletal material was exceptionally poor. In a few instances fragments of long bones survived but in a very degraded state and occasionally some teeth. In the absence of skeletal material, the types of grave goods provide an indicator to the gender of the individual. These aspects are yet to be analysed in detail but it is clear that both males and females are represented.

Additionally a few relatively small graves suggest the interment of children.

Almost two-thirds of the burials contained grave goods and several individuals were interred with numerous items. The range of grave goods includes weapons, dress accessories, personal equipment and vessels of pottery and glass (discussed further below). Many notable grave assemblages were recorded. For example, one individual was buried with a sword, shield boss, two spearheads, knife, iron-bound bucket and a series of mounts that were once attached to a sword belt (Grave 174). Another (Grave 179) contained a range of items including a shield boss, a spearhead, tweezers, a silver spoon and a Frankish ceramic bottle.

One grave produced a large finds assemblage including a sword and two shield bosses (Grave 115). An individual burial with two shields

would be highly unusual and, in the absence of skeletal remains, it has been suggested that this represents a double burial. Double burials are not uncommon during this period, but no other graves of this nature have been recorded at the Meads. However the distribution of the finds in the grave suggested, at the time of excavation, that this may represent the grave of an individual. It is hoped that further analysis of the finds will shed light on this question.

One unusual burial (Grave 180) contained a shield boss, spearhead, knife and a pottery vessel containing cremated remains (perhaps an ancestor?). This cremation burial was clearly part of the grave good assemblage within an inhumation burial. Elsewhere a second cremation burial was recorded (Grave 196) which is certainly in a primary context, placed in a small pit alongside a knife and a buckle.

Recording the burial assemblages was often a painstaking process. Detailed records included the production of 1:1 scale drawings showing the distribution of beads. In one instance a single burial produced in excess of 300 individual beads. The recovery of the objects was also often challenging; the ironwork in particular often had several pieces of gravel attached by corrosion. For stability and support, and to maximise the preservation of mineralised organic remains, numerous finds were block-lifted. Two members of staff with conservation training were on site throughout the excavation.

The character of the Anglo-Saxon cemetery

Andrew Richardson

The Anglo-Saxon cemetery at the Meads is the first in the mid Kent region to be excavated under modern conditions. Investigation of similar sites in the area between the Medway and Stour river valleys had until recently been largely the result of brickearth extraction, railway building and housing development during the nineteenth century, when only sporadic recording took place. This means that study of the cemetery at the Meads will provide a new insight into the early Anglo-Saxon funerary rite in this part of Kent. A key research question will be to what extent, if any, the details of burial rites and use of material culture differ from communities in other parts of Kent. One notable difference from the overall pattern in Kent is the high proportion of weapon burials containing shields; three quarters of the weapon burials at the Meads included a shield. In Kent as a whole the proportion is usually much less, with just under half of weapon burials containing one or more spears, but no swords or shields (Richardson 2005, I, 171–2).

The cemetery probably came into use before the middle of the sixth century AD; initial analysis does not indicate any burials of fifth- or early sixth-century date. The presence of members of the Kentish élite is attested by silver garnet-inlaid disc brooches in graves 1, 2 and 3. These were produced in east Kent, presumably under Kentish royal patronage, with a possible production centre being established at nearby Faversham from about AD 540 onwards. Other graves contained imported objects; amber beads from the Baltic region, a garnet-inlaid disc brooch and wheel-thrown pottery bottle from the near continent (probably the Frankish Rhineland) and amethyst beads from the eastern Mediterranean. Some of the glass vessels recovered may also prove to be imports, although the fragment of blue glass from a globular beaker in grave 34 (cut in the area of the earlier barrow) is probably a Kentish product. Collectively these objects reflect a community with access to both high status Kentish and imported luxury goods. This reflects Kent's relative wealth and privileged access to continental exchange networks particularly during the sixth to early seventh centuries, rather than indicating the presence of migrants at the Meads. Artefacts that might be indicative of migrants from southern Scandinavia and the southern coastal zone of the North Sea during the later fifth and early sixth centuries are conspicuously absent from the Meads,

although small numbers of such artefact types, for example cruciform brooches, have been found in the Sittingbourne area.

Several possible clusters of high status burials are apparent within the overall cemetery layout. Notably, graves 1, 2 and 3, with their garnet-inlaid brooches, are clustered together towards the northern edge of the excavated cemetery alongside grave 28, a large burial containing a sword and silver and gold belt set. As yet it is unclear whether these clusters represent different, contemporary, family groups utilising different burial plots within the cemetery, or a single high status group moving its focus of burial over time. Further study of the finds will allow a refined chronology of the site to be developed that should establish which model best fits the evidence.

Although detailed analysis is at an early stage, many finds from the cemetery appear to date from the mid to late seventh century. These include amethyst beads from graves 59 and 154 (at the south-west and north-east ends of the cemetery respectively) as well as some types of iron buckle and shield boss. It seems likely the cemetery remained in use up to the end of the seventh century and perhaps into the early eighth. Some of the earlier burials seem to be situated along the north-western edge of the cemetery, along the upper slope of the ridge and in proximity to the Bronze Age barrow, whilst some of the demonstrably later, seventh-century, burials are situated down-slope towards the south-east, with graves enclosed by penannular ditches (normally a feature of seventh-century burials) towards the southern part of the site. If this pattern is borne out by further study, then it would appear that the initial Anglo-Saxon burials took place along the ridge, in line with the Bronze Age barrows that were spaced along the top of the ridge. Thereafter, burials spread down-slope towards the south-east. Assuming the presence of some small Anglo-Saxon barrows and other forms of grave markers, the cemetery would have been a visible landscape feature, orientated for viewing from Milton Creek and the Swale and complementing a number of other known cemetery sites situated around the creek.

Post-medieval features

A small number of post-medieval and modern features were identified within the excavation area. One ditch located towards the north of the site and aligned north-west to south-east which produced a small quantity of peg-tile is probably post-medieval in origin. The remaining features, shallow linear ditches and test-pits are more recent.

Acknowledgements

Twenty-nine members of staff worked on site during the course of the project under conditions that were not always straightforward and thanks are extended to them all. Particular thanks are extended to Andrew Linklater who conducted the watching brief and to Diana Holmes, Richard Hoskins and Adrian Murphy for their invaluable help and support, along with Dana Goodburn-Brown for providing on-site conservation services and advice, and to the Trust for Thanet Archaeology for providing surveying services.

The author would particularly like to thank the large body of volunteers who, under the supervision of Paul Bennett and Keith Parfitt, worked over many weekends and so greatly assisted in reaching the excavation deadlines. Thanks are especially due to Don Rudd who gave up his time to volunteer almost every week in all weathers.

The smooth running of day-to-day practicalities was greatly assisted by the contractors GSE Group Ltd, and in particular Paul Martin and his team. Recognition is extended to Marshgate Developments and Marston's Inns and Taverns for funding the excavation. Paul Chadwick of CgMs Consulting acted as archaeological consultant for the project on behalf of Marshgate Developments and Adam Single monitored the project on behalf of Kent County Council.

Lower Lines Park, Brompton, Gillingham

Mick Diack

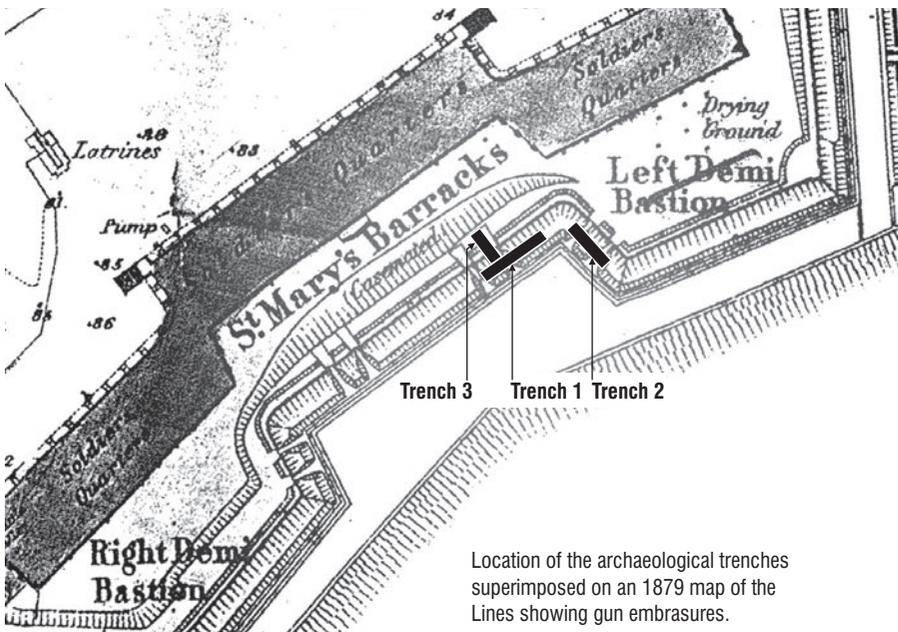
Mid Kent College purchased former Military of Defence land at Gillingham with two objectives in mind. On part of the land, they proposed to construct new college buildings within a landscaped campus and on the rest they planned to create a new park, the Lower Lines Park. Our work in connection with the construction of the new college off Medway Road featured in *Canterbury's Archaeology 2007–2008* (Diack 2009). Since November 2008 the Trust was involved with a continuing programme of work connected with the creation of the park.

The history of the Great Lines and the Lower Lines and how the defences worked was given last year, but in brief the Great Lines is a substantial linear earthwork constructed from 1755 onwards to protect Chatham Dockyard from attack from the land. As St Mary's Island was drained and the dockyard extended to the north, the defensive Lines were extended to cover this area and became known as the Lower Lines. These were constructed from 1803. After a relatively short period, the defences offered by the Great and Lower Lines became obsolete, principally through the invention of rifled, breech loading guns that considerably increased the range of land artillery and warships. Warships also became more resilient to fire with armour plating and screw propellers; the latter also made them much faster and free of the vagaries of the weather. The military role of the Lines did not, however, come to an end, because the Royal Engineers used the area to train in siege warfare.

Costly assaults on fortresses in Spain and Portugal during the Peninsular War had brought the deficiency of the army in conducting siege warfare to light and the real fortifications of the Lines were a perfect ground for tactical training. During the course of this the Royal Engineers carried out all manner of exercises, some of which were localised in scale, such as throwing up earthworks for gun batteries, or digging a shaft from which an explosion would be set off 'springing a mine'. This would create a crater that would then be used as the starting point for a system of underground tunnels or galleries



Historic photograph of the Royal Engineers bridging at the Lower Lines.



Location of the archaeological trenches superimposed on an 1879 map of the Lines showing gun embrasures.

that could be used to assault a fortification. Larger scale siegeworks included the creation of systems of trenches, gun batteries and mines that were then used in mock battles involving large numbers of attackers and defenders. Some of the evidence for these activities recorded during the construction of the new college was described last year, when work in the park area was principally in connection with clearance of vegetation. This was a huge undertaking carried out with care and skill by Avondale Environmental Services Ltd, during which some features, such as a late nineteenth-century searchlight emplacement, were identified and earmarked for further survey.

Early in 2009 a full photographic survey of the park was begun. The Lower Lines is a Scheduled Ancient Monument and the survey covered the entire area. The site was then cleared by a team from O'Keefe Construction (Greenwich) Ltd, under close archaeological supervision. Most of the work was carried out by mechanical excavator and dumper,

sometimes in restricted space and sometimes also by hand. The team from O'Keefe managed this difficult task with great care and much was discovered during the process. Many items of interest were uncovered during this work and most were left uncovered to enhance the historical interest of the new park.

One of the new features to be incorporated into the park was a bridge which now crosses the Lines and enables the public to make a circular tour of the monument and also provides a viewing platform. It was known that the Royal Engineers had practiced bridging at the Lines and it seemed appropriate that a military style of bridge be used. Part of the photographic survey had revealed that the portion of the Lines just to the west of the initial site proposed for the bridge had been roofed over after the Second World War, and the roof then used to bridge the moat. This therefore seemed to be an historically appropriate location for the new bridge. A pre-fabricated truss bridge, of a type directly descended from the famous Bailey bridge developed during the



Second World War gun emplacement showing lockers in the firestep wall.



Second World War entrance to dugout relating to nearby gun emplacement.

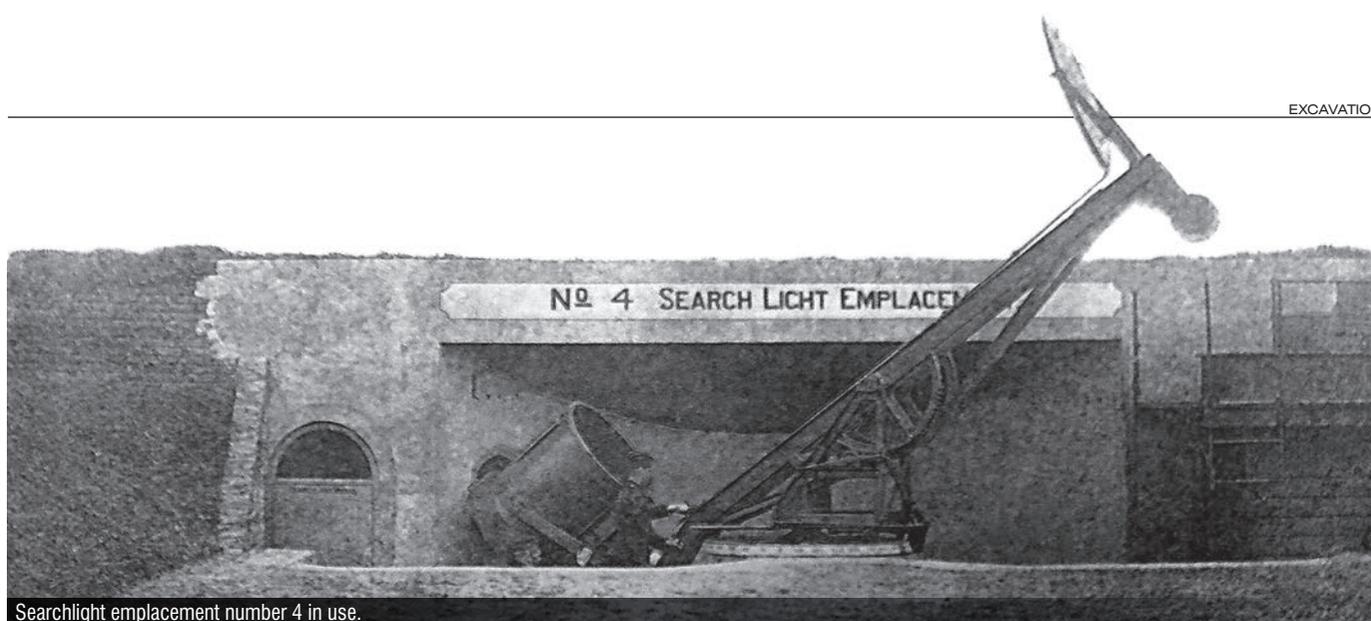


Second World War dugout under excavation.

Second World War, was constructed and installed by Mabey and Johnston Ltd. Before this took place the Trust excavated an evaluation trench through the firestep, which was to be cut through during installation. Fortunately it was found that the bridge was to be located exactly where the firestep wall had been removed, probably after the war. On the opposite side of the moat, nineteenth-century siegeworks were marked on an historic map, but no such remains were found in a second evaluation trench. The firestep trench, however, did reveal a sequence of deposits relating to the moat's construction, showing that earth was thrown up to form the parapet.

Gun emplacements

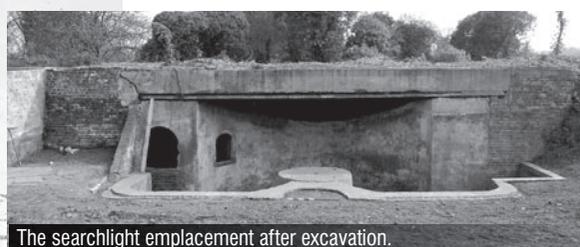
Three further trenches were cut in order to attempt to locate and assess the survival of the original nineteenth-century gun embrasures. These are clearly shown on a nineteenth-century plan of the Lines, but were not evident on the ground. Trenches 1 and 3 were



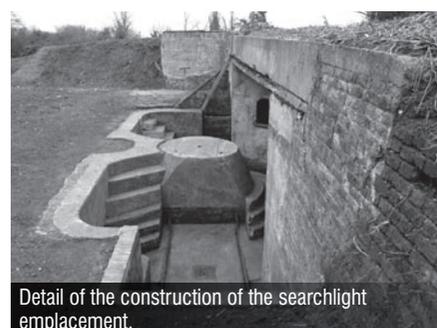
Searchlight emplacement number 4 in use.



Searchlight emplacement number 3 in use.



The searchlight emplacement after excavation.



Detail of the construction of the searchlight emplacement.

successful in locating both the earthen bank of one gun embrasure and the brick-lined firestep together with the remains of the gun platform. These remains have been left exposed as a feature in the new park. Trench 2 located the other embrasure and a hitherto unknown substantial Second World War gunfast which had been constructed immediately behind it. The gunfast was a 600mm thick hexagonal-shaped concrete base with a circle of bolts to fix the gun. It appears that this gunfast was constructed in order to enable a naval gun, presumably from an old ship, to be used on land. The gun was probably a quick firing 12 pounder (or similar) and could have been used for land or anti-aircraft defence. This sort of emplacement was common in the early years of the war when equipment was in short supply. The embrasure was backfilled and the gunfast left exposed. The locations of many of the other nineteenth-century gun emplacements, indicated by dressed stone lintels in the reduced firestep wall, were uncovered during the general clearance work.

Further work was carried out to investigate various small twentieth-century military features nearby and one of these turned out to be a sizable (3m by 1.8m) dugout constructed from railway sleepers and corrugated iron sheets. It appears to have acted as a shelter, or command bunker, for the gun. This bunker

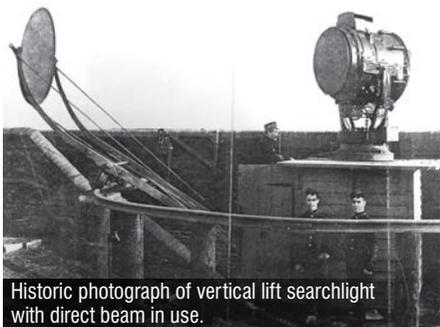
was investigated and then carefully backfilled to make it safe. Another Second World War gunfast, probably installed to pair with the first, had been identified in earlier survey work and it was only necessary to clean and record it. This gunfast was built into an angle in the firestep wall from where it would have covered the approach to the Royal Engineers' barracks on Khyber Road. It appeared to have utilised the embrasure of one of the nineteenth-century guns. It was equipped with a number of steel lockers, set into the firestep wall. These lockers were clearly from a warship and had been re-used, along with the gun itself. Another railway sleeper and corrugated iron bunker, almost identical to that described above, was found, suggesting that the two gun positions were constructed together to a similar plan. The bunker was excavated and recorded and again carefully backfilled in order to make it safe.

Searchlights

One of the features identified during earlier survey work, and mentioned in last year's report (Diack 2009, 34) was a late nineteenth-century 'seesaw' searchlight emplacement. This year the emplacement, which was almost entirely filled with soil and rubbish, was excavated and cleaned and it will be structurally

repaired as part of a programme of remedial works managed by the Bailey Partnership. Another feature noted last year has also now been identified as a searchlight emplacement, but of a different design. Before the newly identified searchlights are described, a short account of the use of searchlights and their place on the Lines is perhaps appropriate. Peter Kendall (English Heritage) has undertaken considerable research in connection with the current project; the information on the experimentation and use of searchlights has come from the Proceedings of the Royal Engineers' Committee and are held in the Royal Engineers' Museum library.

Electric searchlights date from as early as the mid nineteenth century and were experimented with by the French and the Russians in the Crimean War of 1853–6. Experiments with searchlights for signalling (telegraphy) were successfully carried out on the Lower Lines in 1862. A more active use of searchlights in siege warfare was also experimented on the Lines. Since the cover of darkness was an invaluable aid to enemy sappers, searchlights could be used to hinder their activities and prevent surprise night attacks. Experiments were also made on the use of searchlights by an attacking force; they were used to blind gun crews. It was also found that a carefully placed powerful searchlight could be used to cancel



Historic photograph of vertical lift searchlight with direct beam in use.



The vertical lift searchlight with secondary beam in use.



The searchlight emplacement after excavation.

out much of the effect of a defender's searchlight, dazzling the defending searchlight team so they could not see what their own beam revealed.

Other uses for searchlights were experimented with on the Lower Lines. With the invention of the screw propeller, small fast gunboats and torpedo boats posed a significant threat to large ships at anchor or navigating coastal waters. The first effective self propelled torpedoes date from 1868 and small, fast ships to fire them followed shortly after with HMS Lightning being custom made for the Whitehead Torpedo in 1877. To defend against such attacks coastal artillery, searchlights and underwater mines were used. The Royal Engineers established a Submarine Mining Company in 1871 (here 'submarine' meant an underwater mine, not an underwater boat). Such mines could be electronically detonated remotely from the shore. This meant that the mines were not dangerous to friendly shipping. The use of searchlights to scour for intruders, and pinpoint them once discovered, would have been central both to the use of mines and coastal batteries.

The searchlights used were carbon arc lamps; these had two carbon electrodes held close together with electric current causing a spark or arc to create a brilliant white light. The electrodes would have burnt away in use and many fragments of these were found during the creation of the park. The light was reflected and focused by a curved mirror and lens, this apparatus was called a 'projector'. Power for the device would have come from a dynamo belt-driven by a small steam engine. The 'seesaw' searchlight emplacement was so called because it had a long steel girder pivoted in the centre with the projector

at one end and a mirror at the other. The end with the projector could be raised to enable the projector to be used directly, or the end with the mirror could be raised and the apparatus spun round enabling it to operate whilst under fire without risking either the fragile projector or the men operating it. The emplacement seen here was a prototype, in fact it was the site of number 3 and number 4 prototypes; the location of numbers 1 and 2 is not known. It appears that the number 4 prototype was the final version and that this was the design used throughout the British Empire. Whilst there must have been many of these searchlight emplacements they had a short operational life span before new technology made them redundant and they very rarely survive. At the time of writing there are only two known examples in the country, one on the River Humber (now reburied) and one at Fort Victoria on the Isle of Wight. One further example is known from Fort Ballance in New Zealand making the prototype example excavated at Lower Lines a find of significant world importance.

The second searchlight found on the Lower Lines was an alternative design, though it had the same function. Instead of the steel beam pivoting centrally, this searchlight had a hydraulic lift apparatus combined with a rail for the reflector to travel on. It appears that this type was experimented with but not ultimately adopted by the military, so this example is unique.

Countermine galleries

Further work was carried out on the countermine galleries and chamber identified last year (Diack 2009, 33). The chamber was completely excavated

to full depth and recorded. Consequent examination of the inside of the chamber revealed soot marks from the sapper's lanterns or candles and numerous graffiti, both in chalk and scored into the brickwork, most of which had unfortunately become illegible through time, but included some names and initials carved by sappers. The high quality of the brickwork was even more apparent after this further excavation; the formation of a perfect dome with four arched entrances clearly required great skill. The chamber was protected with steel sheeting, geotextile and sand before being reburied. The area over the chamber and galleries has now been landscaped as part of the college campus. During this landscaping the railway lines noted previously (Diack 2009, 33) were found to have extend beyond the chamber and into a tunnel shored with timber.

It is now evident that there were three countermine galleries extending south from the Lower Lines, all connecting with a further gallery running parallel with the outside of the moat wall and hence known as a counterscarp gallery. The full extent of this gallery remains unknown. The brickwork of the tunnels is the same as that of the Lower Lines, and they were constructed from the inside, *ie* they had been tunnelled out then lined with brick. They hence appear to date from 1803.

The brick-domed chamber was added to the end of one of these countermine galleries. From the yellow brick construction and the fact that the brickwork was pointed inside and out we know that it was both a later addition and constructed from the surface of the ground then reburied. It appears that this dome was therefore added probably in the mid to late nineteenth century as part of Royal Engineer siege training in the



The countermine chamber.



Internal view of the chamber showing sootmarks.

use of countermines. The various tunnels extending from the chamber were examined further and in many cases the preserved timber props and revetments could be seen.

Excavation of the moat

An extensive piece of work undertaken during the creation of the park was the excavation of a substantial length of the moat which had been backfilled, either during or after the Second World War. There was a 3 to 3.5m depth of backfill, so the task was considerable! Quite why or when the moat had been filled in is unclear, but it may have been a convenient dump for soil excavated during the construction of the Nore Command bunker (and hence of wartime date) or else from the area of moat by the new footbridge which was dug out when it was roofed over (hence post war). There was obviously some concern over the possible condition of the moat walls beneath the backfilling, but in fact the walls were found to be in better condition than in many other places on the Lines as they had been protected by the soil. Three entrances to the counterscarp gallery, leading from there to the three countermine galleries were noted in the moat wall; each had been roughly, but completely sealed with concrete before the moat was filled in. The moat was restored to its former depth between the security fence against MOD land and the corner of the western demi-bastion, at which point an earthen bridge was formed to allow a footpath to rise from the moat and join with a path from the perimeter of the college to the other side of the moat and onto the firestep. The reduction of the moat was again carefully and skilfully carried out by O'Keefe Construction (Greenwich) Ltd, working under archaeological supervision. Following on from this the plant was used to clear the base of the moat, working back towards the historic breach in the Lines where it joins up with the site of the Admiral's House. Various structures were noted in the moat bottom, mostly the bases of buildings some of which are marked on the 1954 Ordnance Survey plan. One of these structures was one of a pair noted during previous survey when it could not be identified due to the considerable build up of soil over it. Now identified (by Chris Burden, Project Manager, Kier Build) as a loading/unloading bay for firearms, it consists of a brick 'box' that would have been filled with sand so that any live rounds inadvertently fired whilst loading or clearing a handgun or rifle would be rendered harmless.

The part of the Lines next to the breach adjacent to one of the entrances to the Nore Command bunker was found to have been walled off. It appears that some kind of underground chamber had been excavated here in the roofed over section of the moat. Steps leading down to the chamber were excavated and have been retained, but the chamber itself was not excavated.

A second photographic survey of the moat was carried out once all clearance and fieldwork was complete, especially in the newly reduced moat and the cleared firestep. A final watching brief was maintained in the area occupied by the Admiral's

House in the new park when parts of the footings for the house were noted. The Admiral's House appears on the Ordnance Surveys of 1909, 1932 and 1954 and can be seen on several aerial photographs, but little is known about it. Photographs found recently by Peter Kendall show that it was a substantial building of high quality construction. It would have formed the offices and home of the Admiral appointed to Nore Command. There were large gardens and a figurehead from a ship and a flagstaff. The house was completely demolished in the mid to late 1960s. The project is now complete, though the Trust is in the process of creating a series of information boards which will be installed as part of the new public park.

Acknowledgements

In last year's report it was stated that there were so many helpful and supportive professionals that it was not possible to mention them by name. Many of the same individuals and organisations provided considerable help this year: Arcadis-AYH (project management); Avondale Environmental Services Ltd (tree/vegetation clearance); Bactec International Ltd (ordnance); Kier Build (principal contractor); Mid Kent College (client); Noble (asbestos training/advice); O'Keefe Construction (Greenwich) Ltd (Groundwork); RPS Group plc (project management/design – public park). There are however some individuals that have been so consistently helpful and closely involved that I would like to thank them personally: Peter Kendall (English Heritage); Ben Found (Kent County Council); Jane Jones (Mid Kent College); Eileen Bartlett (Mid Kent College); Matthew Websdane (Arcadis-AYH); Chris Burden (Kier Build); Jim Batty (Kier Build); Richard Bennett (Kier Build); Neil Poelvoorde (Kier Build); Ian Boiling (O'Keefe); John Carver (O'Keefe). The O'Keefe groundworkers who did so much of the hard work included: Gian Singh; Sam Singh; Amijeet Singh and Baj Singh. I would also like to thank Andrew Davis from The Royal Engineers Museum Library for access to the archives, for scanning and for granting permission to use the searchlight images. Trust fieldwork staff were James Holman; Ross Lane; Adrian Murphy and Jess Twyman with Andrew Savage and Neil Chaney undertaking the photographic survey; all of them exceeded what could reasonably have been expected of them.

Nos 5–7 The Parade, Canterbury

Jon Rady

Whilst refurbishment of the former Boots the Chemist premises at the junction of The Parade and Mercery Lane (centred on NGR 614955 157795) largely involved alterations to the standing structure, some small scale archaeological investigations were made beneath basement level. Before any work began an extensive assessment of the standing structure and a documentary study was carried out (Austin and Sweetinburgh 2007). This study showed that despite the plot having been occupied from the twelfth century or perhaps earlier, nothing earlier than

the fifteenth century survived above ground. Below ground, in the basement beneath 9–9A Mercery Lane, medieval fabric and a vaulted cellar perhaps of fourteenth-century origin can still be seen.

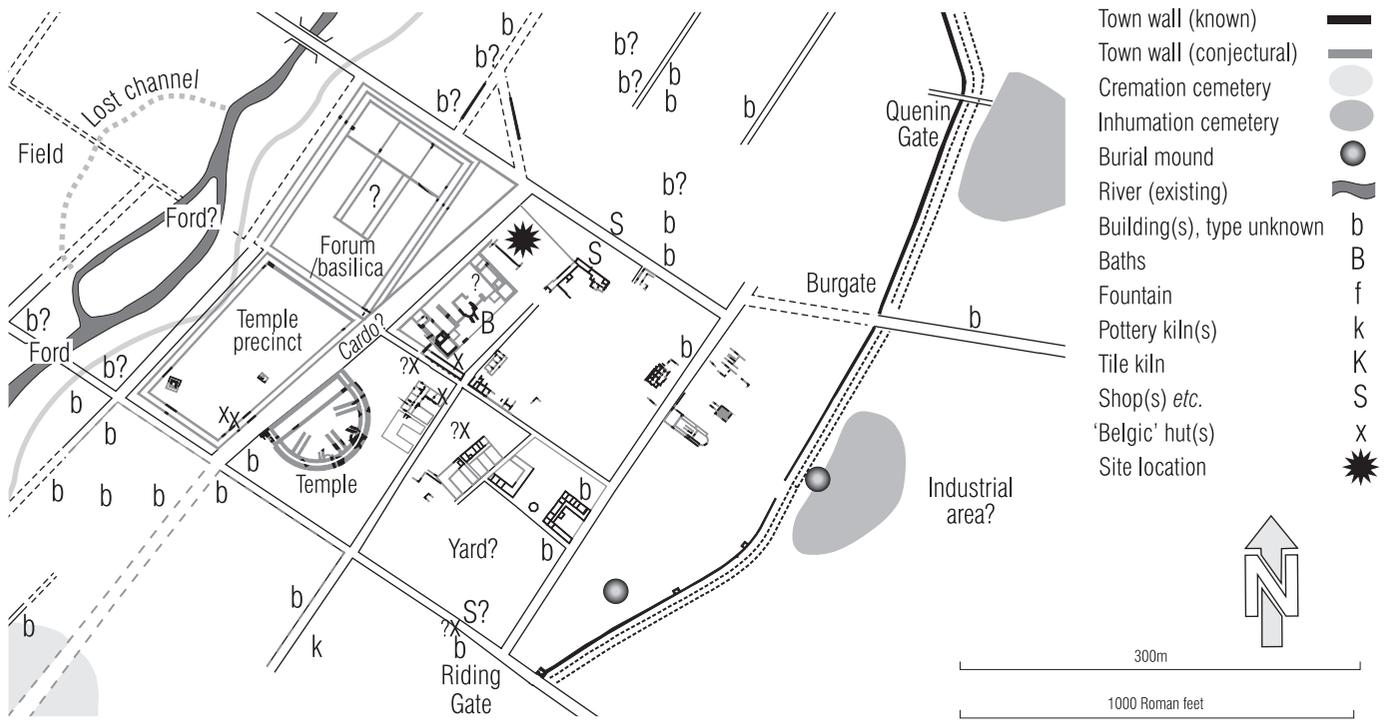
Part of the property (Nos 5–6 The Parade) was 'purpose built by Timothy Whites in the 1930s' (*ibid.*, 49) and it was within the apparently entirely modern basements of this property that the present excavations took place. Four small trenches (B1–B4, between 1m and 2m square), were excavated in May and June 2007 to investigate the depths of adjacent wall footings to assist in engineering requirements for the development. Further work, connected with foundations for a structural pier, was carried out in Trench B1 between 24 August and 4 September, and this allowed the archaeological sequence to be fully investigated. These works were commissioned by the new owners and developer, GO Canterbury LLP.

Archaeological background

Various excavations in Canterbury over the last sixty years have indicated that the present site lies in the north-east corner of one of the four central *insulae* of the Roman town of *Durovernum Cantiacorum*. To the south-west of the site, in the south-western quadrant of the *insula*, parts of the main public baths of the town and several other buildings as well as Roman streets have been excavated and recorded (Blockley *et al* 1995). Just to the south-east of the present site, other Roman building complexes and other street alignments have been examined between Butchery Lane and Longmarket, since late 1945. The principal Roman structure, replete with its own suite of baths, and rooms with tessellated floors and inlaid mosaic panels, appears to have been a large, luxuriously appointed town-house which given its size, sophistication and central location may perhaps have been an official residence (Pratt 1991).

There have been few significant archaeological interventions in the immediate area of the present site however, and although a number of important archaeological observations have been made, the layout and use of this corner of the *insula* remains tantalisingly unknown.

During most of the Roman period, the area of the site was bounded on the west by a major north-east/south-west aligned street observed in a number of small interventions on the opposite side of Mercery Lane, as well as further to the south (Bennett 1986a; 1990). The upper surface of the latest street metalling was about 1.4m below existing, while the street itself was at least 0.7m thick. Roman masonry walls and foundations have been examined to the immediate south of the site, under the Parade and its junction with St Margaret's Street (Frere *et al* 1987). The disposition of these walls, particularly those found under the Parade in 1982 (Bennett 1987c) suggested that elements of a Roman masonry building would extend into the area of the present site. Metallings found to the north of a wall approximately parallel to the Parade may indicate that the area of the site was within or partially within an external courtyard surrounded by a portico (Frere *et al* 1987, 100). A building in this prime position of the Roman town is likely to



Site location and Roman buildings in the vicinity (after Pratt 2004).

have been of some importance and sophistication, probably of similar or greater status to the structures recorded to the south-east.

During the immediate post-Roman period, the line of most if not all of the Roman streets within the city walls was lost. The date of the establishment of the route preserved by the present-day main street through Canterbury, of which the Parade forms one part, is not known for certain, but it may have its origins in the later Anglo-Saxon period, if not before. Metallings located under the Parade (adjacent to No 6) may have, in their upper levels, been of Anglo-Saxon origin (Pratt 1993) but the evidence remains inconclusive. Although in general, little is known about this immediate part of the town in the Anglo-Saxon or early medieval periods, the excavations at the Longmarket in 1990 revealed a complex sequence of mainly mid to late Anglo-Saxon and early medieval occupation. Five sunken-featured or cellared timber buildings of the Anglo-Saxon period were recorded as well as associated rubbish and cess pits and wells (Rady 1991). Such occupation

was almost certain to extend to the vicinity of the present site.

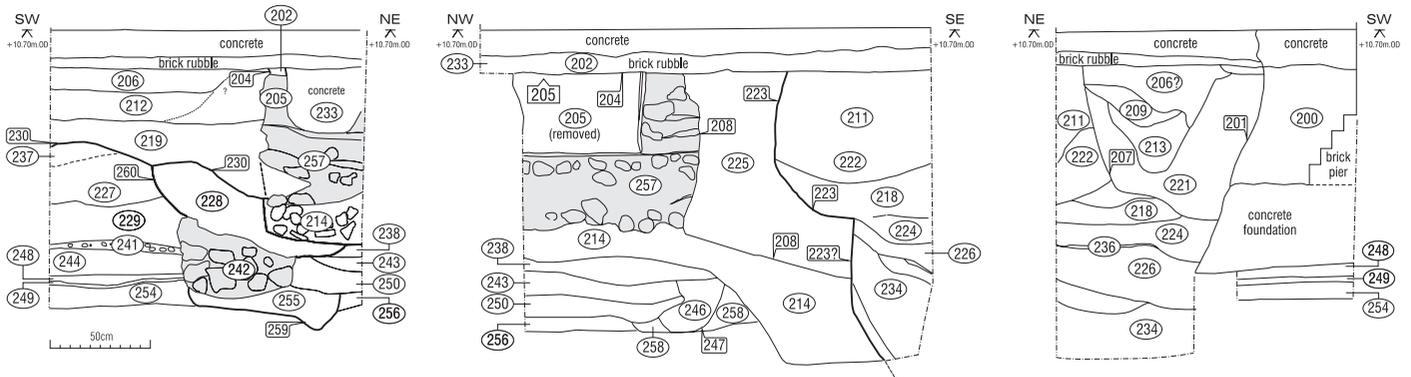
The church of St Andrew once stood in the middle of the Parade directly opposite the site. The church, founded in the eleventh century was pulled down in 1763 and rebuilt further to the south of the Parade, finally being demolished in 1956 (Tatton-Brown 1984). The church had no associated churchyard. Other probably early medieval features in the area consisted of numerous pits located in the sewer tunnel dug under the Parade in 1982 (Frere *et al* 1987, 100). These possibly pre-date the origin of the present main intra-mural thoroughfare represented by the Parade and its adjoining streets.

Trench B1

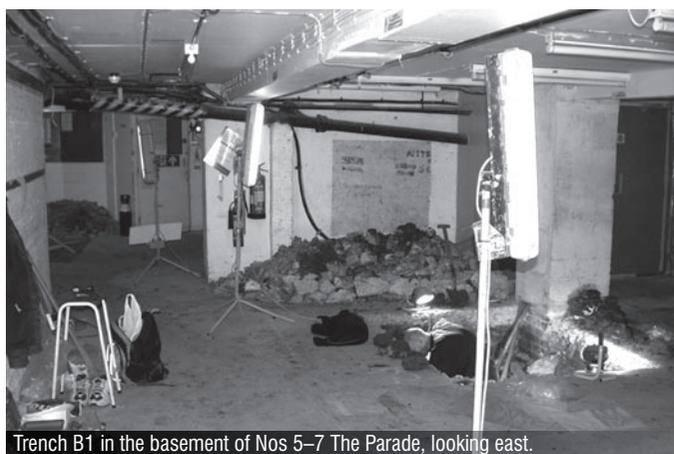
Whilst Trenches B2–B4 were excavated only to sufficient depth to allow examination of the footings of the basement walls, Trench B1 was excavated to the base of the archaeological sequence, a depth of about 1.4m. This revealed a complex sequence of

deposits, as might be expected, with Roman deposits present just beneath the cellar floor. Interpretation of the Roman levels was problematic however, partly due to the presence of post-Roman pits, removing most of the earlier deposits on the eastern side of the trench. The earliest excavated deposit which directly overlay the natural subsoil, may well correspond to a level found overlying the brickearth in many other parts of the Roman town, and generally consisting of a grey clayey soil (Blockley *et al* 1995, 53). The deposit has been interpreted as a naturally developed ‘topsoil’ over the brickearth, which often remained ‘unsealed’ until the large scale building developments of the early second century (Blockley *et al* 1995, 14). A similar layer, though at a slightly higher level, was exposed in Trench B3.

This deposit was sealed by a sequence of floor and occupation deposits that undoubtedly relate to an early Roman structure. This was probably entirely of wooden build, as were most other first-century structures in Canterbury, although construction of a subsequent part-masonry building seems to have



Trench B1: sections.



Trench B1 in the basement of Nos 5–7 The Parade, looking east.



Detail of Roman concrete floor 419 in Trench B3, looking west.

removed most of the structural evidence for this early development phase.

The subsequent timber and masonry structure, of which only a very small part was revealed, superimposed these floor levels and would appear to date to the later first century and so precede the more extensive developments of the early second century. Little can be said about this structure however due to the limited nature of the intervention, and virtually none of its superstructure survived later developments. The building was mostly represented by a large gravel- and clay-filled foundation trench (255 and 251, within cut 259), 0.7m wide and 0.25m deep that extended across the trench on a north-west/south-east alignment although it was cut away by later pitting to the east, as was all of the subsequent Roman stratification. This footing supported a masonry wall or foundation (242), offset to the south, which consisted of two or three rough mortared flint courses. The wall or footing, which remained as a disturbed stub 0.4m high at maximum, only extended 0.6m into the trench and appeared to have been removed at this position by a later structural element set at right angles to it and extending to the north, probably a timber internal partition wall. The size of the main wall or its footing (242) is unusual, as buildings constructed of masonry are very rare at this time. If the dating evidence is correct this would imply that this structure was of considerable status, as might be expected in this central part of the town. High status residual ceramics of this period from subsequent phases might derive from levels associated with this structure and if so would also indicate its importance.

This building was in turn demolished and, a new, more massive masonry building was erected, following the same alignment of the earlier walls. The dating evidence, such as it is, suggests that this occurred in the early decades of the second century. The substantial masonry wall (257) of this structure and its foundation (214), were aligned approximately north-west/south-east and survived to just under the bedding for the basement floor. Although severely damaged on all sides apart from to the north, and mostly cut away to the south-east by later features, the wall was aligned with other known Roman period walls in the vicinity and was approximately perpendicular to the main Roman street to the immediate west.

The wall masonry, composed of medium to large flints, set in about five very rough courses, was originally thought to be one unified construction, but when dismantled the original fabric was found to contain part of a probable doorway or entrance, subsequently blocked and re-plastered on its extant northern face. The wall survived to a width of just over 0.5m and was about 0.7–0.8m deep, although it was probably slightly wider originally, the southern face having been cut back by a later disturbance. About 1.2m of its length was exposed, the continuation to the east having been completely removed by later disturbances. A large greensand block about 0.5m long, 0.4m wide and 0.45m deep had been set square to the wall on the top of the foundation. The western face of this block, which had a slight chamfer at its base (which may have been caused by wear rather than a deliberate feature), marked the eastern side of the doorway.

The wall represents part of a building complex that no doubt extends over much of the site area as well as out beneath the Parade and was possibly a high status town-house, erected during the period that saw a considerable redevelopment of the Roman town and the construction of many of its masonry and public buildings. No associated floor levels survived in this trench, although a concrete floor (419) found in Trench B3 almost certainly relates to this building as its level equates quite closely with the threshold of the blocked doorway within wall 257.

The wall was cut on the south-west side by a large feature (230) that extended beyond the trench limits; its shape in plan could not therefore be determined. The exact date of the feature is also unclear, as although virtually all the recovered artefacts were of Roman date, most would appear to be residual. Due to this uncertainty over the morphology and date of the feature, it is very difficult to interpret, but a late Roman or even post-Roman date seems likely. The nature of its backfill did not readily correspond with it having been a rubbish or cess pit, and the large quantity of discarded Roman building material within it suggests that it was some form of robber trench, perhaps associated with major alterations to the building or even its eventual demise. This interpretation, would explain the ragged and defaced south side of wall 257, but considering the small confines of the trench only further, more extensive excavation is ever likely to clarify this.

Subsequent features in this trench all consisted of post-Roman rubbish and cess pits which had removed most of the earlier stratification to the east.

Trenches B2–B4

Most of the Roman deposits in trench B3 were observed only in the edge of a later feature and mostly appear to be floor levels associated with the sequence of buildings examined in trench B1. The substantial concrete floor mentioned above, undoubtedly also of Roman date, directly superseded these and its nature indicates that it represents part of a substantial Roman structure, probably part of the same complex as the later masonry wall in trench B1. Subsequent deposits over the floor were difficult to interpret or date due to the small size of this trench, but may be later Roman in date or more probably Anglo-Saxon. These levels contained large quantities of burnt daub (much of it with wattle impressions) and possibly represent the backfill of a cut feature such as a cellared building or sunken-featured structure. Similar buildings, though generally of the later Anglo-Saxon period, were found nestled amongst the ruins of Roman masonry structures on the nearby Longmarket excavations (Rady 1991).

Later features and levels in this trench which included a post-hole and probable horizontal clay floor and occupation deposits, all definitely medieval in date, suggested the presence of medieval cellars destroyed by the construction of the twentieth-century basement. This was possibly confirmed by the excavation of trench B2 which was entirely situated within a modern construction cut relating to the footings of the twentieth-century basement (so no earlier stratification was revealed). However, the backfill of this modern feature contained considerable amounts of redeposited wall fabric, mostly comprising fairly large flints and chalk blocks many with mortar adhering. The presence of the chalk, not used to any great degree in Roman walls in Canterbury, and the nature of the mortar suggested that this material probably came from medieval walling, possibly of an earlier cellar removed or expanded, upon the construction of the present basement in the 1930s.

Interpretation of the sequence in Trench B4 was rendered difficult by the extremely limited space for excavation caused by the extent of the concrete offset

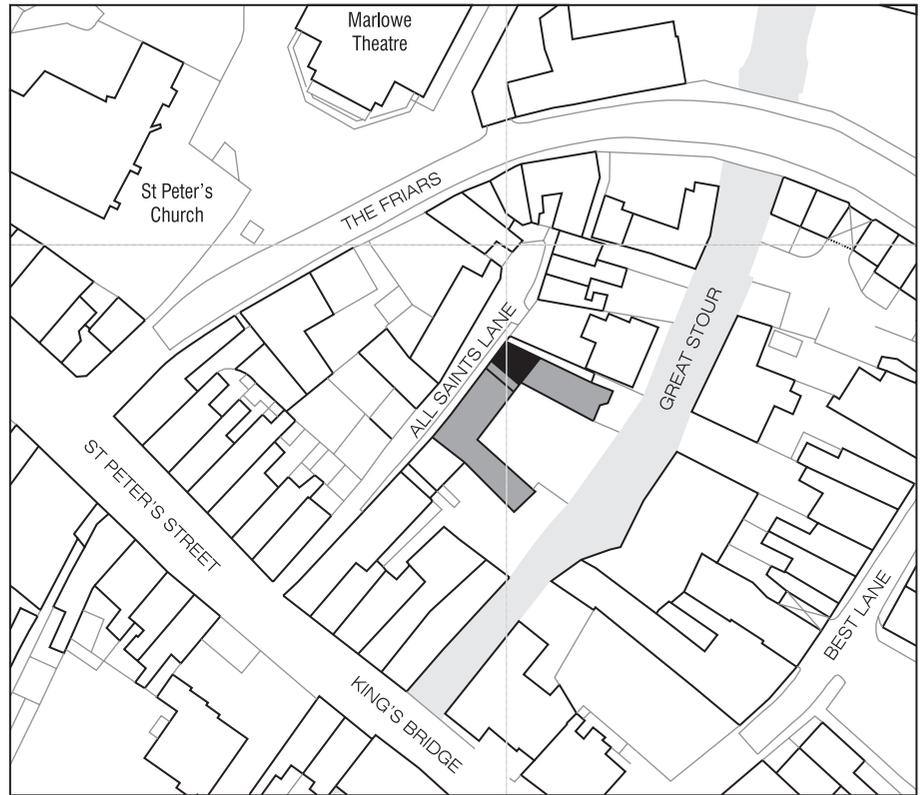
foundation for the adjacent basement wall. Probable Roman deposits were observed at the base of the trench but could not be adequately interpreted. Most of the trench was within a large feature that can be confidently interpreted as a cess pit, from the nature of its backfill. The pit, dated to the period c AD 1140–75 from recovered pottery, probably predated the construction of the possible medieval cellars, which would be compatible with the documentary evidence for the area.

All Saints Court, All Saints Lane, Canterbury

Dale Robertson and Simon Holmes

During alterations to this Grade II* listed building, a well preserved hearth was discovered. Enigmatic traces of the pots that once simmered upon it showed that it had served the inhabitants of a medieval building pre-dating the late fifteenth- or early sixteenth-century building that stands today. The discovery, in January 2009, was made during a watching brief maintained during the removal of a concrete floor prior to the creation of a twenty-first century kitchen on the same site.

All Saints Court (NGR 614803 157987) is situated at the end of All Saints Lane, a cul-de-sac on the north side of the High Street (St Peter's Street) close to the point where it crosses the River Stour. The river forms the south-east boundary of the property. The present building has stood on the site since the late fifteenth or early sixteenth century, and is one of only a few Canterbury buildings to retain its timber-framed appearance. During the 1930s and 40s the building was used as a youth hostel. In the 1950s it became home to the Sidney Woodman School of Dance and remained so until its recent sale. The concrete floor at the north-east end of the building was probably laid between the 1930s and 1950s. A recent building



Location plan showing the excavated area at All Saints Court.

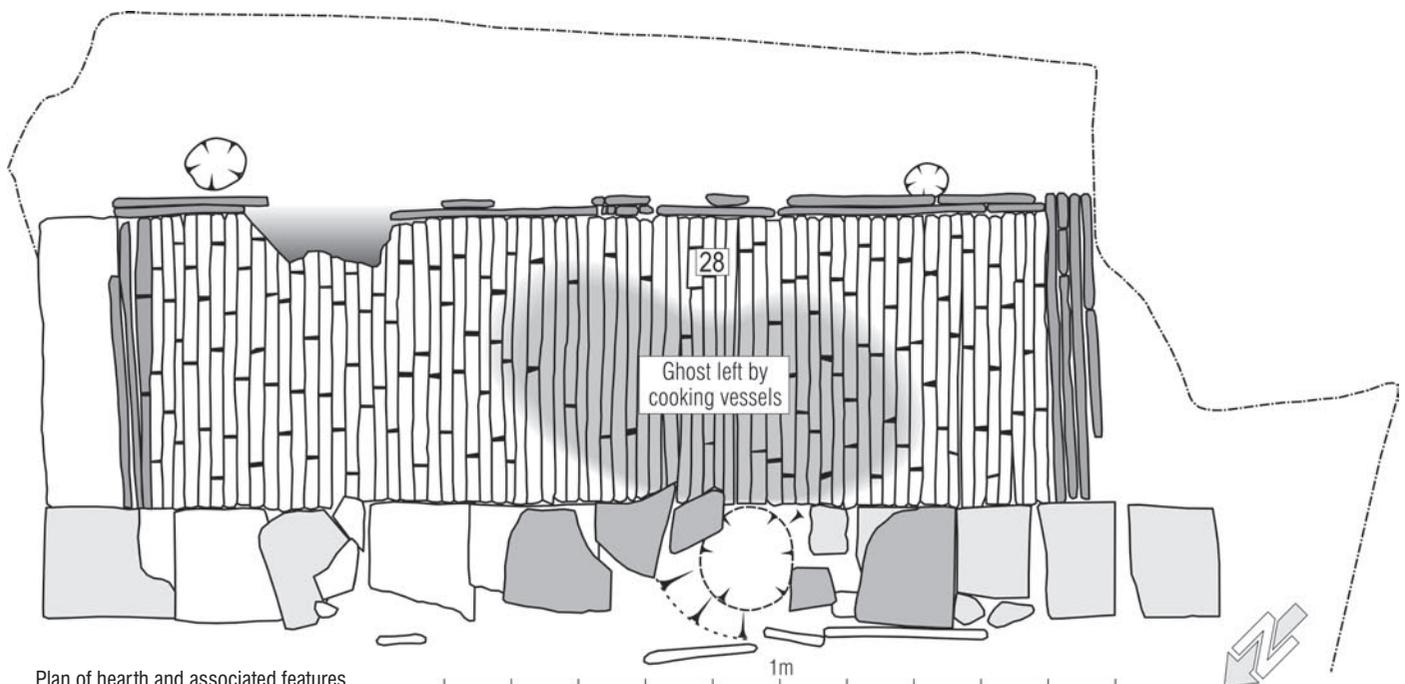
survey (Austin 2007) noted that the building's original use was unknown and that there was no surviving evidence for how it had been heated.

The earliest features recorded in the shallow depth available beneath the concrete floor (c 200mm) were a peg-tile hearth and a flint-mortared wall, both on a south-east/north-west alignment. The hearth sat in a rectangular construction cut, with its tiles bonded with sandy-brown clay. Two small post-holes recorded at the front of the hearth may have been contemporary with it and used to support fire-dogs

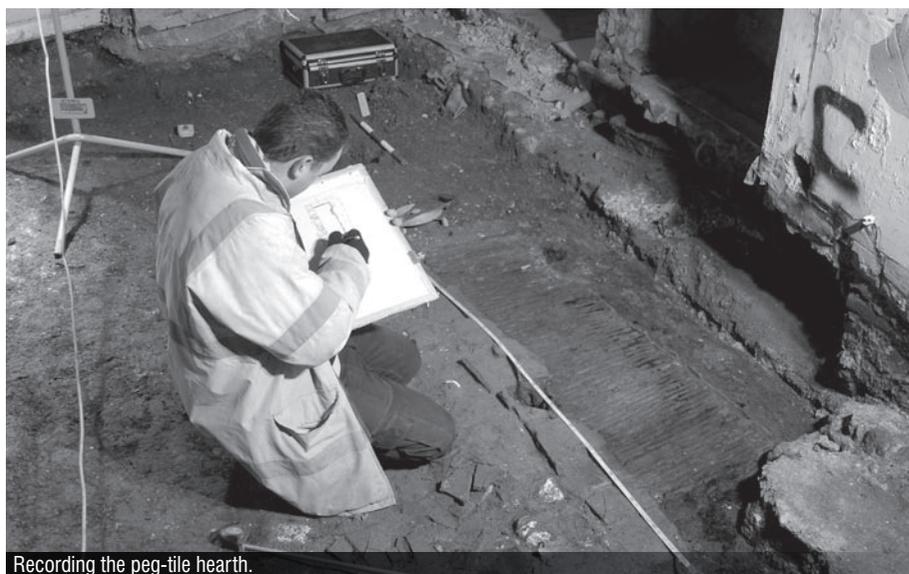
or a grate. The hearth base retained traces of faint impressions or 'ghosts' left by cooking pots.

The hearth back abutted a flint mortared wall running on the same alignment; the wall consisted of large rounded flints and was bonded with a hard greyish mortar. A second wall was uncovered to the north-east of the hearth; this had a similar mortar and flint construction. The walls appeared to be contemporary.

Two successive layers of demolition debris were recorded above the hearth and walls, overlying which



Plan of hearth and associated features.



Recording the peg-tile hearth.

was a compact layer of dark brown clay containing brick, tile, pottery and animal bone. A 2m long 'trampled' area was observed in the surface of this running in a north-east/south-west direction from an existing door in the north-east gable end of the building. Above this a thin (10mm) layer of coarse yellow sand formed a horizon immediately beneath the concrete floor.

Also observed during the work was a brick fireplace set into the south-west (rear) wall of the present building. This appeared to date to the seventeenth century and consisted of a mortared brick footing onto which had been set a stone flag hearth. This had been replaced with a smaller fireplace, perhaps when the concrete floor was installed.

Though limited in extent, the observations made in the small glimpse beneath the floors of All Saint's Court had interesting results. The peg-tile hearth and the two flint-mortared walls undoubtedly belonged to an earlier structure on the site, with one room fronting All Saints Lane and another to its rear, served by the hearth. No finds were recovered which might date this early structure, but similar features uncovered at 30 North Lane in 1989, were dated to the thirteenth to fifteenth century (Leggatt 1991). The arrangement of peg-tile within the demolition layers suggests that this earlier building on All Saints Lane was toppled towards the modern street frontage to make way for the construction of the present property in the late fifteenth century.

We would like to thank Tim Ellis of Historic Building Conversion and the new occupants of All Saints Court for commissioning the work.

Ryde Street, Canterbury

Mick Diack

A small plot of land located on the northern side of Ryde Street (NGR 614207 158246) was evaluated by excavation in October 2008. Evaluation on the southern side of the road undertaken in July 2006 and a consequent watching brief had identified a possible field boundary ditch, sealed by a series of

Roman metallated layers, though it was not possible to determine whether these represented a street or a yard surface (Found 2008). Ryde Street is close to a substantial Roman cemetery, parts of which have been excavated at St Dunstan's Terrace (Diack 2003; Diack forthcoming) and at Cranmer House, London Road (Bennett 1987a). There have been several other Roman period burials noted in the vicinity; in particular from New Street (Bennett 1979; 1986b; 1987b).

The evaluation consisted of a single trench 13.5m long and 1.5m wide, cut diagonally across the plot of land to a maximum depth of 1.10m or +16.30m OD. Three compact gravel features were noted, interpreted as possible building pads (contexts 9, 10 and 11). These were late first century BC to mid first century AD in date. There were several other deposits (6, 7, 8, 16 and 17) of uncertain interpretation but which, together with a redeposited brickearth (4), probably represented Roman industrial activity.

A single Roman cremation burial was found consisting of a coarse grog-tempered jar (containing the cremated bone), and a flagon and beaker, both in Oxfordshire-type fine red-brown colour-coated ware. The assemblage probably dates to the late third or fourth century AD. There were several iron nails noted in the backfill and some of these were possibly hobnails. The fragmentary nature of these is suggestive of offerings burnt on a pyre and collected for inclusion in the grave, rather than items buried when the grave was backfilled. There is however the possibility that these were accidental inclusions of pyre material rather than deliberate offerings. The bone from the cremation has not thus far been examined by an osteologist and the soil samples have not been processed. Large fragments of cranial vault with visible but well closed sutures were, however, noted by the writer during excavation, indicating that the remains included a mature adult.

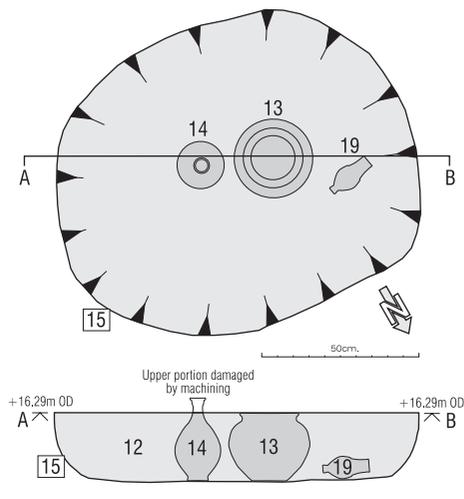
The latest deposit of archaeological significance (3) was a burnt clay layer of medieval/post-medieval date suggestive of industrial activity. Above this there were various nineteenth-century garden soils and the structural remains of a block of cottages demolished in the 1950s or 60s.

The new residential development was designed to have minimum impact on archaeological levels on the site. A watching brief maintained during the development, however, identified further possible Roman soils and metallings though no further burials, or burial related deposits, were noted.

The cremation burial is of particular significance, not only because it extends the area of Roman burial flanking London Road further eastwards than hitherto known, but also because of its unusually late Roman date. One cremation burial at St Dunstan's Terrace was dated to AD 270–370 on the basis of the pottery within it and there were two further late aceramic cremations. Whilst cremation burials of this date are not unknown in south-east England, the practice of



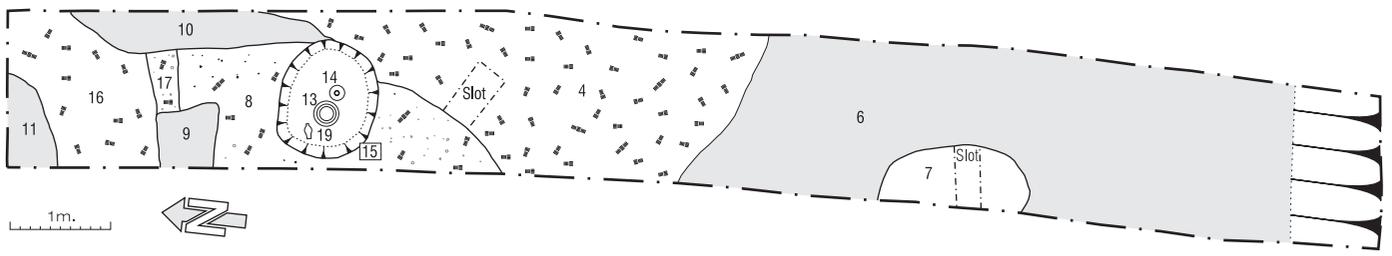
Site location plan.



Plan and east facing section of cremation burial.



The cremation vessels, post-excavation.



Plan of evaluation trench.

cremation had generally been replaced by inhumation by this time (Philpott 1991, 50).

Thanks are extended to Mr A Murray who commissioned and funded the work at Ryde Street. The author was assisted during the site work by Richard Hoskins and the consequent watching brief was maintained by Dale Robertson in March 2009. The pottery was identified and photographed by Andrew Savage.

House of Agnes, 71 St Dunstan's Street, Canterbury

Dale Robertson and Tania Wilson

During November 2008 the Trust was commissioned to undertake a watching brief and small evaluation on land to the rear of the House of Agnes, 71 St Dunstan's Street, Canterbury (NGR 6144 1581). The archaeological work consisted of two elements; a watching brief to monitor the excavation of a service trench, and the excavation of two evaluation trenches within the footprint of a new single storey building (Trenches A and B). Observations made during the course of the archaeological investigation revealed further evidence for Roman activity within the north-west suburbs of the Roman town.

The St Dunstan's area of Canterbury is rich in archaeological remains. St Dunstan's Street lies on the line of a major Roman road leading from the town's West Gate and previous discoveries have indicated the presence of a Roman industrial suburb during the first and second centuries. Excavations at Linden Grove during 1987 revealed a Roman street

aligned north-west to south-east and running parallel to St Dunstan's Street. In addition the fragmentary remains of two kilns were recorded which have been dated to the first and second centuries (Bennett 1989). In 1991, the Roman street was observed in a small evaluation trench in land to the rear of the House of Agnes (Bennett 1991) and excavations at Starr Place during 1991 and 2000–2001 again picked up part of this street (Scott 2003). The Starr Place investigations also revealed a kiln of second-century date, yard surfaces and the partial remains of a possible timber structure dated to the second to third century. Roman burials have also been recorded in the close vicinity. In 1951 two inhumation burials were found at 21–24 St Dunstan's Street (Jenkins 1951) and more recently, at the same location, a further two inhumations and two possible disturbed graves were discovered (Gollop 2009).

Many of the properties now seen along the St Dunstan's Street frontage have their origins in plots laid out during the medieval period and evidence of burgage plot activity to the rear of these properties was observed at Starr Place (Scott 2003). The House of Agnes itself is an early seventeenth-century structure. However excavations conducted in 2005 to the rear of the property revealed evidence to suggest that this building had replaced an earlier timber-framed structure (Linklater 2007; Linklater and Dekker forthcoming). These investigations also revealed evidence for a pottery kiln of post-medieval date.

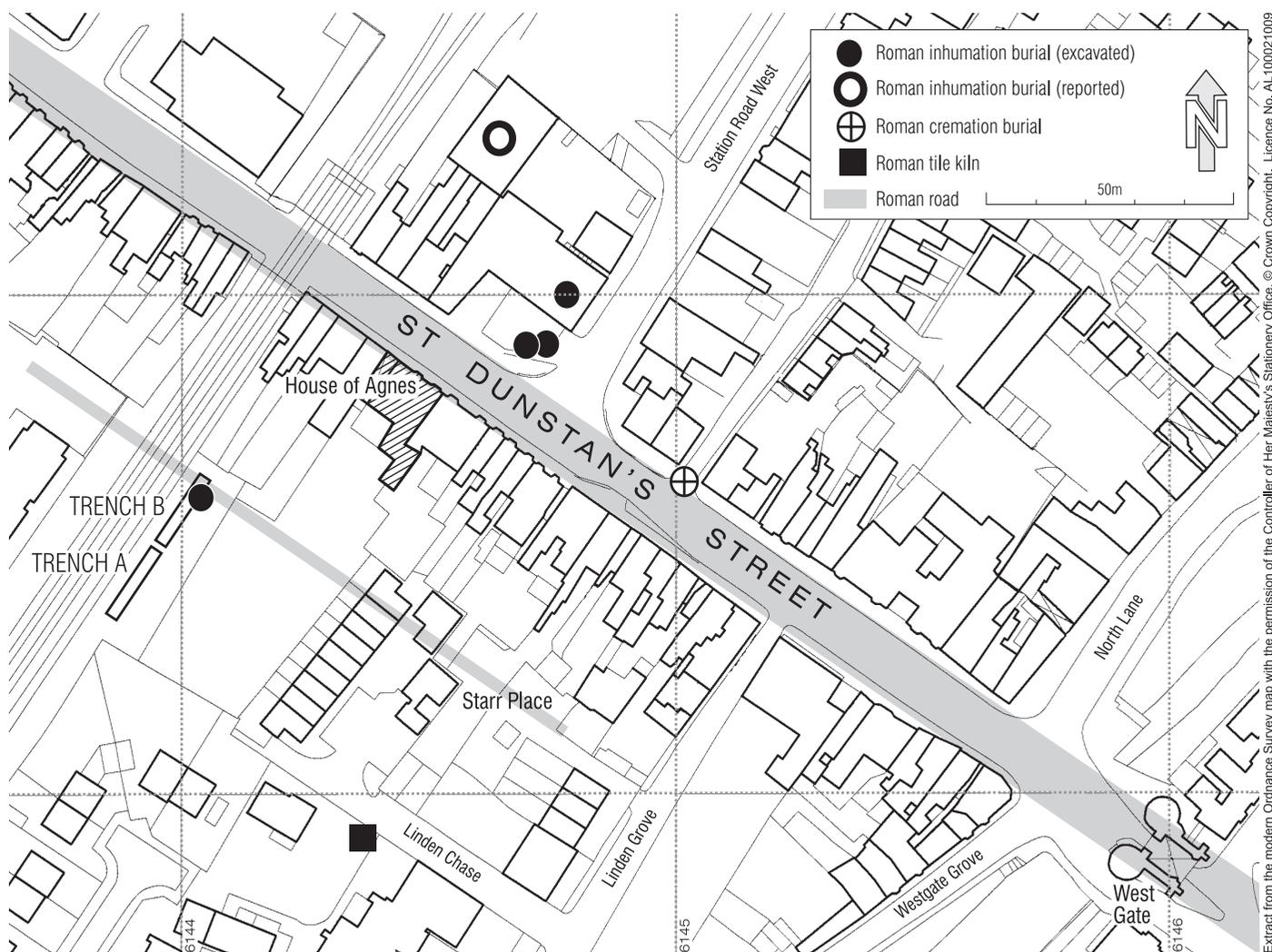
Watching brief

The watching brief recorded the build-up of a sequence of deposits. Sealing natural brickearth, the

earliest deposits produced no datable material. Within the service trench towards the rear of the building a series of scorched clay layers were identified which may be associated with the nearby post-medieval kiln (Linklater 2007). However throughout the remainder of the trench a general horizon of garden soils appears to be represented. Cutting through these deposits was a sequence of post-medieval pits, in turn sealed by a soil horizon containing abundant brick and Kent peg-tile. Two structures dating to the nineteenth



Roman street metallings in Trench B, looking west. Scale 1m.



Extract from the modern Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office, © Crown Copyright. Licence No. AL100021009

Location of the trenches at the rear of the 'House of Agnes' and other Roman discoveries in the vicinity.

century, a brick-built storm drain that ran parallel with St Dunstan's Street and the remains of a glasshouse were also recorded.

Evaluation

The evaluation trenches revealed a complex sequence of archaeological deposits dating from the Roman period through to the present day. Three pits situated at

the west end of Trench A represent the earliest features in this trench. These were subsequently cut by a group of post- and stake-holes. No datable material was recovered from these features but they may represent early Roman activity in the area. Sealing these features was a thick soil horizon which probably represents a hiatus of activity within the area.

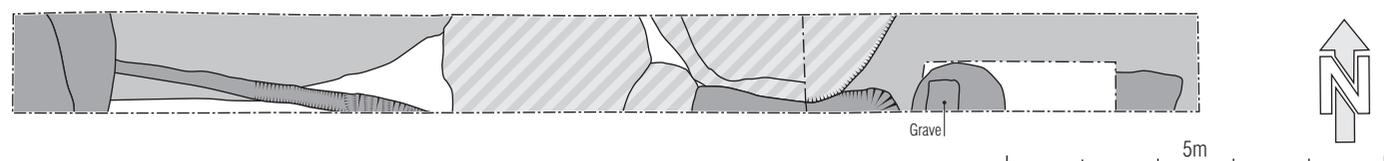
At the east end of Trench B an area of Roman street metallings was observed. This almost certainly

represents another section of the street previously seen at Linden Grove and Starr Place. Probably around the same time the street was in use, a number of clay extraction quarries were opened to the south-west of the road. At least two of these were identified in the evaluation trenches, the upper fills of which produced pottery ranging from the late first century through to the early third century. A series of probable rubbish pits observed in both trenches is

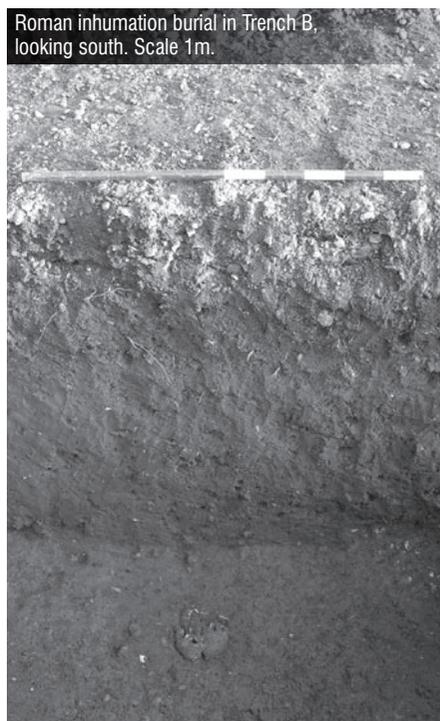
Trench A



Trench B



House of Agnes trenches A and B plans.



broadly contemporary with the quarries. A significant assemblage of Roman ceramic building material was recovered from the fills of the quarries and several of the later features. Initial analysis shows that a proportion had been overfired or had been subject to further firing suggesting that this material was derived from a kiln (O'Shea 2009).

At some point during the Roman period, the street was abandoned and a deposit of silt developed on its surface. Following this brief hiatus, a series of possible rubbish pits and one beam slot indicate later Roman activity within the area. The beam slot represents the fragmentary remains of a timber building, and pottery recovered from this feature has been dated to the late third to early fifth century. The discovery of this structure, and that of a similar timber building at Starr Place, may provide evidence for a shift of land-use from that of an industrial character to domestic occupation.

In Trench B, cutting through one of these later pits, the grave for an inhumation burial was partially exposed. The burial was aligned north-west to south-east and lay parallel to St Dunstan's Street. No datable material was recovered from the burial, but it is highly likely that it is associated with the Roman inhumation burials discovered nearby at 21–24 St Dunstan's Street. The position of the grave, late in the Roman sequence, is also consistent with this association as inhumation burials of this period are traditionally late Roman in date. This burial provides the first evidence that the extra-mural Roman inhumation cemetery extended along both sides of this section of St Dunstan's Street.

In both trenches the Roman archaeology was sealed by a thick soil horizon, almost certainly an accumulation of garden soils which had developed throughout the medieval period. This deposit was cut by a number of rubbish pits, some of which produced pottery dated to the late sixteenth to seventeenth century. These post-medieval features were sealed by

a deposit of more recent garden soils and the present rubble and gravel surface.

The results of this recent fieldwork have added significantly to our knowledge of the St Dunstan's area during the Roman period. The findings support suggestions that during the second and third centuries AD activity in this area was largely industrial in character. Clay was being quarried to support the manufacture of pottery, brick and tile in the area and these activities were supported by a road network. Perhaps later in the third century the quarries became infilled and the road fell out of use. Following this a change of land-use to domestic occupation appears to be represented, and later still in the Roman period part of this area becomes part of an extra-mural inhumation cemetery.

During the medieval period little activity is evident and probable garden soils accumulated. This continues into the post-medieval period when a number of rubbish pits may represent peripheral activity associated with the nearby pottery kiln.

Preliminary survey of earthworks in the vicinity of Bigbury Camp and the Blean Woods

Christopher Sparey-Green

A survey of areas of coniferous and broad-leaf woodland in the vicinity of Bigbury Camp and in the South and West Blean was carried out during the early summer of 2008, this work commissioned by the Kent Wildlife Trust. The survey was intended to identify earthwork traces which might be affected by the clearance of coniferous plantations and by the creation of more open scrub or pasture from areas of chestnut coppice. The latter work, in particular, would improve access to the scheduled monument on Bigbury Camp, while clearance of areas in the South Blean to the west and in the West Blean and Thornden Woods to the north of the city might also reveal previously unrecorded earthworks.

A walk-over survey aided by Ordnance Survey maps and online air photographs formed the basis of the survey while the Historic Environment Records (HER) provided data on a few recorded sites. A preliminary assessment of the relevant documentation by Dr Sheila Sweetinburgh has shown that references to the Blean occur from the eighth century AD and that the woods were in royal and ecclesiastical ownership but were often let out to lay management, the records of which have not survived. The ancient broad-leaf woodland has been the subject of survey for a number of years, but it was suspected that much remained within the newer plantations (Holmes and Wheaton 2002).

The underlying geology is complex, with areas of River Terrace Gravels and Woolwich Beds on the high ground overlying Thanet Beds. In the South Blean the latter is overlain by London Clay, while pockets of Head Brickearth occupy the valleys. On the Stour Valley slope the chalk is exposed, overlain by Valley Deposits and Clay with Flints in the coombes.

Bigbury Camp

The survey of Bigbury Camp assessed the impact of clearance and fencing work on the earthworks. Discoveries here date from 1861 when the first of four groups of late Iron Age finds was recovered during gravel quarrying (Brent 1861, 33). Thereafter, the earthworks of the hillfort were traced within Bigbury Wood (Hussey 1874) while further finds were made, the largest group in 1895 (Boyd Dawkins 1902, summarised in Jessup 1932, 95–8). The material comprises ironwork, pottery and clay loomweights of late Iron Age type. Although identified as derived from hoards or high-status burials the composition of the finds groups and their association with extensive burning suggests destruction of structures and their contents. Excavations carried out between 1933 and 1981 have provided an outline of the history of the defences and settlement within. The north-eastern defences overlay further burnt deposits, the pottery dating up to the mid first century BC (Jessup and Cook 1936; Jenkins 1962; Thompson 1983; Blockley and Blockley 1989).

The earthworks comprise three main elements. First, a cross-ridge dyke delimiting the eastern spur and, secondly, at least two phases of contour-following ramparts enclosing more of the spur, with an annex on the north-east slope. The univallate defences of the hillfort follow approximately the 65m contour of the spur and enclose an area of 16 hectares with entrances to east and west, at the approximate points where the later Pilgrims Way crosses the defences. A univallate annex of 5 hectares on the hillside to the north represents a later extension around a spring. The inner defence may have been strengthened by a counterscarp bank to east and west; slighter outer defences also exist on the north-east. The southern half of the hillfort and the eastern entrance, outside the scope of the present study area, are badly disturbed by later tracks, agriculture and quarrying.

Limited activity during the Roman period is suggested by the find of a complete glass jug and pottery vessels of the late first or early second century AD, probably grave goods from a burial. Jenkins also records finds of third-century Roman coins.

A walk-over survey in April and May 2008 clarified details of the defences and the main areas of gravel quarrying within the Wildlife Trust land. A contour survey provided a more detailed plan of the northern defences where these had been recently cleared of coppice wood (centred on NGR 61192 15773) while, lower down the slope, the return of the outer defences to join the annex was identified.

Within the annex and west of the camp, slight boundaries define irregular polygonal areas which are probably banks defining woodland compartments of medieval or later date. A major bank and ditch following the ridge running west from the presumed site of the west gate may form part of this pattern but the scale of the bank suggests an earlier origin as a defensive feature extending at least 200m west (NGR 61143 15747–61125 15748).

The present survey suggests that an outer enclosure on the north-east margin of the wood may be part of a more extensive outer work, now largely erased,



The bank and ditch in Denstead Wood looking south-west. The figure is 1.6m high and has cold and wet feet.....

but visible below Bigbury Wood, approximately 400m south of the camp (Morris nd). A substantial double bank and ditch here follows the contour for at least 200m as far as a small re-entrant to the west (NGR 61165 15700–61185 15713). In the open ground to the north-east the earthwork is not apparent, but its line is perhaps continued by the line of the Parish Road, curving northwards to the area of the presumed east gate and possibly linking with the outermost defences beyond.

The South Blean

In the South Blean, west of the present village of Chartham Hatch, further earthworks can be recognised in Hunstead and Fright Wood, Nickle and Denstead Woods and Joan Beech Wood. Much of this complex lies outside the compartments under consideration so only brief details will be given here.

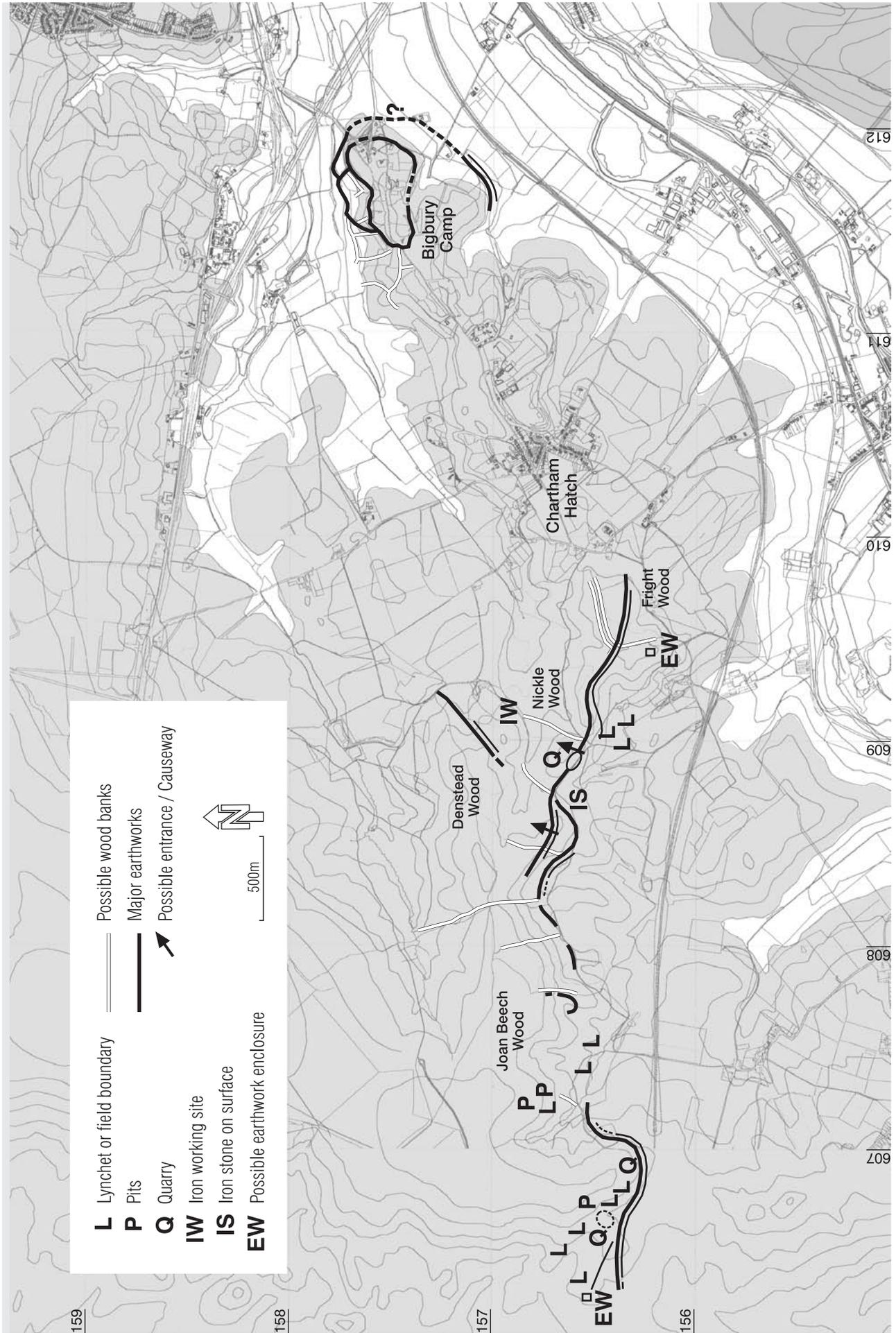
The more substantial earthworks consisted of double banks and ditches following the contours on the slopes overlooking the Stour valley to the south-east. These earthworks have the appearance of originally substantial structures now heavily eroded and silted, up to 2m high from ditch base to bank top and up to 10m wide over a single bank and ditch. Slighter, more clearly defined banks and ditches, 0.5 to 1m deep overall and 1–2m wide across bank and ditch, were noted at several points cutting across or abutting the larger earthworks within the main

woodland tract. Similar boundaries defined the edges of some compartments so it is presumed that these are wood banks, defining compartments not now visible within the extensive woods. Some at least of the earthworks in Hunstead Wood and Joan Beech Wood have previously been reported (Morris nd). In the following summary the sites are described in sequence from east to west.

First, south-west of the village, two major earthworks could be recognised in Fright Wood, beyond the survey limits. The first of these was a double bank and ditch extending along the ridge westward from NGR 60965 15633–60900 15653, followed on the north side by the present track. At the west end it was cut by a track between this and Nickle Wood, at which point the boundary had bifurcated, the southern boundary petering out on the wood edge. At the east end an embanked track, heavily overgrown, crossed over the line of this boundary, the ditch of the latter visible in the surface of the track as an area of damp soil fill, the flanking banks and ditches cutting the double bank. The track, although undated, was superficially similar to the Radfall in the West Blean and headed north-east towards Hatch Lane and perhaps continuing as the line of Town Lane towards Chartham Hatch. A possible earthwork exists on the spur to the south of the wood (NGR 60943 15618) while at the western end slight terraces on the hillside centred on NGR 60895 15640 may be traces of ancient arable fields rather than more recent orchards.

To the west, earthworks in Nickle Wood lay outside the study area but continued the major boundary along the south side of the hill between NGR 60874 15668 and 60899 15653, approximately on the 100m contour above the present track. This substantial double bank and ditch was 20m wide overall and from crest to base of ditch up to 1.5m deep. On the summit it was cut by a large silted quarry pit beside the present track.

Within the coniferous compartment on the spur at the southern part of Denstead Wood two major earthworks can be recognised, one continuing the line along the high ground westward, the other skirting the lower slope and followed in part by the present track. The first was a substantial single bank and ditch cut by one ditch on the east of the hill and a more clearly defined but slighter woodbank on the ridge to the west before petering out at NGR 60842 15682. The lower boundary for much of its course around the south and east of the spur was followed by the present track; to the east it may have linked with the southern of the double boundaries on Nickle Hill. A slighter wood bank and ditch followed the track on its course to the north east. Beyond the study area to the west, the lower boundary diverted from the track and within the coppice wood on the lower slopes was visible as a substantial double bank and ditch which extended to at least NGR 60815 15672 before becoming lost in Bower Wood to the south-west. From a point on this boundary at NGR 60823



Plan of earthworks in South Blean and Bigbury Camp.

15677 another substantial bank and ditch ascends the hillside to the north where it continues as a wood bank to NGR 60818 15708.

To the north-east of this study area, a very substantial single bank with ditch on the south was traced north-east from Denstead Wood, continuing as a wood bank to the end of Primrose Hill lane. At its highest point south of Denstead Wood this was more than 2m high and 18m wide overall (see photo). A previously recorded iron smelting site nearby at NGR 60896 15705 is undated but potentially early.

Further west, earthworks occur across Joan Beech Wood, the majority on the south-western spur above the Selling railway tunnel. Slight terraces were identified on a south facing slope at NGR 60730 15670 and on westward slopes at NGR 60675 15642 and 60655 15662. Areas of shallow pitting, each hollow approximately 1m deep and between 5 and 20m in diameter, were noted on the summit of the spur at NGR 60685 15644 and 60693 15642 and may be early quarries. Larger pits on the hillside at NGR 60665 15645 and 60692 15630 may have been connected with the cutting of the nearby railway. The latter quarry cut a major linear bank and ditch approximately on the 100m contour of the spur from the valley to the east at NGR 60715 15655, this earthwork traceable for over a kilometre to the edge of the scarp to the west at NGR 60640 15641. The western spur above this may be occupied by a slight rectilinear enclosure at NGR 60637 15655. These earthworks are difficult to interpret but the terraces may have been lynchets from ancient fields pre-dating the woodland. Complexes of pits on the high ground are noteworthy since, with recovery of ironstone blocks from Nickle Hill and the evidence for iron smelting further north-east it is possible that small scale ironworking may have exploited this local ore source from later prehistoric times.

As described above, the major boundaries were sometimes cut by slighter earthworks, these forming, with the present trackways, an irregular system of polygonal enclosures each of 3–5 hectares. These could have defined compartments of ancient woodland; the more substantial linear earthworks are then an earlier and presumably defensive system, undated and deserving of more detailed survey. On analogy with other Iron Age centres in south-east Britain they may be a defensive dyke system. If this is the case, Bigbury is not simply a hillfort, but part of a territorial *oppidum* consisting of a defended settlement and an extensive western territory defended by a dyke system on the south and east towards the Stour valley. It is even possible that the complex extends further west to include the slighter earthworks encircling the prominent hill of Perry Wood. Bigbury's status would thus be enhanced, the site perhaps the largest pre-Roman centre in east Kent and a worthy predecessor of Canterbury.

The West Blean

As with the South Blean, the survey was confined to coniferous plantations within thirty-one compartments of the West Blean and Thornden woods. The extensive tract of royal woodland is

of considerable antiquity. The woodland here did not appear to contain many visible features but occasional wood banks defined compartments within it, or bounded its outer limits where this coincided with the line of the parish boundary on the south. The major feature in this area is the medieval Radfall dividing the two woods and originally an embanked drove-way passing through the wood from Canterbury, via Tyler Hill northwards towards Greenhill and Herne Bay. A similar feature presumably followed the line of the Radfall Road to the west of the study area, this one linking Tyler Hill with Chestfield and Whitstable. These routes would have served both those hauling wood to Canterbury and as drove ways for cattle and sheep. Occasional pits within the woodland may be gravel quarries, ponds or pits connected with clay-winning for the pottery industry in the area. The proximity of the medieval tile and potting industry at Tyler Hill could suggest potential for kiln sites to have extended this far. Very few earthworks have been recorded within the West Blean compartments and few finds are recorded in the Heritage Environment Records, other than prehistoric finds from Clowes Wood.

Medieval settlements around the margin of the wood originated in assarts from its edge, one such occurring at Blaxlands, its name on the earliest Ordnance Survey maps being Blacklands, a name perhaps derived from occupation soils of some long-lived settlement. A fine early medieval hall house and the site of a now levelled cottage are known here, the pattern of pasture fields strongly suggesting an area cleared out of the former southern edge of the forest, here marked by wood banks to north and east.

A rapid walk-over of the coniferous compartments identified wood banks on their perimeters. A significant wood bank was noted along the northern edge of Farthings Wood and Belce Wood (NGR 61725 16316–61660 16336), forming part of the parish boundary between Herne and Sturry. The two woods were then bounded on their southern and western perimeters by further banks, Belce Wood also subdivided by further slight, internal boundaries. The wood bank marking the parish boundary continues west and south, skirting the Blaxlands assart towards Cole Wood (NGR 61587 16343–61625 16349).

Within the main woodland to the north, earlier trackways defined by banks and ditches, were identified on either side of the axial New Road (NGR 61623 16395–61565 16355). These formed sections of an old route shown on the Ordnance Survey maps which, with other paths in this area, had defined woodland blocks aligned north-west to south-east on either side of the Radfall. The main route appeared to converge on the Radfall in Cole Wood to the south-west but had originated from the Bleangate and perhaps Herne to the north-east.

In the north-western part of the West Blean Wood, north of the New Road, the Radfall fell between compartments under consideration but was visible as a well-preserved but overgrown trackway bounded by substantial banks and ditches. To the north, after a distinct 'dog-leg' to the east in Cripps Wood at NGR 61554 16396, the two boundaries continued north

as a substantial earthwork along the north-west side of the wood (NGR 61578 16415–61580 16490), its line apparently continuing north towards Bleanbottom Shaw and not east to Bleangate (*pace* Allen 2004, 118). The alignment of the Shaw suggests a continuation towards Greenhill and Eddington, rather than Herne. South of the New Road the Radfall can be traced between Honey Wood and Great Hall Wood towards Tyler Hill.

Within Thornden Wood, north of the New Road, a substantial but much denuded and silted earthwork defined the north-west side of a compartment marching with the west side of the Radfall (NGR 61505 16353–61506 16364). This low bank flanked by ditches may have been an older and more substantial woodbank predating the present woodland divisions.

Substantial pits located in four compartments were most likely for water provision or removal of gravel. Two water-filled, tri-lobate pit groups in the south of the West Blean Wood may have been gravel quarries but a group of silted, dry hollows on the present north-eastern edge of the woodland near the Bleangate could have been exploiting the clay in that area.

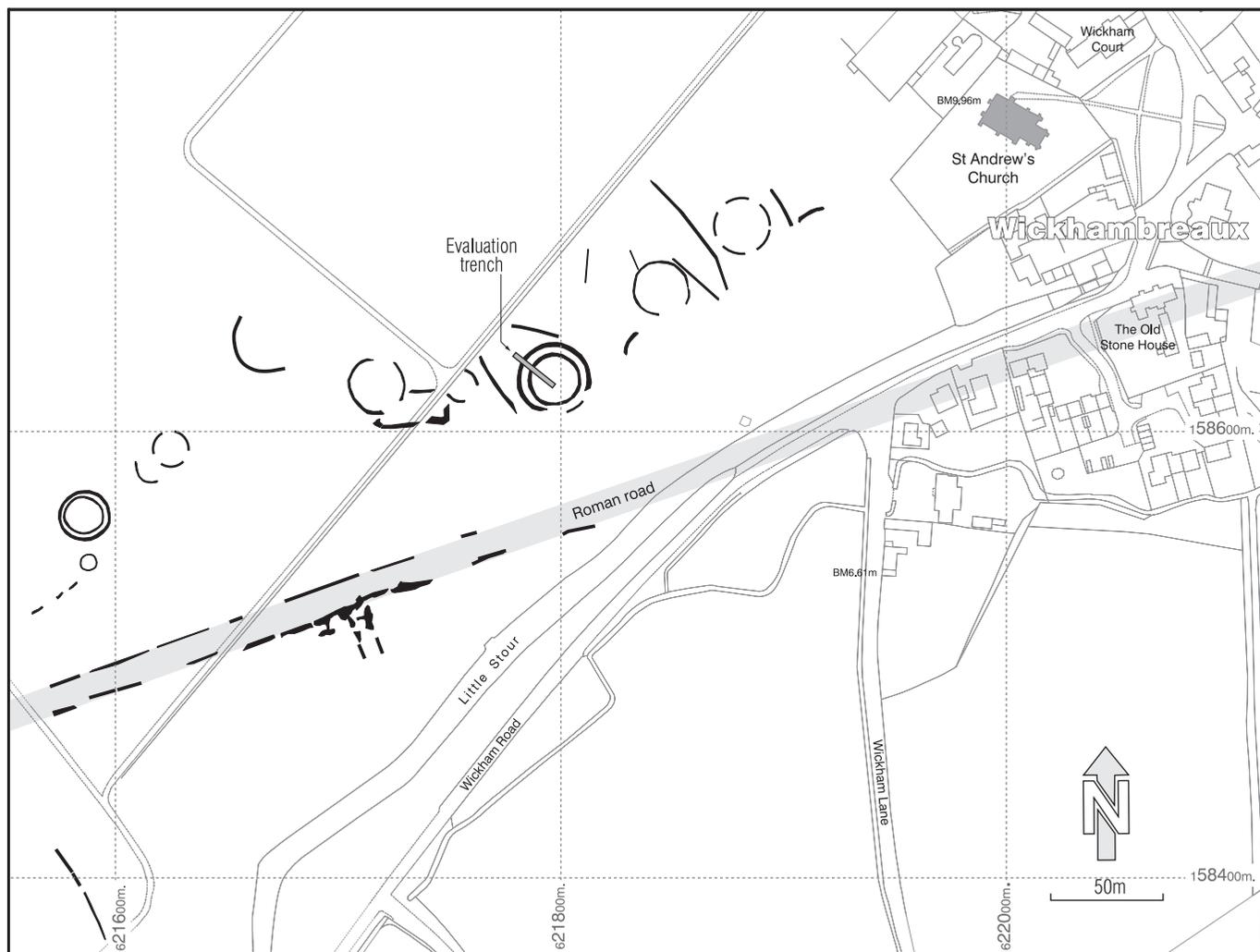
Systems of drainage channels in the coniferous plantations are probably associated with the planting of these trees, although other drainage channels do occur in the broad-leaf woodland. These works may have erased the slighter earthworks while the quantity of finds from the arable land immediately south suggests that buried sites could remain unrecognised

Wickhambreaux barrow cemetery

Andrew Linklater

Recent Google Earth satellite images of open fields between Reynolds Farm and St Andrew's Church, Wickhambreaux (NGR 62169 15862, centred) show a number of features forming part of a well preserved archaeological landscape. These images, together with a recent plot of earlier aerial photographs by Fiona Small, Aerial Surveyor for English Heritage (NMRC), reveal a varied ancient landscape with up to nine circular funerary monuments, a series of possible linear field ditches and a 275m long section of the Canterbury to Richborough Roman road (Margary Route 10; Margary 1955, 31–2) with a possible structure visible against its southern side. Part of this same road across the Little Stour's flood plain was excavated during gravel extraction in the 1970s (Bennett *et al* forthcoming). Between 2001 and 2002, a series of Roman agricultural enclosures and water management features on the opposite side of the present course of the Little Stour was identified (Spary-Green 2005). Closer to the site under discussion here, in 1794, *The Gentleman's Magazine* reported '... Three pottery vessels, thought to have been Anglo-Saxon, were found at Wickhambreaux Church ...'.

As a consequence of the landowner at Reynolds Farm entering a Stewardship Scheme Agreement with Natural England, a small excavation was



Extract from the modern Ordnance Survey map showing the position of archaeological features visible as cropmarks and mapped from aerial photographs by English Heritage. © Crown Copyright. All rights reserved. English Heritage 100019088. 2008.

undertaken in order to assess damage to surviving features by past agriculture practices and so inform a mitigation strategy for future cultivation schemes. The excavation took place in late September 2008.

A single trench was positioned to locate the double ring-ditches visible on the aerial photographs. This trench, measuring 23.60m long by 1.70m wide was excavated by machine to the upper surface of the underlying natural subsoil, which occurred at depths of between 0.34m and 0.44m below the present ground surface. The subsoil consisted of Period II River Terrace Gravels.

Two shallow, roughly parallel, linear features (16 and 20) cut the upper surface of the natural gravel. They appeared to run on a north-east by south-west orientation and were filled with similar deposits (15 and 19) suggesting that they probably shared a similar date and function despite the fact that the base of feature 16 was relatively level whilst that of feature 20 was crossed by a series of shallow linear depressions. It is suggested that both features may represent the remnants of prehistoric cultivation terraces; the linear depressions may indicate secondary use as a trackway. Part of a sizable pit (17), cut the backfill of feature 20.

The inner and outer ditches of the barrow were identified at the north-western end of the trench. Slots

hand-excavated in both of them revealed different profiles, but similar deposits.

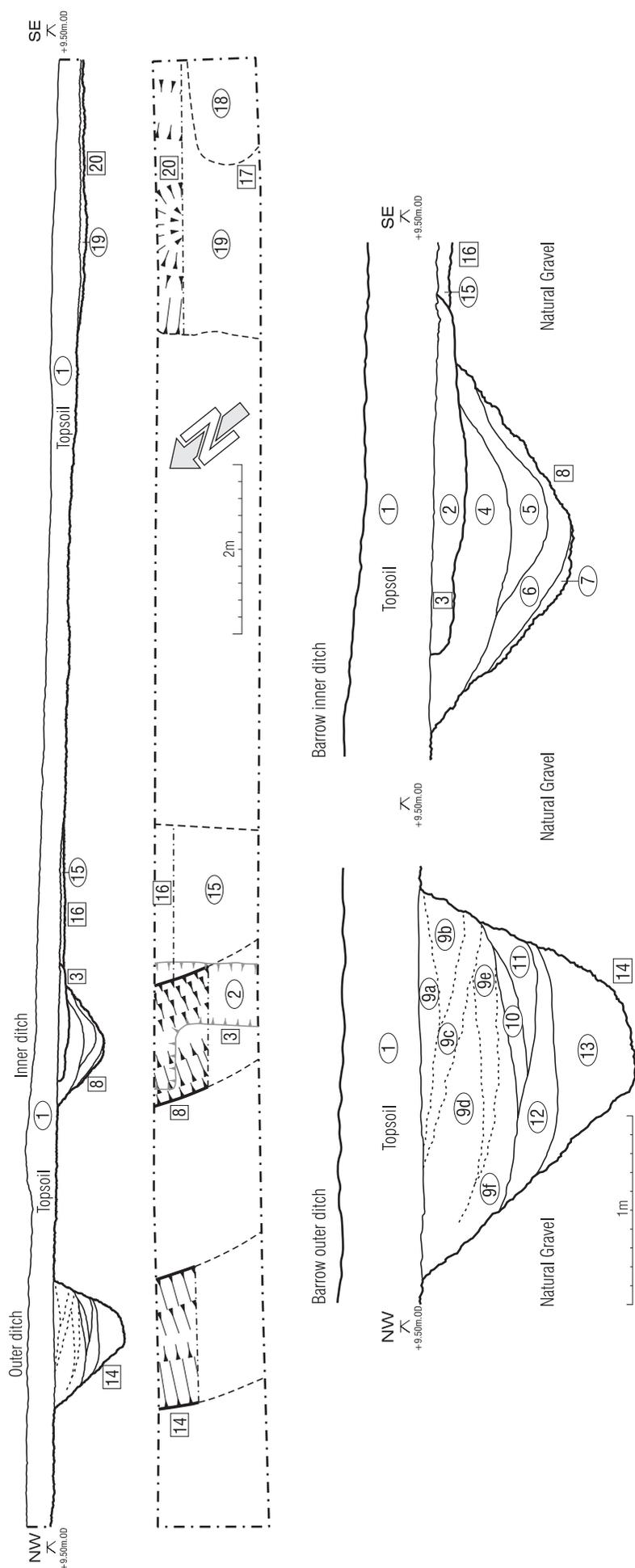
The innermost ditch (8) was approximately 2.02m wide and 0.74m deep. Lining its base and extending over halfway up its north-western (outer) edge was a comparatively thin deposit of coarse sand and fine angular gravel (7). This was sealed by an irregular depth of compact coarse sandy gravels (6) that despite extending across the full width of the ditch base was found to be more substantial against its north-western side. A further deposit of compact coarse sandy gravels (5) that extended from the south-eastern (inner) edge of the ditch but not across its full width, rectified the irregular hollow created by the underlying deposit (6). This was sealed by a deposit of soft silty clay (4) that occupied almost half the total depth of the ditch and extended across its full width levelling the feature to the top of the natural gravel.

The outer ditch (14) was found to measure 2.06m wide and 1.12m deep. Filling its base was a singular deposit of very compacted coarse sand and flint gravel (13). This was sealed by compacted flint gravel (12) that varied in depth from 0.04m against the south-east (inner) edge of the ditch to 0.21m against its north-west (outer) edge. A further deposit of coarse sandy gravel (11) extended up the inner edge and covered the underlying deposit's south-

east side, whilst a thin layer of compact grey silty clay and flint gravel (10) ran along the centre of the ditch, filling a hollow formed by the opposing slopes of the previous two deposits (11 and 12). The remaining upper part of the ditch was filled to the level of the natural subsoil by a deposit of firm grey brown silty clay (9a, 9c and 9e) interleaved with pale-mid orangey brown silty clay (9b, 9d and 9f), containing rare small rounded and angular flint pebbles.

A shallow, flat-bottomed trench-like feature (3) cut across the full width of the evaluation trench and part of the uppermost fill of the inner barrow ditch. Filled with a mixture of compact mid grey silty clay and flint gravel (2), the feature ran obliquely across the inner edge of the barrow ditch before turning north-westwards to finish in a squared end just short of the outer edge of the ditch. This feature could not be fully investigated due to the small area available for inspection, but it may have formed part of a gravel-filled foundation for a building. A Roman date has been inferred from its regular appearance, its similarity to gravel foundations of dated structures in other rural settings and its close proximity to the line of the Canterbury to Richborough road.

A 0.40m thick layer of topsoil covered the ditches and the early linear features.



Plan and section across inner and outer barrow ditches with section details.

The group of ring-ditches visible as cropmarks on the aerial photographs are without doubt the remains of a sizable linear barrow cemetery of possible Bronze Age date (c 1800 BC). The barrows are positioned on rising ground at the south-western end of a marshland inlet of the Wantsum Channel and form one of a series of recently identified prehistoric valley-side monuments associated with water-filled or scoured inlets across north-east Kent such as Ringlemere Farm, Woodnesborough and Wingham Bridge (Needham *et al* 2006, 47–52).

The writer is grateful to Ann Clark (Historical Environment Adviser, Natural England) and Sarah Tyler of Natural England. Thanks are also extended to the landowner, Martin Twyman for his interest and support and to Richard Helm and Crispin Jarman for assisting in the field.

St Peter's Church, Bridge

Andrew Linklater

An intermittent watching brief was maintained during installation of new facilities at the parish church of St Peter, Bridge (NGR 61834 15412, centred) between 25 September and 17 October 2007. The church sits at the south-eastern end of Bridge on the foot of a rising north-westward facing slope above the Nailbourne, a seasonal chalk stream.

Early settlement in the area almost certainly owes its origins to the crossing of the Nailbourne valley by prehistoric trackways and then Roman Watling Street, the precursor to the present day A2. Today the route of this road forms the main thoroughfare of Bridge, passing immediately north-east of St Peter's Church before ascending Bridge Hill to the Barham Downs. In the early nineteenth century its course was realigned via a substantial entrenchment, paid for by the then owners of Bifrons House to ease the gradient in and out of the village. This re-alignment of the road left evidence of its former route as a linear earthwork alongside its south-western edge. Further evidence of its ancient pedigree is testified by the discovery and excavation of several inhumation and cremation burials recorded either side of the course of the Roman road. These included an extensive Anglo-Saxon cemetery on Star Hill, first explored by the Reverend Brian Fausett in the late eighteenth century (Fausett 1856) and more recently by the Kent Archaeological Field School (KAFS 2008).

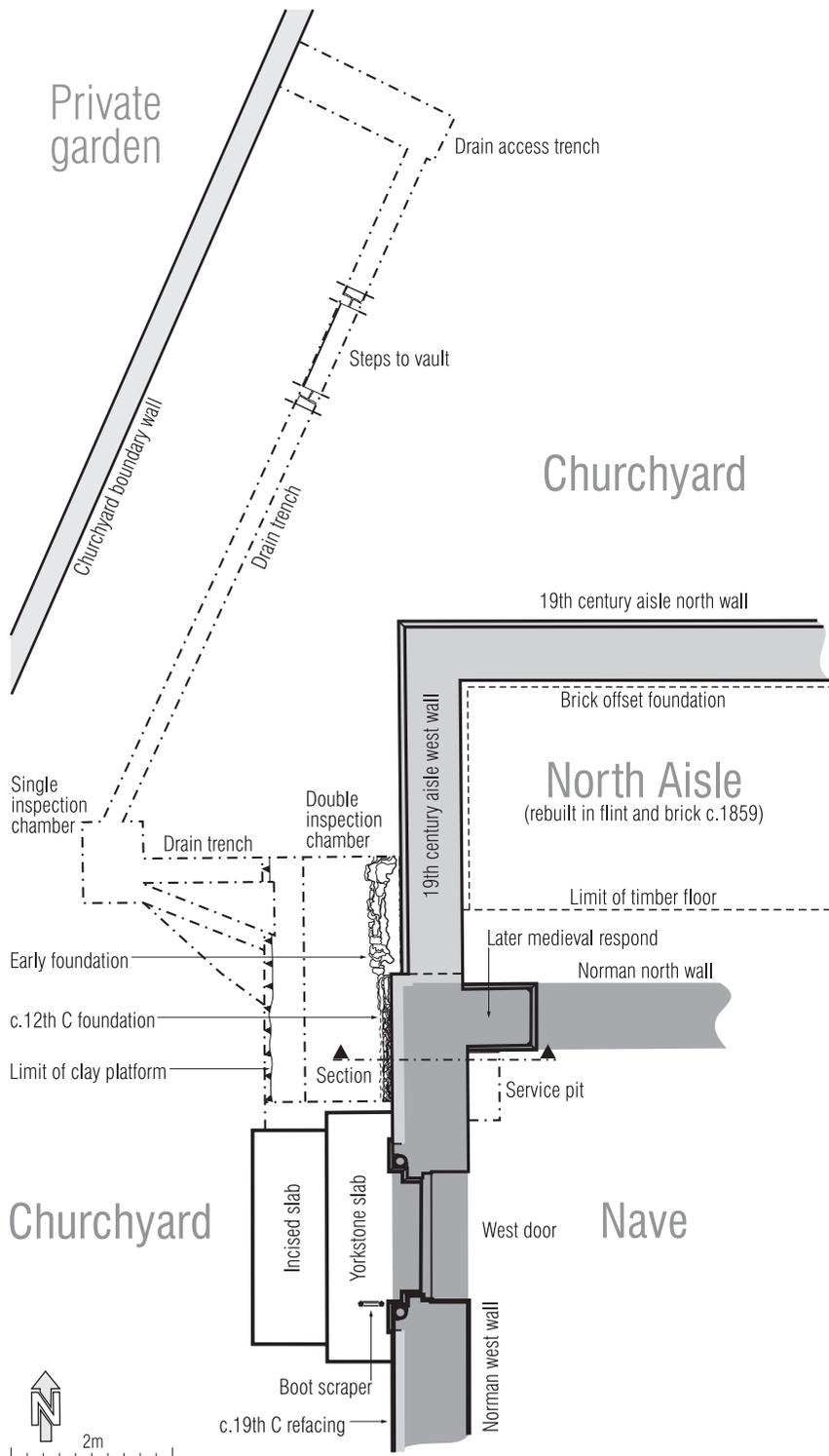
Despite the nineteenth-century external appearance of St Peter's Church since its extensive restoration in 1859, it is known that the structure once exhibited features suggesting a major construction phase of the church no later than c 1180. Testament to its Norman origin can still be found in the surviving west doorway and a smaller entrance in the north transept known to have been moved during the nineteenth-century restoration. This remodelling also included reconstruction of the north aisle, which was of a later medieval phase, and the complete remodelling of the Norman tower. The entire structure was re-clad with a new flint facing and most of its original dressed stonework of the windows and quoins replaced in Bath Stone.

Internal groundworks associated with the installation of the new facilities consisted of the removal of pews and associated suspended timber flooring from the west end of the north aisle and the creation of a small service connection pit in the north-west corner of the nave. Outside the church, the excavation of a double inspection chamber against the external face of the nave and the north aisle's west wall was to connect to an existing drain nearby via a section of open trenching through the graveyard, north-west of the church.

The earliest archaeological feature recorded consisted of a 1.50m long section of crude masonry foundation immediately beneath the present north aisle west wall. Aligned approximately north-south, it was formed of unworked flint nodules bonded with a creamy white coarse gritty lime mortar. To the south, it had been largely removed by a construction trench associated with the present nave west wall foundation, whilst its upper levels had been affected by the cutting of the north aisle's west wall in the nineteenth century. Abutting the western face of this



Detail of twelfth-century foundation corner formed using roughly hewn stone blocks.



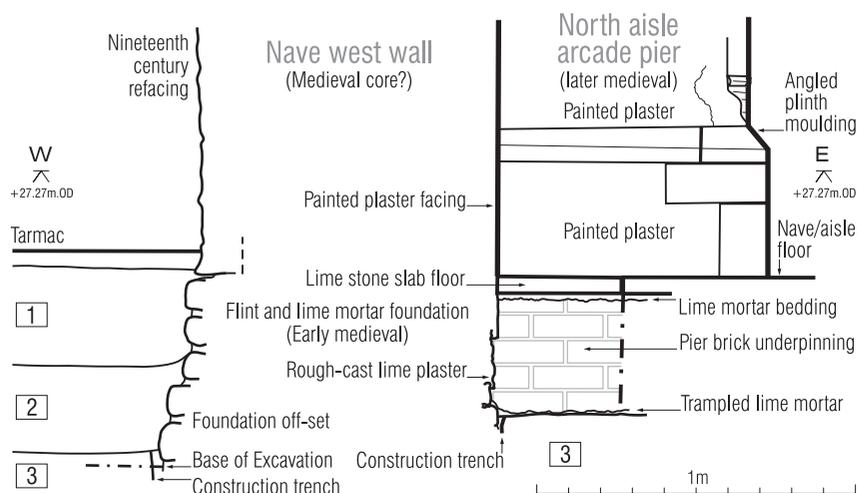
Plan of the west end of St. Peter's Church, Bridge showing the location of excavations associated with service installation.

early foundation was a distinctive mixed silty clay deposit (3), containing abundant inclusions of chalk, carbon and the occasional struck flint flake, which appeared to represent a level construction terrace created to counteract the rising ground to the east. The exposed upper surface of this deposit (recorded beneath the nave and north aisle timber floor) had been scoured level during the nineteenth century revealing fragments of crushed creamy white coarse gritty lime mortar throughout. Comparison between these mortar fragments and the bonding mortar associated with the early foundation recorded beneath the north aisle's west wall showed them to be similar.

The abutment of this deposit against the earlier foundation suggests its associated structure was either being demolished during the formation of deposit (3) or was in serious decline. Its demise, no doubt was associated with the construction of the present church, which according to the existing architectural details of surviving doorways and windows is no later than c 1180.

Cutting into the top of this deposit and removing the southern continuation of the earlier foundation, was a sizable construction trench associated with the masonry foundation of the west wall of the present nave. Consisting of five horizontal courses of medium-sized face-knapped flint nodules, bonded using firm mid-pale creamy brown coarse gritty lime mortar, its two lowest exposed courses were laid almost flush against the construction trench face symptomatic of the foundation being trench built. This was in contrast to the upper three courses, which were set back 0.06m to create a slight stepped offset to the foundation that continued to a depth of only 0.09m below the present exterior tarmac path surface. Above this the external face of the twelfth-century wall had been replaced by neatly fitting halved flint nodules raised as part of the nineteenth-century restoration.

In the nave service pit, rising from its construction trench above the scoured surface of deposit (3),



Section detail through the nave west wall.

a small section of the same foundation's interior face was observed though this had been largely concealed by nineteenth-century roughcast plaster. Despite this, enough was visible to show it to be constructed in a similar fashion to its exposed exterior face though composed of smaller flints in more even courses.

Immediately beneath the junction of the nave and the north aisle, the north-east corner of the exposed twelfth-century foundation was recorded turning eastwards. As is typical of early medieval constructional methods the outer corner of the foundation was formed using two sizable irregularly hewn stone blocks derived from the Thanet Beds laid one above the other. Over these, a single heavily weather-beaten ashlar block of Caen stone possibly represented the last remaining piece of dressed stone to survive the nineteenth-century restoration. The identification of this north-west corner of the Norman nave clearly suggests that the early structure did not include a north aisle as previously presumed by church historians. Instead the north wall of the church appears to have returned on a single east-west alignment and the north aisle added later in the medieval period with its arcade piercing the earlier wall.

Externally, deposit 3 was sealed by a 0.27m thick dump layer of mid greyish brown gritty silty sandy clay containing abundant fragments of chalk, carbon and peg-tile with crushed mortar pieces (2). This depth of deposit was sufficient to raise the exterior ground surface and so conceal the slight offset in the nave's masonry foundation. A further deposit of slightly paler material containing fewer inclusions raised this surface again and concealed the remainder of the exposed twelfth-century foundation completely to the level of the present tarmac path. Both these deposits were traced westwards across the excavation area before ending abruptly 1.5m from the nave's west wall to be replaced by mixed graveyard soils. These were encountered in a smaller inspection chamber and connecting drain trench to the west in the grass adjacent to the churchyard path.

Internally, evidence for the extent of the 1859 restoration was encountered during the removal of pews and associated supported flooring in the north

aisle. Beneath this area, earlier deposits had been scoured level to form a void beneath the timber floor 0.48m deep and had left the internal brick offset foundations of the north and west walls exposed. Evidence of this nineteenth-century scouring was also encountered across the base of the nave service pit, and in both areas the underlying earlier deposits were covered by a thin layer of trampled mortar 'droppings'. These no doubt relate to the internal finishing of the church following its refurbishment, as they lapped up to the brick underpinning of the north arcade's later medieval western pier respond. This was sealed by an extensive deposit of loose mixed silty clay soil (4) containing occasional red brick and peg-tile fragments, which was sealed by a thin layer of pale creamy white lime mortar that acted as bedding for the nave's limestone paving.

The repositioning of two sizable horizontal stone slabs, adjacent to the west door, were inspected prior to their relocation, one to the adjacent churchyard.

Whilst the larger of the two slabs was found to be Victorian in origin the adjacent smaller stone had the worn indentations for two inset brass figures with children standing on a rectangular foot plate. Though the upper face of the stone has been exposed for some considerable time, it has been suggested that this stone slab may have once formed part of a rare external table monument (D'Elboux 1948). In the late eighteenth century, the Kentish historian, Edward Hasted wrote '... On the north side of the churchyard, near the porch, is an ancient tomb, on which were once the figures of a man and woman, and an inscription in brass, all long since gone ...' (Hasted 1797). Inspection of the underside of this slab during its lifting revealed a continuous hollow chamfer moulding around its outer edges suggesting it once formed the capping stone to a table monument. This recently exposed detail, not visible to D'Elboux, suggests that this might be the stone recorded by Hasted and perhaps once formed the upper stone slab to the monument recorded by him in the churchyard.

The work was undertaken on behalf of the parochial church council under the direction of their appointed architect, Mr Andrew Wittich of Clagues.

Minster-in-Sheppey

Simon Pratt

During spring and summer 2007 the Trust worked on three neighbouring sites at Minster-in-Sheppey, two of which encountered remains pertaining to the Anglo-Saxon and medieval abbey. Work at the first of these sites, at 45 Queens Road (NGR 59575 17306), was the most extensive, comprising evaluation trenching followed by open-area excavation and a watching brief. Though this complex site is briefly summarised below, it will be the subject of a fuller report at a later date. Watching briefs only were maintained at the other two sites; on repairs to the sewer of the twentieth-century vicarage north-east of the abbey church (NGR 595646 173026) and to the wall retaining the southern face of the churchyard (NGR 595575 172954). Both these latter tasks were undertaken in respect of Scheduled Ancient Monument consents.

Multiphase occupation at Queens Road

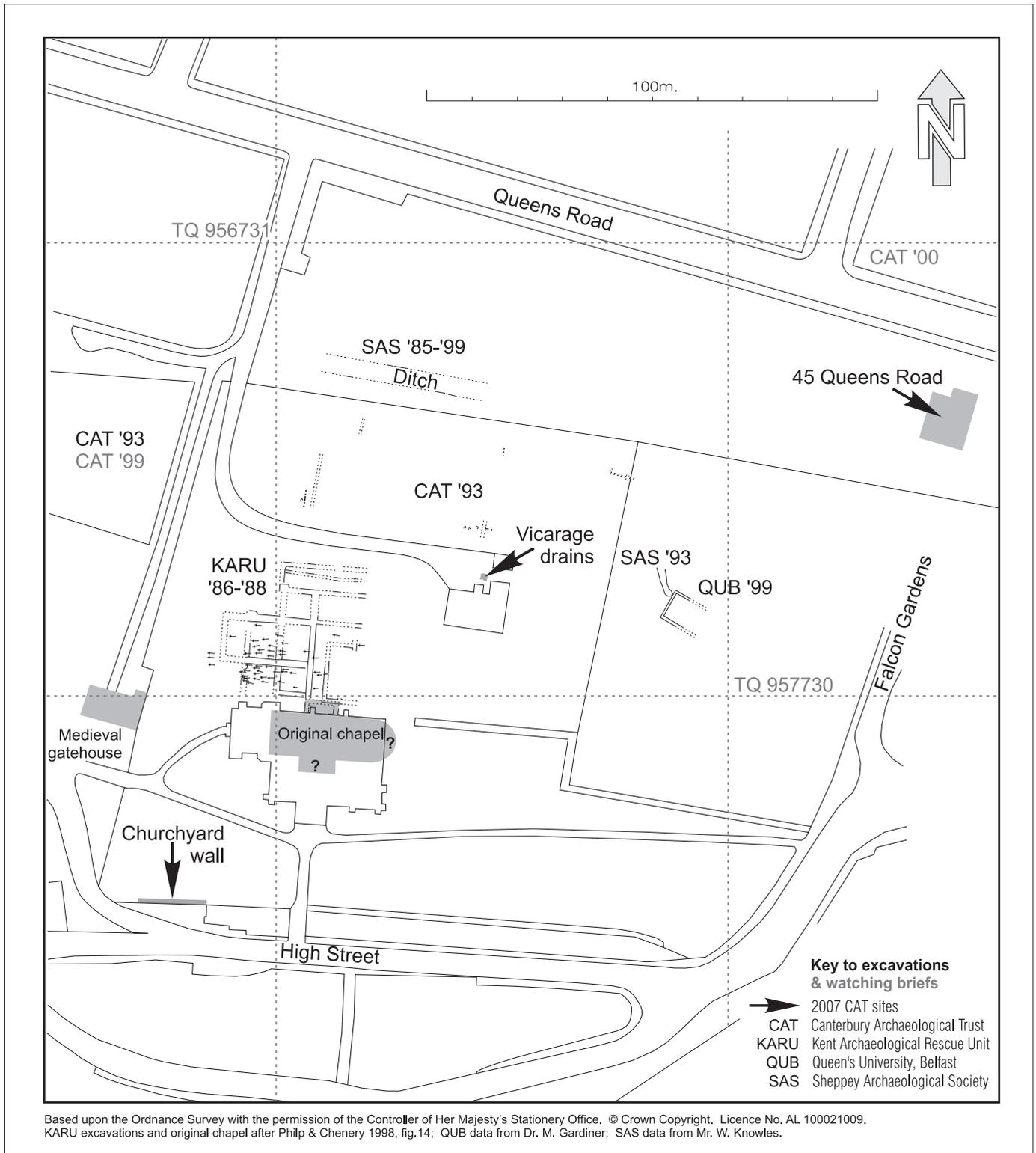
In the former front garden of 45 Queens Road, natural Bagshot Beds sandy clays were overlain by an early topsoil and traces of late prehistoric occupation. Thicker topsoil then developed; this was probably cultivated in the Roman or early Anglo-Saxon period and included fragments of Roman box-flue and other tiles. Some of the latter were so sooted that they almost certainly derived from a hypocaust system: similarly sooted fragments were found at the vicarage sewer site and box-flue tiles are incorporated into the north wall of the Anglo-Saxon church.

The posts of at least two Anglo-Saxon buildings cut this cultivated soil. They lay just north of a flat-bottomed linear feature, perhaps the line of a robbed-out boundary wall, on either side of a wide gap, interpreted as a gateway. The ground dropped gently to the north of this boundary. The fills of a ditch to the north of, and probably contemporary with, the eastern building included various lenses of domestic refuse.

A dump of gravel sealed the post-built buildings, forming a platform with a fairly steep northern edge. It was not certain whether the postulated boundary wall had been robbed out prior to or following the platform's formation, but it had been removed before the erection of a clay-floored Anglo-Saxon or early medieval building bounded by beam slots, one of which repeated the line of the robber trench and extended at least part-way across the presumed gateway. As well as being cut by later field ditches, this phase had been partially truncated by cultivation and was directly overlain by modern garden deposits.

Medieval structures exposed by the vicarage drains

The only part of the work on the vicarage drains to encounter archaeology was the excavation for the replacement of a manhole. A few residual Roman tile fragments, some heavily sooted, were recovered from various deposits here.



Sites at Minster Abbey, Sheppey (1:1250).

Natural clay at the base of the manhole pit was cut by two undated shallow oval pits. Overlying these was evidence for a structure, probably of medieval date. A flat-bottomed trench for a wall foundation or timber sill beam formed the southern boundary of an area of ground reduction upon which was laid a deposit of septaria and flints (with occasional fragments of peg-tile) which formed the bedding for a compacted clay surface. A shallow, flat-bottomed feature, about 0.13m deep, probably represented the robbing-out of a large timber post contemporary with this surface.

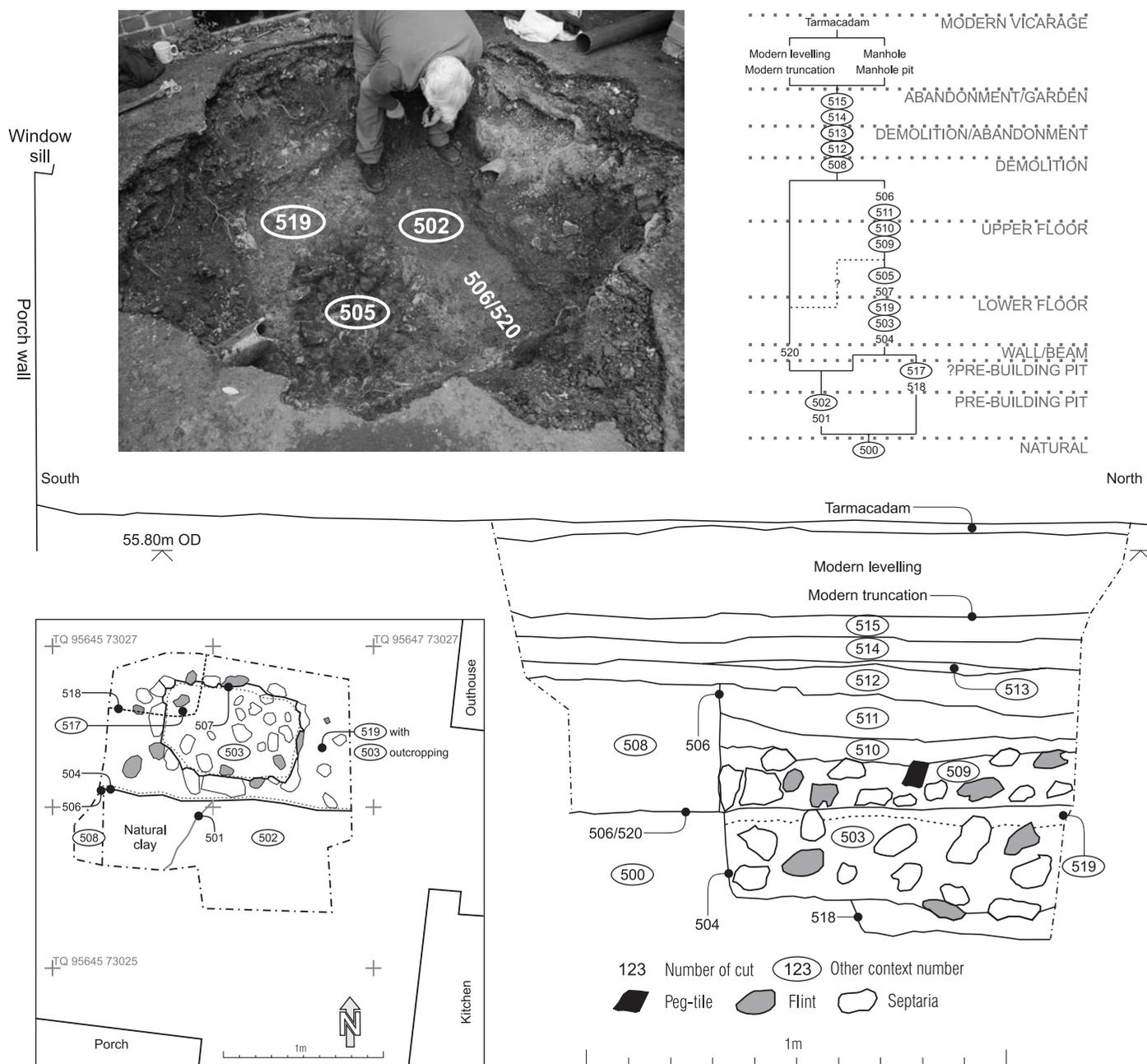
This was sealed by a further bedding layer of septaria and flint for another clay floor. Overlying this was a mortar-rich demolition deposit (possibly dating to the Dissolution), cut through by a robber trench for the earlier wall or sill beam. This was sealed by a sequence of soils, truncated by modern ground reduction and cut by the vicarage sewers.

Although little of the structure was revealed in the limited excavation area, the ground reduction of the solid and intractable subsoil would have been a serious undertaking, suggesting that the structural

evidence related to a claustral building or other important structure (including a barn or stabling) rather than a minor outhouse or servants' quarters.

Nineteenth-century churchyard wall

The earliest clays and loams revealed behind the wall retaining the south-western portion of the churchyard contained nineteenth-century pottery and were probably deliberate levelling dumps. The southern margin of these deposits had been cut vertically,



Minster, vicarage sewer, photograph (looking south-east), stratigraphic matrix, plan and east-facing section.

presumably for the insertion of the lower part of the existing wall (of large coursed ragstone and septaria stones). Generally looser and darker fills were used to fill the gap, up to 0.20m wide, between the earlier deposits and the wall. The upper part of the wall (in unfrogged red brick) was probably built after this gap had been filled and more loams, some also with nineteenth-century pottery, were then dumped against its northern face. All of this work may have been associated with major renovation of the church undertaken in 1880–3.

Special mention is given to the invaluable help of numerous volunteers who assisted with the work at 45 Queen's Road, many of whom were amongst the members of the Faversham Archaeological Society. Mr and Mrs Natuzzi commissioned the investigation. The watching briefs were both maintained for Canterbury Diocese.

Cedar House, Sandown Road, Sandwich

Keith Parfitt and Barry Corke

In 2007 a watching brief was maintained during the construction of a new dwelling (now Cedar House) on a vacant plot situated on the south side of Sandown Road, within the medieval walled town of Sandwich (NGR 63337 15803, centred). The site lay roughly mid-way between the Norman church of St Clement and the later medieval Sandown Gate, in an area where it is suspected that some of the earliest occupation in the town may have occurred. The site stands at an elevation of between 5.22 and 5.74m above Ordnance Datum; the subsoil was established as being Thanet Beds clay.

Twenty-eight pits cutting into the top of the natural clay and two fragments of medieval wall foundation

were recorded. The pits were all of medieval or early post-medieval date, although none could be fully excavated. Many were of a considerable depth and the bottoms of several were not reached. All these features were buried under a significant thickness of overlying soil, representing horticultural activity in more recent centuries. The small assemblage of finds recovered from the pits included pottery, roofing tile, West Country roofing slate, animal bone and fish bone. The date range of the pottery is c AD 1100–1700.

The general impression gained was that this was a plot of ground that had been regularly used for the digging of rubbish pits over a considerable period of time, beginning in the twelfth century. What was less clear was whether this area represented a garden plot behind medieval buildings fronting onto Sandown Road, or whether it was a spare, unoccupied piece of land that stood away from any dwellings. The only

evidence for a medieval structure comprised two stone wall foundations. Too little was seen of them to be certain of their interpretation; they might have related to a cellared building, but might equally well have formed part of a stone-lined tank.

Details of the observations made at the site have been incorporated into the database of Sandwich excavations which has recently been prepared by the Trust for inclusion in the recent English Heritage study of the origins and development of the medieval town (Clarke *et al* 2010).

Deal Waterworks, St Richard's Road

Keith Parfitt and Barry Corke

The Mill Hill chalk ridge, inland of the historic town of Deal has been known for significant archaeological discoveries since the late nineteenth century. Between April and September 2008 the Trust was engaged to undertake area excavation on a site off St Richard's Road, adjoining the waterworks (NGR 63640 15090). The site lies on a north-east facing slope, just below the summit of the ridge, overlooking Deal town between 30 and 36 metres above Ordnance Datum. The total area of chalk stripped and investigated amounted to just over 2,000 square metres and about 300 individual features were examined, with the assistance of local volunteers, mostly from the Dover Archaeological Group. The bulk of the features were pits and post-holes, with a dozen ditches and gullies. All these features were fully excavated but datable material

was only recovered from just over half of them. Preliminary examination of the finds has allowed a provisional sequence for activity on the site to be established.

Period 1, Neolithic–Bronze Age, c 3000–1500 BC

A mixed assemblage of residual prehistoric flintwork serves to indicate activity in the area during the Neolithic and early Bronze Age periods. Amongst the identifiable implements recovered were several well-worked scrapers but no associated features were found.

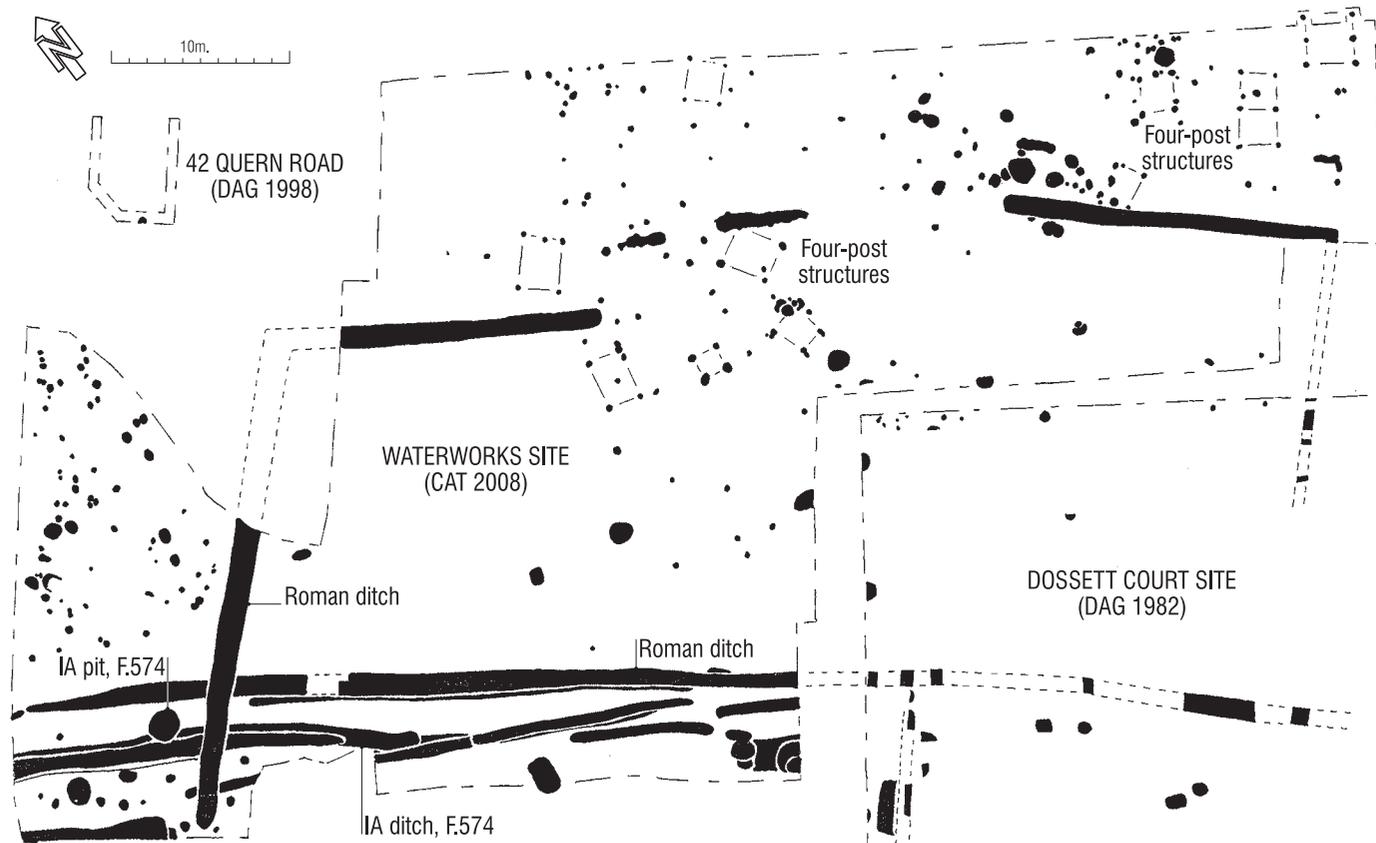
Period 2, early Iron Age, c 900–300 BC

A significant number of the pits, post-holes and one ditch may be dated to the earlier part of the Iron Age. Several phases of activity must be represented and it seems clear that the site was quite intensively occupied throughout this period. Scattered across the excavated area, the pits located were mostly of circular form and of shallow depth. Several of them produced quantities of pottery and other domestic rubbish, including a saddle quern of Folkestone greensand. One unusually deep pit (F.574), located near the western corner of the excavation, cut through a substantial, earlier boundary or enclosure ditch (F.298). Both features yielded large and important groups of early Iron Age pottery, animal bone and other refuse.

More than 150 individual post-holes were recorded. Those producing finds suggest that they are contemporary with the dated pits. From their size,

a number must have contained substantial timber uprights, sometimes held in place by flint packing stones. Several discrete groupings and clusters were noted, mostly on the lower, north-eastern side of the excavated area. These concentrations should relate to timber buildings, presumably dwellings but no convincing house plans have yet been identified. What can be identified are the sites of ten small square or rectangular buildings, represented by carefully laid out settings of four and six post-holes. Such four- and six-post structures are typical of many Iron Age settlement sites in southern Britain. They are generally regarded as representing raised granaries. Five of these structures occurred in the central part of the excavation, with another group of four towards the eastern corner. In one instance the post-hole arrangement showed that a replacement structure had been erected on precisely the same spot as its predecessor, presumably after the timbers of the original had become too rotten to support the building. Earlier excavations on the Mill Hill ridge have revealed a few other four-post structures but the present group represents the largest number identified so far.

The Iron Age pottery recovered from the site may be readily equated with the type-series previously established for east Kent, falling within the period, c 900–300 BC. It seems clear that the excavated features relate to a settlement that occupied the upper slopes of Mill Hill during the earlier part of the Iron Age. Further traces of this settlement have been previously located on the adjacent Dossett Court site (Parfitt 1985), whilst about 90m further downhill to the north-east, a circular ditched enclosure was excavated in 1934 (Stebbing 1934). Like that at



General site plan showing all excavated features and previously excavated sites adjacent.



Working shot, looking north.

Highstead, Chislehurst, this enclosure has become a type-site for the earliest Iron Age in east Kent and some of the features excavated on the present site are likely to be roughly contemporary with it. All of this indicates that the Iron Age settlement covered a considerable area of Mill Hill and that it was occupied for several centuries.

Period 3, early Roman, c AD 50–150

Apart from one ditch connected with the early Iron Age settlement (see above), all the ditches and gullies recorded appear to belong to the early Roman period. Most seem to have been infilled by the end of the early third century AD. None are of sufficient proportions to be regarded as being in any way 'defensive' and it seems probable that they relate to a succession of rectilinear ditched fields which covered this part of Mill Hill throughout the early Roman period. These ditched fields extended across the site of the old Iron Age settlement, which must have been abandoned some time before.

Similar Roman field ditches were traced during the construction of the nearby water tower in 1936, across the adjacent Dossett Court site in 1982 and on the opposite side of St Richard's Road, off Walmer Way (Parfitt 1995). A number of re-cut ditches indicated that the field system had been maintained for a considerable length of time, although with modifications to the precise shape of the enclosed areas. No houses or other significant buildings associated with the Roman field system were identified.

There was no evidence for any permanent habitation on the excavated site after the Roman period. This is of interest because a substantial early Anglo-Saxon cemetery has been previously excavated on the opposite side of St Richard's Road, off Walmer Way (Parfitt and Brugmann 1997). Where the people who were buried there had lived is unknown, but it can now be demonstrated that it was not on the present site. In fact, after the abandonment of the Iron Age settlement, this site seems to have remained as open

farmland until the establishment of Deal Waterworks in 1840.

Market Square, Dover

Keith Parfitt

Proposals to erect a public TV for screening the 2012 Olympics at the south-eastern corner of Dover's Market Square (NGR 631913 141403) led to the drilling of four exploratory boreholes in order to examine the underlying stratification. An initial implications survey had re-affirmed the archaeological significance of this part of the town, which lies in the vicinity of the old Roman harbour (Parfitt 2009). The site investigations established the presence below the ground here of between 3 and 4m of undisturbed, stratified deposits resting on natural river gravel.

As expected, the upper 1–1.50m of deposits had been truncated by cellars and recent service trenches. The cellar deposits, including fragmentary traces of several walls, appear to relate to an extension of the town's Guildhall that occupied this site until its demolition in 1861. There was no trace of any Roman walls here even though the east wall of the late Roman Shore Fort must lie close-by.

Working with Dr Martin Bates from the University of Wales, Lampeter, samples of the lower deposits were recovered for palaeoenvironmental analysis. These include naturally laid organic-rich sediments buried at a depth of between 4.50 and 5.50m below present ground level, resting on the natural river gravel. Together, the samples have very good potential for providing significant new information concerning the nature, evolution and infilling of the prehistoric and Roman haven at Dover (Parfitt and Bates 2009).



Borehole sampling taking place in Dover's Market Square, looking east.



Roman walls exposed in Trench 1, looking north.

Cowgate Hill, Dover

Keith Parfitt

Between December 2008 and January 2009, the Trust undertook evaluation trenching across a plot on the western side of Dover, presently occupied by a row of four late nineteenth-century terraced houses off Cowgate Hill (NGR 631820 141345, centred). This work followed an earlier desk study (Sparey-Green 2006). Part of the area is a Scheduled Ancient Monument (No 12610) because it lies over the western side of the important second-century Roman fort of the *Classis Britannica*.

Five hand-dug trenches cut inside and outside the standing buildings, established that largely intact archaeological structures and deposits were present buried at depths of between 0.21 and 0.66m below present ground level. Significant Roman remains were located, together with traces of walls and metallurgy relating to activity on the site immediately prior to the construction of the present terraced houses. Damage to the underlying Roman layers appeared to have been fairly limited.

The full thickness of the stratified Roman deposits in Trenches 2, 3 and 5 was less than 1m. Further upslope, in Trench 1, Roman deposits were found to be well over 1m thick. Short lengths of Roman walls were located in Trenches 1, 3, 4 and 5. All these walls were constructed from chalk blocks bonded in clay – a construction method typical of many of the buildings previously excavated within the *Classis Britannica* fort (Philp 1981, 176). There can be no doubt that these new walls all formed parts of previously unknown structures within the fort. They are likely to represent several different phases of work.

Nos 60–76 High Street and ‘Craythornes’, Fairfield Road, New Romney

Adrian Gollop

Two small-scale evaluation excavations were undertaken within the town of New Romney during the year.

The first investigation was undertaken in September and October 2008 to the rear of Nos 60–76 High Street (NGR 606517 124913), a site of particular interest due to its location adjacent to St Martin’s Field, the site of the eleventh-century church of St Martin until 1548. Evidence from early maps indicated that the present site lay within the original south-east boundary of the field. Previous excavations by the Trust within the southern part of St Martin’s Field identified forty-seven burials (Diack 2007, 34), some immediately against the boundary with the current site. It was therefore considered likely that the plot under investigation also once formed part of the cemetery. Anecdotal evidence from unsubstantiated witness accounts suggested that human remains were disturbed during the construction in the 1960s of garages and a commercial property that formerly occupied the now derelict site.

In the event, the evaluation failed to identify any evidence for buried human remains, either *in situ* inhumations or disturbed material in later deposits. However, clay floors and metalled surfaces in one of the four evaluation trenches suggest that a building occupied part of the site during the later fourteenth and fifteenth centuries. The deposits extended beyond the site into St Martin’s Field, suggesting that the building might have been associated with the church and the artefactual evidence suggests that it was of a domestic nature. A refuse pit and a pig burial were also recorded. Cultivated soil horizons developed across the site from the early sixteenth century, perhaps coinciding with the demolition of St Martin’s Church in 1548. After the sixteenth century the site was associated with the properties along the High Street and cultivated as rear gardens.

The second site was investigated in April 2009 on land between Fairfield Road and Rolfe Lane adjoining ‘Craythornes’ (NGR 606687 125248). This site was considered to be within an area of great archaeological potential being located immediately to the north of domestic and industrial activity associated with the town’s medieval waterfront (Rogers 2009), and east of the potential site of the medieval fish market (Hopkinson 2008; Draper and Meddens forthcoming). ‘Craythornes’ house dates to the early eighteenth century and is a Grade II listed building (previously named ‘Ivy Cottage’). Part of the evaluation took place within Craythorne’s former gardens which had included a ‘wilderness garden’, a walled garden with a nineteenth-century glass house, a sunken rose garden with ornamental beds and lawn, and a swimming pool with a raised ornamental walkway leading to a central pergola.

Six trenches and three test-pits were investigated and activity from the medieval period was identified in all of them apart from one. A series of clay floors and metalled surfaces, daub and occupation horizons was recorded, all possibly associated with an unidentified building dating to the thirteenth to mid fourteenth century. The features were thought to largely represent external yard surfaces. Of a similar date was a series of refuse and/or cess pits, post-holes and ditches, all suggesting that the site was associated with a domestic structure, perhaps located close to the present day house. Towards the later fifteenth and sixteenth centuries the formation of substantial cultivated soil accumulations indicates that the site became agricultural land before part of it was incorporated into the grounds of the eighteenth-century house.

Thanks are extended to Richard Daniels Associates who commissioned the work at the High Street, to the Kent Design Partnership and Mrs Briony Kapoor who commissioned the work at Craythornes and to Wendy Rogers, Archaeological Adviser, Kent County Council. The fieldwork was undertaken by the writer with the assistance of Therese Hellquist, Crispin Jarman, Andrew Linklater and Dale Robertson.



A cooking pot or storage jar of late thirteenth- to mid fourteenth-century date from one of the pits at ‘Craythornes’.



BUILDING RECORDING

No 7 St Margaret's Street, Canterbury (Slatters Hotel)

Rupert Austin *

No 7 St Margaret's Street is a Grade II listed building (NGR 61484 15767) forming part of Slatters Hotel. The hotel is for the most part a comparatively modern post-war structure occupying several plots along the south-east side of St Margaret's Street, but two historic structures are contained within it. No 7 is the best preserved.

The ground floor of No 7 had been tenanted out in recent years, and was last occupied by Ha! Ha!'s restaurant and bar. During a refit for new tenants, major structural defects were discovered. The most significant problem concerned the first-floor jetty, which had failed. The common joists had all snapped in two over the jetty-plate, leaving the first-floor façade largely unsupported and in danger of collapse. A temporary steel frame was erected in the street to support the façade and make the building safe. Once the façade had been stabilised, the interior of the building was stripped to expose the timber-frame. The building was found to be in rather poor condition throughout, with decay and structural defects evident elsewhere.

An archaeological assessment of the building was requested by Canterbury City Council in order that any decisions on repair and refurbishment could be made from an informed position with respect to the historic fabric. The Trust was commissioned to undertake this assessment and an inspection of the building was undertaken during February 2008. The listed building description describes the property as an early seventeenth-century, timber-framed building, but our assessment suggests it was originally of brick and timber construction and was built within the last decade of the seventeenth century, or perhaps even at the beginning of the eighteenth century. The discovery that the building was of part brick and part timber construction was just one of several unusual and unexpected features revealed during the survey.

No 7 St Margaret's Street is typical of many urban properties in that it is aligned at right angles to the street, but its plot, which measures approximately 8.13m wide, is not as narrow as many. The building unexpectedly bridges this width in a single span, the first- and second-floor bridging-beams stretching across the structure in one uninterrupted length. The building can be divided into three bays, and extends back into the plot for approximately 9.8m, not much deeper than its width, and its footprint is,

therefore, close to square in plan. The first floor and gable are both jettied towards the street. Surprisingly, for a seventeenth-century structure, four storeys are present, but two of these are accommodated within roof, where unusually there is both an upper and lower attic floor. These two attics can only be accommodated because the roof is unexpectedly large.

A re-used in-line butt side-purlin roof

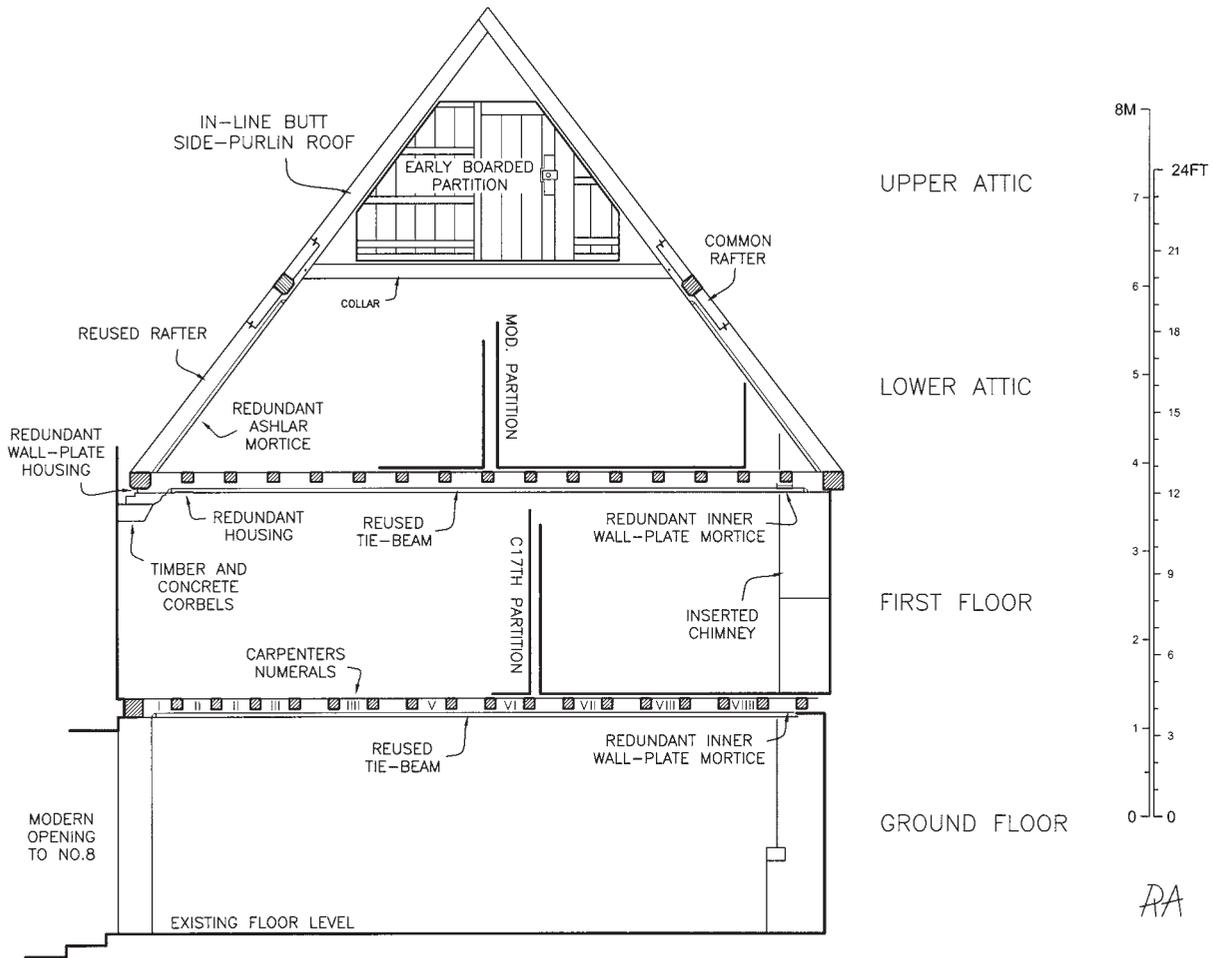
The roof covers the building in one span, with a jettied gable to the street and an unjettied gable to the rear (see below). It rises to a height of approximately 5.25m (17ft 2ins) above the building's eaves and is therefore significantly larger than the roofs of most seventeenth-century timber-framed houses: one might have expected two smaller roofs in a double-pile arrangement. The configuration of the roof is also something of a surprise, for it is of in-line butt side-purlin form: a staggered butt side-purlin roof would perhaps have been expected by the end of the seventeenth century. Unlike many in-line side-purlin roofs, where the common rafters pass over the backs of the purlins, reaching from the eaves to the ridge in one length, those here are interrupted by the side-purlins.



Ground floor interior, formerly Ha! Ha!'s restaurant and bar, looking south towards rear of building.



View of jettied north-west frontage, showing temporary steel frame.



SECTIONAL ELEVATION A - A TO SOUTH-EAST

Inspection quickly revealed that the roof had been salvaged from an earlier structure and re-used here: an unexpected discovery, but one to which we can attribute its unusual features such as its greater than expected size, the inclusion of an upper attic floor, and the in-line arrangement. Further examination suggests that the roof was salvaged from a stone or brick hall of early post-medieval date, and a reasonably substantial one at that (not a domestic property), and that that the reconstruction, unsurprisingly, has not been entirely faithful to the original.

Some elements of the roof's configuration, notably the in-line butt side-purlins, have been reinstated, whilst others have not. The most obvious modification to the roof when it was re-erected over No 7 is the insertion of collars at purlin height to form the upper attic floor. Many of these collars are crudely converted timbers with unconverted faces that still retain their bark.

Inspection of the tie-beams shows they have retained, give or take a few centimetres, their original lengths, indicating that the span of the original roof has been maintained. The pitch of the extant roof, at approximately 52 degrees, is typical of most historic roofs, whether of seventeenth-century date or earlier, and it seems, therefore, that the roof has also maintained its original height. There is now no way of determining the length of the original roof, but given its span, it seems reasonable to suggest

it was originally longer, perhaps extending to five or six bays.

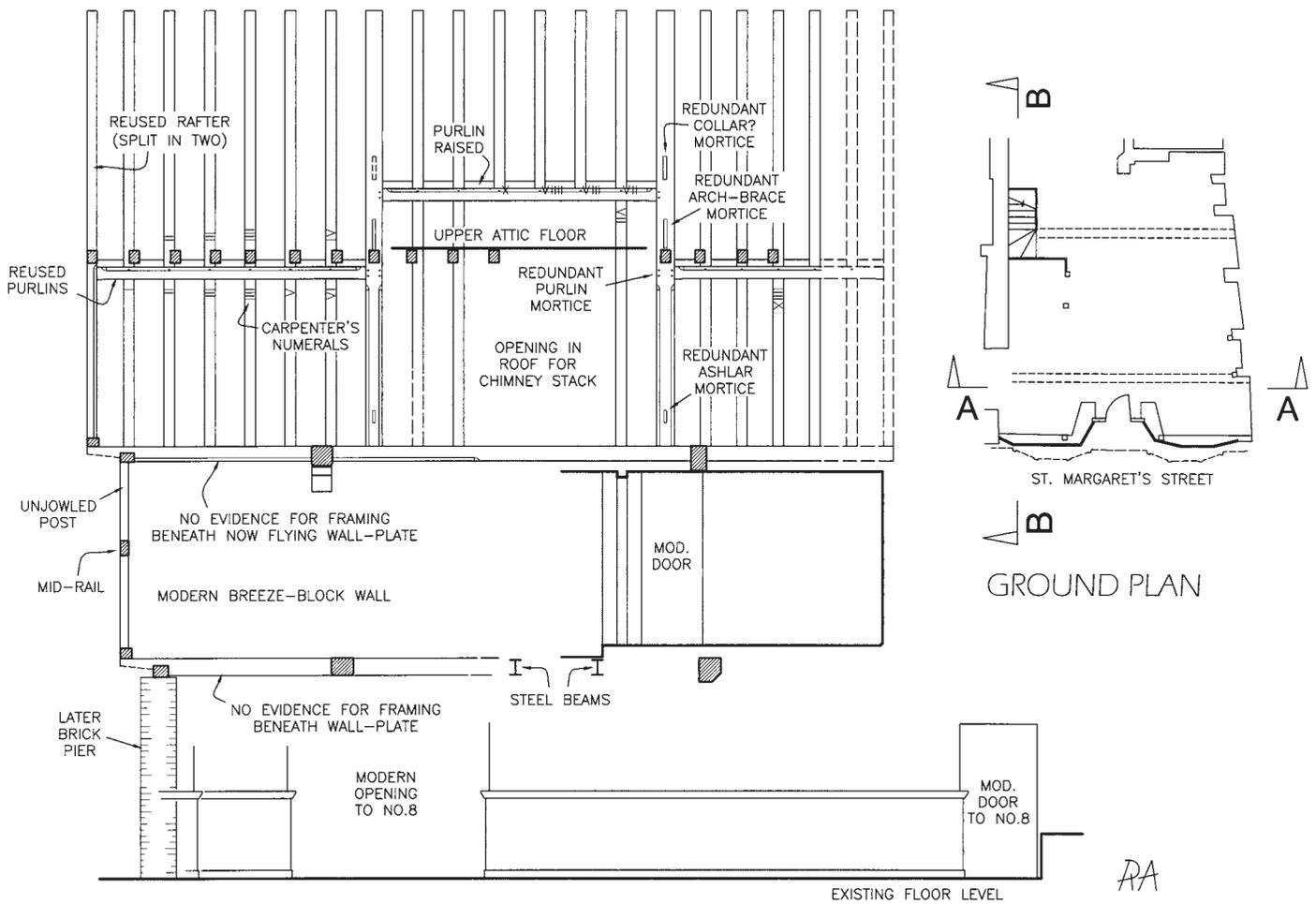
Inspection of the tie-beams also reveals an important feature of the roof that has been lost in its reconstruction. Two mortices are present at either end of each beam. The outer ones are for the principal rafters of the roof, although in the present configuration the principal rafters are not coincident with the tie-beams, and these mortices are therefore unused. The inner ones are for now missing ashlar pieces. The corresponding empty mortices can be seen on the soffits of the principal rafters for these timbers, mortices which are also now unused. Ashlar pieces are usually found beneath all the rafters of a roof, (ie the commons as well as the principals). Those that lie beneath the common rafters necessarily do not have a tie-beam beneath them, and so must be supported instead by inner wall-plates. It comes as no surprise, therefore, to find redundant mortices for missing inner-wall-plates on the sides of the tie-beams. The presence of double wall-plates indicates that the roof originally sat atop walls of brick or stone, not timber.

The original collars were present only at the principal rafter positions, and were placed higher than those that presently form the upper attic floor. Empty mortices for them can be seen on the soffits of the second and third principal rafters. Interestingly long mortices, with several pegs, can be seen a short distance below the collar mortices. These once

housed arch-braces, which rose to meet the collars. Such braces are not uncommon, adding a little visual embellishment to the roof. Wind-braces are also often present in such roofs, although no evidence for such braces was found here.

In large roofs such as this it is common to find both a lower and upper row of purlins. When upper purlins





SECTIONAL ELEVATION B - B TO NORTH-EAST

are present, they are usually clasped between the collars and rafters, in contrast to the lower purlins, which are usually of butt side configuration, like those here. Unfortunately the extant upper attic rooms obscure the upper parts of the roof, and any evidence for such an arrangement is presently obscured; it remains a strong possibility, however. The extant lower purlins have been reinstated in their original mortices and are therefore at their original height. They seem to have always interrupted the common rafters, as they do today. Plain chamfers, with simple step stops, are present on the purlins, a detail which confirms they have not been shortened, and that the original bay lengths of the roof have been maintained. Similar chamfers are also present on the common rafters, to the height of the purlins, but none are present higher up the roof.

North-east and south-west side walls and evidence for brick, not timber construction

Further surprises come to light as we leave the roof and descend into the structure below. Instead of finding a conventional box-framed, or post and truss timber building, we are presented instead with a rather more confusing arrangement. The front and rear elevations clearly employ timber in their construction – and much of this still survives – but within the north-east and south-west side elevations, where the original structure is exposed, there appears to be no timber-framing. Furthermore no evidence, in the form of empty mortices, can be seen on the soffits of the

plates, where these are exposed, to suggest timber-framing has been removed. Inspection also showed that, although the structure can be broadly split into three bays, the principal rafters of the roof, the tie-beams, and the bridging beams of the first floor are not placed exactly one above the other, at the bays divisions, as they would be in a fully timber-framed building. Indeed these timbers should all be affixed to a post, but no posts are present.

This, and the absence of timber-framing, is most apparent along the north-east side of the building. Here the eaves-plate is literally 'flying' within the first two bays. There is no wall beneath it, the plate supported instead, and rather oddly, on a timber corbel. This in turn sits on a concrete corbel built into a breeze-block wall associated with No 6 St Margaret's Street. An explanation for the present arrangement should perhaps be suggested before we try to understand the original. No 6 was damaged during the Second World War and its first and second floors were subsequently rebuilt in facsimile. It is suggested the adjacent north-east elevation of No 7 was damaged at this time, at first-floor level, and partly removed. Instead of rebuilding the wall, the eaves-plate and roof were supported on a corbel that was set into the newly rebuilt fabric of No 6. Both properties were by this time owned by Slatters, therefore enabling this rather unusual solution.

The absence of a wall beneath the eaves-plate allows us to examine its soffit in detail, but no empty

mortices for a timber-framed wall can be seen. The wall-plate below, at the level of the first floor, is now mostly hidden, but where a later opening has been inserted, its soffit is also visible, but again there is no evidence for timber-framing. The most likely explanation for these observations is that the side walls were originally of masonry construction. Masonry can be of either brick or stone, and it is therefore of some interest that some early brickwork is present within the south-west wall, at ground level. This comprises soft red 2 inch bricks of sixteenth- or seventeenth-century appearance, laid in a white lime mortar. Elsewhere the wall is mostly obscured by later fittings, and we cannot tell if this fabric is more extensive.

North-west frontage

Unlike the aforementioned side walls, the front, north-west elevation is timber-framed on the first floor and within its gable. Typically, for a seventeenth-century house, the upper floors including the gable are jettied towards the street. The gable is unremarkable in its construction, and includes a large window that illuminates the lower attic floor. The two posts or jambs of this window survive. It seems likely the upper attic floor would also have been illuminated from the outset; the extant window is again a later fitting but it might lie within an original opening. Externally the gable is hung with mathematical

tiles (imitation bricks), but these must be a later introduction, of perhaps the eighteenth century, replacing lath and plaster.

Modern cementitious render has been applied to the exterior of the first floor, but earlier, perhaps original lath and plaster survives beneath it. It is suggested, given the late seventeenth-century date, that the original plaster may have concealed all the timbers of the elevation. In earlier buildings one would expect the main timbers to remain exposed, with lath and daub applied to the panels in between. Mid-rails are present in the elevation, and can be seen internally, where lath and plaster has been removed. They form square panels that are typical of seventeenth-century timber-framed buildings.

Two large and prominent bay windows, with canted sides, are present on the first-floor frontage. One might have expected to see oriel windows here as these were almost universally employed on the upper floors of seventeenth-century buildings. Oriel windows are by definition supported by brackets, their cills positioned some two or so feet above floor level. Bay windows, in contrast, rise from the floor, and are not therefore supported by brackets. The bay windows have been rebuilt and fitted with eighteenth- or nineteenth-century sashes, but inspection shows that they were present from the outset and do not replace oriels. The first-floor joists clearly run into the windows. They do not stop at the jetty-bressumer, as do the intervening joists, proving therefore that they have always been present.

This brings us to an important observation, one that concerns the failure of the jetty. Unlike most timber-framed buildings, where the jetty-bressumer runs uninterrupted along the length of the elevation, supporting the façade above, that here is interrupted by the bay windows. Because the bay windows are wide, only short lengths of bressumer remain between them, and as a result much of the weight of the first-floor and gable elevations would appear to be concentrated on three short lengths of timber, and from these short lengths of timber onto only a small number of joists. This may be the primary reason for the jetty's failure, although there are other factors that have exacerbated the problem.

The original jetty-plate was recently exposed above the south-west window of the late nineteenth-century shop front, by removing some boxing in. Inspection of the soffit of this timber brought another, but by now perhaps not unexpected surprise. No empty mortices could be seen on the soffit of the exposed section of plate for timber-framing, suggesting that the elevation here was once again of masonry construction. Importantly the jetty-plate is joined, roughly within the centre of its span, by a bridled scarf, of three quarter depth, with squinted abutments and over lipped face. This form of scarf is almost exclusively reserved for timbers that sit atop masonry walls. The presence of a single plate again suggests brick rather than stone. The jetty-plate is now supported by steel columns, and at the corners of the building by modern brick piers. The impression of an earlier bow window, which was perhaps fitted to the elevation in the eighteenth-century, can be seen on the soffit of the jetty, in paint and plaster, above the extant south-west window.

Rear south-east elevation

The rear of the property no longer faces open ground, as the space behind the building has been encroached upon by later structures. Indeed, it is now difficult to pick out the premises, amongst the later extensions and outbuildings when viewed from the service area behind the hotel.

It is perhaps not a surprise then that the rear wall of the property has seen considerable alteration and rebuilding. The elevation seems now to comprise modern fabric on the first floor, and we can only assume therefore that it was once timber-framed, like the frontage. Fortunately the south-west half of the original gable survives; it is tile hung and timber-framed and would appear to be of identical construction to the front gable, with a large central window to illuminate the lower attic floor. The building would not have been jettied at the rear. It seems reasonable to suggest the rear ground floor was of brick construction as it was at the front, but the elevation has been mostly knocked through into the later extensions, and only a short length of wall now survives. This appears on the surface to be modern, but it is just possible early brickwork survives within it.

First-floor frame

The joists and beams of the first floor have survived largely unaltered, within the front half of the building, where the arrangement is, for once, fairly conventional. That said, it is quickly apparent that the first bridging-beam (from the front) is a tie-beam that once belonged with the re-used roof. The joists, which are probably also re-used, are generally slightly taller than they are wide, measuring on average around 120mm in depth. They are tenoned, as one would expect, into the aforementioned bridging-beam. These tenons, typically for the period, have diminished upper shoulders and are numbered in pairs with incised carpenter's numerals; the pairing up of numbers is again typical of the period. In an earlier structure the joists would each have a unique number. Within the rear half of the building the floor has seen considerable alterations and a number of steel beams have been introduced.

An open-well staircase

The most interesting and indeed the only original fitting to survive within the building is the staircase. This rises up within the central bay of the property and is of open-well form. Its construction is typical of the late seventeenth century, comprising rather stocky, turned balusters, plainly moulded handrails and plainly moulded closed-strings. The newels characteristically rise above the handrails, where they terminate in spherical finials, and descend below the strings, where they terminate in turned pendants. The steps wind their way around a small open-well, which measures approximately 39 x 39cm in plan, without recourse to quarter landings. The stairs are typically under-drawn with plaster.

The staircase originally rose from the ground floor to the upper attic; the fact that it reaches the upper



Open-well staircase at lower attic level.



Open-well staircase at upper attic floor level.

attic confirms that this storey is an original feature of the house, not a later insertion. The staircase was rearranged at ground level at a later date, but this later adaptation has itself now been removed, and there are presently no stairs at ground level, and as a result no connection between the ground and upper floors of No 7.

The missing chimney

A large chimney was once present within the central bay, alongside the staircase as was often the case in seventeenth-century buildings. Here, the chimney

was located against the north-east flank of the stairs, but it has now been completely removed. It must have been a substantial feature, for it bridged the gap between the stairs and the north-east wall of the property.

That this was an original feature, not a later insertion, is confirmed by several pieces of evidence. The most obvious can be found within the roof. The central purlin along the north-east side of the roof is raised, and several rafters omitted, to allow the chimney to pass through. Both ends of the purlin are tenoned into principal rafters, and it must therefore have been placed in this position from the outset – it cannot have been raised later, and the chimney inserted. Below the roof, the joists of the first and second floors have been trimmed, to create openings through which the chimney could pass (the trimmers are tenoned at both ends, indicating that they too were present from the outset). Interestingly some of the joists of the attic floor, within the central bay, stop short of the rear bridging-beam. These must have sat on the corbelled brickwork of the chimney, where its flue gathered up before passing through the roof; again, there is good evidence that these have not been cut back later (one joist, for example, is a re-used rafter, and has a bridled ridge joint on its end, proving it has not been shortened).

We can only guess what form the chimney took, but it probably had back-to-back hearths on both the ground and first floors. It seems unlikely there can have been any attic hearths, for the chimney would have passed through the roof only a few courses above the lower attic floor. The presence of such a chimney within the building, from the outset, is perhaps the most convincing evidence that this was a domestic property, but the chimney, because of its location, can only have heated the north-eastern rooms of the house. The south-western rooms must have remained unheated until two smaller chimneys were built against the south-west wall of the building in later years. These later chimneys seem to have had only ground floor hearths.

Internal layout and an original partition

Another unexpected feature of the building only becomes apparent when one tries to determine the original internal layout of the. In a traditional and fully timber-framed structure internal partitions or walls are almost always found at the bay divisions, or other such structural positions; they are an integral part of the frame. Even when these walls have been removed, evidence for them, in the form of empty mortices, will remain on the soffits of the joists and beams. We have seen earlier, however, that No 7 was not a fully timber-framed building, and it is therefore perhaps unsurprising that such evidence for partitions or walls is absent. It is conceivable no internal partitions were originally present, but this would leave us with a warehouse, not a dwelling. It is suggested, instead, that the structure was first built as an open box, then immediately subdivided, to create rooms, by planting or inserting partitions where they were required – these partitions were not, therefore, necessarily at structural points within the building, and could simply be nailed in place.

One such partition seems to survive on the first floor, between the two front rooms. This appears at first to be an insertion, as it sits atop the floorboards. However, it is suggested that this is an original feature, being quite crudely formed, and comprising studding, mid-rails, and a long straight diagonal brace that descends to the front of the building. Interestingly the partition has only one good side, that which faces the heated and slightly larger north-east room. Split laths and a crumbly white lime and hair plaster have been applied to this face. Along the south-west side of the partition, that which faces the smaller unheated room, the timbers remained exposed, and were simply whitewashed. Significantly the partition stops a short distance from the rear wall-line of the two rooms, where a connecting door must have been located. This door must have been the only point of access into the north-east front room, for the chimney and stairs would have prevented a door from being present in the rear wall. A short fragment of the partition forming the rear wall of the south-west room also appears to survive. Two smaller rooms were presumably present at the rear of the building, behind this wall-line. It seems, then, that the original arrangement of the first floor can be conjectured with some degree of confidence.

The arrangement on the ground floor is more difficult to determine, for there are now no partitions, new or old, and no obvious evidence for ones that have been removed. This is to be expected, however, given the suggested nature of the original partitions. Nevertheless, the arrangement and features of the first floor do have a bearing on the ground floor and we can, therefore, make some suggestions. A slightly off centred front door and passage is proposed, leading directly through the building to the foot of the stairs. Two front rooms would have been present on either side of this passage. That to the north-east would have been the larger of the two and would have been heated by the aforementioned chimney. That to the south-west would have been smaller and unheated. Presumably two rooms would have been present at the rear of the house.

Cellars

Two cellars are present beneath the building. That to the rear, where part of the masonry foundations of Canterbury's Roman amphitheatre have been exposed, lies mostly outside the footprint of the building, and would seem to be a later feature that was dug after the building had been enlarged. The front cellar lies entirely beneath the building, but was inaccessible at the time of the survey. It could, however, be viewed through a trap in the floor and appeared to be brick built. Surprisingly the floor of this cellar lies only 1.9m below ground-floor level within the building, and there is therefore insufficient headroom within it for a person to stand.

Conclusion

Although No 7 St Margaret's Street is not of great antiquity in comparison to many of Canterbury's other historic buildings, or indeed well preserved or even particularly well built, the unusual features found

within its fabric bestow on the structure more than a little interest particularly as an example of a building erected at the end of the timber-framed tradition and on the eve of the Georgian era.

* Adapted by Jake Weekes from the original report.

Nos 1 & 2 The Borough, Canterbury

Rupert Austin *

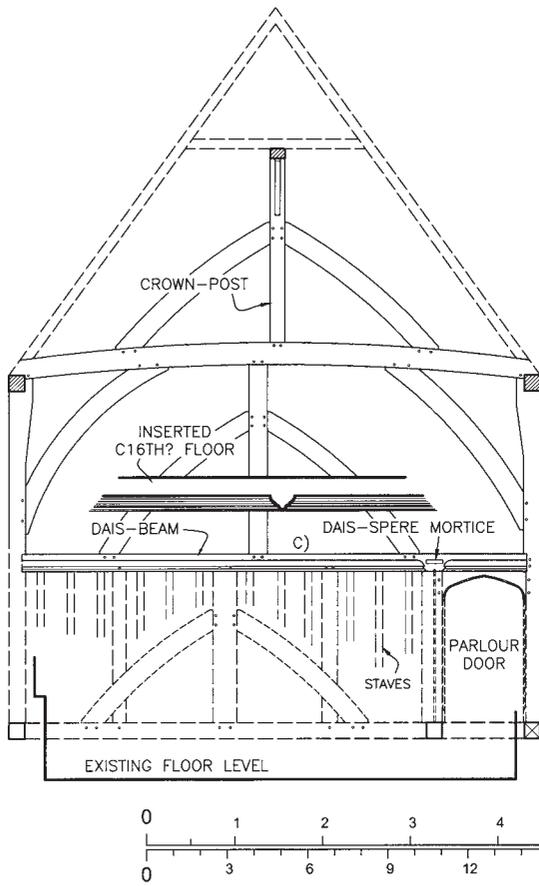
Nos 1 & 2 The Borough lie along the north-west side of one of Canterbury's main thoroughfares (NGR 61509 15817). Both properties are Grade II listed with shops on their ground floors. The street façade of No 2 had displayed significant movement for some years and had become quite heavily distorted. Recently its problems came to a head, and the elevation was stripped of later render on the first floor in order to investigate the cause of the problems. A much altered and heavily decayed timber-framed elevation was revealed.



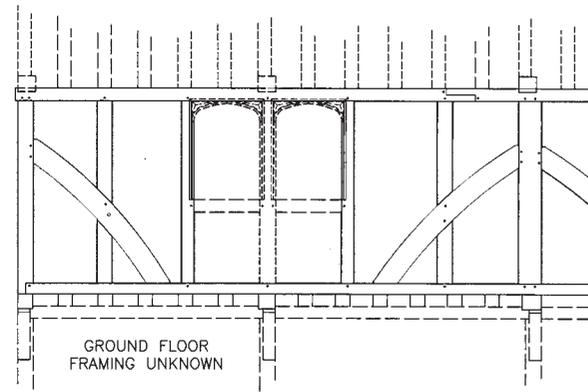
View to west of street frontages of Nos 1 & 2 The Borough, showing No 2 under scaffold.



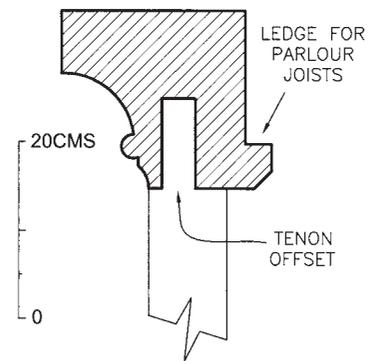
Medieval timber-framing, including down-brace, exposed behind later render within first floor facade of No 2 The Borough.



SECTION A - A TO NORTH-WEST, PARTIALLY RESTORED (NORTH-WEST WALL OF FORMER OPEN-HALL)



PARTIAL RECONSTRUCTION OF SOUTH-EAST (FRONT) ELEVATION OF NO. 2



C) DAIS-BEAM

RA

Archaeological analysis of No 2 and its façade was requested by Canterbury City Council in order that repair and restoration could be undertaken from an informed position with respect to the historic fabric. The Trust was commissioned to undertake this analysis and the work was carried out in August 2008. Subsequently the interior of the building was stripped out, and later layers of lath and plaster removed. Further archaeological recording was undertaken to record newly exposed features.

The two properties were once part of a single medieval dwelling that was originally entirely timber-framed. Although the focus of the Trust's work was at No 2, in order to understand the original building it proved necessary to briefly inspect No 1. The writer would like to thank Ian Crowther for kindly allowing access to this property.

A medieval open-hall

The most important room within any medieval house was the open-hall. The hall here lies within the middle of the property, and has been floored, like most medieval open-halls, and is no longer open to the roof. Despite this change it remains the most easily identified part of the building. The hall is roughly square in plan, approximately 6.4m long and 6m wide. Its central, open cross frame has been lost, but the truncated ends of the tie-beam of this frame were revealed once the building had been stripped out, confirming that the hall originally

comprised two bays. The north-west wall of the hall is reasonably well preserved, retaining most of its original timbers.

The dais-beam and high-end wall

The most important and prominent timber within the north-west wall of the former open-hall is the moulded beam that lies approximately 2.3m above present ground level. The moulding that embellishes this beam is relatively simple, comprising a large upper hollow followed by a narrow roll, then a smaller lower hollow or cavetto. Approximately 0.9m from the north-east end of the beam the moulding is briefly interrupted, and an empty mortice is present. This is an important detail for it is instantly recognisable as evidence for a missing dais-spere. These were short planked screens that projected from the high-end walls of open-halls to protect or screen the dais bench from the foot traffic entering or leaving the door to the adjacent high-end wing. This evidence shows the north-west wall to be the high-end of the hall. The high-end wing that once lay beyond, to the north-west, has unfortunately been lost, but such wings typically contained a single ground-floor room, the parlour, and a single first-floor room, the solar or master bedroom.

Usually only one door was required within the high-end wall of the hall, as only the parlour lay beyond. This is the case here, the door being located at the north-west end of the wall, next to the aforementioned screen. The door had been blocked, but the blocking

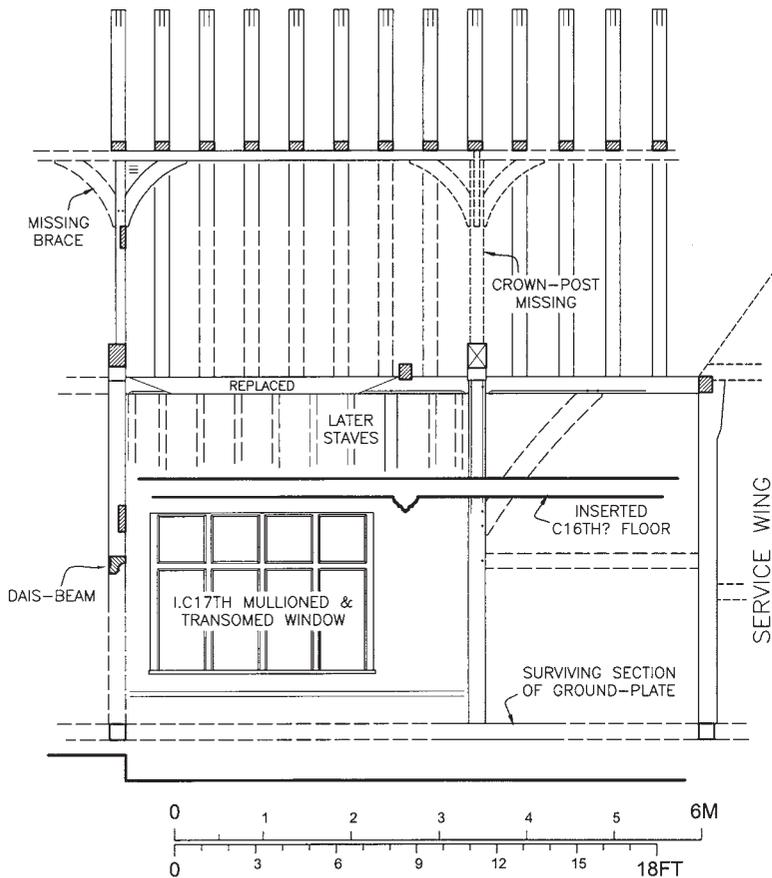
was removed during the stripping out and the original door head was exposed. The door head comprises a separate plank of wood, shaped into a low depressed arch of four-centred form. The spandrels of such door heads are usually sunken or decorated, but this example is completely plain. A new door had been inserted to the left of the original at a later date.

Unfortunately no other medieval fabric survives below the dais-beam, but evidence for the original arrangement can be seen on the soffit of the dais-beam, and it is possible to reconstruct the original arrangement on paper. Pegged mortices for four timber posts are present, and in-between mortices for staves. This is interesting, for it shows that the wall here would have comprised large panels of lath and daub, unlike in some houses, where more elaborate planking is employed. A dais bench would have been fitted to the wall.

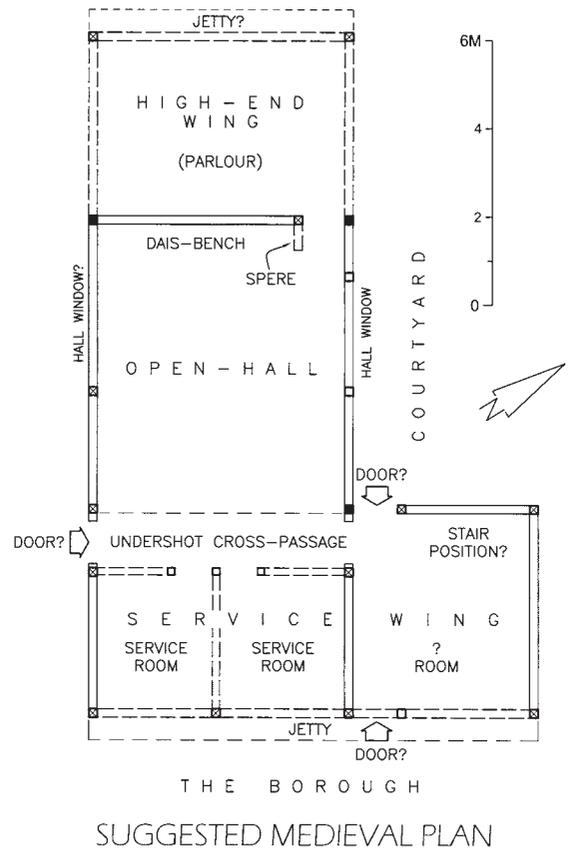
Above the dais-beam, interrupted by the floor inserted into the hall, a central post can be seen, flanked by long curved down-braces. Further braces rise from the principal posts of the south-west and north-east walls of the hall into this wall, to meet its cambered tie-beam. A central crown-post, flanked by two long curved down-braces, sits atop the tie-beam, revealing the roof form covering the hall.

The low-end beam and low-end wall

Very little of the low-end (south-east) wall of the hall now survives: perhaps only two timbers. One of



SECTION C - C TO NORTH-EAST (NORTH-EAST WALL OF FORMER OPEN-HALL)



THE BOROUGH
SUGGESTED MEDIEVAL PLAN

these, however, is an important survival as it is the low-end beam, the timber that lies directly opposite the aforementioned dais-beam. Only a metre or so of it remains exposed, but surprisingly it is moulded, like the dais-beam. In most hall houses the low-end beam is plain.

One might have expected to see evidence, in the form of empty mortices, for the low-end wall of the hall on the soffit of this timber, but surprisingly none is present. Evidence for a wall is, however, present on the short (approximately 2.4m long) tie-beam that lies above it, indicating that there was a wall here at 'first' floor level, but at ground level it must have lain elsewhere. This arrangement indicates the presence of an undershot cross-passage, the wall lying further to the south-east at ground level. Further evidence for the undershot passage can be seen within the service wing (discussed below).

North-east and south-west elevations

The open-halls of medieval houses were usually lit by large windows within the high bays of their halls. A large, but later window is now present within the north-east wall of the hall, close to the high-end wall. This looks out onto the adjacent yard, and is almost certainly the successor to an original hall window.

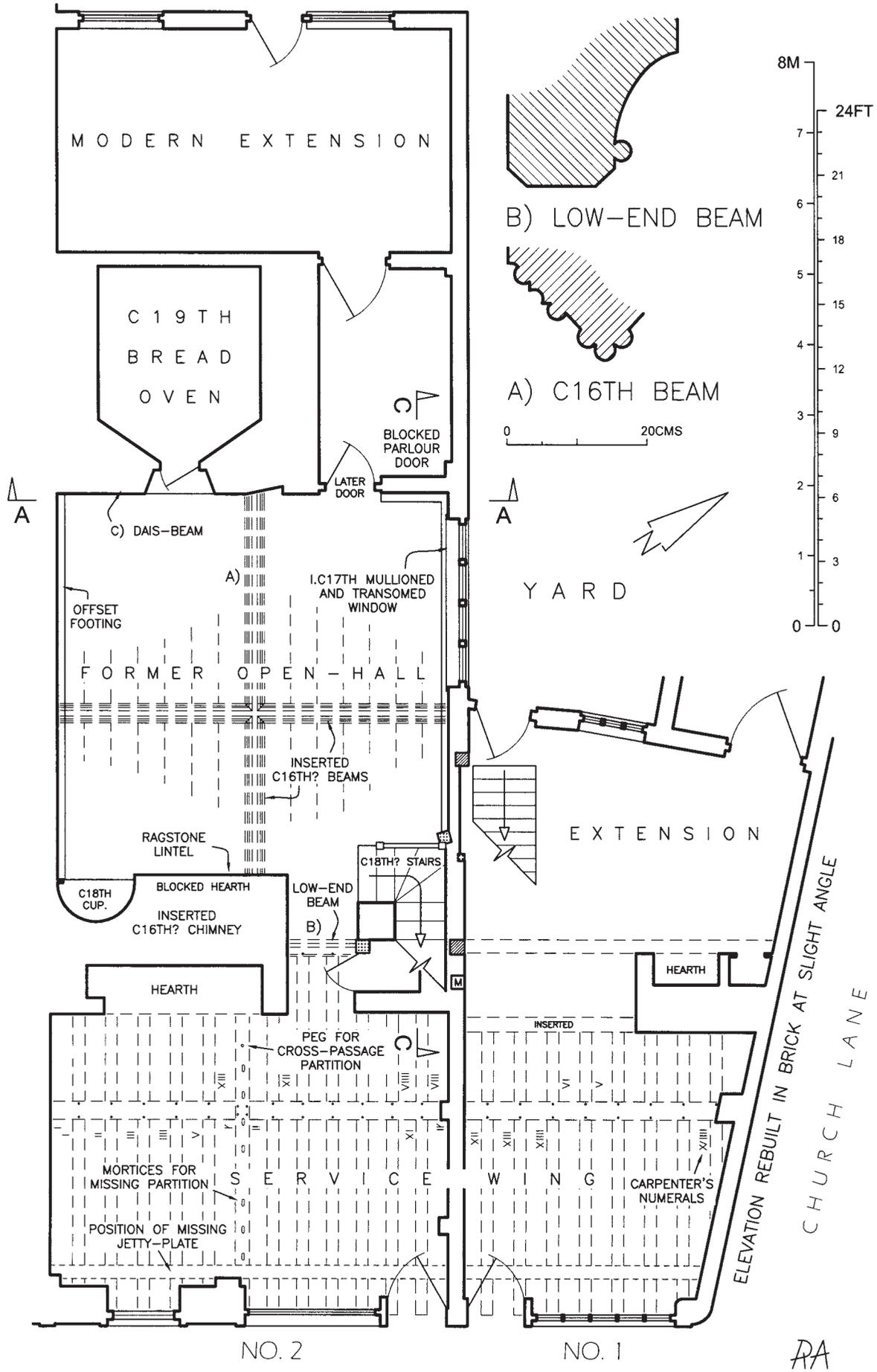
Most halls have windows in both walls. The south-west side of the hall is presently abutted by the neighbouring property, but this may not always have been the case; there may once have been open

ground on this side and a window could have been present. Later plaster was removed from the south-west wall, on the first floor, during recent works, and the timber-frame inspected. The original eaves-plate survives here, but surprisingly there was no evidence on its soffit for an original window. It seems the hall was only lit from the courtyard side at first. Further inspection revealed that two windows were inserted into this wall in later years. These have since been partly dismantled, and blocked, but enough survives to determine their arrangement. They both descend below the present, inserted floor, and must therefore have been inserted at an early date, when the open-hall was still in use. Rebates for shutters are present on the internal faces of the window posts and heads.

A crown-post roof

The hall roof is of crown-post form. The surviving timbers are all heavily soot blackened, as one would expect, for they once lay above an open hearth. Most of the original collars and rafters remain, but the central crown-post has unfortunately been lost, along with the south-east half of the collar purlin. Empty mortices for two of the crown-post braces can however be seen in the soffit of a surviving collar above the centre of the hall. Crown-posts were often attractively decorated, with octagonal shafts, and moulded capitals and bases, and it seems reasonable to suggest such a post was once present here.





GROUND PLAN WITH FIRST FLOOR JOISTS AND BEAMS SUPERIMPOSED

The service wing

The two-storey wing against the street frontage is arranged at right angles to the hall, in the manner of a cross-wing. The orientation of the hall means that this is at the low end of the building, and is therefore the service wing. A cross-wing is a slightly unusual arrangement for a service wing, and is no doubt a function of the building's urban location – most wings, even within rural properties, are built in-line with the hall.

The wing is approximately 5.4m wide and would have measured 10.4m in length, but its north-east end was cut back, at a slight angle, when Church Lane was formed. The wing comprises three bays, each of a different length. Two of these, those to the south-west, now fall within No 2, whereas the third and largest falls within No 1. Carpenter's numerals on the spine-beams of its floor, and on the posts of its first-floor frontage, indicate that the wing was fabricated from the south-west. The south-west bay will therefore be referred to as bay 1 in this report, with bays 2 and 3 respectively to the east.

Luckily the wing's joists and beams survive largely unaltered, and can be seen above the ground-floor rooms. Typically, for medieval work, the timbers are undecorated and of substantial section: the joists, for example, measure on average 6–7 inches in width by 5–6 inches in depth and are laid flat. Shallow housings close to the ends of the joists, on their soffits, reveal that the wing was once jettied along its whole length towards the street – the housings accommodated the jetty-plate, which sat atop the timber-framed ground-floor wall.

A series of carpenter's numerals have been incised on the joists and beams. Those identifying the front joists are numbered from the south-west, whereas those identifying the rear joists are numbered from the north-east. The two sequences run through all three bays, confirming that the bays are contemporary and that Nos 1 and 2 do indeed form part of the same house. The floor's spine-beams are also numbered, starting with that to the south-west.

Ground-floor arrangement

The ground floor of the wing originally accommodated three rooms, each occupying one of the aforementioned bays. The partition that separates the second and third bays remains *in-situ*, whereas that which separates the first and second bays has been removed. However, empty stave mortices on the soffit of the bridging-beam between these bays indicate where the missing partition was located. The service wings of medieval houses usually accommodated two ground-floor rooms (usually called the buttery and pantry), but the wing here clearly contained three, and the function of the third is therefore unclear. It could have been another domestic room, or perhaps a shop or workshop.

Undershot cross-passage

Surprisingly the stave mortices for the missing ground-floor partition stop short of the rear wall of the wing, whereupon a peg hole can be seen some

1.25m from the rear wall. The explanation for this is apparent when we remember the evidence for an undershot cross-passage found during inspection of the hall.

A cross-passage was always present at the low-end of the hall in medieval buildings. This was not a fully screened-in corridor, but rather a point of access through the building; a partition would have been present between the passage and the low-end bay(s) of the building. Doors in this wall would have led into the ground-floor service rooms. This passage usually lay within the hall proper, but occasionally it was placed beneath the adjacent service wing, and is therefore called an undershot passage. This is exactly the arrangement that was once present at Nos 1 and 2. Undershot passages are commonly seen when the hall itself is relatively small.

Access into the building

The exterior front and rear doors of a medieval house were typically located at either end of its cross-passage, but this cannot have been the case here if, as suggested, the passage did not run into the third bay, for the passage would have stopped within the building. We do not know how the third bay was entered from outside, whether from a door in the street frontage on The Borough, from Church Lane at the side or from the yard at the rear. There could, of course, have been more than one point of access and this is perhaps likely, for a door at the front from the street and a door at the rear from the yard would seem desirable. A rear door located within the corner of the courtyard would seem most likely, for this would have placed it close to the end of the cross-passage. An external door could have been present at the south-west end of the passage, but only if there was once open ground on this side of the building.

First-floor arrangement

The first floor of the wing remains divided, as intended, into two rooms or chambers. That to the south-west occupies the first two bays, that to the north-east the third – the partition that lies between them remains *in situ*. The chambers were originally open to the roof, but attic floors have since been inserted above them and rooms formed within the roof space. Evidence for the medieval window that illuminated the south-west room can be seen within the street frontage. The north-east room must have been lit by a similar window.

Roof

The roof of the service wing has now been raised and rebuilt, but evidence suggests the original was of crown-post form, like that which covered the hall. The rafters and one of the tie-beams of the original roof have been re-used in the new arrangement, the tie-beam now atop the raised eaves-plate. This is heavily cambered, and is decorated with hollow chamfers, or cavettos along its lower edges. A number of apotropaic or ritual marks, believed to protect against evil spirits, are present on its north-

east face. A redundant crown-post mortice can be seen atop the beam, at its exact centre.

Stairs

Stairs to the upper chambers must have been present within the wing. There appears to be no break for them in the floor within the first two bays and they must therefore have been located within the third bay. There is no interruption in the joists in the front half of this bay, but to the rear they are partly obscured and alterations can be seen. It is suggested, therefore, that the stairs were located to the rear of the third bay, perhaps where a later chimney is now located.

Street frontage

Original medieval timbers, including two window posts, were exposed within the façade, enough to enable a partial reconstruction drawing to be made. The appearance of the wing appeared to be typically medieval, comprising large panel framing with perhaps four-centred window heads.

The missing high-end wing

The high-end wing that lay to the north-west of the former open-hall no longer survives. The timbers of the high-end wall of the hall are heavily burnt on those sides which face the missing north-west wing, suggesting it was destroyed by fire, but it is not known when this occurred. The north-west faces of these timbers were more fully exposed during recent work, revealing important information about the form of the missing wing. A mortice could be seen on the crown-post here for a missing brace that once sprang into the roof of the high-end wing. The presence of this brace shows that the wing was covered by a continuation of the hall roof, and must therefore have been arranged in-line with the hall, unlike the low-end wing, which was of cross-wing form. Mortices for the wing's joists were revealed on the dais-beam. These were necessarily aligned north-west to south-east and could, therefore, have allowed the building to terminate in a jetty to the north-west, but this suggestion cannot be proven.

The flooring of the hall

The open-hall tradition had started to wane by the end of the fifteenth century, and new houses were built without them. These new houses were floored throughout their lengths and accommodated ground-floor halls with chambers above. Older houses were adapted by inserting floors into their former open-halls. Few escaped this change. The hall here has been adapted in just this way by inserting a floor to form a ground-floor hall with chambers above. The floor lies approximately 1.2m below the hall's eaves, and the upper chambers therefore fall partly within the roof space.

The inserted floor is of some quality, for its principal beams are lavishly moulded with rolls and cavettos. Its appearance suggests a fairly early, perhaps mid sixteenth-century date. Similarly moulded timbers



Details of inserted sixteenth-century floor within former open-hall of No 2 The Borough, showing moulded beams.



Nineteenth-century bread oven, by Pike of Canterbury, in No 2 The Borough.

run around the walls of the hall, functioning both as cornice beams and also ledges for the common joists. The common joists are presently obscured by fibre board, but they may also be moulded.

Often only a single chamber is formed when an open-hall is floored, but two are present here, separated by a partition that has been built atop the inserted floor. The partition is properly framed, and originally incorporated a door at its centre – a rebate, hinge pin holes and evidence for the latches or bolts of this door can all be seen. The partition is of interrupted tie-beam form, a necessity if it was to incorporate a door at its centre, for the tie-beam lies only a few feet above floor level and would otherwise have obstructed the doorway. The door has since been blocked and a new opening formed to one side, but the door itself – a six panel scratch moulded affair – may have been moved to the new opening.

The newly formed hall chamber(s) must have been illuminated, even if this illumination was poor by today's standards. The only place for windows is in the north-east and south-west slopes of the roof as the eaves are too low for windows to have been placed in the wall below. The rooms are presently lit by a large dormer in the north-east slope of the roof. This however does not seem to be a sixteenth-century feature; it has been altered, and may therefore be earlier than its appearance suggests.

The smoke from the hearth of the original medieval hall was able to drift into the roof space, thereby blackening the timbers, but once the hall had been floored, this was no longer possible, and the smoke had to be removed. This was achieved here, as it was in most former open-halls, by building a brick chimney. The position of inserted chimneys varies between buildings, but they were often, as here, built at the low end of the hall. Our chimney presently has back-to-back ground-floor hearths, and south-east facing first- and second-floor hearths. It may, however, have started life with only a single hearth in the hall – hearths were frequently added to early chimneys to increase the number of heated rooms within a building.

Raising of the cross-wing's elevations

One of the most dramatic alterations to the property has been the raising of the elevations of the former

service wing to create garret rooms, something that perhaps occurred during the first half of the seventeenth century. These rooms were illuminated by two handsome, jettied, dormer windows that are themselves interesting examples of historic carpentry. Oriel windows may have lain below these, on the first floor, at this time, but those now present are later rebuilds. That illuminating No.2 appears to be of late seventeenth-century date. It is supported by plaster coving, and is an important period feature.

Other later features

Some of the building's later features also proved to be of interest. Within the north-east elevation there is an interesting, mullioned and transomed window frame of perhaps the late seventeenth century. This probably replaced the original medieval hall window.

A number of Georgian features of note also survive within the property, including panelling, doors and cupboards. One of the last additions to the property was the construction of a large commercial bread oven within No 2. Its door was cast by a local Canterbury foundry, and is dated 1833.

* Adapted by Jake Weekes from the original report.

Calico House, Newnham

Rupert Austin and Sheila Sweetinburgh *

Calico House in Newnham, near Faversham, a Grade II* listed building, is one of the estimated 2,500 medieval houses thought to survive in Kent. The original, perhaps late fourteenth-century house was probably fairly typical of the houses built by the increasing number of yeoman farmers in the aftermath of the Black Death. Archaeological analysis was undertaken by the Trust during recent restorations.

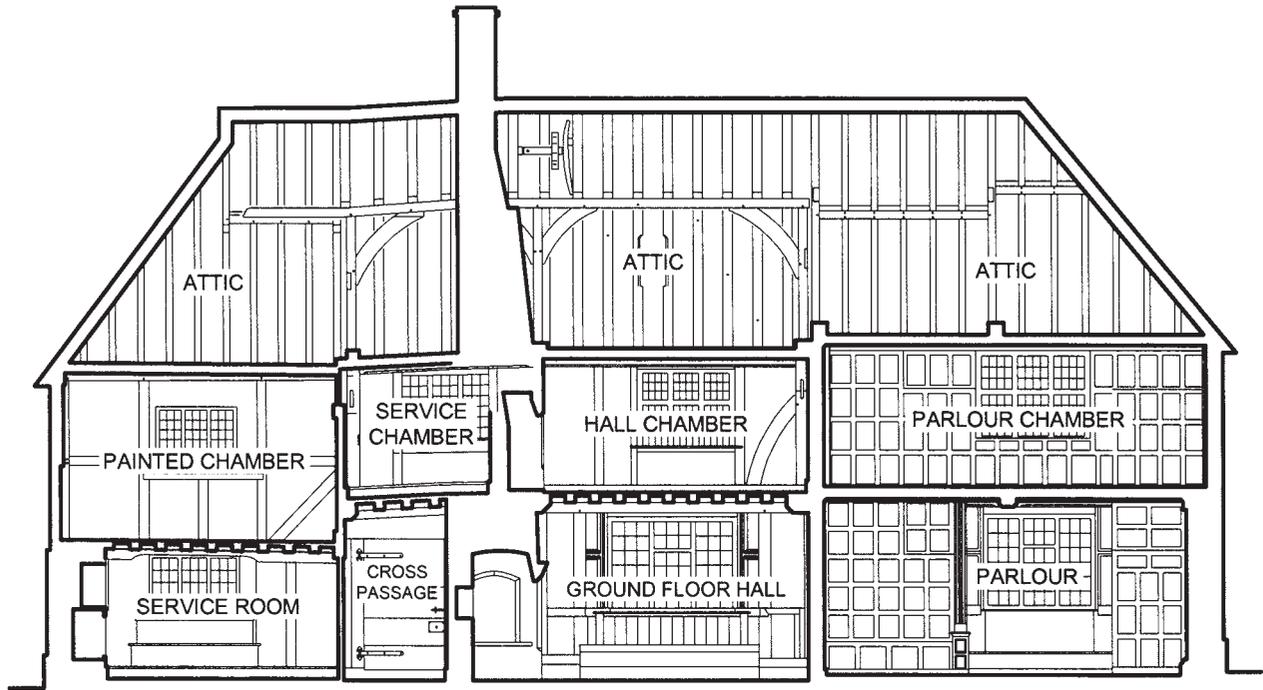
This report focuses on evidence of the late medieval hall house and extensive early seventeenth-century modifications to the property carried out by Steven Hulkes. A fuller account of the historical background to the post-medieval developments of the house is to be published shortly (Austin and Sweetinburgh forthcoming).

The early house

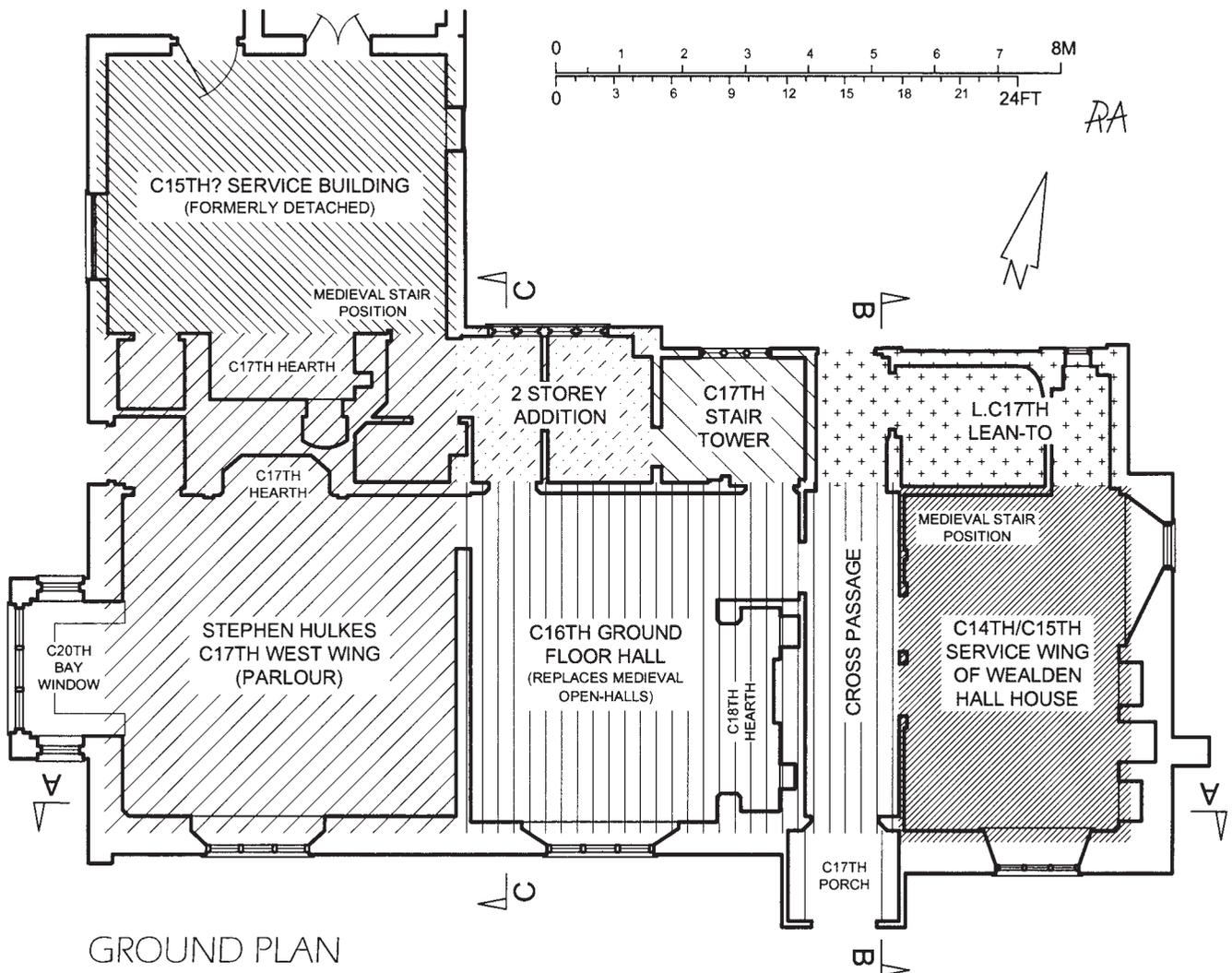
Sited on 'The Street' in Newnham, the only extant section of the first timber-framed house is a single bay at the east end of the main range. This has been heavily rebuilt and few datable features survive from its construction. Those that do survive seemingly



View of south elevation of main range of Calico House.



SECTION A - A



GROUND PLAN

indicate a late fourteenth- or early fifteenth-century date. Close inspection of its timber-frame reveals the original house to have been of Wealden form; there is evidence for reverse assembly within the rear wall of the surviving bay (now internalised by a later lean-to) atop the north-west post, and a double jetty is present. The bay was floored from the outset, and the features within it point to its having been at the low-end of the building, the service rooms on the ground floor with a chamber above. Assuming it was a typical medieval house, to the west of this bay would have been an open hall, and to the west again (the high-end) would have been a two-storey bay, with parlour on the ground floor and solar above.

Looking in detail at this east-end bay, the west wall (the east wall of the now 'lost' open-hall) comprises one side of a cross passage that runs through the building between the front and rear doors of the property. There is evidence of three doorways having initially cut through this wall on the ground floor (these doors, and the adjacent lengths of partition, were reinstated, based on the surviving evidence, during the building's recent restoration). Near the centre, and still extant, are two side-by-side doorways, though only the northernmost retains its original door head: a simple, pointed, two-centred door head of durn type. In durn construction the door head is an integral part of the door frame and not a separately formed component. This door head is an important survival, as it is one of the few datable features within the wing, possibly indicating a late fourteenth-century date. The presence of holes for iron pins on the east faces of the door posts,

upon which door hinges hung, shows that the missing doors opened into the wing. The two rooms these doors entered would have been used for storing food and drink (pantry and buttery respectively).

Interestingly there are no empty stave mortices for the partition that once lay between the rooms, on the soffit of the central joist, indicating it was planted (nailed) in place (or perhaps given a moveable screen) and not an integral part of the timber-frame. In contrast to the central doors, the evidence indicates that the third door (now blocked) would have opened away from the wing, the rectangular doorway providing access to a set of stairs leading to the wing's upper chamber.

Having been rebuilt at a later date, the single chamber above the service rooms contains very little evidence of its original structure. However, a feature more often seen over the high-end solar was at one time present here: an east-west tie-beam which crossed the chamber at eaves level. Though unnecessary structurally, such 'gratuitous' tie-beams might occasionally support a crown-post and were presumably included for visual effect, their presence intended to give the chamber the appearance of comprising two bays.

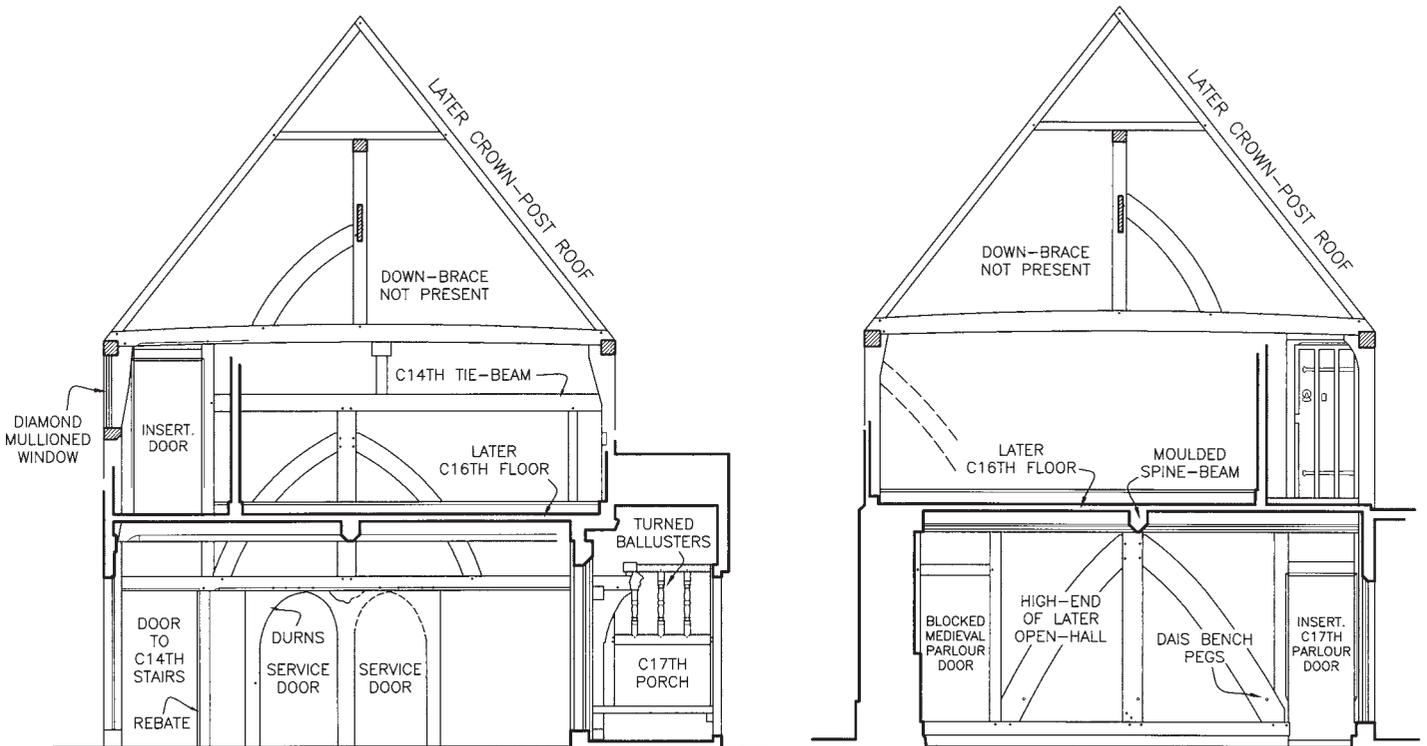
The upper floor is significantly lower in this bay than elsewhere, a difference which usefully distinguishes it from the later parts of the house. The bay was once jettied to the south and east, as shown by the presence of a short diagonal dragon-beam in the south-east corner of the bay, the joists and beams being exposed above the ground-floor

room. The common joists are undecorated, and of fairly substantial section, being laid flat in a typical medieval manner.

From the fragmentary evidence it appears that the wing's original elevations comprised large panel framing, with long curved braces, rather than the close-studding that is mostly present today. The positions of certain windows can also be determined. An original unglazed single-light window, with two diamond mullions, survives in the rear wall at first-floor level, and within the front (south) wall of the wing there is evidence at ground level for a similarly unglazed two-light window. Unfortunately nothing survives to indicate the form of the wing's original roof, though the most likely is a crown-post roof.

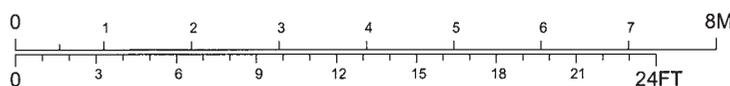
Moving to the west where once the open-hall would have been located, the building provides evidence of several stages in its development. Inspection suggests that the original open-hall, which must have been small, was demolished and replaced not by the ground-floor hall and chambers that are present today, but by a second, larger open-hall. All that survives of this intervening structure is the cross-frame that formed its high-end wall.

The timbers of this frame are of medieval appearance, and include a wide central post flanked by a pair of large curved down-braces. There is also evidence of a dais bench from the peg holes seen at about 0.36m above the ground-plate, and of the original parlour door towards the front of the hall. A second door to the rear is a later insertion, contemporaneous with the seventeenth-century wing to the west. The length



SECTION B - B

SECTION C - C



RA



West wall of hall, showing framing of earlier medieval open-hall (note moulded beams and chamfered joists overhead).



View looking north into cross-passage, through sixteenth-century front door.

of the later hall suggests it comprised two bays, like the extant floored hall that replaces it.

Before describing its replacement, it is worth noting the presence of what was once a detached, two-storey, fully timber-framed building just to the rear of the west end of the main range (see below for its incorporation into the house), for this seems to have been built whilst the later open-hall remained in use. The detached building was two bays long, floored in both bays, jettied on two sides (west and north), and was on the same alignment as the main range: a simple extension would most likely have been aligned at right angles.

Evidence for a late medieval or perhaps early post-medieval date comes from its structure. The plain, unchamfered joists of the first floor (exposed during restoration) are laid flat in a medieval manner. The central bridging-beam is plainly chamfered, with simple run-out stops. On the soffit of the now internalised south (front) eaves-plate there are round-ended stave mortices and square post mortices (for now missing timbers). Similar mortices were observed on the east eaves-plate (removed during restoration), all indicative of large panel framing in the medieval tradition.

Empty stave mortices on the soffit of the central bridging-beam indicate that originally the ground floor was partitioned into two rooms, but this partition was later removed. Conversely, the first floor was initially one chamber (from evidence for arch-braces beneath the ends of the tie-beam), but subsequently was subdivided. Access to this chamber was provided by stairs, long since removed, through an opening in the floor in the east bay. Unfortunately no evidence to show how the building was illuminated was revealed.

The use of such detached late medieval or early modern structures remains unclear, though often they are referred to as kitchens. This is problematic if there is no evidence of a hearth and some may have seen more general use such as the storage and preparation of food. Both bays are floored here and an open-hearth cannot have been present, but some form of chimney cannot be ruled out.

In the mid sixteenth century the late medieval open-hall was replaced by a two-bay ground-floor hall with chambers above, the high-end bay being longer (3.9m) than the low-end bay (2.8m). The front wall of the new hall, unlike its predecessors, was jettied towards the street, the still extant first-floor framing incorporating close studding and mid-rails: curved down-braces are also present, but these are concealed behind the studding. The framing is supported by a jetty-bressumer moulded with shallow rolls and hollows. At ground level the wall has been rebuilt in brick, except for a short length behind the later porch.

A handsome oriel window illuminated the west (high-end) bay of the hall. This was transomed with ovolo moulded mullions and canted side-lights, and was supported by a solid oak cill. Although the window was glazed from the outset, unusually it had shutters. Interestingly, because of the limited space on either side of the oriel, inner and outer shutter grooves were required to allow one shutter to slide behind the other. It is conceivable that a similar oriel lit the hall chamber above, but at present the fabric is partly concealed and this hypothesis cannot be tested, though a shutter groove does survive above the present window. Neither window appears to have had clerestory lights.

The hall was entered through a door in the east (low-end) bay. This door, which led onto the cross-passage, still survives behind a later porch, and is in excellent condition, albeit now hung on modern hinges. Typically for an external door it is double boarded, the outside boards set vertically, the internal boards set horizontally. Moulded battens have been nailed to its outer face over the joints between the boards. The door frame is embellished with rolls, hollows and cyma mouldings, its door head of four-centred form with 'V' sunken spandrels.

The beams above the hall are attractively moulded with rolls, whilst the common joists are plainly chamfered with simple step stops. Both joists and beams remain exposed, as intended, and have not been ceiled by plaster. Stairs to the first-floor chambers must have remained elsewhere, at this

time, as there is no evidence for an opening in the floor for them here. Two chambers were present on the first floor. Surprisingly there was no connection (door) between them at first. This means there was no access between the high and low end of the building at first-floor level, but such an arrangement is not unknown in buildings of this period. The chambers must necessarily have been reached from two sets of stairs within the east and west wings.

A large brick chimney rises up through the east (low-end) bay today, backing onto the previously mentioned cross-passage, but this is clearly a later insertion. The original location of the chimney was ascertained after inspecting the rear wall of the hall. A 2.6m wide gap was once present in the framing at ground level, in the west (high) bay and a similar gap on the first floor. These suggest the chimney once stood against the rear wall of the hall, its hearths located in these gaps. It would seem, from this evidence, that the chimney served both the ground-floor hall and also the west first-floor chamber (the east chamber was unheated).

The rear elevation of the hall, against which the chimney stood, is understandably less elaborate than the front, being unjettied and lacking the close studding and oriel windows. A simple, unglazed mullioned window is still extant in the east (low-end) bay at first-floor level. Two original doorways are present on the ground floor. The first door lies, as one would expect, directly opposite the front door at the north end of the cross-passage, but now comprises modern fabric. The second lies immediately to the west, its frame moulded with rolls and hollows similar to those which embellish the beams over the hall. This door opens away from the hall, presently into a later stair tower, but originally into a now missing part of the building, perhaps a lean-to. A third door is present within the west bay, but this appears to be an insertion, despite its similarly moulded door frame.

The ground-floor hall and its chambers are still covered by a crown-post roof, its construction typical of the period, though the presence of only alternate lateral braces is generally associated with late examples of such roofs. The longitudinal braces are

numbered from the east, but the absence of brace 1 indicates that originally the roof extended over the east (low-end) wing. The absence of soot-blackened timbers rules out the possibility that the roof contains fabric salvaged from the earlier open-hall.

It is not known if the high-end wing of the original Wealden, which was probably of similar proportions and appearance to the extant east low-end wing (see above), had survived at the west end of the house until this point, or if it had been replaced when the second, larger open-hall was built. The present wing, whatever it replaces, can however, certainly be attributed to Stephen Hulkes and his 'new' house.

Historical evidence

According to Hasted writing in the 1790s, 'Calico House' was also known as Parsonage House. This is an important clue concerning the history of ownership of the house because Calico House and the patronage of Newnham church were linked for centuries (Hasted 1798, 413). The name Newnham is not mentioned in Domesday, perhaps indicating that even in the eleventh century this was merely an extensively wooded area in which there was no permanent settlement, or nothing large enough to bother King William's tax-gathers. Wallenberg's earliest reference to Newnham is 1177 from *Registrum Roffense* where the place is called 'Newenham', a form that seems to have remained in general use until at least the mid thirteenth century when it was sometimes referred to as 'Neuham' (derived from the Old English *niowe* for 'new' plus *ham*, a town: Wallenberg 1934, 287). Nevertheless, it appears that the manor of Newnham alias Champion Court was in existence from the early twelfth century, being in the hands of Hugh de Newenham who held it from the Knights of St John as Henry I's tenants in chief. Though unrecorded, it seems likely that Hugh was responsible for the provision of the parish church.

Hugh was succeeded by his son Fulk de Newenham who, perhaps following King Stephen's lead as founder of Faversham Abbey, established a Benedictine nunnery on his manorial lands at

Davington in 1153 (Caley *et al* 1846, 288). Amongst Fulk's gifts to the nuns were lands from his manors of Davington and Newnham, and the *ecclesia* or parsonage of Newnham, which was linked to Newnham manor (Hasted 1798, 414).

In the early post-medieval period, the priory site and its estates were among a large number of clerical presentments in Kent that came into lay hands during the reign of Elizabeth I (Hasted 1798, 419), providing further opportunities for yeomen, gentlemen and others to acquire capital assets, thereby enhancing their wealth and status. Some of these men came from local families who had also been social climbers in the fifteenth century, while others may have been new to the area, taking advantage of such opportunities across the region at a time when Kent was becoming an even more important supplier of foodstuffs (grain, malt and livestock) and fuel to London's rapidly increasing population. As a way of demonstrating their rising status they often adapted their existing houses by building new wings or adding new floors, windows and fireplaces. This seems to be the case at Calico House, and the replacement of the larger late medieval open-hall by the ground-floor hall and chambers above may have occurred in the years following the Dissolution.

In April 1617 Stephen Hulkes, his son John and grandson Thomas bought from Gabriel Livesey for £1400 the estate in Newnham (CKS: U145/T12). Stephen styled himself yeoman of Newnham which suggests that at the time of the purchase he was a substantial farmer in the area, especially as he and his son (and grandson) were able to raise this large sum of money. If he was Livesey's tenant, he may already have been residing at Calico House, an elderly man who wanted to ensure the future of his family. As well as the house itself there was an orchard, dove house and other outhouses and buildings; and the place was linked to a three-acre plot called Clobb. Nevertheless, this was only a small part of Stephen's acquisition, making him a locally important landowner (he already held land in the vicinity, including fields and an orchard abutting the glebe lands: CCAL: DCb/D/T/N14), but not yet of gentry status.

Calico House: c 1600 to 1618: Stephen Hulkes' 'new' house

The most important alteration that Stephen Hulkes made to the existing property was the construction of the present west wing, which must predate 1618, the year of his death. In height the levels of the new west wing match those of the adjacent ground-floor hall. Its construction also linked the previously free standing service building to the house. Initially it was entirely timber-framed, like its late medieval predecessor, and similarly it maintained the medieval orientation of the house—it was still the high-end of the building. The ground-floor room was known as the parlour, and that above as the parlour chamber (see below). The hall, once seen as the pivotal room in the house, was by the early seventeenth century beginning to lose this status in favour of the parlour, even possibly in rural houses such as this though the hall remained important as a point of entry and as a formal space from which to approach the parlour and rooms used by the family and its distinguished guests (Cooper 1999, 141).

Hulkes blocked the original parlour door, which lay against the front wall of the hall, and a new door was formed against the rear wall. The style of the new door frame is consistent with the features of the wing, being ovolo moulded with high level lambs tongue stops. Of the other timberwork, unlike the floor joists above the hall those in this wing are hidden, as intended, by a plaster ceiling, the only exposed work being the ovolo moulded, north-south aligned bridging beam. From the change in direction of the common joists it is clear that the wing was originally jettied on two sides (the south (front) and west). Stephen probably had a clasped side-purlin roof over his new wing, a typical early seventeenth-century replacement for the ubiquitous medieval crown-post roof. Like many of its period this roof seemingly terminated in a jettied gable to the west.

Close studding is still extant along the south elevation, on the first floor and was presumably once present at ground level, but has been replaced with brick. The parlour was illuminated by an oriel



Stephen Hulkes' parlour, looking east, showing seventeenth-century small square panelling and decorated fireplace.



Detail of decorated fireplace over mantel.



The painted chamber, looking south-east.



Detail of wall painting.

window, its form similar in some respects to that in the adjacent hall. It had canted sides, the windows of which were again ovolo moulded, and its cill was also solid, but unlike the hall window it lacked shutters and there were clerestory lights (these are now blocked). Empty mortices show that the chamber above was lit by a similar window. Again the surviving structure indicates the form of the windows at the west end of the wing, the ground and first floors each having had an oriel window similar to those on the south elevation.

Interestingly, Stephen was apparently not satisfied with the arrangement of his new windows and within a short space of time had modified the front ground-floor oriel windows, both in the hall and parlour. He had brick bases, with ogee moulded plinths, constructed beneath the original oak cills and perhaps added the bench seats at this time. Each brick base includes a carved brick panel. That beneath the east oriel was decorated with a fleur-de-lis, but Stephen added his and his wife Johan's initials to the west one, placing S.I.H. in a shield.

Stephen's parlour and chamber over were lined with small-square, scratch moulded oak panelling, or wainscot. Both rooms were heated by hearths in their rear walls. These hearths have elaborately decorated overmantles. That in the parlour is 1.7m wide, with splayed inner reveals, and was constructed using moulded and decorated lime plaster over roughly shaped brickwork, a technique revealed during recent restoration. In the upper frieze are two fleur-de-lis which contain the initials of Stephen and his wife (SH and IH). That in the chamber above is similarly decorated, but more modestly proportioned. The substantial brick chimney that served these hearths is sited in the gap between the wing and the detached medieval service building. Its four octagonal shafts still rise above the roof line today, but their probably decorated upper courses have been lost.

The chimney also brought hearths to the medieval building to the rear, possibly for the first time, perhaps signifying a change in use. The ground-floor hearth is plain in appearance and wide (about 2.28m). Its use for cooking is confirmed by Stephen's inventory (see below). Moreover, the scar for the bottle jack, that turned the spits, is still visible at the right end of the lintel. At the back of the fireplace there is a residual heat bread oven with a vaulted brick roof. Stephen's great chimney also served the room above the

kitchen, though the hearth here is less than half the width of the one in the kitchen: its jambs and gently cambered lintel are plainly chamfered, the chamfers terminating in broach stops 0.42m from the floor.

Stephen may also have overseen the raising of the first-floor elevations of the east (low-end) wing (from 3.9m to 4.3m) because he referred to the first-floor room as his painted chamber and much of the wall painting still remains. The alteration was achieved by completely rebuilding the east and front elevations of the wing in new timber. Most is still extant, the frame close-studded with mid-rails and concealed braces (these braces are straighter and smaller in size than medieval braces). Attractive moulded jetty-bressumers supported the new framing, but only a fragment of the south bressumer, adjacent to the porch, now survives. The first-floor chamber was lit by an oriel window in the front wall. This was shallow with a solid sill, and lacked clerestory windows. The new work probably included a second oriel window in the east wall, and also the insertion of a ceiling or attic floor above the chamber.

Stephen's chamber had paintings on all four walls, these taking the form of faux panelling or wainscot, in red ochre, with strapwork designs. Around the top of each wall, immediately below the ceiling, he had painted a frieze containing an inscription in English which is based on a seventeenth-century biblical text taken from 'The Proverbs of Solomon', verse 4.¹ Stephen seems to have had wall paintings in at least one other room because traces were found in the chamber over the hall. The resulting house was, therefore, a fitting testament to his position as a prosperous yeoman within Kentish Jacobean society.

Calico House: 1618 to 1720: the house under Stephen's descendants

During the mid seventeenth century the house underwent further work, though exactly when this took place is uncertain. Thus it may relate to the later years of John Hulkes, who died in 1651, or perhaps to his wife, who continued to live there after his death (see Austin and Sweetinburgh forthcoming). In either case it was the ground-floor hall and its chambers that received the greatest attention.

Probably the first alteration was the relocation of the chimney (the original was located against the

rear wall of the hall) to a position within the east bay of the hall, backing onto the cross-passage. This alteration was perhaps undertaken to allow a stair tower to be built against the rear of the house (see below), a feature that would considerably improve communication within the building.

The new chimney is still extant, and has been little altered, its ground-floor hearth a substantial inglenook with two small niches (spice or salt cupboards) in its rear wall. Its decorated oak bressumer resembles the beams above the hall, and the timber may have been salvaged from the original chimney when this was dismantled. A second hearth, on the first floor, is far smaller (1.2m rather than 2.67m), with a plainly chamfered bressumer of low segmental form.

The stair tower is also still extant, and is lit, on the ground and first floors, by glazed windows in its north (rear) wall. Each comprises three lights with ovolo moulded mullions and iron glazing bars. The tower's elevations are close-studded, with a mid-rail, but appear to lack any form of bracing. The corner posts have long, flared jowls with short, angled shoulders. Still extant is the tower's simple collar-rafter roof, which is gabled to the north (rear).

Entry to the tower at ground level is through a door in the north (rear) wall of the house, though the door predates the stair tower and must originally have led elsewhere (see above). A cupboard lit by a small window (now blocked) was present beneath the stairs from the outset. The stairs themselves wind their way up around a central newel to an inserted opening in the rear wall on the first floor. The corridor that now runs along the rear of the main range, at this level, may have been inserted when the tower was built, allowing the upstairs rooms to be reached independently from each other, thereby offering greater privacy to the inhabitants than before.

A new window was inserted into the rear wall of the ground-floor hall (between the west door and the later stair tower) at or shortly after this time. This was a large window, one befitting of a hall, with six lights (the profiles of its plainly chamfered mullions suggest it was glazed from the outset). It was blocked after the construction of another two-storey structure at the rear (see below).

Also formed at this time was an attic, which meant the two hall chambers were no longer open to the roof. The attic stairs are located to the rear of the



Eighteenth-century painted plaster on east elevation of service wing.

chimney, and comprise solid timber treads fixed to runners. Many of the attic floor boards also survive from this mid seventeenth-century phase, albeit now in a poor condition. Today the attic is unlit, but at an earlier date there was a small window along the south (west) slope of the roof. This was later replaced, seemingly, by a dormer window, from the evidence of the peg holes drilled through a number of the rafters, probably by the Hulkes when the west wing was rebuilt.

Another two-storey, timber-framed structure has since been built in the gap between the stair tower and the rear (service) wing, blocking the later hall window (see above); like the stair tower, its collar-rafter roof terminates in a gable to the north. It is not clear whether this addition was constructed by the Hulkes or their successors.

Similarly, either John Hulkes or his wife also had built a single-storey porch in front of the main entrance to the house. This still survived, its door jambs ogee moulded with run-out stops. A simple collar-rafter roof that terminates in a gable covers the porch, the bressumer of which is ovolo moulded and decorated with a repeating guilloche pattern. The sides of the porch are open, above a mid-rail, and incorporate turned balusters. Seating is provided in the form of bench seats.

However it may have been John Hulse (John Hulkes' grandson, d 1682: see Austin and Sweetinburgh forthcoming), rather than his grandmother, who was responsible for the single-storey lean-to that was constructed against the north (rear) wall of the service wing and hall. Initially it was entirely timber-framed, but is now largely rebuilt in brick. Being two bays long, the short west bay is a continuation of

the cross-passage of the main range, the east bay housing the stairs down to the cellar beneath the service wing.

In addition to this work, it was possibly John Hulse who replaced the hall chamber and west wing parlour oriel windows with the present flush mounted frames, though feasibly it could have been the work of his successor. These are transomed, their mullions ovolo moulded internally, while their external architraves and the outer faces of their transoms have narrow ogee mouldings. At a slightly later date the façade was decorated. Plaster panels were applied over the timbers of the south (front) and east elevations of the house, and a decorative design, dated 1710, painted on them, in red ochre.

This must be the work of John Hulse's successor. From the street this decoration is perhaps the building's most distinctive feature, though almost all of the extant decoration is a modern restoration of the original work. It seemingly was the last work on the house undertaken by the Hulkes/Hulse family, but it is worth noting that in the late seventeenth century they had started underpinning in brick the west, ground-floor elevation of the west wing. This work was continued by the family's successors in the eighteenth century, until most of the building's timber-framed elevations had been replaced.

¹ The source of this inscription was the Geneva Bible and/or the King James Bible; information provided by T Organ. The authors would like to thank the present owners for procuring this information.

* Adapted by Jake Weekes from the original report.

Nos 100–102 High Street, Hythe

Andrew Linklater

During the total refurbishment of Nos 100–102 High Street, Hythe, a watching brief maintained on groundworks associated with an extension at its rear, found limited evidence for earlier occupation. Inspection of the standing structure, however, revealed a timber-framed cross wing to a medieval building and identified a lost lane. The work was carried out in February 2009.

As coastal progression during the early medieval period gradually altered the coastline of Romney Marsh, Hythe's importance as a sea trading port diminished leaving the town as a secondary coastal market town for goods being transported eastwards from the marsh and vice-versa. As a consequence, the town's development slowed down, so preserving many of its medieval timber-framed buildings. Some of these are concealed behind later façades and hence have been mis-identified or omitted from official records (Linklater 2009). Closest to the present property are Nos 94–98 High Street; Nos 67–69 High Street and the King's Head public house at No 117 High Street.

Located on the southern side of the High Street at NGR 61622 13477, the property forms part of a row of commercial and domestic dwellings. Part of the ground floor of the neighbouring property was included in the development. No 102 High Street is a three storey timber-framed structure of the late eighteenth to early nineteenth century with a small Ragstone-walled cellar with a blocked central window onto the High Street.

Prior to the structural examination of No 100a, all internal ground-floor fixtures and fittings, including most of the lath-and-plaster and softwood wall

coverings and a brick chimney stack to the rear, had been removed. This gave the opportunity to examine the constructional development of the building. Though the structure had suffered through unsympathetic alterations, enough of the original building and indicative detail on the extant timbers survived to be able to reasonably reconstruct a representative plan and two opposing elevations. Assessment revealed the largely intact timber-framing of a late medieval cross-wing with evidence of an associated open hall.

The main elements of the surviving timber-framing consisted largely of the east and west side walls to a cross wing and its first-floor joist frame (Sections A-A and B-B). Of these two elevations, Section A-A consists of the western side wall of the cross wing, which also doubled as the internal partition between a now missing open hall located to the west. Section B-B consists of the eastern side of the cross wing, which also forms the eastern end elevation of the building.

Unfortunately the open hall, which would have stood on the site of the adjoining 100 High Street, did not fare so well. All that survived beneath the footprint of the twentieth-century steel-framed brick building, were the discontinuous remains of a Ragstone rubble masonry dwarf wall, originally forming the foundation for the hall's front and rear walls. Despite most of its front wall foundation surviving beneath the later shop front, its rear foundation had been largely removed leaving a crushed mortar filled robber trench.

The alignment of this robber trench was offset from the rear wall of the cross-wing by 0.90m that

corresponded with an intersection in the surviving masonry foundations beneath the partition elevation (Section A-A). Further evidence of the hall's rear wall position was indicated directly above this foundation junction by two large mortises in the upper and west face of the cross-wing's western sole plate (Section A-A). This clearly indicated that the rear wall of the open hall was set further to the north than the end wall of the cross-wing, suggesting the possible position of a rear door. Unfortunately, this portion of the timber-framed elevation had been partially removed during the construction of a later extension, so this is purely speculative.

The wall against the adjoining timber-framed No 98 High Street formed the hall's western limit, demonstrating its overall dimensions as only 4.3m wide (north-south) by 5m (east-west). Though only basic information relating to the open hall survived, traditional Kentish timber building construction would indicate that the roof line of this part of the structure would have been aligned parallel with the High Street.

One other doorway was identified in the western elevation (Section A-A). Positioned centrally in the ground-floor frame, this rebated opening provided access between the open hall and the cross wing at ground-floor level. Either side, the framed panels were infilled with 'wattle and daub' supported on a series of timber staves.

The cross-wing itself was originally of two storeys with a projecting first-floor jetty along its High Street façade. Unfortunately, nearly all of the original

timber-framing above first-floor joist level was either concealed behind later wall coverings or had been replaced during later post-medieval alterations to the façade. These alterations included the rebuilding of the cross wing's roof, which would originally have been aligned at 90 degrees to the open hall rather than parallel with the High Street as is the existing replacement roof. The present roof consists of a simple wooden pegged paired rafter roof structure supported by opposing horizontal purlins. These are trench clasped at either end by collars pegged into the underside of principal rafters (Sections A-A and B-B). Above this collar-purlin junction each principal rafter's depth is reduced to match the dimensions of the paired secondary rafters, creating a pitch of approximately 77 degrees.

Evidence of the cross wing jetty survives in the present shop front though examination of the first-floor joist ends revealed they had been cut-back during a rearrangement of the ground and first-floor façades leaving them projecting only slightly. During this phase of alteration, the original supporting jetty plate had been replaced with a steel beam positioned slightly forward of the timber plate's original position. Conclusive evidence of its position was indicated as a scar on the underside of the surviving joist and by the existing ground-floor lath and lime plaster ceiling, which respected the missing jetty plate's inside face and not the present shop front or the inserted steel beam.

Further evidence of the cross wing's jettied façade was indicated in both recorded elevations, where



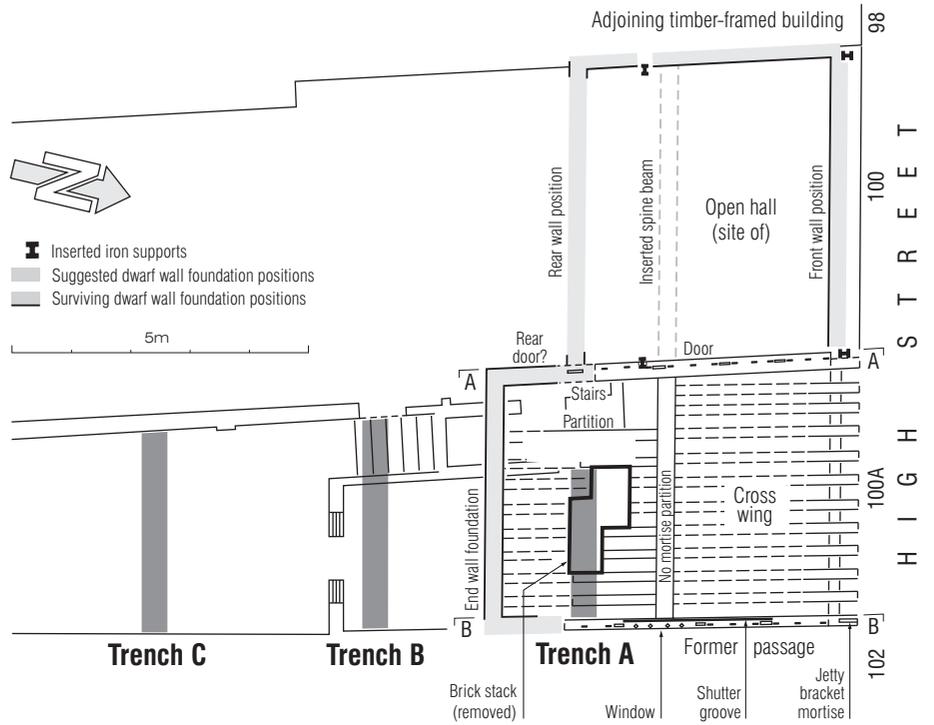
Extract from the Ordnance Survey map showing the position of the site in relation to the surrounding townscape with known medieval buildings. Inset: General view of 100–102 High Street with adjoining medieval timber-framed building to the west.

the northern end of each timber mid plate had been reduced so the timber could pass over the top of and be supported by the now missing jetty plate (Sections A-A and B-B). On the underside of the eastern mid plate's northern end, a large empty mortise indicated the position of a now missing jetty bracket suggesting this portion of the façade followed a typical jetty plate and supporting bracket assembly.

This typical framing arrangement was constructed due to the eastern side of the cross wing forming the western side of a 'lost' lane or passageway, which had been covered by the neighbouring building (102).

The presence of this lane was also indicated by the discovery of a four-light window opening at ground-floor level in the end elevation (Section B-B). Framed centrally between two upward curving braces, the unglazed opening consisted of four mullions set on the diagonal in the typical medieval fashion extending from the underside of the mid plate to a pegged timber sill spanning between two upright posts. Evidence for a timber internal sliding shutter was present in the form of a linear groove across the internal face of the timber framing (Section B-B). The remaining panels below and either side of the window opening were each infilled by three equally spaced supporting staves covered with 'wattle and daub', faced/dressed by a thin layer of lime wash plaster.

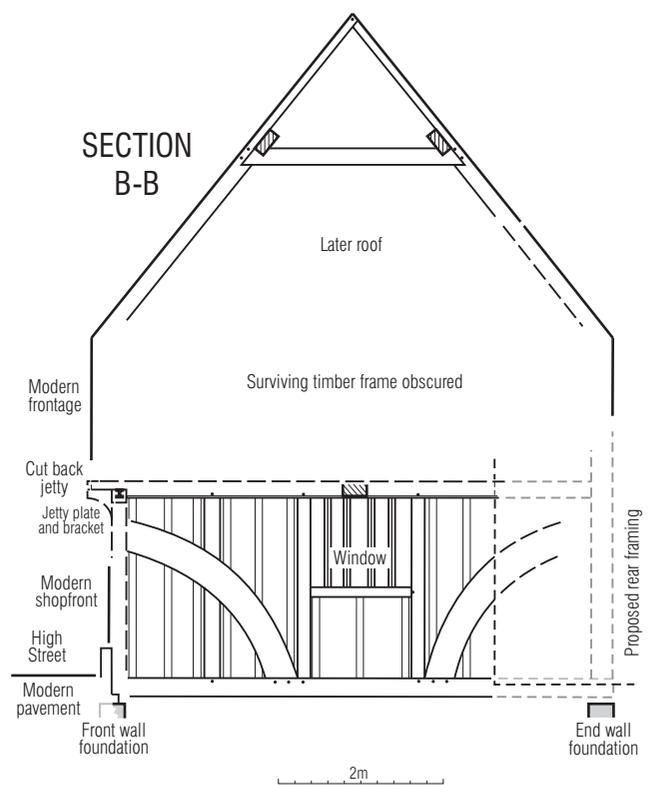
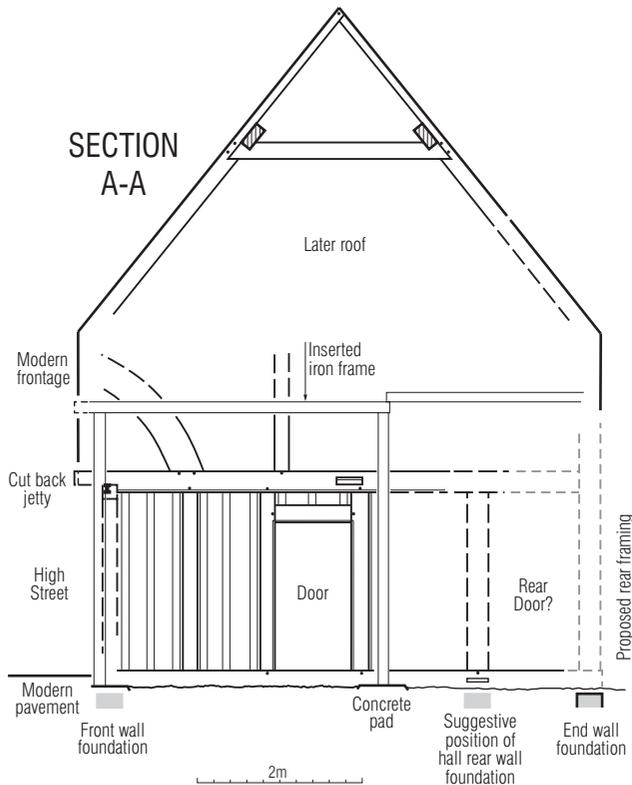
The first-floor joist arrangement across the cross wing's northern end was largely intact, though its southern arrangement had been heavily altered during the insertion of a brick chimney stack and the construction of a later rear extension. The northern joist sequence consisted of ten equally spaced timber joists jointed into the northern face of the spine beam. As mentioned above, the northern ends of these joists would have originally been supported by and projected beyond a jetty plate providing support for the first-floor



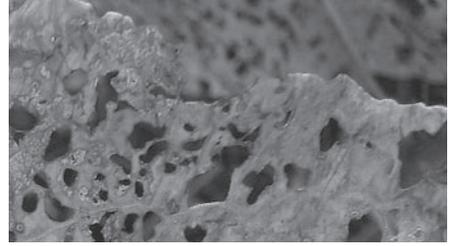
Amended architects plan showing the position of new foundation trenches and surviving elements of medieval timber-framed building.

façade. To the south of the central spine beam the positions of only eight joists were identified due to the location of an opening in the frame for a stair position situated in the south-west corner. This opening was further emphasized by the joist immediately adjacent being of larger dimensions than the surviving five floor joists and retaining evidence for a stud partition on its underside face. Two joists in the sequence had been removed, though the positions of two empty mortises clearly identified their locations.

Whilst the monitoring of groundworks associated with the upgrading of the existing buildings revealed only limited archaeological information, examination of the surviving structures proved immensely rewarding. The work clearly indicated the importance of detailed examination of period buildings prior to or during alterations as so much information can be concealed beneath later alterations.



Sections. A-A: elevation through open hall/cross wing partition; B-B: elevation through cross wing end wall.



PALAEOENVIRONMENTAL WORK

Enid Allison

Introduction

Palaeoenvironmental work during the year was dominated by the ongoing Thanet Earth project. Other work on CAT sites included the continuing examination of cores taken through natural and man-made deposits on the site of the former St Mildred's Tannery in Canterbury to elucidate the development of the area from the Roman to post-medieval periods.

In February 2009 the environmental office moved from the Kingsmead store to more suitable premises at Broad Street, although bulk sample processing is still carried out in specially adapted sheds in the Kingsmead compound, weather permitting. During the colder months of the year it will be possible to carry out small scale wet-sieving at Broad Street in what used to be the air-raid shelter in the corner of the yard. This is now enclosed within the storage shed lying against the city wall at Broad Street.

The partial refurbishment of the storage shed at Broad Street has been of particular benefit for work on insect remains. These are generally extracted from samples by paraffin flotation after boiling the



The new EnviroCentre.



Ann Chadwick entering data from Thanet Earth samples.

sediment with washing soda (sodium carbonate) and this was previously carried out in very difficult and unsuitable conditions at Kingsmead. There is now a designated laboratory area in the shed where we can do this work quickly and efficiently, and without causing offence to other members of staff – boiling sediment with a high organic content can produce a range of unusual smells!

Analysis or assessment of insect remains during the year was carried out on material from archaeological sites in Lewisham, on an area undergoing re-development for the 2012 Olympics in London, and further afield in Lincolnshire and Nottinghamshire.

Thanet Earth

During the Thanet Earth excavation a vast number of sediment samples were taken for retrieval of animal and plant remains that it would not be possible to

recover by hand excavation, with the aim of providing dietary information and data on the local environment and economy during the various periods of activity represented on the site.

Bulk sample processing continued throughout the time of excavation and for several months after the dig finished. It was a mammoth task and well over a thousand bulk samples ranging in size from a few litres to tens of litres were wet-sieved. The total weight of sediment processed was 27 tonnes which produced almost 2.5 tonnes of dried residues which then had to be painstakingly examined for artefacts and biological material such as small bones and shells. Charred plant remains were recovered from the bulk samples in separate 'flots'. Column samples for recovery of snails were taken from the fills of prehistoric and medieval ditches, including from some of the barrow ditches. Provided the fills can be dated it is hoped that the snail species recovered will provide details of local environmental conditions close to the ditches.



Alex Rogers wet sieving.



Alex Vokes sorting through a dried residue.



Lauren Cadwallader taking monolith samples at Thanet Earth.

During the earlier part of the dig (see Rady 2009) the most productive area as far as environmental work was concerned were Iron Age pits and features on Plateau 8 which produced large amounts of charred plant remains and animal bones. The discovery of two adjacent Anglo-Saxon sunken-featured structures on Plateaus 3 and 8 in the later part of the dig was particularly interesting and the lower fills of these structures were sampled extensively. A wide range of cultural and biological material was recovered, much of it from backfill that contained large quantities of domestic refuse. Artefacts from the structures that were not seen during excavation due to their small size included a number of beads and a fragment of chain mail. The latter is of particular interest if it is contemporaneous with the structures.

A number of the medieval buildings on Plateau 1 that contained ovens were also extensively sampled. Charred plant remains from the ovens and floors may shed light on the functions of both the ovens and the structures themselves.

At time of writing material is being selected for dispatch to various specialists.

Insect work

Olympics sites, London Borough of Newham, E15 (Allison 2008b, 2009a–f)

A series of evaluations and excavations were carried out in the London Borough of Newham, E15, by Museum of London Archaeology (MOLA) in advance of developments to provide facilities for the 2012 Olympics. The development area lies on the floodplain of the River Lea and it presented an opportunity to investigate Holocene channel activity, floodplain development, and features associated with human occupation and activity in the area from the prehistoric to post-medieval periods.

The land was divided in a number of Planning Delivery Zones and insect remains from eight separate sites within four zones were assessed for their potential to provide environmental data. Preservation and abundance of insect remains varied from site to site, but the larger assemblages recovered have a high potential to reconstruct the characteristics of the river and its environs and to make a significant contribution to the understanding of the changing river regime in the Lower Lea. In some areas they also have a high potential to provide data on human activity. Hopefully funding will be available to take the assemblages to analysis.

Old Seagers Distillery, Lewisham (Allison 2009g)

Archaeological work was carried out by Pre-Construct Archaeology Ltd in connection with the proposed development at Old Seagers Distillery, Deptford Bridge, London Borough of Lewisham. Palaeoenvironmental work was co-ordinated by Quaternary Scientific (QUEST). The site lies in the valley of the Ravensbourne, a minor right bank

tributary of the River Thames to which it joins just upstream of Greenwich.

Samples from the Mesolithic and Roman to medieval periods were submitted for examination of insect remains. The earliest insect samples were from peat filling a Mesolithic tree-throw that contained the remains of a tree stump. The fills were thought to have accumulated during a period of occupation and human activity on the floodplain. Beetles and bugs recovered indicated broad-leaved woodland with moist ground conditions and standing shallow water in places, probably representing a fen carr environment. Insects from rotten wood and fungus were common – a characteristic of ancient woodland – and there were bark beetles specifically associated with elm (*Ulmus*) and ivy (*Hedera*). These included the large elm bark beetle *Scolytus scolytus* which breeds in moribund or fallen elm trees and at the present day is known to be an important vector for the fungus that causes Dutch elm disease. From the insect evidence alone it cannot be said whether the disease was present here, simply that there was at least one elm tree with dying branches nearby.

Several *Geotrupes* which are strongly associated with herbivore dung could possibly indicate the presence of grazing land nearby during this period. The adult beetles, however, can also be found in rotting fungi, for which there was plentiful evidence, and at exuding tree sap (Jessop 1886, 15). Other commonly occurring dung-associated beetles such as *Aphodius* were lacking, and if dung producing animals were present in the vicinity they may not have been particularly numerous or were some distance away from the sampled area.

There was a hiatus in the archaeological and sedimentary records after this point and peat deposition resumed in the first century AD continuing into the medieval period, infilling a broad river channel cut through earlier deposits. A large insect assemblage was recovered from the peat filling the base of the channel which was radiocarbon dated to the first century AD. It was quite different in several respects to the assemblages from the earlier deposits. Aquatic and waterside beetles and bugs were abundant providing a picture of a running water channel which was shaded, at least in places, and swampy areas of still, shallow, well vegetated water and wet waterside mud. Several insect taxa provided indications of aquatic and emergent plants, particularly sedges (*Carex*), marsh marigolds (*Caltha palustris*), waterside umbellifers, and reeds (*Phragmites*). Local tree cover may have been significantly reduced by comparison with the two earlier samples, although it is likely that trees and shrubs grew on the banks of the channel providing shaded ground, and around the water margins, with more open ground further back from the water's edge.

Some ground beetles and the chafer *Phyllopertha horticola* indicated that drier, more open areas existed nearby, including grassland. The grass root-eating larvae of *P horticola*, for example, would not be able to develop in wet peaty soil. Evidence for the presence of herbivore dung perhaps suggesting the use of nearby grassland for grazing was much stronger than in the earlier samples. Various plant feeding insects found on docks (*Rumex*) and nettles (*Urtica*)



Damage caused by *Gastrophysa viridula* larvae on a dock leaf.

indicated that there was disturbed ground with weedy vegetation in places.

Later in the sequence the presence of charred cereal grains and charcoal indicated that some material from human activity had been incorporated into the deposit as it formed. A small insect assemblage provided only very limited data on the local environment at this point, but suggested that conditions remained rather similar with well-vegetated, still, shallow water and damp ground with semi-aquatic grasses, and water side mud. Weedy vegetation with knotweeds and docks was present nearby.

Still later, there were clear indications from beetles and bugs for still, well vegetated water and an active channel with clean, clear, well-oxygenated running water. Wet waterside mud and moss were present. Insects feeding on aquatic and semi-aquatic plants were numerous, and beetles found primarily on sedges (*Carex*) and semi-aquatic grasses including *Glyceria* were common. Other phytophages indicated that marsh marigolds (*Caltha palustris*), waterside umbellifers, brooklime (*Veronica beccabunga*) and duckweed (*Lemna*) were present, together providing a picture of a richly vegetated mire with very moist terrestrial conditions. Drier land appears to have been present nearby however, supporting herbaceous vegetation that included nettles, knotweeds, possibly docks, crucifers, Papilionaceae (pea family) and grasses. Poplars (*Populus*) and/or willows (*Salix*) and perhaps shrubs were probably growing nearby

and local grassland used for grazing was strongly indicated by a suite of taxa associated with herbivore dung. These included *Geotrupes*, several *Aphodius* species, and *Onthophagus joannae* found particularly on light soils in horse or sheep dung (Jessop 1986, 26).

Fishtoft, Lincolnshire (Allison 2008a)

A Saxon settlement excavated at Clampgate Road, Fishtoft by Archaeological Project Services was situated in a coastal area that has been subjected to major fluctuations in marine influence over the centuries. The fills of a creek close to the settlement were thought to be broadly contemporaneous with the Saxon occupation and animal and plant remains recovered from the sequence were analysed to provide data on local environmental conditions, particularly with regard to the salinity of the water within the creek. Radiocarbon dates of AD 640–770 and AD 650–870 were obtained from the lowermost creek fill. Palaeoenvironmental work was co-ordinated by the Environmental Archaeology Consultancy (EAC).

Substantial assemblages of beetles and bugs were recovered from the waterlogged lower creek fills. Because of the location of the site it is possible that some of the insects represented were transported for some distance by tides, shoreline drift and fluvial mechanisms before deposition. Generally, however, the bulk of the material is likely to have been derived

locally and analysis of the remains provided a clear picture of a tidal creek with a strong marine influence and adjacent saltmarsh.

Water conditions within the creek were probably rather muddy and saline throughout the time that the lower deposits formed. An aquatic beetle *Ochthebius marinus* usually found in shallow saltmarsh pools was present in all of the samples from that part of the sequence. As this species is tolerant of even very low salinities, it does not in itself provide an indication of how saline the water in the creek may have been. A terrestrial beetle *Dicheirotrichus gustavii* found in the upper intertidal zone of marine saltmarshes (Lindroth 1986, 372) however is usually found in strongly marine conditions where salt concentrations are around 20 parts per thousand (Heydemann 1968) – the concentration of salt in fully marine conditions is 35 parts per thousand.

Terrestrial beetles and bugs found in a coastal saltmarsh environment on clayey soil were well represented and indicate that there were areas of rather dense vegetation in the intertidal zone. Tidal litter would have provided a habitat for a number of shore dwelling insects. Generally, conditions on land above the tidal zone appear to have been rather dry, with areas of sun-exposed sand or clay. Insects found on nettles, docks, crucifers, knotweeds (Polygonaceae), grasses and/or sedges were consistently present providing evidence for some of the local plant life.

Water conditions remained basically the same for some time but there were suggestions of an input of fresh (or at least less saline) water at a point in the sequence which was thought from the presence of cultural material and charred cereal remains in the samples to have accumulated during a period of human activity close to the creek. The proportion of decomposer insects increased significantly at about this time almost certainly due to occupation of the adjacent settlement and the consequent production of substantial quantities of organic waste.

After this point changes in the insect fauna suggested an increase in grassland or cultivated land in the vicinity of the creek. The proportion of decomposers favoured by human activity was rather lower indicating a decline in human influence. Decomposers that were present were mainly beetles associated with foul organic matter including several typical of herbivore dung, perhaps suggesting increased use of local grassland for grazing.

Bantycok Gypsum Mine (Allison 2009h)

The open cast Bantycok Gypsum Mine covers an area of 226.7 hectares to the immediate south of Balderton, a district of Newark on Trent in Nottinghamshire. Recent archaeological work has focused on a late prehistoric and Roman settlement situated in the south-west of the site. Palaeoenvironmental work was co-ordinated by Palaeoecology Research Services (PRS). Nine significant phases of human activity dating from the mid-late Iron Age to the mid fourth century or later were identified. Samples submitted for examination of insect remains were from the fills of an early Roman boundary ditch, a late first- to early second-century pond, and a well dating to the mid fourth century or later.

The primary fill of a major boundary ditch dated on ceramic evidence to the mid-late first century AD contained aquatic insects found in still, shallow, well vegetated water. Species feeding on aquatic plants indicate the presence of brooklime, semi-aquatic grasses, and duckweed (*Lemna*). Waterside mud was present but generally terrestrial conditions appear to have been relatively dry and rather open, with areas of weedy vegetation including nettles, docks and knotweeds.

Insects recovered from the primary fill of a pond dated to the late first to early second century AD suggested an open silt pond with a less well established aquatic community that may not have held standing water permanently. Insects from damp ground taxa were poorly represented, and there are suggestions that the area immediately around the pond may have been poorly or sparsely vegetated although various plant feeding beetles and bugs indicate that knotweeds, crucifers, nettles and docks, all plants of disturbed ground were growing close by.

The latest samples examined were from the fills of a well dated to the mid fourth century AD or later. Few archaeological features were associated with this phase, perhaps indicating that a settlement shift had occurred by this time. Beetles present in the basal fill suggested that the well contained water but not necessarily permanently although it is likely that the deposit remained substantially wet. Beetles found in wet mud were abundant and may have lived within the well, if it was not permanently water-filled, or immediately around it. There were indications that organic material from within buildings had been dumped into the well after it had gone out of use. Similar evidence was obtained from later samples from the same feature.

There appears to have been an essentially open landscape with grassland or cultivated ground throughout the time period represented by the samples. All of the samples produced substantial insect faunas associated with dung suggesting the use of local grassland for grazing by domestic animals. A number of elements in the insect fauna were also generally indicative of the relatively warm climate that is believed to have prevailed during the Roman period. Good evidence for this comes particularly from the presence of the nettle ground bug *Heterogaster urticae*. During the nineteenth and twentieth centuries this bug was confined to southern Britain (Southwood and Leston 1959) until a recent series of warmer years led to its occurrence further north. Some beetle taxa nowadays regarded as 'southern' species were also present. Climatic decline occurred in the early dark ages (Lamb 1982; Baillie 1999) and the presence of *Heterogaster urticae* in the latest of the well fills examined implies that the deposit accumulated before the general lowering of mean temperatures occurred.



Geotrupes

Acknowledgements

Processing of bulk soil samples from CAT sites over the year was carried out by Lauren Cadwallader, Alex Rogers and Alex Vokes and the wet-sieving operations would have run far less smoothly without the help and advice of John Adams. Lauren, Alex and Alex with volunteers Ann Chadwick, Oliver Goodwin, Bob Robson, Alan Thistleton and Diane Tye have between them sorted through the large amounts of dried sample residues from Thanet Earth to recover artefacts and biological remains. Ann Chadwick is currently engaged with entering information from the samples onto the database.



FINDS DEPARTMENT

Andrew Richardson

The Finds Department at the Trust has gone through some major changes in the past year. By the beginning of April 2008 the 'team' consisted of only one member of staff, Jacqui Matthews, who was ably leading a large team of volunteers. But with excavations at Thanet Earth producing large quantities of material, alongside a growing programme of post-excavation and other fieldwork, it was clear that the Trust needed greater capacity to process, record and manage finds. Thus in April Rose Broadley and Helen Swaffer were appointed as Finds Assistants to help process the material from Thanet Earth, whilst initial on-site processing was handled by Michele Johnson. At the beginning of May Andrew Richardson joined the Trust as Finds Manager, with overall responsibility for finds within the Trust.

Late May brought the unexpected discovery of a major Anglo-Saxon cemetery at the Meads, Sittingbourne (see report pp 19–21). This resulted in the recovery of large numbers of finds, many of which required careful handling and storage. Dealing with these, alongside the continued high volume of finds being recovered from Thanet Earth and other sites, meant that the finds staff and volunteers were kept very busy! At around the same time (summer 2008) the decision was taken to adopt the Integrated Archaeological Database (IADB) as the Trust's core recording system. This has been developed by York Archaeological Trust and now offers an online platform for the recording of archaeological data, including finds (see www.iadb.org.uk). Thanet Earth and The Meads were the first of the Trust's projects to be recorded using this system. The IADB makes the task of integrating stratigraphic and finds data much easier; all CAT fieldwork projects are now recorded using this system. As it is an online database, this also has the advantage of allowing external finds specialists to use the IADB, enabling them to easily relate finds to their context and to add information directly to the finds records, preventing unnecessary duplication of effort.

In August the Trust's X-ray facility was relocated to Broad Street and its operation resumed after a hiatus of several months. In October the finds team, now including Site Assistants Michele Johnson and Frances Morgan, relocated to the disused Huyck factory at Whitstable whilst the finds room was completely refurbished. Work on the finds from a number of ongoing excavations continued under sometimes difficult conditions and use was made of the vast areas of floor space at the factory to sort and repack some older finds archives. The finds team moved back into the refurbished finds room at Broad Street in February 2009. Enid Allison, the Trust's environmental specialist, relocated to the room at the same time. The finds and environmental team now work together alongside an enthusiastic cadre of volunteers to process, record and analyse the finds and environmental samples generated by the Trust's work.

The Finds Team

Andrew Richardson: Finds Manager



Andrew joined the Trust after six years as Finds Liaison Officer for Kent, based within Kent County Council's Heritage Conservation Team. Andrew was born in Folkestone and studied at Cardiff; his doctoral thesis on the Anglo-Saxon Cemeteries of Kent was published as a British Archaeological Report in 2005. He is a member of the International Sachsensymposium, and is active within the Kent Archaeological Society and Council for British Archaeology. His primary area of specialist interest remains the early Anglo-Saxon period, with particular reference to Kent, although he is also interested in the interpretation of metal-detected finds data and approaches to tackling heritage-related crime.

Jacqui Matthews: Finds Supervisor



Jacqui began working for the Trust during the 'Big Dig' at Whitefriars in 2000. Her primary area of interest is Roman ceramic building materials, but within the team Jacqui oversees the processing and recording of all bulk finds and manages and supports the finds volunteers who are so vital to the team's work. Jacqui was born in Kent and before joining the Trust worked with her family's antiques business.

Helen Swaffer: Finds Assistant



Helen graduated with a degree in Classics and Archaeology from the University of Kent in 2003. Her main area of interest is prehistory, especially prehistoric pottery. Helen primarily supports Jacqui with the processing and recording of bulk finds and supervision of volunteers. A former dental nurse, Helen was born in Geraldton, Western Australia, but has lived in Kent for 15 years. She also has a black belt in karate and brown belt in iaijitsu.

Michele Johnson: Finds Assistant



Michele joined the Trust in late 2007 as part of the team working at Thanet Earth. She graduated from Reading in 2004 before going on to study Forensic Archaeology at Bradford. Michele, who is from London, supports Andrew in liaising with external specialists and facilities, deals with the processing and recording of small finds, the transportation and storage of finds archives and sometimes assists Adrian with X-radiography. She is interested in prehistory, as well as heritage-related crime, conflict archaeology and forensic investigation. Outside of archaeology she enjoys rock climbing and scuba diving.

Adrian Murphy: Site/Finds Assistant



Adrian has worked for the Trust for over 20 years. Although he primarily works as a Site Assistant, he is attached to the finds team and operates the Trust's X-ray facility, as well as carrying out block lifting and stabilisation of small finds and helping maintain the environment of the finds archives. Adrian is from Walthamstow and is interested in military history and equipment.



RESEARCH AND PUBLICATION

Prehistoric crouched burials and an Anglo-Saxon cemetery group at 'Eden Roc', St Margaret's at Cliffe

Amanda Bailey

Twelve burials (six probable Bronze Age and six Anglo-Saxon) were excavated in 2004 at 'Eden Roc' in St Margaret's at Cliffe (see Parfitt and Corke 2006).

The six prehistoric burials were crouched inhumations, all either cut into the fill of the barrow ring-ditch or just outside it with no associated finds other than one possible flint implement. Without radiocarbon testing, therefore, the exact date of the burials might lie anywhere between 2000 and 200 BC, but they are considered most likely to belong to the Bronze Age. Two pairs of graves may have been buried together (due to proximity and similar head positions), but without accurate dating it is impossible to know if these burials were centuries apart. One of the pairs contained the remains of two adult females, the other the remains of a young child

(between 2 and 3 years) and a young adult male.

This small probable Bronze Age group consisted of two children (under 5 years), three adults (two females and one male) of less than 45 years and one adult of unknown age and sex. As might be expected from this comparatively young group, there was no evidence for degenerative disease. There was also little evidence of stress during development or early osteoarthritis associated with strenuous activity and two adult females attained an adult stature above that expected in the Bronze Age (Cox and Roberts 2003, 86). Three adults had suffered trauma resulting in rib fractures (probably the result of falls), one in childhood, and there was an unusually high prevalence of the spinal fracture, spondylolysis, with two adults having this condition. Studies so far have not identified spondylolysis prior to the Bronze

Age (Cox and Roberts 2003) and it has only been seen in four other individuals from the period (*ibid*). This condition is seen today in athletes involved in sports that require excessive spinal bending such as gymnasts, springboard divers and weight lifters (Fibiger and Knusel 2005). In one female at Eden Roc the condition may have led to a forward slippage of one lumbar vertebra on another (spondylolisthesis), which would have resulted in back pain and perhaps leg pain and weakness.

Evidence for pathology in this group is low, but does not necessarily suggest a healthy population. It is a small group, the majority of which died young or in middle age and paradoxically acute disease and some traumas can leave no skeletal evidence.

The probable Bronze Age remains were more complete and better preserved than the later group of



Grave 6 containing the skeleton of a female with a trepanation.



Superior view of the skull showing the trepanation.

burials but, despite the poor condition of the Anglo-Saxon burials, the skeletons revealed tantalising evidence of interpersonal violence, childhood stress and even surgery of the skull.

The six Anglo-Saxon skeletons were part of a cemetery dating from the late sixth to eighth century. There were few grave goods associated with the burials; a total of four iron knives, an iron pin fragment and an iron buckle. Small barrows covered two of the graves. There was no indication that these individuals were of higher status, but both had iron knives and one also had an iron buckle. However one had undergone an unusual medical intervention: trepanation.

The group consisted of five adults (three female and two male) three of which were over 45 years old at the time of death. The sixth skeleton was that of an adolescent aged, on the basis of the degree of formation of an un-erupted wisdom tooth, between 13 and 18 years. It is no surprise that the older adults suffered from osteoarthritis, particularly in the hip. Though not severe, strenuous work during their lifetimes could have played a part (Ortner 2003). One of the older females had widespread, destructive arthritis affecting her shoulders, hip, knee, wrist and finger joints. This was probably related to age and would have caused her considerable pain and stiffness.

One male had a stress-related fracture to a lumbar vertebra (spondylolysis), which could have been caused by strenuous activity during growth. Another indicator of stress during development is

the presence of *cribra orbitalia* (caused by anaemia in childhood). Half of the group suffered from this type of stress, which is often associated with settled communities surviving on subsistence agriculture (Cox and Roberts 2003).

Two adult males had evidence of trauma severe enough to have left signs on the skeleton. The first had a healed fracture to the left ulna that was probably the result of the forearm being raised to guard against a blow (known as a 'parry' fracture; Judd 2004). The second had a partially healed puncture wound to the back of the skull. Both of these could have been caused by falls onto sharp objects but it is equally likely that they were the result of interpersonal violence.

Perhaps the most intriguing find amongst this group was a hole at the junction of the right frontal and parietal bones of a young female, aged between 18 and 25 years. Careful examination revealed that this was the result of a trepanation (the surgical removal of part of the skull). Trepanation is the oldest known surgical procedure with examples dated to the Neolithic period (Weber and Wahl 2006). Indications for the use of such a potentially dangerous procedure include the treatment of head injuries, headache, epilepsy or mental disorders and for magical/religious motives. Methods used were scraping (common across Britain (Roberts and McKinley 2003)), sawing, grooving and drilling (trephining). The technique was widely practised across the prehistoric world (Peru, Africa, Central Europe) and the Roman Empire (Mays 2006; Weber and Wahl 2006).

In Britain the most frequent number of cases (twenty-four) date from the Anglo-Saxon period but twenty of these are from the fifth to the mid eighth century, the same date as the 'Eden Roc' skeletons, and also geographically concentrated in the south and east of England (Roberts and McKinley 2003). Somewhat surprisingly, between 50 and 90 per cent of trepanned skulls from different periods and cultures show evidence of healing and therefore indicate survival for some time after the procedure (Weber and Wahl 2006).

The scraping method (with initial cutting) was used to carry out the trepanation seen at Eden Roc. The reason for this serious intervention remains unknown, but there is no evidence that it might have been for the treatment of a cranial fracture. What is unusual about this case are the pronounced 'tool marks' evident. The trepanation showed signs of healing and infection, which was still active at the time of the death. This means that the individual survived for at least a few months after the operation. In this case, infection of the cranial vault was a complication, but there was no evidence of its spread to the brain. It is possible that the complications of this surgery or the underlying reason for it led to the premature death of this young woman. Furthermore, after death this individual may have been marked out as 'special' in some way; she was one of two individuals in the group who appeared to have been buried beneath a small barrow (Parfitt and Corke 2006, 32).

Funerary remains from Tothill Street, Minster

Amanda Bailey

An excavation undertaken at Tothill Street, Minster in 2005 revealed funerary remains spanning the early Bronze Age through to the eve of the Roman conquest.

The majority of the skeletal remains examined were buried in a formal cemetery probably in use between c 100 BC and AD 50 (Gollop and Mason 2006, 26). Eleven skeletons were recorded, though the cemetery probably extended beyond the boundaries of the excavation. All but one of the burials was in common alignment (north-south). One was buried prone, the rest supine. The burials were poor in terms of grave goods; one grave contained a pot and another sheep bones. Only mature adults were represented; there were no infants, children, adolescents or very old individuals amongst the excavated group. The bones were in a good state of preservation and revealed evidence of an unusually high burden of disease.

Early mortality affected this group (only one individual survived beyond 45 years) and there is one tantalising clue to a cause of death. A male aged between 36 and 45 years displayed a case of possible meningioma, a slow growing benign tumour of the outer membrane of the brain, which can cause death if it results in pressure on the brain (Waldron 1998). Five out of the eleven individuals had suffered some trauma resulting in fractures. Two cases of healed skull trauma, one produced by a blunt instrument and the other by sharp force, were found on two male individuals and may not

have been accidental. The positions of the lesions on the superior and anterior aspects of the cranial vault and the uniform shapes of the resultant depressions (linear and circular) indicate that these cases are likely to be the result of interpersonal violence. Both individuals survived their injuries.

The group had an extremely high frequency of the stress related fracture of the spine, spondylolysis. This condition has familial tendencies (Fibiger and Knusel, 2005) and is strongly associated with strenuous activity during development involving excessive bending of the spine (Merbs 1996). It may have caused some low back pain to these individuals but disabling pain occurs in only the minority of cases and the individuals may have in fact enjoyed increased flexibility of the lumbar spine. Three individuals were affected; one young female adult in particular had bilateral fractures affecting three lumbar vertebrae. Along with the high frequency of Schmorl's nodes (depressions in the vertebral bodies adjacent to the discs), the level of spondylolysis in this group may indicate that strenuous activity was begun in adolescence. This group also had a high frequency of tibial squatting facets, which may also be related to activity patterns (Brothwell 1981).

This presents a picture of a hard working group that suffered a high incidence of injuries and was involved in strenuous activity from adolescence, particularly affecting the spine. Several individuals had suffered

anaemia in childhood and an unusually high number also had spinal anomalies (including spina bifida and spondylolysis), which may have led to increased morbidity in the form of back pain and discomfort. It is possible that this latter is evidence of a restricted gene pool (Waldron 2009).

One individual of the eleven stands out from the group in several respects. Buried prone (all the other burials were supine), this individual was a male, aged between 36 and 45 years whose stature, at 1.77m (5'9½"), was very tall for this period (Cox and Roberts 2003, 103). He had suffered a broken rib and a depressed fracture to the skull (both healed), the latter probably not accidental. He had ossification of ligaments and tendon attachments, which can be related to well-developed muscles, and had at least two fused vertebrae indicating the early stages of Diffuse Idiopathic Skeletal Hyperostosis (DISH), a disease associated with obesity, rich diets and even high status (Rogers and Waldron 2001). Ossification of the ligament on the sole of the right big toe would have caused considerable discomfort when walking. This presents an image of a relatively tall and powerfully built individual who had suffered injuries probably related to interpersonal violence.

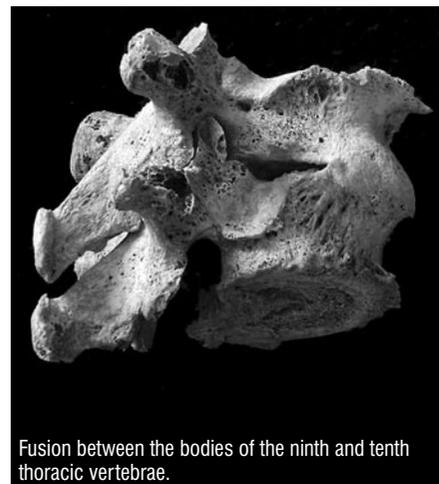
Away from the area of the formal cemetery, three other burials were recorded: a crouched burial, thought to be of early Bronze Age date, a partial skeleton dating from the late Bronze Age/early Iron



Spondylolysis of a fifth lumbar vertebra.



Spina bifida of the sacrum.



Fusion between the bodies of the ninth and tenth thoracic vertebrae.

Age and a skull from a pit associated with a middle Iron Age enclosure.

The crouched burial was that of a female aged between 26 and 35 years and 1.52m (5ft) tall. The only pathology present was osteoarthritis of the right ankle joint. In an individual of this age it is probable that this was secondary to an injury to the ankle such as an inversion sprain leading to a tear of the ankle ligaments. All the thoracic vertebrae present were fragmented but four had unusual modifications, which were the result of contact between the spinous processes (posterior parts) of adjacent vertebrae, sometimes known as 'kissing spines' (Pinto *et al* 2004). This individual would have developed these bony changes as a result of a decreased curve in the upper spine and a straight-backed posture. It is possible that there was some discomfort associated with the chronic bone-on-bone contact.

Single crouched inhumations such as this were a common form of burial in the early Bronze Age. The grave goods found with this individual were a jet bracelet/armlet, an amber bead, a polished fossil sponge bead with elephant tusk shell through it and a pig tusk bead. Grave goods such as these

are also commonly seen in the early Bronze Age, with jewellery most often buried with women and materials such as jet and amber considered to be part of the process of acquiring and demonstrating prestige (Taylor 2001). Though not elaborate, the grave goods indicate that this woman was of higher than normal status. The changes to the upper spine suggest that she had an upright posture.

A partial skeleton was excavated from beneath the chalk backfill of a late Bronze Age/early Iron Age quarry pit. The individual was possibly male, aged between 36 and 45 years with a stature of 1.65m (5'5"). This is shorter than any of the males included in a review of multiple Bronze Age sites (Cox and Roberts 2003). However, the same review showed a decrease in height of 40mm for males from the Bronze Age to the Iron Age (*ibid*, 86). This individual had osteoarthritis of the lower back and prominent muscular attachments possibly indicating that he engaged in strenuous activity, but given the incomplete nature of the skeleton this remains conjecture. Few burials dating from the late Bronze Age have been discovered so even a partial skeleton from this period is significant (Bruck 1995). Those human remains that have been excavated were

deposited in many different contexts including burials in casual situations, such as disused pits. These remains appear to follow this pattern.

A fragmented skull and other fragmented bone were found in a pit at the entrance to an Iron Age enclosure, dated to between 400–300 BC. The skull was that of a young child aged between 3½ and 5 years. Small holes in the bone of both orbits (known as *cribra orbitalia*) were present, indicating that this child suffered from iron deficiency anaemia, which could have been caused by malnutrition, chronic blood loss or chronic infection.

Common to both the late Bronze Age and the early Iron Age was the practice of burying parts of bodies, especially skulls, beneath hillfort ramparts or in post-holes. In the early Iron Age in particular, remains of infants have been found in post-holes, for example at Breddon Hill, Gloucestershire and Maiden Castle (Taylor 2001). There were no cut marks on the three cervical vertebrae present with the skull at Tothill or on the skull itself, suggesting that it may have been redeposited from burial elsewhere or had undergone exhumation.

A research excavation at Cranmer House, Canterbury

Jake Weekes

In 1982, during rescue excavations within the Roman period cemetery area to the north-west of the town at Cranmer House, London Road, archaeologists observed an ephemeral but potentially highly significant horizon in foundation trench sections (Bennett 1987a; see Weekes 2009). This apparent turf line, complete with broken Roman pottery, burnt material and cremated human bone deposits, was probably the Roman period cemetery surface into which the burials had been cut. A number of low mounds covering burials were also recorded. In point of fact, it was probably only because the Cranmer House site was quite disastrous in terms of methodology (it relied on voluntary watching briefs by Trust staff in order to recover as much information as possible from the machine excavation of foundation trenches) that the cemetery horizon was seen.

Only more recently have archaeologists (in this country at least) begun to realise the potential significance of cemetery surfaces and deposits

for recreating aspects of Romano-British funerary practice other than burial. There may be traces of cremation and other associated practices, but, even more importantly, the cemetery surface deposits might contain information regarding so called 'secondary rites' that involve marking and revisiting the grave, leaving offerings of food, drink and other objects, and perhaps the building of mausolea. Highly detailed and sensitive modern excavation methods are needed to recover this information, if indeed any of it survives.

Many rural and urban Roman period cemeteries have long been truncated by post-Roman, medieval and post-medieval ploughing and other activity. The St Dunstan's surface is thus potentially of national if not international significance for Roman funerary studies.

On two days of mixed weather in August 2008 a small-scale research excavation was carried out in the rear garden of Cranmer House in order to investigate

the potential survival of the cemetery surface and any deposits/artefacts that might be present. The Canterbury Archaeological Society had kindly promised funds for processing any environmental samples recovered, the Trust lent equipment and the author was ably assisted by Rupert Weekes.

A test pit (2m by 2m) was cut in the north-west corner of the lawn in an area known from the earlier recording of foundation trenches to be surrounded by potential cemetery surface features. In the event, it soon became clear that any remnants of the surface had been heavily disturbed by a combination of discarded building materials and the heavy tracking machinery used in the 1980s work.

Even so, sealing the upper deposit of an unexcavated feature (probably a burial) at a depth of just 0.2m below the surface (20.50m OD) was a thin lens of carbon rich silt with flecks of charcoal, heat affected clay, crumbs of pot and very small fragments of

burnt bone, at least one of which was probably human. Such a deposit is highly reminiscent of the patches of burnt material noted at the Roman period cemetery surface horizon during the 1980s work, but the material was only seen in section, and had been crushed and to an extent contaminated by overlying and very compact builder's sand, and compact loam mixed with gravel, medium to large flints, pieces of concrete, nails, refuse, etc, left over

from the construction of Cranmer House. The surface of these rammed deposits lay at 20.61m OD, directly sealed by topsoil that had probably been imported in landscaping the garden area.

While quite disappointing, these mixed results show that further and better preserved evidence of the cemetery surface may survive elsewhere in the Cranmer House gardens or beyond, either in private gardens further to the north-west, or down the slope

towards the south-east, at least in those areas that have not already been terraced away. The search continues.

Grateful thanks are due to Canterbury City Council, and especially to the management, staff and residents at Cranmer House, who took a great interest in the work, put up with our comings and goings and supplied excellent tea on demand.

Publications

Jane Elder

The past year has been a good one for Trust publications. Two new titles in the occasional papers series have gone on sale, we rekindled our old relationship with local printer 'parkers digital press', we signed what promises to be a rewarding agreement for the marketing and distribution of our reports with Oxbow Books, and the Publication Department's everyday working environment was improved immeasurably after the campaign of office refurbishment reached our corner of the upstairs front office.

Both of the books to reach the press during the year were funded by Kent County Council and are the first two in a series of reports on work undertaken in connection with various Kent road improvement schemes during the 1990s. The first, *At the Great Crossroads*, describes the wealth of discoveries made on a 3km long and 30m wide strip between the Monkton and Mount Pleasant roundabouts, prior to the widening of the A253 on Thanet. Amongst the prehistoric finds were Neolithic inhumations and pits,

Beaker graves and ring-ditches of late Neolithic and Bronze Age date. An extensive Roman settlement was characterised by unusual sunken-floored buildings and there was also a small Anglo-Saxon cemetery and a medieval farmstead. At 366 pages the report might be considered something more than an 'occasional paper'; *Wainscott Northern By-Pass*, tells its story in a rather more modest eighty-eight pages. The route under investigation there was 5km long and the report describes the discovery of a small multi-period settlement close to the Four Elms roundabout.

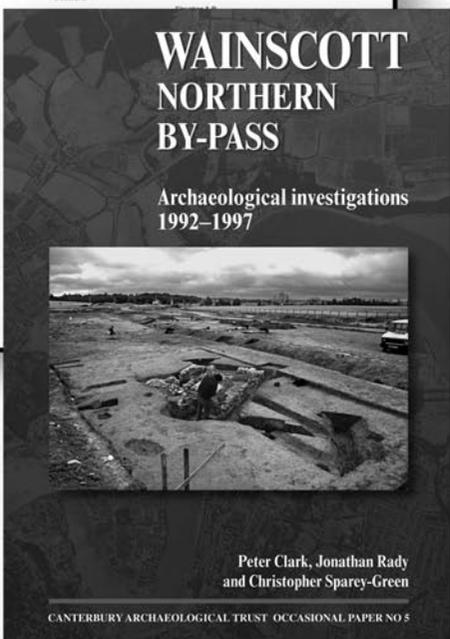
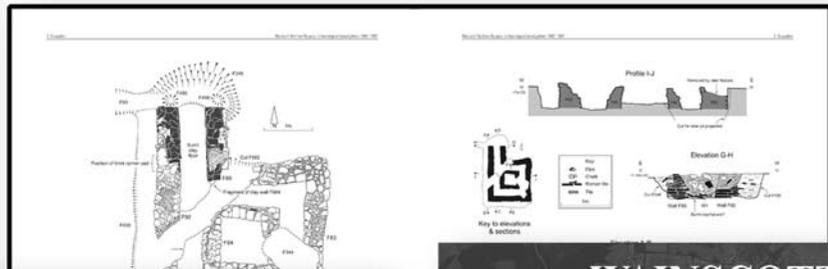
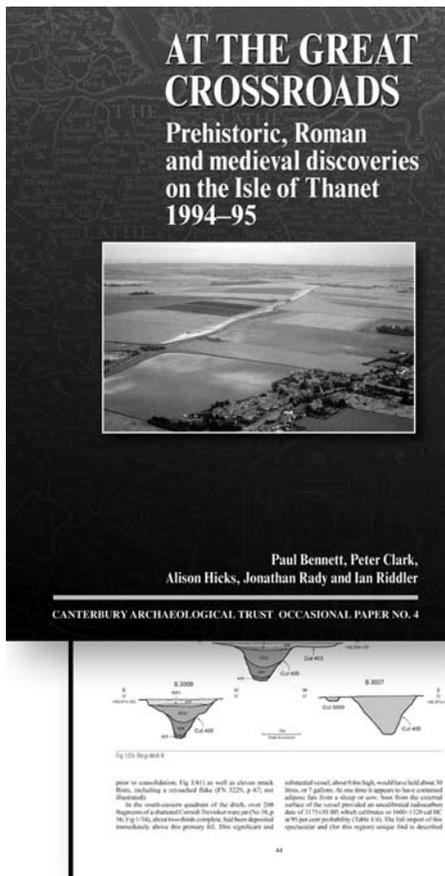
The publications were launched at an event held at County Hall in April, a joint celebration shared with the launch of Kent County Council's website 'Exploring Kent's Past'. A small exhibition of finds from the excavations was put together by Andrew and Michele of our Finds Department.

Both books were printed locally by parkers digital press and we would like to thank both Lee and Howard Smith for their attention to detail, helpful advice and

cheerful efficiency. As well as the convenience of working with a company almost on our doorstep, digital printing means that books can be printed almost 'on demand', so avoiding the headache of estimating print-runs and storage.

Problems of storage however are almost a thing of the past. Sadly our first partnership with a specialist distributor did not work well, but negotiations with Oxbow Books culminated with stock being transferred to their warehouse at the end of the year and the first sales being made via them in the early spring 2009. Links from the publications page on our website now take potential purchasers straight to Oxbow.

An interesting commission came from the St Stephen's Road and Close Residents Association who planned to erect an information board on St Stephen's Green. Over the winter Peter Atkinson and Mark Duncan worked with the association's committee on the preparation of artwork and the design of the board which was unveiled on 4th April.





EDUCATION

Marion Green

Information, Communication and Technology (ICT) fusing with Archaeology

Supporting KCC's Advisory Service for Kent schools (ASK), we embarked on 'DigIT', a cutting-edge cross curricular project for Kent primary schools to include historic site activity days (familiar ground) and a programme of associated digital activities (totally new territory!). The result was a very successful partnership enjoyed by over 600 children. More next time...

CAT in the classroom

Head of History at the Simon Langton Boys Grammar School in Canterbury asked if we could support a series of new Extended Learning sessions for Year 7 (11-12 year olds) by providing input which was engaging for the students and which extended the curriculum programme. The result was an informative workshop which gave students the opportunity to handle archaeological material (using a CAT KIT) and to try out some interpretive skills. The workshops were very well received by students and staff and will be repeated this year.

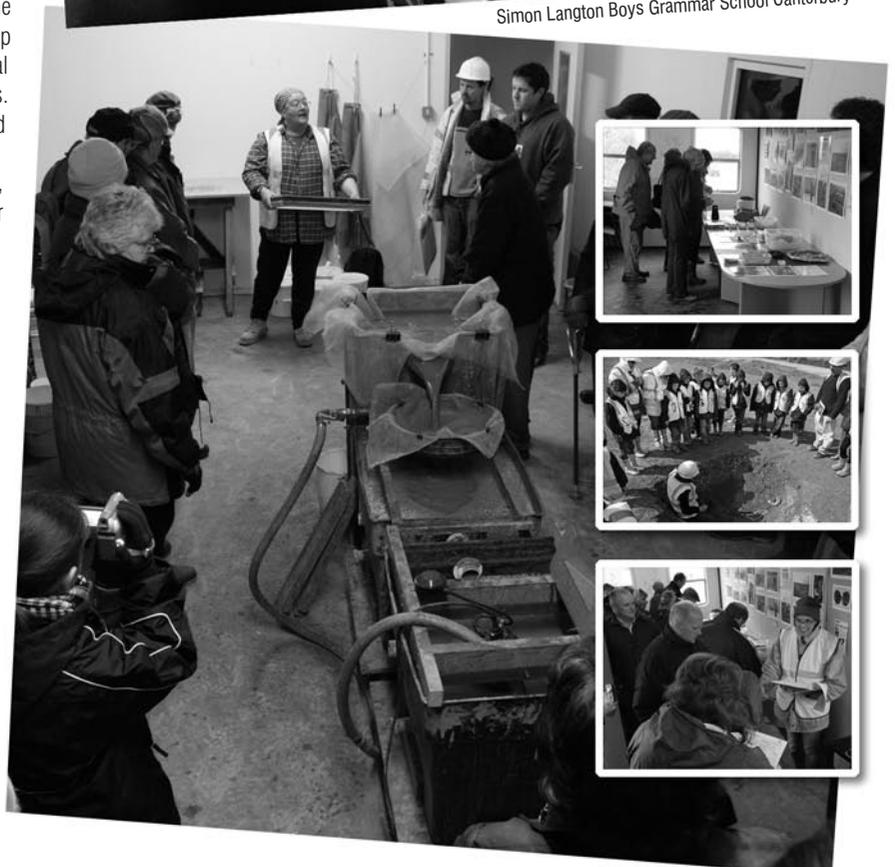
Primary schools in Challock, Ramsgate, Broadstairs, Canterbury, Bobbing and Iwade had workshops to support their classroom work during the year. Bobbing and Iwade schools are both quite near The Meads Anglo-Saxon cemetery site at Sittingbourne and a 'Meads' session for them was especially timely as it supported their classroom investigations of the Anglo-Saxons. Smarden young Time Team club also enjoyed a meeting with CAT. Andy Macintosh told them what it was like to work on the huge Thanet Earth excavation and they saw and handled some original finds.

Thanet Earth

The Thanet Earth education initiative was introduced in last year's *Canterbury's Archaeology*. Local and national press, radio and TV coverage (including Discovery Channel Canada) continued into the summer season and 500 Thanet Earth colour leaflets were given away illustrating the most significant discoveries. Two Open Days in May attracted 450 enthusiastic local residents; strangely, it was the Saturday it tipped down when most people came along. We ran a competition for children and the two winners and their parents spent a morning at CAT at a later date. Paul also gave a talk in Birchington in partnership with the Isle of Thanet Archaeological Society



Simon Langton Boys Grammar School Canterbury



Thanet Earth



Bobbing Primary School

attended by eighty, mostly local, residents. The CAT website continues to be highly regarded and was a useful means of updating people about the project.

Promoting Archaeology at county events

We are always pleased to discuss contributing to public events, whether in Canterbury district or further afield in the county. Recent examples have been '30 years of North Downs Way' celebrations at Wye, 'Kent History Sunday' at Museum of Kent Life near Maidstone, 'National Festival of Archaeology Week' and 'National Science, Engineering and Technology Week' both at the Museum of Canterbury (which together attracted 750 visitors), 'Folkestone History Weekend', and 'Meet the Archaeologists' day at Birchington – an annual event hosted by the Isle of Thanet Archaeological Society.

Developing teaching resources:

CAT BOX loans service

We inherited from Kent County Council a collection of some 300 boxes of multi-period archaeological, historical and ethnographic objects, replicas and models (see *Canterbury's Archaeology 2006-2007*). As word spreads, so orders come in from schools across Kent and in the past year the boxes have been used by over 3,000 primary school teachers and children.

I believe this resource would also benefit older students and welcome enquiries from Kent secondary school History, RE and Art and Design teachers. In fact, I suggest all teachers take a look at the catalogue at <http://www.canterburytrust.co.uk/schools/catboxpg.htm> and see if something appeals! This is a unique collection in the county.

CAT KITS Phase II

Thanks to a £1,000 grant from the Kent Archaeological Society, promotion of the Phase 1 kits by its President, Chris Pout and a subsequent £12,000 grant from Kent County Council, most of the 100 new CAT KITS had been built by the end of March. The first ten off the production line are currently held with Pam Connell in the Dartford area. Any teacher working in Dartford, Gravesham, Maidstone or Tonbridge & Malling Boroughs, Sevenoaks District or Medway Unitary Authority can borrow a CAT KIT from Pam who is happy to deliver (01474 872763 or CATKITS@kentarchaeology.org.uk).

CAT KITS are being used, I'm happy to say, by some secondary schools – particularly by Year 7 (11-12 year olds) when they are introduced to sources of evidence at the start of secondary education. Recently Pam's kits have gone out to Queen Elizabeth Grammar School, Faversham and Hugh Christie Technology College, Tonbridge as well as primary schools in Gravesend, Loose and Lynsted.

A selection of heritage type centres across county are being invited to hold further sets of CAT KITS for loan to their local primary and secondary schools and interest groups. The Fleur de Lys Centre, Faversham has agreed to take a set and as a result of several being used across Kent in the 'DigIT' project, teachers have suggested other possibilities.

Finally, I would like to thank members of the Kent Archaeological Society Education Committee for their continuing support and Andy Linklater, Andy Macintosh, Andrew Richardson and Kirsty Bone of CAT who have all joined me on educational initiatives this past year.



Science, Engineering and Technology Week, Museum of Canterbury



CAT BOX of replica Victorian items



North Downs Way celebrations



New CAT KITS for Kent schools

THE FRIENDS David Shaw

Membership of the Committee of the Friends has remained unchanged during the year. Our Newsletter continues to appear three times a year, accompanied once a year by a copy of the Trust's Annual Report which is offered to all members of the Friends. Editorial responsibility for the Newsletter remains with the Chairman; typesetting is now done by the Trust's in-house designer, resulting in a much more professional appearance which has drawn many favourable comments from members.

Activities organised for members of the Friends include a very successful visit to the Trust's excavations at Thanet Earth near Monkton, a guided visit to Cranbrook and a walk in the Wincheap area of Canterbury led by Dr Paul Bennett. There have been two coach trips to London to see exhibitions: the exhibition on the Emperor Hadrian at the British Museum and the Byzantium exhibition at the British Academy. There have been several successful talks during the autumn and winter, including one by Andrew Richardson about the Trust's excavation of an Anglo-Saxon cemetery at Sittingbourne and one by Ellen Swift on 'Decorative mosaics at Roman Ostia'. Dr Paul Bennett once again gave a review of the Trust's work over the past year at the Frank Jenkins Memorial Lecture at Canterbury Christ Church University in January. This was also the occasion of a presentation to Lawrence Lyle, a founding member and former

Chairman of the Friends, to mark his retirement as the Trust's Company Secretary.

The Canterbury Festival Walks, organised by Meriel Connor, continue to provide valuable revenue for the Friends, bringing in £1,400 in 2008. The walks provide good publicity for the Friends and for the Trust and are frequently sold out.

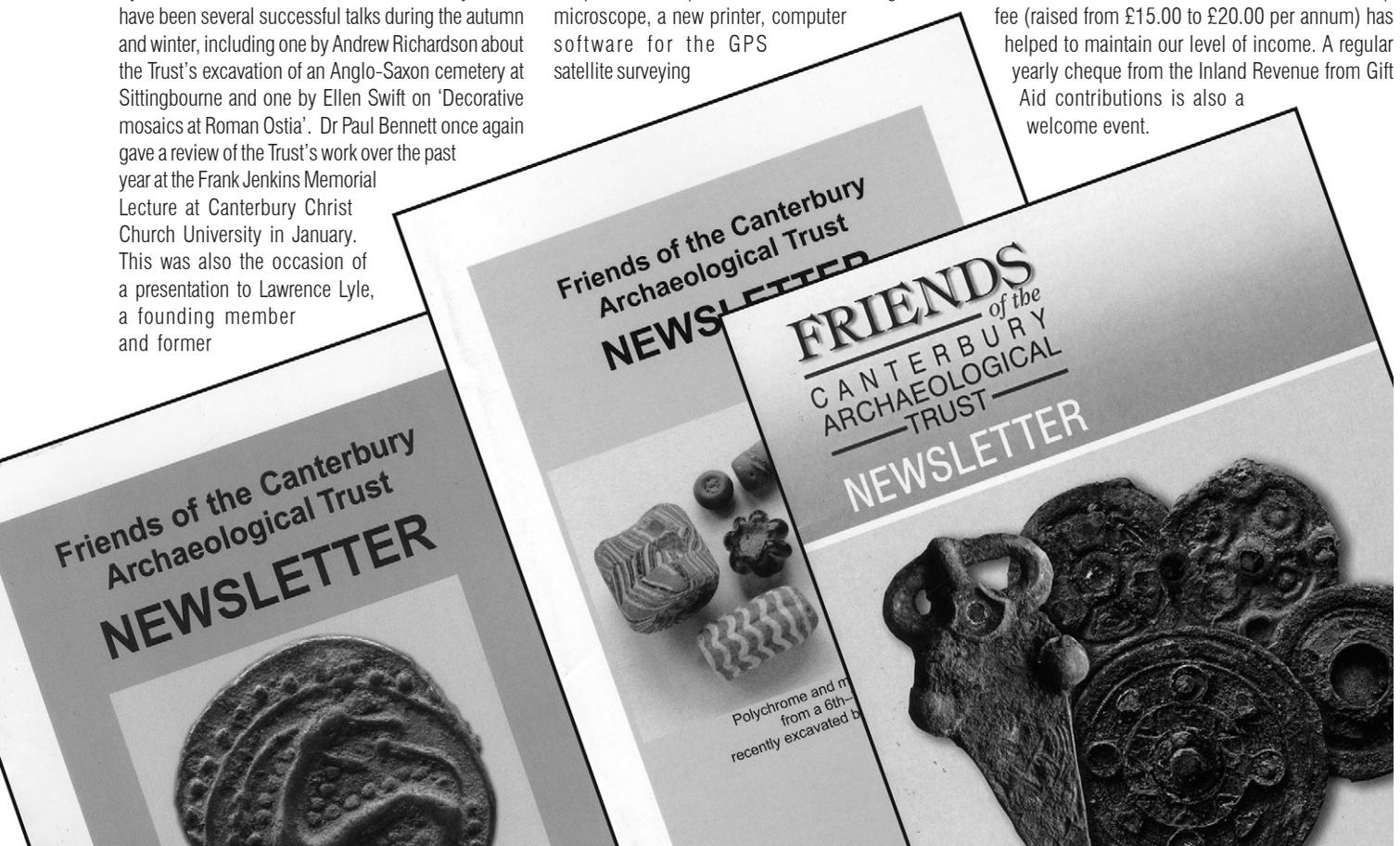
The Committee has continued to approve grants to the Trust for a variety of purposes, including a new display board for the Education Officer, and grants for books and periodical subscriptions for the Library at 92a Broad Street. The Committee has also approved contributions to the Trust's work on the Dover Boat Reconstruction Project and reconstruction drawings for the Whitefriars report.

Several significant grants for the purchase of equipment were made to the Trust in the year in question; in particular, for a new digital microscope, a new printer, computer software for the GPS satellite surveying

equipment which had been purchased with a grant from the Friends of £15,000 in early 2008. A grant was also offered towards the replacement of the Trust's email server but in the event this proved to be unnecessary.

We were pleased to see that the Lanfranc building on Northgate now carries the plaque marking the Trust's excavation of St Gregory's Priory (on the old Post Office Sorting Office site) and commemorating the work of the late Martin Hicks who had been the Site Director. The Friends contributed to the cost of the memorial.

Our goal (frequently expressed) of achieving a target of 400 members has yet to be fulfilled. The membership level remains stubbornly at around 390, but losses do seem to be balanced by the advent of an equivalent number of new members. The recent increase in the minimum recommended membership fee (raised from £15.00 to £20.00 per annum) has helped to maintain our level of income. A regular yearly cheque from the Inland Revenue from Gift Aid contributions is also a welcome event.



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 Heritage Projects Ltd: Dr Peter Addyman, CBE, MA, FSA, MIFA

Four members appointed by Canterbury City Council:

Cllr Mrs Rosemary Doyle
 Cllr Nick Eden-Green
 Cllr Ron Pepper, MA, Dip Archaeology
 Cllr Miss Jenny Samper

Non-voting members:

Mr Peter Kendall (English Heritage)
 Paul Bennett, Hon D Litt, BA, MIFA, FSA
 Peter Clark BA, MIFA, FSA

Honorary legal adviser: Furley Page (Mr Nigel Jones LLB)

Auditors: Larkings (Mr Michael J Moore)

* indicates a Trustee, Director of the company limited by guarantee and thus a member of the Management Committee

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The work of the Canterbury Archaeological Trust is mostly sustained by the commissioning and funding of fieldwork and research projects by clients and other bodies. We would like to acknowledge the support of the following, together with those mentioned in the preceding reports.

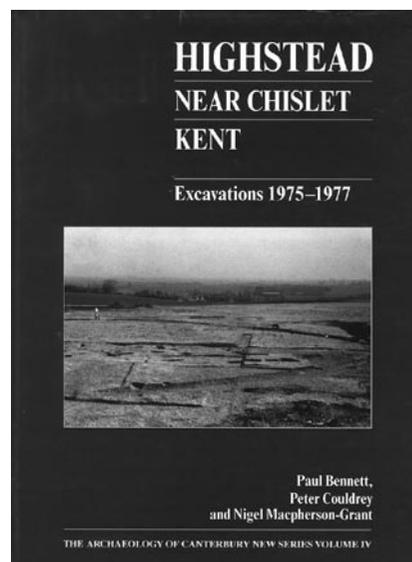
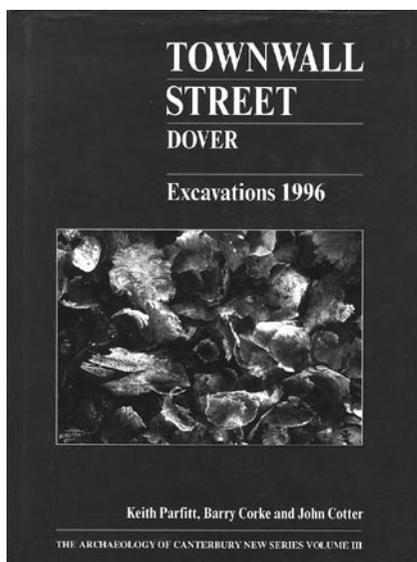
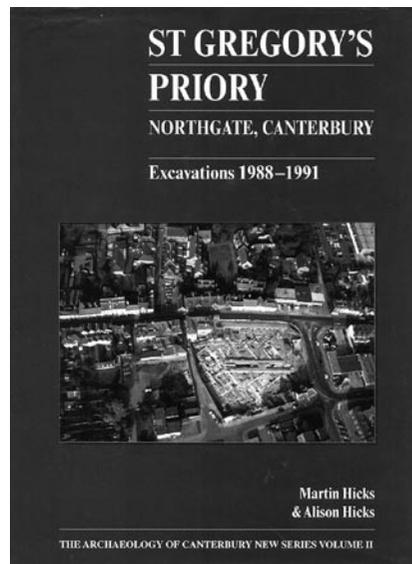
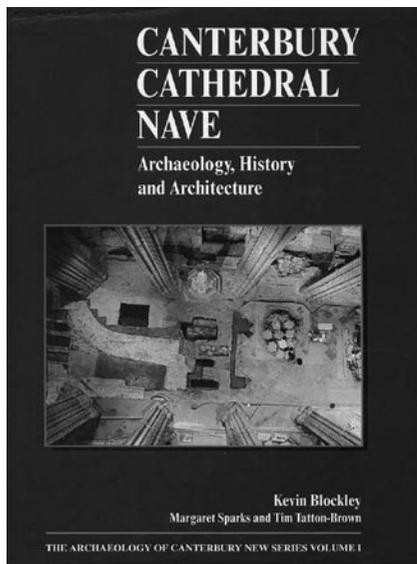
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