ARCHAEOLOGY OF THE CHANNEL TUNNEL RAIL LINK

(Compiled by HELEN J. GLASS)

The Channel Tunnel Rail Link (CTRL) is the UK's first major new railway for over a century. The first section of the route now under construction is 45 miles (74km) in length from the Channel Tunnel near Folkestone to the south of Gravesend (where it links to existing track running into Waterloo International). This cross-Kent section is due to be completed in mid-2003. Section 2 of the CTRL will continue the high speed link into London St Pancras; work on this section will commence in 2001.

Rail Link Engineering (RLE) is the project management consortium tasked to design, procure and manage the construction of the first section of the link. This work is undertaken for the client body, Union Railways (South) Limited (URS), a subsidiary of London & Continental Railways.

The Channel Tunnel Rail Link has resulted in the largest archaeological project ever undertaken in Britain. Archaeologists have been employed throughout the development of the scheme from its earliest stages, identifying effects and ensuring that the archaeological issues were considered.

Archaeological desktop study, non-intrusive and intrusive survey work has been undertaken over several years, culminating in the detailed investigation and recording of those remains which it was not possible to preserve *in situ*. The advanced works were designed by RLE, in consultation with English Heritage and Kent County Council. Four archaeological contracting companies have been employed by URS to investigate and record the remains affected by the rail link: Canterbury Archaeological Trust (CAT), Museum of London Archaeology Service (MoLAS), Oxford Archaeological Unit (OAU) and Wessex Archaeology (WA). All the archaeological works are monitored by RLE's in-house archaeology team on behalf of their client, URS; these works form part of an extensive programme of archaeological investigation carried out in advance of, and during, the construction of the CTRL.

An archaeological research strategy for the CTRL was devised by Dr P. Drewett of the Institute of Archaeology (University College London), with the aim of supplying a sound academic focus for the detailed fieldwork. It also identified where to focus resources and answer those questions crucial to the understanding of the archaeology of Kent. The research strategy suggested ways to define types of landscape organisation crossed by the rail link corridor, its differing geologies and topographies and how such organisation changed through time. Rather than consider the archaeological sites as a string of individual beads, the findings have been examined within the wider context of the linear transect afforded by the CTRL through Kent.

Site investigations have ranged in size from small purposive trenches, e.g. to sample the environment of a Neolithic long barrow (such as that now preserved *in situ* near Tollgate, Gravesend) to large-scale undertaskings, such as the kilometre-long, sixty metre-wide excavation which exposed multi-period remains at Northumberland Bottom, also near Gravesend (see site summary below).

The fieldwork for Section 1 of the CTRL is now virtually completed. The archaeological watching brief is underway and will continue into the year 2000. A number of additional features and remains of interest have been identified by the archaeologists carrying out the watching brief (from MoLAS and OAU).

The preliminary results from completed fieldwork is set out below in summary form, as supplied by the archaeological contractors who undertook the investigations. Firstly, the key sites of interest, broadly arranged in period order, are described (**Fig. 1**). Other areas of investigation are then outlined.

KEY SITES

Sandway Road (TQ 8800 5150)

Wessex Archaeology carried out the excavation of the site which lay between the villages of Harrietsham and Sandway and comprised an area of approximately 0.8 hectares (ha).

Archaeological features survived as cuts into the surface of the natural geology (Lower Greensand Folkestone Beds), in most cases sealed by colluvial deposits that were present over most of the site. Sixty-seven features were identified and excavated. These features comprised eight ditches, three pits, two possible hearth pits, two artefact scatters, 43 probable tree-throw holes, nine amorphous irregular features filled with burnt material (possibly representing

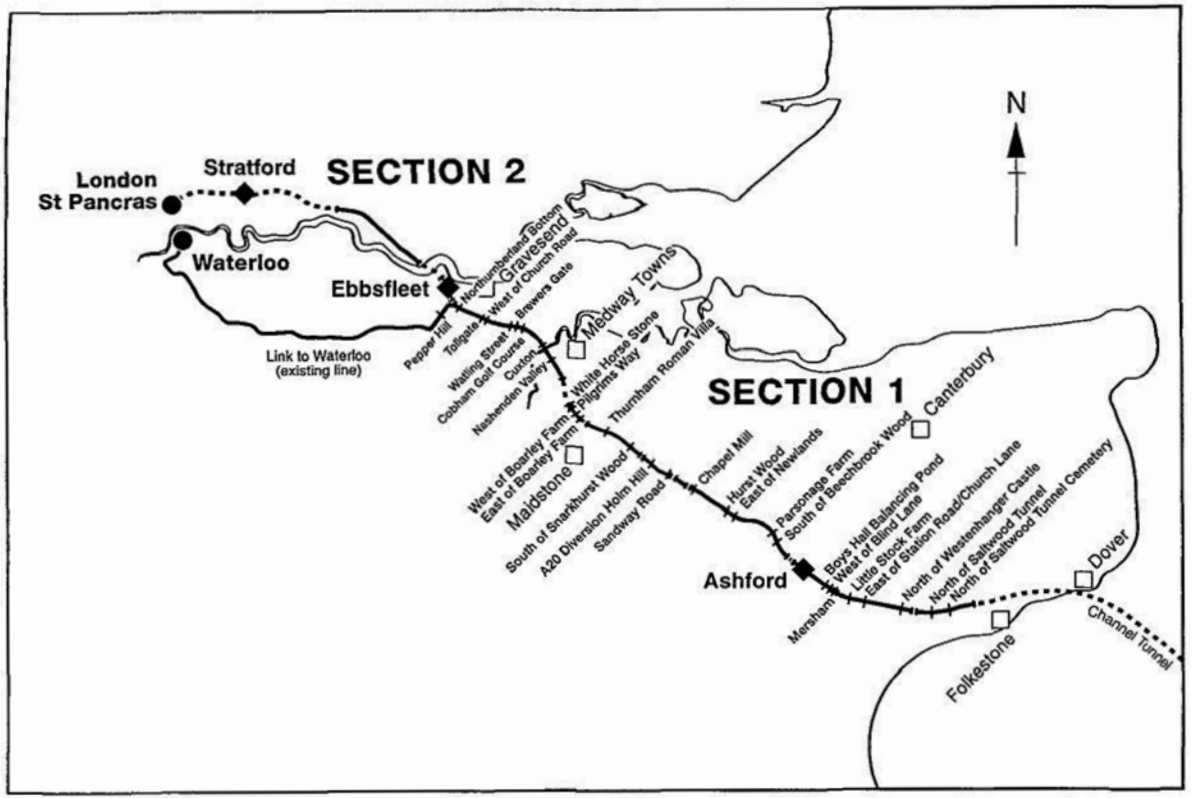


Fig. 1. The Channel Tunnel Rail Link Route showing Locations of Archaeological investigations

burnt-out tree stumps) and one irregular feature of indeterminate function. Dating evidence indicated Mesolithic, earlier and later Neolithic, early Bronze Age and late Iron Age/Romano-British activity at the site, most notably the earlier prehistoric periods.

Mesolithic remains comprised two scatters of worked flint as well as a number of possible features within a concentrated area, located on a slight terrace on the west-facing slope of the site. The remains have produced over 7,500 pieces of worked flint, the majority of which would not be out of place in a late Mesolithic assemblage. Earlier Neolithic evidence includes dated features and pottery in considerable quantities surviving as residual finds from a number of later features. Elements of the Mesolithic assemblage appear to be diagnostically earlier Neolithic in origin and the possibility exists that there may be a transition between the two periods at the site. Neolithic occupation seems to continue into the later Neolithic again possibly continuing into the early Bronze Age, at which point activity at the site appears to tail off, with the exception of at least one large late Iron Age/Romano-British ditch which may represent part of a field system or relict trackway.

White Horse Stone, Pilgrim's Way and West of Boarley Farm (TQ 7350 6010)

The Oxford Archaeological Unit undertook archaeological investigations of adjacent sites near Blue Bell Hill at the foot of the chalk escarpment of the North Downs. These excavations had a combined area of 6.8ha.

Neolithic. Major discoveries include the clearly defined traces of a longhouse (**Fig. 2**), found near the bottom of the dry valley, apparently sealed by a later prehistoric palaeosol. It is thought to date from the early Neolithic (approximately 3750 BC), although mid-late Neolithic pottery (Grooved Ware and Peterborough Ware) was also recovered from features in the immediate vicinity, suggesting activity on the site over a long period of time. The structure was defined by a substantial array of post-holes, bedding trenches, pits and hearths. Associated activity areas in the form of utilised tree-throw holes, pits, ditches and a small circular post-hole structure lay to the south and east of the longhouse. This discovery is of particular interest because of its location within the group of 'Medway Megaliths', Neolithic chambered tombs which include Kits Coty.

Early-middle Bronze Age. A sub-rectangular post-hole structure to

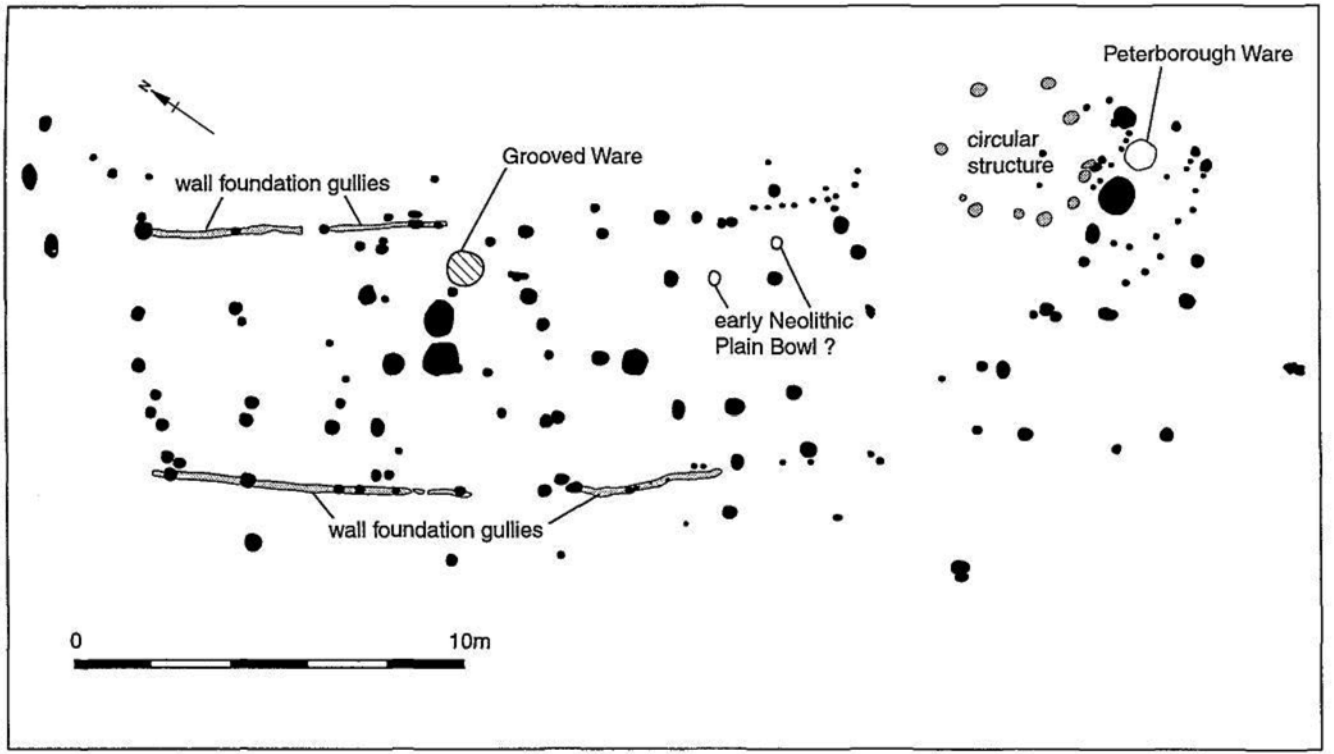


Fig. 2. Plan of the White Horse Stone Neolithic Longhouse

the south-east of the Pilgrim's Way site has been tentatively ascribed to the Bronze Age on the basis of its form, and pottery retrieved from adjacent features.

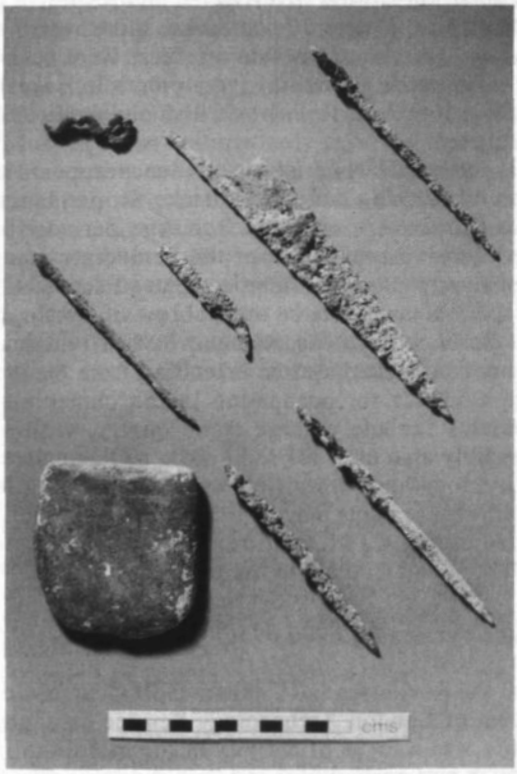
Late Bronze Age/early Iron Age. A late Bronze Age/early Iron Age settlement was found on the chalk spur forming the western side of the dry valley, on the White Horse Stone site. Patterns of post-holes suggest possible roundhouses and numerous four-post structures. A number of pits contained rich deposits of pottery and animal bone suggestive of domestic refuse. Three human burials contained within pits were also recorded. A unique cremation deposit produced an exceptional group of transitional late Bronze Age/early Iron Age artefacts, including an iron knife, four iron awls, a whetstone, a small curved iron blade (**Plate I**) and a group of at least six pottery vessels, one of which was a large urn containing a deposit of grain. A metal-working area located on the eastern side of the settlement produced furnace bases and pits containing large quantities of slag. A very few sherds were found that may suggest a diminishing intensity of activity extending into the middle Iron Age.

Late Iron Age-early Romano-British. By the late Iron Age or early Roman period there seems to have been a significant settlement shift, to the south-east of the Pilgrim's Way. There is no clear evidence for a settlement of this date, but several dispersed post-hole structures and alignments, cremations, pits and animal burials have been found at the Pilgrim's Way and West of Boarley Farm sites, probably indicating occupation on or near the sites.

Medieval. The medieval features consist of trackways, including the Pilgrim's Way and a plough-levelled hollow-way running north-south across the Pilgrim's Way site. Other medieval features comprised a corn-drying kiln found on the Pilgrim's Way site, which utilised sarsen fragments in its construction, and a possibly human burial found next to the Pilgrim's Way. A section excavated through the Pilgrim's Way failed to identify any trackway surfaces earlier than the medieval period.

The dry valley soil sequence. The main dry valley at White Horse Stone was in-filled with a series of late glacial solifluction deposits. Within these the remnants of a Pleistocene palaeosol were located, possibly dating from the Allerød Interstadial. These deposits were sealed by a substantial, well-preserved Holocene buried soil which was truncated by an Iron Age ploughsoil. This in turn was overlain by a deep colluvial sequence dating from the Iron Age to the present day.

PLATE I



White Horse Stone: Late Bronze Age/Early Iron Age cremation deposit

Initial assessment indicates that these deposits have considerable potential for environmental reconstruction.

Little Stock Farm (TR 0670 3852)

Wessex Archaeology excavated this site of approximately 1.16ha, to the east of the village of Mersham (at Evegate). The underlying geology comprises the southernmost fringes of the Lower Greensand Hythe Beds.

Archaeological features recorded during the excavation survived as cuts into either the surface of the natural geology or the thin colluvial

deposits present over most of the site. Overall, 67 archaeological deposits and/or features were investigated and recorded, comprising 11 ditches, 16 gullies, 17 pits, 17 post-holes, three hearth, two burials and one quarry. Numerous datable artefacts were recovered from these features, indicating Neolithic, early-middle Bronze Age, late Bronze Age, late Iron Age, Romano-British and medieval activity in the immediate area.

In general, the earlier prehistoric evidence appears to indicate transient activity, with no definite evidence for permanent occupation. The late Bronze Age and late Iron Age periods, by contrast, demonstrate intensive occupation of the immediate area, including structural remains, enclosures, hearths, 'placed deposits' and refuse pits. This activity is concentrated on the brow of the slope overlooking the East Stour valley. The Romano-British remains appear to indicate elements of a field system extending from the west into the site, with no evidence for occupation in the immediate area. The medieval remains include a large stone quarry, within a ditched enclosure possibly also used for some form of domestic and/or industrial activity, together with a field system extending towards the west. The medieval remains may be related to contemporaneous activity identified during CTRL trial-trenching evaluation work in the vicinity of Park Wood Cottage to the east.

Cobham Golf Course (TQ 6900 6950)

Excavation at the Rochester and Cobham Golf Course, Cobham Park by the Museum of London Archaeology Service concluded that the area of the site was a focus of activity in the middle to late Bronze Age, probably in part agricultural and including one or more burials; presumably there was a settlement near the site, if not actually within it. Evidence was also found of activity in the late Iron Age or early Roman period. Soil conditions did not allow bone to be preserved, and botanical material survived very poorly or not at all.

The site was approximately 1.0ha, to the south of the A2 trunk road. All features were cut into localised deposits of colluvial silts which overlay the drift deposits of clay with flints.

The excavation revealed widespread plough damage. On the higher area to the west many struck and burnt flints were collected during bulk stripping, probably indicating an area of occupation that had been ploughed out. Lower down the slope, ditches, pits and post-holes were traced where they were cut into the underlying natural colluvium. The most significant feature was a ring ditch measuring 18-20m in internal diameter, with a gap 2m wide to the south. The

initial fills of the ditch contained late Bronze Age struck flints and pottery, and subsequent fills late Iron Age/early Roman pottery; the latter fills were probably deposited by slippage from the centre of the ring. The ditch was all that remained of a Bronze Age barrow, perhaps ploughed out in the late Iron Age or early Roman period.

A total of 35 small pits and post-holes were recorded in the centre of the site. Most of these features only survived to a shallow depth; two, marked by burning and scorching, may have been hearths; others were deeper and variously contained middle Bronze Age, late Bronze Age and late Bronze Age/early Iron Age pottery. No structural pattern in their layout was obvious. Two or three of these features contained substantial amounts of pottery, including many parts of single vessels. Nearly all these features were situated to the south of a straight ditch orientated roughly west-east and traceable for a distance of at least 100m. Traces of two much shorter north-south ditches were also found.

Northumberland Bottom (TQ 6352 7127)

The Northumberland Bottom excavations to the south of Gravesend represent the largest undertaken on the CTRL; a kilometre in length and totalling 5.9ha. The work was carried out by the Museum of London Archaeology Service. The solid geology consisted of Upper Chalk, with overlying pockets of clay-with-flints and other drift deposits of sands and gravels.

An early Bronze Age double inhumation (**Plate II**) was found near the crest of the hill. Each of the burials (which were superimposed) was accompanied by a Beaker vessel. The burial pit was surrounded by a number of shallow pits, which may be all that remained of an encircling ditch. Other prehistoric activity was represented by a large, middle-late Bronze Age boundary ditch, part of a mid-late Iron Age enclosure, a number of intercutting ditches which may have formed parts of field systems, some pits and a sunken kiln or oven. Occupation to the west of the hill crest continued into the late Iron Age/early Roman period, represented by pits, gullies, several kilns or ovens, human burials (including two cremations) and a horse burial. These were contained within a focus of activity which was defined to the west by a hollow-way and boundary ditch. To the east of the hill crest a number of intersecting ditches formed part of an early Roman field system. This field system was approached from the south and east via three metalled tracks which converged at its south-eastern corner. After the ditches became partially infilled there was some occupation in this part of the site, probably in the second century AD, represented by two possible sunken-floored buildings, pits, a well,

PLATE II

Northumberland Bottom: Excavation of an early Bronze Age double inhumation

two single-chambered kilns or ovens (**Plate III**) and an infant inhumation.

Towards Downs Road a medieval occupation site, dated provisionally to AD 1050–1150, occupied a shallow terrace near the foot of the hill. It consisted of one or more timber structures, represented by over one hundred post-holes, with associated pits and a boundary ditch to the south. A circular, ditched enclosure near the crest of the hill towards the army camp also appears to have been eleventh to twelfth century in date, and was presumably for containing livestock. It was superseded in the twelfth to fourteenth

PLATE III

Northumberland Bottom: a single chambered kiln or oven under excavation

centuries by a sub-rectangular ditched enclosure which contained some evidence for occupation, including a small, sunken-floored building in which was a possible corn-drying or malting oven.

North of Saltwood Tunnel (TR 1545 3695)

The investigation by CAT produced evidence for a long-lived but dispersed settlement commencing in the early Iron Age and continuing through to the early or middle Saxon period, a span of a millennium from the sixth century BC to the sixth/seventh century AD. A discrete area of early medieval occupation was also recorded.

The earliest activity on the site would appear to be a limited zone of early Iron Age occupation situated at the head of a dry coombe in the south-west part of the site, partly masked by later phases extending into the early Roman period. By the later Iron Age, formation of the hollow-way in the coombe necessitated the cutting of drains and the initial metalling of the surface, especially in the area of the junction of these roadways on the north edge of the site. Certain sections of the hollow-way were bordered by dry stone wall footings set in the side of the ditches bordering them.

Within the angles of this road system to the east and west were enclosures which appear to have undergone various stages of enlargement and re-definition. Within the eastern enclosure, a small cremation cemetery of the late first century AD had been established, the enclosure also contained two cremations of late second-century date and a solitary inhumation cutting a pit containing metal-working debris. The western enclosure extended back from the existing area of settlement and passed through several stages of elaboration.

During the later Roman period a dense deposit of silt and occupation debris accumulated in the hollow-way, filling earlier ditches and a soakaway pit at the junction. A ditch was cut through the silts along the uphill side of the western hollow-way, coterminus with a length of dry-stone wall. This ditch contained late Roman and possibly early Anglo-Saxon pottery. Opposite, an oven containing fourth-century pottery cut the hollow-way silts.

A sunken-floored building with timber roof post supports could also be dated to the early Anglo-Saxon period from the pottery within it. Later Anglo-Saxon activity was absent but in the early medieval period a small settlement was established immediately west of, and overlying, the silted hollow-way junction. This was delimited by slight ditches. Within this area small pits and post-holes suggested the location of perhaps two buildings, the most substantial on the north-east represented by a row of substantial post-holes and traces of a parallel row, perhaps the roof supports for a barn-like building. A series of parallel trenches to the west may have defined a series of strip fields; a pit in this area produced oyster shells and fish remains. Finds generally dated to the eleventh and twelfth centuries.

South of Snarkhurst Wood, Hollingbourne (TQ 8227 5517)

The site, adjacent to Junction 8 of the M20, was excavated by the Oxford Archaeological Unit in two parts (total area 1.36ha). The solid geology of the locality is Folkestone Sands.

The eastern part produced evidence for a settlement of late Iron Age and early Roman date (first century BC to first century AD). Features included rectangular and sub-rectangular enclosure ditches and several post-hole structures, including one small, circular building with a central post, and five four-posters. Other evidence for occupation included a small kiln or furnace associated with metal-working slag, and several storage or rubbish pits. A single cremation burial was recorded. The settlement is likely to be a continuation of the site identified during construction of the Maidstone by-pass in the 1950s. The features were overlain by elements of a post-medieval field system and a possible trackway. Features to the west of the main

post-medieval boundary were very severely truncated by ploughing, which seems to have entirely removed all but the deepest Iron Age features.

The western part of the site produced a small scatter of worked flints from tree-throw hollows and the archaeological stripped surface, including several characteristic early Bronze Age pieces (a plano-convex knife, a backed knife and a piercer). Other flints retrieved include a bladelet core of possible Mesolithic date. The location of the flints coincides broadly with a scatter recovered from the ploughsoil during the surface collection survey. No definite archaeological features were identified in this area, although a series of irregular linear soil marks may be field boundaries of indeterminate date, and a single possible pit was identified.

Thurnham Roman Villa, Detling (TQ 7990 5715)

The Oxford Archaeological Unit excavated the Scheduled Ancient Monument of Thurnham Roman Villa (SAM KE 299) and its surroundings, east of Maidstone (**Fig. 3**). The site was close to the foot of the North Downs on Gault Clay with localised Chalk Head. A variable drift deposit of clay with flints covered the site to varying depths. An area of 3ha was excavated.

This work revealed a continuous sequence of occupation spanning the late Iron Age through to the early fourth century AD. Prehistoric remains were represented by a large ramped waterhole near Thurnham Lane, which produced a small middle Bronze Age rapier. A sparse *in situ* flint scatter was preserved beneath the villa levels.

A large rectilinear ditched enclosure, containing one definite and two possible roundhouses and two four-post structures was established in the late Iron Age, following clearance of woodland from the site. Remodelling during the early post-conquest period saw the enclosure levelled and replaced by a larger enclosure containing a proto-villa placed centrally and towards the rear of the enclosure. This building had a painted plaster interior and firm clay floor surfaces. A possible shrine or temple was added shortly afterwards, overlying the former enclosure ditch. Further development followed at the end of first century AD with the construction of a stone two-storey villa replacing the proto-villa. By the early third century AD, following many structural additions, this had developed into a large winged corridor villa (**Plate IV**) with a bath suite attached to its southern side (excavated in 1958). No *in situ* floor surfaces relating to the main villa phases were encountered although several *opus signinum* and sand floors were recorded in previous excavations.

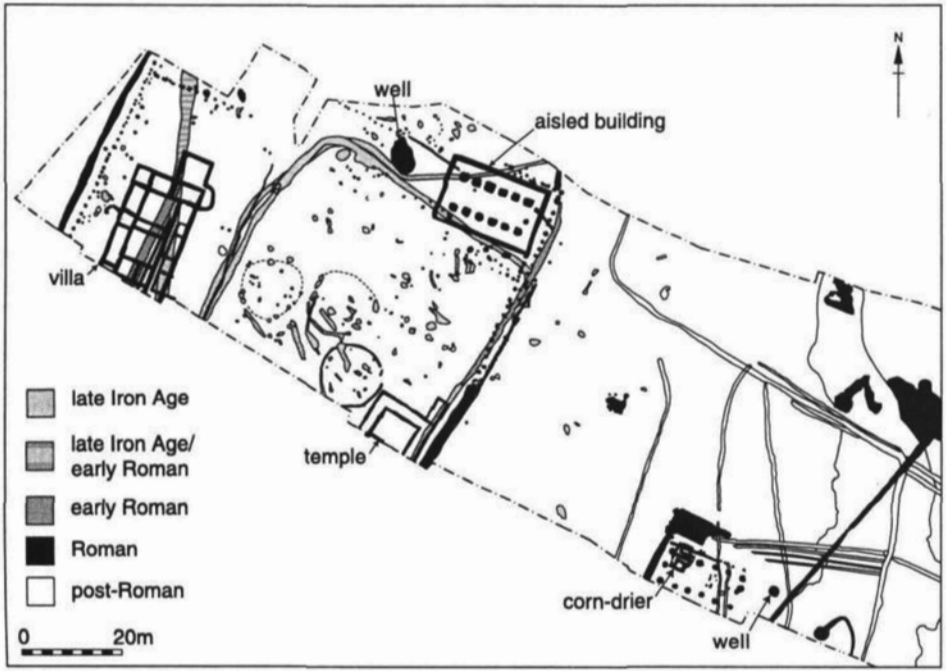


Fig. 3. Plan of the Thurnham Roman Villa Complex

PLATE IV

Thurnham Roman Villa

The 'temple' structure remained in use throughout this period and was accompanied within the core of the estate enclosure by a large aisled building (**Plate V**) constructed early in the second century AD. Massive wooden posts supported the central roof whilst shallow flint foundations supported the outer walls. A crushed tufa floor defined a room at the western end of the building, which had a neatly constructed oven at one end. Personal items such as pins, brooches, coins and fragments of mirror were all recovered from within this building. The boundary to the estate was redefined with successive fence lines around the villa and the aisled building replacing the earlier ditched boundaries.

Access to the villa enclosure was gained by a cobbled trackway

PLATE V

Thurnham Roman Villa: Aisled Building, looking eastwards

approaching from the east, passing a large timber building located outside the enclosure boundary. This large 14-post structure, which probably had an agricultural role, had a number of surrounding and internal drains. It was demolished and replaced, by the third century AD, with a stone-built corn-drier. Two wells were investigated, one of which was excavated to a depth of 3.7m without locating the bottom. Both were stone-lined at the top, and the lower portion of the deeply excavated example was supported by a timber box-frame.

Trenches excavated in Honeyhills Wood, immediately adjacent to the villa complex, strongly suggest that the wood was present when the Iron Age settlement and later villa complex were established. The

western boundary ditch of the settlement enclosure closely follows the modern edge of the woodland, and the trenching demonstrated that Roman occupation did not extend beyond that boundary. The earthworks in the wood, which did not form a clear pattern, were very shallow and were not associated with subsoil features. Insufficient artefactual material was recovered to indicate their date of origin.

The final occupation on the site saw the demise of the villa complex towards the end of the third century AD and early into the fourth century. By this time the temple structure had already collapsed or been demolished, and the character of occupation in the main villa building had changed substantially (one of the central rooms was utilised extensively as an iron smithy). Several coins of Constantine were recovered, generally from the upper fills of defunct features, representing the latest evidence for Roman activity on the site of the villa.

Activity ceased on the site until the foundation of Corbier Hall in the fourteenth century (SAM KE 309). Associated post-holes and gullies were located to the immediate south-east of Corbier Hall and the moat area, but all were peripheral in character.

Pepper Hill Romano-British Cemetery (TQ 6190 7210)

The Oxford Archaeological Unit carried out a detailed archaeological investigation to the south of Pepper Hill, near Gravesend (**Fig. 4**). The excavation was located 0.5km to the south of the Roman small town at Springhead (*Vagniacae*) and 200m to the south-west of the Scheduled temple complex (SAM KE 198). The geology of the area consists of sands and gravel underlying brickearth.

Two phases of fieldwork, totalling 0.9 ha., were undertaken between November 1997 and January 1999, following the unexpected discovery of the cemetery during a watching brief on cable diversion works. The first phase of fieldwork revealed the southern part, the second phase the northern part, of a previously unknown Roman cemetery dating from the late first to the mid-third century AD. The later prehistoric period was represented by a small number of pits of possible Iron Age date and a linear ditch which contained a large quantity of burnt flint.

The cemetery comprised 326 inhumations and 235 cremations and was bounded to the east by a hollow-way and to the west by a slot/fenceline. The remaining boundaries comprised a series of linear ditches. In addition a small number of other features were revealed, including pits containing dumps of pyre debris, a possible ritual shaft or well and a cobbled surface of uncertain function. There was also evidence for *in situ* burning of cremations.

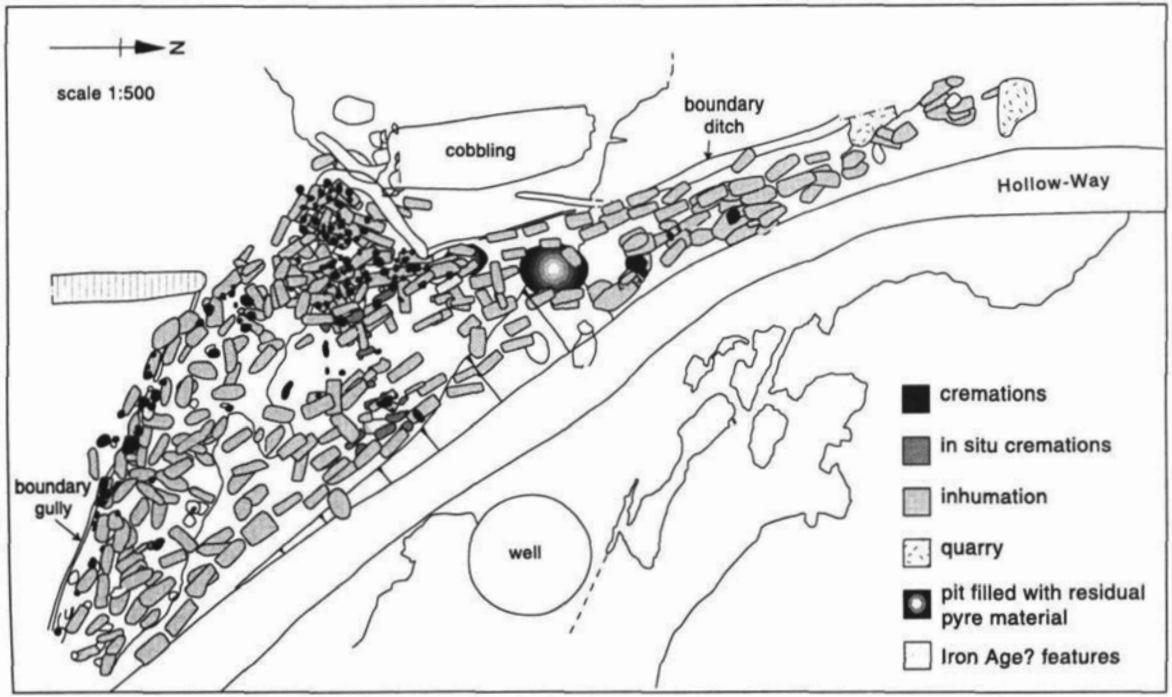


Fig. 4. Plan of the Pepper Hill Romano-British cemetery

PLATE VI

Pepper Hill Romano-British cemetery: inhumation with flagon

Preservation of the inhumations was poor (**Plate VI**): many survived only as body stains and a number of graves appeared empty as the bone had decayed completely. In contrast the cremated bone was well-preserved and fragments were generally substantial and easily recognisable. Limited evidence has already been recovered for structured deposition of bone within vessels, indicating that the bone was sorted into body parts prior to deposition.

Many inhumations had been buried within wooden coffins which were represented by nails and other fittings as well as wood stains. Cremations were generally contained within pottery vessels and regularly accompanied by at least one other accessory vessel (**Plate VII**).

With the exception of pottery vessels (over 600 complete vessels) grave goods were few. They included coins, hobnailed boots, brooches, glass beads, bracelets and finger rings. A single mirror fragment was also identified.

PLATE VII

Pepper Hill Romano-British cemetery: cremation burial under excavation

The few coins recovered included several third to fourth-century examples, the latest being an issue of Magnentius (AD 350-351). However most of the coins, including all of the definite third and fourth-century examples, were recovered from the topsoil or silts filling the hollow-way, which tends to reinforce the picture of abandonment of the cemetery during the third century.

Cuxton Anglo-Saxon Cemetery (TQ 7200 6735)

The site of archaeological investigation at Cuxton was situated directly to the west of the M2 Medway Bridge, on the northern side of the River Medway, west of Rochester. The area of the site was approximately 2.03 ha and the work carried out by the Museum of London Archaeological Service (**Fig. 5**).

Beneath modern ploughsoil truncated archaeological features survived cutting into the underlying chalk bedrock. Late Bronze Age/early Iron Age and probable late Iron Age pottery was recovered from several dispersed features. Several pits contained large amounts of domestic refuse including animal bone, burnt daub and burnt flint.

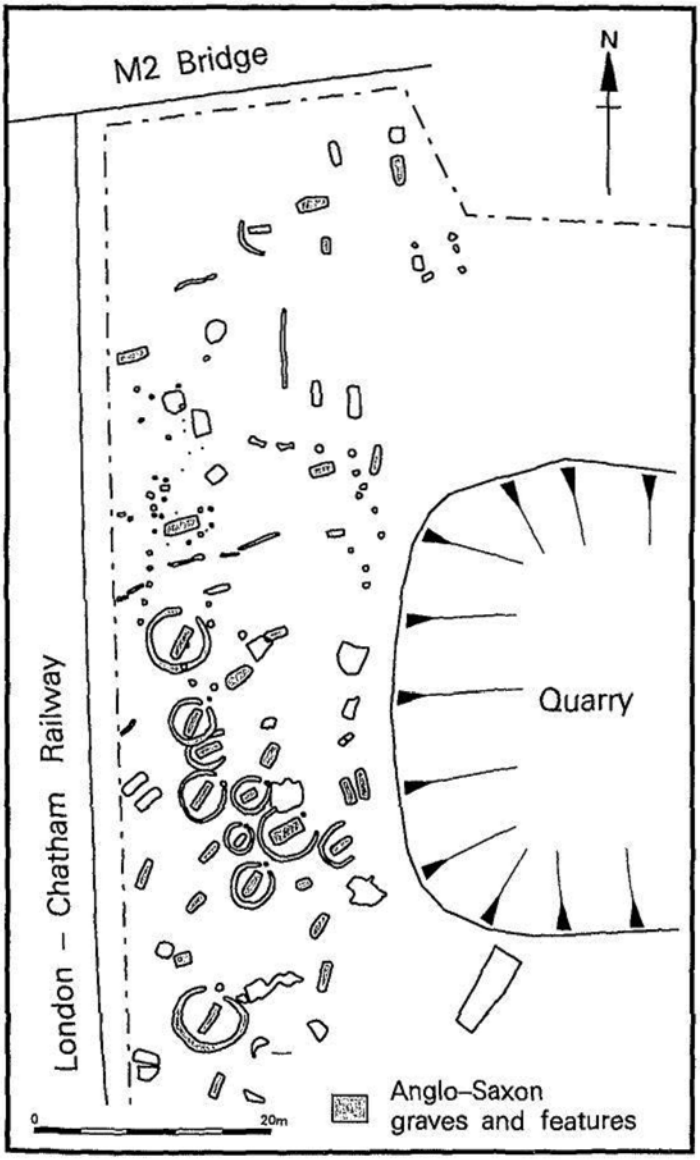


Fig. 5. Plan of the Cuxton Anglo-Saxon cemetery

An undated circular post-hole structure probably belonging to the early Iron Age predated an Anglo-Saxon burial. Several lines of undated post-holes may represent an enclosure with a monumental entrance to the east. Further post-hole concentrations may represent other buildings and fence-lines. Three large shallow depressions contained charcoal and burnt flint, possibly representing hearths.

Thirty-six Anglo-Saxon graves were excavated, the state of bone preservation varying from good to very poor. In addition to the inhumations, two pottery vessels containing cremations were found. The pottery vessels date some of the burials to between AD 550 and 650. Eleven graves were associated with penannular ditches, most ditches with a central post between the termini; one grave cut was surrounded by a post-hole structure; some of the grave cuts had internal ledges, others were simple cuts into the chalk.

The burial population comprised adults, juveniles and probably infants. Grave goods form an interesting assemblage and include jewellery, shield bosses, spearheads, knives, buckles, fittings, mounts, shears, chatelaines, keys, rings, glass bead necklaces, coins, pottery vessels and two purses.

North of Saltwood Tunnel, Anglo-Saxon Cemetery (TR 1575 3695)

Excavations by the Canterbury Archaeological Trust to the north of Saltwood Tunnel, east of the settlement of Iron Age and Roman date discussed above, produced evidence for an early Anglo-Saxon cemetery, which lay over a prehistoric ring ditch. The site was approximately 0.16ha and lies close to the Channel Terminal at Dollands Moor.

The ring ditch was pennanular in form, with an entrance at the north-east. In a later phase its causeway had been blocked by a narrow secondary ditch. Ceramics and lithics recovered from the fills of the ring ditch suggest that the monument is of Bronze Age date. The lithics suggest that knapping and domestic activity took place within the general area of the ring ditch.

An early Anglo-Saxon cemetery was located over and beyond the ring ditch. Sixty-three graves of early Anglo-Saxon date were identified, extending in date from approximately AD 550-675. The graves include two elaborate 'princely' burials, as well as fifteen other weapon graves (**Plate VIII**). Coptic bowls were found in both 'princely' graves. Female grave goods include beads, bracelets, finger rings, keys and chatelaines. Knives were identified in 28 of the graves. Six graves contained ceramic vessels, all of which had been made in local fabrics and in a range of forms.

Bone survival was generally very poor and human skeletal remains

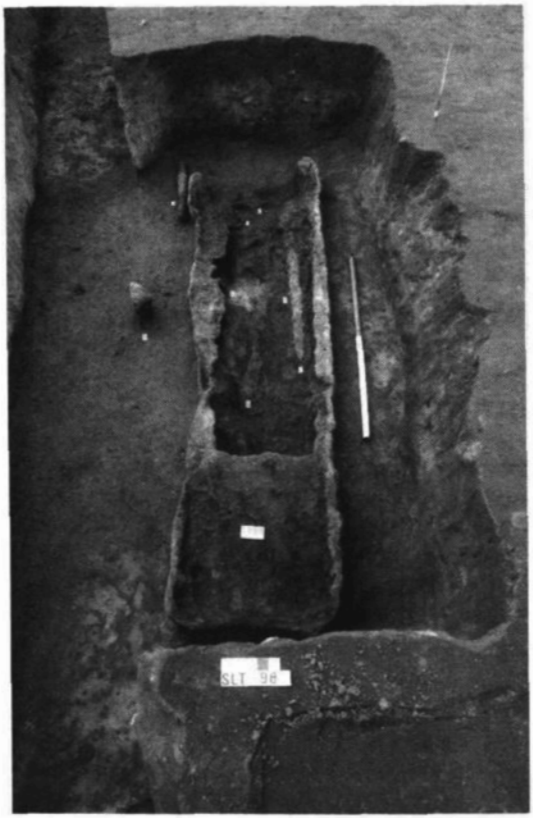
PLATE VIII

North of Saltwood Tunnel Anglo-Saxon cemetery:
sword in the process of conservation

were only recovered from a few of the graves. One of the burials was that of a horse, interred without any apparent grave goods.

Graves within pennanular ditches were located on the periphery of the cemetery at the north and the south-east. There were single examples of cist graves, chamber graves and burial within a hollowed section of a tree (**Plate IX**), as well as five coffins. The relative sizes of the graves and the range of grave goods, suggests that both adults and juveniles were buried in the cemetery. From the grave goods alone, it can be suggested that seventeen of the burials were males and eight were females.

PLATE IX



North of Saltwood Tunnel Anglo-Saxon cemetery: wooden bier containing sword and other grave goods

Mersham (TR 05175 39290)

Detailed archaeological investigations were undertaken by the Canterbury Archaeological Trust within the village of Mersham to the east of Ashford. An area of about 1ha was excavated. The site occupied a slight spur on the edge of the Hythe Beds outcrop capped with a sandy clay loessic drift deposit.

The principal discovery was an early medieval metal-working site. Pits backfilled with iron slag, ditches cut to bring water to the site and

a southern boundary ditch, all dating to the period AD 1050-1200 (most probably AD 1050-1125) were excavated. The western boundary ditch probably also dates from this time.

A significant proportion of the early medieval features contained late Anglo-Saxon artefacts. This suggests that the origin of the industry may have lain in the period AD 850-1050. Small quantities of mid-Anglo-Saxon and earlier material were also found, but these are thought to be entirely residual.

Following the abandonment of the site the southern boundary ditch was retained while a smaller parallel ditch was added in the north. A low-level renewal of activity appears to have taken place during the period 1475-1500, but this ended by 1775. Horticultural features excavated at the eastern end of the site are probably contemporary with this later activity.

Parsonage Farm, Westwell (TQ 9805 4605)

Parsonage Farm is located near Westwell to the west of Ashford. The area was excavated by the Museum of London Archaeological Service and totalled 0.9ha. The ground sloped gently down from north to south, to the west of Station Road (also called Watery Lane). The geology consists of Folkestone Beds, capped by a loessic silty deposit.

The first human activity on the site was evidenced by worked timbers and brushwood forming a possible platform in the bed of the stream running from the west, with pottery, which may be residual, dated to the late Iron Age/early Roman period.

The earliest medieval occupation was represented by eleventh and twelfth-century pottery, associated with a possible mill. A moated farmstead or manor-house was then built. A moat was constructed, partially utilising existing streams to the east and west of the site. Abundant pottery dates this farmstead to about AD 1150-1350. The moat was roughly square in plan, its interior 'island' measuring approximately 46 by 52m. The buildings went through several phases of improvement, modification and repair. These buildings included the stone footings of a hall aligned north to south, with an extension added running eastwards from its northern end and fronting onto the eastern arm of the moat. Ancillary buildings, marked by shallow sill beam slots, earth-fast post-holes and metalled entrances, lay to the west and north-west of the hall. The north-eastern and south-eastern arms of the moat were crossed by narrow causeways, partly metalled with stone, probably for livestock. Buildings were apparently roofed with tiles, contained in extensive destruction deposits. The hall and some other buildings remained standing, however. The hall was then

dismantled, with the building materials presumably removed for re-use elsewhere.

No further occupation was in evidence, and the site was much eroded by ploughing and stream action, especially around the edges of the moated area. According to local knowledge, the moat had survived as a substantial earthwork in places until 1960, when it was filled in.

OTHER AREAS OF EXCAVATION

The following sites represent the remaining areas excavated along the line of the CTRL, which although they contribute to the archaeological landscape, generally produced limited remains. These sites are arranged in CTRL route order from west to east.

Tollgate (TQ 6410 7100)

A deep section was sampled and recorded through a sequence of deposits by MoLAS. This trench was close to the possible Neolithic mortuary enclosure which has been preserved *in situ* beneath mitigation earthworks for the CTRL.

West of Church Road, Singlewell (TQ 6520 7050)

Excavation by MoLAS to the south of Singlewell adjacent to the A2, found several small pits or post holes and ditches (site area 0.7 ha). One pit contained burnt, unworked flint and possibly medieval pottery. The ditches and two possible marlpits suggest that the land was cultivated and enclosed, presumably at any date from the prehistoric onwards, although specific dating is lacking.

Brewers Gate (TQ 6836 6958)

Archaeological excavation at Brewers Gate, Cobham Park, Cobham was carried out by the Museum of London Archaeology Service. The site (280 m^2) was situated to the south of the A2.

The site was identified from map evidence as being the location of the gate lodge at one of the main entrances to the park, built around 1800 to a design by John Repton, son of Humphry Repton who had redesigned and re-landscaped the park in about 1790. The excavation located the gate lodge and identified it as a nineteenth-century rebuild, with nothing earlier surviving. The west side of the gate itself and part of the metalled drive were also found immediately adjoining the lodge to the east.

Watling Street, Cobham (TQ 6805 6960 to 6895 6960)

Five trenches were excavated by MoLAS to the south of the A2 at Cobham Park. The excavation concluded that a ditch and bank defined the grounds of the medieval and post-medieval estate of Cobham Hall, a ha-ha or park pale being built probably when a deer park was created around 1700.

The site comprised five trenches positioned across purported surviving sections of Roman Watling Street. The road sloped down from west to east, the eastern end running through a hollow-way as much as 3m below current ground level.

The medieval and post-medieval bank and ditch that formed the northern limit of Cobham Park was sectioned at the western end of the 1km stretch of road. The bank was revetted with roughly coursed chalk blocks. The ditch was approximately 3m wide and had possibly been recut. In a second trench part of a brick structure was revealed, identified from documentary sources as dog kennels built when the grounds of Cobham Park were landscaped by Repton *c.* 1790.

Nashenden Valley, Borstal (TQ 7319 6558)

OAU excavated a deep, stepped trench within the Nashenden Valley at the location of an evaluation trench in which a possible Allerød soil had been identified. The section revealed a Holocene colluvial sequence and Pleistocene Coombe rock deposits which were of some geological interest but produced no significant archaeological results. The possible Allerød soil horizon recorded in the evaluation was not identified.

East of Boarley Farm (TQ 7622 5923)

The OAU undertook detailed archaeological investigation to the east of Boarley Farm, north-west of Boxley, at the foot of the North Downs.

A single ditch, dated to the late Iron Age/early Romano-British period by a small pottery assemblage, and three undated post-holes were the only definite archaeological features identified. Other features and deposits which produced small quantities of residual late Iron Age/early Romano-British pottery and worked flint, are interpreted as resulting from colluvial erosion and deposition.

A thick colluvial sequence, filling a large erosion gully, has been sampled for a range of environmental indicators and for pedological analysis and may provide material for comparison with the important dry valley sequence at the nearby White Horse Stone site.

A20 Diversion Holm Hill (TQ 8480 5330)

Wessex Archaeology undertook the recording of two areas (3.03 ha) to the west of Harrietsham. Some 41 archaeological features were identified comprising ditches and gullies, pits, post-holes, possible hearths and lynchets. Relatively few datable artefacts were recovered from these features, although sufficient evidence was recovered to indicate that early Bronze Age, Iron Age and Romano-British features were present as well as late Bronze Age/early Iron Age, medieval and post-medieval pottery recovered from unstratified sources.

In general, the prehistoric features appear to represent components of a landscape comprising ditched field systems on the slopes below higher ground within the sites' limits. The higher ground, particularly the main sand ridge crossing the site, appears largely devoid of archaeological remains and it is likely that subsequent truncation through ploughing has had a significant impact on the buried archaeological resource in these areas. The Romano-British remains appear to indicate a ditched trackway passing south-west to north-east through the site, approximately following the line of the central ridge.

Chapel Mill, Lenham (TQ 9040 5002)

Excavation of this site totalling 0.95ha by OAU produced a small number of isolated features, including a pit containing a later Bronze Age vessel and two unaccompanied cremations, one of which produced a small amount of late Iron Age or Roman pottery. There was also a pair of parallel Iron Age or Roman field ditches and a series of post-medieval/modern field boundary ditches. There was no evidence for human settlement on the site at any period.

Hurst Wood, Charing Heath (TQ 9296 4846)

The OAU carried out a strip, map and sample excavation (1.14 ha) on a site to the south of Charing Heath.

Twenty-seven pits, 17 post-holes, four tree-throw holes and two furrows were excavated. Of those features two pits contained Bronze Age pottery, one tree-throw hole produced Iron Age pottery and a further pit contained a single Romano-British sherd. Six pits and two post-holes contained flint. It is likely that the post-holes and the furrows are associated with a post-medieval hop garden. Many of the pits contained evidence of burning and may have been associated with charcoal production, woodland clearance or some other form of woodland management.

The pits were all fairly similar, they had flat bases and short, steep, concave sides. Many contained evidence of burning *in situ*, including fire hardened and reddened bases and ashy, charcoal-rich fills.

East of Newlands, Charing Heath (TQ 9370 4820)

The OAU excavated a small trench to the south of Charing Heath. Limited artefactual dating evidence was retrieved. A possible late Iron Age or Roman trackway or hollow-way was identified. Sherds of late Iron Age early Romano-British pottery (*c.* 100 BC-AD 200) were recovered from the upper fill. The track appears to have fallen out of use some time after the period 100 BC to AD 200.

South of Beechbrook Wood (TQ 9850 4540)

MoLAS undertook an archaeological excavation at South of Beechbrook Wood to the north of the A20, west of Ashford. The archaeological area measured 1.87 ha. The geology of the area consists of Sandgate Beds covered with a drift deposit of yellowish brown sands and silts. The site is in a low-lying, undulating landscape and specifically overlies the crown of a low knoll and a north-facing slope.

A single vessel possibly containing a cremation was recorded set into a cut. This vessel may be a middle Bronze Age Deverel-Rimbury urn. Most of the site was covered by a series of possible enclosures ditches, post-holes, firepits, storage and other pits which appear to belong to the late Iron Age/early Roman period. The site has been badly damaged by plough action and only the bases of features survived.

Boys Hall Balancing Pond, Ashford (TR 0310 4007)

The site adjacent to Boys Hall Moat (SAM KE 146) at Sevington, near Ashford, was excavated by OAU. Investigation of the 0.52ha site revealed a group of late Iron Age/Romano-British cremations and four linear features of similar date. Previous excavation has provided ample evidence for settlement of this date in the vicinity. Two large ditches and a contemporary cobbled surface are almost certainly associated with the adjacent former medieval manor house or the attached post-medieval garden.

West of Blind Lane, Sevington (TR 0403 3900)

The OAU undertook detailed archaeological investigation at West of Blind Lane to the east of Ashford. Approximately 2ha were examined.

The excavation area exposed at least 16 ditches, five gullies, three post-holes and two undated charcoal-filled pits. A Deverel-Rimbury bucket urn recovered during the evaluation from one of a pair of parallel ditches, indicates that this possible trackway is middle-late Bronze Age in date *c.* 1750-1150 BC. One of these ditches had been recut.

Pottery from the remaining ditches was sparse. A late Iron Age or early Romano-British date (*c.* 100 BC-AD 200) is indicated for eight of the ditches and two smashed vessels were found in adjacent cuts forming part of a single Romano-British boundary. One of the vessels was a fragmented handled jar dated to *c.* AD 50-200. Some intercutting and recutting of the ditches suggests that there are three phases to the late Iron Age/early Romano-British activity, but it probably represents a relatively short-lived period of activity. Two metal artefacts were recovered, including a copper alloy late Iron Age brooch and a copper alloy pin.

The site is situated about 300m south of a dense surface concentration of pottery and flintwork, and an extensive cropmark complex of ring ditches, enclosures and field boundaries, which probably include a later prehistoric and Roman settlement focus. This suggests that later prehistoric and early Romano-British farming communities in this area may have favoured the better-drained geology of the Hythe Beds for settlement sites, rather than the heavy Atherfield Clay.

Church Lane and East of Station Road (TR 0779 3840)

The OAU carried out detailed archaeological investigations at the adjacent sites of Church Lane and East of Station Road, in the parish of Smeeth, near Sellindge. The stripped areas were 2.5ha and 2.1ha in extent respectively. The two sites were separated by an unnamed stream (a tributary of the East Stour). Alluvium and colluvium overlay Atherfield Clay.

Church Lane. An area had been targeted to investigate a potential Mesolithic finds scatter on the margins of the stream, only a portion of which contained alluvial/colluvial deposits. An area of approximately 200m^2 yielded over 160 flint flakes. A further scatter of flint flakes was revealed on the eastern side of the hill to east of the stream, although here the accumulation of colluvium was more modest and the density of finds much lower. As in the evaluation, the indications are that this material represents a mixture of Mesolithic and later prehistoric material, which has accumulated at the foot of the hill as a result of slope erosion.

Two linear features were revealed which produced pottery of middle

or late Bronze Age date (*c.* 1150-900 BC). The ditches extended down the western side of the hill towards the stream. Towards the top of the hill the features were heavily truncated by ploughing and slope erosion. A thin scatter of unstratified Roman, medieval and post-medieval pottery, all showing signs of considerable abrasion, was recovered during the machining.

East of Station Road. A light distribution of struck flint from the site suggests earlier prehistoric activity in the area, although it is unlikely that any of features, even the stratigraphically early ones, are earlier in date than the late Iron Age.

A number of sparsely distributed ditches and gullies were revealed under layers of colluvium and alluvium. Finds were sparse and the pottery was mainly late Iron Age/early Roman grog-tempered ware, suggesting that the site represents a series of field boundaries and drainage ditches dating to *c.* 100 BC-AD 100. A small concentration of pottery from the central part of the site, in association with some minor gullies and possible post-holes, suggests limited occupation of some kind here, although no structures could be identified.

A deep trench was machine-excavated in the lowest part of the site in order to recover waterlogged environmental indicators. Samples were taken for macro-organic material, pollen, insects and snails. The stump of an oak tree was also recovered. Pottery recovered from the section indicates that the upper part of the alluvial sequence is of late Iron Age date.

North of Westenhanger Castle (TQ 1220 3750)

The excavation by CAT revealed a series of large ditches, which appeared to form a rectangular enclosure. At least one of the ditches had been recut and had large post-holes/pits cut into its base. It is suggested that the concentration of features in a possible enclosure, including the waste pit could be indicative of the segregation of work/activity areas and may be connected with nearby settlement.

A high volume of charred plant/cereal remains within the fills of the waste pit may be significant. The presence of oats is unusual for the early medieval period in Kent and southern Britain. Samples from other features did not show such a high content of similar plant remains, with the exception of a short linear feature, close to the waste pit.

Other archaeological features within the internal area consisted of smaller ditches/gullies, post or stake holes and a clay extraction pit. No features indicative of structures were present, although two circular gullies suggested the presence of an earlier paddock or

corral. The pottery retrieved from the fills of these features all falls within the date range of AD 1050-1250. One piece of Tyler Hill Ware found in the lower fills of the waste pit narrows the date gap to AD 1175-1250 indicating that this feature was in use between the end of the twelfth century and first half of the thirteenth century.

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