



CANTERBURY'S ARCHAEOLOGY

1995 - 1996

CANTERBURY
ARCHAEOLOGICAL
TRUST

A REGISTERED CHARITY

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The Canterbury Archaeological Trust is an independent charity formed in 1975 to undertake rescue excavation, research, publication and the presentation of the results of its work for the benefit of the public.

Further copies of Canterbury's Archaeology can be obtained from our offices at 92a Broad Street, Canterbury, Kent, CT1 2LU.

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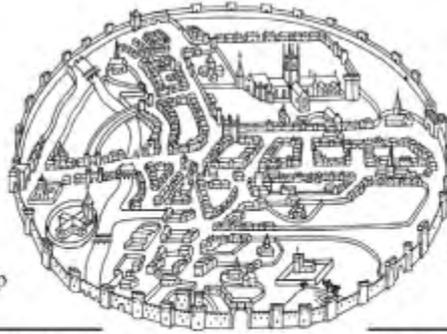
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Foreword



Patron of the Trust:
The Lord Archbishop
of Canterbury

Chairman of the Trust:
The Lord Mayor
of Canterbury

CANTERBURY ARCHAEOLOGICAL TRUST LTD

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A REGISTERED CHARITY

In 1996 we celebrated the twentieth year of the existence of the Canterbury Archaeological Trust. To mark the occasion the friends organised a function in the Eastbridge Hospital in February, presided over by the then Lord Mayor (Chairman of our Council) and attended by old friends, amongst them Tim Tatton-Brown (the Trust's first Director). Then, in October, during the Canterbury Festival, we mounted in, and with the full co-operation of the Heritage Museum, an exhibition of the Trust's work over the last two decades. The Lord Mayor again presided over the opening. Then, as part of the Festival's programme of talks, Paul Bennett gave an open lecture on the work of the Trust. Both these events served to bring the Trust to the notice of, and were much appreciated by, Canterbury residents and Festival visitors alike.

I believe these celebrations, together with our periodic and occasional publications, have made available to the general public, the work of the Canterbury Archaeological Trust – and what an impressive corpus of work it is! We can be very proud of the way in which CAT has contributed to, and transformed knowledge of, Canterbury's history and archaeology. In the decade or so of my association with the Trust, I can recall many discoveries and interpretations not only of great local significance, but also of national and international importance. Among these are: the great Marlowe excavations, which assisted in transforming our knowledge of Anglo-Saxon and Roman Canterbury; St Gregory's Priory, where the size and importance of the Priory was a revelation; the Longmarket excavation, which successfully tied archaeological evidence with documentary records and which also gave the public a splendid insight into the Trust's work; the Cathedral Nave excavations, which demonstrated a succession of unexpectedly large Anglo-Saxon cathedrals, and pointed to continuous worship on the site since perhaps the seventh century; the brilliant detective work involved in unravelling the structures of much altered but still standing medieval buildings; the authoritative nature of the Trust's contribution to ceramics research; and the quietly effective efforts of our education officer working with schools. Outside Canterbury we must note the discovery of the Dover Bronze Age boat, a unique 3,000 year old artefact which may represent the oldest cargo boat in the world; the marvellous collection of grave goods recovered

from the Buckland Anglo-Saxon cemetery near Dover; and the recent exercise in 'linear archaeology' in Thanet.

All those who have worked for, or have been associated with the CAT over the first twenty years of its existence must be given a share of the credit for its great success. Members of the staff, the Friends and other more casual helpers, members of the Trust Council and of the Management Committee, Lord Mayors and members and officers of the City Council who have contact with the Trust, the Dean and Chapter of Canterbury Cathedral, Kent County Council, Kent Archaeological Society, developers, builders, contractors, firms and householders whose contracts have helped fund CAT's work, English Heritage; all these in their different ways have contributed to our work.

It should however be recognised that the CAT has been most fortunate to have Paul Bennett as Director for the last twelve exciting years. He has directed the affairs of the Trust with great skill and foresight, both in management and planning of its human and economic resources and assets, in liaison and negotiations with outside agencies and firms, in the conduct of excavations, and in publication of academic and popular reports. He has been, and remains, at the centre of CAT's successes. It is most apt that in 1996 his achievements as an archaeologist of the first rank were recognised by his peers when he was elected as Fellow of the Society of Antiquaries – many congratulations Paul!

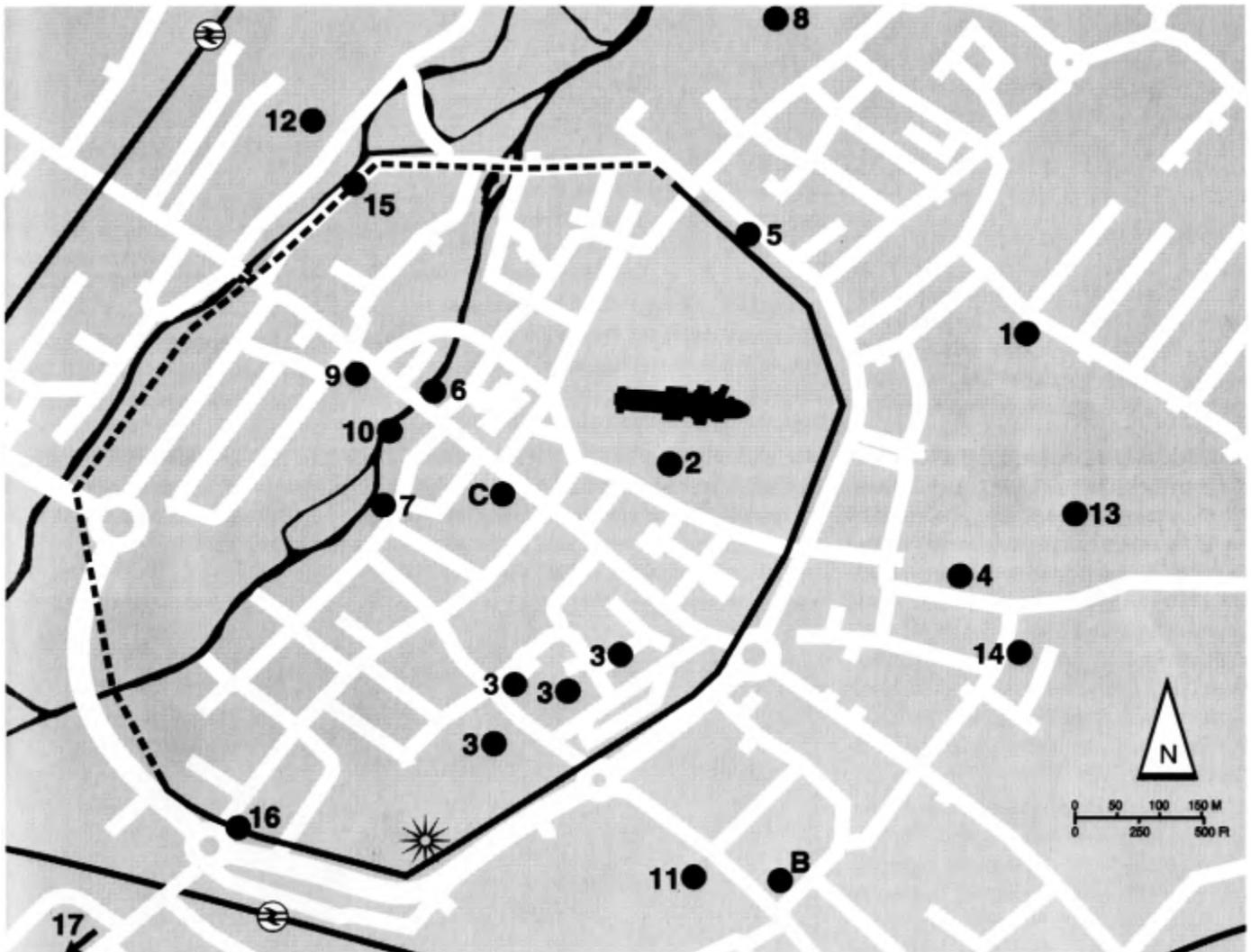
Turning to the present volume of Canterbury's Archaeology, readers will again find in it a rich mixture of the Trust's activities – ranging from some 37 excavations of varying size and complexity, of equal numbers in Canterbury and other parts of Kent; a clutch of meticulous and detailed studies of ancient buildings still standing; a collection of notes on post-excavation studies, including ceramics, lithics, brick and tile; an erudite description of old bones; palaeoenvironmental work; a fascinating account of the identification of Greek marbles recovered from a nineteenth-century wreck off Dungeness; documentary research on Broome Park and on the papers of Frank Jenkins; an account of the Trust's educational activities; and last but not least, the Friends' report.

I commend the publication to you as an absorbing summary of the Trust's year, and, in this twenty-first year of our work, we look forward to further years of exciting endeavour.

F. H. Panton
Chairman, Management Committee

Fieldwork

I Canterbury City Sites

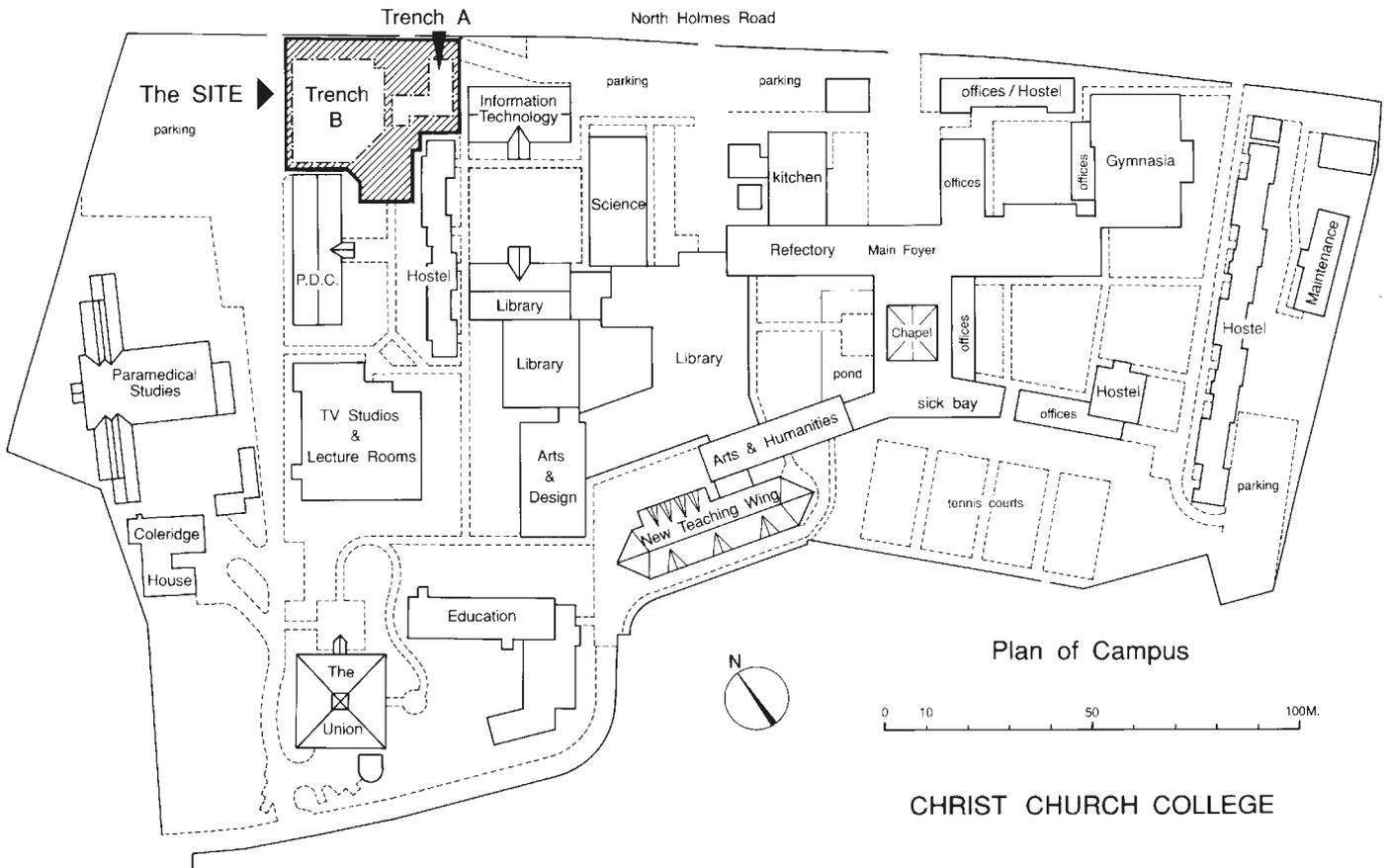


Canterbury city sites: Excavation, watching brief and building recording projects discussed in this year's report.

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| 4 St Augustine's Abbey | 11 No. 24a Old Dover Road | |
| 5 Nos 87-88a Broad Street | 12 North Lane | B Cross Keys, Oaten Hill |
| 6 No. 24 High Street | 13 HM Prison, Longport | C No. 44 High Street |
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1 Christ Church College

Crispin Jarman



Excavations in advance of proposed redevelopment for Christ Church College were undertaken between March and June 1995 in open ground north east of the former service court of St Augustine's Abbey. The area under investigation lay immediately south of North Holmes Road and about 100 m. north of the bakehouse/brewhouse range closing the north side of the service court. This area now forming part of Christ Church College, was an orchard in the period immediately prior to college expansion in the 1960s. The excavation was funded by Christ Church College.

Two trenches were opened, both reflecting the proposed footprint of new buildings. The first, measuring some 25 m.² was excavated to the level of natural brickearth. The second forming an 'L'-shaped trench 5 m. wide, with sides approximately 10 m. long was taken down to the top of significant archaeological deposits. Features exposed in this second trench were only mapped, sampled and recorded prior to the casting of a slab to support the new building.

The earliest evidence of occupation revealed by excavation comprised a number of post holes and shallow linear features yielding pottery and struck flints dating from the Late Bronze or Early Iron Age period (c. 1000–600 B.C.). Although the features were of indeterminate function, they clearly indicated settlement activity. Similarly dated material has been

recovered in advance of many of the redevelopment schemes at the college, most notably beneath the present site of the para medical centre excavated in 1987 (*Canterbury's Archaeology* 1987–88, 7) and overall, despite a lack of structural evidence, there can now be little doubt that a settlement of this period existed in the grounds of the present college.

Although a few sherds of later Iron Age and 'Belgic' pottery were recovered during the excavation, no individual feature could be confidently dated to the period. Overall, the presence of this small corpus of potsherds may relate to transient occupation or more likely ephemeral agricultural activity.



Hammerscale produced in the smithing of iron was a common find at Christ Church College. Both flake and spheroidal hammerscale are present. Flakes are fragments of the oxide/silicate skin dislodged by mechanical or thermal shock during forging and the spheres are small solidified droplets of slag expelled from within the iron during working.



The Roman conduit, looking south-west.

A single, but significant Roman feature was located, crossing the site on an approximate east west alignment. The feature, a conduit for fresh water, was formed in a construction trench on a bed of gravel filled lime rich concrete, capped by an opus signinum lined channel 0.16 m. wide and 0.15 m. deep. The channel was surmounted by a rough barrel vault of mortar bonded re used Roman brick

and tile. Although no dating evidence was obtained for the construction, use or abandonment of the conduit, the method of construction and materials employed, indicated that the aqueduct was in use from at least the second century A.D. Although there is considerable evidence to suggest that the Roman town was supplied with ducted fresh water, possibly under pressure, this is the first and only discovery of a ducted supply for the town. The conduit was presumably intended to carry water from natural aquifers in the Scotland Hills (approximately 1 km. to the north east) into the Roman town. These same aquifers were exploited from at least the twelfth century onward to supply the abbey with fresh water. A lead water pipe carrying this later supply from an extant conduit house near St Martin's Church, passes only 30 m. or so east of the present excavation (Canterbury's Archaeology 1988-89, 13).

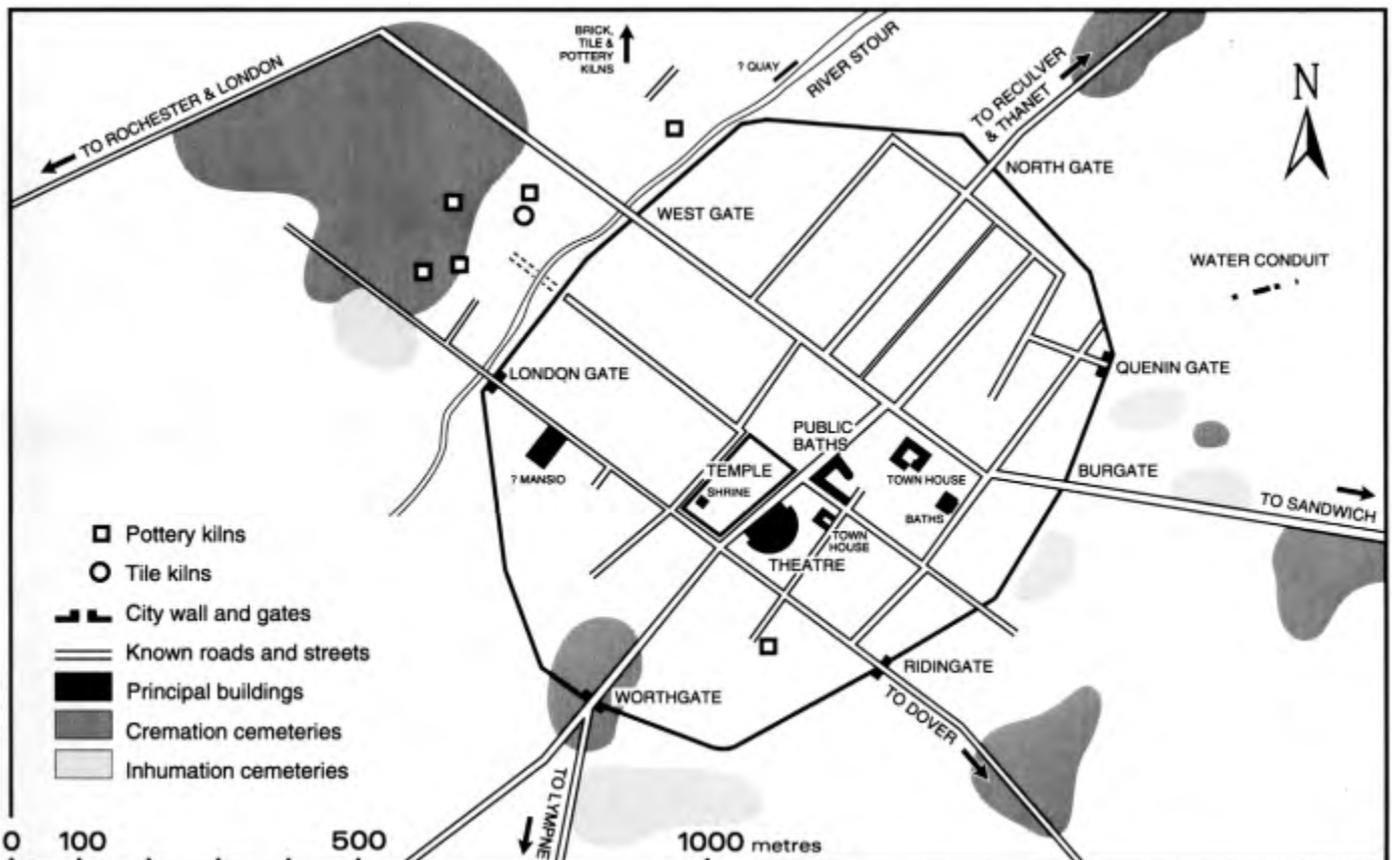
A number of mid to late Anglo Saxon features (c. A.D. 775-850) were recorded during the excavation. These mainly comprised several rubbish pits, two cess pits, four intercutting linear ditches and a number of post holes. No structures were indicated by post hole groupings. Significant quantities of ironworking slag and other traces of metalworking were however, recovered from many of the features and this clearly indicated that occupation was, at least in part, of an industrial nature. This new evidence compares favourably with other sites excavated within the grounds



Construction detail of the Roman conduit.

of the college and the combined evidence for metalworking from Christ Church College dating from the mid to late Anglo Saxon period is now recognised as being some of the best in the country.

The Anglo Saxon features were uniformly sealed beneath thick deposits of turned over soil containing a wide range of worn and abraded



Plan of Roman town showing line of conduit.

ceramics dating from the Late Bronze Age to the twelfth century. The soil horizon may well have developed as an agricultural plough soil during the eleventh to twelfth centuries.

Cutting the soil horizon was a large number of features, including post holes and rubbish pits. Although this group of features reflects activity in the area prior to its acquisition by the abbey, insufficient evidence was forthcoming to determine the nature of that activity.

Perhaps associated with these features was a gravel paved track aligned parallel with North Holmes Road. The track was cut by a number of rubbish pits and a circular lime kiln, containing thirteenth century pottery. To the north of the paved track was a substantial 1.20 m. deep ditch which appears to have formed an early boundary against North Holmes Road. The ditch remained

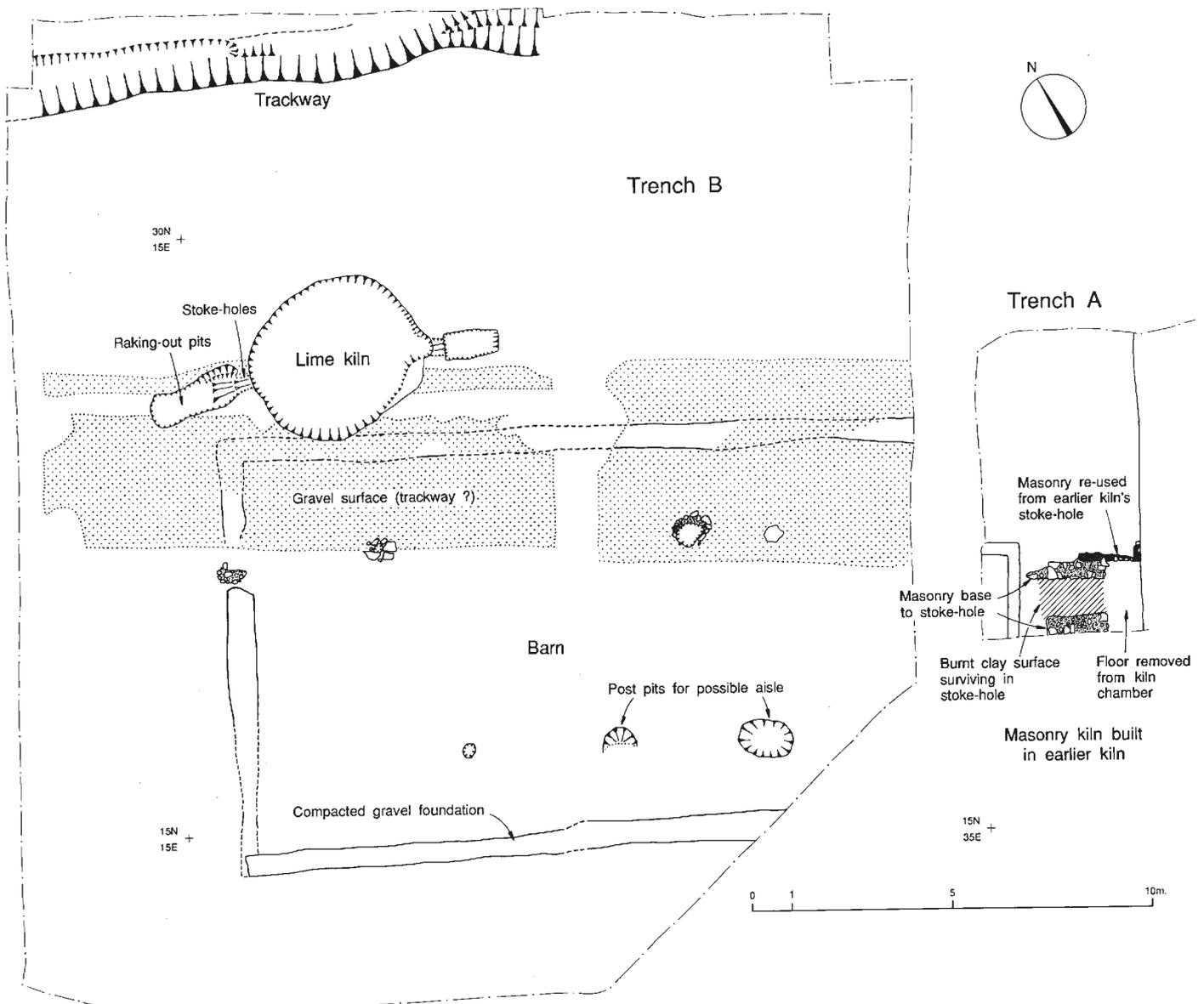
open until at least the sixteenth century, and therefore must have formed the northern boundary of abbey land.

Cutting the gravel track, south of the boundary ditch, were the foundations for a substantial building, possibly a timber framed aisled barn. Although the rammed chalk foundations of the structure were badly truncated by later activity, sufficient survived to indicate a building 11 m. wide and at least 20 m. long with internal aisles 2.0 m. wide.

A short way south east of the possible aisled barn were the remains of a two phase masonry built kiln or furnace. Only the stoke hole of the earliest fell within the excavated area. The stoke hole was re used as the chamber of a later furnace. Both structures appear to date to the late thirteenth century and may be contemporary

with the nearby barn. Both furnaces appear to be sited on the centre line of the barn and it is just possible that they may have been accommodated within the building, or in an annex extension to it. In the absence of a full plan for either masonry structure or finds indicating possible function and given the possible spatial relationships of barn and furnaces, one possible interpretation for these masonry structures may be that they were drying ovens for harvested cereals, sited within or just outside the barn.

The barn and associated features were sealed by post Dissolution garden loams. Although impossible to prove given that all levels had been badly truncated by later activity, it appears likely that the barn survived into the post Dissolution period.



The medieval features.

2 No. 12 The Precincts

Simon Pratt



South Close viewed from the cathedral roof. A single tree stands at the centre of the campanile mound, a test-drilling rig is in front of No. 12 The Precincts, on the right.

In July and August 1995 an evaluation excavation, funded by the Dean and Chapter, was conducted on the site of a proposed Education Centre in the precincts of Canterbury Cathedral. The site, which straddled the entrance to South Close, included the front, rear and side gardens of No. 12 The Precincts, and three trenches in or adjoining the roadway. A documentary, cartographic and pictorial history of the site had already been prepared by Mrs Margaret Sparks and a ground radar survey conducted by Stratascan Ltd.

Near the western end of the front garden of No. 12, successive garden soils overlay a low but extensive mound of glass slag and ash, capped by a layer of charcoal and standing upon an unscorched trodden earth surface. The deposits may have resulted from melting down of leaded glass to recover the metal. The office of the Sacrist, responsible for the fabric of the cathedral, was still established near here in the mid seventeenth century and the lay servants under him included both a glazier and a plumber (Woodruff 1936, 44, 75, 77). Associated finds indicate a mid sixteenth century date for the slag levels, suggesting that the material may have derived from the spate of iconoclasm around 1540 rather than the notorious exploits of 'Blue Dick' Culmer in 1643 (Woodruff & Danks 1912, 327–8). An associated dump of loam contained three fragments of stone veneer (one each of red and green porphyry and another of black silt stone). These pieces are rather thin to have derived from the thirteenth century opus Alexandrinum floor of Becket's shrine which was extensively pillaged in 1538 (Collinson et al. 1995, 150, 154), but may have come from its walls or furnishings.

The southern part of the back garden of No. 12 was taken up mostly by the brick footings and basement of the Organist's House, built in 1882, and by the crater of a bomb which partially destroyed the house in the 'Baedeker' air raid of 1942. These features cut deep superimposed loams presumed to represent post medieval soils. In the northern part of the rear garden nineteenth and twentieth century garden soils and a gravel drive overlay earlier loams which sealed a very extensive deposit of crushed Caen stone, up to 0.10 m. thick, overlying further loams.

Though no dating evidence was recovered from amongst the Caen stone, some late fifteenth to mid sixteenth century pottery was found in an underlying layer and rather more mid sixteenth century material came from the overlying loams. The Caen thus appears to belong to the last few decades of the pre Reformation period or to some time around the Reformation itself. The apparent absence of mortar, and indeed of almost any material save Caen, in the deposit suggests that it was probably formed from masons' working debris rather than from demolition rubble. The approximate position of a masons' lodge (i.e. workshop and yard) in the vicinity is indicated in a lease, dating to 1446. The property included 'Unum gardinum cum pertinenciis jacent' infra Cimiterium ecclesie Christi Cantuar inter tenementum dictorum Prioris et conventus versus south et gardinum ac domum Cementariorum vocat' le loygge versus North et east et tenementum pertinens officio sacristarie predicte versus west' (Blore et al. 1945, 33, 38, 41). The description suggests that the loygge probably stood at the northern end (and perhaps

along the eastern side) of Sacrist's Lane, which provided a convenient route for the delivery of heavy building materials into the Precincts from Burgate.

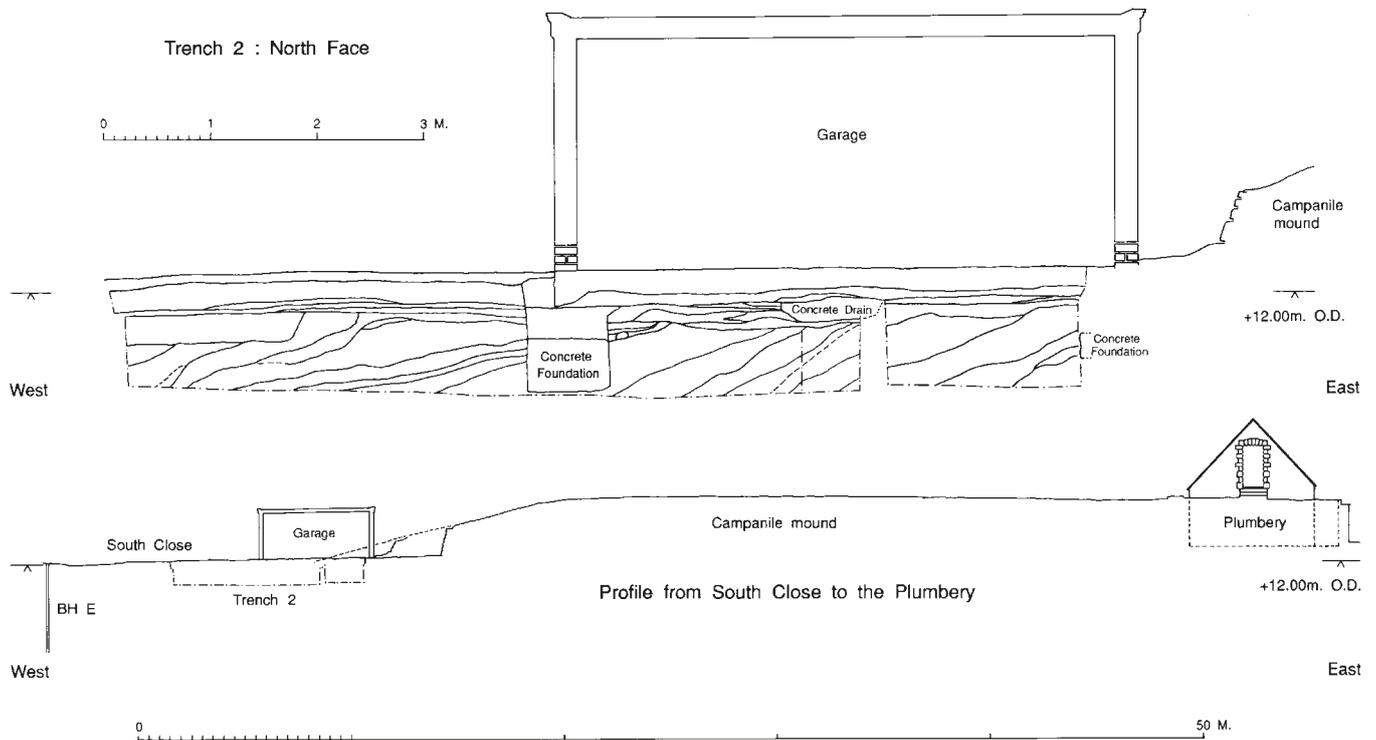
The crushed Caen extended over the interpolated line of the early medieval precinct wall, still visible at the rear of No. 11 (built c. 1600) and of the campanile mound, and almost certainly precludes the wall's survival here. Documentary and cartographic sources support the view that this stretch of the wall did not survive the sixteenth century.

A trench was cut along the grassy path running up the north eastern side of the campanile mound from South Close. The ramp proved to be made up of several successive horizontal layers of post medieval loams with associated minor features overlaying a rough clay floor, from the surface of which came several chippings of Purbeck marble. This may represent an external(?) working floor, perhaps related to the crushed Caen layer to the west. The associated pottery suggested a late fifteenth to sixteenth century date. Beneath the clay, a sondage at the western end of the trench encountered successive dark loams. No early mounded deposits were identified and it would appear that the ramp is a late and gradual addition to the campanile mound.

A slot was cut along the length of one of the garages standing in South Close and out into the roadway itself. Nineteenth and twentieth century surfaces and levelling sealed mounded loam



South Close, southern end. Part of the fire-reddened face of a medieval wall is exposed at the base of the section to the excavator's left.



South Close. Section through deposits at the foot of the campanile mound and composite profile across the mound.

deposits along the entire length of the trench. The loams tipped steeply down to the west at the eastern end of the trench, becoming slightly shallower towards the west, where various late minor recuts were apparent. Some trimming of the campanile mound is suggested by an entry in the Sacrist's Rolls for 1462–3, when 3s. 5d. was spent on 'carting away dirt from the mound of the belfry' (Woodruff 1936, 62).

Another trench was cut across the lawn at the southern end of South Close. Much of the area had been truncated by an eighteenth or nineteenth century basement, but a stretch of chalk, flint and Caen rubble wall, associated with a burnt clay and mortar floor survived in the bottom of the trench. The exposed wall face was extensively fire reddened. Crushed mortar and chalk rubble filled the room up to the cellar truncation level.

The wall ran almost exactly perpendicular to the interpolated line of the early precinct wall and was probably early medieval in date. Properties between the campanile and Burgate, belonging to St Augustine's Abbey, were acquired in 1177 by Christ Church, apparently with a view to demolition as a safety measure following the fire of 1174 (Somner 1703, 88–9, 103, app. 23–4; Davis 1934, 100–1). At the end of the twelfth century the plot enclosing this trench would have lain to the east of that of Robert son of Godsoft reported by Urry (1967, 232), but his sources are very incomplete here and a precise identification cannot be made. Though secure dating evidence is entirely lacking and the burning exposed in the limited area of excavation may merely indicate the position of a hearth, it is tempting to identify the structure with one of the properties involved in

the fire of 1174 and the rubble with subsequent demolition work.

As an adjunct to the excavation the upper parts of the cores from five boreholes, sunk to test the mechanical properties of the underlying gravel and chalk, were examined. The results suggested that rich organic deposits are present over almost all of the site and that the archaeological deposits go right down to the natural gravel 4–5 m. below the current ground surface.

Our sincere thanks are owed to the Clerk of Works, Peter Long, and to the numerous masons, electricians and gardeners, especially Wendy and Derek, who provided valuable aid and advice. Particular thanks due to the residents of South Close for their kind forbearance and interest in our work.

3 Whitefriars and Watling Street car park

Paul Bennett and Grant Shand

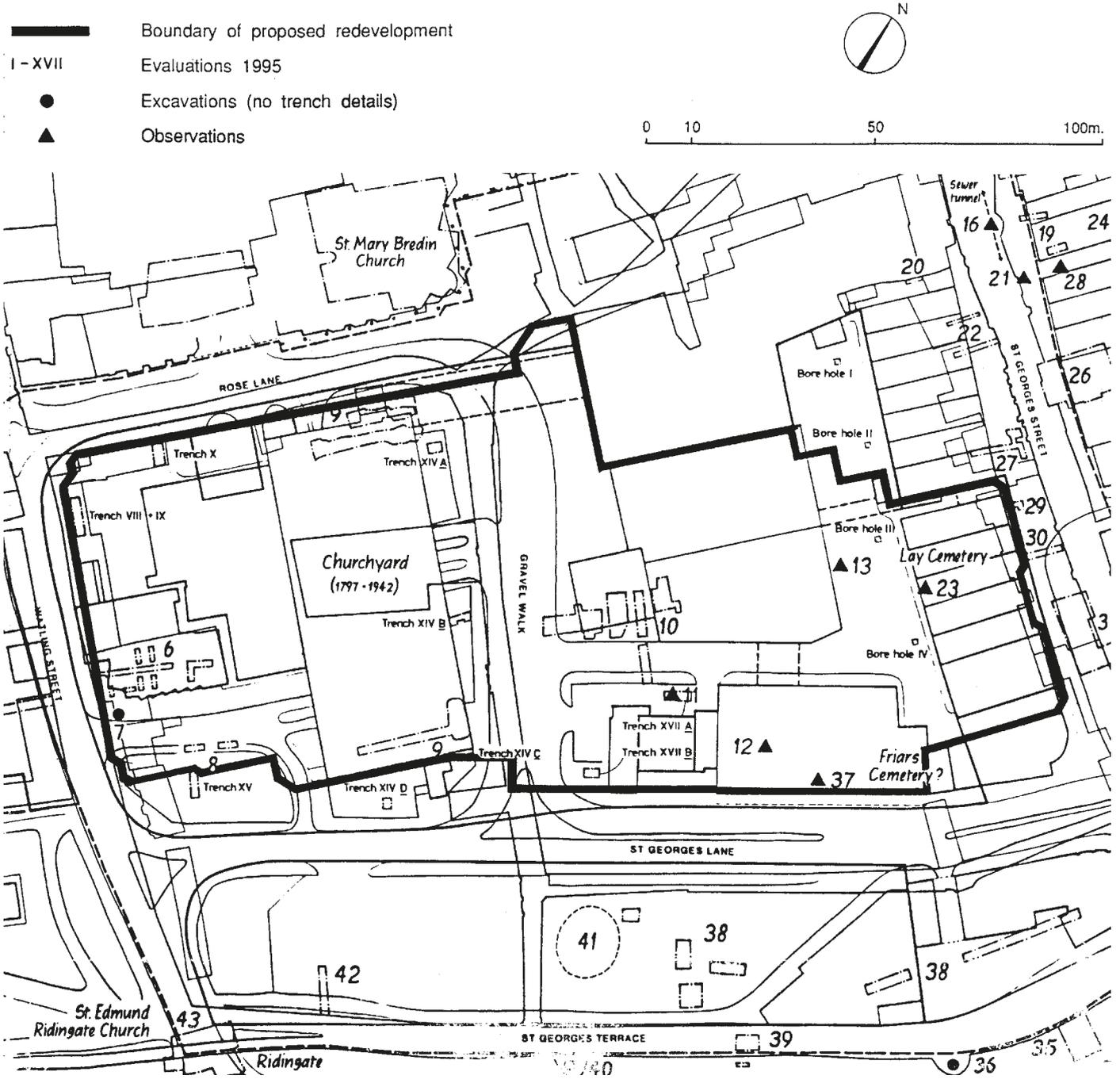
Throughout 1995 and the early part of 1996 a series of evaluation trenches, pits and boreholes were cut in the area of Canterbury Whitefriars and the Watling Street car park. This work was undertaken for Land Securities and Canterbury City Council to test the results of a detailed desk assessment of both areas compiled by the Trust in 1994, and to provide evidence for the survival, quality, nature and depth of archaeological deposits in advance of a proposal to undertake extensive redevelopment of both sites.

The fieldwork, undertaken by Grant Shand and Kevin Appleton with occasional support from other staff, involved the cutting of nine exploratory trenches and pits in the Gravel Walk and Whitefriars areas together with four boreholes. Exploratory trenches were also cut in the Watling Street car park.

The results of the Gravel Walk and Whitefriars work, together with a re assessment of all observations and discoveries made in those areas since the war, were submitted in report form to

Land Securities and Canterbury City Council in January 1996. The Watling Street car park report is in preparation at this time.

All the evaluation pits and trenches were cut by hand, but most operations began with the removal of modern hardstanding by mechanical excavator. The trenches, excavated to depths below 1.20 m., were shuttered and shored for the safety of the team. All the excavation trenches save one, Trench XIVC, yielded interesting archaeological remains indicating that although redevelopment of



Above: Plan showing evaluation pits and trenches. Right: The Roman street metallings under excavation in Trench XIVD.

both areas in the 1950s to early 1960s had badly damaged the sequence which was on average 2.5–3.5 m. deep, substantial islands of intact deposits yet remain.

The earliest deposits and features exposed at or above the level of natural brickearth in the Gravel Walk and Whitefriars area were deposits of pre and early Roman agricultural topsoil mainly found in trenches cut to the east of Watling Street. A small group of Late Iron Age pits was examined in Trench X. Grey loam thought to represent a clearance and levelling deposit formed prior to the laying out of the Roman town in the last quarter of the first century A.D. was also encountered in a number of these trenches. A hitherto unknown Roman timber



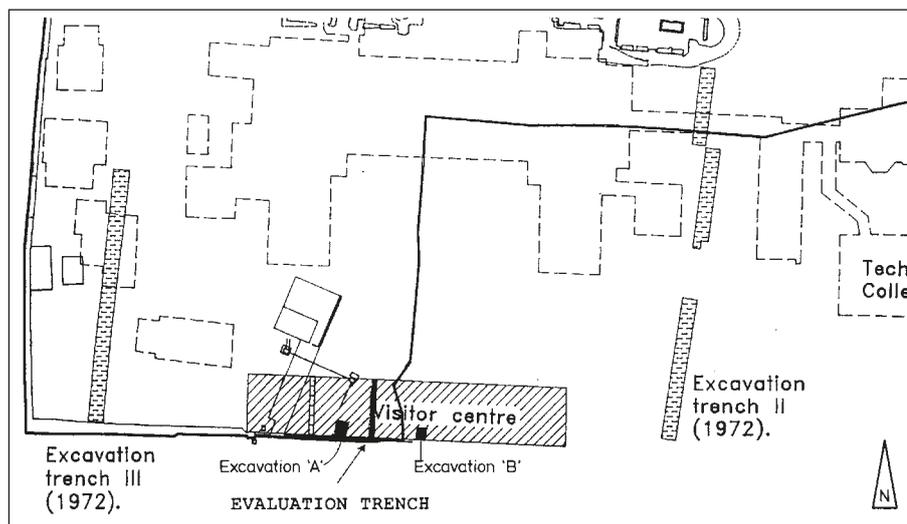
building was located in Trenches VIII/IX, and the metallings of a Roman street were exposed in Trench XIV. Late Roman levels, including part of a timber framed building were located in Trench XV and late Roman pits were recorded in Trenches X and XVB. 'Dark earths' were found in many of the

trenches (XV; VIII/IX; X and XIVD). Part of an early Anglo Saxon building was found in Trench XV. Medieval garden loams and traces of early to late medieval buildings were observed in trenches XV, VIII/IX, X, XVB and XIVA and a cellared building, possibly forming part of a monastic service range

for Canterbury Whitefriars was found in Trench XVIIIA. Two of the four boreholes cut in Whitefriars Yard (iii and iv) encountered a substantial masonry wall, possibly part of Whitefriars church.

4 St Augustine's Abbey

Tim Allen



The location of evaluation trenches in relation to the former Kent and Canterbury Hospital and earlier excavations in the vicinity showing the boundary wall and the footprint of the proposed visitor centre.

An archaeological evaluation of the site of a new museum and visitor centre for St Augustine's Abbey was undertaken for English Heritage during early November 1995. The area to be developed lies on the southern perimeter of the abbey grounds against the line of the former precinct wall bounding Longport street. The wall survives to the east and west of the present site; the missing section was probably demolished in the late eighteenth century when the Kent and Canterbury Hospital was founded to the rear of the present site.

An evaluation trench, measuring some 7 x 2 m., was excavated in order to record the precise depth of any surviving precinct wall foundation and establish whether any other significant archaeological remains survive on the site. The only masonry remains encountered were four trench built crushed chalk foundations, cut into redeposited natural brickearth. These were recorded at a depth of 0.67 m. below the present ground surface at the southern end of the trench and they possibly represent the corners of two buildings set 4 m. apart and built against the precinct wall. From their chalk packed construction the buildings would appear to have been erected after 1200. Traces of superstructure, represented by mortar rendering, suggest that they were demolished to ground level, probably in the

1790s. Remains of the demolished precinct wall are assumed to lie at a similar depth, immediately south of the trench.

A linear ditch, running on an east west alignment and also cutting redeposited brickearth, was recorded 1.5 m. north of the chalk foundations. Pottery retrieved from this feature suggested a late eleventh /early twelfth century date for the ditch fill.

North of the ditch most of the remaining area of the evaluation trench was covered by a layer of demolition debris, probably deriving from site clearance prior to construction of the hospital.

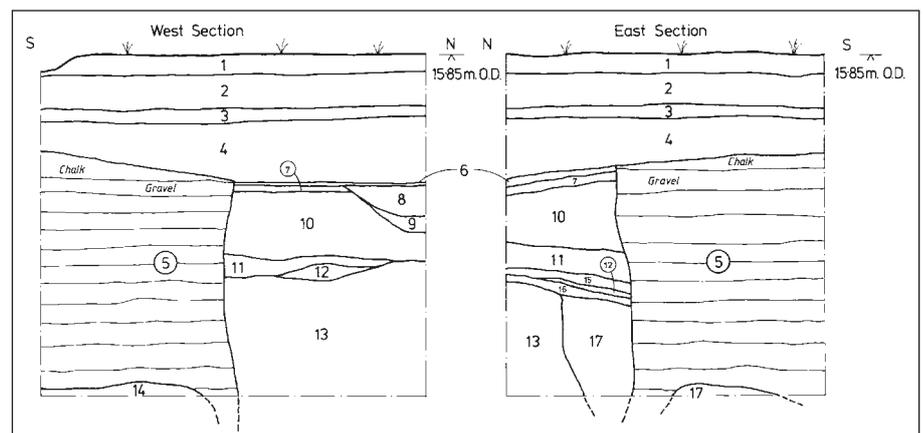
Overlying the demolition debris and appearing to extend beyond the trench boundary was a gravel layer which might be derived from the hospital drive shown in early photographs.

Garden soil, also probably associated with the hospital entrance, overlay all the recorded features and layers. This in turn was covered by demolition debris dating from clearance of the site in 1977.

Further observations were made at the site in December during the removal of a modern drain servicing the present visitor centre. At this time another small trench was cut 12 m. to the east, adjacent to the present public park.

A 2.14 m. thick sequence of deposits was recorded in the drainage trench. The earliest deposits were cess and rubbish pit fills of Roman date bearing out the indications of previous archaeological work at the abbey that the area was used for the extra mural disposal of domestic waste during the Roman period (Sherlock & Woods 1988, 80). Overlying the pit fills were two clay bands interpreted as internal floors for a building of Roman date. A patch of scorched clay might have indicated the remains of a hearth. Roman tile recovered from the backfill of the drainage trench could have derived from this structure. Sealing the Roman deposits was a layer of clayey soil containing charcoal flecks, Roman tile, scorched daub and bone fragments, and was possibly the equivalent of the post Roman 'dark earth' seen in intra mural Canterbury.

Construction debris for a trench built wall foundation, sealed the post Roman soil. The wall



The sections exposed in Excavation B.



The Kent and Canterbury Hospital, built 1793.
(Source: *The Kentish Register*, vol. II, 1794, facing p. 148).

foundation consisted of bands of crushed chalk alternating with gravel set in brickearth. Twelve bands were exposed, varying in thickness between 0.07–0.17 m.

From its position the foundation would appear to be the base of the abbey's southern perimeter wall; its construction appeared to be of late twelfth /thirteenth century date. The substantial

width suggested it was originally offset while the great depth suggested that the wall it supported was probably much higher than those sections still surviving to the east and west.

Part of a small pit of unknown function, but probably associated with the medieval abbey was recorded in the west section of the trench.

The same gravels, garden loams and demolition debris associated with the entrance ways and final clearance of the hospital during the earlier evaluation exercise, were observed in the sides of the drainage trench. The backfill of the trench contained a number of human bones, presumably derived from an earlier disturbance of the lay cemetery.

The small trench cut to the west exposed the top of the same banded foundation seen above, immediately beneath modern made ground. This would appear to confirm that the perimeter wall was simply demolished down to the uppermost foundation level. If so, it is quite possible that significant archaeological deposits survive at a similar depth in this area of the former abbey precinct.

5 Nos 87–88a Broad Street

Alison Hicks

In November 1995 an archaeological evaluation was carried out in ground between Nos 87 and 88a Broad Street to determine whether a proposed development by the King's School threatened deposits of archaeological significance. The development area is located adjacent to the standing city wall, originally constructed in the Roman period with a flanking outer ditch. Investigation at several points along its length, including at 89b Broad Street (Canterbury's Archaeology 1991–92, 5), has indicated that the ditch would have been c. 19–22 m. wide. The development site therefore fell within the area of the ditch.

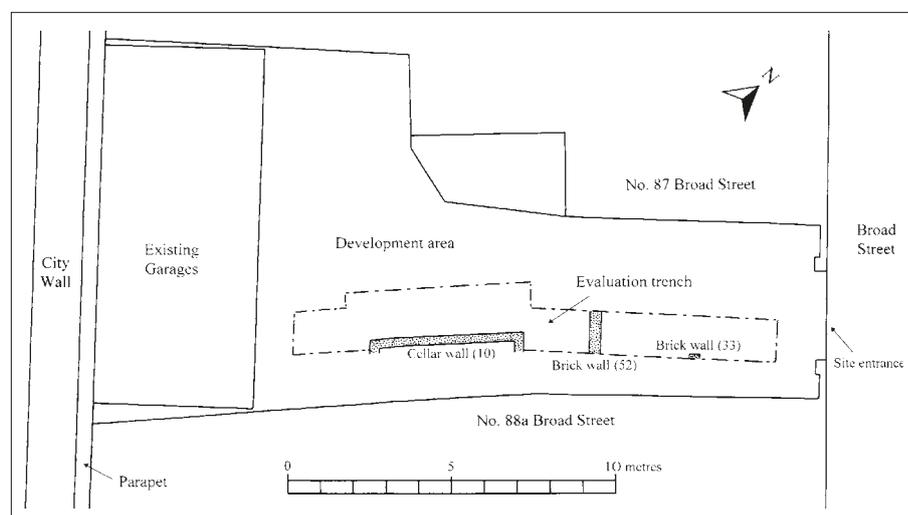
Retained in use until at least the early medieval period, the ditch was primarily cut to perform a defensive role, but over time it would also have been used as a sewer. Effluent from Prior Wibert's double sewer, depicted in the Waterworks Plan of c. 1165, emptied either directly into the ditch or into a narrow dyke running along its length. The ditch would therefore have begun a gradual process of infilling by this time.

By the late twelfth century, mansure (dwellings) had been built to the north west of the development area, on the south west side of Broad Street along the same alignment as the present road. However, early maps show the area of the development remaining as open ground against the city wall until the nineteenth century when Broad Street

was entirely lined with properties. Over the centuries the city ditch would have continued to infill by various processes: natural silting and erosion, the dumping of rubbish and sewage and, finally, deliberate backfilling to create plots of open ground for new buildings.

The archaeological investigation involved the cutting of a single trench along the length of the site. The archaeological deposits identified comprised the tail edge of gravels forming the line of early Broad Street and the upper levels of the city ditch infilling, the latter dated no earlier

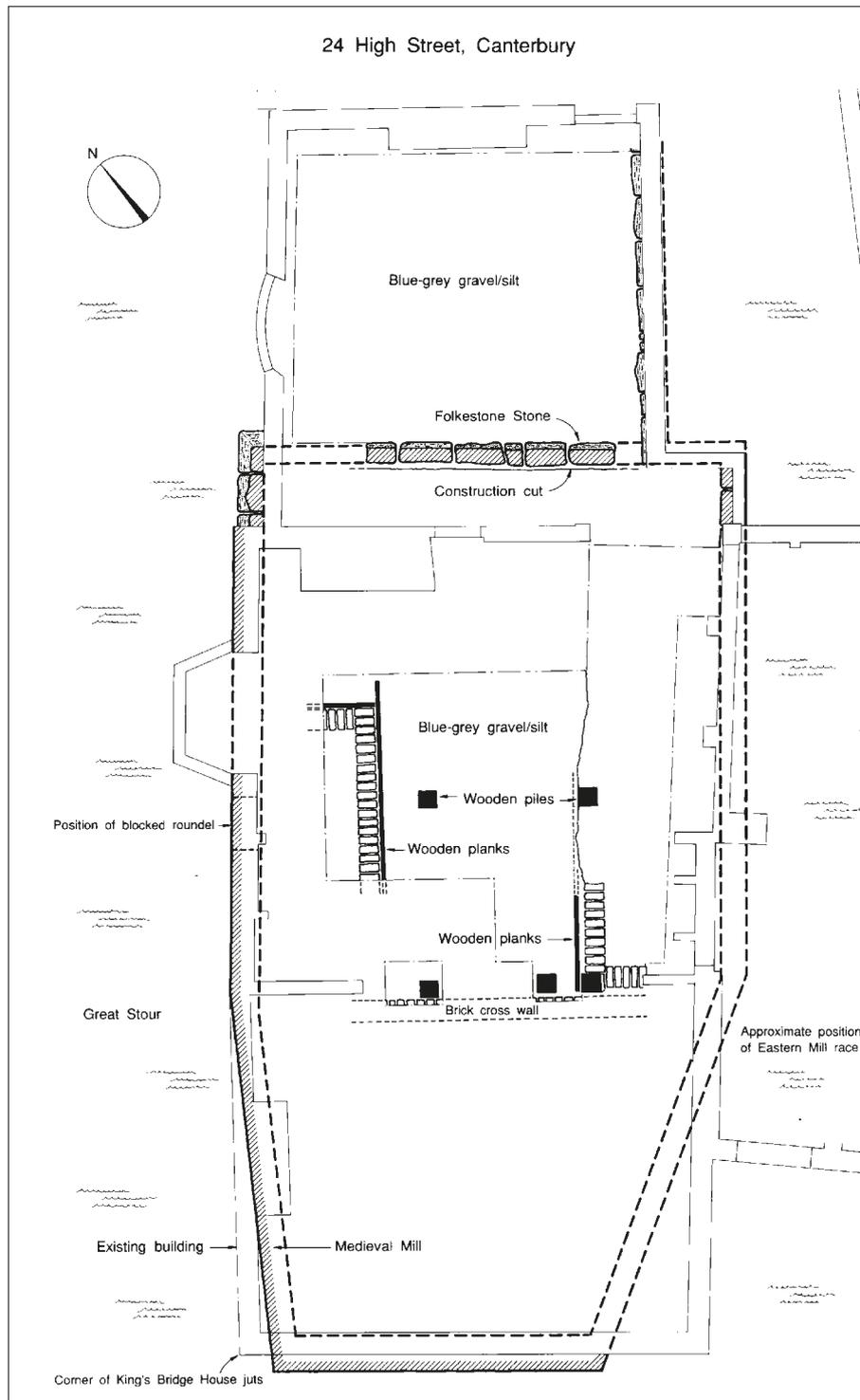
than the late sixteenth/early seventeenth century. No remains suggesting the presence of medieval buildings were discovered; the site appears to have remained open throughout the medieval period. The earliest structural remains were two brick walls of nineteenth century date. Roman and early medieval ditch deposits might lie below those identified during the evaluation, but Health and Safety considerations meant that excavation could not proceed below a depth of 1.20 m. These levels could therefore not be investigated.



The location of the evaluation trench within the development area, and walls discovered.

6 No. 24 High Street

Mark Houliston



Plan of excavated features.

During April and May an intermittent watching recording brief was maintained during the lowering of the basement floor prior to the conversion of King's Bridge House into a restaurant.

The King's Mill was one of the earliest and most important buildings of its kind in the city. It was already established by the time the Great Domesday Book was compiled, indicating an Anglo Saxon origin, and it continued in use until 1800 when it

was converted into a private residence. Throughout much of this time it was an important place for the citizens of Canterbury to grind their corn, and from 1234, when King Henry III transferred the property and its rights to the city, an important source of rental income as well. A recent summary of the documentary evidence relating to the building (Cross 1994) has highlighted the enormous richness and completeness of these records. Details of tenancy

agreements, rent payments, and expenditures on the property by the city are virtually continuous from the late fourteenth century until 1852 when, as King's Bridge House, it was finally sold. Despite this there are still considerable difficulties in relating any of the standing or recently uncovered buried archaeological evidence with the documentary to produce a structural history of the site. For the present only broad generalisations can be made.

The walls of the present building are predominantly those of King's Bridge House, though fossilised within them are many fragments of the medieval and later mills. In particular, the external wall fronting the Great Stour has much mill fabric visible within it, including the remains of a brick lined roundel, set above the water line and now blocked up, which may have been the hole through which the axis of the westernmost of the mill's two wheels passed.

During the recent works three structural elements were observed, each relating to the medieval development of the historic building. These were: brick lined slots running along the sides of the building, substantial timber piles cut into the area between these slots, and further downstream a cross wall of worked Folkestone stone.

The brick lined slots ran inside and parallel to the main walls of the building and were indicated by narrow yellow and red bricks of sixteenth or early seventeenth century date. The position of the western slot in relation to the brick roundel suggests strongly it was cut to accommodate the corresponding trundle wheel of the mill. Trundle wheels would have shared common axles with the waterwheels themselves, though located within rather than outside the building. The mill had two wheels, and these are continually referred to in the medieval documentation, though intriguingly they are usually mentioned in association with three grinding stones. How two trundle wheels could have been used to transfer the power of the waterwheels to three stones is not clear.

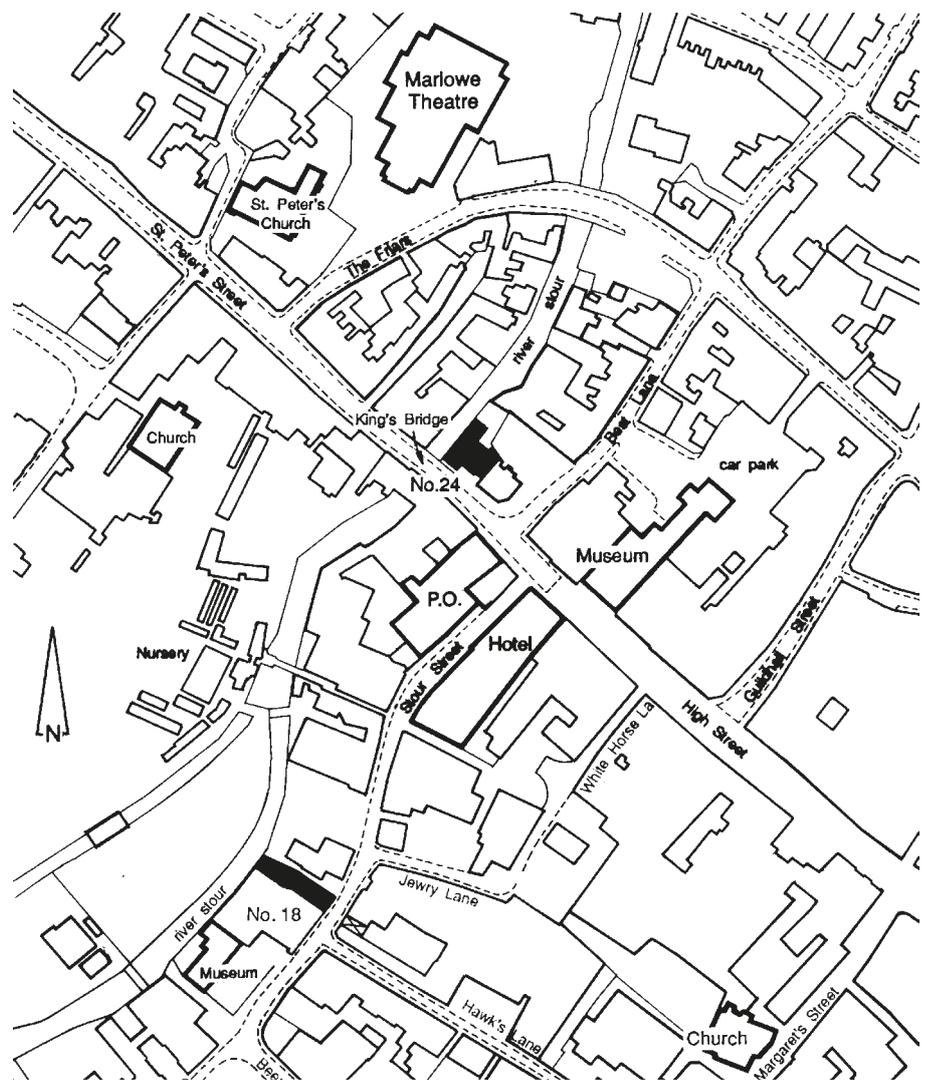


The riverside wall of King's Bridge House showing mill fabric including a brick roundel possibly indicating the position of the westernmost mill wheel.

A wall of similar construction linked the two slots at their southern end. The purpose of this wall is not known though it may have helped support the weight of the building, which would have been considerable in this area since the main grinding stones were positioned on the floors above. Only the tops of the walls were revealed during the watching brief; their depths and foundations remain unrecorded. The inner walls, and the northern wall of the western slot, were built against vertically set planks which separated them from the surrounding blue grey silt/gravel. These planks probably performed an essential function during the construction of the slots, since the surrounding ground is set below the level of the river.

The tops of five substantial timber piles, measuring approximately 0.30 m. square, were exposed during the recent works. They may be of a similar date as the brick walls which in parts are built up against them. They too are cut through the surrounding blue grey silt/gravel. If the piles are earlier than the walls it is difficult to date them precisely since mills from Anglo Saxon times on seem to have been supported in a similar fashion. The 1595 plan of the Blackfriars by Thomas Langdon, although rather diagrammatic, gives a clear indication of how the mill may have been set above the level of the river on such piles. Unfortunately an initial analysis of a slice of one of the timbers taken for dendrochronological analysis, found that the wood was rather knotty and the contorted ring pattern would not make full analysis worthwhile.

A wall of well cut Folkestone stone was revealed in the northern part of the building, in the basement of a later extension. The stones were chamfered on their external face and almost certainly formed part of the same construction visible externally low in the western wall of the building. Similar walling is also extant below the southern end of the mill and in places below the sides of the brick duct covering the eastern mill race. It seems reasonable to assume these walls originally



The location of King's Bridge House and No. 18 Stour Street (see below).

enclosed all four sides of the medieval mills, or at least the later ones. Furthermore, because they underlie the surviving brick walls, they must be earlier than any of the extant mill fabric.

In a will proved in the Archdeaconry Court at Canterbury in 1462, William Bennet, ex Mayor and Alderman of the city, left his executors to purchase 300 ft of ashlar or Folkestone stone, for the construction of a wharf around the mill. The

walls described above may be the remains of this wharf, later referred to as the Common Quay.

The supervising architects, Clague and Partners are thanked for their ready co operation which allowed sufficient time to adequately record exposed fabric during the conversion works. Their help also ensured that though a relatively large quantity of material was removed, the impact on the archaeological levels was kept to a minimum.

7 No. 18 Stour Street

Mark Houlston

In February and March 1996 a watching-recording brief was undertaken during underpinning works at No. 18 Stour Street (TR1474 5778). The property lies in a relatively low lying region of Canterbury, which nevertheless was of central importance to the town in both the Roman and medieval periods. Previous archaeological investigations have shown that the often waterlogged sequences of deposits in this area are of the highest quality, both in terms of their depth and completeness. The recent

investigation confirmed this and provided another valuable glimpse into the strata of the area.

A total of eight trenches was cut beneath the side walls of the premises, four on each side. Seven of the trenches were 1.50 m. square, but the south easternmost measured 1.50 by 2.50 m. and was 3.01–3.21 m. deep. All were cut down to a compact deposit of coarse gravel which was interpreted as a naturally deposited alluvial layer.

Laminated bands of dark brown 'peats' and grey silts were observed overlying the natural gravel. These deposits were 0.90 m. thick in places and although the lighting within the building was poor, and safety restrictions meant that only five of the eight trenches were examined, the sequence appeared to be similar to that recorded at the rear of No. 36 Stour Street in 1987 (*Canterbury's Archaeology* 1986–87, 10–11). Here nearly 1.00 m. of laminated 'organic' lenses, interspersed

with a number of finer layers of grey silt were sealed by the rammed gravels of Roman Watling Street. They were presumed to be of Iron Age and early Roman date and analysis of the pollen and pottery within them highlighted their importance in understanding the relationship between the river Stour and pre Roman settlement, and subsequent management of the Stour and its flood plain in the early post conquest period.

During the recent work samples were taken for environmental analysis, but despite the excellent survival of organic material, detailed examination of the samples was not considered viable since the conditions under which they were retrieved were so poor.

Above the peats and silts the observable sequences were varied. In the trenches located at the front of the building, layers of rammed gravel

predominated, while at the rear the layers consisted mainly of soil mixed with gravel and building rubble. In one trench fragmentary layers of clay and poured mortar were observed. The rammed gravel sequences appear to relate to a major north east to south west aligned Roman road identified during excavations at the Poor Priests' Hospital 15 m. to the south west (Bennett 1982, 216). Layers of clay and poured mortar indicate that buildings probably fronted this street. The soil layers are more difficult to interpret, but might represent make up deposits for these buildings. Whatever their nature, the buildings, do not appear to be on the scale of the monumental remains recorded on the other side of the Roman road (Bennett 1976, 238–40), where an imposing colonnaded portico fronted a courtyard in which the town's major temples were located (see Canterbury's Archaeology 1988–89, 2, for plan).

Overlying the road surfaces, floors, and make up deposits were soils possibly relating to the late Roman/Anglo Saxon abandonment of the area. Above these were sequences of clay floors and occupation layers dating to the early medieval period. Similar sequences have been identified from a number of locations in Stour Street. Although Anglo Saxon buildings have been identified (Canterbury's Archaeology 1986–87, 10–11), structural sequences generally date from the twelfth century.

It was unfortunate that the rapidity of the underpinning operation did not allow time for a more thorough examination of the trenches. An opportunity to better understand the history of an important part of the historic city was thus lost.

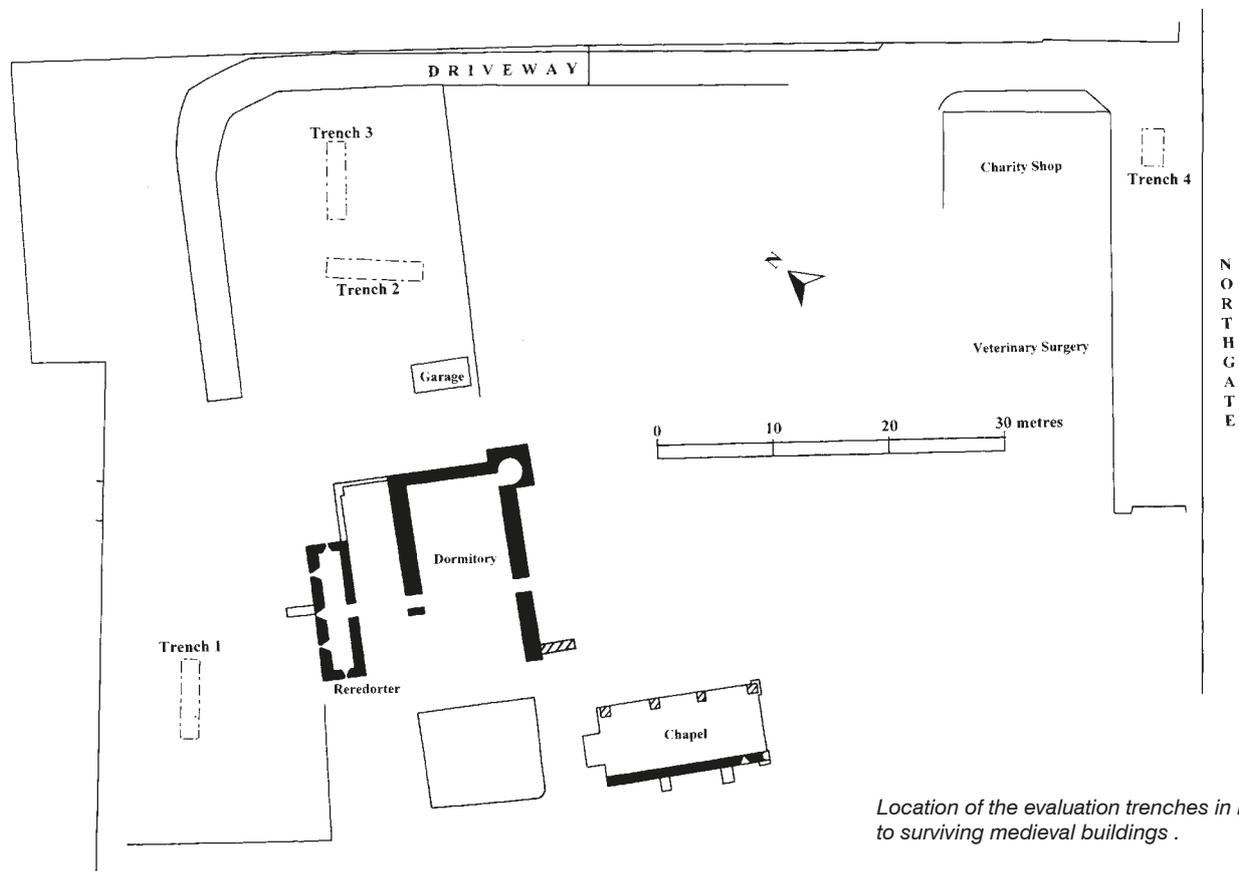
8 St John's Hospital

Alison Hicks

When proposals were made by the Trustees of St John's Hospital to develop two areas within the grounds of the hospital, the Canterbury Archaeological Trust was asked to undertake an evaluation to determine whether archaeological remains would be threatened within this area of known archaeological potential. The work was carried out in January 1996.

The Hospital of St John was founded in c. 1084 by Archbishop Lanfranc as a sister establishment to the house of secular canons at St Gregory's Priory. The hospital supported a community of thirty men and thirty women, housed within a complex comprising a large dormitory block, a chapel, a kitchen and two reredorters. The reredorters were located at the edge of the river

flood plain so that they could be periodically washed out by the river, but deposition of alluvial deposits caused the area of the flood plain to recede, and so a series of leats had to be cut in order that the reredorters could continue to drain (Canterbury's Archaeology 1991–92, 7–8.). Much of the original hospital complex was demolished in 1684 during a period of refurbishment and the



Location of the evaluation trenches in relation to surviving medieval buildings .

hospital was again remodelled in the nineteenth century.

Cartographic evidence suggests that houses flanked both sides of Northgate street in the late and post medieval periods. Many of these structures were destroyed by bombing in the Second World War.

Occupation extending as far back as the Roman period has been recorded within the grounds of the hospital. Roman pottery has been retrieved from the ground lying north west of the hospital complex (Canterbury's Archaeology 1989–90, 20–22), which suggests occupation close to the Stour, and more substantial remains were revealed at No. 68 Northgate during excavations in 1973, when gravel deposits thought to represent the line of the Roman road were identified (Harrington & Philp 1974). No Anglo Saxon activity has been identified at St John's, but intact occupation horizons and pits were uncovered at St Gregory's Priory on the opposite side of Northgate (Canterbury's Archaeology 1989–90, 1–6).

A total of four trenches were cut during the course of the evaluation. Three were located at the rear of the complex and within two of these archaeological features were identified. The features largely comprised of ditches, aligned north east/south

west parallel with the alignment of the River Stour, and they yielded fragments of Roman pottery. The ditches may have been cut as flood barriers and their presence strongly suggests that Roman occupation was present to the south, perhaps flanking the Northgate road. Although no burials have been found in this area, it is not inconceivable that a Roman cemetery may exist within the locality. Riverlain alluvial deposits were identified within these trenches; the lowest appeared to be of Roman date. The uppermost, sealing the ditches, may have formed over a period of time, perhaps throughout the early medieval period when the reredorter, located nearby, was being flushed by the river.

Within the fourth trench, located along the Northgate frontage, late medieval floors and occupation deposits associated with portions of surviving walls, were identified. These perhaps dated from the sixteenth century and probably lay within one of the medieval structures flanking Northgate which was bombed during the Second World War. The intact archaeological horizons were noted at a depth of only 0.50 m. below the present ground surface. Their survival indicates minimal post medieval disturbance of stratigraphy along the street frontage. Should the proposed development proceed, a wealth of archaeological

data, perhaps detailing a complete sequence of activity from Roman to medieval times, may yet be uncovered.

The evaluation was funded by the Trustees of St John's Hospital, to whom our thanks are extended.



One of the Roman ditches, partially excavated.

9 Cogan House, No. 53 St Peter's Street

Alison Hicks



The Flemish tiles lying beneath the floorboards of a later renovation. The scar of an earlier fireplace is visible to the right.

Cogan House, positioned on the south side of St Peter's Street, must be one of the most deceptive buildings in Canterbury. From the outside the building gives little indication that behind its facade lies a structure dating back to the early thirteenth century. Remains of the original stone dwelling, thought to have been built by c. 1200,

still lie against the street frontage, whilst behind it remains part of an aisled hall dating to c. 1250. The building underwent numerous modifications during its lifetime, the most extensive in 1529 when the rear part of the aisled hall was demolished and a new Tudor wing built. Some wonderful elements of the Tudor structure survive to this day, including finely carved panelling. The present standing building therefore contains elements of over 700 years of occupation, intertwined to form a most complicated standing structure which is to date poorly understood.

In December 1995 renovations took place at Cogan House during its conversion into a new restaurant. The work involved the replacement of a number of rotten floorboards, a process which revealed portions of tiled floor below. The Trust was immediately informed and the tiles recorded before the floorboards were replaced.

Tiles were uncovered within two of the downstairs rooms. Within the central south east room, the tiles were considered to be no earlier than eighteenth century in date, and appeared to have been moved from their original position since they overlay a void backfilled with twentieth century rubbish. The tiles in the rear south east room were more interesting,

however. These lay in situ c. 0.50 m. below the level of the twentieth century floor boards, and were identified as Flemish tiles dating from the fifteenth or sixteenth century. Some of the tiles bore remnants of a black glaze, others a cream glaze. A scar cutting through the south east portion of tiling suggested the location of an earlier fireplace.

As well as the tiles, portions of early wall foundations were revealed by the renovations and these were also recorded by the Trust. After recording, sand was spread across the tiles to protect them, and new floorboards supported on cross beams were laid above.

Unfortunately, the glimpses of the underlying levels uncovered during the course of this work provided only a hint of the complexity of the structural adaptations which have occurred in this building since the thirteenth century. Only by a full structural survey can we hope to understand the complexities of this wonderfully preserved building.

We would like to thank 'Cafe Rouge' both for funding this work and for showing the utmost patience whilst we interrupted their tight renovation schedule.

10 Greyfriars Bridge

Alan Ward



The surviving medieval arch. Tape 3m. long.

In November 1995 observations were made during repair work at Greyfriars Bridge. The bridge is the northernmost of two river crossings giving access to the Greyfriars precinct across the Stour from Stour Street. It now provides a rear entrance to the garden of the Master of Eastbridge Hospital.

An east gate into the Greyfriars precincts was constructed in 1267. In 1309 permission was granted for a bridge to be built which would give direct access from Stour Street (then Lamb Lane) to the friary. It is recorded in the Calendar of Patent Rolls, 3 Edw. II, '... Licence also for them to build a bridge across the Sture extending from the above roadway to their dwelling house for the benefit of persons wishing to attend service in their Church; the bridge to be so built as to allow a clear

passage for boats underneath it.' Cotton (1924, 20) concludes from this that the original bridge was probably of two arches, one of which was of greater span than the other to allow the passing of boats and that if so it was the wide eastern arch which was removed in 1589, as the westernmost of the two extant arches is clearly of medieval construction.

The Trust has maintained an intermittent presence during structural works at the bridge since 1992 following the discovery of a 10 cm. wide crack between the brick and stone face of the western vault. At that time an exploratory trench was excavated which confirmed that the medieval ragstone arches of the bridge were surmounted by later work consisting of levelling courses of

brick and large ashlar ragstone blocks upon which brick parapets had been built. On the basis of a photograph of c. 1924 where the bridge rails seem to be constructed of vegetation covered pales (Cotton 1924, facing p.20), it would seem that the brick parapets were constructed relatively recently.

In 1993 a photographic survey was carried out by the Trust prior to a programme of refurbishment and repair implemented at the end of 1995. During this most recent work it was confirmed that original 1309 fabric does still survive. The top of the medieval vault, consisting of mortared flint with occasional chalk and ragstone fragments, was exposed and recorded. The spring of the vault of the post medieval eastern arch was also found to survive.

Thanks are extended to architects Donald W. Insall and Associates for allowing access during the recent repairs and to the site contractors who provided every assistance.



Crack between medieval arch and post-medieval parapet wall. Scale: 1 m.

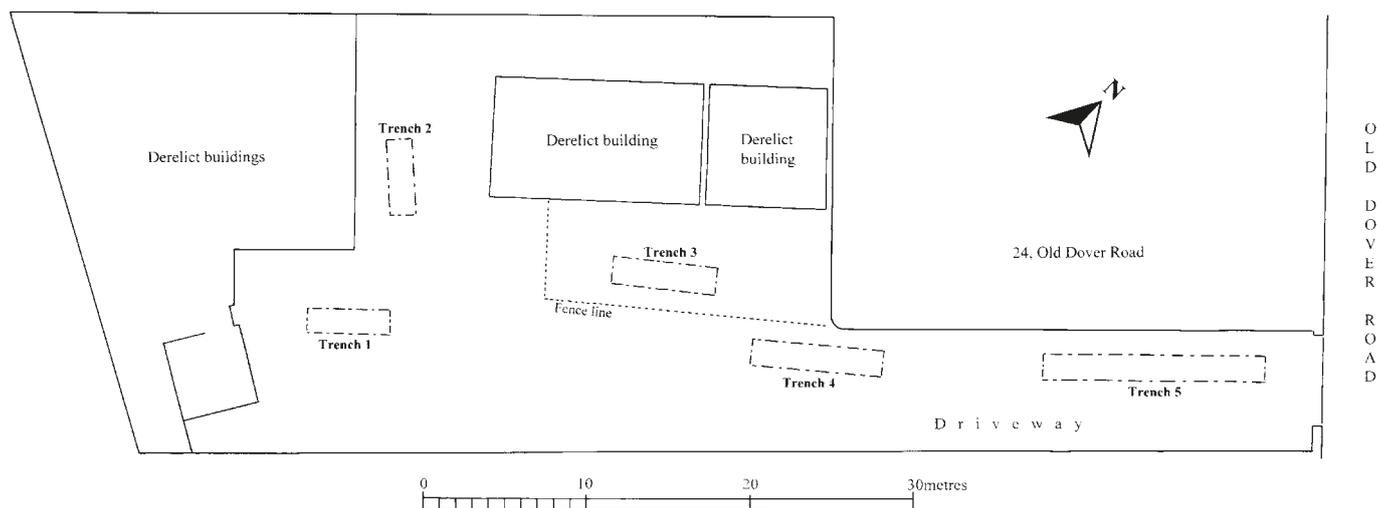
11 No. 24a Old Dover Road

Alison Hicks

Following a development proposal to build flats on a site at No. 24a Old Dover Road, an archaeological evaluation was undertaken to determine whether any significant remains survived in the area. The Old Dover Road follows the approximate alignment of Roman Watling Street, leaving Canterbury

at the Ridigate and continuing south east to Dover. Observations during groundworks along stretches of the Old Dover Road suggest that the Roman road lay just west of the present alignment. Roman burials have been uncovered flanking the road, following the tradition of siting cemeteries

alongside major roads leading from towns. Roman burial urns have been discovered both near and within the site of the medieval nunnery of St Sepulchre (Hasted 1801; Brent 1861), and were observed by the late Dr Frank Jenkins during construction work at the junction of Vernon Place



Location of trenches at the site.

and Old Dover Road (Andrews 1985). A single urn was identified a short way from the Ridigate on the north side of the Old Dover Road (Pilbrow 1871, 158). Most recently, excavations in 1995 at 8 Vernon Place uncovered three inhumation burials (*Canterbury's Archaeology* 1994–95, 13).

Aside from burials, other Roman occupation activity has been identified along Old Dover Road. During the construction of the Police Station, Jenkins noted deep cuttings into the natural brickearth (Andrews 1985). These were thought to be the remains of an early Roman amphitheatre, although they may have simply been clay quarries. The recent discoveries at 8 Vernon Place included a large feature with burnt sides, of unknown function, whilst a burnt clay feature discovered at the site of St Sepulchre's nunnery, originally interpreted as an *ustrinum* (funerary pyre), may have actually been the remains of a kiln (Andrews 1985).

The nunnery of St Sepulchre, towards the southern end of the Old Dover Road, was founded in c. 1100 by Archbishop Anselm and represents the earliest post Roman activity within the area. The nature of settlement flanking the Old Dover Road during the medieval period is unknown, although it is thought to have been largely rural in character. Development of the area for housing is not thought to have occurred until the nineteenth century.

The archaeological evaluation involved the cutting by machine, of five trenches across the site. Three were located towards the rear, where the proposed new buildings would be sited, and two along the gravel driveway, where services would be located. Within the rear trenches, deep disturbances were noted, cutting down into the natural brickearth to an excavated depth in one trench of 1.80 m. Pottery recovered suggested

these may have been of Roman date. They were perhaps clay quarries.

More conclusive remains were identified within the trenches sited in the driveway. Here, Roman occupation in the form of pits, post holes, stake holes and possible occupation deposits, was positively identified. The line of the Roman road was not, however, identified; perhaps at this point it is located beneath the present Old Dover Road.

The full nature of Roman activity in this part of Canterbury could not be determined from the narrow evaluation trenches. However, the location of clay quarries may suggest industrial activity, perhaps taking the form of pottery, brick or tile manufacture. The large feature uncovered only a short distance away at 8 Vernon Place and the burnt clay feature at St Sepulchre's nunnery may have been associated with such activities.

The discovery of a number of pits of the Anglo Saxon period was potentially the most interesting discovery of the evaluation. The pits contained fragments of bone, pottery and shell, suggesting that they were cut for the disposal of domestic rubbish, although pieces of slag, charcoal, daub and burnt clay recovered from one of the features perhaps indicates local industrial activity. The material recovered from the features suggests that occupation may have been present from the sixth to the seventh century. Anglo Saxon occupation is previously unrecorded in this part of extra mural Canterbury; this new evidence is therefore highly significant, in that it provides the first indication of settlement in this extra mural part of the city.

Early medieval occupation was also attested on the site. Three features were examined which yielded eleventh and twelfth century pottery. The possibility of continuous occupation from Anglo Saxon to early medieval times cannot be discounted, and adds significantly to our

understanding of the nature of settlement in Canterbury during this period.

The evaluation exercise proved beyond doubt that significant archaeological remains survived within the development area. It has been agreed that a full excavation of the area threatened by development should take place and the results of this will be reported next year.

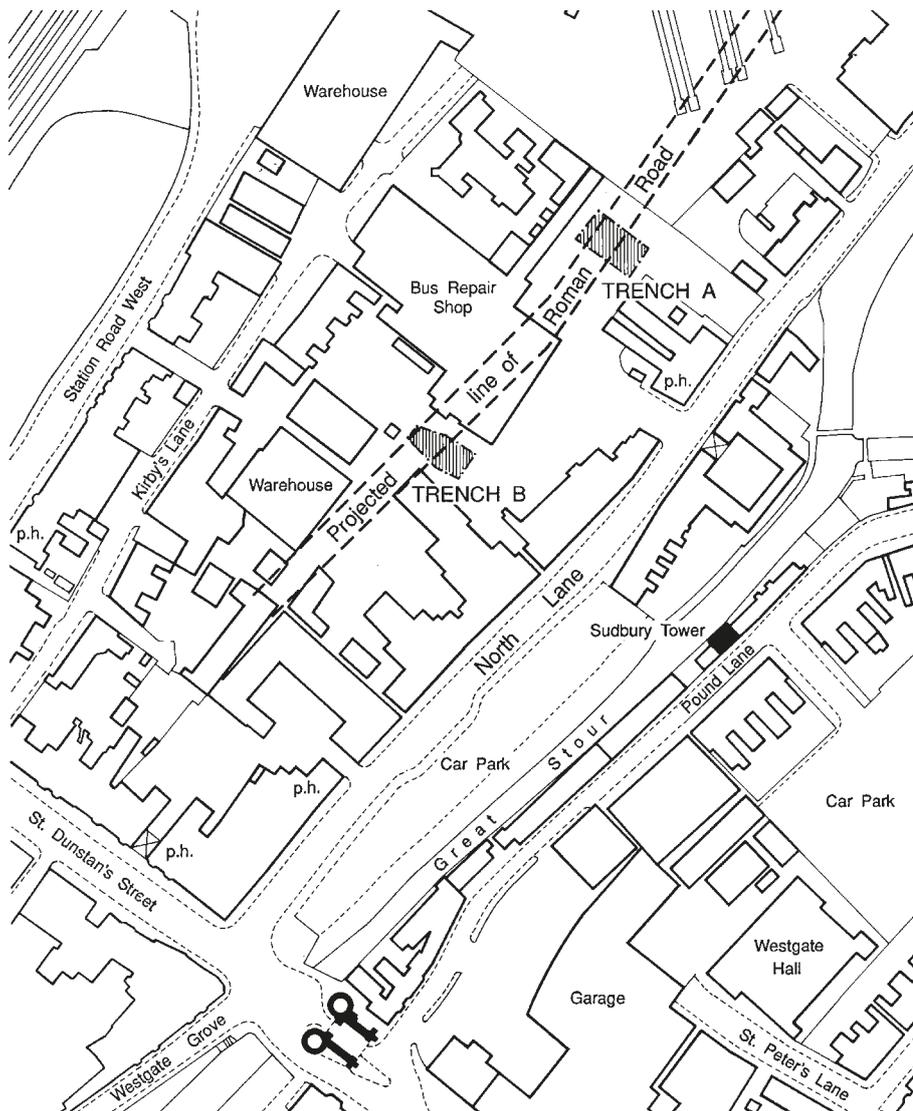
Thanks are extended to Janis Developments Limited who funded the evaluation and provided every assistance.



Trench 5 under excavation.

12 North Lane

Jon Rady



The North Lane area showing the location of the 1996 trenches.

The excavation of two trenches in the grounds of the former East Kent Omnibus Repair Works at North Lane (TR 1465 5825) began in early February 1996. The site was due to be developed for housing and had been evaluated by the Trust in 1993 (Canterbury's Archaeology 1993–94, 9). The most notable feature located then was a metalled Roman road, which appeared to cross the entire site from south west to north east. Due to the limited nature of the trenching in 1993, the full extent of the road or whether its frontages were occupied during the Roman period could not be determined. The present excavations therefore, were primarily aimed at further investigation of the road.

Two 10 x 20 m. trenches, restricted in extent and position by extant buildings and boundary walls on or adjacent to the site, were machine excavated across the line of the road on the north east and

south west extremities of the area, about 70 m. apart (Trenches A and B respectively). Recent deposits were removed down to the surface of the relevant horizons and subsequent hand excavation of the mainly Roman levels continued for seven weeks, often in very severe weather conditions.

The site lies on the outskirts of the Roman town, outside the town walls, and just to the north of the alluvial floodplain of the River Stour. To the south east lay the main Roman road to London (St Dunstan's Street), which left the town at the Westgate about 150 m. to the south west. A number of excavations, evaluations and watching briefs have been carried out by the Trust in the area since 1978, and these and earlier work have tended to suggest that the suburb, hitherto mainly known from observations south of St Dunstan's Street (Bennett 1991, 272 and fig. 3) was primarily used for industrial purposes, these chiefly composed of

tile and pottery making and possibly ironworking. These observations, particularly of fragments of an early Roman street grid of metalled roads, have indicated a more formal layout of the area south of St Dunstan's Street, knowledge of which prior to 1993 was absent for those parts of the suburb to the north. The location of the street on this North Lane site suggests that this more formalized layout may have been more extensive and in addition, the nature of the road possibly indicates a differently inclined general use of the northern part of this area, at least in the first centuries of Roman occupation.

The present excavations, though limited in extent, confirmed what was already known about the general topography of the area during the early life of the town, with the ground not only sloping down to the river on the south east but also to the north east. What was once higher ground to the west and south west appears to have been truncated and levelled in recent times, possibly during the construction of the railway and also of buildings south of Kirby's Lane, though evidence from the excavations suggests that some truncation of the Roman ground levels probably occurred during the medieval period, mainly through agricultural processes.

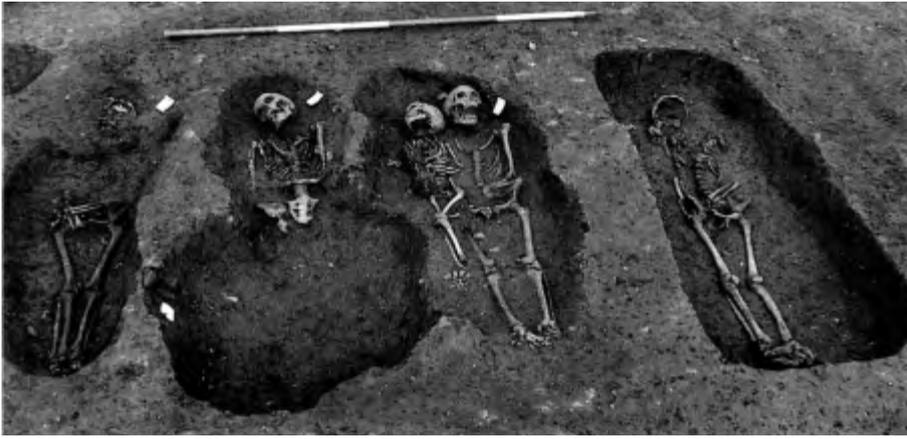
No evidence for Roman occupation was located, but the area exposed on either side of the Roman road was relatively small. However, the earliest features on the site, which appeared to



The metalling of Road II being exposed in Trench A.



Road II fully exposed in Trench A. Medieval rubbish pits are being excavated in the background.



The inhumation burials.

cover virtually all of the area examined, consisted of a number of very large and deep quarries, cut well into the natural river gravels. The quarries, probably used for both clay and gravel extraction, probably date from the late first to mid second century A.D. and would have removed any traces of earlier activity. The quarries appeared to be backfilled with waste material from quarrying activity further afield. A small quantity of residual prehistoric flint implements and pottery recovered from this backfill probably derive from off site, and may be an indication of occupation of a much earlier period on the western gravel terraces of the River Stour.

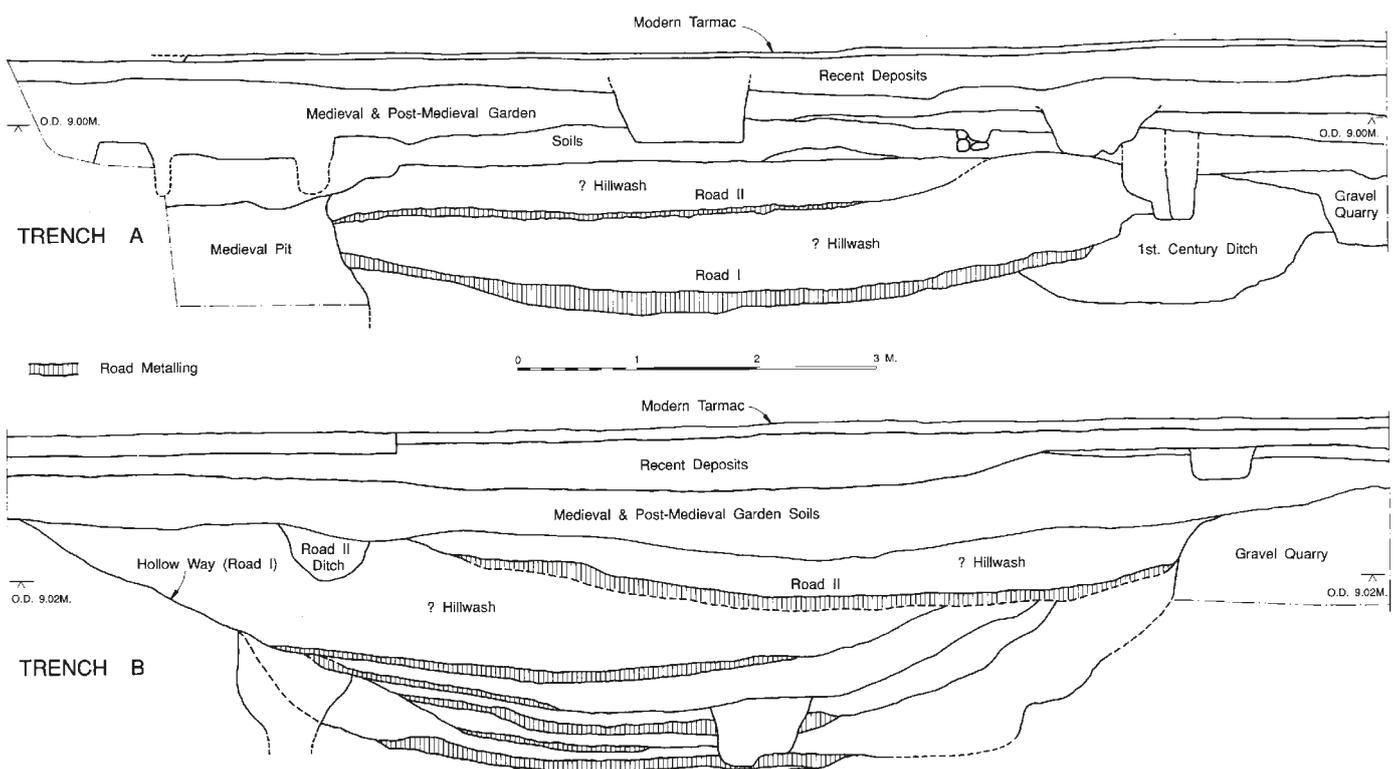
Subsequent to the backfilling of these quarries, the first road (Road I) was driven across the site, probably around the middle of the second century. The road appears to have headed north east from

the main Roman street at St Dunstan's towards the present day St Stephen's area of Canterbury, where a number of Roman tile and pottery kilns are known from observations made by Dr Frank Jenkins in 1953 (Jenkins 1956). The evidence suggests that this road was originally little more than an unmetalled track, which over the course of time formed a wide and deep hollow way. This was more substantial in Trench B where the hollow was in excess of 8 m. wide and at least 2.5 m. deep from the uppermost surviving Roman horizon. The reason for this noticeable increase in size towards the south west seems to be that the base of the hollow was at virtually the same level in both of the trenches (7.4 m. O.D.), while the Roman contours dropped towards the north east. The massive size and depth of this hollow, and the level nature of its base, suggest perhaps that it was not wholly

produced by the constant passage and erosive effect of traffic, but that there may have been some element of design to its gradient. In other words, the track was actually cut into the hillside to provide an easier gradient towards St Dunstan's.

Whatever the cause of the hollow, it would appear that this Roman road is considerably different to most others encountered in the town or its immediate environs. That it was thought necessary to provide a uniform gradient out of the area suggests perhaps that very heavy loads were using the route towards the main St Dunstan's road. This, allied with the presence of extensive quarries on the site may indicate that the main function of the road, at least originally, was for access to and egress from quarries, gradually over time extending outwards from St Dunstan's, with heavily laden carts taking gravel to the town. Large quantities of this material would have been required for the construction of the newly laid out road grid and for the foundations of new buildings. That much of this area was mainly used for the extraction of both brickearth and gravel, perhaps throughout the Roman period, might explain the relative paucity of evidence for occupation, structures or indeed concentrated industrial activity in some of those, admittedly small in number, sites examined between St Stephen's and St Dunstan's.

The trackway was eventually metalled with rammed gravel, perhaps as it grew in importance. The depth of the hollow meant that problems were continually encountered with silting caused by



Sections across the roads.

erosion from the sides of the hollow and possibly influxes of muddy hillwash from up slope. In Trench B at least five consecutive metallated surfaces were laid down between episodes of silting, which raised the level of the base of the hollow by over 1 m. Evidence that the track was very muddy on occasion comes in the form of the ghosts of large timbers which were placed at the base of the hollow to stabilise the ground and provide a more solid surface.

Detailed dating of this sequence is difficult, since very little pottery was recovered from these deposits (only 130 Roman sherds were recovered from all the excavated levels in Trench A, slightly more from Trench B). Much of what was retrieved was composed of small and abraded residual sherds, as might be expected from deposits washed onto site from elsewhere. However, although most of the pottery assemblage dates to the late first and second centuries, smaller quantities of later

ceramics suggest that the road was still in use in the later third or even fourth century.

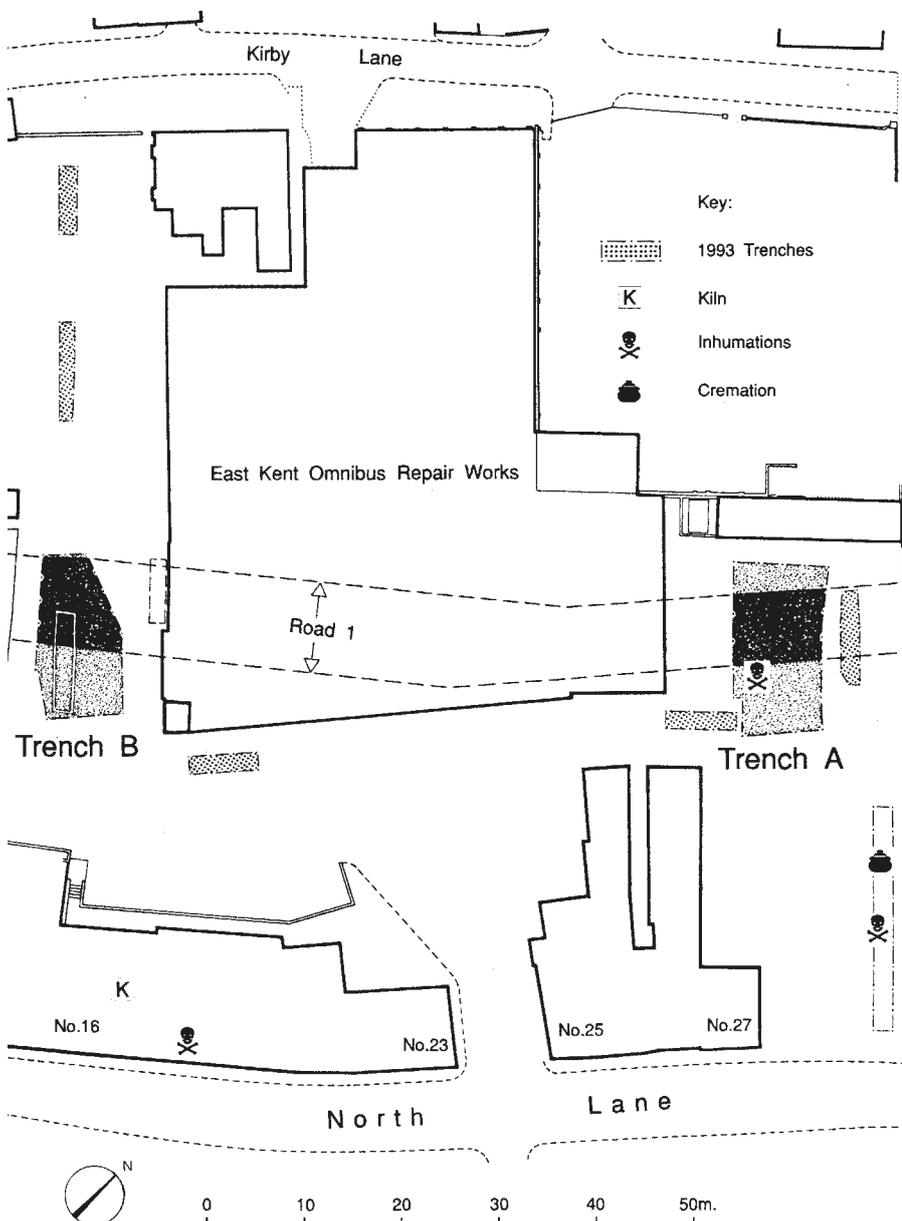
At about this time efforts to keep the track clear seem to have ceased, since the latest metallating in the early sequence was sealed with a fairly uniform, 1 m. thick deposit of soil which virtually filled what was left of the hollow. The nature of this material and the very mixed artefactual assemblage within it suggest that most of the deposit was washed into the hollow from erosion of the higher ground surfaces to the west. The track did not go out of use completely however; a subsequent though smaller hollow way was eventually formed on virtually the same alignment (Road II). In Trench A what must be cart tracks were observed leading off this hollow way to the east. This hollow was also metallated with a very solid rammed gravel surface before its course was submerged and lost beneath a further influx of colluvial material which may represent fourth or even fifth century abandonment.



The metallings of Road II in Trench B. The final metallating of Road I can be seen to the left. Both road surfaces are sealed by hillwash.



Work continued during severe weather conditions.



Plan of excavated features.

Evidence for Roman cemeteries in this area comes mainly from south of St Dunstan's Street, where extensive cremation and inhumation burial grounds are known (Frere et al. 1987). In the North Lane area, fewer burials have been encountered, and although a number of potentially very late Roman inhumations were excavated on the North Lane frontage immediately south east of the present site (Bennett 1978, 168-71); these might be medieval.

The present site provided more evidence for later Roman burials in the area. Five inhumations buried in a discrete group, one a double interment perhaps of mother and child, were located in Trench A immediately adjacent to the Roman road. The burials were almost certainly contemporary with each other and the second hollow way, since they were buried the same distance apart, in a row that was exactly parallel to the road alignment. Apart from being typically late Roman in disposition (there were no grave goods), they can be dated to the fourth century as they were partially sealed by the last Roman road metallating. The skeletons themselves, consisting of three adult females, a juvenile male and a child, may have been a family group, and exhibited signs of a harsh and hard working lifestyle. If the graves are all exactly contemporary, as can be suggested from their layout, the individuals may have succumbed to disease in rapid succession.

The nature of these graves, and of those others of potential Roman provenance, tend to suggest that burial in this area might have been on a

more ad hoc basis than in the more formalized cemeteries to the south.

Although a small number of intrusive and residual early Anglo Saxon sherds were recovered there was no evidence for occupation of this date. The area appears to have been open ground for most of the post Roman period. The Roman

deposits were immediately sealed by medieval agricultural soils and may even have been slightly truncated, probably by protracted ploughing.

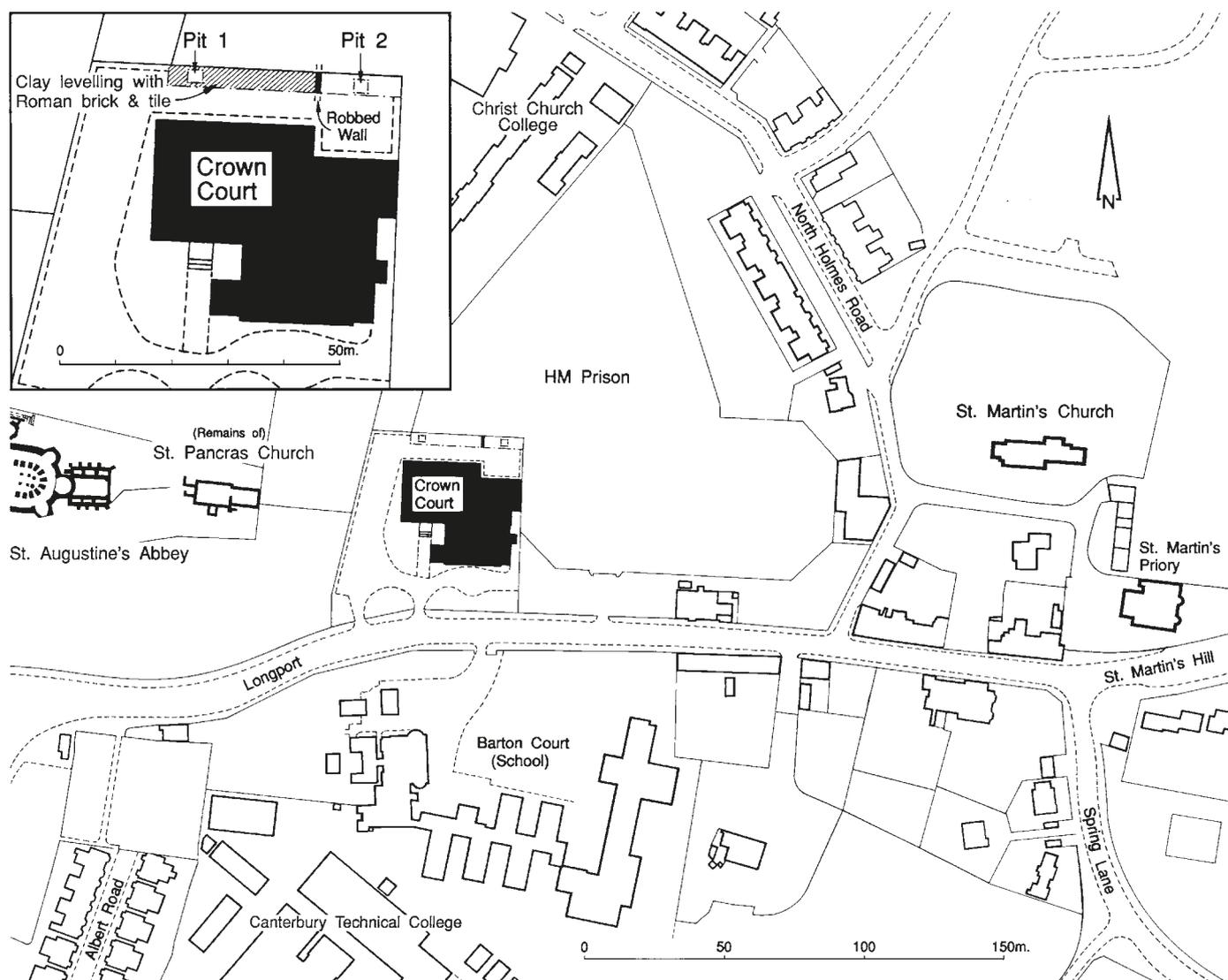
Medieval occupation along the North Lane frontage, commencing in the twelfth century, is attested by numerous pits and post holes, located mainly in Trench A. Traces of later, probably post

medieval timber structures, situated in the gardens of these properties, were also observed in section within this trench.

Thanks are due to Stapplefields Limited for funding all of the archaeological fieldwork and future publication.

13 HM Prison, Longport

Crispin Jarman



During January 1996 a watching brief was maintained during the excavation of trial pits against the curtain wall of Canterbury Prison at the rear of St Augustine's Session House. The foundations were being excavated before the rebuilding of the wall. The position of the site in relation to St Augustine's Abbey, St Martin's Church, the proximity of the Roman road to Richborough and known Anglo Saxon activity in the area was felt to justify an archaeological presence during the works. In the event, the two pits, excavated to a depth of around 1.8 m., appeared to lie entirely

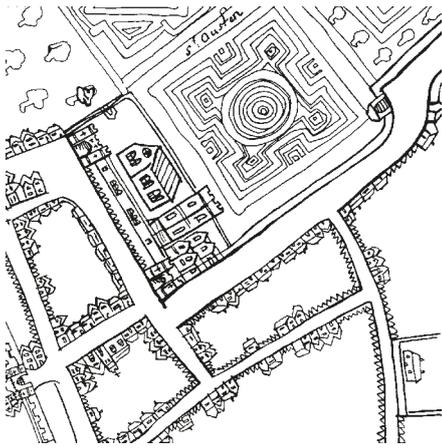
within the fill of modern features and in neither trench was natural brickearth observed.

However, when construction work began in early March, the archaeological presence was rewarded by the observation of a substantial feature probably of Roman date. Natural brickearth was recorded at the east end of the trench at a depth of 1.8 m. At a distance of 14 m. from the east end a 1.0 m. wide, north south aligned linear cut extending down into natural brickearth was observed crossing the trench. Its full depth was not excavated and its full extent lay beyond the

trench limits. The cut was filled with large angular flints and Roman brick in a silty clay and appeared to be a robbed out wall footing. To the west of the cut a thick layer of redeposited brickearth mixed with Roman brick and tile fragments was observed; this may have formed a levelling layer within the structure represented by the robbed wall. The western limit of the redeposited brickearth could not be determined as it appeared to peter out c 4.0 m. from the robbed wall. There was no sign of any other structural remains.

14 Lower Chantry Lane car park

Simon Pratt



Detail from a coloured map of c. 1640. Lower Chantry Lane runs from the bottom right hand corner towards the gardens on part of the former St Augustine's Abbey site.

Three evaluation trenches were cut in advance of proposed development in the municipal car park on the eastern side of Lower Chantry Lane. The most southerly trench contained very little and was rapidly recorded and backfilled in one day. The archaeology in the other two proved quite complex and more detailed work was undertaken.

In all three trenches nineteenth and twentieth century deposits overlay a clayey soil representing eighteenth century cultivation. In the southern trench, this overlay an earlier topsoil which, in turn, sealed the natural clay subsoil and a large feature, probably an early medieval clay quarry. In the other two trenches, ploughing had truncated one or

perhaps two buildings with at least two phases of clay floors and with clay bonded chalk and flint wall footings. A burnt clay hearth or hearth base was found in one room and some two score pits and post holes were identified. Though some of these features certainly post dated the building(s), many were probably contemporary and a few earlier. In a sondage near the western end of the northern trench the natural clay subsoil was exposed, sealed by an early topsoil which pre dated the earliest floor in this room and sealed a small pit containing early to mid thirteenth century pottery.

Very little dating material was recovered but what there was would appear to support a fifteenth or early sixteenth century date for the building(s) and associated features. Early cartographic sources suggest that there was a building on this site prior to 1611 and that it was still standing in c. 1640, but such later levels may have been truncated by the cultivation indicated on the Doidge survey of 1752.

Several Roman cremation burials were identified during the construction of neighbouring Canterbury College and burials which were probably Roman were recorded nearby in the eighteenth century, a finding confirmed by excavations in the grounds of St Augustine's Abbey in the 1970s (Sherlock & Woods 1988, 40, 79). It had been thought that the Roman cemetery might extend onto the current site and although no graves were encountered it is possible that some may lie beneath the medieval or post medieval structures.

Discussion with the developers resulted in the alteration of the foundation system proposed for the new buildings in order to minimise impact on the surviving archaeology. Our thanks are extended to CDS Co operative Housing Society, who funded the work, and to the staff of Canterbury City Council, who greatly facilitated it.



Wall footings, clay floor and pits in the northern trench, viewed from the east. Scale: 1 m.

15 No. 12 Pound Lane

Ian Stewart

On Friday, 7th July 1995 an archaeological evaluation was carried out on a small area (7.2 m. x 8.0 m.) of waste ground adjacent to No. 12 Pound Lane prior to the proposed construction of a single dwelling.



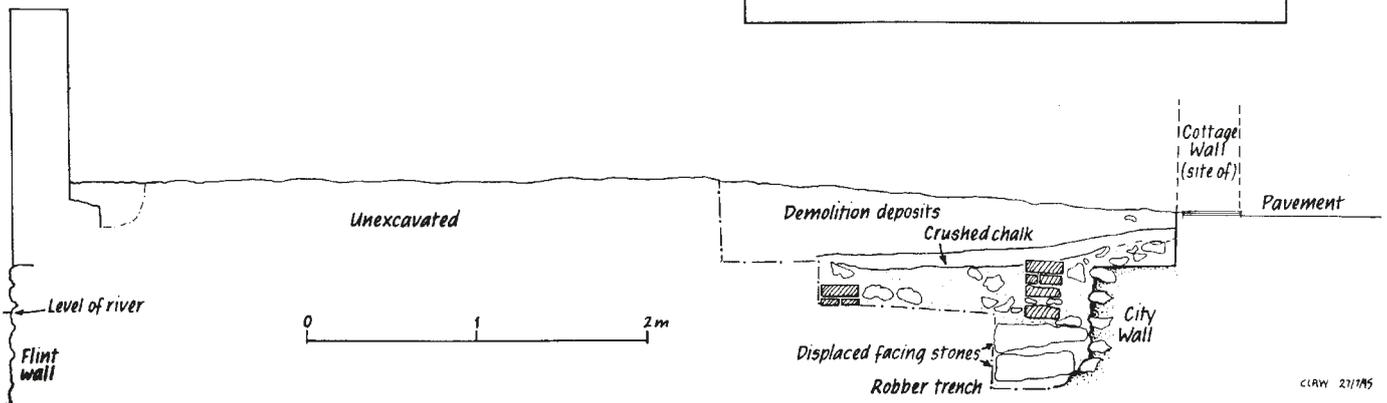
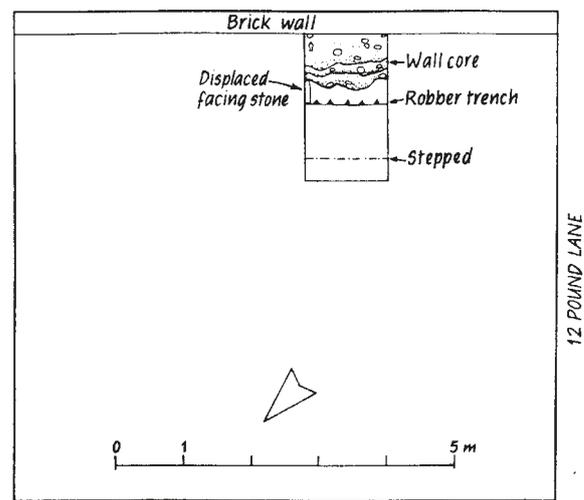
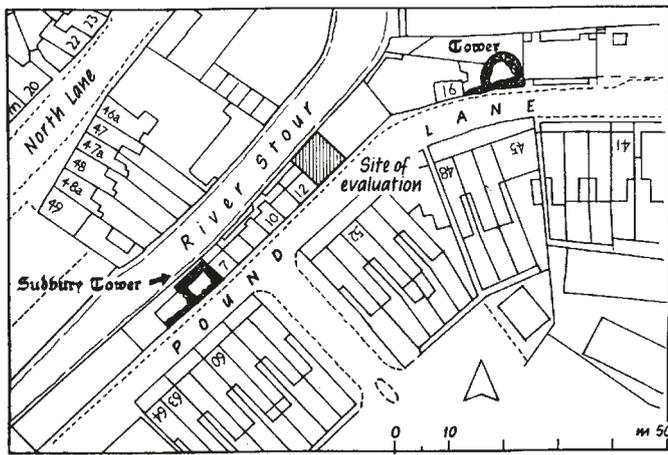
No. 12 Pound Lane: the vacant plot.

The site, lying over the course of the north circuit of the town wall and located between Towers 19 and 20 (Sudbury Tower), backs onto the River Stour where the bank is marked by a modern brick wall built above flint footings. It is bounded to the north east by a small public garden leading to a footbridge over the river and to the north west by No. 12 Pound Lane.

Previous archaeological excavations on the defensive circuit indicate that the line of the Roman and medieval walls was identical. Extensive work carried out since the war has provided considerable information about the long and complex history of the city defences (Frere et al. 1982).

A single trench was excavated measuring 1.2 x 2.10 m. on the south east edge of the site at right angles to the street. It was thought that the city wall ran along the street frontage of the site, extending

beneath the pavement. Excavation revealed a layer of hardcore, c. 0.20–0.44 m. thick probably from demolition of No. 13 Pound Lane which formerly occupied the site. This rubble overlay a 0.2 m. thick layer of crushed chalk which in turn covered more building rubble and fragments of brick built foundations, possibly of nineteenth century date. A brick wall foundation for the front wall of the former house was also exposed. This foundation survived to a depth of 0.3 m. and was built directly over the core of the medieval city wall which had survived to a height of 0.7 m. below existing. The medieval fabric consisted of irregular chalk blockwork and flint nodules, laid in five rows set in cream coloured mortar. The facing stones had been removed and a 0.45–0.55 m. wide robber trench was recorded alongside the edge of the wall. At the base of the wall were traces



No. 12 Pound Lane: the vacant plot.

of waterlogged peat overlying clay. Two Kentish ragstone ashlar blocks projected from the section; these may have been displaced facing stones

from the original wall core and had been used as foundation material for a nineteenth century brick wall also visible in the section. Another brick wall

was partly exposed in the north east section of the evaluation trench.

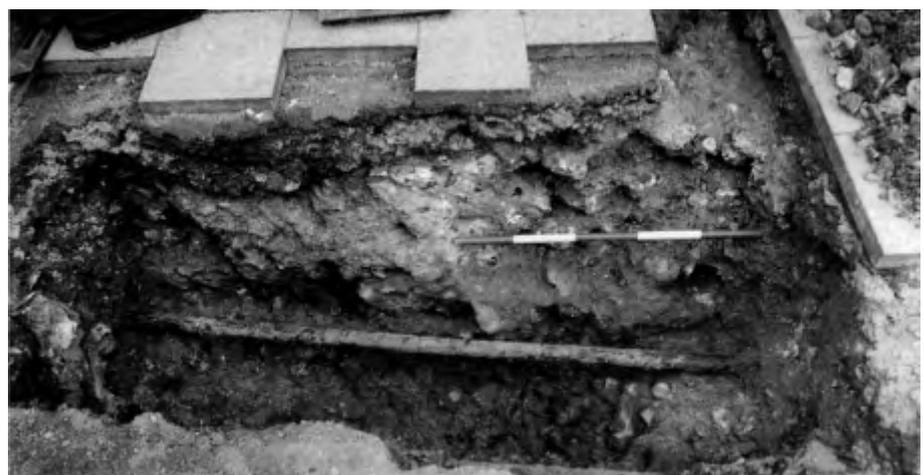
16 Worthgate

Alan Ward

In June 1995 observations of Roman Worthgate were made during the cutting of service trenches in Castle Street. These were the latest in a long history of observation and investigation, which has resulted in a piecemeal picture of the form and arrangement of the Roman gate.

Stone Street, the Roman road to Lympne (Portus Lemanis) led from Worthgate. When the road was blocked by the construction of the castle in the late eleventh century, the gate remained in use, giving entry into the castle courtyard. The gate was blocked up in 1548 but was not demolished until 1791.

In 1955 Professor Frere undertook excavations on the west side of Castle Street in the south east corner of the Castle grounds (Frere et al. 1982, 56–8) which revealed some evidence of the gate. This consisted of a double offset projecting outward from the inside face of the wall. About 3 m. from the eastern end of his trench these offsets turned to the south, and Frere concluded that a gap had been left for the later insertion of a gate, when



The 1995 trench showing Roman masonry.

the town wall was constructed in the late third century. Possible foundations for a guard chamber were recorded, but these were fragmentary and extended beneath the pavement.

The opposite side of the gate was recorded in 1961 by the late Frank Jenkins (1968, 273–5)

and his findings indicated that the gap left by the Roman wall builders might have been at least 12 m. wide, sufficient for a double portal gateway similar to that recorded at Riding Gate, but without the gate turrets (Blockley 1986, 12). However Gostling recorded that the blocked arch was some

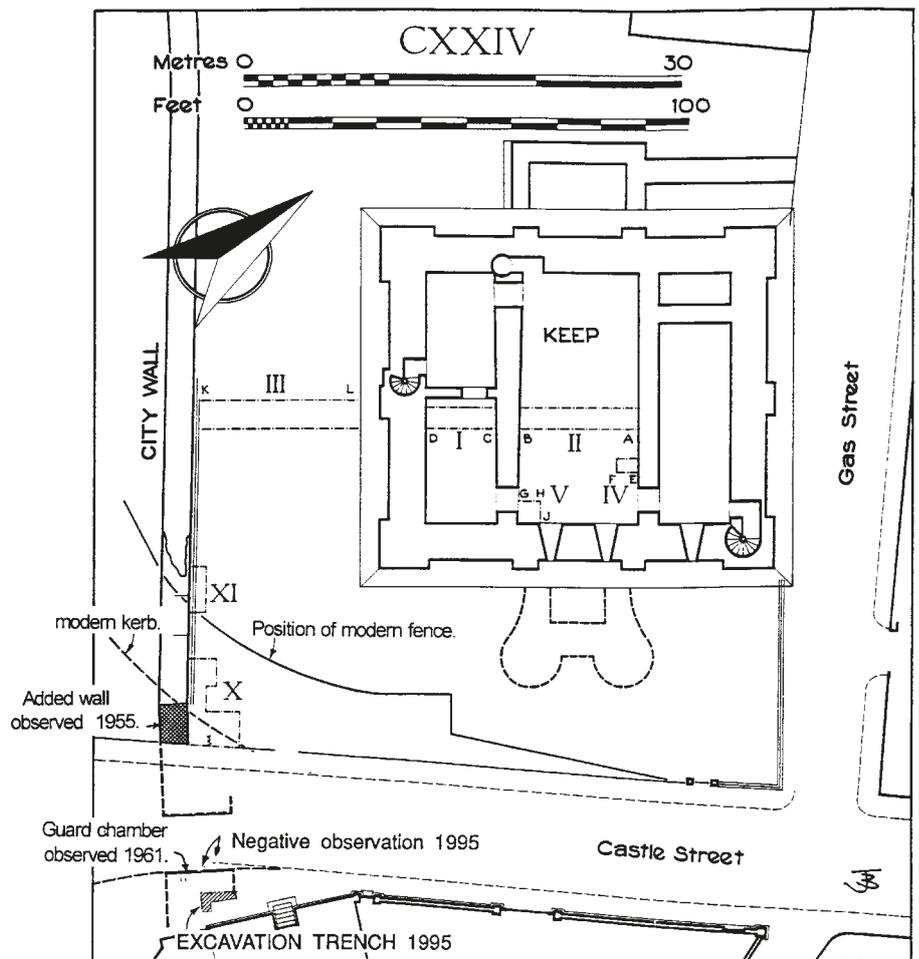


The fabric exposed in 1961 (courtesy Paul Crampton).

12 ft 6 ins wide (1796, 21); this fact, taken with William Stukeley's drawing of 1722 shows that a considerably smaller gate was constructed than may have perhaps have been originally intended. Such a change in plan might explain the soil and mortar accumulation recorded by Frere over the flint footings (Frere et al. 1982, 58).

The service trenches opened in 1995 exposed Roman masonry slightly to the north and east of the 1961 observations. Where not cut away by service trenches the wall survived just 20 cm. below modern pavement level. Neither face of the wall was present in the 1.70 m. wide trench. A 2 cm. thick silt band in the masonry was observed and interpreted as workmen's trample laid down during a break in construction.

When the latest observations were plotted against Jenkins' 1961 results, it was found that masonry extended further north than the expected full width of the foundation and led the author to postulate a re interpretation of Jenkins' guard chamber arrangement. As the masonry uncovered is over 1.70 m. thick and presumably extends north at right angles to the inner face of the town wall it is considered more likely to form a foundation than the rear wall of a sentry box or guard chamber. It might form the base for a chamber over the gate



Excavations and observations at Worthgate.

or the west wall of an internal turret to the east of the gate passage. However, the preferred theory is that it may have formed a wing wall which acted as a revetment to the earthen bank behind the town wall, similar to the arrangement recorded at London Gate (Frere et al. 1982, 31 and fig. 6).

Thanks are extended to Paul Crampton who alerted the Trust when the service trenches were opened in Castle Street and to Seaboard and their contractors who allowed ready access to the site.



Stukeley's 1722 drawing of the Roman Worthgate.

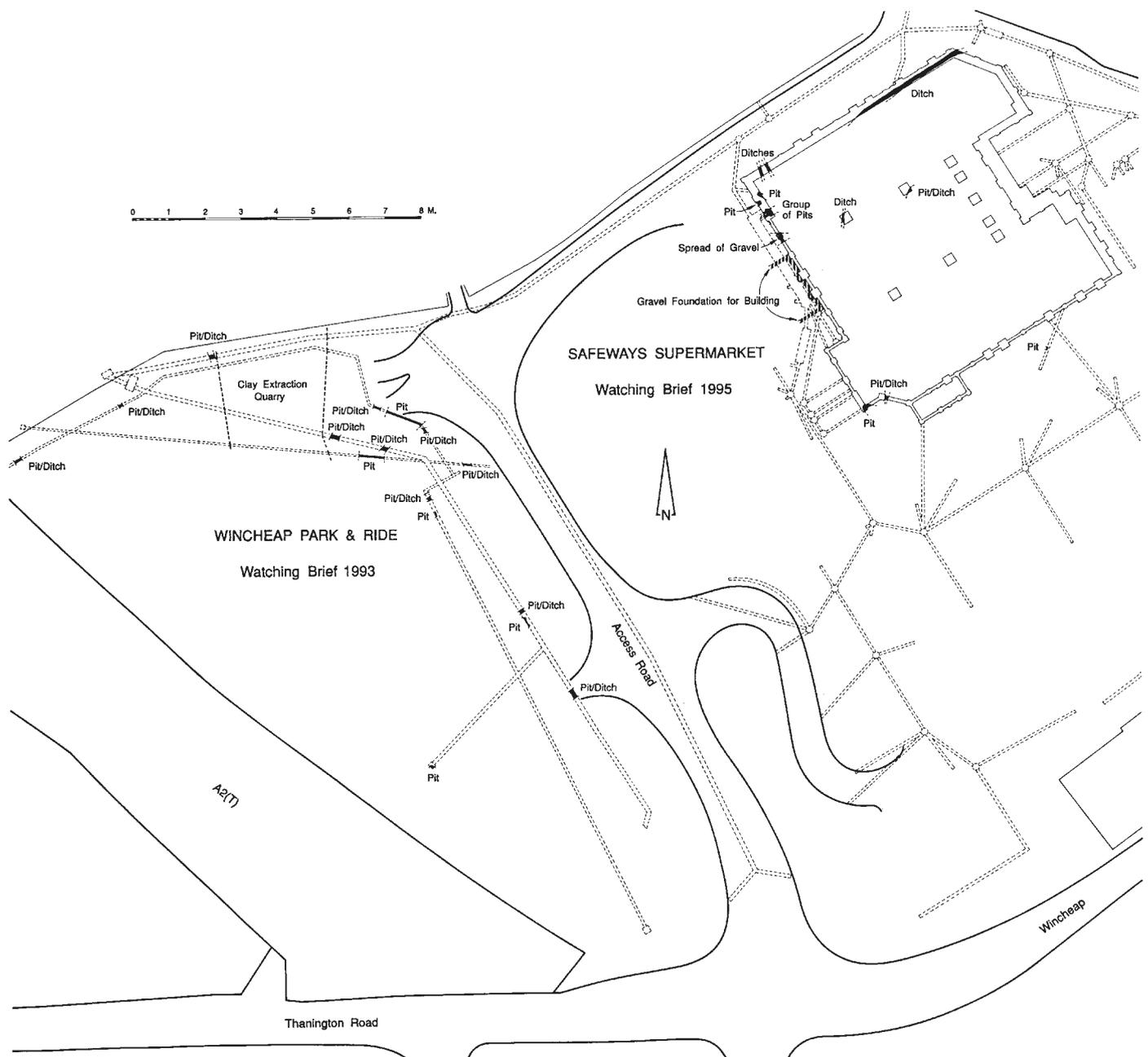
17 Safeways, Wincheap

Ian Anderson

Between September 1995 to January 1996 a watching brief was maintained during construction of Safeways supermarket on the former sports field north of Wincheap and east of the Park and Ride car park (TR 1390 5695). Previous work in the area had located traces of Iron Age and Roman occupation in peat deposits in the water meadows by the River Stour (Annual Report 1979–80, 23), and on the Park and Ride site (Canterbury's Archaeology 1993–94, 9), suggesting the presence of a settlement.

The work consisted of monitoring the machine cutting of construction and service trenches and recording any features revealed. A total of twenty five features were located, consisting mainly of ditches and a few pits, mostly along the west of the site's perimeter and a few along its north and east sides. All were sealed by loamy brickearth, probably representing agricultural activity which had almost certainly truncated many, if not all of these features.

The only structural remains consisted of a complete stretch of a gravel filled foundation trench, representing the east side of a building some 17.10 m. long. There was no trace of any superstructure, but such a substantial foundation would suggest that this was of masonry. No datable material was recovered from the foundation, but since the finds from the site were entirely Roman it seems likely that this was Roman also. To the north and south were patches of gravel and Roman



Location of features.

brick and tile, which were probably the remains of an outside yard area relating to this structure.

To the east lay the north side of a large ditched enclosure, and traces of what may have been its west side; the east and south sides were not located. Its purpose may have been to contain livestock, as minimal traces of occupation were found within it.

Pottery recovered ranged from the first to the early or mid second centuries A.D. with two sherds dated to the fourth century. Although slightly earlier than the assemblage recovered from the adjacent Park and Ride site, which was mainly second to third century in date, there is still a broad overlap to suggest that both sites form part

of an extra mural settlement about a mile outside Canterbury. The absence of industrial activity, and its situation by fertile meadow land suggest that the settlement was of an agricultural nature.

Other traces of Roman occupation have been found in this area and may relate to this settlement. Brent (1861, 37) records the presence of re used Roman brick and tile in the then surviving fabric of St Jacob's Hospital on the south side of Wincheap. In 1979 two cremation burials, dating to the first half of the second century were recorded by the Trust at the former Invicta Service Station, approximately 500 m. east of the site. Although it is well known that one of Roman Canterbury's major cemeteries lies in the Wincheap area, it

appears to be confined to the north east end around the Norman Castle, Canterbury East station and Martyr's Field. It would appear that the transition from cremation to inhumation occurred while the cemetery was still on the immediate edge of the Roman town and the two outlying cremations at the Invicta Service Station may not form part of this cemetery. It is possible that they relate to the recently discovered extra mural settlement.

We are grateful to Safeways for financing this work and to Robert Brett and Sons for their co operation during our work in this previously uninvestigated suburb of Roman Canterbury.

II Canterbury District Sites



Canterbury District: Excavation and building recording projects discussed in this year's report.

18 Thanet Way A Littlebourne Barn D Broome Park stable block

18 Thanet Way

Tim Allen, Keith Parfitt and Jon Rady

The excavation of three sites of archaeological significance was undertaken by the Trust during May 1995 in advance of the Thanet Way improvement scheme. This work, commissioned by the department of Heritage Conservation, Kent County Council, focused on the future route of the new 'off line' or 'Blue Route' section for the Thanet Way (A299), south of Whitstable and Herne Bay.

Little or no previous formal archaeological work had taken place on this land, most of which is in an area known as the Bogshole Levels. These levels extend in an east west aligned strip beneath the wooded area of the Blean to the south and above the densely populated coastal plain to the north.

Field surveys undertaken by the Trust from 1990, identified fourteen sites of possible archaeological significance. Test trenching reduced this number to five, of which three (Sites 7, 8 and 11) were deemed important enough for further investigation. Formal excavation on these sites commenced on 2nd May 1995 and was completed two weeks later immediately prior to the construction of the new road.

Site 7: South Street

Site 7 was a hilltop location to the south of South Street, west of Radfall Road and east of Convict's Wood (TR 1319 6460). It was identified by the exposure during ploughing of an extensive concentration of scorched flints interpreted as pot boilers. Subsequent test trenching exposed a single cut feature which contained pot sherds of Late Bronze Age/Early Iron Age date.

The site lies over heavily reworked London Clay at an altitude of approximately O.D. 35.5 m. and occupies a fine vantage point overlooking the Bogshole Levels to the north. The excavated area, destined to be completely destroyed by a large cutting for the new road was a square of approximately 3,600 m.² extent. Following the removal of overburden by machine, 109 separate features were located of which ninety five were gravel consolidation spreads, rubbish pits or post pits, eleven were possible post holes, two were hearths and one a ditch. Excavation revealed that most of these features were very shallow (mean

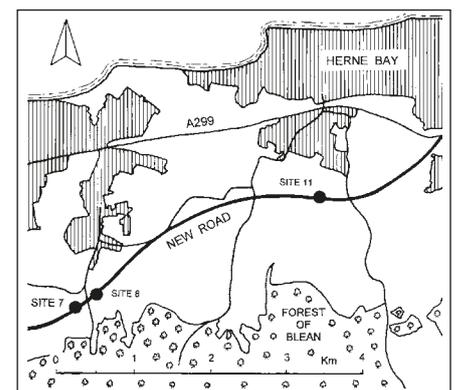
depth 15 cm.), probably the combined result of plough action and colluvial erosion. Despite this, a substantial quantity of diagnostic ceramic material was recovered.

An extensive concentration of rubbish pits, consolidation layers and possible post holes with traces of two hearths and a ditch was located in the north and west of the site. These features were interpreted as the remains of a hilltop settlement, probably part of a farmstead. The presence of substantial quantities of pot sherds and daub supported this view. Following the drawing of a preliminary site plan it was postulated that the remains of a circular hut (diameter approximately 9 m.) surrounded by rubbish pits was represented, though the severe truncation of features made such an identification tenuous.

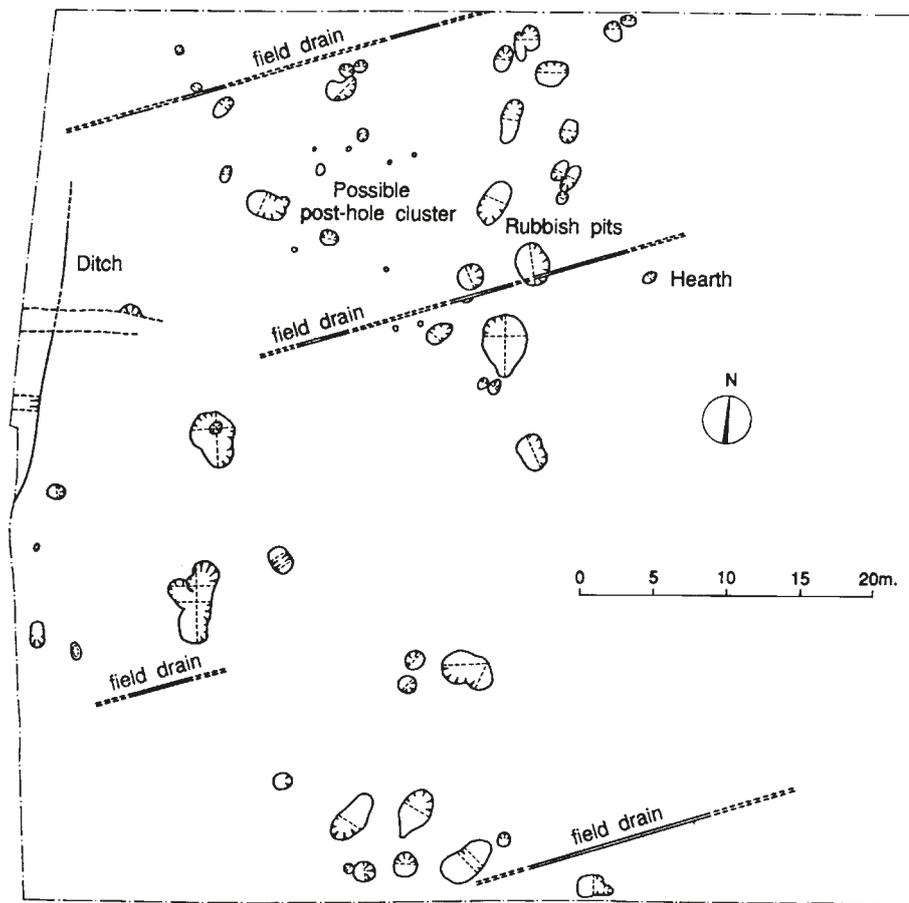
Abundant ceramic evidence dated the settlement to the Late Bronze Age/Early Iron Age (c. 850/750–600 B.C.). A smaller concentration of pits situated in the south of the site was predominantly of the same period, but two features yielding only pre conquest Belgic pottery suggested the existence of a Late Iron Age site to the south of the excavated area.

Several fragments of iron slag and some coke like material were recovered from the settlement remains together with a substantial quantity of ferruginous nodules which do not occur naturally within Upper London Clay. These may have been imported from the nearby coastal plain as raw material for ironworking.

Diagnostic animal bone and charcoal were also recovered from sealed contexts. Most of this material derived from a single pit (290) which also contained the sherds of an apparently deliberately buried complete vessel. Cow, horse and sheep were represented in the bone assemblage, providing clear evidence that the settlement's economy was based in part on stock breeding.



Location of Sites 7, 8 and 11.



Plan of excavated features, Site 7: South Street.

Apart from the 'Belgic' sherds all the ceramics recovered from the site were of Late Bronze Age/Early Iron Age type equivalent to Highstead Period 2 (Macpherson Grant forthcoming 1). This material is known from many East Kent sites, principal examples being Highstead, Northdown, Monkton Court Farm (Macpherson Grant 1994, 248–88) and Castle Street, Canterbury (Macpherson Grant 1991). Fort Harroard, Eure, in northern France provides a close continental parallel.

Although often occurring in association with evidence for bronzeworking this ceramic type has not previously been found with contemporary evidence for ironworking. The definition of the Highstead Period 2 ceramics as a Bronze Age/ Iron Age transition type rests on its occasional occurrence alongside rusticated wares of known Early Iron Age provenance. The discovery of this pottery with associated iron slag and carbon datable material is therefore of some importance as it potentially provides a chronological link between an early (possibly the earliest known) example of ironworking in East Kent and developments in the local ceramic tradition.

Site 8: Radfall Corner

Site 8 is located approximately 50 m. north east of Radfall Corner and approximately 100 m. south east of the intersection of South Street and

Chestfield Road (TR 1340 6480) and lies on the lower west facing slope of Shrub Hill between altitudes of 22.50 m. to the north west and O.D. 24.00 to the south east. It was identified by the exposure by plough of a moderate quantity of burnt flints and a small number of struck flints. Subsequent test trenching exposed part of a buried hollow way with an apparently deliberately laid

gravel base. A substantial quantity of Late Bronze Age/Early Iron Age pot sherds was recovered from the redeposited London Clay overlying this gravel.

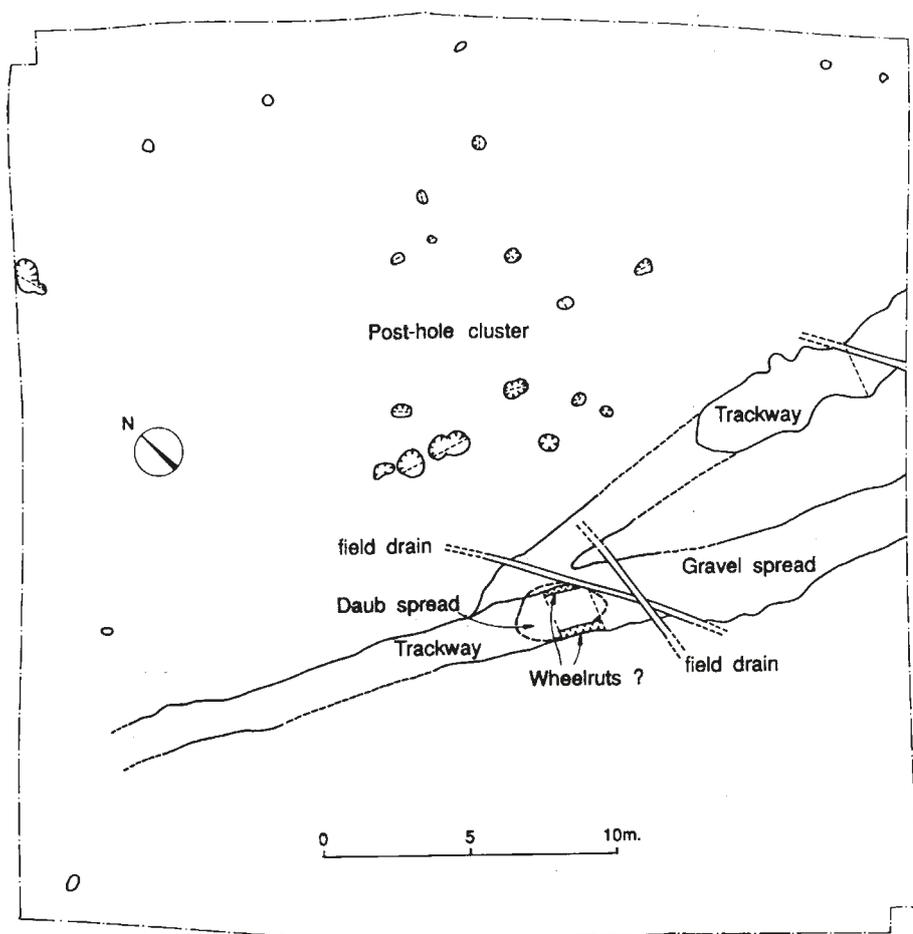
The excavation, 900 m.2 in extent, revealed that severe truncation, probably a result of plough action had taken place (the mean depth of the nineteen excavated features was approximately 15 cm.). Interestingly there was no evidence of colluvial downwash on this low lying site. This suggests that Shrub Hill, the top of which is still partly wooded, was probably not cleared and tilled in antiquity, activities which usually initiate downwash.

A forked linear feature of two phases cutting across the site on a south east alignment was exposed. It was between 1.75 m. and 2.6 m. wide and 8 cm. to 15 cm. deep. A 2–5 cm. thick spread of gravel extended along the entire length of this feature which was interpreted as a prehistoric trackway leading to the higher ground of the Blean. This gravel spread represents a very early example of deliberate consolidation and perhaps suggests the trackway was an important route. Clear wear marks consistent with cartwheel ruts were evident in the later phase of the trackway. An axle width of approximately 1.75 m. was suggested.

Adjacent to the north was a roughly circular cluster of post holes containing Late Bronze Age / Early Iron Age pot sherds, interpreted as the remains of a circular hut approximately 8 m. in diameter. A substantial spread of burnt daub, scorched flints (probably potboilers), charcoal and pot sherds covered the trackway in the area adjacent to the post hole cluster. This was probably domestic rubbish mixed with demolition debris from the hut. Its position and stratigraphic relationship implied the trackway and hut were contemporary, dated ceramically to c. 1000–600 B.C.



Monitoring machine stripping at Site 8, Radfall Corner.



Plan of excavated features, Site 8, Radfall Road.

Site 11: Owl's Hatch Road

Site 11 (TR 1633 6610) is situated on the levels below the Blean to the south and above the coastal plain to the north. It is approximately 2 km. inland of the north Kent coast with Greenhill on the outskirts of Herne Bay clearly visible to the north. The site lies approximately 380 m. to the west of Plenty Brook near the highest point of a slight rise (O.D 16–17 m.) in the essentially flat land of the levels. The topsoil is heavy plough turned clay loam overlying London Clay and is very poorly drained in its natural state. It is thought to have been first cultivated in modern times during the Second World War.

The site's archaeological significance was first indicated by surface finds of 'Belgic' and Roman ceramics during initial fieldwalking. The material was scattered over an area of about 70 m. across on the southern side of Owl's Hatch Road (Parfitt & Allen 1990, 11). In the spring of 1995 two substantial areas along the line of the new carriageway (the East and West areas) were cleared of topsoil.

The East area measured some 30 m.2, but apart from a series of modern field ditches and drainage trenches, only three features of

archaeological interest were revealed. These were all small pits and their dense carbon fillings suggest that they could have been hearth pits, although none produced any dating evidence.

The more extensive West area lay some 50 m. from the East and measured 90 m. (east west) by 30 m. (north south). Extending across the full width of the excavation, more than fifty individual archaeological features, mostly pits of varying shapes and sizes, were exposed. The bulk of these were concentrated in the central sector of the cleared area, quite densely packed into a zone some 23 m. across. In addition to the pits, one gully (F87) and two intercutting ditches (F59/85 and F83) were revealed. The ditches were located near the central part of the excavated complex. Both consisted of only short lengths and their purpose is not clear. It seems unlikely that they could have served as major drainage works, nor do they appear to delimit any particular group of features. The large quantity of pottery they produced suggests that they lay immediately adjacent to a habitation area and the fact that the original ditch was subsequently replaced by another in roughly the same position indicates that the feature continued to be of significance for some considerable length of time during the occupation of the site.

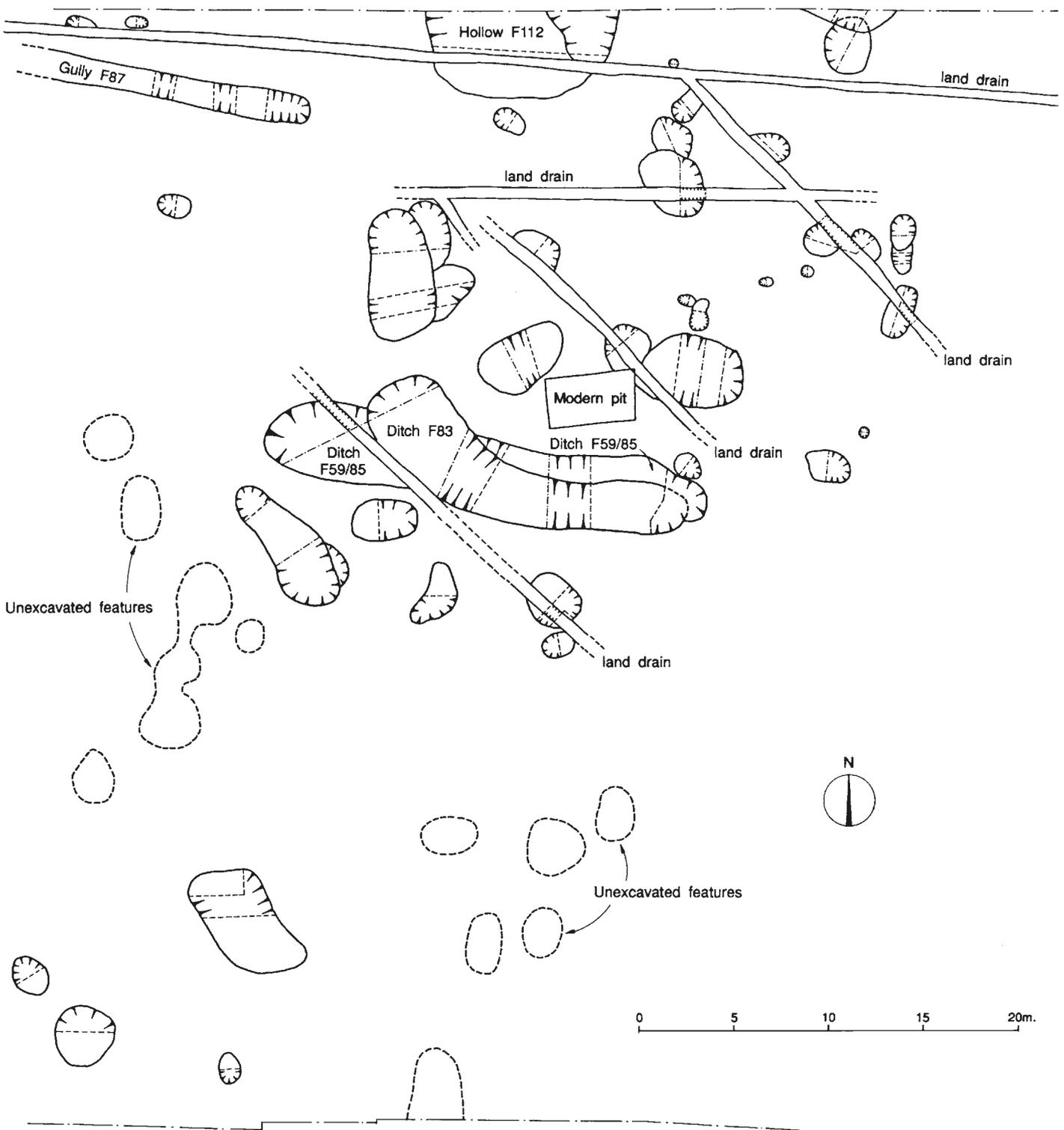
The bulk of the pits were shallow, although it was clear that their upper levels had been truncated by the plough. It seems probable that the majority of them were originally dug for refuse disposal. One large shallow hollow (F112), located on the northern side, seemed rather too extensive to be regarded as a normal pit. Its purpose is not clear but it perhaps represents a quarry pit for clay. Two pits with burnt bases and filled with dense carbon and ash deposits appeared to be hearth pits. Six other small features may be regarded as shallow post holes; these were scattered and did not appear to relate to any clearly defined structure.

The dating of the site is principally based on the pottery, totalling about 1,500 sherds. Due to the nature of the soil, the bulk of this material is heavily abraded. A single coin recovered from the large hollow is too corroded to be dated. Despite the presence of eight sherds of Iron Age flint tempered ware, there appears to be no material dating to the immediate pre Conquest or Conquest period. Most of the pottery dates from the Flavian Antonine period with smaller quantities of late second or third century material. Very little pottery need be later than the mid third century A.D. A few sherds from the later of the two intercutting ditches have been dated to the late third to fourth century, suggesting that this is the latest feature on the site.

The pottery would seem to suggest that most of the excavated features date principally from the second or third centuries A.D. and that the site had been abandoned by the fourth century. Intercutting features indicate that at the very least two successive phases of occupation took place during this time. It is clear that the full extent of the site has not been revealed and further parts of it must extend under Owl's Hatch Road, onto the Abbotswood Estate to the north and across the field to the south. The general density of features exposed tends to suggest that the main complex lies to the north. Earlier and later phases of settlement could well be represented in the unexcavated areas of the site and the section examined may not be typical.

The general form of the Owl's Hatch Road site and its associated finds indicate that it represents a native farmstead. The scatter of pits, ditches and odd post holes is broadly typical of such rural settlements across most of Kent. No clear evidence for any buildings was revealed but the general density of features suggests that these must have stood close by.

Traditionally, it has been assumed that the Forest of Blean extended across the present area as far north as the coastal plain, immediately behind Whitstable and Herne Bay (Everitt 1986),



Plan of excavated features for Site 11, Owl's Hatch Road.

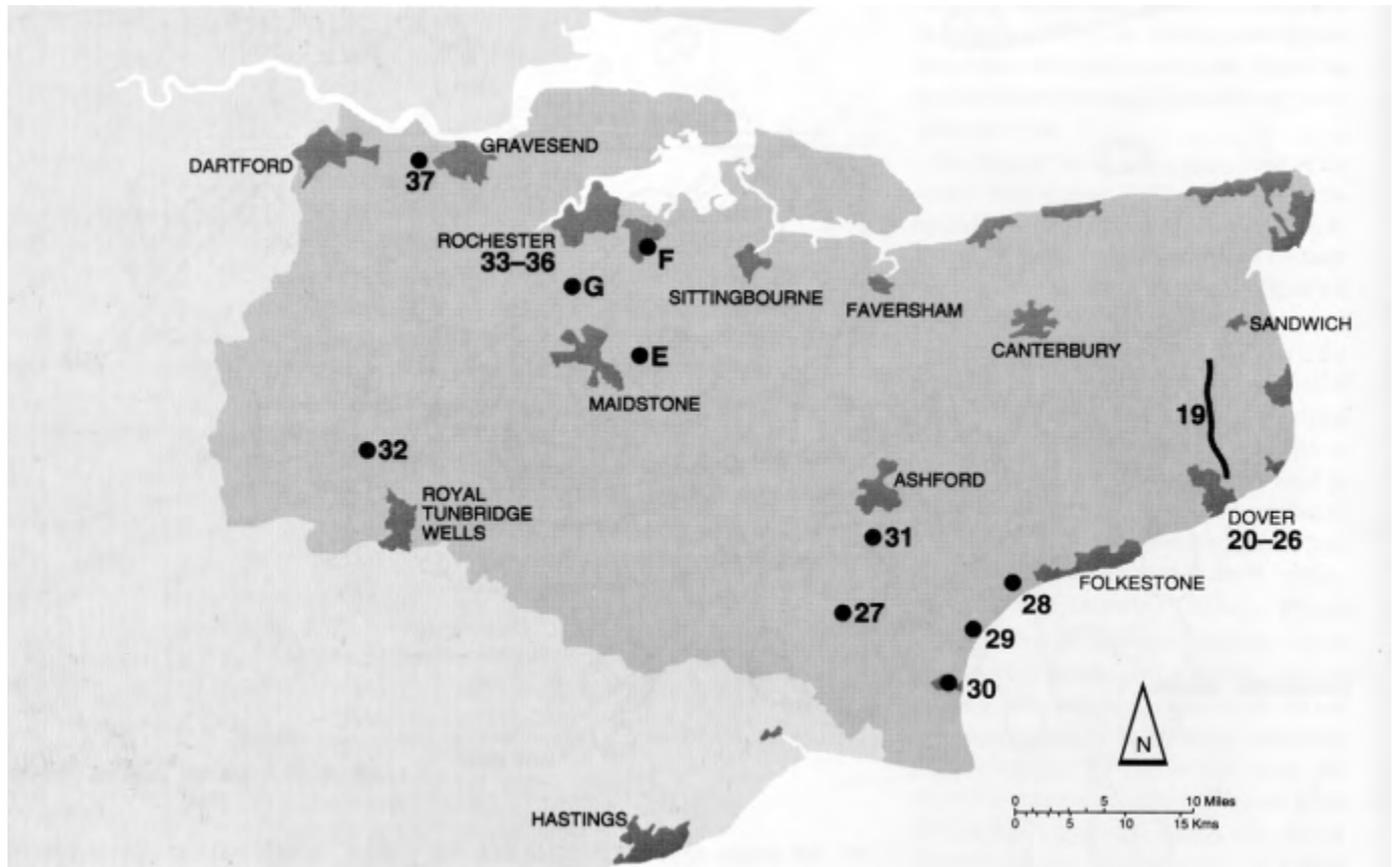
yet increasing evidence, not least that recovered during the research associated with the Thanet Way road scheme, tends to suggest that this was not the case (Parfitt & Allen 1990, 3). Whether the present site was established within a woodland clearing or stood in open countryside similar to that of today, however, cannot be ascertained from the available evidence.

Conclusion

The principal importance of all three identified settlements is the fact of their existence on such ill drained clayey land. It was previously assumed that the levels north of the ancient wooded uplands of the Blean were themselves uncultivated woodland until relatively modern times. However

recent wide ranging archaeological work has shown these levels to have been well populated and therefore extensively farmed (probably for stock breeding) during the Bronze Age/Iron Age transition period. It now seems possible that this phenomenon continued at least in part throughout the Iron Age and into the Roman period.

III Kent Sites



Kent sites: Excavation, watching brief and building recording projects discussed in this year's report.

19	Whitfield -Eastry by-pass	27	Royal Military Canal, Kenardington	35	Hayward's House, Rochester
20	Grand Shaft Dover	28	West Hythe Road, Hythe	36	Northgate, Rochester
21	No. 137 Snargate Street, Dover	29	Dymchurch County Primary School	37	Pepper Hill, Springhead
22	Unitarian Church, York Street, Dover	30	New Romney gas pipeline		
23	St Martin-le-Grand, Dover	31	Kingsnorth Manor, Park Farm, Ashford	E	Chapel Lane Farm, Bearsted
24	Dover water pipeline (Stage 1)	32	St Mary's Church, Leigh	F	Blue Barn Farm, Rainham
25	Townwall Street, Dover	33	Castle Wall, Rochester	G	Petts Farm, Burham
26	Buckland valley, Dover	34	Rochester Cathedral Crypt		

19 Whitfield–Eastry by pass

Keith Parfitt, Tim Allen and Jon Rady

The route of the proposed Whitfield–Eastry by pass runs north from the A2, east of Whitfield for a distance of some 8.5 km. across the undulating chalk downland of the North Downs dip slope. During extensive field surveys and evaluations of the route, carried out by the Trust between 1991 and 1994 and all funded by KCC Highways, a number of areas of potential archaeological significance were identified. During the 1995 season seven areas where further work was deemed necessary were examined, either by area stripping, where it was clear that significant remains were probably present,

or by trial trenching in fields that in previous years were not available for intrusive excavation. The latter comprised Area 1, south of Pineham (about 1 km. east of Whitfield), Area 4 near Minacre Farm (about 2.5 km. north of Whitfield) and Area 6 at the north end of the scheme, situated on the road line east of Betteshanger. This phase of work saw virtually the entire route tested by evaluation trenching along the centre line of the proposed road, a total of nearly 6.5 km. of trenches.

These later works did not reveal any archaeological sites of great significance, though

scattered Roman and prehistoric features were located in Areas 1 and 6. Extensive topsoil stripping at Areas 2, 3, 5 and 7 was carried out in tandem with the evaluation works. Reports on the more significant sites (2 and 3) appear below.

At Area 5 immediately south of Tilmanstone, two trenches were topsoil stripped revealing 1,500 m². of chalk subsoil. In the event, few features of interest were found. At Area 7 (about 1 km. north of Betteshanger) three trenches of similar total area, were excavated down to what appeared to be a brickearth subsoil. Further works in this area

proved this to be a redeposited layer, containing quantities of flint artefacts and prehistoric pottery, overlying a buried prehistoric topsoil. Although a number of badly defined features were also located, extensive excavation was not deemed necessary.

At the time of writing, construction of the new road is well advanced; archaeological watching briefs have been conducted on the contractor's earthworks since November 1995, during which a number of interesting features were identified. These will be detailed in next year's report.

Site 2: Church Whitfield cross-road

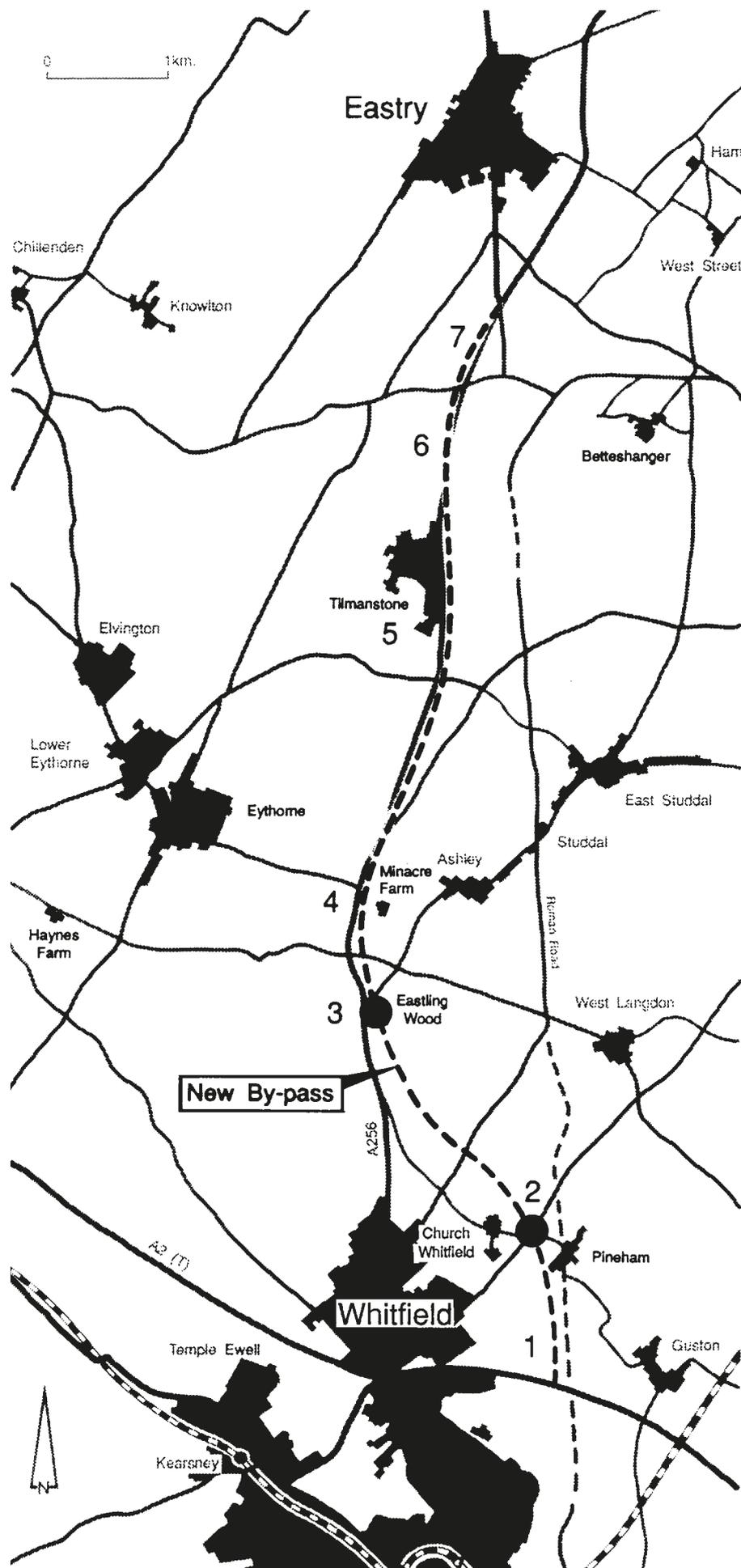
Keith Parfitt

This site was first located by the writer in October 1982 when a narrow pipe trench cut in a field along the northern side of the road leading to Pineham revealed several archaeological features. Subsequent trenching in the area during 1994, conducted as part of the initial archaeological evaluation of the proposed line of the new Whitfield–Eastry by pass, located further features and confirmed the existence of a significant site.

Large scale excavations were begun on the site by the Trust in June 1995, ahead of the start of the new road scheme, and continued until September. The three month project produced some highly significant discoveries and allowed the examination of a substantial part of an extensive, multi period complex, principally dating to the Iron Age and Anglo Saxon periods. Further salvage recording was undertaken on the site over several weeks in the autumn and winter of 1995 as the deep cuttings for the new highway and an associated fly over bridge were being excavated.

The site (TR 313 458 – epicentre) is located within the parish of Whitfield near Dover, some 250 m. east of the Anglo Saxon parish church. It lies across three fields, situated on either side of Archer's Court Road, adjacent to the Church Whitfield cross road and stands on the summit of a broad, low ridge of Upper Chalk aligned south west by north east. The elevation is about 102 m. O.D. and the site lies some 250 m. west of the Richborough–Dover Roman road (Margary route 100). The soil on the site is thin and chalky with occasional isolated pockets of clay with flints.

In the excavation, around 8,000 m.² of ground was cleared down to the surface of the natural chalk. The bulk of the archaeological features located were exposed on the north east side of the cross road. A significant number of features was revealed and these included post holes relating to a series of timber buildings, a number of pits, four sunken huts, a single inhumation burial, a substantial part of a major enclosure ditch and



Location plan showing road line and Sites 2 and 3.

a lesser boundary ditch. The principal features excavated have been arranged into five main periods, mostly relating to Iron Age and early Anglo Saxon times.

A light scatter of prehistoric struck flints noted in the plough soil, together with a more significant quantity of similar finds recovered as residual material from many of the excavated features, provides evidence for the earliest occupation on the site (Period 1). There appear to be no contemporary features. Two worn sherds of Beaker pottery recovered from the filling of the later enclosure ditch could be contemporary, implying that there was Late Neolithic–Bronze Age occupation somewhere in the immediate area.

The next period of occupation (Period 2) is represented by an L shaped boundary ditch, together with a number of pits and probably a single four post structure. The pits fall into two types – intercutting pit clusters and single, isolated pits. The four pit clusters produced fairly small quantities of pottery datable to the Early–Middle Iron Age. They lay both inside and outside the area delimited by the boundary ditch, implying that they were not directly related. Two of the single pits within the boundary ditch, yielded more significant quantities of pottery dated to the period c. 550/500–350 B.C.

After the Early–Middle Iron Age occupation of Period 2, the excavated area seems to have been abandoned for about two centuries until an enclosed farmstead was established here sometime during the middle of the second century B.C. (Period 3). Extending under the modern road, the farmstead comprised a rectangular enclosure, bounded by a ditch which produced large quantities of pottery datable to the period c. 150–50 B.C. About three quarters of the ditch circuit was revealed and fully excavated. The south quarter of the enclosure was not accessible, lying under the modern cross road.

The north western half of the enclosed area was fully excavated, together with a substantial length of the ditch and part of the interior on the south eastern side. Further, salvage work was possible when the construction of the new road began and this suggested that the enclosure had a single entrance positioned towards the south east end of the south west ditch. Very few contemporary features had survived within the enclosed area due to heavy plough erosion.

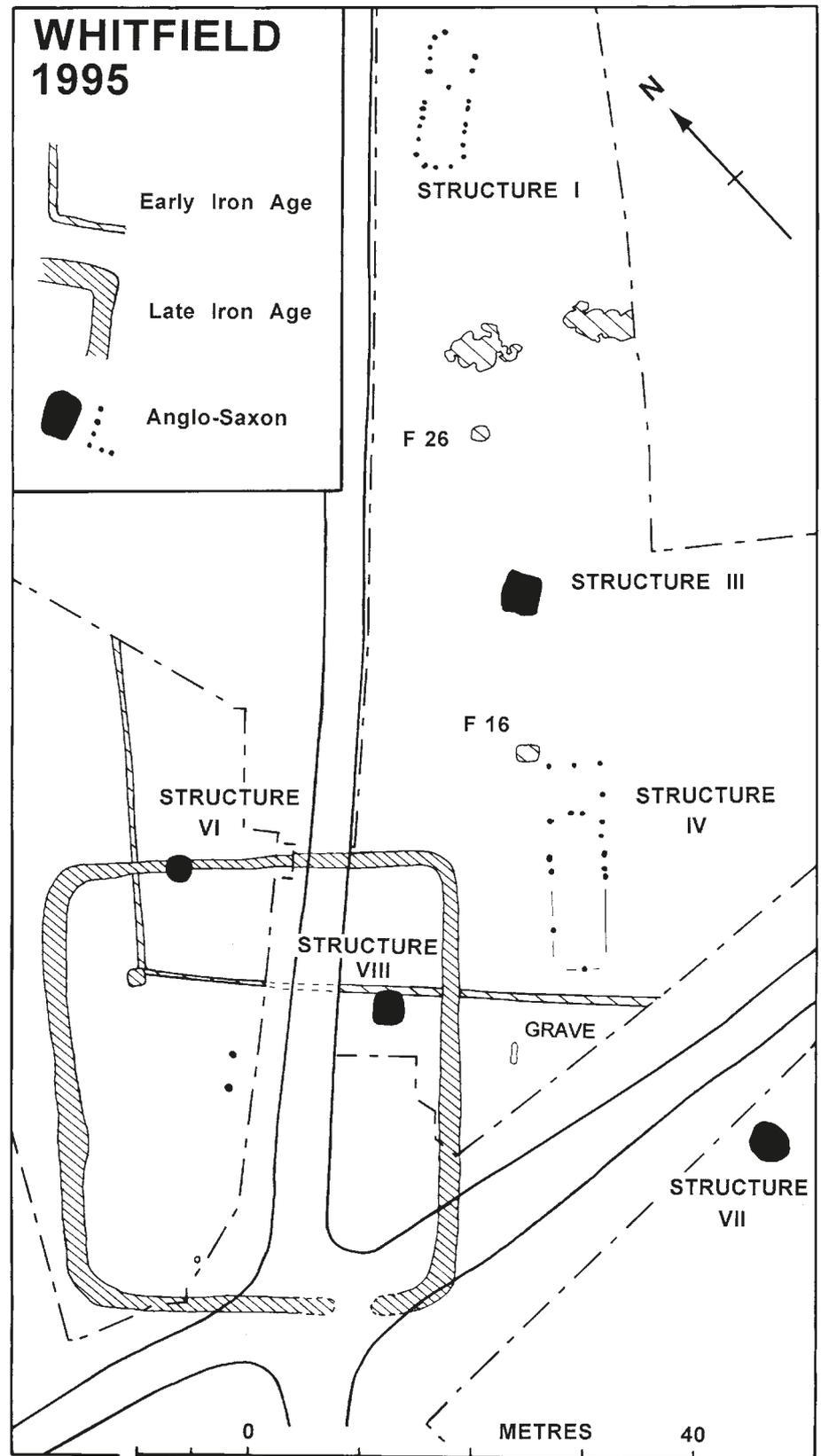
Outside the main enclosure a number of minor gullies may have bounded associated fields or animal compounds, whilst a single inhumation burial (Grave 1) could have formed part of a larger cemetery, otherwise destroyed by the road to Pineham.

The Late Iron Age farmstead of Period 3 appears to have been abandoned before the start of the first century A.D. and despite the close

proximity of a major Roman road, there was no clear evidence for any Roman occupation on the site. However, a handful of Roman pot sherds (mostly of first or second century date) were found scattered through the plough soil and upper fillings of several features on the site implying that there was occupation at no great distance from the excavated area, and a Roman burial has been

recorded on the eastern side of the Roman road, less than 500 m. away.

There was more definite evidence for occupation of the present site in post Roman times (Period 4). Six structures have been assigned to the early Anglo Saxon period and together these provide important evidence for the existence of an extended farmstead or hamlet on the site. It



Plan of Site 2, Church Whitfield, all periods.



Structure III, one of the Anglo-Saxon sunken-featured buildings, looking south-west. Scale 1 m.

seems highly likely that further related buildings lie beyond the limits of the excavated area. The structures examined consisted of familiar Anglo Saxon types, well known from other excavations, mostly outside Kent. Rectangular settings of post holes relating to two timber framed hall houses were identified, together with four typical sunken huts which produced small quantities of domestic rubbish in the form of pottery, animal bone and marine shell. The available dating evidence indicates that the settlement was in use from the late sixth to the seventh century A.D. There was no evidence for any occupation on the site after the early Anglo Saxon period and presumably the focus of later settlement shifted to the area of the eighth century and later parish church some 250 m. to the north west.

Site 3: White Caps Barrow

Tim Allen

Site 3, in White Caps field just north west of Eastling Wood (TR 147 629) was situated on a gentle west facing slope within the undulating chalk of the North Downs approximately 100 m. east of the junction of the Studdal road and the Whitfield– Sandwich road (A256). The site was originally identified from aerial photographs showing a plough truncated subcircular earthwork. Subsequent test trenching confirmed this was a ditched structure consistent in form with a Bronze Age barrow, though no associated datable material was recovered at this stage.

Complete excavation of what proved to be a barrow commenced on 18th June 1995 and was completed nearly three months later. Prior to excavation an area of approximately 1,350 m.2 was machine stripped to the depth of natural chalk or intact archaeological deposits.

The site was located about 115 m. west of Eastling Wood in White Caps Field. During an informal survey of the surrounding area a previously undiscovered earthwork, also subcircular and consistent in form with a Bronze Age barrow, was discovered within Eastling Wood approximately 250 m. to the east. This earthwork survives to a height of about 0.40 m. above present ground level and has a diameter of approximately 21 m. It appears to comprise at least one ring ditch enclosed by a low bank. An east–west aligned linear depression, probably the remains of a sunken ridgeway, was also observed within the tract of Eastling Wood lying between the two earthworks.

A double ditched circular earthwork (TR 2716 4869) located on Haynes Farm, Golgotha, near Eythorne, about 3 km. west of the present site, represents the nearest previously known parallel to the White Caps Barrow (Parfitt 1986, 77). C.H. Woodruff excavated two further examples of supposedly Bronze Age barrows, one containing two inverted cremation urns, in Ringwold, about a mile from the sea, between Deal and Dover (Woodruff 1874, 16–30).



White Caps barrow, before excavation. Looking east.

The excavation exposed a subcircular earthwork consisting of a primary segmented ring ditch and two later continuous concentrically arranged ring ditches. The earthwork appeared to have developed in four distinct phases (three involving structural modifications, one comprising a phase of structural disintegration) and contained a minimum of eleven human burials including six in situ crouched inhumations and three cremations, one of which was urned. Five of the crouched inhumations were of juveniles. All but one of the articulated skeletons were in the crouched position (knees flexed), facing away from the barrow. Of these the encoffined adult skeleton lay in a deep (1.10 m.) subrectangular grave while the juveniles occupied spacious irregular oval graves. They were aligned parallel to the nearest section of ring ditch with their skulls pointing in the clockwise direction. In the exceptional case (687) the skeleton was folded on its back in a confined oval grave (0.9 m. by 0.5 m.) with the skull pointing in the anti clockwise direction. Its alignment also reflected that of the nearest section of ring ditch.

An intact and in situ cremation vessel was recovered as were the sherds of an almost complete small ceramic cup. The ceramic cup fragments were apparently deliberately reburied along with a child's skull following the re use of the grave for a later inhumation.

The five crouched juvenile inhumations and the reburied child's skull appeared to be associated with the first three phases of the barrow. This contrasted with a single adult inhumation, also crouched, which probably occurred during the last period of the barrow's use and was therefore probably chronologically distant from the juvenile inhumations.

The apparently protracted first use of the barrow as a burial place exclusively for children is extremely rare although another possible example is known at Upton Pyne, Exeter (Pollard & Russell 1967).

Substantial quantities of residual struck flints including finished implements and the general debitage of flint working were recovered, principally



White Caps barrow showing the disturbed primary burial area and crouched burial pits, looking south-east

from the secondary and upper ring ditch fills, as were moderate quantities of similarly residual ceramic sherds and domestic animal bone. Most of the latter were cattle bones with pig, sheep, dog and horse also represented. Small quantities of bone from the native red and roe deer were also recovered along with fragments of limpet, mussel, winkle, oyster and whelk shell.

Typologically datable flintwork and ceramics were present in sufficient quantities to suggest that the barrow originally formed part of a Late Neolithic settlement which manufactured its own flint tools and may have produced its own pots. The settlement's inhabitants appear to have practised both agriculture and stock breeding, principally of cattle, while the presence of deer bones and shell fragments from edible marine shell fish suggested that both the surrounding woodlands and the not too distant coastal margins were also exploited for food.

The large proportion of Early Bronze Age ceramics suggested that the settlement survived into that period, but the markedly lower proportion of Mid/Late Bronze Age ceramics coupled with the absence of any other similarly dated occupation evidence indicated that the barrow was no longer in the close vicinity of a settlement from the Mid Bronze Age onwards.

The earliest phase of the earthwork comprised a shallow (0.65 m.) segmented ring ditch enclosing a north south aligned oval area measuring approximately 21 m. by 17 m. Most of this ditch, which was similar in type to known Late Neolithic and Early Bronze Age examples (Ashbee 1960) was cut away by two later continuous ring ditches.

The first of the continuous ditches appeared to have been excavated when the segmented ditch was no longer visible as it cut the chalk rubble within the segmented ditch and enclosed a smaller oval area, 22 m. long and 17 m. wide which was offset approximately 1.5 m. to the north

west. Four Crosses Barrow, Powys, provides a close parallel for such a modification to an earlier earthwork (Darvill 1994, 78–9). The ditch itself was a maximum of 1.42 m. deep, flat bottomed and had no obvious entrance. It appeared to have been excavated as a result of the re establishment of the barrow after a period of neglect, possibly associated with the abandonment of the settlement. This may relate to the markedly lower proportion of ceramic evidence and complete absence of other evidence for occupation from the Mid/Late Bronze Age and later. However, the period during which the barrow fell into disuse was probably not protracted as the site was clearly still locatable and recognized as being of ritual significance.

A number of burials including three articulated inhumations as well as a severely disturbed area containing human bone fragments may have been associated with either the first or second phase enclosures described above, with the



SK 558, a juvenile in typically crouched position. Scale 1 m.

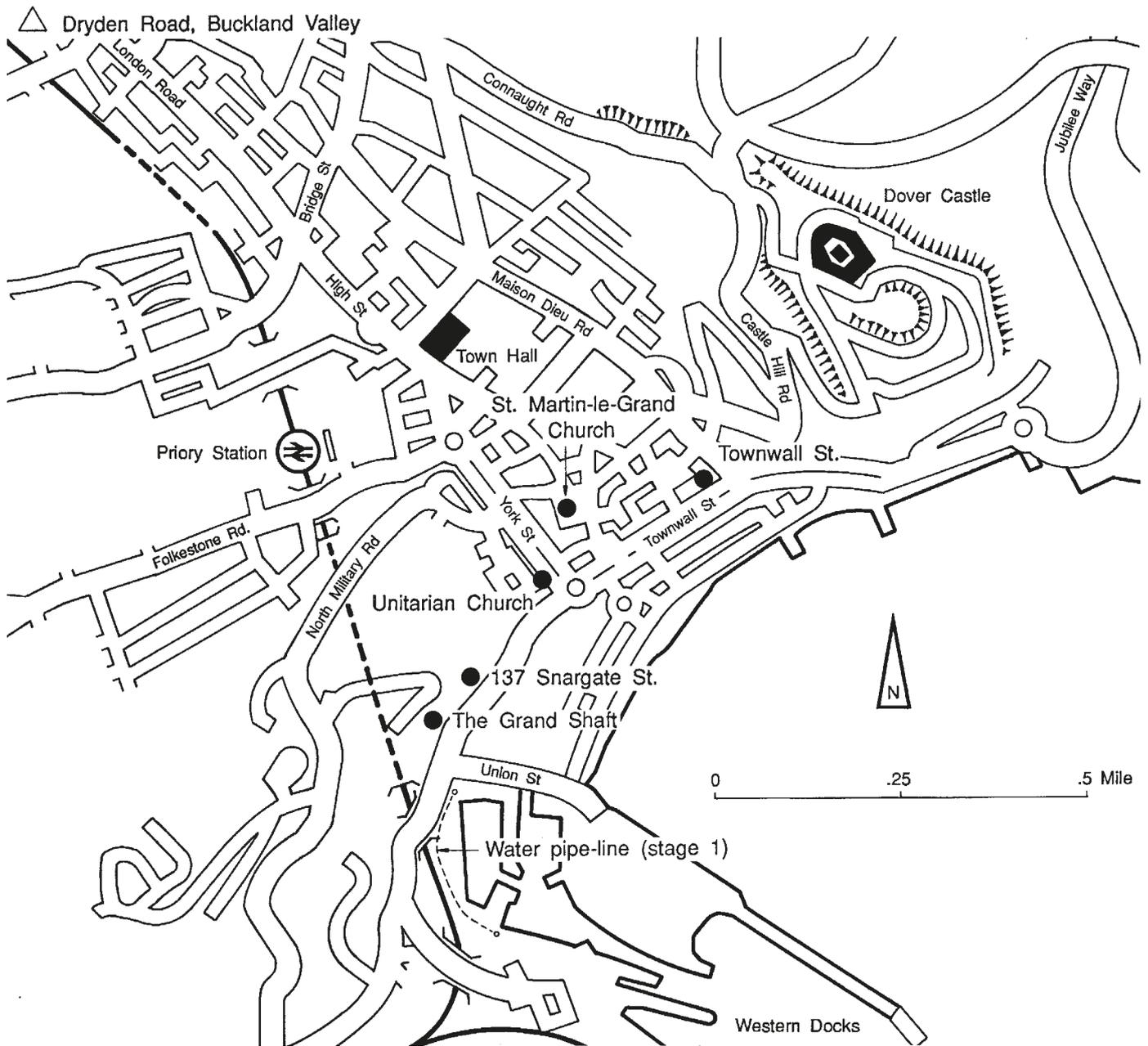
disturbed area possibly representing the site of primary burial. However this could not be proved as both the disturbed area and the inhumations were stratigraphically isolated and situated within areas subsequently enclosed by the third ring ditch. Three burials lying outside the south west part of the second ring ditch were more probably associated with either the first or third ring ditches as they were enclosed by them.

Tool mark patterns and stratigraphic analysis suggested that the cutting of the third ring ditch (also continuous and flat bottomed, maximum depth 1.21 m.) commenced in the east and was progressively deepened as it continued in an anti clockwise direction at a distance of some 0.5 m. outside the second ditch. However, either before or while this took place, the south eastern part of the second ditch was backfilled and levelled with chalk rubble, presumably in order to extend the enclosed area. As the third (the outer) ring ditch returned to the east it widened, became shallower and slightly changed direction, apparently in order to join its point of commencement and also to intersect the second (now inner) ditch. There, some of the recently deposited backfill was removed to form an entrance from the outer to the inner ditch, the resulting angle of access being north east/ south west aligned. The resulting third phase earthwork had the form of a continuous ring ditch surrounding and connected to a horseshoe shaped inner ditch.

The backfilled and levelled south east part of the inner ditch was subsequently used as the burial area for two crouched inhumations and an unurned cremation. However, the need to enlarge the enclosed burial area is not considered to have been the prime motive for such extensive modifications.



SK 730, an encased adult. Scale 0.30 m.



Locations of excavations and watching briefs carried out in Dover.

20 The Grand Shaft, Dover

Barry Corke



The entrance to the Grand Shaft.

Following the excavations previously undertaken at the Snargate Street entrance to the Grand Shaft (*Canterbury's Archaeology* 1993–94, 22), restoration of this important nineteenth century military monument began in April 1995. A watching brief was maintained throughout the course of the work and several previously unrecorded structural details were noted. Most significantly, sections of original early nineteenth century paving, consisting of rectangular stone sets, were revealed under the existing concrete

surface at the entrance to the gallery through the cliff and in the base of the lightwell of the Shaft itself.

The restoration project was completed in September 1995 and the entrance to the Shaft is now fronted by an impressive arched gateway with adjacent kiosk, all closely following the design of the Period 2 (c. 1860–1900) entrance, reconstructed by combining the original architect's drawings with the findings of the 1993–94 excavations.

21 No. 137 Snargate Street, Dover

Keith Parfitt and Barry Corke

In the autumn of 1995 a watching brief during the redevelopment of an empty plot off Snargate Street provided the opportunity to examine an area at the base of the old cliff below the Western Heights. The gently sloping site (TR 3175 4102) stands adjacent to the present Masonic Hall at an elevation of between 5.5 m. and 6.3 m. O.D. and is situated upon land which was formerly part of the seashore between the old medieval walled town and the early post medieval harbour established below Archcliffe.

The soft chalk of the adjacent cliffs is ideal for the excavation of tunnels and an extensive series of 'caves' were dug into the cliff face here in the later post medieval period. During the early nineteenth century these constituted Court's Wine Vaults and today the tunnels extend for some considerable distance into the hillside.

A series of foundation and service trenches was cut on the site and these provided a number of useful sections across soil and beach deposits. A long

trench on the north east side of the site, cut at a right angle to the cliff face was particularly informative. The base of a pit located towards the north west end of this trench was filled with a mass of broken wine bottles of late eighteenth to early nineteenth century type. There can be little doubt that these were derived from the wine vaults in the adjacent cliff.

22 Unitarian Church, York Street, Dover

Keith Parfitt

During the underpinning and refacing of the retaining wall in front of the Unitarian Church adjacent to York Street, the Trust was invited by IMPACT (the joint environmental initiative of Kent County Council and Dover District Council) to monitor a number of small foundation pits and trenches during the summer of 1995.

Located within the south western quarter of the medieval walled town, fairly close to the positions of the Upwall and Snare Gates, the site lies at the eastern end of Adrian Street. The Unitarian Church was built in 1819–20 and stands on a bank overlooking the town. The area investigated is situated on a small triangular plot immediately below and to the east of the Unitarian Church. The ground surface here stands at an elevation of 8.20 m. O.D.

The plot is bounded by high retaining walls on its south and west sides and has been cut across on the north east side by the York Street by pass, built in 1971. The west and south retaining walls can be traced on the 1851 Health Authority map and on the 1861 O.S. map, following precisely the

same line. During the nineteenth century the plot was occupied by two houses fronting Adrian Street. The present south retaining wall formed one side of the western house. The buildings were damaged during the last war and following their demolition the Dover Excavation Committee cut a single small archaeological trench in 1951–2 which revealed a second century Roman dump of clay over an old ground surface (Threipland 1957, 20).

The pits excavated during the recent underpinning work along the front of the west retaining wall showed that the wall had been repaired and patched over many centuries. Extending some 3.65 m. north east from its junction with the south wall, the lowest two courses of the wall were found to be constructed of large lumps of Folkestone Greensand set in a cream gritty mortar, typical of the later medieval period. The south retaining wall, although also containing several phases of work, appeared to be later and butted against the medieval work in the west wall.

A small rectangular pit dug for a new pier base mid way along the west retaining wall and 3 m. in

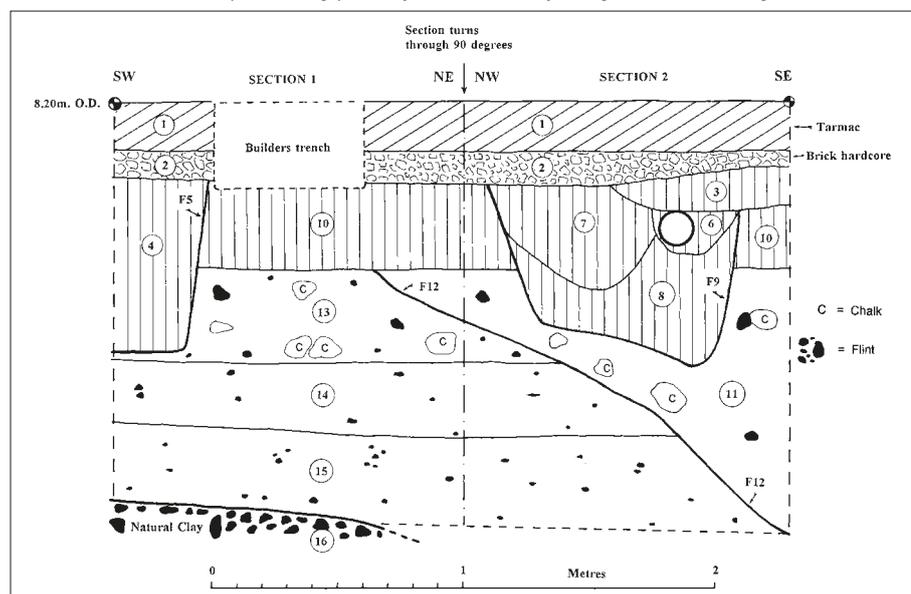
front of it, revealed an interesting sequence of deposits. The pit measured some 1.30 m.2 and reached a maximum depth of 1.70 m. below ground level (see section). At the base of the pit a deposit of brown silty clay containing large amounts of flint probably represented the natural subsoil, presumably a hillwash deposit derived from the slopes of the adjacent Western Heights.

Above this deposit were three clay layers about 1 m. thick in total the lowest of which quite probably represents an almost undisturbed deposit resting over the natural. It comprised a dark brown silty clay and produced some thirty three prehistoric struck flints and a quantity of calcined flints. A single 'Belgic' pot sherd datable to the second half of the first century A.D. was also recovered.

Above this layer was a pale grey brown silty clay, seemingly representing a buried topsoil which produced another fifty six prehistoric struck flints, a few calcined flints and five sherds of 'Belgic' pottery, datable to the second half of the first century A.D. This layer can be readily equated with the 'old ground surface' revealed in Trench XXXI of the 1951 excavations.

A deliberate dump of brown clay with occasional chalk and flint lumps sealed the topsoil deposit and produced some fifty sherds of mid to late second century Roman pottery, including samian ware and amphora fragments, together with a hone stone, animal bones, occasional marine shells and several derived struck flints. This deposit must be the Roman dump layer identified in the 1951 excavations. In fact, a flat bottomed, vertical sided pit (F5) dug from a high level at the south west corner of the present excavation, cut through this layer and fairly certainly represents the eastern end of the D.E.C. Trench XXXI.

Cut from the top of the Roman dump layer, a sloping sided pit (F12), over 1 m. deep and filled with grey brown clay, failed to produce any datable material but may well have been medieval.



Unitarian Church, Dover: the deep section.

The remaining archaeological sequence had been truncated in relatively recent times.

The recovery of a significant number of struck flints from the earliest clay levels on the site indicates the presence of prehistoric occupation on the lower slopes of the Western Heights. Similar evidence has been noted by Brian Philp further to the north (Philp undated, 3). A few of the flints recovered are blade forms, suggesting that they could belong to the Mesolithic period (c. 8000–4000 B.C.) but the bulk seem to be of Late Neolithic–Bronze Age date (c. 2000–1000 B.C.). The recent discovery of the Bronze Age boat (c.1300 B.C.) off nearby Bench Street, has refocused attention on the whole question of the nature and extent of prehistoric occupation within the Dour valley and the present observations add

some useful details to the emerging picture.

The clay layers containing the prehistoric flints have probably been slightly disturbed since their original formation; the Belgic material recovered was fairly certainly worked into them through agricultural activities. A significant proportion of the flints found in these layers show traces of edge damage which would be consistent with that caused by ploughing. Philp has recorded the presence of a mid first century A.D. ditch to the north, predating to the Roman naval fort (Philp 1981, 56). Taken together, this evidence suggests the occurrence of Belgic/early Roman farming activity in the area prior to the Roman military occupation.

It is probable that the Roman dump deposit is in some way connected with the extensive earthmoving associated with the terracing of the

Roman Classis Britannica fort into the hillside during the second century A.D. (Philp 1981). Although Roman deposits were recorded on the present site there is no evidence for any structures in the immediate area. The site lies roughly mid way between the south eastern corner of the naval fort and an extra mural Roman building found on the site of the present Nu Age Night Club (Threipland 1957, 21, Site 11).

The traces of medieval and early post medieval walling observed within the fabric of the retaining wall along the western edge of the site indicates that this boundary has been established for centuries and quite probably relates to an original medieval property division within the old town.

23 St Martin le Grand Church, Dover

Keith Parfitt and Barry Corke

Situated on the western side of the Market Square, the great Norman church of St Martin le Grand once dominated the centre of the medieval town of Dover. The eastern half of the church was unfortunately removed during post war redevelopment in the 1950s but the western part survived and was largely excavated by the Kent Archaeological Rescue Unit in 1974. The exposed remains are now being consolidated for permanent display adjacent to the White Cliffs Experience. The consolidation work is taking place in stages and is preceded by archaeological investigation as required. In the winter of 1991–92 a chalk block tomb, probably of fifteenth century date, was examined in the south chapel (*Canterbury's Archaeology* 1991–92, 28). Further work was required in the winter of 1995–96, this time at the central crossing of the main church.

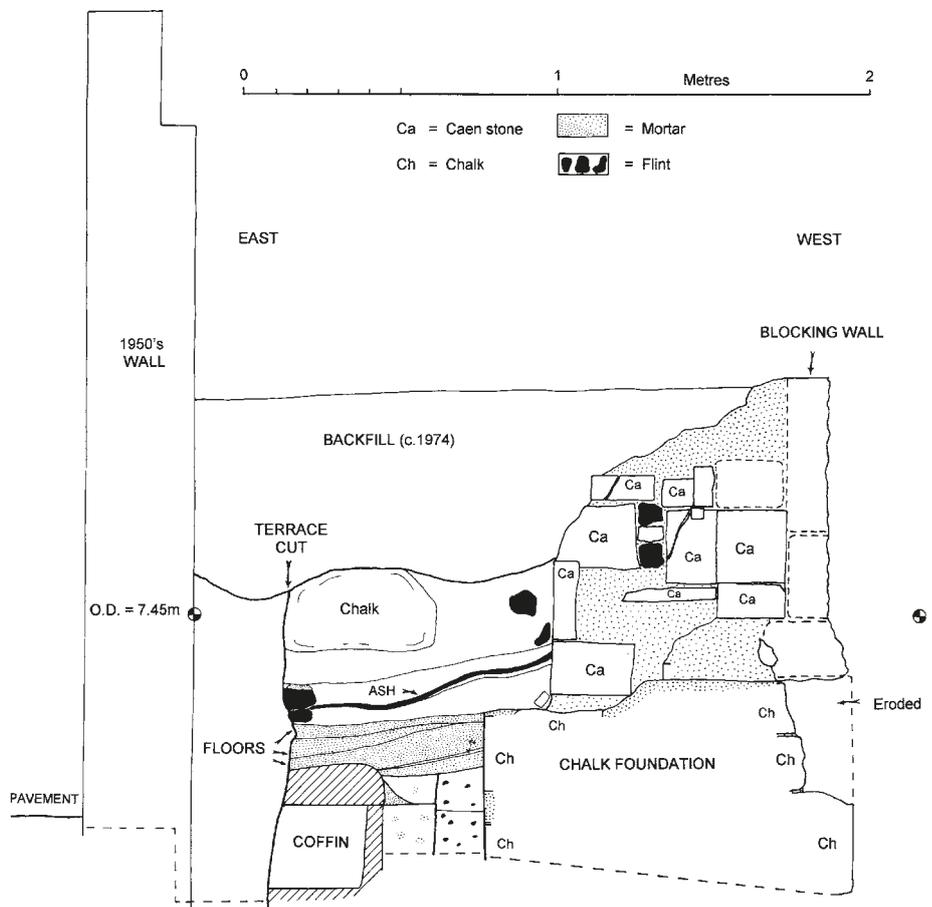
Originally begun for the secular canons of St Martin in the 1070s, building work on the church seems to have stopped in the earlier twelfth century when the house was superseded by the new St Martin's Priory, founded outside the town in 1139 for the use of Benedictine monks. The old building was eventually completed to form a large parish church and by the later Middle Ages it, unusually, combined three separate parish churches under one roof. In the 1530s Leland noted that 'the town is divided into six parishes, but three of them are served under one roof by St Martin's in the centre of the town' (Toulmin Smith 1909). Later in the sixteenth century the church became very dilapidated and in 1546 the altars were removed so that the east end could be let out by the Corporation for use as shops and tenements fronting the Market Square.

In November 1995 a joint project between the Trust and members of the Dover Archaeological

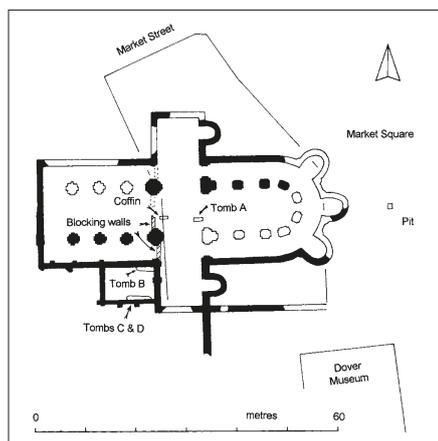
Group recorded and removed a late dividing wall, by then too weathered to allow consolidation, running from the south west pier of the central tower across the south aisle. Recording of a second late dividing wall running between the south west and north west piers of the central tower was also undertaken. Part

of a stone coffin was revealed in a trench dug by workmen below the floor under the site of tower. This was fully recorded before its reburial.

The heavily frost damaged and eroded wall closing the south aisle was difficult to interpret, but appeared to be of two distinct phases, with



Section through the late blocking wall between the south-west and north-west piers of the central tower.



Location of St Martin-le-Grand in relation to the modern Market Square. Note the pit located in the former cemetery (see below).

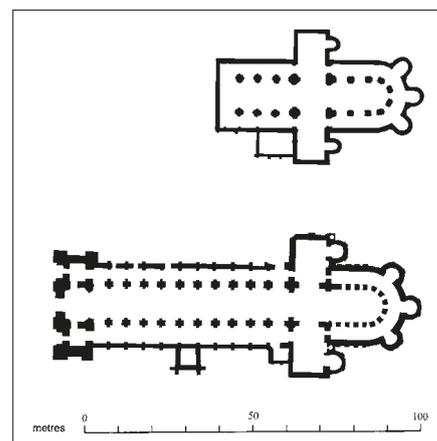
an original flint rubble wall being largely replaced by a more substantial wall of chalk blocks and greensand lumps set in brown clay containing occasional pieces of Caen stone, peg tile and slate as packing. The two walls sealed a series of earlier floors, occupation and make up layers, one of which produced two pot sherds dating to the period c. 1175–1225, indicating that the blocking must be of a later date. A pot rim incorporated into the core of the original flint wall was of a similar date suggesting that it was constructed no earlier than the thirteenth century. The peg tiles used as packing between the wall blocks in the later rebuild of the wall, appear to be of sixteenth century or later date.

The well built wall between the tower piers was some 0.90 m. in width, and was set upon a broad, deep foundation of large, mortared chalk blocks (see section). The west side of the wall was constructed of mortared flint and greensand whilst the eastern face was of large chalk blocks with rendering of white mortar. Only the southern half of this wall survived and the removal of more recent walling to the north revealed the remains

of a contemporary doorway with claw tooled Caen stone jambs set with the remains of a single iron hinge pin. From what remained it is not clear how wide this doorway was, but it does seem that it occupied a central position, astride the long axis of the church, implying that it formed an entrance of some importance.

In view of the historically recorded division of the main building of St Martin's into three separate parish churches, these late blocking walls in the area of the central crossing perhaps take on more significance than they might otherwise have done on purely archaeological grounds. From their construction the walls do not appear to be contemporary with each other, but together they effectively separated the nave of the church from the chancel and transepts. The doorway in the middle of the tower blocking would have allowed access with the eastern part of the church. The wall blocking the south aisle was probably originally constructed sometime during the later medieval period, but its subsequent replacement appears to be no earlier than the sixteenth century and this may well relate to the secular use of the site. The wall below the tower appears from its general size and construction to be medieval. Floor layers which sealed a stone coffin (see below) were cut by its foundation indicating a stratigraphically later date. It was perhaps built in the fourteenth or fifteenth century.

Set within a vertical sided pit and sealed by several later floor layers, the stone coffin had been largely cut away by a terrace dug in the 1950s to allow the insertion of a service road to the east (see section). The coffin was aligned east west along the main axis of the church, but only its western end survived. The contents had been removed. Formed from a large rectangular block of yellow shelly limestone with a carefully shaped area for the head, the coffin had a close fitting lid, mortared in place, bearing part of a raised cross



Plan of St Martin-le-Grand and comparative plan of St Augustine's Abbey church, Canterbury.

on its upper surface. Stylistically, it can probably be dated broadly to the thirteenth century. From its form and location below the south west corner of the tower, it must have originally contained an individual of some considerable status. A chalk block tomb (Tomb A) of similar construction to those previously revealed in the south chapel (Tombs B, C and D), was recorded under the south east corner of the tower in 1956, about 5 m. further to the east (Rahtz 1958, 128). This must represent another high status burial occupying the central part of the church.

More evidence for burials associated with this great church was recorded in November during the excavation of a small pit for a new lamp standard close to the centre of the modern Market Square. Two successive layers of grey clay loam, sealed by a thin crushed mortar deposit were revealed at a depth of about 0.70 m. These contained a quantity of semi articulated human bone, which fairly certainly must represent burials made outside the east end of St Martin's church sometime in the medieval or early post medieval period. No clear dating evidence was recovered.

24 Dover water pipeline (Stage 1)

Keith Parfitt

A watching brief has been maintained on major excavations undertaken for a water main being laid across the town to the new liner terminal in the former Marine Station at the Western Docks. The first phase of work has been undertaken in the area of the historic Pier District, once an important part of the early post medieval town. Largely following the line of old Strond Street, whose course is now essentially lost amongst modern dock installations, the pipe trench has allowed a series of useful observations to be made, refining information recorded during the adjacent A20 roadworks.

Running roughly parallel to the cliff, Strond Street follows a gently curving course that may well reflect the line of a naturally formed beach ridge running along the western edge of the Dour estuary. Situated to the east of the old Paradise harbour, the general evolution of the area can be traced through early maps. The street first seems to have come into existence towards the end of the sixteenth century. Eldred's map of the town dated c.1640 shows 'Straunde Strete' lined with numerous houses, indicating a fairly rapid growth in the occupation of this area. Maps of the eighteenth and nineteenth

century show the area continuing to be densely populated, although a number of houses were destroyed to make way for the railway. Holy Trinity Church was built on the northern side of the street in 1835, providing a focus for the local community. The foundations of this long demolished structure were revealed in 1991 during the A20 roadworks.

The pipe trench varied in depth from 1.20 to 1.60 m. For much of the route natural beach shingle was revealed in the lower parts of the trench. Traces of former road metallings were noted above this in several places. The walls of later post medieval

cellars were seen towards the north western end of the road and these clearly relate to houses which once fronted Strond Street. No finds were

recovered to confirm occupation in the area much before the eighteenth century.

Further sections of the pipeline are due to be

cut through areas of the medieval town further to the north and will be reported next year.

25 Townwall Street, Dover

Keith Parfitt and Barry Corke

The rebuilding of a petrol filling station on the northern side of Townwall Street has provided the opportunity for a major investigation in Dover town centre. Following a watching brief in the autumn of 1995, the Trust began a large scale excavation at the site in February 1996, on behalf of B.P. Oil UK Ltd.

The site lies close to the centre of historic Dover, across the supposed line of the medieval town wall, some 220 m. to the north east of the River Dour. It is bounded by the new A20 dual carriageway on the south eastern side, Woolcomber Street on the north east, Russell Street car park on the north west and the P&O offices to the south west. The site stands at an elevation of between 6 and 7 m. O.D. and falls within archaeological Zone F (Wilkinson 1990), an area considered likely to contain significant archaeological information about the nature and extent of the early river estuary/ harbour basin, the precise course and date of the medieval town wall and the character and topography of the medieval town itself. There have been no previous large archaeological investigations in this area, although small scale work undertaken over the last twenty five years has indicated that significant remains lie buried across it.

The first phase of archaeological work on the site took place during the demolition of the existing filling station and the removal by the contractors of the underground petrol storage tanks. This required the excavation of a large pit, and observation of its sides revealed the presence of high quality stratified deposits. Up to 2.5 m. of medieval layers were exposed, primarily comprising alternate deposits of rammed chalk flooring, soil and shingle dumps and occupation deposits. These appeared to range in date broadly from c. A.D. 1150 to 1400. The occupation layers were rich in pottery, animal



One of the post-medieval structures, possibly part of a blacksmith's forge.

fish bones and shell fish remains. These medieval deposits lay upon natural sand and beach shingle relating to the infilling of the old Roman harbour.

A shallower contractor's excavation dug at the same time at the opposite end of the site revealed a further area of undisturbed medieval deposits at a depth of only 0.30 m. below the surface of the modern forecourt concrete. Although the eastern side of this area was occupied by the infilled deep cellar of the Burlington Hotel, built in 1864, which had destroyed everything of archaeological interest, elsewhere the top of a deep sequence of medieval deposits was clearly exposed, cut by only a few modern intrusions. Research showed that the unusually high level at which significant archaeological levels began was due to the fact that the ground west of the Burlington Hotel (demolished 1949) had remained as gardens for much of the post medieval period.

Several infilled nineteenth century cellars relating to houses fronting Townwall Lane, a street lost in post war clearance of the area, were also located. These were generally fairly shallow; earlier stratified deposits survived below most of them. No trace of the medieval town wall, expected to cross the central part of the site, was identified.

As the watching brief proceeded it became abundantly clear that a remarkably complete archaeological sequence, providing a very valuable record of the gradual infilling of the old Roman harbour basin, its early colonisation and evolution throughout the medieval period and its subsequent development into an important residential area of post medieval Dover, was preserved on the site. Accordingly, a major excavation was planned ahead of the proposed new building work.

Working closely with the developers, the County Archaeologist and Oxford Archaeological Consultants, the foundations of the new petrol station were redesigned to preserve as much of the archaeology as possible, but the nature of the construction still required a considerable number of deep excavations and an extensive archaeological investigation was therefore imperative. This began early in 1996, funded by B.P.

A full account of the discoveries must await the completion of the excavation, but it is already clear that a highly complex sequence of structures and deposits exist across the site, which will only be fully understood by large scale detailed excavation.



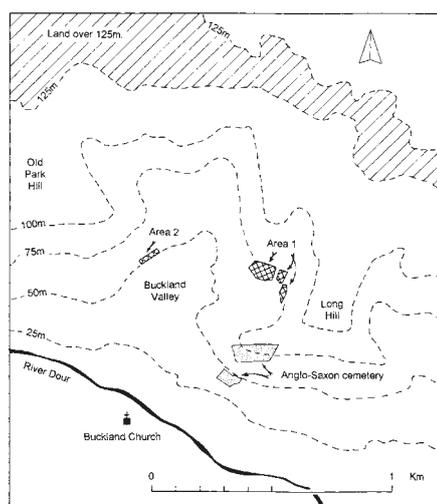
View of the site in the early stages of the excavation, looking eastwards.

The medieval deposits seem to include the remains of a series of lightly constructed rectangular timber buildings, whose principal surviving feature is a trodden floor, usually of rammed chalk but sometimes of clay. These floors have generally been relaid and repaired many times and post holes, stake holes, hearths and ovens are sometimes encountered upon them. It is not yet clear whether they represent the remains of simple houses or work sheds. They appear to have been quite regularly laid out, occupying well defined plots that seem to have remained in existence for long periods of time. The dating evidence indicates that they were occupied throughout the twelfth and thirteenth centuries. Parts of only two later medieval stone buildings have been exposed so far, although a number of post medieval structures have been revealed, most notably a probable blacksmith's forge of eighteenth century date.

The present site has provided a splendid opportunity to examine settlement evolution in this little known part of historic Dover. Very large quantities of pottery are being recovered and these should form a major corpus of material from this important medieval town and Cinque Port. John Cotter has provided a very interesting outline of the ceramics from the site based on his initial observations of the material recovered (see pp. 74–81) and this should be amplified as post excavation work proceeds.

26 Buckland valley, Dover

Barry Corke and Keith Parfitt



Contour plan showing areas observed during the watching brief.

During the rebuilding of post war houses on the Buckland Estate, the Trust was invited by the main contractors, Denne Builders of Canterbury, to maintain an intermittent watching brief on the work. This was undertaken between October 1995 and February 1996 in two separate areas of redevelopment. The main area (Area 1) was located on the western side of Long Hill and covered some 18,000 m² on either side of Melbourne Avenue, principally between Ottawa Crescent and Vancouver Road. A smaller area (Area 2) of about 2,500 m² was situated at a lower elevation, some 500 m. to the west, on the eastern slopes of Old Park Hill, adjacent to Dryden Road. The two areas examined were located on either side of the steep middle slopes of the Buckland valley. This forms a short dry valley or coombe joining the north east side of the main Dour valley between Old Park Hill and Long Hill, some 2 km. north of Dover's historic town centre.

On the summit and upper slopes of Long Hill, immediately east of the Buckland valley, lies the Hobart Crescent Napier Road housing estate. During its construction between 1951–53, extensive archaeological excavations revealed 170 Anglo Saxon graves dated to c. A.D. 475–750, together with the remains of a prehistoric burial monument and an early Roman pit (Evison 1987). During the summer of 1994 the Trust conducted further excavations in the area (*Canterbury's Archaeology* 1994–95, 27) which covered some 1.3 hectares across the lower slopes of Long Hill and revealed another large and hitherto unexpected portion of the Anglo Saxon cemetery. There was also clear evidence for both Iron Age and medieval agricultural terracing of the hillside. Hillwash deposits across the site produced large

quantities of prehistoric flint material indicating occupation further up slope during Neolithic or Bronze Age times.

Although the limits of the Long Hill Anglo Saxon cemetery have now been defined reasonably clearly and it is unlikely that this cemetery extended around the hillside into the Buckland valley, no less than five other Anglo Saxon cemetery sites are known on the hills above the Dour valley and the possibility remains of yet another existing somewhere above the Buckland valley. The scatter of prehistoric finds from the Long Hill area, together with the Iron Age cultivation terraces here and the presence of a probable Bronze Age burial site towards the summit of the hill clearly implies that prehistoric man was also active in this region.

Although previous damage to the soil deposits by earlier terracing and building was extensive, some useful archaeological information was nevertheless recorded, particularly in Area 2. Little of archaeological interest survived across most of Area 1, but fragmentary traces of thin silty brown and cream grey clays were noted at several points sealing the natural brickearth and chalk. These deposits fairly certainly represent colluvial material and were presumably created by ploughing of the adjacent slopes of Long Hill. A single sherd of sandy medieval pottery, probably of fifteenth century date, was recovered from one of these deposits, together with a small fragment of West Country slate, implying that the layers were accumulating during the later medieval period. Similar evidence for medieval cultivation was recorded on the south western side of Long Hill in 1994.

A broadly similar sequence of deposits, again heavily disturbed by previous building work, was recorded in Area 2, though more extensive colluvial deposits were located over the natural subsoil. These were between 0.20–0.90 m. thick and several discrete horizons were identified consisting of a series of cream brown and grey brown silty clays and clay loams. In places these might have incorporated buried former land surfaces. They were again almost certainly produced through ploughing of the valley sides. Significant quantities of prehistoric struck flints and calcined flints were recovered from these layers, together with a number of animal bones and some 140 sherds of prehistoric pottery. This pottery is relatively fresh and unabraded and the majority is broadly datable to the Late Bronze Age–Early Iron Age period (c. 850–500 B.C.). It seems probable that the bulk of the animal bone and lithic material recovered is contemporary with

the pottery and the whole probably represents domestic rubbish derived from a settlement site located further up slope.

Four other pot sherds discovered may be earlier; three pieces could be derived from Middle Bronze Age vessels of Deverel Rimbury type and another sherd appears to be Early Bronze Age Rusticated Beaker. In addition, there are also two sherds of Late Iron Age grog tempered ware, implying at least limited activity in the area during later prehistoric times.

The quantity and fairly fresh nature of the artefactual material found suggests that an associated occupation site must have been situated close by. A short distance above the present site, near the Powell School, a large modern playing field now occupies a large area of essentially flat ground which could have provided a suitable spot for a prehistoric settlement.

The evidence from these two sites in the Buckland valley confirms and amplifies the evidence previously recorded at the Buckland cemetery site. It is now clear that certain areas of the steep slopes of the Dour valley have been cultivated at various times in the past. On the cemetery site agricultural activity appears to have occurred throughout the Middle Iron Age and also during the medieval period. At Dryden Road (Area 2) cultivation of the adjacent slopes seems to have begun earlier, some time in the Bronze Age and probably continued into the earlier Iron Age period and possibly later. The quantity of reasonably fresh domestic rubbish recovered suggests the presence of a farmstead site somewhere close by.

The hillwash deposits discovered adjacent to Melbourne Avenue (Area 1) suggest that later medieval cultivation extended from the cemetery site around Long Hill onto the eastern side of the Buckland valley. It may well be that areas of medieval strip lynchets (and perhaps earlier Celtic fields) once existed on the valley sides over much of this region. Traces of lynchets still survive in Lousyberry Wood and above Great Watersend Farm further to the north west.

On the evidence of the colluvial deposits now recorded both on the slopes of Long Hill and Old Park Hill, it would seem that the Dour valley was sufficiently densely populated at certain periods to make it necessary to plough the steep valley sides which in normal circumstances would have been regarded as marginal ground of limited value for cultivation. Clearly the slopes of the Dour valley cannot be written off as archaeologically sterile as has often happened in the past.

27 The Royal Military Canal, Kenardington

Jon Rady

On 25th and 26th of September 1995, an archaeological watching and recording brief was carried out during the initial stages of the construction of a culvert through earthworks relating to the Royal Military Canal about 1 km. south east of Kenardington in south Kent (TQ 9784 3138). The engineering works, implemented by the National Rivers Authority, who also funded the archaeological operation, were required to relieve flooding of the marshland north of the canal in this area. Since the Royal Military Canal is a Scheduled Ancient Monument (No. 396), consent was needed from English Heritage, who imposed the condition and specification for the archaeological works. The main aim of this specification was to obtain and record a section through the monument in order to learn more about its original construction, adaptation and deterioration. The archaeological works are almost certainly the first time that a full section through the monument has been observed or recorded, though a similar project was carried out by South east Archaeological Services further north along the canal near Ham Street in 1992 (Greatorex 1995, 231–7).

The Royal Military Canal is a primarily defensive waterway built between 1804 and 1809 in response to a perceived invasion threat from Napoleon. Construction of the canal, which extends for nearly 30 miles from Shorncliff at Hythe in Kent to Cliff End, near Rye in Sussex, began in November 1804 and although not fully complete the canal was finally inspected by the Duke of York in August 1806. The canal itself was originally 60 ft wide and 9 ft deep with an adjacent rampart (consisting of a parapet and banquette), a military road and government drain on the landward side with the towpath and another adjacent drain to seaward. During the early life of the canal, the waterway was predominantly used for military traffic, though tolls were charged for civilian traffic along the military road and commercial barges were charged by the load (Vine 1972, 100–110). From the later 1800s sections of the canal were progressively sold off to private individuals (*ibid.*, 203), the National Trust and, at Hythe, to the district council.

The new culvert was designed to span the military road and rampart, between the government drain on the landward (north) side and the canal proper to the south, in order to divert water from the government drain to the canal. The c. 30 m. long culvert was to be buried just over 4 m. below the highest point of the rampart. This required the machine cutting of a trench, specified as c. 2 m. wide, to the required level, across the whole span of the rampart and adjacent military road. The material of the rampart was removed in layers by the machine blade under

archaeological observation and the north section (A–A) was then partially cleaned and recorded in as much detail as circumstances would allow.

Deposits which were considered to be natural and undisturbed were located at the base of the trench, under a very clear horizon (context 9). The earliest deposits (13–14), which were partially exposed at the very base of the trench, consisted of black organics, mostly waterlogged peat with occasional fragments of wood, sealed over most of the northern part of the trench by a layer of marine alluvial clay, homogeneous, glutinous and bluish grey in colour, 0.5 m. or more thick.

A sequence of deposits (10–12) overlay the natural strata at the southern end of the trench. These appeared to be artificial and were sealed by what was probably a remnant of turf line (8) representing a stable ground surface, and a horizon (9) that can be ascribed to the construction of the Royal Military Canal. The lack of artefactual evidence and the limited nature of the excavation however, mitigate against any definite interpretation as to the derivation or function and date of these deposits.

These earlier levels were completely capped by a massive dump of material (7), that extended across the whole length of the trench and which formed the bulk of the earthworks as they survive to the present day. The material, which consisted of a generally very compact, similar mix of clays of various colours was about 1.4 m. thick to the north increasing to c. 2.2 m. thick at maximum under the rampart itself. It was virtually free of inclusions apart from a few small fragments of chalk, ironstone and magnesium flecks and a few sherds of post medieval pottery. No internal stratigraphic detail was noted in the matrix of this level, although admittedly, much of it was not examined in great detail.

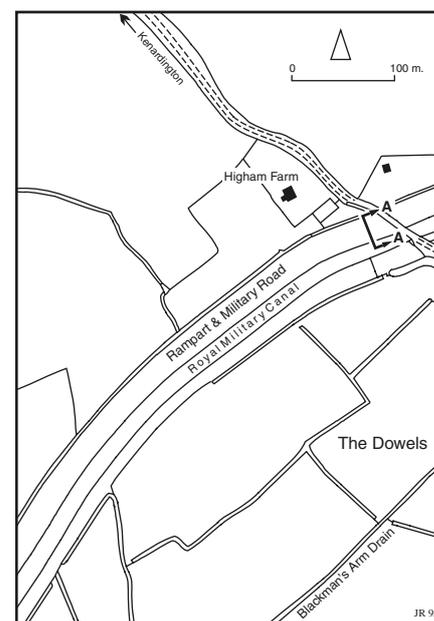
The initial construction of the Royal Military Canal can be closely dated through documentary sources to between 1804 and 1806. The large dump level (7), which makes up the bulk of the associated earthworks, obviously represents this initial phase of construction and is presumably mostly derived from the immediately adjacent natural deposits extracted during the excavation of the canal itself. The nature of the underlying horizon (9), and the fragment of probable old turf line (8), which was not continuous across the entire width, suggest that the original ground surface was cleared, perhaps with the removal of any topsoil, prior to the formation of the earthwork, in much the same manner as topsoil is stripped during civil engineering works today.

Subsequent deposits formed the bulk of the rampart. These levels (5 & 6), 1 m. thick at maximum, consisted of similar bands of yellow or orange clay separated by two lenses of a darker

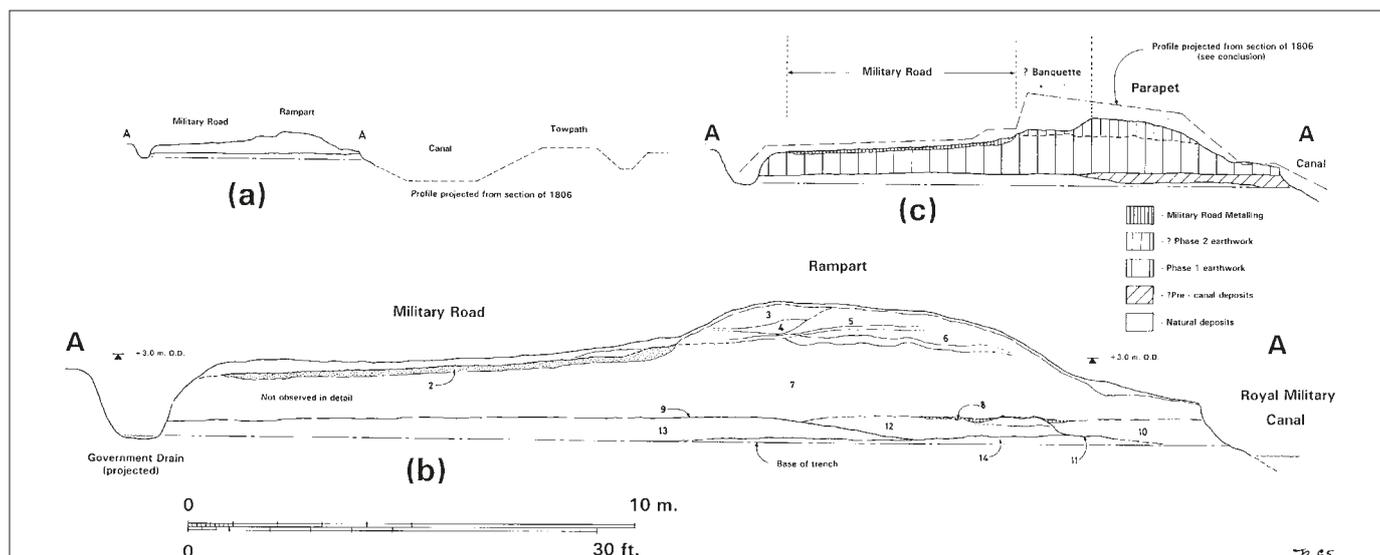
grey clay between 0.1 and 0.2 m. thick. A possible second phase of the construction of the earthwork, is represented by these deposits. Although this material was generally very similar in composition to the underlying bulk of the earthwork (7), its banded nature suggests a change in depositional history. Support for this contention is documented and moreover suggests a hiatus in the construction of the canal earthworks. According to Vine (1972, 74), 'At the end of August [1806] ... the Duke of York ... inspected the canal ... Although the rampart and military road had still to be built ... the canal had been filled and a tolerable work of defense established'. The upper layers of the earthwork, comprising most of the rampart can therefore probably be considered as a second phase dating to late 1806 or after. The origin of the darker bands within this sequence are unclear, but the matrix might suggest that they are composed of material dredged from or near the edges of the canal, which was filled with water by this time.

Two other deposits formed the final profile of the rampart as it survives. These levels (3 & 4) only existed on the northern side of the rampart where they lay in a 'ledge' about 0.8 m. deep and 2.5 m. wide. They consisted of yellow and greyish brown clay similar in composition to the other rampart deposits which they overlay.

The last deposit of any significance (2), only existed between the government drain and the northern edge of the rampart and was generally about 0.15 m. thick. This 10 m. wide spread consisted of compacted grey pebbles, generally between 1 and 3 cm. across, which studded the upper surface of the dump deposit (7). The upper surface of the layer sloped down gently towards the government drain,



Position of Section A-A, Royal Military Canal.



Royal Military Canal. (a): section through canal and rampart; (b) section A-A; (c): section A-A interpretation.

following the contours of the underlying deposits in this part of the earthwork. This material can be safely interpreted as the metalling of the contemporary military road, which was formed of a single layer of beach shingle (Vine 1972, 84–5), laid immediately over the underlying earthwork surface. The slope of the metalling, without any camber, presumably facilitated drainage into the government drain.

The entire earthwork was capped by turf with a generally very thin layer of topsoil, particularly over the rampart. It would seem likely however that the appreciably thicker topsoil over most of the military road was generally derived from material from the cleaning of the drain, subsequently affected by bioturbation.

Due to the small sample size and limited nature of the archaeological works, little can be definitely said about the sequence of deposits that predate the construction of the Royal Military Canal. However, although there was virtually no artefactual dating evidence, there was nothing to suggest that, apart from the natural levels, which were clearly defined, any of the deposits were of great antiquity.

As to the bulk of the monument itself, little new evidence for the method of construction (other than that which can be gleaned from, or

corroborated by, the rich documentary resource), was forthcoming from the examination of the deposits. The preliminary clearance has been mentioned above. Construction probably commenced immediately with the bulk of the earthworks made up of one stratigraphic unit (7). Although the nature of this heavy clay would inhibit the formation of clear tip horizons it would seem probable that most of it was laid fairly quickly, and in random manner, to the required dimensions.

There was no real evidence for the deterioration of the earthwork after its construction, and it is likely that since it was probably turfed fairly rapidly (Vine 1972, 69, 94), little natural erosion would have taken place, apart from on the immediate edges of the canal. However, the presence of the 'ledge' on the northern side of the rampart (containing contexts 3 and 4), and comparison with a section through the canal and earthworks published in Mr Scott's Canal Book 1806 (Hythe Council Archives H/U3), suggests that the profile as it exists today may not be the original one. The profile of the rampart, drawn without the inclusion of contexts 3 and 4 bears a remarkable similarity to this section (reproduced at an approximately similar scale here), and suggests that the ledge may be the remnant of the banquette

behind the parapet. There was no evidence for a parapet wall, or more probably in this area, a fence along the parapet (Vine 1972, 76, 84).

As has been stated above, there was little evidence for any subsequent degradation; the original profiles appear if anything to have been made up by the deposition of silts, probably mainly through twentieth century cleaning of the drains. The bulk of this material appeared to overlie the military road and has probably accumulated fairly recently (*ibid.*, 135), since the military road was still visible as a gravel spread, at least in some places, shortly after the Second World War (*ibid.*, 208). The deposits (3 & 4) within the banquette, if this has been rightly interpreted as such, were dissimilar to these silts however, and their clean, clayey nature suggests that this depression may have been deliberately infilled at some time. When and where this occurred does not seem to be documented, though it may possibly be related to the extensive planting of trees and bushes along the edge of the banquette in about 1819 (*ibid.*, 133).

Thanks are extended to Mark Douch of the National Rivers Authority, funders of the operation, and to Peter Kendall of English Heritage.

28 West Hythe Road, West Hythe

Alison Hicks

The proposed development of a plot of land to the north of the West Hythe Road, West Hythe (TR 1250 3420), was known to be in an area of archaeological potential. On the upland to the north west, lies Stutfall Castle, a late Roman fort excavated between 1976 and 1978 (Cunliffe 1980) whilst a Roman port is thought to lie within the region of Lympe. The Roman road of Stone Street also lies to the north and, if its line is extended further south, may have

passed close to the area of investigation. Anglo Saxon occupation has been identified at Dykeside Farm, c. 400 m. south west of the site. Hearths, pits, shell scatters and deposits yielding mid Saxon pottery and briquetage, were identified and suggest occupation extending into the eleventh century (SEAS 1993). To the north west of the evaluation area lies the pre Norman church of St Mary's which might indicate the location of a deserted medieval

settlement. Later medieval occupation, comprising a number of church and settlement sites, lies further to the east. The most recent, and prominent, feature of archaeological interest is the Royal Military Canal immediately to the north.

An archaeological evaluation was undertaken in November 1995 to determine whether the proposed development would impact upon archaeological remains. Four linear assessment trenches, with

a total length of 30 m., were cut by machine. No features, deposits or finds of archaeological significance were revealed. The deposits identified

represented natural accumulations of material. Only the lowest horizon, a wet, sticky, grey clay containing visible organic remains, was of interest.

However, this lay at a depth which would not be disturbed by the proposed development, and was therefore not investigated further.

29 Dymchurch County Primary School

Simon Pratt

In early April 1995 the Trust, working on behalf of and funded by Willmott Dixon Ltd and Orbit Housing Association, carried out an archaeological evaluation of the adjoining sites of the former County Primary School and the National Rivers Authority depot at Dymchurch. Seven evaluation trenches were cut and a preliminary environmental evaluation carried out. Following an assessment of the initial results, it was agreed with the County Archaeologist to undertake open area stripping in the central part of the site.

The general geology, archaeology and history of Romney Marsh has recently been comprehensively reviewed and referenced (Eddison & Green 1988). In the case of Dymchurch, resiting of the sea wall around 1837 brought to light evidence of Roman occupation, including probable salt working debris, over an area of several acres (Isaacson 1846, 487–8; Elliot 1847, 466–84). Several first to second century pottery vessels donated to Folkestone Library in 1919 by a Col. O. North were provenanced as 'Dymchurch' and recent work by Brian Philp has recovered similarly dated material, apparently from a little to the south of the modern village (Philp 1984, 175–91). Professor Cunliffe has suggested

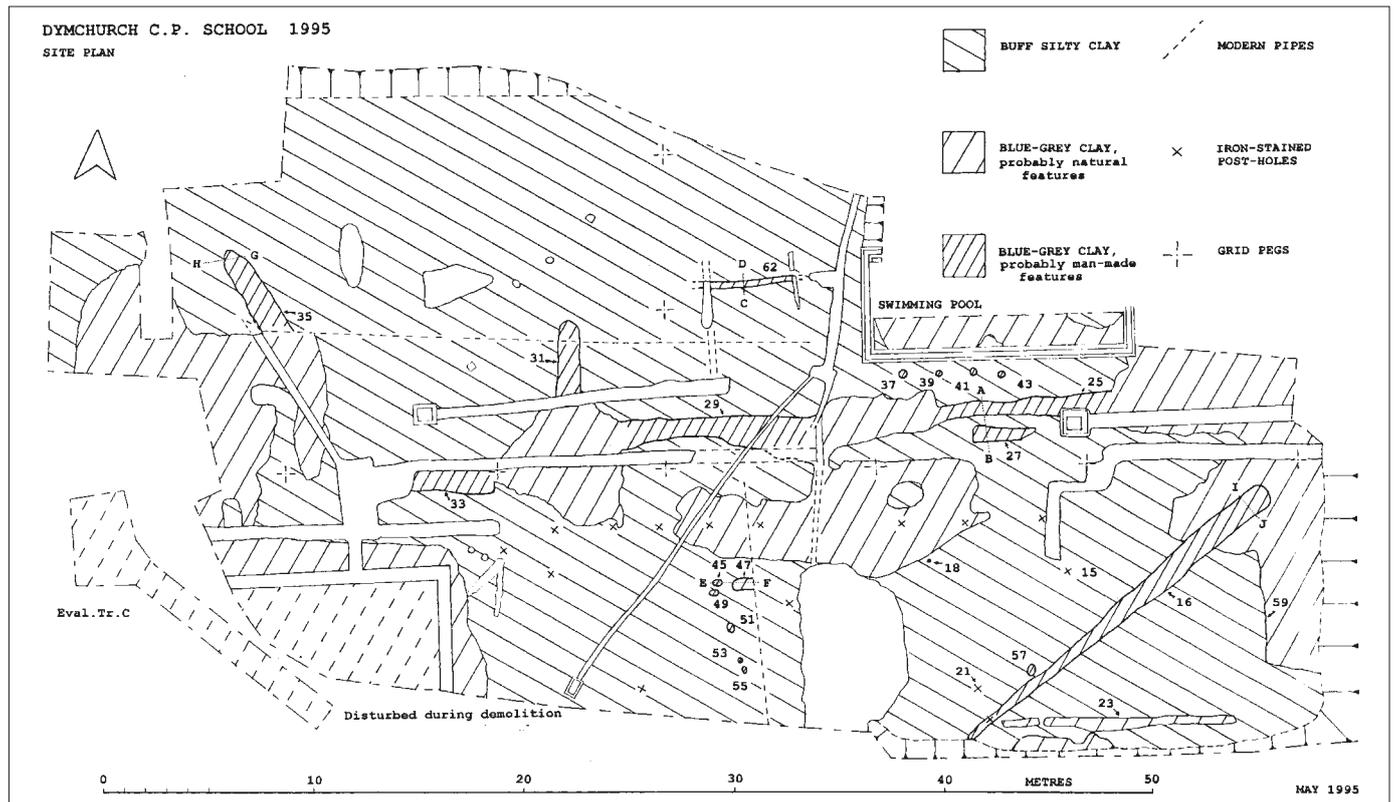
that Roman occupation of the Marsh may have been seasonal, with transhumant migration from the hinterland taking advantage of the area's rich summer pasturage (Cunliffe 1988, 83–7). Such occupation seems to have been limited to the first two centuries after Christ. Some have seen this as reflecting an adverse change in the physical environment, but more recently the existence of a deliberate third century military policy of coastal depopulation has been proposed.

Documentary evidence indicates that parts of Romney Marsh were again being used for pasture at least as early as the seventh century (Brooks 1988, 90–104). Indeed, the marsh contains an extremely high proportion of detached portions of parishes from all over Kent, probably a continuation or resumption of the Roman pattern of transhumance. Place name evidence also points to Anglo Saxon occupation. Dymchurch appears in Domesday Monachorum as Demancirce, dema being Old English for judge and circe meaning church (Ragg 1932, 203–52; Wallenburg 1934, 461–3). Medieval occupation appears to have continued more or less uninterrupted though much of the marsh was

flooded following a series of very severe storms in the late thirteenth century.

The site under investigation lay at the edge of a general rise from the modern southern part of the village up towards the medieval core formed by the church, New Hall and the Expenditor's House. The geology proved to be rather complex, ranging from fairly recently reclaimed marshland to the west, through low lying, perhaps marshy, clay in the south and a slightly raised clay bank in the centre and north eastern corner to an old shingle bank in the north west. Only two trenches revealed demonstrably artificial features earlier than the post medieval period.

A 15 m. east–west aligned trench (A) was cut in the depot's yard. The earliest natural deposits exposed consisted of banded sands and shingle. The uppermost of these bands showed possible signs of soil formation and may have sealed one or both of two pits. One of these yielded a few abraded sherds of Roman pottery, the other a sherd of glazed pottery of probable twelfth century date. The shingle bank and both pits were covered by 0.18–0.35 m. of very clean, compact yellow



Dymchurch County Primary School: plan of the stripped area.

silty clay with no inclusions, probably a flood silt, perhaps deriving from the great storms of 1287–8 when the course of the Rother shifted south to emerge at Rye. A shallow ditch cut through the clay and contained fragments of medieval(?) peg tile and a sherd of twelfth to thirteenth century pottery. A deposit of slightly gritty, grey loamy clay sealed the yellow clay and the ditch fill. It contained a few sherds of probably post medieval peg tile, and may represent plough or garden soil. A sunken mortared structure of irregular chalk blocks, orangey red brick and peg tile was cut from the surface of this deposit on the southern side of the trench. Its dimensions suggested the lining of a rectilinear well or cess tank, probably of mid eighteenth to mid nineteenth century date. Two large ditches containing much eighteenth /nineteenth century material and a deep nineteenth or early twentieth century pit had removed almost all earlier deposits in the eastern part of the trench. In the western part, the post medieval plough or garden soil was sealed by successive nineteenth to twentieth century levellings and surfaces.

Another 15 m. east–west aligned trench (D) was cut approximately along the long axis of the main school building in the central part of the site. To south, east and west, all earlier anthropogenic strata had been truncated by the building. However, horizontal stratigraphy did survive in the northern

section, albeit heavily cut about by construction and demolition work. The natural subsoil here consisted of orangey brown sandy clay capped by 0.05–0.08 m. of yellowish grey clay lightly flecked with charcoal and tile, probably an ancient turf line. At the western end of the trench, both the turf line and the subsoil were cut through by the southern edge of a large, apparently vertical sided feature, at least 0.20 m. deep, with a slightly eroded upper edge. Filled by a blue green clay, this was originally thought to be a man made ditch, but was later shown to be a natural hollow. At the eastern end of the trench, the ancient turf line clay was cut by an apparently steep sided ditch, with a rounded north western lip. The ditch was filled with grey clay with a bluish tinge, lightly flecked with charcoal (including carbonized seed). Only a metre or so length of the ditch was excavated, but it yielded ninety one sherds of first to second century pottery, eighteen fragments of daub and two of animal bone. Such a concentration of material was considered indicative of occupation in the vicinity.

However, subsequent area stripping failed to reveal any other major contemporary features in the central part of the site. Any Roman layers had been removed by post medieval ploughing in the north eastern area (where an abraded Roman sherd was found in the ploughsoil) but may survive beneath the extensive modern dumping in

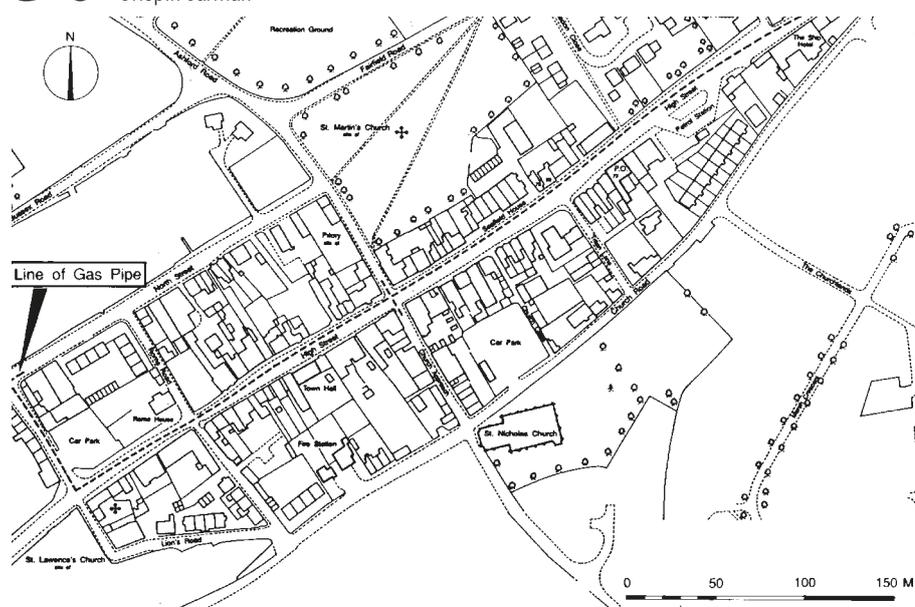
the north western. The low lying southern third of the site was probably open marsh.

Large irregular areas of blue grey clay, apparently old marshy hollows, were encountered throughout the stripped area. These features were connected by narrow channels with similar fills. The more regular of these channels may have been man made or have been artificially regularised. Several smaller features with blue grey clay fills were also found and at least four, in a row flanking one of the more regular channels, were almost certainly post holes. A slot which had once held upright planks ran parallel to the posts, but further west. Though the posts and slot might once have formed part of a single building, no conclusive evidence was found.

The Roman ditch identified in Trench D during the evaluation phase gradually petered out to the south west and was found to have cut across the fill of one of the large natural hollows to the north east. A regular cross section was cut across the ditch here and environmental samples taken from both it and the underlying fill of the hollow. The discovery that an indisputably Roman feature cut one of the marshy hollows was surprising and raises the possibility that more of these had dried out by the first or second century A.D. Some of the seemingly artificial channels connecting these may thus be prehistoric in origin.

30 New Romney gas pipeline

Crispin Jarman



Street plan of New Romney showing route of pipeline.

Between mid January and the end of April 1995 the Trust maintained a watching brief during the installation of a new gas mains pipe through the centre of New Romney. The section of gas main to be replaced extended along the High Street from

its junction with Station Road at the north eastern end of town, to the junction with West Street at the south western end of town and then turned northwards along West Street to the junction of West Street with North Street.

The town of New Romney was one of the five original Cinque Ports and was probably an important town and port before the Norman conquest, possibly coming into existence in the tenth century with a mint being established there at the end of that century. The histories of the ports of Romney and New Romney were linked to the changes brought about by their position on the edge of the marsh. The two towns were located on a natural harbour which was subject to the force of the sea changing its form at frequent intervals. The most notable example of the sea's action on New Romney is reported to have happened in 1287, when an inundation is said to have destroyed the town (Parkin 1973). The changes in coastline have now left both towns completely land locked and so ended their prosperity as ports.

The status of New Romney as a Cinque Port and the presence of a number of religious houses there means that there is a considerable quantity of documentary material relating to the town. A map of 1614 (Hasted 1797) shows most of the present street pattern fully established. The same map also suggests a regular arrangement of plot boundaries. The present day boundary and road pattern retains regular elements reflecting this plan and hints at the

possibility of town planning taking place, possibly during the rebuilding of New Romney after its destruction in 1287, though admittedly the evidence is scanty.

Despite the historical importance of New Romney, very little is known about the extent and quality of surviving archaeological levels beneath the town. The aim of the project was to observe and record deposits revealed, noting the depth of post medieval overburden, the presence of any medieval flood deposits (if detectable), and any buildings present.

The c. 1.0 m. deep and 0.40 m. wide trench was machine excavated. The total length of trench was over 650 m., dug in c. 50 m. lengths. It was recorded using block sections initially drawn at 5 m. intervals, but this became variable depending on the nature of the deposits encountered. The quantity of datable material retrieved was not great and derived mainly from a small group of layers located at the north east end of the town which may have been outside the medieval town limits.

The strata observed during the work consisted entirely of horizontal deposits; no walls or other structural features were located and no ditches or other obvious features were exposed. The deposits observed consisted mainly of gravel and sand layers, with some clays, silts and crushed brick deposits. The gravels and sands could be traced over varying distances along the trench, from a single section to around 150 m.

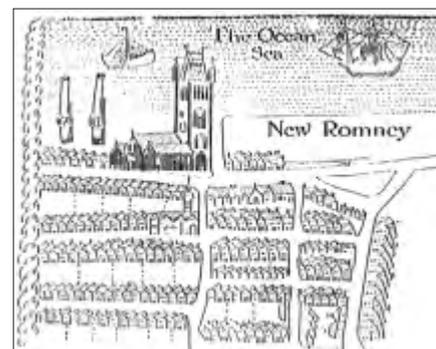
It was not possible to determine the cause of deposition for many of the deposits encountered; it was not clear whether some layers were the result of natural deposition or whether they were man made. The majority of the layers contained some or all of

the following inclusions: brick, peg tile, mortar, carbon, animal bone and sea shells. Given that natural deposition and erosion of strata by the sea was a continuous process occurring simultaneously with human occupation, it is highly likely that natural deposits would include evidence for human activity; the presence of cultural material in a layer does not preclude natural deposition.

The earliest datable deposits were those located at the north east end of the trench. These consisted of a series of sands from which pottery dating to the twelfth and thirteenth centuries was recovered. Notably there were no pot sherds later than the last quarter of the thirteenth century recovered from these layers suggesting a likely date of deposition prior to the flood of 1287. It is therefore reasonable to assume that these represent pre flood soils.

Above the early sands were two deposits which may tentatively be suggested to represent the inundation of 1287. The relationship between the two was not clear but they occupied a similar stratigraphic position and may have been contiguous. Both deposits were formed of silty sand and contained a high gravel content. They were largely devoid of cultural material, although one sherd dating between 1150–1250 was recovered. The layers above this horizon did not produce any pottery of pre thirteenth century date and no brick fragments or post thirteenth century pottery were observed beneath it. In the centre of the trench, these deposits were observed to lie above a layer formed from bands of gravel which again appeared to represent flood material.

At the north east end of town the flood horizon was about 1.0 m. below the contemporary road surface, while at the south west end of town there was only



New Romney from a map dated 1611 in the possession of Magdalen College, Oxford.

0.4–0.5 m. of overburden. Above the apparent flood horizon the deposits consisted largely of gravels which appeared to be road metalling, the layers resulting from a complex sequence of road surfacing and repairs. The presence of brick fragments throughout much of this material indicated a late date, probably post medieval, an interpretation supported by the recovery of eighteenth century pottery from one of the layers. This leaves a gap in the sequence of deposits between the end of the thirteenth century and the post medieval period, probably caused by the truncation of the earlier road deposits during preparation for the construction of a later road. The truncation was required in order to prevent the road level from rising too far above the thresholds of the buildings facing the High Street.

The observations made during excavation were ambiguous and cast little light on the development of the town. The absence of any structures or features combined with the difficulty in ascertaining the cause of deposition means that only tentative conclusions could be drawn.

31 Kingsnorth Manor, Park Farm, Ashford

Alan Ward

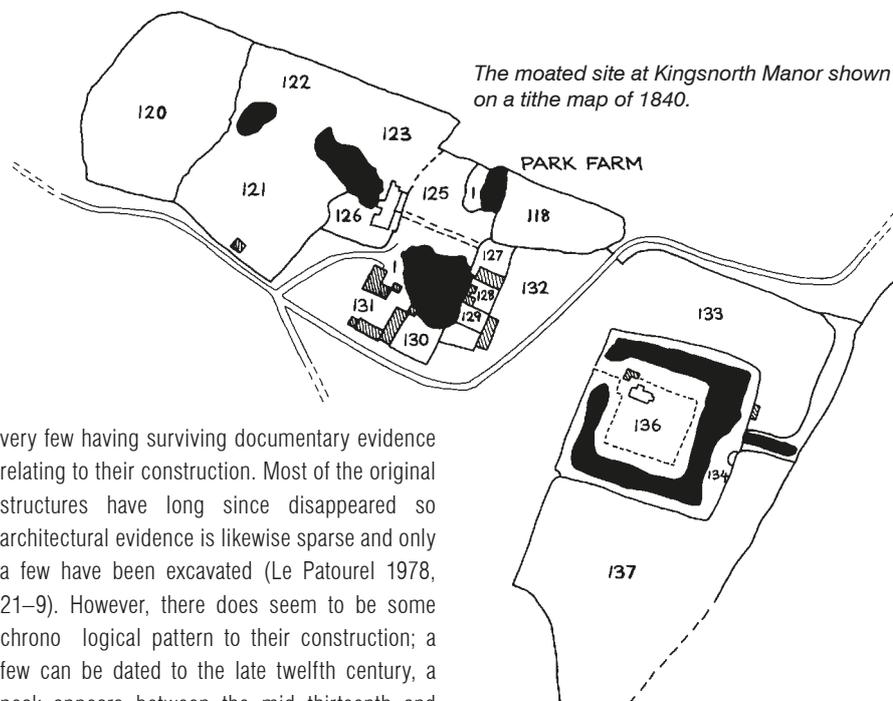


The moat at Kingsnorth Manor under clearance.

In September 1995 the Trust returned to Park Farm, Ashford, (*Canterbury's Archaeology* 1992–93, 41; 1994–95, 37) to maintain a watching brief at Kingsnorth Manor, a moated site which falls within the area of the new housing estate. As part of the development the manor site and its immediate environs are to be made into a park. The removal of silt from the moat was monitored and any features observed on the island were recorded.

A moated site has been described as 'an area of ground enclosed, sometime in the medieval period, either completely or partly by a wide ditch which was usually intended to be filled with water' (Taylor 1978, 5). A dwelling usually occupied the area of land so enclosed, but moats may enclose farmyards or gardens (especially in the sixteenth and seventeenth centuries), sheep pens or orchards.

Moated sites are notoriously difficult to date,



The moated site at Kingsnorth Manor shown on a tithe map of 1840.

very few having surviving documentary evidence relating to their construction. Most of the original structures have long since disappeared so architectural evidence is likewise sparse and only a few have been excavated (Le Patourel 1978, 21–9). However, there does seem to be some chronological pattern to their construction; a few can be dated to the late twelfth century, a peak appears between the mid thirteenth and fourteenth and a diminishing number seem to have been constructed in the fifteenth century and later (*ibid.* p.27).

Hasted tells us that the standing manor house of Kingsnorth 'still called Park House' stood at some distance from the site of the 'ancient mansion' on the moated island upon which the remains of a 'mosaic pavement and large quantities of stone' had at times been dug (Hasted 1798, 584).

Several plans of the Park Farm estate exist; the earliest shows that Hasted's new mansion was in existence by 1598. A licence to embattle the mansion and enclose a park was granted to Sir Thomas Browne in the reign of Henry VI. Dated to 1449 this licence perhaps indicates the construction of the new house and the abandonment of the moated site (Mills Whipp 1990, paras 5.3 and 5.4). Certainly by 1598 the site was already known as the 'old mote' (*ibid.* 5.4).

An estate map of 1723 shows some changes to the landscape and what may be an overflow leat on the east side of the site. This leat was certainly in existence by the time the Tithe Map was produced in 1840. This map also shows two buildings situated on the island approached by a wide causeway in the north west corner. The

Ordnance Survey map of 1870–71 (rev. 1931) still shows the site of Hasted's new mansion with its associated farmyard and several ponds. These structures survived on and adjacent to the island until quite recently.

The moat at Kingsnorth Manor, encloses a rectangular island with an area of approximately 50 m.2 As part of the landscaping works, silt from the moat was dumped on the island to be used in the creation of a garden. Any underlying archaeological deposits therefore remain undisturbed. A few archaeological observations were made prior to commencement of dumping.

A terraced area was recorded on the south side of the island and a slope (which might once have been terracing) on the north. A few loose ragstone blocks lay within the southern terraced area. It was first considered that these might be derived from a medieval moat revetment, but closer examination showed that the stonework was of limited extent and appeared to form an open rectangle roughly 1.50 m. square. Its function remained enigmatic, though it is regarded as being of medieval date.

During soil dumping on the island two voids were opened by the wheels of earthmoving machinery. These were found to be the remains

of a brick and stone lined well and a cess pit with the remains of a brick cupola. Further 'soft spots' were located by truck wheels elsewhere on the island and, although no further voids appeared, it is possible other wells or cess pits exist. Other features observed during the watching brief, including timberwork within the southern arm of the moat, are all considered to be of relatively modern date.

Once the silt was removed the moat was found to have a clay base with a gently sloping bowl profile. The eastern part was 1 m. deeper than the west allowing water to flow freely from the feeding springs. The moat was obviously used as a rubbish dump from the nineteenth century onwards, but no earlier material was recovered from the silt. This probably indicates that the moat was regularly cleaned, even into the nineteenth century though it is possible that the moat was recut at a late date, perhaps as a garden feature, or that the exposed base was not actually the medieval moat bottom.

The 6 m. wide causeway at the north west corner of the moated enclosure was examined. Two sherds of nineteenth century pottery were found embedded within it. The tithe map of 1840 shows remnants of a causeway at this point, but the subsequent discovery of a length of electricity cable at its base showed that the causeway evident today is of modern construction.

No new dating evidence for the moated site was discovered during the watching brief. No sign of the 'mosaic' referred to by Hasted was seen; this is perhaps more likely to have been a decorated medieval tile floor, rather than one of Roman date. Although evidence for Roman activity has been recorded in the general area (*Canterbury's Archaeology* 1992–93, 41–2), there is nothing to suggest that the site at Park Farm is anything other than a medieval moated manor house dating to the thirteenth or fourteenth century, the period when these establishments were most common.

Thanks are due to Park Farm Estates Ltd who funded this project, to their representatives John Aylwin and Derek Reed and to the contractors who provided every assistance during the course of the watching brief.

32 St Mary's Church, Leigh

Alan Ward

A watching brief was undertaken in May 1995 during the excavation of trenches prior to the erection of a new 'church room' at St Mary's Church, Leigh, near Tonbridge. The new room was to replace a recently demolished smaller structure situated in the angle between the chancel and the north aisle.

No structural remains were observed in any of the trenches, but about a dozen burials were encountered. Only one burial lay wholly within a wall trench and that just 80 cm. beneath the surface. Most of the skeleton survived although all that remained of its timber coffin was a dark stain

and an area of bitumen which may have attached an iron name plate.

Thanks are extended to the parish for supporting the archaeological work, to the architects Garden and Godfery and to the on site work force who provided every assistance.

33 Castle Wall, Rochester

Alan Ward

In April 1995 a watching brief was maintained during the removal of a modern embankment abutting the east curtain wall of Rochester Castle. The embankment was created after buildings against the wall were demolished in 1976. Subsequent movement within the embankment had led to collapse into two of the three hollow medieval relieving arches known to exist within the foundations. Dangerous voids, large enough for people to crawl into, had been temporarily backfilled with concrete beams, but in order to achieve more permanent consolidation the shifting rubble and soil was removed by machine and a more solid embankment then constructed.

The relieving arches were first recorded in 1888 (Arnold 1889). Later the Reverend Greville Livett (1895) provided a more detailed description of the curtain wall and foundations of this area. In 1976, after the demolition of buildings against the wall, archaeological investigations were undertaken and in the area of the central arch important information relating to the origins of the castle, as well as part of a Roman stone building, was uncovered (Flight & Harrison 1978). The gravel embankment, upon which Bishop Gundulf's castle wall of c. 1088 was constructed, partially survived within this arch. It was probably movement within this gravel bank which necessitated the rebuilding of the curtain wall upon a new foundation in the reign of Edward III (*ibid.*, 38–9).

Removal of the upper portions of the embankment by machine confirmed that slumping was taking place into two of the arches; the southernmost arch had been bricked up in the last years of the nineteenth or early in the twentieth century and had not created a problem. Clearance of the clay embankment and underlying rubble from the buildings demolished in the 1970s, ceased a few centimetres above intact archaeology. An on site meeting between representatives of Rochester upon Medway City Council, English Heritage and the Canterbury Archaeological Trust reached a unanimous decision that as the cause of the subsidence had been found further excavation into intact archaeology was unnecessary.

Archaeological observations made during the watching brief were therefore minimal. The eleventh century gravel embankment within the central arch was exposed, but not removed. In other areas intact archaeology exposed by the removal of soil or rubble consisted of a black loam, presumably the late and post Roman 'dark earth' common on urban sites and dating to between the fourth and eleventh centuries. The 1976 excavation did not reveal archaeology within the northernmost arch; here 'dark earth' was observed beneath the arch supports and the post medieval rear wall.

The Roman wall known to exist beneath the grass verge at the base of the embankment was not exposed. There is the probability that compaction of soil deposits and possibly some movement of this wall has taken place as a result of the heavy earthmoving machinery brought into the area.

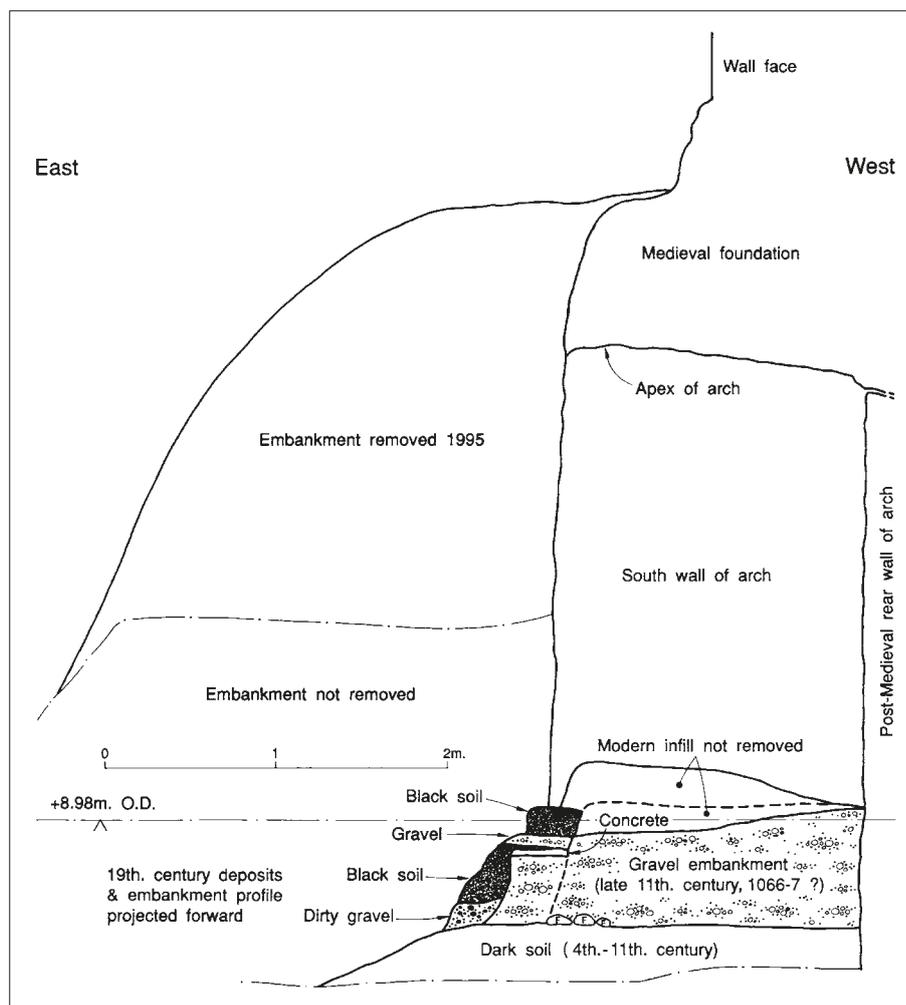
The stonework of the arches was cleaned and photographed. The whole foundation was extremely rough and the arches themselves irregular in construction, an indication that they were never meant to be seen. The piers for all of the arches cut through the early gravel embankment, and into the post Roman dark soil. Remains of the eleventh century gravel survived within the central arch. The central arch had probably been used as some sort of outhouse in the post medieval period as various bits of attached metalwork and mortar scars were evident within it. A geotextile protective membrane was placed over areas where archaeological deposits had been approached prior to reinstatement of the embankment.

Whilst the foundations were exposed the opportunity was taken to make a rectified photographic survey. Six rectified photographs

were subsequently used to provide a 1:20 scale interpretative outline drawing.

The curtain wall and exposed foundation had a total height of approximately 11 m., consisting of several components. Three, possibly four, structural phases seem to be present. A modern repair phase, perhaps dating to the clearance of ivy sometime this century; the brick blocking of the southernmost medieval arch which can be dated to after 1895 and possibly forming part of the modern repairs; and the medieval rebuild of 1367–70. The earliest structural phase of the castle wall was the pre Gundulf gravel embankment possibly dating from the first year after the Norman invasion. However, Rochester Castle is not included in the Anglo Saxon Chronicles as one of those constructed in the invasion period (1066–71), so a later (but pre 1088) date for this phase cannot be discounted.

The above ground curtain wall is c. 6 m. high and faced almost entirely of roughly shaped ragstone blocks. Where the medieval core is visible, angular blocks of chalk are the dominant material.



East-west section below middle relieving arch showing pre-Gundulph gravel embankment.

The uppermost 0.80–1.20 m. of the curtain wall is the most obvious aspect of the modern consolidation phase. Many of the ragstone blocks, rather than being laid horizontally form slightly curved courses of stonework. Several areas of the wall face have probably been refaced or repointed, most notably below the stair turret of the northernmost rectangular tower.

The remaining c. 5 m. of wall face is laid in horizontal courses which can be regarded as one structural phase. However, there is a definite break in construction approximately 20 cm. below the uppermost series of put log or scaffold holes. A further break was identified 90 cm. above the horizontal datum used in the rectified photography. It perhaps represents the first season of construction in 1367, the laying of the foundation being part of this procedure. The second season of work (1368) would extend to the upper definite break and the third season's to the portion above, including the destroyed crenellations. The fourth season of 1370 may be represented by the construction of the tower, which is discussed below.

The only other medieval detail noted was a series of put log holes for horizontal timber beams

upon which a hurdle or plank walkway would be laid during the construction works. Most of these put logs retain their blocking stones, but their regularity enables their position to be identified.

Despite substantial repointing and possibly refacing in the area immediately below the stair turret of the northernmost tower (Tower 3: Flight & Harrison 1978, fig. 1), it is noticeable that there is a straight joint between the northern, faced, wall of the tower and the rough foundation of the curtain wall. The rough irregular foundation of the tower is noticeably lower than the foundation of the adjacent wall. Both observations suggest that the tower is of a later date. However, the apparently mid to late fourteenth century vaulted ceiling surviving within the tower (op. cit. 1895, 34) and the overall manner of construction suggest that it cannot be much later than the wall. It seems a reasonable supposition that wall and tower are part of the same construction phase, the latter perhaps representing the fourth season's work of 1370.

The watching brief added little to our overall knowledge of the development of the castle defences or underlying deposits, but the opportunity it afforded for close study of this section of curtain wall enabled a tentative phasing

of construction activity to be put forward. It is hoped that any future opportunities for rectified photography of the walls at Rochester will prove equally fruitful.

Thanks are extended to Rochester upon Medway City Council for funding this project and to their representatives Sara Fletcher and Paul Ritson and to the on site staff who provided every assistance. Thanks are also extended to volunteers from the Lower Medway Archaeological Research Group and Upchurch Archaeological Society and to Arthur Harrison for once again sharing his extensive knowledge of Rochester.



East curtain wall and embankment before the works.

34 Rochester Cathedral Crypt

Alan Ward

For many years the crypt of Rochester Cathedral has suffered from damp which has begun to affect the stonework and remnants of wall paintings on the vault. In an attempt to find the source of this damp, a series of trenches was excavated, from October to December 1995, within and around St Ithamar's Chapel at the east end of the crypt.



Work in progress within St Ithamar's Chapel.

In 1990 and 1992–93 trenches had been observed to the east and north of the cathedral (Canterbury's Archaeology 1992–93, 39) and in 1994, as a preliminary to the present investigation, Tim Tatton Brown excavated two trenches within the crypt. A full archaeological report embracing all recent work at the cathedral, is in preparation.

The crypt of Rochester Cathedral is of two parts. The earlier western part of the crypt is traditionally regarded as having been constructed by Gundulf, Bishop of Rochester between 1076–1107 (Hope 1898, 204). St Ithamar's Chapel is of later date being constructed between 1179–1214 after a disastrous fire destroyed the church (McAleer 1993, 132, note 5). It has been argued (Fairweather 1929) that the western part is later than the time of Gundulf and was built after an earlier fire in 1137. Fairweather also argued that at the end of the eleventh century the east end consisted of a more conventional triple parallel apse situated slightly to the west.

Five trenches were excavated outside the cathedral, three parallel to the north and east walls of the crypt (Trenches 8–10), and a further two (Trenches 11–12) at right angles to these. Cathedral foundations were exposed in Trenches 8–10. In Trench 8 it was found that the foundation had been cut by a Victorian drain passing below

the north wall and the crypt floor. As the outlet for this drain was at a higher level than the pipe itself this had created a sump from which waste water never entirely escaped and it was this which had caused the dampness in the crypt.

Trench 11 contained only modern soil deposits. A flint yard surface was exposed in Trench 12, but no dating evidence was recovered. The yard may be associated with the medieval Prior's Lodge or the post medieval Deanery to the east.

Inside the crypt most of the trenches excavated followed the line of Victorian drain pipes and work was limited to recording trench sides and bottoms. Within trenches 13, 14 and 15 remnants of chalk, clay and mortar floors were noted. Rubbish pits were also visible, and with the exception of one small sherd of seventh or eighth century Anglo Saxon date, all of the pottery recovered was Roman.

To the south of the crypt a small trench (Trench 17) was excavated in what had been a small yard, forming a light well between the late twelfth / early thirteenth century crypt and the fourteenth century library. Within this trench disturbed soil containing post medieval brick fragments overlay the foundation of the library wall and the earlier buttress. Below this deposit a further soil layer may have been 'dark earth' of post Roman date.

No structural evidence pre dating the crypt was observed. Surviving archaeological deposits had been truncated first by crypt construction and then by the insertion of a concrete floor in Victorian times.

It is hoped that further trenching will take place in the area of the crypt in the not too distant future. This work might resolve the question of whether or not there was an apsed Norman east end (Fairweather 1929), but it seems likely that the later construction of the crypt probably removed any earlier structural evidence. If this is the case it seems probable that Fairweather's hypothesis can only be tested by well placed research trenches within the north and south transepts where evidence for apsed side chapels may survive.

Thanks are extended to the Dean and Chapter of Rochester Cathedral for funding this project and to the comptroller, Chris Hebron for his help. Advice and assistance was also received from Tim Tatton Brown, Caroe and Partners and Bakers Construction and Design. Volunteers Sophie Adams, Peter Dawson and Terry Smith

from the Lower Medway Archaeological Research Group gave considerable practical assistance as

did Kerry Harris from the Dover Archaeological Group.



The Victorian drain cutting the cathedral foundation in Trench 8 outside the crypt.

35 Hayward's House, Rochester

Alan Ward



An intermittent watching brief was undertaken between June 1995 and January 1996 whilst foundation and soakaway trenches were dug during renovation work at Hayward's House, Rochester.

This building is named after Sir John Hayward who in 1635 left a legacy for the establishment of a workhouse. This was finally constructed in 1700 and incorporated timbers from the Old Corn Market which formerly stood in the High Street. A map of 1816 apparently shows the workhouse

slightly to the east of the present almshouse which was built in 1823.

Previous archaeological work in the area indicated that there was likely to be a c. 3 m. deep deposit of soil above alluvial clay. It was also known (from the unpublished Duke of Northumberland's map drawn by Richard Seeth in 1633) that there was a 'New Church Yarde' in the vicinity. Adjacent excavations conducted by Arthur Harrison (1970, 95–112; 1981, 95–136) recorded grey alluvial clay at approximately 1 m. OD.

A sequence of deposits was recorded in the 4 m. deep cutting of the deepest soakaway. The grey alluvial clay was evident at its base at about 0.90 m. O.D. Above this clay was a compacted chalk surface about 0.20 m. thick which was in turn covered by two further clay deposits, suggestive of a systematic build up, the specific purpose of which is open to speculation. It might have been a consolidated surface for the beaching of boats in a tidal marsh/creek environment or been formed to facilitate rubbish dumping further out on the alluvial deposits

Mixed soil and gravel deposits lay above this build up and within this, immediately below modern made ground, large numbers of human bones were noted. The bones were badly disturbed by successive grave cuts and modern disturbances and undoubtedly were derived from the 'New Church Yarde'. No dating evidence was recovered from within the soil containing the skeletal material, but the cemetery was in use by 1633 and the deposit is assumed to be of late medieval or very early post medieval date. Eighteenth century pottery was recovered from its surface.

Thanks are extended to the Watts Charity for funding the project, to their architects Miller Ankas Partnership and to the on site workforce of Wallis Builders, especially the site agent Taffy Watts, all of whom provided every assistance.

36 Northgate, Rochester

Alan Ward

In January 1996 an evaluation trench was excavated within the Northgate Car Park, Rochester prior to the construction of a new public convenience. Although Northgate, previously known as Pump Lane and in the medieval period as Cheldegate, was widened in 1902, pushing the street frontage back, it was thought that medieval structures might survive in the development area.

Several excavations have taken place in adjacent areas. The first, undertaken at the time of the street widening, uncovered part of the Roman town wall, but no sign of gate towers (Payne 1905, p.lxix). In 1961 and 1974 further trenching again failed to find any indication of a Roman gate and it was consequently concluded that this was probably a simple arched opening in the wall (Harrison & Flight 1968, 70–3; 1981, 95–9). However, a wall

extending to the rear of the defences was uncovered which probably forms one side of a much later gatehouse of the medieval period.

Within the Corn Exchange on the opposite side of the road a trench excavated in 1961 uncovered evidence for a Roman timber building and stone buildings of both Roman and medieval date (Harrison 1970, 95–6). In 1986 excavations within the car park area itself encountered a large number of medieval and post medieval pits along with a sixteenth century kiln or oven and retrieved a silver penny of the Mercian king Offa (757–95) sometime overlord of Kent (Daniels 1986, 261–2; 1987, 387).

The 1 m. deep evaluation trench revealed brick walls and chalk floors of eighteenth or nineteenth century structures and an earlier stone lined cess pit, probably of eighteenth century date. Several

rubbish pits, containing a high proportion of residual Roman pottery, were considered to date to the medieval period.

The evaluation therefore confirmed the presence of archaeological deposits and as a result raft type foundations requiring a minimum number of piles will be adopted for the new public conveniences, thereby preserving the maximum amount of archaeology.

Thanks are extended to Rochester upon Medway City Council for funding the excavation and to their representative Satish Bhatia and Liz Dyson of K.C.C. for help received. Thanks are also due to Bakers Construction and Design and H.E. Services for technical advice and to my colleague Ian Stewart for his hard work during the project.

37 Pepper Hill, near Springhead

Nick Pearson

Two evaluation trenches were excavated by the Trust for Union Railways Limited at Pepper Hill, near Springhead in the Ebbsfleet valley. The works were requested by the local planning authority as a condition of planning consent.

The Ebbsfleet is now a small stream but historically it was a tidal river (OE *fleot*). A considerable area was floodable to either side of the stream, and it must have presented a considerable barrier to east–west communication. The nearby Roman road, for instance, conspicuously avoids having to cross the river, skirting the point where it rises ('spring head'). The geology of the Springhead/Ebbsfleet area is dominated by chalk, which has attracted extensive extraction in the twentieth century, while the valley bottom contains significant deposits of Head Brickearth, alluvium, colluvium and peat.

The Springhead area has been of interest to antiquaries and archaeologists for at least 300 years. Much of the earlier work consisted of the recovery of artefacts, including a large quantity of Roman coins and metalwork (G.M. Arnold 1889), although there are several nineteenth century references to structural remains being unearthed. These included a bath house and substantial structures and foundations. Early publications were mainly concerned with establishing the site of the *Vagniacis* of the Antonine Itinerary, recorded as lying between *Noviomagus* (Crayford) and *Durobrivae* (Rochester).

Roadworks in the 1920s and 30s revealed

sections of Watling Street and building remains, while a walled cemetery discovered in 1801 (Jessup 1959) was destroyed by construction of the Northfleet switching station. The area was scheduled as an Ancient Monument in 1954. During the 1950s the Gravesend Historical Society began systematic excavations at Springhead, revealing six temples, a possible bakery, a well, and a number of smaller features such as kilns and corn dryers (Penn 1957–1968). Widening of the A2 in the 1960s revealed further archaeological features and finds. Work has continued in the area in recent years, with evaluations and excavations undertaken by the Kent Archaeological Rescue Unit (Philp & Chenery 1992) and the Oxford Archaeological Unit (OAU forthcoming).

Three scatters of prehistoric flint and a well defined concentration of Roman pottery and tile have been found during fieldwalking of a large arable field on the east bank of the Ebbsfleet. The Roman finds lie close to the southern end of the Ebbsfleet inlet in Springhead itself; this may be the site of a Roman harbour, and a Roman road runs towards this site.

The 1995 evaluation trenches lay immediately north of the main scheduled area (Kent SAM 158) of the Roman town of *Vagniacis*. The potential for Roman archaeology in this area is relatively high, based on observations made during work in the adjacent Springhead Nursery. Recent fieldwork has provided a useful insight into the relative concentrations of Roman activity across the

site. It has been demonstrated that whilst deeply stratified Roman deposits exist to the immediate north west and to the south east of the former Gravesend West railway, few Roman features are present further north west. However, since no previous assessment has been undertaken of the land to the north west of the Roman town, apart from the work within the Springhead Nursery, its true potential remains uncertain.

The fieldwork comprised the excavation of two trenches located on the position of the proposed development, on the south side of the A2. Each trench was 7 m. square. Neither trench revealed any trace of archaeological remains.

The absence of archaeological features and deposits at this location is surprising, given the presence to both the north west and the south east of scheduled ancient monuments. Additionally to the south west there is an area of Romano British pits and ditches and a single inhumation burial. A geophysical survey within SAM No. 158 also indicated a high degree of potential right up to the south eastern edge of the scheduled area, less than 50 m. from the evaluation trenches.

However, the recent evaluation work revealed an undisturbed soil horizon with no associated archaeological stratification or features over brickearth natural. The complex of known features and geophysical anomalies present within SAM 158 to the north west do not appear to extend this far south. The limit of that part of the site must lie between the southern edge of the scheduled area and the evaluation trenches. It would also

indicate that SAM 198, the Roman temple site to the south east of the evaluated area was isolated from the large settlement to the north (SAM 158).

The evaluated area is apparently therefore of low archaeological potential between two areas of considerably greater importance, which has

interesting implications for the spatial layout of the Roman settlement in the area.



Building Recording

A Littlebourne Barn

Rupert Austin

Littlebourne Barn is one of the most impressive medieval barns in Kent and almost certainly dates from the first half of the fourteenth century. With the exception of an eighteenth century granary to the west, other farm buildings which might have once surrounded the barn have long since vanished. An area in front of the barn, formerly the farm pond, is now covered in overgrown vegetation. In common with the majority of Kentish barns, Littlebourne Barn is fully aisled and built entirely of timber. The early barns at Court Lodge, Brook and Manor Farm, Frindsbury are perhaps the only surviving Kentish barns with features similar to Littlebourne.

Canterbury City Council recently purchased the structure. With so many of Littlebourne's contemporaries destroyed or damaged by fire, an accurate and detailed survey of this important building was considered prudent. This was undertaken by during the spring of 1995.

The primary fourteenth century structure

Littlebourne Barn, of seven full bays with outshots at either end, is presently 172 ft long and 39 ft wide. The core of the building (the principal trusses and arcade plates) dates from the fourteenth century. The roof, side elevations and one end have all been rebuilt, in some places several times over. As with many medieval buildings, the timbers were prepared in advance and numbered to assist with assembly on site. These numbers or carpenters marks revealed many important details about the building and enabled original timbers to be distinguished from later replacements.

The aisled cross frames are assembled in a manner typical of medieval Kentish barns. A substantial arch brace rises from the front of each principal arcade post to the tie beam, whilst a long shoring brace descends from the rear to the post plate beneath. Similarly substantial arcade braces rise from the sides of each post to the arcade plate above. These braces are all of irregular shape, following the natural curves of the timber from which they were fashioned. Their square and stocky section is characteristic of early work. An aisle tie, tenoned into the rear of the arcade post, passes the descending shore, before securing the

outer wall post and eaves plate. A substantial post plate, into which the posts and shores are tenoned, lies beneath the aisles of the cross frames, laid on a low dwarf wall.

Several archaic features, suggestive of an early date, have been incorporated into the framing. The aisle walls are constructed using reverse assembly, spandrel struts have been incorporated between the arcade posts and their arch braces and splayed and keyed scarfs used to join the main arcade plates. Housings atop the arcade plates and mortices in the sides of the original tie beams indicate that dragon ties, another early feature, were once incorporated into the framing.

Aisle walls/external elevations

It is clear from mere cursory inspection of the external elevations that they have been rebuilt and modified many times. The most important clues to the original arrangement of the aisle walls can be seen on the ends of the post plates in Truss II, section D–D. Mortices still survive on the sides of these plates indicating that they interrupted the ground plates. This detail has unfortunately been lost on the other trusses where the post plates, due to decay, have been trimmed back. The interrupted ground plates, an important structural feature of Littlebourne Barn, had not been recognised until

the present survey. This discovery confirms that the existing ground plates, which now oversail the post plates, are all later replacements. The only exceptions are perhaps those along the north east elevation. We can, as a result, eliminate the many and varied scarfs that patch together these later ground plates from our picture of the original barn.

Despite the loss of the ground plates, something of the original arrangement of the aisle walls can be seen in five of the bays along the rear south east elevation. Mid rails and centre posts survive in these bays. It seems that the aisle walls at Frindsbury Barn, which appear to be better preserved and retain much original cladding, are of similar construction (Rigold 1966, 1). The eaves plates, joined over the principal wall posts using splayed and pegged scarfs, also appear to be original. A groove, intended to take vertical weatherboards, runs continuously along the underside of these plates.

North east terminal bay

The north east bay appears, for the most part, to have survived in its original fourteenth century form. The aisled construction continues here in the manner of a 'half' bay, the terminal tie beam cantilevered atop the arcade plates and supported by an axial post. Many of the timbers in the north



General view of exterior looking south.



General view of interior looking south-west.

east elevation appear to be original. Only here are the ground plates interrupted by post plate. The eaves plates, like those along the rear elevation, have a weatherboard groove and are scarfed with a simple splay over the principal wall post. A substantial tension brace, the only brace to be seen anywhere along the aisle walls, drops from the east corner post to the ground plate. Its sizeable square section and general appearance matches the fourteenth century braces elsewhere. A mortice, indicating a similar brace in the opposite corner, is clearly visible on the ground plate. The east corner post, which interrupts both ground plates and eaves plates, may also be original.

Missing south west bays of the barn

One of the most important discoveries, indicated by the carpenter's marks, was that the fourteenth

century barn originally continued further to the south west. Truss no. 1 is clearly missing. Without further investigation one might assume that a single bay has been removed from the building. However, examination of the arcade braces, also numbered in sequence, reveals that an odd number of braces are missing, indicating that a bay and a half has been removed. This end of the barn therefore terminated in a cantilevered half bay, almost certainly matching that of the surviving north east bay. The addition of the missing fabric gives an original length of 202 ft.

Re used posts and tie beams

Numerous re used timbers, some incorporated during the building's construction and others added during later phases of repair and alteration, can be seen in the barn. Three of the main arcade posts and two tie beams have drawn the most attention.

The three re used posts (all along the south east arcade) appear to have come from an earlier barn, or perhaps an aisled ground floor hall. Whatever their source, the structure was clearly taller than the Littlebourne Barn. Empty mortices for earlier arch braces and arcade braces can be seen above the braces present today. Applied jowls, matching those throughout the rest of the fourteenth century building, have been added to the tops of these posts.

The two tie beams at the north east end of the barn have also been re used from another building. Housings for passing braces, perhaps associated with a scissor braced roof (an early form of roof structure), can be seen on the sides of these tie beams. However, there is no evidence to link the re used arcade posts and tie beams together.

Entrances

None of the original entrances have survived; the extant porches were added in the 1960s. Several suggestions regarding the former fourteenth century entrances have been made in the past, but it was not realised that the ground plates were entirely replaced and the aisle walls rebuilt. The remaining evidence therefore only relates to later arrangements.

The extant northernmost entrance has clearly been inserted through the framing of the north west aisle wall, rebuilt at this point perhaps in the fifteenth century. An earlier entrance was once positioned in the adjoining bay to the south west where there is a break in the seventeenth century ground plate. Carpenter's marks associated with the rebuilt section of fifteenth century aisle wall clearly respect this entrance, indicating that it was present before this work was undertaken. Unlike the northern entrance, the extant porch to the south clearly replaces an earlier entrance. Only a few timbers, which are perhaps of seventeenth century date, now remain.

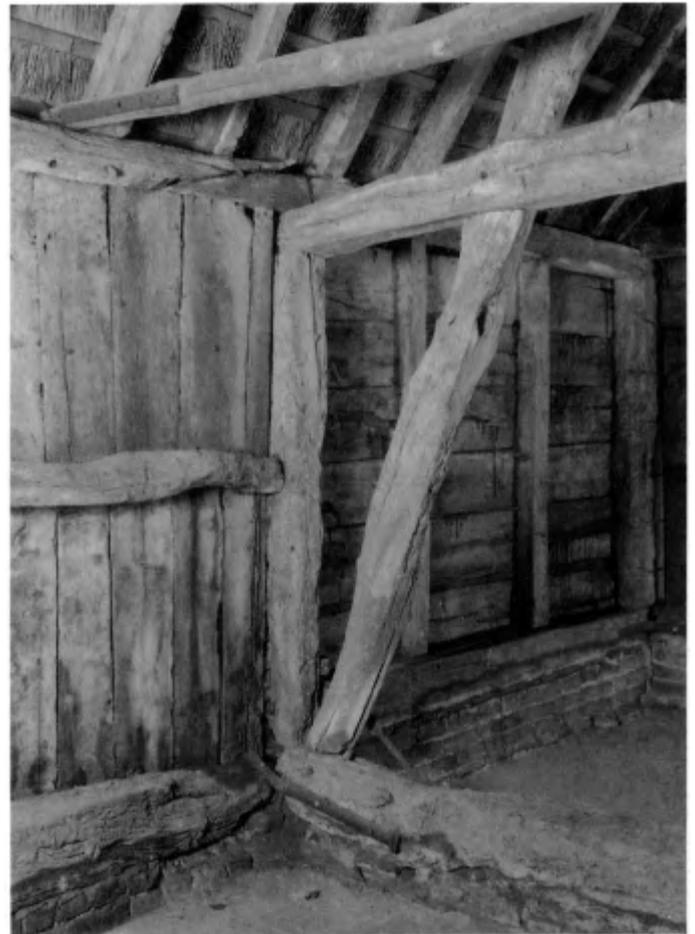
In the absence of any direct evidence, one can only speculate and hope that the positions of these two early entrances respect the original fourteenth century arrangement. At present they lie further to the south west than one might expect. However, if the missing bay and a half is added to the plan of the barn, the suggested locations fall symmetrically about the centre of the building.

Later crown post roof

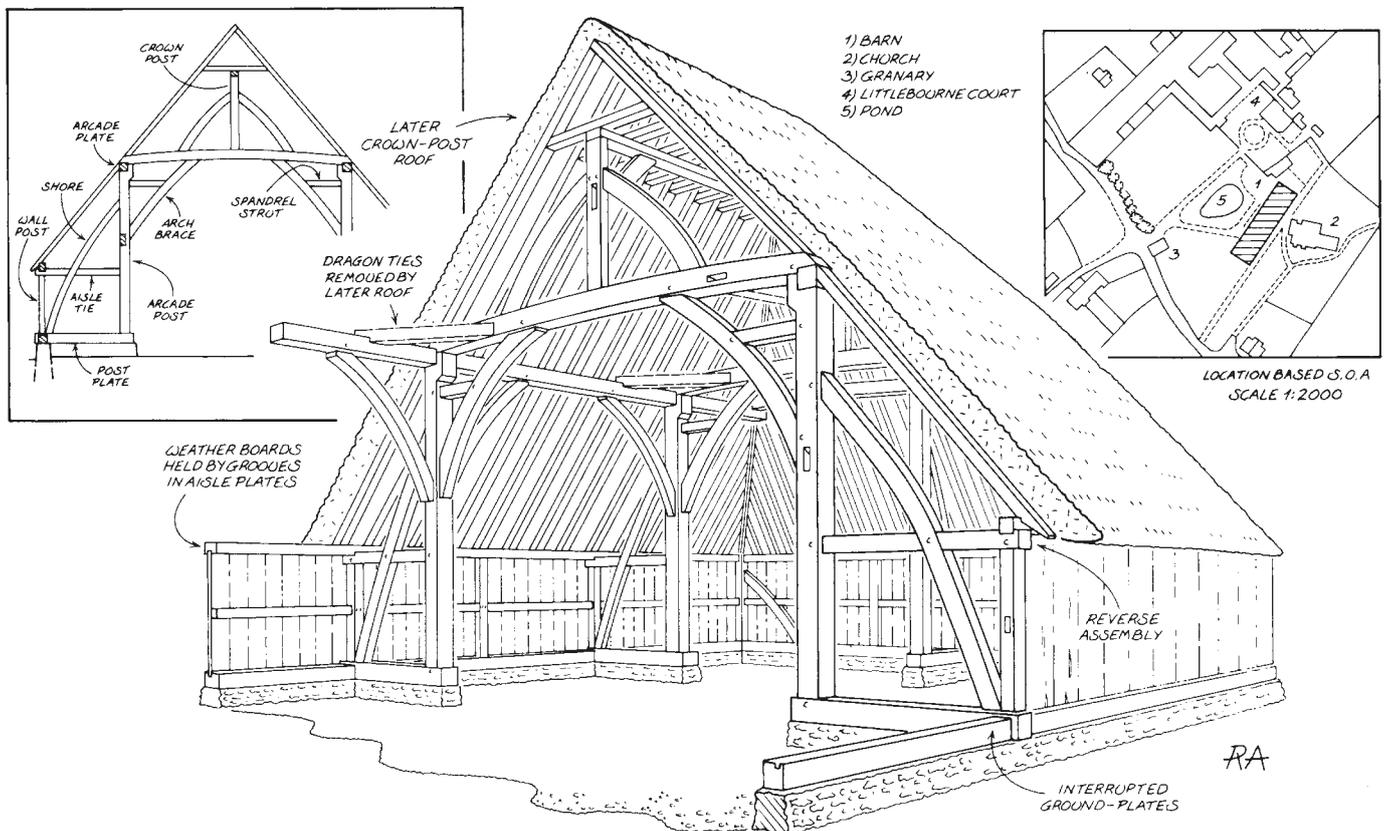
An attractive and fully braced crown post roof presently runs the length of the barn. Even a quick glance suggests it to be of a different build to the framing below. In contrast to the irregular shape and square section of the fourteenth century timbers, the posts and braces of the roof are



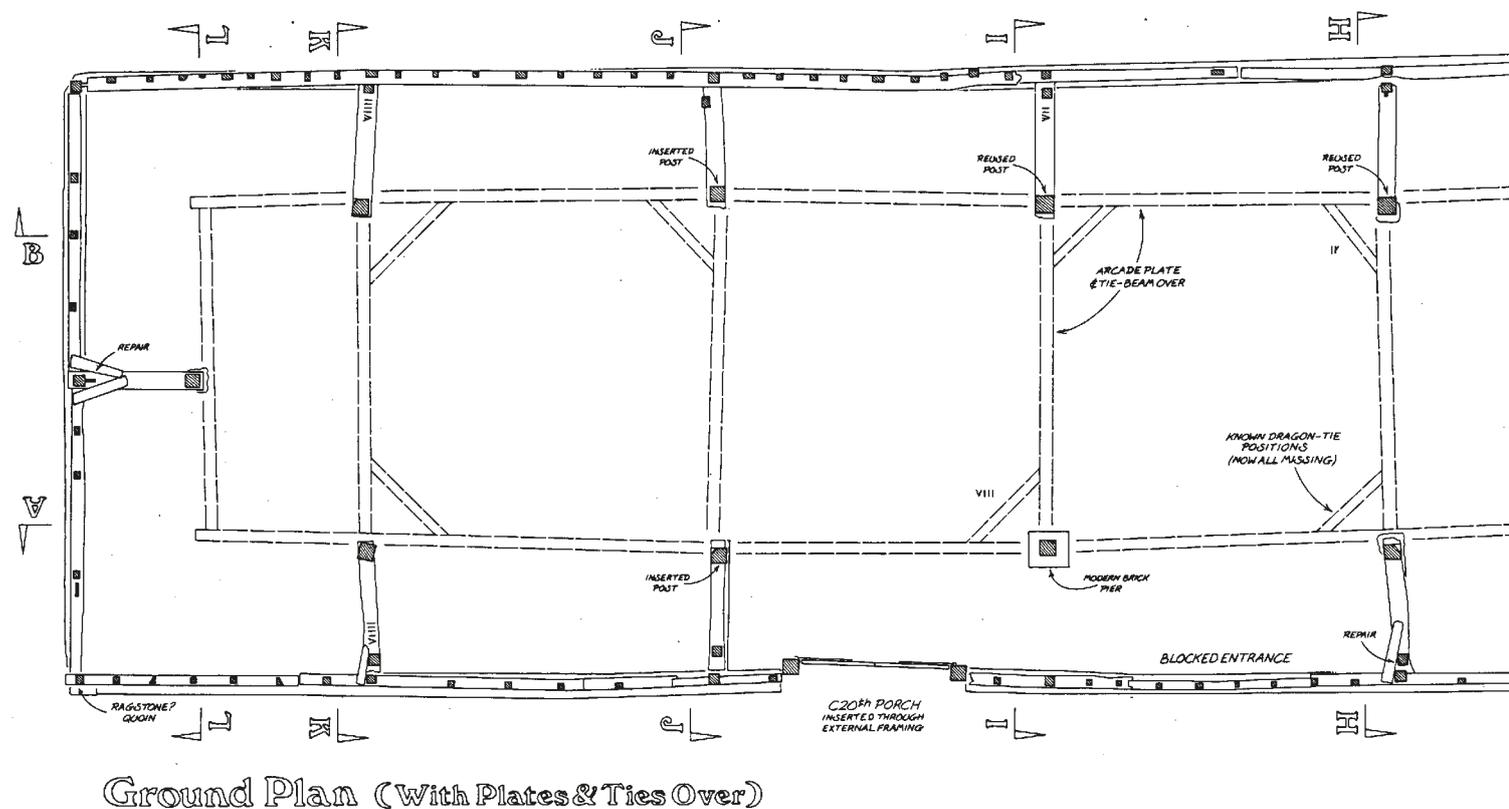
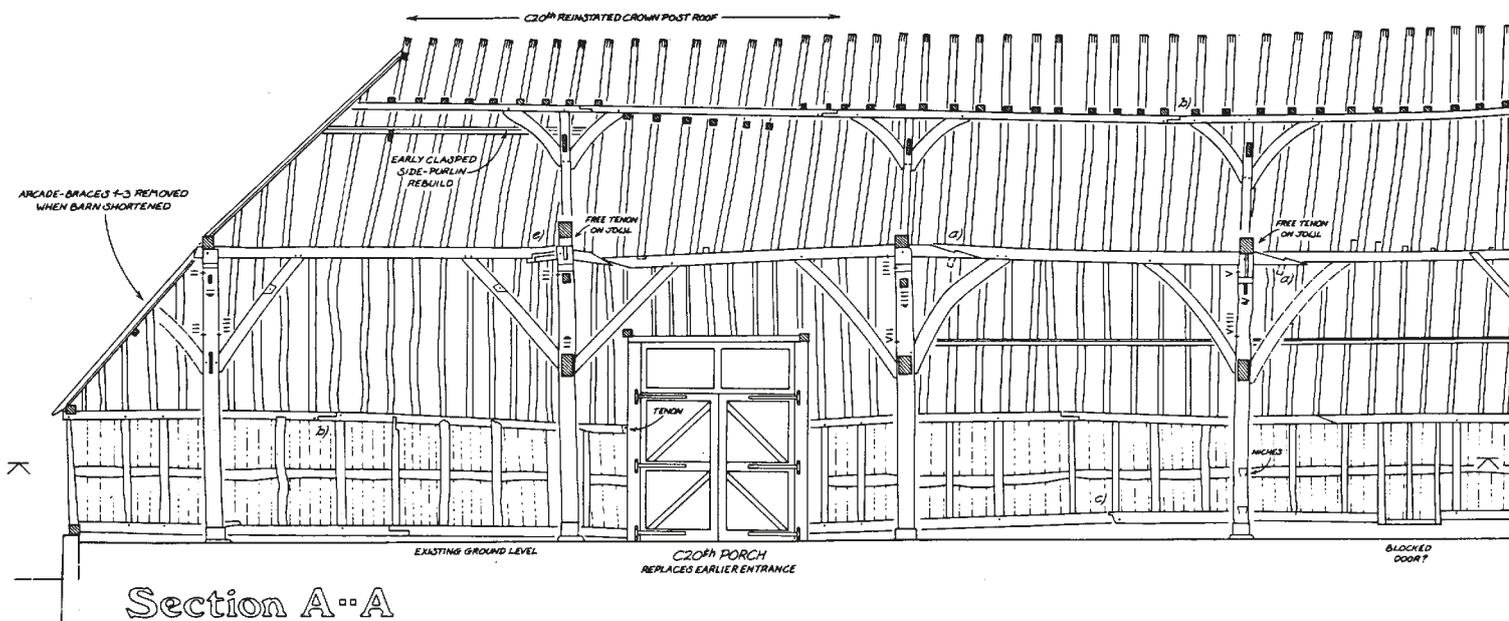
Main post assembly. South-east elevation showing spandrel strut.



Detail of south-east aisle-wall showing reverse assembly.



Location plan and reconstruction showing former arrangement at north-east end of barn.



Ground Plan (With Plates & Ties Over)

Section A-A and ground plan.

slender and well defined. An edge halved scarf, a later style of joint than the splayed scars of the primary structure, has been used to join the collar purlin. In one or two places the rafters of the present roof clearly rest in the empty housings left by the former dragon ties, confirming that the present roof structure was assembled after the dragon ties were removed.

Evidence for the original roof is, not surprisingly, scarce and the fourteenth century tie beams provide the only clues. These beams have no further mortices on them other than those used by the posts and braces of the present crown post

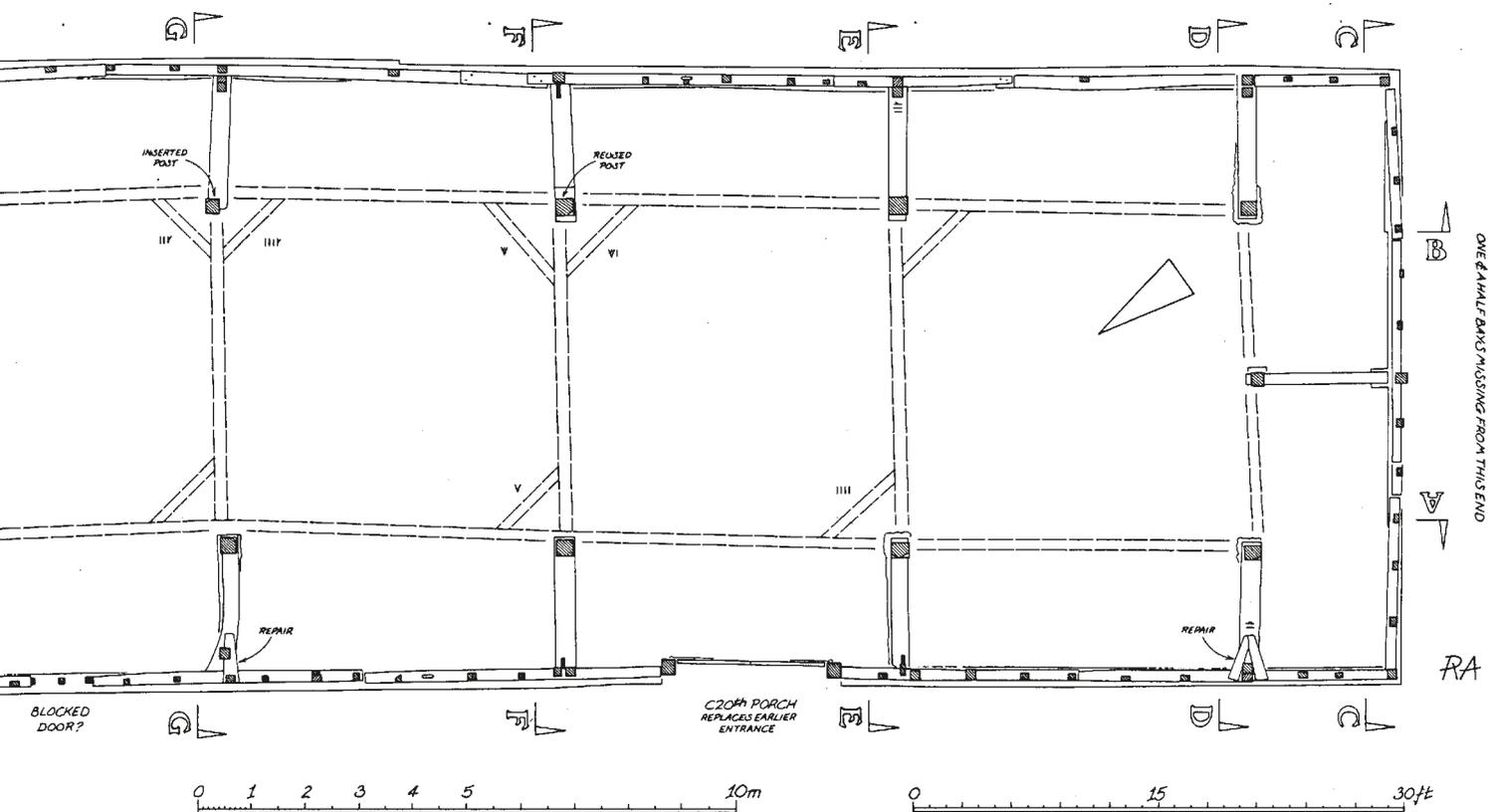
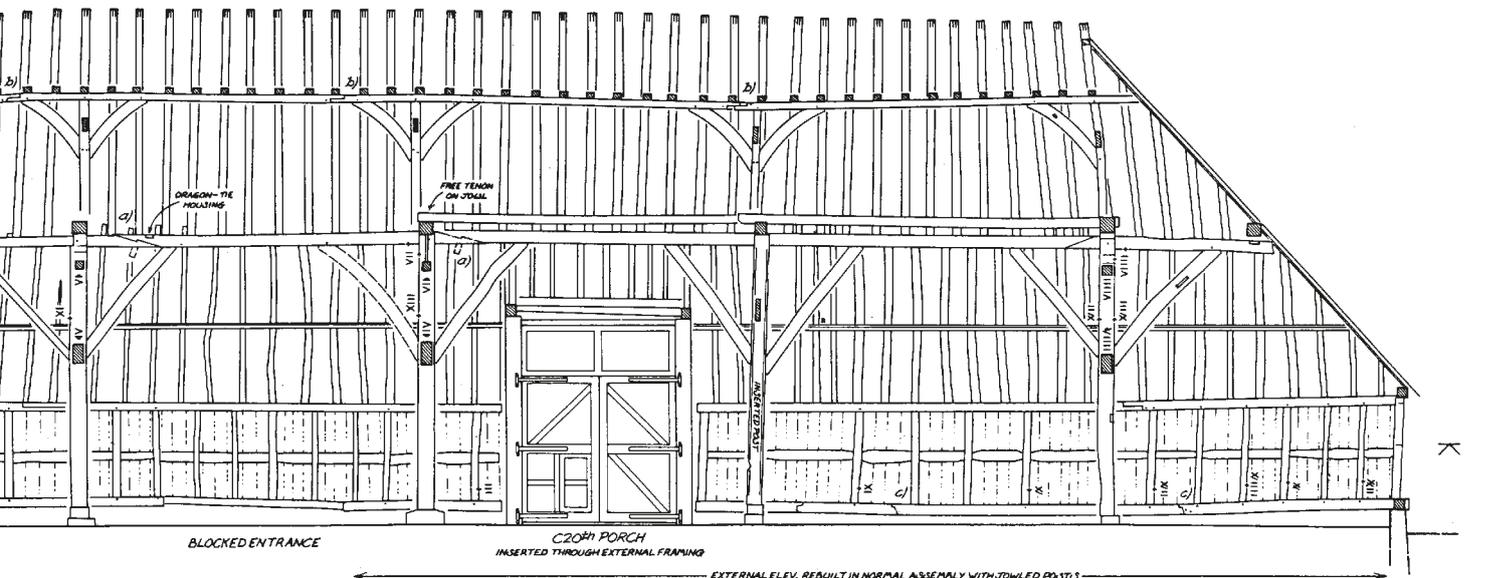
roof and certainly no evidence for passing braces, etc. Closer inspection gives the impression that the extant timbers sit in earlier mortices as these are noticeably decayed around the edges. An early crown post roof is possible although unlikely. A braced king post or crown strut roof without longitudinal support is perhaps more likely.

Later alterations and repairs

Replacement of the ground plate along much of the length of the south east aisle wall introduced a new and distinctive scarf into the building. These

new timbers are joined using an edge halved scarf with housed tenons. Above this plate the three north east bays of the aisle wall have been further rebuilt. The former mid rail has been replaced by studding and the eaves plate replaced. The reversed assembly of the aisle ties has not been altered.

A further distinct area of rebuilding can be seen at the north east end of the north west aisle wall. The reverse assembly of the original aisle ties/ wall posts has been replaced by more conventional jowled posts and normal assembly. Closely spaced studs take the place of the mid



rails. A numbering system knifed onto these studs clearly respects the position of an earlier entrance which has since been blocked. This work is of perhaps fifteenth century date.

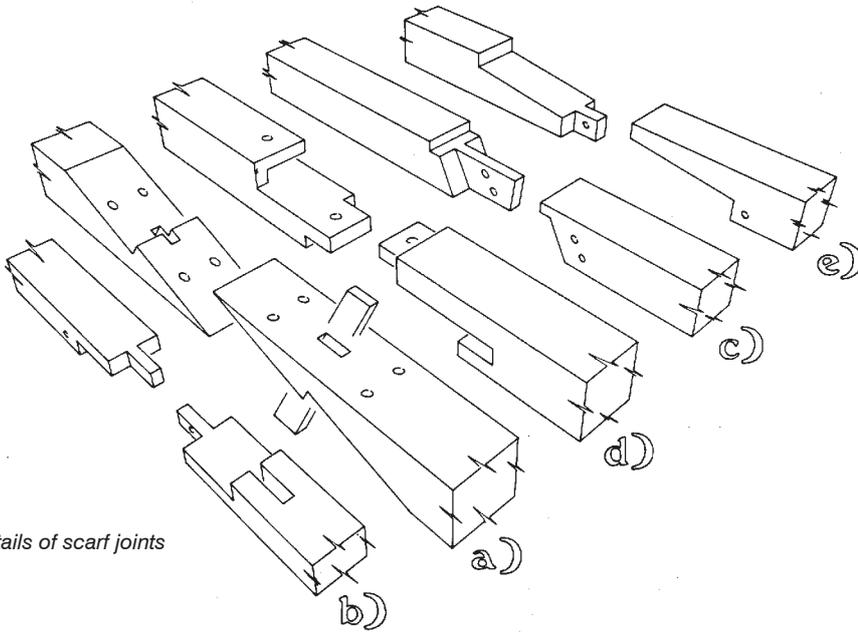
It was clearly necessary, once the barn had been shortened, to construct a new terminal bay at the south west end of the barn and complete the truncated end of the roof. It is therefore no surprise to see a short length of clasped side purlin roof, the only major alteration to the crown post roof, over this end of the building. The style of this new roof suggests, albeit approximately, a seventeenth century date for the modifications

to this end of the barn. In addition to the roof structure, reconstruction of the framing below was also necessary.

In addition to the major phases of work discussed above the barn has undergone a vast number of minor repairs and alterations during its lifetime. Cross frame no. 8 (section J-J) has been virtually rebuilt with its tie beam, arcade braces, arch braces and arcade posts all being renewed. The new timbers are clearly re used, taken perhaps from another barn. Repairs are also evident in frame no. 5 (section F-F). The arcade post and braces have been replaced on the south

east side whilst the post plate has been renewed to the north west. Niches indicate where the post was propped whilst the plate was removed and replaced.

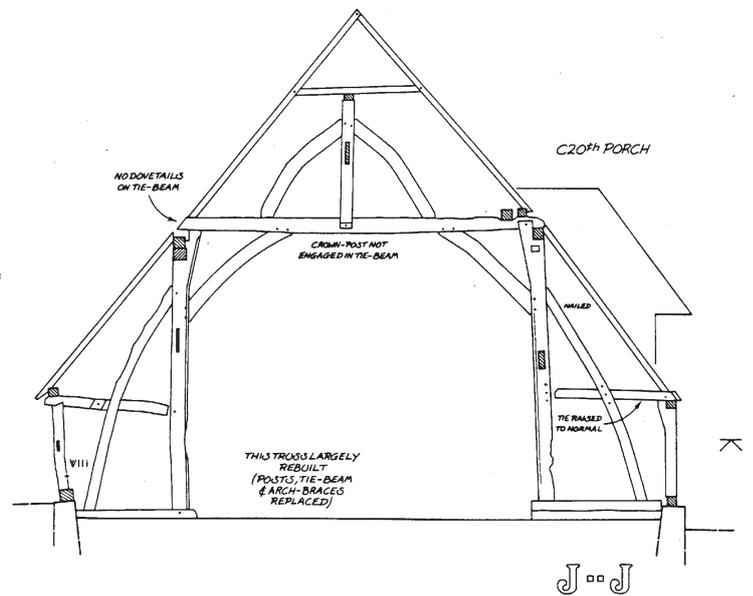
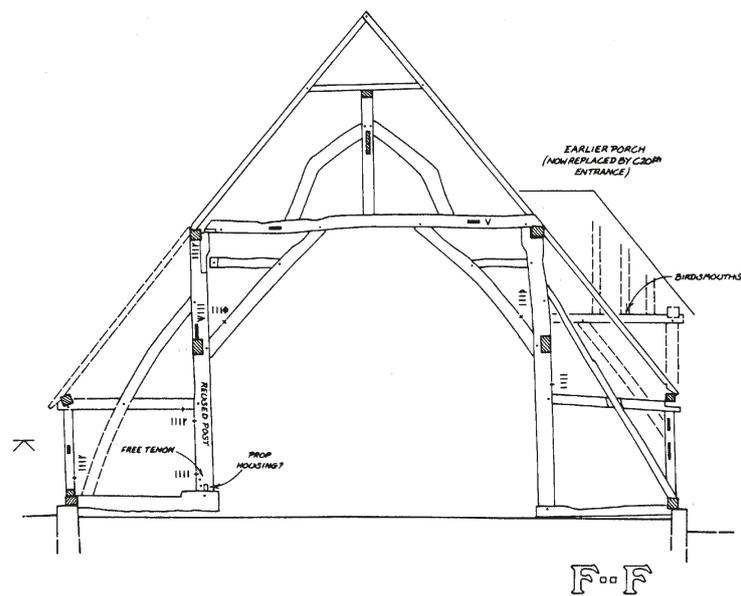
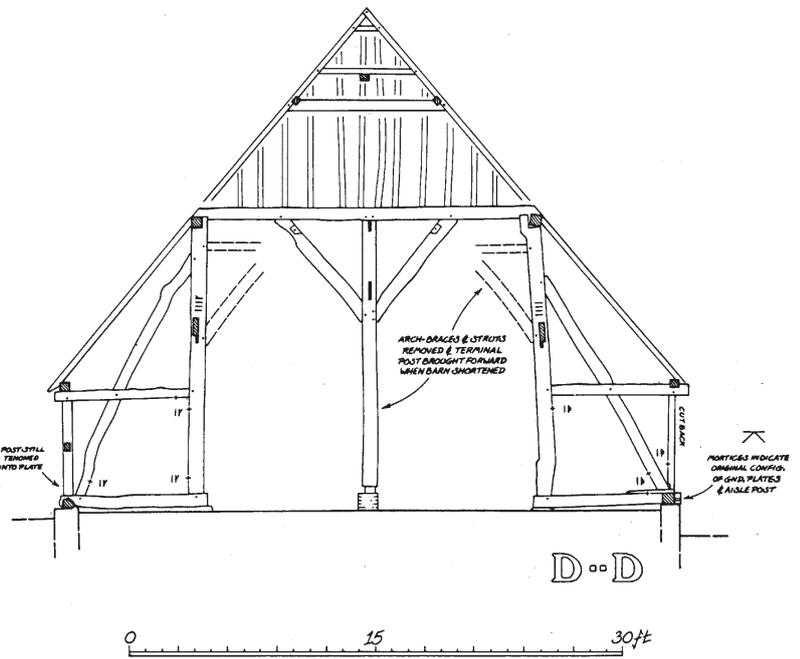
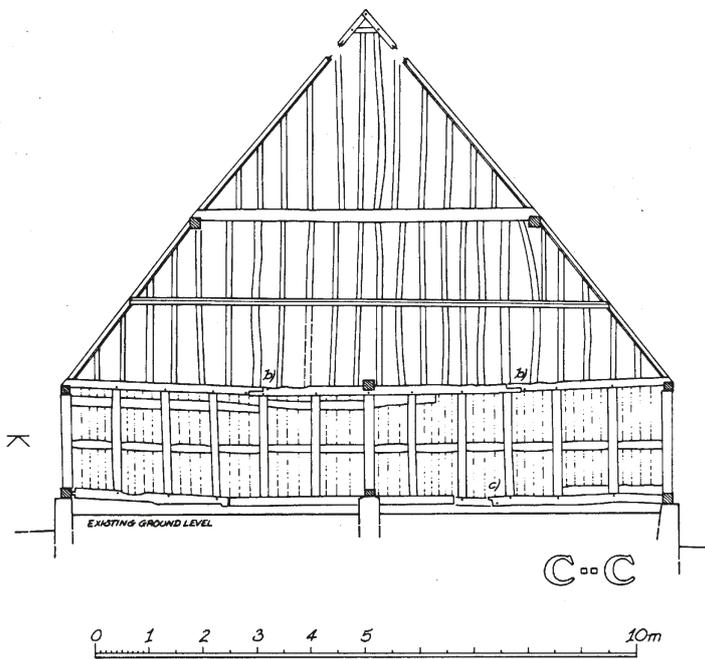
An obvious flaw, in a building using reverse assembly, is for the eaves plate to slip out under the thrust of the rafters. Empty housings, visible on several of the arcade posts along the north west side, suggest that secondary aisle ties were added to the barn, above those already present, in an attempt to prevent this type of failure. These secondary ties were removed once the north west aisle wall had been rebuilt.



Details of scarf joints

Possible dismantling and re assembly

Several details observed during the recording of the barn suggest, albeit tentatively, that the fourteenth century building may have been dismantled, repaired and then faithfully re assembled. Three of the original arcade posts have free tenons attached to their jowls. These tenons, which are clearly later fittings, would have been difficult to insert in situ, but it would have been relatively simple to accomplish this form of repair on the ground prior to re assembly. Indeed repairs of this sort must have been inevitable when attempting to re erect a dismantled building. Other free tenons can be seen on braces, ground plates and not least the bases of several of the arcade posts. In



Sections C-C, D-D, F-F and J-J.

a few places, where timbers have withdrawn and the tenon is exposed it appears that peg holes have been re drilled, suggesting perhaps that the timbers were assembled for a second time.

The possibility of re assembly fortunately does not affect the observations made throughout this report. The assumption that a timber is original, because it could not have been inserted, has not been used to form any arguments. Clearly if this was the case, and the barn had indeed been re assembled, any conclusions drawn in this way would be suspect as such timbers could have been included during re assembly. It would be necessary to determine which aspects of the building's development occurred in its original location and which were introduced during or after its reconstruction.

Historical background

A charter of A.D. 696 reveals that in March of that year Withred, king of Kent, gave 'in pure and perpetual alms, five ploughlands called Littleborne' to St Augustine's Abbey, Canterbury, on condition that the queen and himself were remembered in prayers during mass (Davis, 1934, 24). The Abbey's holdings were further increased in A.D. 1047 when King Edward granted a ploughland at Littlebourne to the Archbishop, who in turn

granted the land to the monastery. It is clear that St Augustine's Abbey became a major landowner around Littlebourne at an early date, and continued to increase its holdings through the years until by the fourteenth century the abbey owned most of the lands in and around Littlebourne.

During the time of Abbot Ralph (elected 1309–1334) a monk named Salamon of Ripple, was warden of the manors of Northbourne, Littlebourne, Stodmarsh and Chislet. It seems that he was praised in these places for many good works. At Northbourne he built from the foundations a very beautiful chapel, and several large barns. At Little Mungham and Chislet he set up further chapels on the sites of earlier buildings. At Littlebourne he united into one property, by purchasing new holdings, lands scattered in various places. The buildings of the manor there were almost completely built and erected at great expense by him alone. Salamon was still involved in the Abbey's affairs in 1335 following the election of Abbot Thomas Poucy whereupon he was appointed as the collector of moneys. Although no further references to Salamon were found it seems likely that his appointments continued for the next few years.

Littlebourne Barn was undoubtedly built by St Augustine's Abbey and belonged to a complex of buildings comprising the Manor Court of

Littlebourne. The Court Lodge, now replaced by a later eighteenth century building, was located to the north of the barn whilst further structures, cowsheds, stables and granaries etc. would have been located around about. The activities and extensive building campaigns of Salamon Ripple during the first half of the fourteenth century suggest he may have been responsible for the construction of Littlebourne Barn although this is of course conjecture.

Conclusion

In addition to a detailed set of drawings, a far better understanding of the original form and subsequent development of Littlebourne barn, one of Kent's largest and earliest barns, has been gained as a result of this survey. The survey not only provided a permanent record of the barn in its present state, but uncovered features previously undiscovered or misunderstood. This greater understanding of the building and its development will hopefully ensure that future repairs are undertaken in an informed and sympathetic manner.

The survey of Littlebourne Barn was grant aided by English Heritage. Copyright of all the work contained within this report is held by them.

B Cross Keys, Oaten Hill, Canterbury

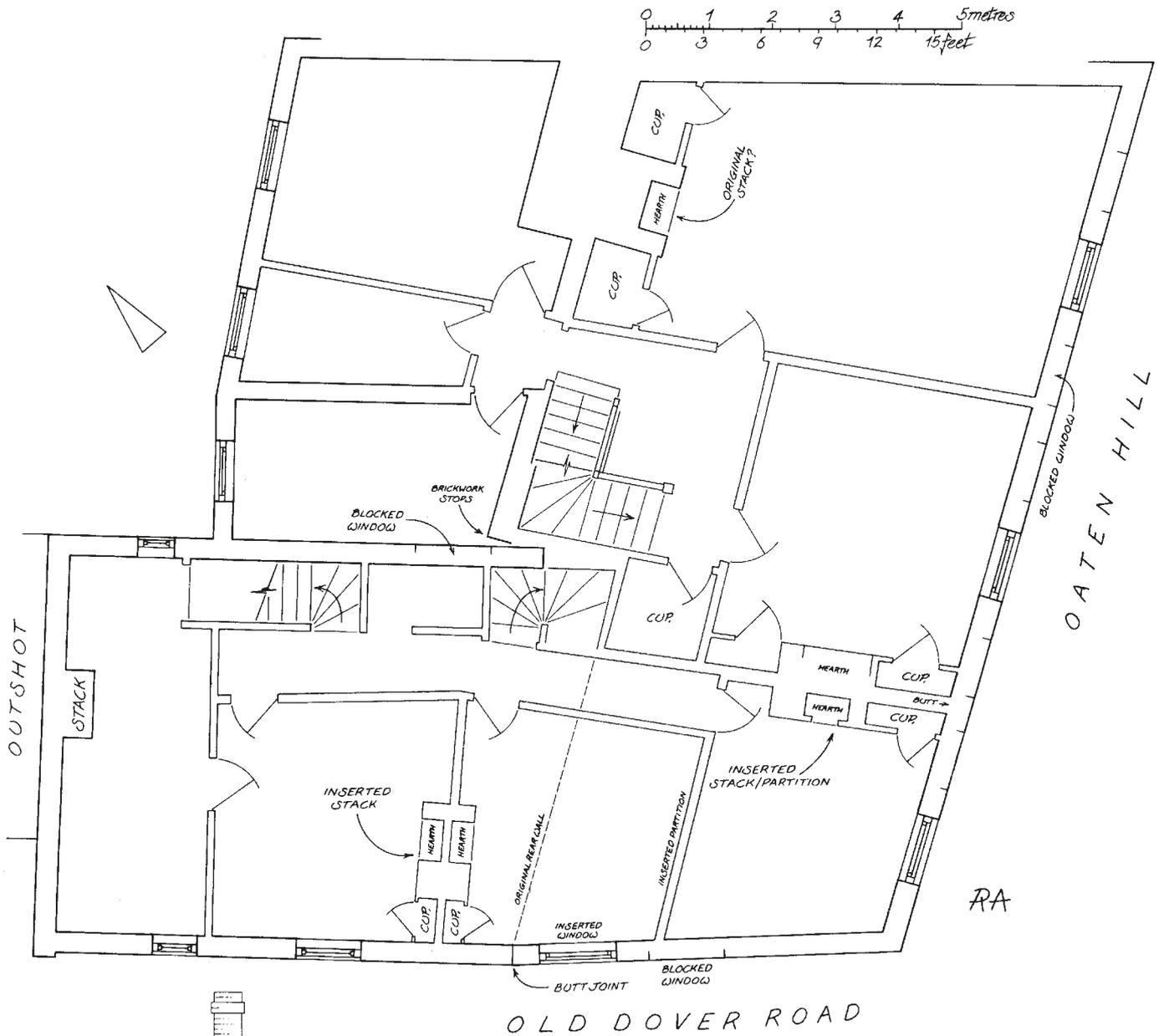
Rupert Austin

An archaeological survey of this building was undertaken during the spring of 1995 in anticipation of an extensive campaign of refurbishment. The Cross Keys, which lies at the junction of Oaten Hill and the Old Dover Road comprises two principal ranges. The larger range, once an archetype early Georgian house, fronts the Oaten Hill Road. Its ground floor is presently in use as a public house with accommodation above on the first floor. A stone set over the main entrance bears the date 1713 and the initials T.B. A smaller range, now largely abandoned, fronts the Old Dover Road. It seems that this range was in use as a bakery until the 1960s. Part of a nineteenth century bread oven with cast iron doors can still be seen on the ground floor.

The external appearance of the Oaten Hill range has changed considerably over the years due to numerous alterations. Many of the original openings have been blocked or altered and later ones inserted in new positions, but the original arrangement of the facade can be determined by examination of its brickwork. Numerous straight joints and several rubbed brick window heads have been fossilised in



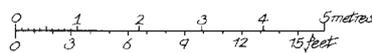
General view of Oaten Hill frontage.



Above: First floor plan.
Left: Oaten Hill frontage.

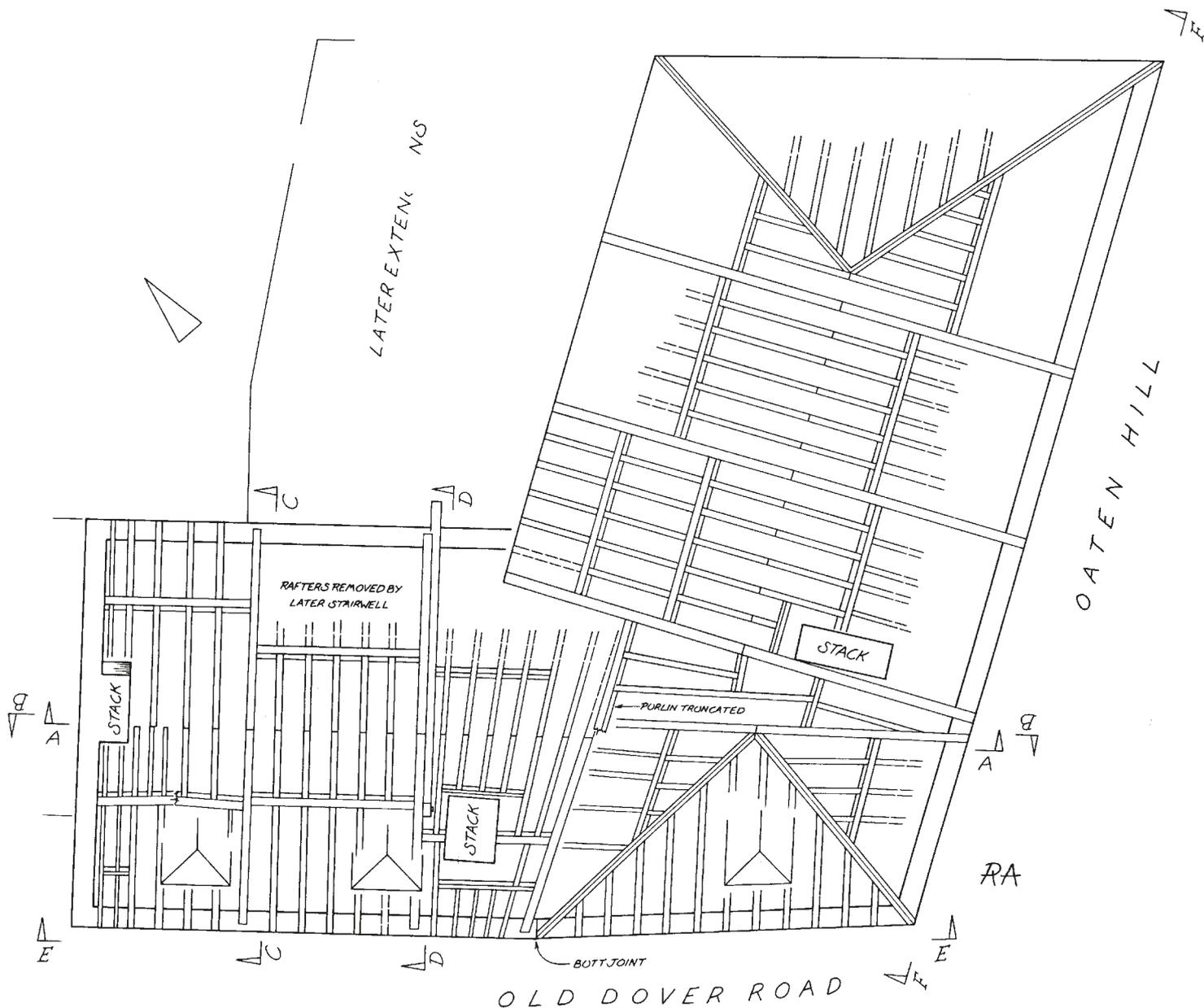


ELEVATION F~F



the existing fabric, clearly indicating the positions of blocked eighteenth century windows. From these we see that the Oaten Hill range once had a typical Georgian facade, well endowed with large, regularly spaced windows, symmetrically placed around a central entrance.

Once inside the building it is clear that the present ground floor arrangement is the result of alterations undertaken during the building's recent life as a public house. At first floor level only the north eastern half of the building remains accessible. The south west end has been partitioned and incorporated into the Old Dover Road range. It was hoped, following an initial visit, that the two rooms and stairwell remaining in the north east half of the building had survived unaltered as both rooms are generously clad in attractive and well preserved panelling apparently of eighteenth century date.



Above: Roof structure plan.
 Right: Section through Old Dover Road range.

Unfortunately the present arrangement of these two rooms does not respect the positions of original windows along the frontage. In addition the panelling covers the inserted wall partitioning the south west end of the building into the adjoining range. It seems therefore that the first floor has been completely rearranged. The panelling may still belong to the building and simply have been moved during later alterations.

The original butt side purlin roof survives over the Oaten Hill range, only the south west hip having been rebuilt. Although the roof has been converted to provide attic accommodation, the space above collar level remains accessible, allowing the roof structure to be examined. Its purlins are staggered rather erratically with occasional use of double purlins. The principal rafters reduce in section towards the ridge where they meet in a conventional bridled joint.



The Old Dover Road range extends from the rear of the 1713 structure to form an L shape plan. It is smaller in proportion than the adjoining building with a lower eaves. The roof structure, although smaller in scale, is identical to that of the Oaten Hill range.

Once again the interior has been completely rearranged at ground level and now forms part of the public house. Few early features have survived. The remains of a large nineteenth century bread oven, truncated below first floor level, occupies the south west end of the building whilst a stairwell is placed against the rear north east wall. An early plank and ledge door affords access to the stairs, but the staircase itself has been removed. The first floor, which appears to have been abandoned when the bakery fell into disuse, has also undergone considerable alteration. Several partitions have been inserted creating a rather confusing arrangement of rooms and corridors. The first floor would originally have been far simpler than it is today, comprising perhaps only two rooms. Several plank and ledge doors with strap or H hinges can be seen although most of these hang on the later partitions. These have perhaps been re used from earlier arrangements within the building.

The Old Dover Road range was enlarged at an early date by incorporating part of the Oaten Hill building (see above). The addition of this extra floor space enabled considerable rearrangement to be undertaken at first floor level, accounting perhaps for some of the inserted partitions mentioned above. Most of the additional space was used to create a small room at the corner of Oaten Hill and the Old Dover Road. Due to differences in floor and ceiling height between the two ranges certain alterations were necessary to form this new room; a false ceiling was inserted and the floor level dropped. The remainder of the additional space was used to expand and subdivide the adjoining room in the original part of the range, thereby creating two rooms from one. A chimney stack was inserted at

this time providing these two rooms with a hearth. Early cast iron hob grates, one of late eighteenth century date the other of early nineteenth century design, were fitted in each fireplace, but these may well be re used. Further windows were added to the exterior of the building at this time in order to accommodate the new internal arrangement of the enlarged Old Dover Road range.

Two flights of stairs lead from first floor level to the attic rooms. Several rafters have been removed from the roof structure in order to accommodate these stairs indicating that the attic rooms are a later feature of the building. Carpenter's marks are clearly visible on each of the principal rafter couples in the roof space. The last pair to the south east is numbered four. Number one, now missing, was located roughly over the extant end gable. The missing north west end of the building (see below) must therefore have terminated in a hip as a gable would have required a further rafter couple for which there is no number.

Close inspection revealed that the north west end of the Old Dover Road range had been shortened. The present end wall of the building, clearly later work, is suspended at first floor level by a substantial timber bressumer over the remains of the bread oven. This oven lies partly inside and partly outside the present limit of the building. Clearly the remains of the oven were not removed when the building was shortened. It was obviously considered easier to hide the remaining brickwork by building a small outshot against the end of the building. This outshot also contains a small fragment of the original end wall confirming that the building was once some 2 m. longer and incorporated the bread oven within its walls. Before its demolition the oven, which almost certainly comprised several chambers, would undoubtedly have been served by a substantial stack containing several flues. A smaller stack has since been built over the remains of the oven suggesting that some part of it continued to be used in later years. Perhaps it was converted into

a domestic hearth.

The survey began with the logical assumption that the larger 1713 Oaten Hill range was the primary structure and that the smaller Old Dover Road range had been built as an extension against its rear. Investigation proved this not to be the case.

The Old Dover Road range, as one might expect, does not appear to extend further to the south east; there are no purlin mortices on the sides of the last principal rafter couple to indicate that the roof continued further in this direction. The brickwork along the frontage also butts the adjoining building. The evidence seemed to suggest that it was built against the 1713 structure, there is after all no end wall and the attic floor frame appears to hang in mid air. As the survey continued evidence began to suggest the complete opposite. It began to look as though the 1713 building had been built last. Its rear wall clearly abuts the brickwork of the Old Dover Road range, obscuring a blocked window, and its roof structure partly oversails the adjoining range. One possible explanation for these contradictions is that a third building, now demolished, was located at the corner of Oaten Hill and the Old Dover Road. It is suggested that the Old Dover Road range was built against this structure, which was perhaps of medieval origin. This was subsequently demolished and replaced by the 1713 building. The similarity of the two roof structures suggests that the time interval between their construction is relatively short, perhaps only a decade or so.

Considering that the historic fabric contained within the Cross Keys dates from the eighteenth century, the extent and complexity of later alterations is surprising. Most of the changes appear to be of nineteenth century date. So much has been altered that the original form and subsequent development of the two ranges is difficult to ascertain. Fortunately enough survives to enable reasonably informed suggestions to be made, providing us with a picture of this corner of Canterbury in the early eighteenth century.

C No. 44 High Street, Canterbury

Rupert Austin

Substantial medieval floor joists and a large area of re used Jacobean panelling were uncovered and recorded during the refitting of a ground floor shop within this property in July 1995. Although the shop forms part of a much larger building, known as the Queen Elizabeth's Guest House, the resultant drawings are the first records to have been made of this, one of Canterbury's finest medieval buildings.

The date of 1573 visible on the front of this building, is a little misleading. It refers not to the age of the structure, but to the year Queen Elizabeth

I visited Canterbury during a progress through East Kent. The building is certainly of earlier than 1573. A row of Tudor windows on the first floor suggests a late fifteenth or early sixteenth century date. Its facade has clearly been modified considerably over the years. Of the two projecting bay windows, that on the right may well be Elizabethan, but that on the left of the facade was added in the early twentieth century to match. On the second floor is a fine example of decorative parquetry, dating perhaps from the seventeenth century.

Nearly half of the first floor frame of the building was uncovered during the refurbishment, revealing a series of heavy, closely spaced joists. Although only part of the building was exposed it was immediately clear that the Queen Elizabeth Guest House comprised three bays aligned along the street frontage. Carpenter's marks on both the principal and secondary joists indicate that the shop at no. 44 occupies the first bay and a half of the building.

The position of a partition, once dividing the first bay from the remainder of the building at ground

level, is clearly indicated by a series of mortices on the soffit of the second principal joist. Further mortices reveal that a cross passage was located in the end bay, positioned against the north west end wall of the building. This presumably allowed



Detail of panelling.

access from the street frontage through to the rear of the property with perhaps doors leading to the ground floor rooms.

Unfortunately nearly all traces of the medieval frontage have disappeared at ground floor level and have been replaced by a modern shop front. The jetty plate, which would have revealed most about the original facade, has been removed and replaced by a steel beam. Mortices for jetty brackets can however be seen on the underside of the first floor joists, indicating not only the positions of the brackets but also some of the missing ground floor posts. The bressumer plate, which supports the first floor framing, has been tenoned onto the ends of the joists, rather than resting atop them, an unusual although not unknown arrangement.

In addition to the framing of the medieval building a large area of Jacobean panelling was revealed during the stripping out. Although this panelling is not in situ, being uncovered in a relatively modern extension to the rear of the medieval building, its discovery nevertheless represents an exciting addition to Canterbury's stock of historic fabric. One wall at the rear of the shop (measuring 4 x 2.5 m.) is entirely clad in

panelling, whilst a further panel has been attached to the return wall, albeit upside down. It seems that the original floor level in the building has been lowered since the introduction of the panelling and a second run of skirting added beneath the original plinth. Otherwise there appear to have been few alterations, although a few pieces are missing or repaired.

The only comparable example of panelling in Canterbury was uncovered at 25 The Precincts during refurbishment in the mid 1980s, though this was less elaborate with only one part matching the more complex design found at no. 44 High Street. Unfortunately most of it was in an advanced state of decay and as a result only a small piece remains today.

Although only a small part of what is clearly a very interesting building was recorded during the recent renovations, future years may well afford access to further areas of the property. Many of Canterbury's larger medieval buildings have been recorded by the Trust in a piecemeal fashion resulting, eventually, in a complete picture of the whole structure. A valuable start has been made on the Queen Elizabeth Guest House.

D Broome Park stable block, Barham

Rupert Austin



General view looking south-east.

Broome Park, a model country estate, was built for Sir Basil Dixwell during the 1630s. It is located just over a mile to the south east of Barham. All the buildings of the estate were built according to a grand plan and were complete and orderly for Sir Basil Dixwell's house warming in November 1638. The centrepiece of the estate is the impressive house which exhibits some of the finest decorative

seventeenth century brickwork in the country. Immediately to the east is the stable block. An archaeological evaluation of this building was undertaken during August 1995 in advance of proposed alterations.

Great house stables emerged as a building type in the late sixteenth and early seventeenth century. These ancillary structures, once an

annoying necessity, built as cheaply as possible and pushed aside, were now an integral part of the architectural composition of the estate. They shared in the glory of the house, almost always reflecting its style and grandeur, if a little less exuberantly. The horse and its stables were now a fashion statement, a means to display wealth.

In contrast to the smaller nineteenth century farm stables one is perhaps most likely to see today, altogether more utilitarian structures with rows of doors and small windows, the stables of great houses are less easily identified as such. They were entered, most often, by a single large central doorway. The interior was usually well illuminated by sizeable windows, placed symmetrically aside the main entrance. In later years the entrance became more elaborate with columns, pediments, and often a clocktower. Horses were obviously accommodated on the ground floor whilst the first floor would often contain staff quarters and perhaps storage space for feed, etc.

Only the principal range of Broome Park's original seventeenth century stable block, a two storey brick structure with 'dutch' gables and tiled roof, survives today. A further single storey range once extended from the rear, but all that remains are a few scars where the structures joined. The



North, south and west elevations showing repairs and alterations.

missing range, which also terminated in a 'dutch' gable, is clearly shown on an early eighteenth century drawing of the estate.

Despite considerable alterations enough of the primary range survives to indicate that it was once the model stable block for a large country house. The architectural features of its brickwork show clearly that it was intended to complement the design of the main house. Records indicate that the common bricks used in its construction were made on site from local clay, as were those used in the other buildings of the estate, including the main house. The stable block is more recently referred to as the coach house and wide openings inserted into its frontage suggest that it may well have been used latterly to house carriages.

Numerous alterations have partly disguised the former appearance and symmetry of the stable block. The facade originally comprised a large centrally placed entrance flanked on each

side by large windows. Most of these openings, which were supported by shallow four centred arches, have been altered in some way. Small square windows, set beneath the eaves, presently illuminate the first floor, but it is clear from the eighteenth century illustration that this is a later arrangement. In its original form the first floor fenestration comprised dormer windows let into the roof structure. These appear to have terminated in brick gables of appropriate design.

A projecting string course runs the length of the building at the level of the first floor. Beneath this the ground floor brickwork is bonded rather erratically, but tends towards English Bond (as in the main house). Above the string course the bonding is clearly different, being a well laid Flemish bond. It is possible that the frontage was entirely rebuilt at first floor level when the fenestration was altered, but this is not necessarily the case. The erratic use of closers in the jambs of

the first floor windows suggests they might have been inserted into extant brickwork rather than newly created in a rebuilt wall. A delay or perhaps a change in workmen during construction may offer an alternative explanation for the different bonding of ground and first floors. A general move from English to Flemish bonding was after all in progress towards the end of the seventeenth century.

Evidence for the missing single storey range can be seen at the rear north east corner of the seventeenth century building where it abuts later nineteenth century stables. A straight joint at the juncture of the two fabrics stops over 2 m. above the existing ground level, so allowing seventeenth century brickwork to continue beyond the rear of the surviving range. This short length of fabric is all that remains of the missing range. The scar of its roof line can still be seen high on the east elevation of the remaining building.

The original seventeenth century roof of the stables appears to survive unaltered. Its construction is a combination of clasped side purlin in the upper half, and staggered butt side purlin in the lower half. Carpenter's marks, clearly visible on many of the timbers, confirm that these two components are of one build. Clasped side purlin construction first became common during the middle of the sixteenth century, continuing in use for another two hundred years. Staggered butt side purlin construction did not become established until the end of the seventeenth century. Its presence here in combination with an earlier roof form suggests an early example.

The stables were expanded considerably in the nineteenth century following the addition of a further brick range with a king post roof. This structure, which is considerably more utilitarian than its predecessor, adjoins the rear of the seventeenth century block. Several tethering rings survive along its rear wall indicating that

the horses were tethered at right angles to the axis of the building, an arrangement which began in the nineteenth century. Earlier practise was to tether horses in alignment with the building. Scars in the render applied to this wall indicate where two original partitions were located. These divisions, presumably for stalls or loose boxes, rise approximately 260 cm. above ground level, a little above the heads of the horses. All the extant internal walls, with the exception perhaps of the northernmost which may have partitioned the carriage store, have been inserted at a later date.

The frontage of the nineteenth century stables has been altered considerably though several of the original openings survive. As expected the stable doors, with shallow brick arches externally and timber lintels internally, are wider than those seen in domestic buildings. A projecting plinth, which runs the length of the facade, stops short of the jambs presumably to prevent horses from catching themselves as they enter the building.

Small square windows, set directly beneath the corbelled upper courses of the frontage, illuminate the interior.

A blocked carriage door, almost certainly a contemporary feature, can be seen in the north elevation of the nineteenth century stables. Presumably this end of the building was divided from the rest of the stables, housing perhaps a single carriage. A three light window has been included in the later blocking of this entrance.

Although only a brief appraisal of the seventeenth and nineteenth century elements of the Broome Park stables was undertaken, much was learned of the historic fabric as a result. A more detailed inspection of the complex, which was not possible within the remit of this assessment, and documentary investigation would undoubtedly prove worthwhile. The original seventeenth century building is without doubt an important structure, typical of its genre.

E Chapel Lane Farm, Chapel Lane, Bearsted

Rupert Austin

Visits were made to this property during the summer of 1995 at the kind invitation of the owners. Although it was not possible to undertake a detailed drawn survey of this interesting building some general observations were made both before and during refurbishment of the interior.

It seems that there are two components to this property. The first, now very fragmented, appears to be the remains of an early hall house dating perhaps to the early fifteenth century. Only one bay of this structure, which has a particularly low eaves, survives today and can be seen incorporated into one end of the present building. Much of the bay is missing, in particular the roof structure which was too low to be of use in the new arrangement. The building seen today is the result of near complete rebuilding in the following century.

The most important feature of the new building is its heavily blackened smoke bay. Although much of this has been removed, following the insertion of a brick chimney stack, its presence defines the nature of the building. In the case of Chapel Lane Farm the smoke bay is an integral part of the building and has not been formed by the partial flooring of an open hall.

Genuine smoke bay houses of almost standardized plan first appeared around the end of the fifteenth century, becoming more common in the sixteenth. A smoke bay is a structural division or bay within the house, usually very short (perhaps only a few feet) in which the hearth was contained. It was open to the roof (in the manner of an open hall)

and fully integrated into the framing of the building. Lathe and daub partitions divided the smoke bay from the adjacent rooms and roof space. These partitions, together with the roof timbers over the smoke bay are inevitably heavily blackened by soot from the hearth below. All these features can clearly be seen in the remains of the smoke bay that survives within Chapel Lane Farm.

Given that smoke bays were only a transitional stage in the progress away from open halls (which had generally been abandoned by the end of the fifteenth century) towards fully floored buildings with brick chimney stacks, the period in which smoke bay houses were built was quite short, perhaps only a hundred years. Following the introduction of brick it is not surprising to see many earlier smoke bay houses converted by the construction of a brick chimney stack into the former smoke bay. This has clearly happened with Chapel Farm, the extant stack dating perhaps to the seventeenth century.

At ground level the hearth would have been contained by lathe and daub screens with perhaps a timber bressumer, much like that over the later inglenook fireplace. The hearth would generally have been one sided (only the largest of houses had a double sided hearth), facing the hearth room or hall. It was common to use the smoke bay at first floor level for smoking bacon and other meats, a special chamber was sometimes built above the hearth for this purpose.

Most of these houses were built to a fairly standard plan. It seems, from the surviving fabric,

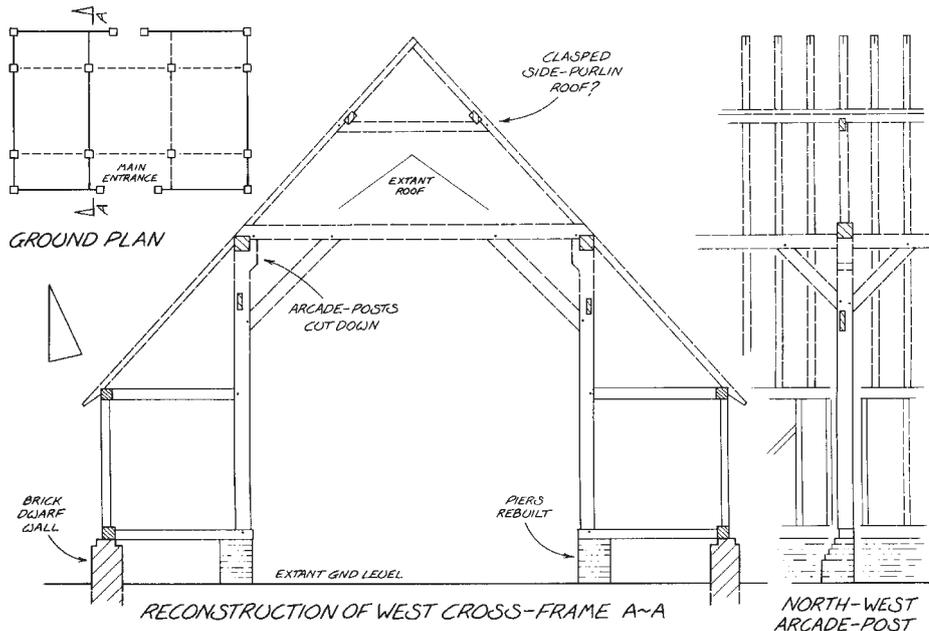
that the four bay form of Chapel Farm is in general agreement with its contemporaries, and surprisingly retains much of its original layout today.

Most smoke bay houses were built with clasped side purlin roofs, a form that became common during the sixteenth century. Surprisingly Chapel Lane Farm has a crown post roof. This earlier roof type was used almost universally during the fifteenth century. By the end of the century this roof form had been virtually abandoned, continuing in use for a short while in lesser farm buildings. The roof over Chapel Farm is clearly a late example, its slender framing and alternate bracing similar perhaps to other late examples seen more often in barns. Virtually all the common rafters of this roof, which are no longer oak (perhaps chestnut), have been replaced. A rebuild over the end bay now terminates the roof in a half hip with butt side purlins. A small window in the gablet indicates that the roof space was converted to provide additional accommodation at this time.

It seems that many of the principal components of the original timber frame, which probably dates from the beginning of the sixteenth century, are well preserved within the existing fabric of Chapel Lane Farm. Clearly the building has undergone numerous alterations and modifications over the years, as have most of its contemporaries. Most all the external elevations have been underpinned in later brickwork, disguising the early origins of the building.

F Blue Barn, Seymour Road, Rainham

Rupert Austin



Construction details.

A brief inspection of this building was made during February 1996 in advance of its proposed conversion. Despite numerous alterations over the years, much of the original timber frame of Blue Barn survives. Its three bay form, comprising a central wagon bay flanked on each side by single storage bays, is perhaps the simplest form of historic barn to be seen today. Each storage bay is 14 ft 2 ins long whilst the wagon bay is only 12 ft 4 ins. The barn, which sits on a low brick dwarf wall, is aisled both to the front and rear. Surprisingly many of the timbers, which have clearly been added, are softwood although the ground plates seem to be oak. A construction date in the late seventeenth century or perhaps early eighteenth century would seem likely.

All the external elevations of the building survive, but the original roof has been replaced by an asbestos clad arrangement. The building was reduced in height and the arcade posts shortened as a result of this alteration. No evidence survives to indicate the precise form of the original roof, but its height and pitch can be calculated from surviving fabric. Any birdsmouths, which would indicate the positions of missing rafters, are presently obscured. Enough fabric survives to locate the positions of the missing arcade and arch braces. One of the internal cross frames of the barn has also been lost, but the position of the missing frame is clearly indicated by mortices in the ground plates and eaves plates of the aisle walls.

Matching doors of perhaps late nineteenth or early twentieth century date now hang on both the front and rear elevations of the wagon bay. The original openings have clearly been modified to incorporate these later doors. Mortices on the eaves plate above the rear doors clearly indicate that the former entrance was smaller, measuring only 4 ft. wide and rising to the height of the extant plate. Any evidence for the main entrance along the front elevation has since been lost, but this was certainly wider and taller than the rear opening.

The barn rests on low dwarf walls built using a mixture of red, yellow and darker over fired bricks. English bond and a coarse lime mortar has been used for this brickwork which appears to be contemporary with the framing above. The ground plates of the barn, which sit atop these walls, are scarfed using a straight bridling of three quarter depth with squinted abutments and over lipped face. The brick piers beneath the surviving arcade posts have been rebuilt using soft red bricks. A niche on the inside faces of both posts indicate where they were propped during this operation.

The barn was almost certainly weather boarded from the outset, although none of the original boards survive. Drips on the brick dwarf walls indicate that the barn was once tarred. A later floor has been inserted across the west bay, as was common practice in the nineteenth century. Four additional machine sawn softwood posts have been introduced to support this floor frame. Numerous pencil tally marks, presumably relating to the crops stored in the barn, can be seen on these posts. One of these is dated May 25th 1927.

G Petts Farm, Burham

Rupert Austin

One of the more unusual projects undertaken by Trust staff during the year was the dismantling of Petts Farm, a building located just outside the village of Burham which had been abandoned several years ago and left to decay. The Trust was approached by the Museum of Kent Life who were keen to acquire the structure and a program for dismantling was set in motion. The building, a small farmhouse, probably dates from the late eighteenth or early nineteenth century. It comprises a lightweight softwood frame, clad

externally in weatherboards and is covered by a peg tile roof.

The farmhouse was surveyed in minute detail during the summer months of 1995 in advance of dismantling. A team from the Trust, together with John Sharman (the carpenter who would be re assembling the building), began the systematic dismantling of the building in November. Every piece was carefully numbered and recorded before being transported to a temporary store at the museum. Once the last of the building had

been recovered, John began the task of repairing and treating each and every piece of the building. Reconstruction began in July 1996. At the time of writing work has progressed well with the framing nearly complete and most of the dwarf walls installed.

The building should be complete by the end of 1996 and a full report detailing the recording, dismantling and reconstruction of the building will appear next year.

Post Excavation and Research

Introduction

Peter Clark

This is the twenty first annual report produced by the Canterbury Archaeological Trust, and we have come a long way from the first slim thirteen page volume of 1975/76. The chart below shows how the number of sites reported in *Canterbury's Archaeology* has grown over the years. Apart from a dip in the early 1990s, reflecting the effort that went into the major excavations at the Longmarket, we have steadily increased the range and scale of our work throughout the county. These figures are a testament to the dedication and hard work of all of the Trust's staff over the years. Many of these sites have been the subject of formal academic publication as well as the interim reports produced each year. The Trust is rightly proud of its major monographs published in the *Archaeology of Canterbury* series, and a host of other reports on our discoveries has appeared in the pages of *Archaeologia Cantiana* and other learned journals. Over the next few years, a large number of other reports will appear in print, including the results of our studies of St Gregory's Priory, the medieval kiln at Pound Lane, the early history of Canterbury Cathedral, the discoveries at St George's Clocktower and the Dover Bronze Age Boat to name but a few.

Although it is our business to study the past, we must also keep an eye on the future. Though we have learnt so much over the years, it is axiomatic in academic pursuits that new knowledge brings with it new questions. There is still much to do, and much to be learnt. The political and commercial environment in which we operate has changed enormously since 1975, and the rate of change seems to be accelerating as we head towards the millennium. What does the future hold in store for the Canterbury Archaeological Trust?

The Trust continues to excavate and study large and important sites, most recently at Townwall Street, Dover and at Christ Church College, Canterbury, and we shall undoubtedly continue our involvement in such projects in years to come. The advent of PPG16 in 1990, however, and the requirement to undertake small scale desk top studies and evaluations on many new developments has resulted in an explosion of new archaeological knowledge throughout the country. Much of this new information is often difficult to explain or interpret meaningfully. A small sample excavation of a proposed development area may reveal enough data to demonstrate the presence

of archaeology on the site, but this is not always enough to allow us to say very much about the archaeology. For example, work associated with pipe trenching operations near Chislet revealed only two features, a pit dated to the early Iron Age and a section of gully which produced sherds of Peterborough Ware dated to the later Neolithic. The Neolithic gully, possibly representing an 'eavesdrip' for a small house, is an important discovery, as settlements of this period are very rare. Unfortunately the small area exposed limits our ability to go much further, and we can say little more about the nature of this find. This site is typical of many of our smaller operations; whilst revealing important new information, they do not lend themselves to 'traditional' site reports. One challenge facing us is to unlock the potential of these small sites, not only to enhance our academic understanding of the past but also to inform the planning process in protecting the buried heritage.

Similarly, we may also review the massive amount of information collected over the last two decades of fieldwork. Although this work has been largely studied and published, we can gain new and important insights if we consider it all together; the whole is more than the sum of its parts.

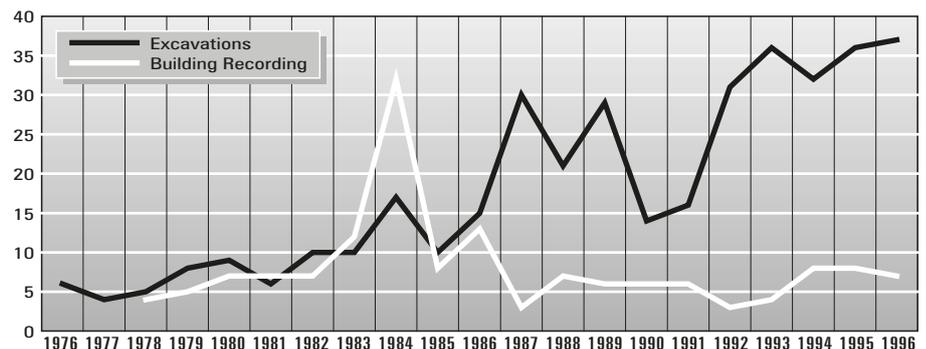
To realise fully the value of our discoveries we must adopt a more explicitly holistic perspective on our work. Broad research strategies are starting to be articulated, in collaboration with the County Archaeologist, identifying the strengths and weaknesses of our current knowledge, and putting forward hypotheses which even the smallest site can help test, contributing to a better understanding of history. In the city, the possibility of establishing an Urban Archaeological Database will transform the way in which we can study the results of archaeological investigation. Every find, whether from a major set piece excavation or from

a minor watching brief will be held on a computer database, linked to a series of electronic maps. Researchers will be able to access all available knowledge simply by pointing to an area of the map on computer screen. Furthermore, we shall be able to analyse this data in a number of ways using a geographic information system. This will not only be a wonderful tool for academic research, but will prove a boon to the district planning office, who will be able to identify previous archaeological discoveries quickly and easily. This will help them advise potential developers on the possibility of archaeological discoveries at an early stage in the planning process.

Thus moves are already afoot to enhance this broader, holistic appreciation of our discoveries, in parallel with a more traditional, site based approach. With the body of knowledge already available to us, and with new discoveries being made every month, we have the opportunity to review our understanding of the past and present new and exciting visions of the county's history and prehistory.

Many of the contributions presented below reflect this broader perspective; several authors discuss the results of their research in a regional context. The papers also demonstrate the great chronological breadth of our work, from early prehistory through the Roman, Anglo Saxon and medieval periods, right down to the curious tale of a nineteenth century shipwreck off the coast at Folkestone.

The Trust can look back on twenty successful years of exciting and important fieldwork and research which has not only transformed our knowledge of the archaeology and history of Canterbury, but has also produced discoveries of national and international importance. However, there is still much to do, and much to learn; the future promises to be just as exciting as the past.



Reports appearing in *Canterbury's Archaeology*.

I The Finds Department



Introduction

Ian Riddler

As in previous years, an impressive variety of small finds, bulk finds and ceramics have been studied, catalogued, recorded and discussed over the last twelve months. Equally, a considerable number of specialists have patiently answered enquiries, written texts and generally assisted with finds studies, and their work is gratefully acknowledged here. They include Barry Ager, Ian Betts, Joan Blows, Jane Cowgill, Professor Vera Evison, Professor Eric Fernie, Alex Gibson, Catherine Haith, Martin Henig, Mark Horton, Don Mackreth, Malcolm Lyne, Ailsa Mainman, Gerry McDonnell, Lucy Medhurst, John Mitchell, Quita Mould, Stuart Needham, Irene Pellet, Mark Samuel, John Shepherd, David Sherlock, Penelope Walton Rogers, Seamus Ross, Jacqui Watson and Leslie Webster. The sheer quantity of specialists listed above is an eloquent witness to the range and significance of the objects retrieved from excavations, as well as reflecting the impressive

network of contacts developed by the Trust over the last twenty years.

The concept of assessment is now firmly ingrained within archaeological practice, and the production of assessment reports for a variety of clients has occupied a significant quantity of time. Finds assessments have been produced for a number of sites, including Christ Church College and the Tannery Allotments in Canterbury, Ickham, Buckland Anglo Saxon cemetery in Dover and Monkton. Publication texts are now in preparation for the Monkton to Mount Pleasant road scheme and Maidstone Roman Villa, and some effort is being made to update the Almonry Chapel and Aula Nova finds texts for publication in the *Archaeology of Canterbury*, Volume III.

As the area encompassed by finds studies develops, new directions in research emerge, and objects are reassessed in a new light. This is the case with material from both Canterbury and Dover, as can be seen from several of the contributions below. The following texts include studies of individual artefacts as well as broader

considerations of finds in their contexts, and the methods of their study. One of the most important achievements of the Trust over the last twelve months has been the development of in house specialists who can deal proficiently with a range of artefact types, and this is reflected in the contributions provided here, which extend from prehistoric lithics and ceramics through Roman ceramic building materials and Roman as well as post Roman ceramics, to Anglo Saxon and early medieval small finds.

All finds need to be handled carefully and competently assessed for their short and long term conservation needs. We are grateful for the work of a number of conservators on finds from Canterbury and East Kent, including Margaret Brooks, Adrian Tribe, Jacqui Watson, Karen Webster and Rob White. The results of some fascinating investigative conservation by Margaret Brooks and Jacqui Watson on the iron finds from the Anglo Saxon cemetery at Mount Pleasant, Monkton are described below.

1 Lithic studies in East Kent

Tania Wilson

Within the past few years the Trust has excavated a number of prehistoric sites throughout the region. Due to the nature and location of these sites, worked stone artefacts are often the only finds to survive in any quantity. Detailed analysis of some of these assemblages is now underway.

Large assemblages, such as that from the Monkton–Mount Pleasant excavations with a total of 4,984 lithic artefacts (*Canterbury's Archaeology* 1994–95, 20–27), the assemblage from the Channel Tunnel excavations (*Canterbury's Archaeology* 1987–88, 48–53; 36–42) and the

material from Park Farm, Ashford (*Canterbury's Archaeology* 1994–95, 37) are currently undergoing analysis. A full study of the lithic material from the Medway Tunnel excavations (*Canterbury's Archaeology* 1993–94, 30–32; 1994–95, 41–2) is also scheduled to begin towards the end of 1996. Furthermore it is anticipated that analysis will be undertaken on the material from the excavations on the Whitfield–Eastry by pass, (see pp. 28–33.).

Analysis and what it tells us

Lithic artefacts from a site not only consist of implements, but also the waste material from the manufacture of such tools. Cores and nodules from which flakes were removed are often found, along with the hammer stones which were used to detach the flakes. This waste material usually forms the bulk of the assemblage and its presence in large quantities on a site indicates that knapping took place there.

Analysis looks closely at a number of factors relating to an assemblage and at each individual piece. Raw material, statistical data and the numbers and types of implement are considered.

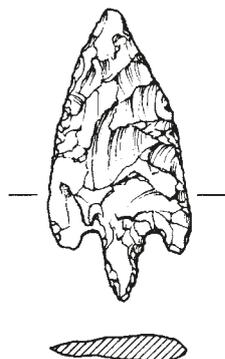
The different types of raw material present can show whether the material was derived from within the chalk bedrock, from gravel deposits or a number of different sources. Weathering or differing burial conditions can be determined by chemical alterations to the surface of the artefacts.

Measurements are recorded in order to facilitate statistical work. Length/breadth ratios, for instance, can be compared with other assemblages for dating purposes. Statistical analysis can also determine whether two separate industries may be represented within an assemblage.

The use of different types of hammer can be determined. Hammers of both stone and antler were used. Evidence of different hammer use can distinguish between different stages of tool production; for example, antler hammers were often employed for finer finishing work on an implement.

In some cases waste flakes may be joined back together. This can show the knapping sequence and by examining the hollow left within the rejoined cluster it can be determined what type of tool was being made.

Use wear or microwear studies may also be undertaken which can indicate the types of material upon which the tool might have been used. The flints



A fine barbed and tanged arrowhead of Bronze Age date. From the Monkton–Mount Pleasant excavations. Scale 1:1.

are scrutinised under the microscope and compared with pieces which have been experimentally used on a variety of materials, such as bone, wood or plant tissue such as cereals.

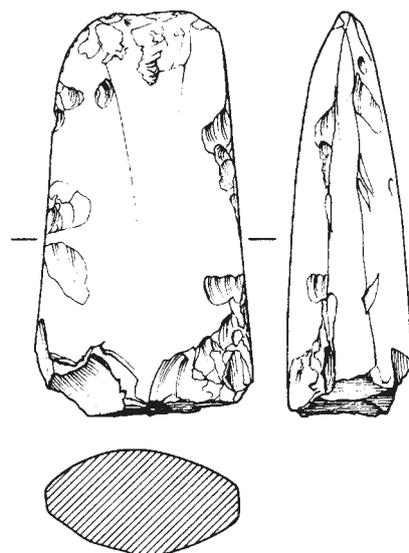
The presence of differing tool types or indeed lack of tools, also tells us something of the nature of the site. For instance, large quantities of knapping debris with few tools present may suggest that tools were being produced in the area but were subsequently removed for use elsewhere. Alternatively, the presence of large numbers of scrapers may indicate a site of a more domestic nature.

Prehistoric East Kent

Lithic studies within Britain embrace a vast period of time, from the earliest evidence of human activity (now dated by recent discoveries in Boxgrove, Sussex to around 500,000 B.P.) through to the Bronze Age.

Kent has produced lithic artefacts which span this entire period. The earliest finds belong to the Lower Palaeolithic period and have been discovered within the river valleys of the Medway and the Stour, although none can be dated as far back as those at Boxgrove. Finds of Lower Palaeolithic date are also being found in other areas away from river valleys, such as those from the Deal area reported by Keith Parfitt (*Canterbury's Archaeology* 1993–94, 32). Middle and Upper Palaeolithic material is also represented, albeit on a smaller scale, and Mesolithic, Neolithic and Bronze Age assemblages are present.

The area of East Kent in prehistoric times is of particular interest due to its proximity to the continent. A survey of Neolithic ground and polished axes found within the Kent region is currently underway. It is hoped that this will shed more light on the movement of people and trade



A fragment of a ground and polished axe of Neolithic date. Found near Kingston and submitted to the Trust for identification by Mr C. Fagg. Scale 1:2.

links both within Britain and with the Continent. We hope to pursue a number of studies in the near future which will address lithic finds of particular periods and types on a much broader scale.

Artefacts, both from excavation and chance finds, can be used to examine lithic scatters throughout the landscape. It is hoped that through this type of study we can gain an understanding of settlement patterns, their proximity to a water source, the local topography and the preferred soil types (this is of particular importance with early farming communities). Well documented chance finds, particularly those of diagnostic forms, can be extremely useful for filling in finer details on these distribution maps.

Canterbury and the Stour valley has now produced sufficient prehistoric artefacts (both



Two 'Thames Picks' of Mesolithic date. These were found on Seasalter beach by Mr S. O'Mara and brought to the Trust for identification. Scale in centimetres.

lithic and ceramic) to merit an in depth study of this area alone. The excavations at Christ Church College, Canterbury have produced the largest lithic assemblage of the Late Neolithic–Early Bronze Age period within the Canterbury area, and we hope that the 1996 excavations within the campus will produce further material.

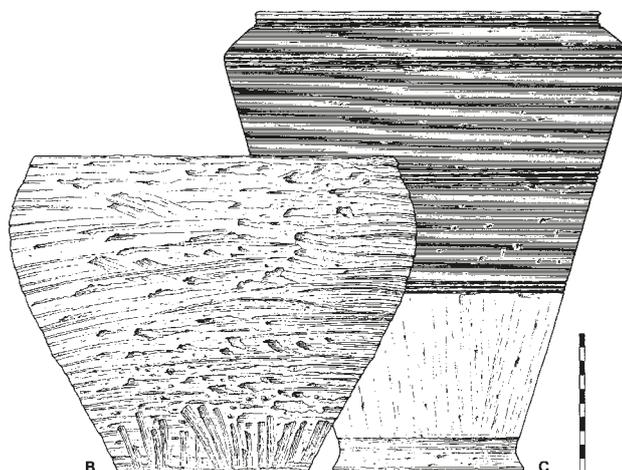
Pioneering work undertaken by Benjamin Harrison in the late 1800s, particularly at the Oldbury Rock shelter, near Ightham, and that of Dr A.G. Ince in the 1920s in the Sturry gravel pits has greatly enhanced our understanding of early man in Kent. Now, with more detailed analysis and a greater knowledge of both the technology involved and the environment of the time, we hope to further our understanding of Stone Age Kent.

2 The ceramics from the Whitfield–Eastry by-pass Site 2

Mark Davey and Nigel Macpherson Grant

In addition to the rather unexpected identification of two scraps of redeposited earlier prehistoric Beaker pottery, the majority of the ceramics from this site reflect the discontinuous nature of the multi period occupation recorded: a number of features and pits of Early Iron Age date, a Late Iron Age enclosure and Anglo Saxon sunken featured buildings.

This material and its context represents a significant and much needed contribution to regional studies and, from a ceramicist's point of view, the foresight and energy of the Dover Archaeological Group in ensuring its recovery, deserves particular mention. Study of the material is still in progress. At present interim comment is confined to the Early Iron Age and Anglo Saxon assemblages.



Early Iron Age coarseware jar (left) and red-finished fineware jar (upper body). Scale in centimetres.

The Early Iron Age pottery

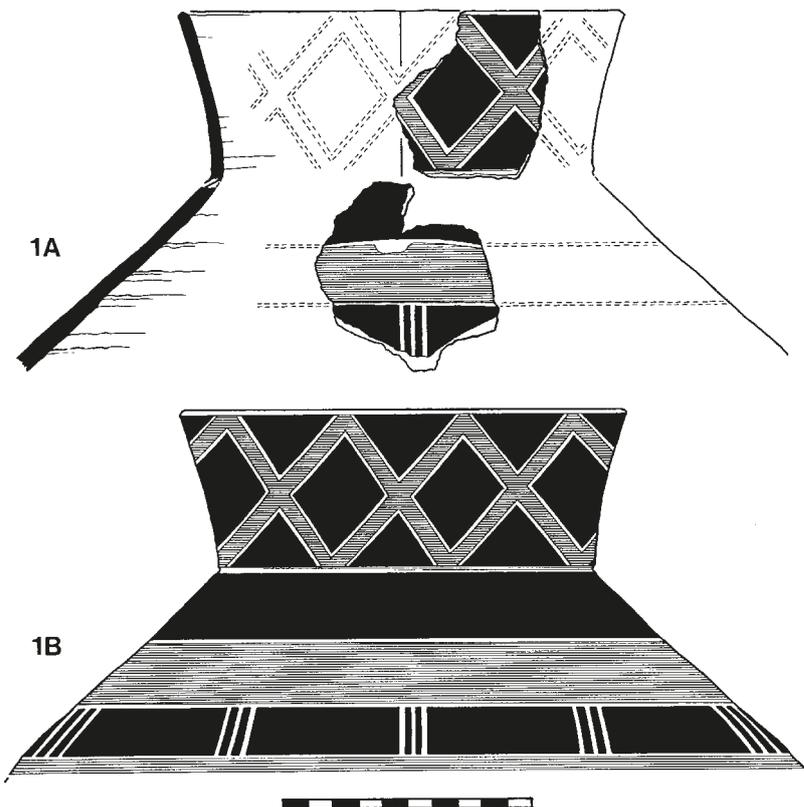
Nigel Macpherson Grant

Both continental style rusticated coarseware jars and decorated fineware bowls and beakers are present which, on the basis of recent studies (Couldrey forthcoming; Macpherson Grant forthcoming 2), can be dated to between c. 500–350 B.C.

What makes the present material interesting is that one of the two pits containing the most of the assemblage also produced a significant quantity of charred cereal. The Carbon 14 dating of some of the Whitfield cereals will provide the region with its first non typological date for the earlier Iron Age and indeed only the second for the early part of the first millennium B.C.. In addition, sherds from the same vessels come from two separate pits, suggesting they were backfilled at roughly the same time. Whilst the eight or so different red finished or polychrome decorated finewares present may represent discard following feast or wake celebrations, the number of sherds recovered per vessel indicates that absent elements were discarded elsewhere, which strengthens the likelihood that the pottery from these pits may collectively represent a settlement clearance or abandonment deposit.

An interesting point, returned to elsewhere in this publication, is that within the relatively large area examined, there is no evidence for specifically Mid Iron Age occupation, despite the site's re occupation in the Late Iron Age. It is too soon to draw firm conclusions, but it is worth noting that this is the third regional site where the ceramic record indicates a significant change in internal settlement trends at around c. 350/300 B.C. Whilst there may be simple practical reasons for this, such as settlement shift or internal settlement re organisation, the data from Dumpton Gap, Thanet introduces a speculative caveat. There the evidence from at least one part of a large Early Iron Age settlement indicates a major phase of site clearance followed by a low key Mid Iron Age presence. The question raised by Dumpton is why should the activity level at a large well established settlement change at the ceramic interface between Early Iron Age and Mid Iron Age ceramic traditions? It will take time to assess all the relevant data, but the main point here is that both the Dumpton and Whitfield assemblages have quite closely contemporary ceramic types and any Carbon 14 dating from Whitfield will help heighten the dating applied to these as well as the region's chronologically uncertain transition to the Mid Iron Age and also, perhaps, the onset of rather more significant demographic changes than previously suspected.

Several of the decorated vessels from Whitfield represent new additions to the recognised regional range of painted Early Iron Age bowls and jars (see accompanying figures). Of these, 1A, is



Early Iron Age polychrome decorated jar. Reconstruction below. Black = self-coloured; horizontal tone = iron-oxide rich red-finish; white = chalk rich white paint. Scale in centimetres.

from a large polychrome decorated jar, with 1B an idealized reconstruction of the originally intended design; C is technically a coarseware form, a medium sized storage jar with a dark, almost maroon red applied finish (iron oxide powder or slip) to the mid and upper body surfaces. There are good general parallels from north eastern French sites (Hurtrelle et al. 1990, 1996); a search for more specific continental parallels is part of the current post excavation work.

The earlier Anglo Saxon pottery

Mark Davey

Work on the Whitfield–Eastry by pass in 1995 revealed at least four Anglo Saxon sunken featured buildings (SFBs) with associated finds. The vast majority of sherds recovered proved to be Early to Mid Anglo Saxon in date and of one main fabric type.

This fabric type has been identified as organic tempered (Canterbury fabric EMS 4), its most distinctive visual characteristic being the remains of burnt out organic material appearing either as voids, fragments of carbonized material or dark smudges on the vessel's surface. Such pottery is typical of the early Anglo Saxon period, and has been found over much of England.

The organic tempering agent used was mainly grass or dung in greater or lesser amounts. This is set in a fine clay matrix, although some examples

include quartz sand, chalk or stone grits. The use of such tempering agents may be to improve the elasticity of the unfired clay and thus reduce the chances of shrinkage and damage during firing. The suggested date range for such vessels is c. A.D. 575 to the seventh century, and although we do not definitely know the end date, it is likely to be around c. A.D. 700.

The sherds recovered from Whitfield suggest a range of jars or cooking pots, hand made, locally produced and fired in either or bonfire or clamp kilns (see below). The majority of such domestic wares would have been undecorated and simply shaped. Just over 100 sherds of organic tempered pottery are available for examination from contexts within the Anglo Saxon structures and from other contexts. One vessel in particular proved to be of interest. This came from Site 2 SFB structure VIII (1000), and had an angular profile with the upper body panel pinch moulded: an unusual trait in this region.

These finds are a welcome addition to our knowledge of this period since they highlight the fact that earlier Anglo Saxon pottery from rural settlement sites in Kent is rare. The small number of sites so far discovered include Folkestone; Mill Hill near Minster, Sheppey (S. Pratt pers. comm.) and Keston (Philp 1991, 133–5), whilst a few isolated sherds have been found at Minnis Bay, Chestfield and Great Mongeham.

The major problem encountered with Early Anglo Saxon pottery of all types is that the more typical

forms are so simple that they are unlikely to have developed much in form over time. This is, perhaps, a surprising situation given the fact that Kent was the English county closest to continental influence, although rough, hand made pottery continued in production until the time of the Norman conquest and beyond.

Between A.D. 450–575 a more than adequate standard of hand made pottery already existed in a

variety of sandy and chalk filled fabrics, probably because this was what was required and what they were used to in their homelands. Although the evidence in Canterbury is gaining ground with an increase in forms dating to c. 575 being found (Blockley et al. 1995), it still does not explain why the Anglo Saxons gradually changed to an organic tempered tradition by c. 550/75.

Bonfire kiln: single or multiple vessels simply fired in an unstructured bonfire on the ground surface, or (possibly) in a pit.

Clamp kiln: multiple vessels fired in a bonfire, but with the addition of a turf covering to facilitate better firing control.

3 Pottery from a Romano British cremation cemetery in the Sturry Road, Canterbury

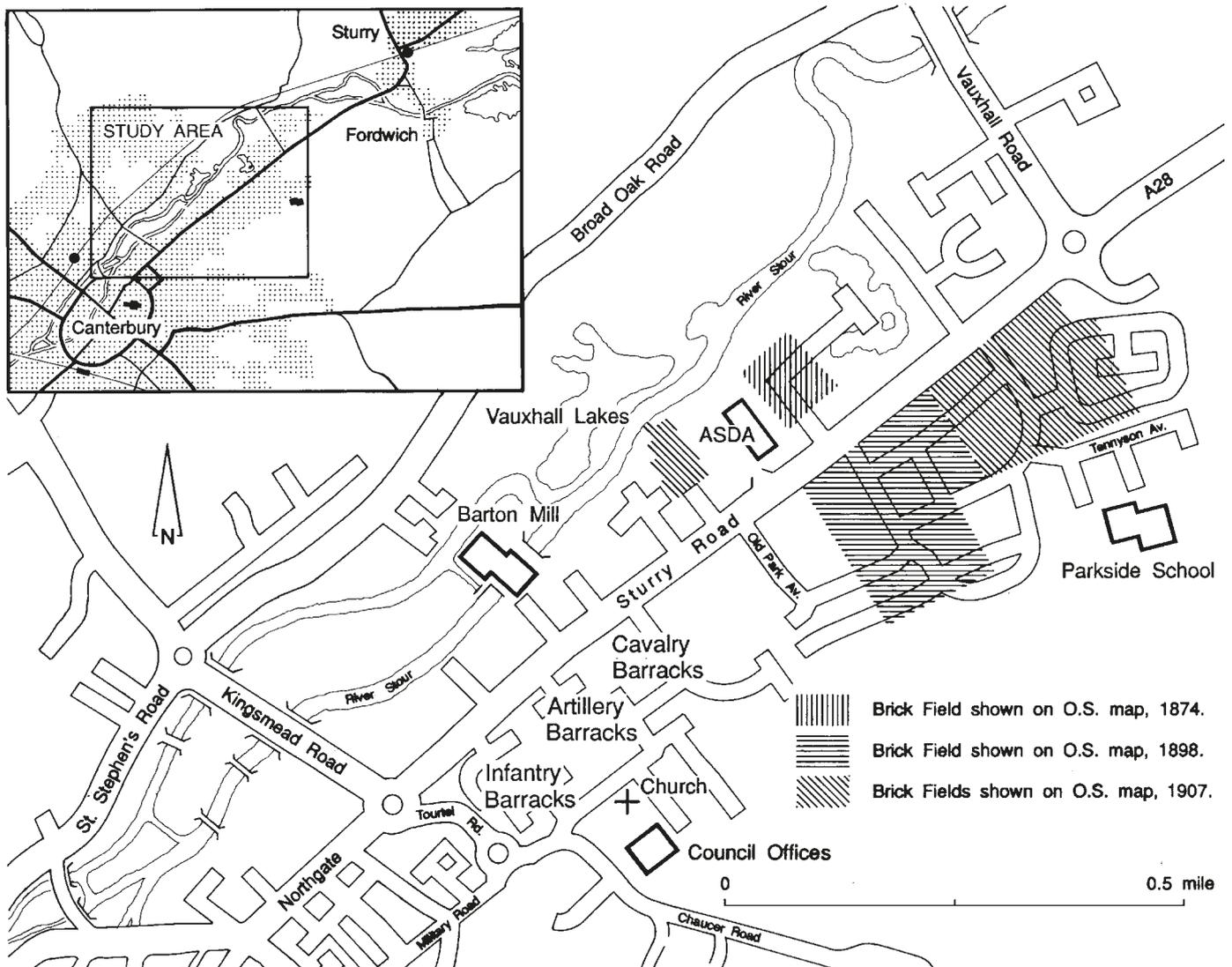
Andrew Savage

A recent examination of the 'Folkestone Archaeology – Field collection place index' held at Folkestone Museum indicated the presence in the museum collections of a number of pottery vessels from Canterbury. The pots had been purchased in 1921 from the collection of Mr S. Evans. He acquired most of them in 1901 and several others in 1902–3. Several were Roman and it was recorded that they had come from 'Gaskin's Brickfield' in the Sturry Road, which

follows the line of the Roman road from Canterbury to Reculver and Thanet.

Subsequent examination of the museum catalogue cards revealed that the collection contains a total of nine or ten Roman pots from this source. They may all fall within a mid second to early third century date bracket, although one or two could be as early as the late first century. The vessels are all complete, although several are chipped. Two of the pots were noted as having been recovered at depths

of 7 ft and 10 ft, the latter 'on top of sand'. These factors suggest that they were recovered from a number of burials, complete Roman pots rarely being found in other contexts. The range of vessel types suggests that these were probably cremation burials of the second to early third centuries A.D. It is likely that they formed part of the larger Sturry Road cremation cemetery, probably the least well documented and understood of Canterbury's Roman burial grounds.



The modern topography of the Sturry Road showing the former locations of the brick fields.

Examination of the 1898 and 1907 Ordnance Survey maps for the Sturry Road area suggests only one possible find spot: the site of a group of pits and kilns marked thereon as the 'Vauxhall Brickworks'. At the end of the nineteenth century these occupied a large area of ground to the south of the Sturry Road, opposite and to the west of the present site of the 'Asda' supermarket. Comparative study of the 1874, 1898 and 1907 editions (35.16 (w)) indicates that the diggings were begun to the north of the Sturry Road and were subsequently extended, first to the south and then to the east and west. The latter area is probably that which was known as the 'Nursery Brick Fields' in the ownership of M. & F. Inge. Although by the first decade of this century, at the latest, a number of brickmakers had premises in the Sturry Road, if one could assume that the vessels now held in Folkestone Museum were acquired by Mr Evans immediately following their discovery, it would be reasonable to suggest they were probably discovered in the easternmost area (now largely occupied by post war housing), in which digging had then only lately begun. Unfortunately for this hypothesis however, James Gaskin died in January 1901 and it is therefore possible that the pots which Mr Evans subsequently acquired formed part of his estate and had been recovered at an earlier date. Clearly, one useful future line of enquiry would be to precisely identify the boundaries of Mr Gaskin's property.

All we can say with certainty at present, is that the finds were recovered from somewhere within the area of the brickfields, a discovery which is in itself of considerable interest. Although the existence of a Roman cemetery in this area is known and a number of references may be found to the discovery of burials and associated artefacts along the line of the Sturry Road (mostly from the Vauxhall Brickfields), little useful information has been published concerning the ceramic finds.

It would seem that recorded discoveries began in the 1860s. The first reference known to the present writer is to be found in John Brent's paper 'Roman cemeteries in Canterbury, with some conjectures concerning its earliest inhabitants' (1861). Following a discussion of cemeteries in the St Dunstan's, St Sepulchre's and Wincheap/ Canterbury East Railway Station areas, he writes: 'Even whilst revising this paper, the finding of mortuary urns with other fictile vessels is announced, just within the wall of the cavalry barracks, parallel to the high road to Ramsgate, proving perhaps, for the Romans loved such localities for their interments, that this way was another main road or 'iter' from the city to some other station, Reculver, or perhaps Richborough'. In his Canterbury in the Olden Time (1879), he locates this find 'close by the mess



The nine vessels from Sturry: Left to right, back: 1 & 2 grog-tempered 'Native Coarse Ware' jars; 3 Canterbury reduced sandyware flast; 4 ?Canterbury, fine pink-buff wide-necked flask. Left to right front: 5 BB2 pie-dish; 6 fine reduced 'Upchurch' ware jar; 7 Canterbury reduced sandyware reed-flange bowl; 8 Samian Drag 36 dish from Central Gaul; 9 BB2-type dog-dish.

room of the Artillery Barracks' and tells us that 'a long line of Roman graves stretched from the Infantry and Cavalry Barracks abutting upon the present Ramsgate Road, crossing the same in a north eastern direction, thence into the brick field formerly known by the name of 'Rolfe's Orchard'. In this place several interments by cremation have been opened in the process of excavating the soil for the purpose of digging out brick earth'. A number of fine enamelled brooches and glass objects are described and illustrated in his account. It may safely be presumed that this 'brick field' is that shown to the north of the Sturry Road on the accompanying figure.

The most comprehensive summary of discoveries in the area may be found in the Victoria County History of Kent, (iii, 1932, 76–7) which itself relies heavily on information contained in Brent (1879). A south Spanish olive oil amphora (found in the 'Rolfe's Orchard' area), stamped S.F.E, is dated in Callender's Roman Amphorae (1965, 248) to the period c. A.D. 120–60. VCH records the Vauxhall discoveries as having been made between 1870 and 1873. S.S. Frere's pamphlet, Roman Canterbury (1965, 18) refers cursorily to the existence of a cemetery near the Cavalry Barracks on the Sturry Road.

All of the finds from the brickfields which are described in the above publications (excluding the barracks finds, further to the west) were found north of the Sturry Road. None of the descriptions of the ceramic finds in the above accounts appear to refer to any of the pots currently in Folkestone Museum. The present writer is not aware of any published references to the 'Gaskin' vessels or to their discovery.

The nature of the location and the depth of the 'Gaskin' finds suggests that they were discovered in the same circumstances as those recovered in the 1870s – in the course of clay and possibly

gravel quarrying. Pottery vessels found in such circumstances were often smashed by workmen and it is therefore possible that the number of whole pots seen to date may have been considerably exceeded by a number of others which were broken and either discarded or disposed of elsewhere. It is also likely (R. Cross, pers. comm.) that other pots from Gaskin's Brickfield were dispersed to other museum collections and it is therefore reasonable to infer, on the basis of the available evidence, that a substantial cemetery extended over the area of the brickfields. The 'Gaskin' finds thus support the opinions of earlier authors and confirms the presence of Roman cemeteries alongside all the principal Roman roads from Canterbury.

On the north side of the Sturry Road, the ground immediately to the west of the nineteenth century discoveries has been severely disturbed by post war gravel extraction. If the western extremity of the cemetery has already been entirely removed by quarrying, its original boundary in this area may never be known. It is still possible, however, that further physical evidence remains to be discovered in the area, not only of the cemetery itself, but also perhaps of associated activity or nearby occupation. There is, for instance, an anecdotal account of layers of 'burning' having been seen at some depth below the ground surface by brickfield employees, although any such deposits need not necessarily have been of Roman date. If such evidence is not to be found on the site of the brickfields themselves, it might still be found on their periphery and on the south side of the Sturry Road, to the west, towards the barracks. Clearly, the identification of the precise extent of the old diggings is of great importance.

It is hoped that documentary research will identify other vessels from the cemetery and perhaps allow those already seen to be more precisely provenanced. Study of a larger sample

will allow not only better dating of the pottery and thus the cemetery itself, but also useful comparison of the finds recovered with those from others outside the city. It is to be hoped that any such future study would incorporate an assessment of the small finds, not considered here. Some of these, in addition to pottery vessels, remain in the possession of Canterbury Museums; they include a number of enamelled brooches and a ceramic lamp holder.

There have been few other documented finds of Roman date in this area. The southern boundary of the brickfield lies, at its closest point, approximately 150 m. to the north west of the site of a mid to late first century A.D. pottery kiln (Jenkins 1966) which is situated on the present site of Parkside School. Although there is not necessarily a direct relationship between the 'Gaskin' burials and the nearby pottery kiln (its period of production clearly preceding the date of the interments), the Romano British potter(s) were almost certainly utilizing the same brickearths as their nineteenth and twentieth century brickmaking counterparts.

The pottery

The assemblage of nine securely provenanced vessels at Folkestone Museum comprise a range of Canterbury and other Kentish coarse and finewares and a single imported Central Gaulish samian dish. It is not possible to say, on the basis of the available documentation, how many burial groups these represent, although the presence of two large coarseware jars (1 & 2) indicates at least that number. Vessels of this type were commonly used as cinerary urns, as for instance at Cranmer House, Canterbury (Pollard 1987) and one would expect to find only one in each interment.

Some of the vessels here (5 & 9) are unlikely to be later than the mid second century, and none are likely to be later than the early third. It is possible that they could all fall within this date range, although one (7) could be Flavian.

Thanks are due to my colleague Richard Cross for drawing the material to my attention and to Janet Adamson, curator, for allowing me to examine and photograph the vessels. Information

regarding other material from the Sturry Road cemetery was provided by Steve Marshall of Canterbury Museums.

Postscript:

Cllr James Gaskin, d. 1901

James Gaskin is described in the Stevens 1889 'Directory of Canterbury and Neighbourhood' as a builder, decorator and brickmaker. Mr Gaskin was a City Councillor and a prominent contractor who undertook many large construction projects in Kent and East Sussex. In Canterbury his works included the building of St Thomas's Church, St Dunstan's School and the 'new' cathedral library, the rebuilding of the Westgate and the reroofing of the east end of the cathedral after the fire of 1872. He built his own offices at 27 Castle Street, substantial premises which are still standing and are currently occupied by Kent County Council Property Services Department.

4 Roman brick and tile

Louise Harrison

A large quantity of building material has been retrieved from a number of sites both in Canterbury and in other areas of East Kent. A large percentage of this material, which is largely Roman brick and tile, comes from sites situated within Canterbury which are now awaiting publication. The accumulation of unrecorded Roman brick and tile has inevitably caused a problem with storage space. When the material is adequately recorded and published it can either be discarded or deposited with the appropriate museum in accordance with their policy for the retention and dispersal of archaeological finds. The requirement to disperse brick and tile has led to a policy being devised for its recording and publication. Roman brick and tile from the St George's Clocktower excavation (*Canterbury's Archaeology* 1991–92, 1–5) and Maidstone

Roman Villa (*Canterbury's Archaeology* 1992–93, 32–3; 1993–94, 23–5) has been recorded using the following techniques. It is hoped that the recording, and analysis of this material will continue and that results will appear in this or other publications produced in the future.

The recording of Roman brick and tile

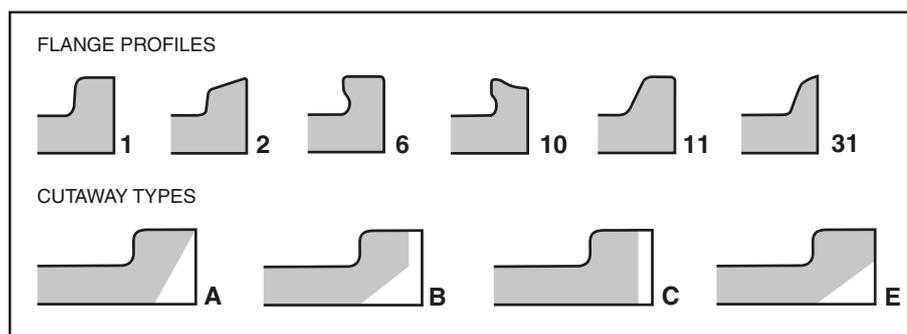
The tile is recorded primarily by fabric. This is carried out with the use of a binocular microscope using 10x or 20x magnification. This enables inclusions present in the tile fabrics matrix to be accurately identified and described. The presence and frequency of different inclusions can help locate the area where the tile was produced.

After the fabric analysis the brick and tile is recorded by type. Generally, each individual brick or tile fragment is weighed and any dimensions are noted. Each type of tile requires a different degree of recording. The tegula tile is classified by recording the flange profile and lower cutaway where present. The keying usually found on box flue tile and voussoir tile is described and where possible identified as being of a certain type. Additionally any markings on the tile usually consisting of signature marks, maker's stamps and animal and human prints, are noted. The information is first entered on record sheets and then on a computer database.

The analysis

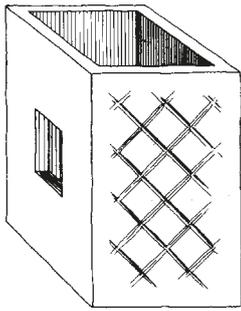
The work outlined above will allow an ever expanding type series to be formed for the East Kent area. The information from East Kent can also be linked with studies of building material from elsewhere in southern England. The study will provide a vast quantity of information about tile production both from a historical and technological point of view.

Fabric analysis can provide information which could determine the number of tile kilns producing tiles for Canterbury or it may be possible to match certain tile fabrics to tile kilns either in Kent or other areas of the country. For



Common flange profiles and cutaways (numbered by type).

Flue Tile :

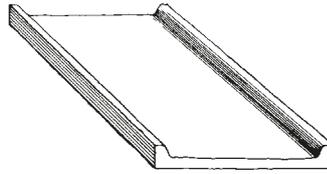


ROMAN TILE

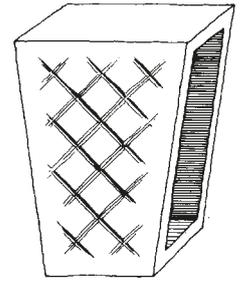
Imbrex :



Tegula :



Vousoir :



ROMAN BRICK

Bessalis :



Average size : 198mm sq.

Pedalis :



Average size : 281mm sq.

Lydion :



Average size : 440x290x14mm

The Roman brick and tile from the Maidstone Roman Villa and St George's Clocktower excavations

i The fabrics

In total, fourteen different fabrics have been identified from the two excavations. Although some work is still required to identify the provenance of many of the fabrics, imports have been identified from London, Eccles and Radlett.

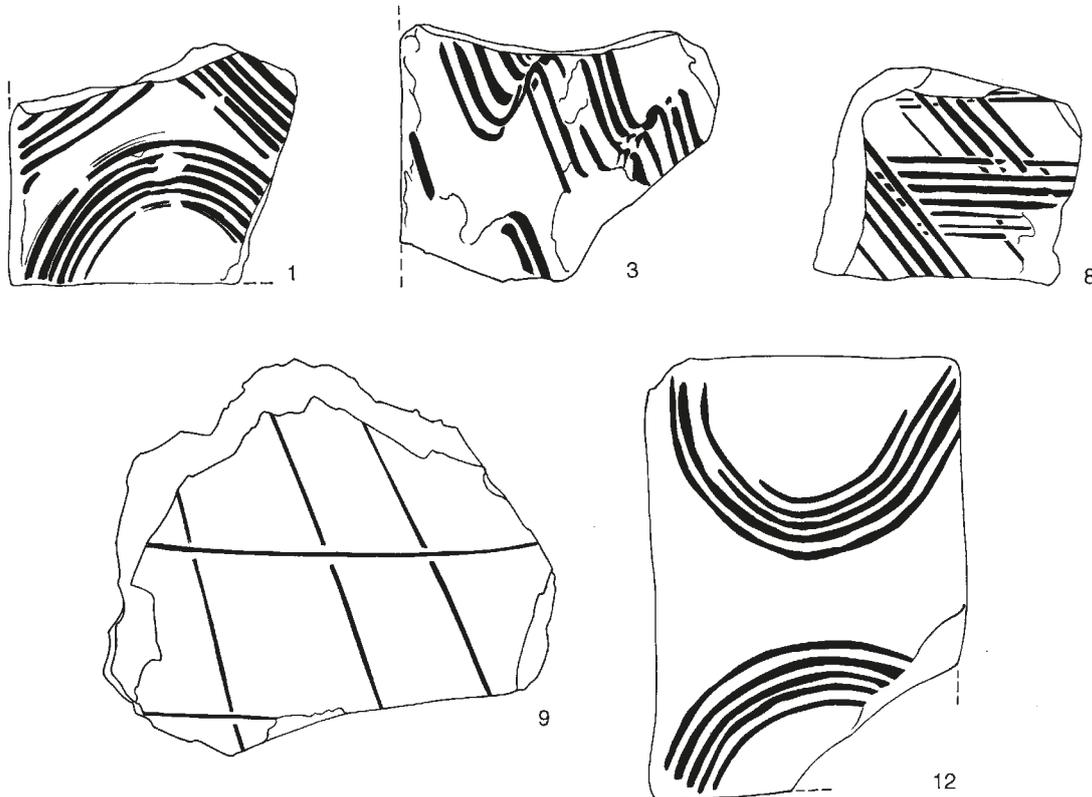
Additionally, a large number of tiles have a similar fabric to the material excavated from the Whitehall Gardens and St Stephens excavations carried out by Frank Jenkins. Similar fabrics appear in London suggesting that the kilns supplied tiles to areas beyond Canterbury. Generally, although imported fabric types appear in the Maidstone assemblage, the Canterbury assemblage contains a greater variety of fabric types, and in greater frequency, than the Maidstone group.

example, a large quantity of tile recorded recently has a fabric very similar to material excavated from the tile kilns found at St Stephens (Jenkins 1956) and Whitehall Gardens (Jenkins 1960) in Canterbury.

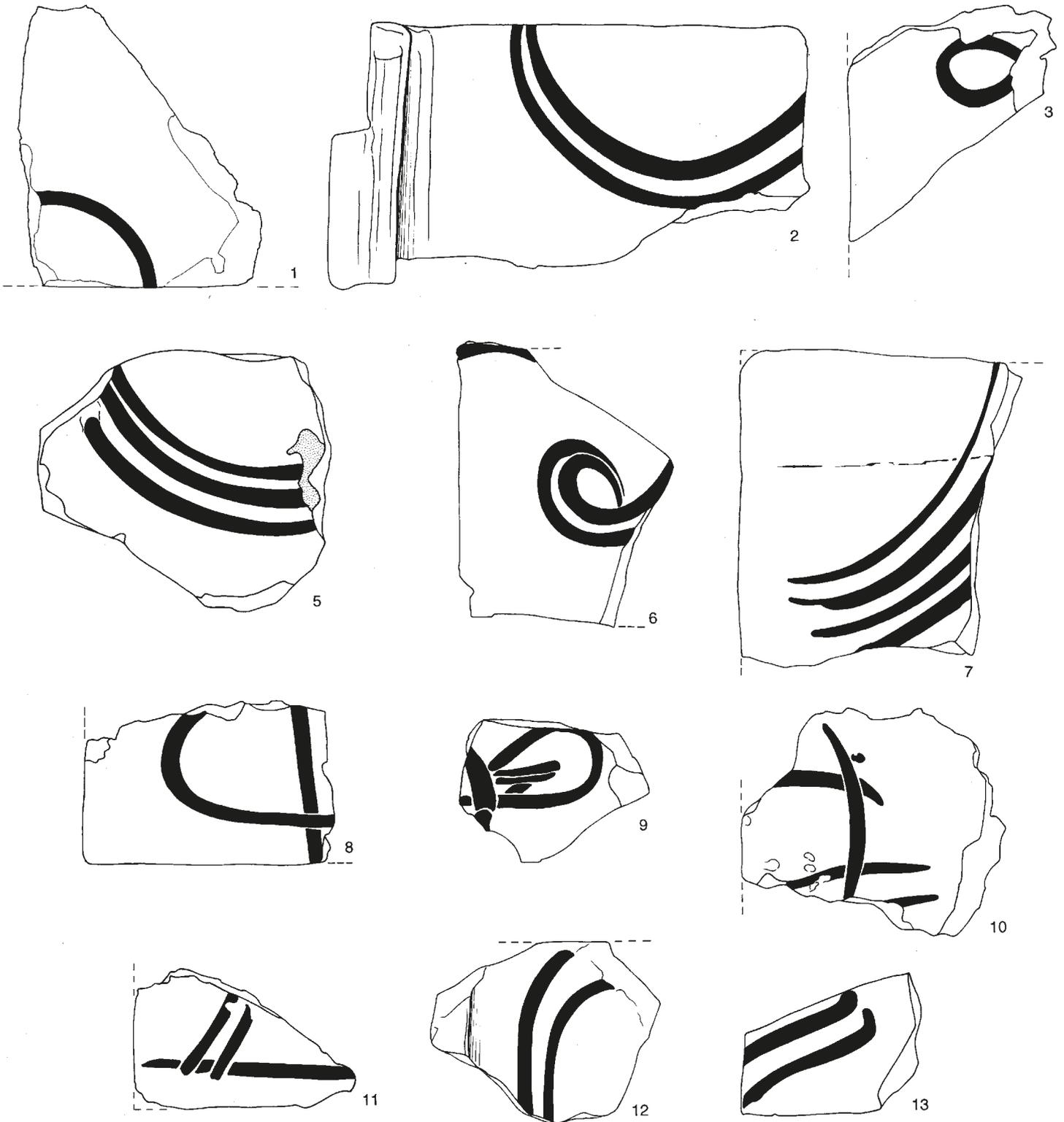
Where certain tile types or fabrics are found in well stratified contexts or are directly associated with a tile kiln it may also be possible to date certain tiles or fabrics more precisely. Equally, it may be possible to determine how many types and varieties of tiles were being produced at any one kiln. For example, the study of the flange

profiles and cutaways on the tegulae enables the number of moulds used at individual kilns to be determined.

Two assemblages of tile from St George's Clocktower in Canterbury and Maidstone Roman Villa have been recorded to the standards described above and reports on these two groups of tile will be published in the near future. Summaries of both groups of tile have been presented together here as they form a useful contrast between East Kent and the Medway area.



Common flue tiles (numbered by type).



Signature marks recorded from both excavations (numbered by type).

ii The tegulae and imbrex

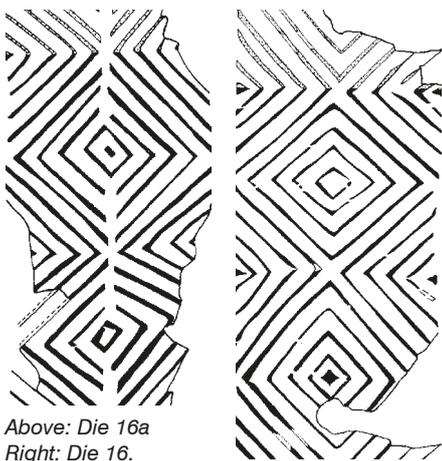
Flanges appear on all tegulae of all different shapes and sizes, and they usually have cutaways which, when used in conjunction with imbrex tiles allow them to interlock to form a secure waterproof roof.

The St George's excavation yielded one tegulae complete enough to provide a length measurement of 446 mm. The size of tegulae

tended to decrease over the Roman period and therefore this example can be roughly dated to the first to mid second century. The Maidstone excavation produced a tegulae complete enough to provide a breadth measurement of 295 mm., tapering to 285 mm.

The flange profiles varied slightly between the two sites. Further work is required on more material before any meaningful conclusions can be drawn from the variations.

Complete or virtually complete examples of imbrices are rare, although a small number have been recorded from the two groups of tile studied. The St George's excavation yielded a complete imbrex probably of a local fabric with dimensions of l: 441 x w: 180/170 mm. x th: 18/21 mm. A complete imbrex of a similar fabric was also present in the tile from the Maidstone excavation measuring l: 420 mm. x w: 161 mm. x th: 20 mm.



Above: Die 16a
Right: Die 16.

iii The flue tiles

The flue tiles recovered from both excavations were generally fragmentary, with only a small number of fragments being complete enough to provide any dimensions. However, the presence of the keying and some dimensions allowed most of the tiles to be allocated to a type. The best examples of these are illustrated below.

The flue tiles retrieved from Maidstone consisted mainly of local fabrics with combing being the only keying technique employed. The most common of these keying patterns is that of two semicircles at the top and base of the tile and a variation of this was two semicircles with a diagonal cross between them.

The flue tiles retrieved from the St George's excavation are a lot more varied in terms of both keying and fabric than the Maidstone material. One of the most common flue tile types represented in the St George's excavation was an imported Eccles fabric type, the distinctive keying consisting of bands of wavy lines.

Only three tiles bearing roller stamped keying were present in the tile assemblage from St George's. They were all fragmentary but identifiable to a particular die. Two tiles were of a local fabric and consisted of Die 16 and 16a. The other fragment was probably an imported fabric, dated in London to A.D. 100/20. The die was probably Die 73, although the small size of the tile causes difficulty in identification (Betts et al. forthcoming).

The St George's excavation also produced a small quantity of voussoirs with combing consisting of a diagonal cross, occasionally with vertical borders on either side.

iv The brick

Roman brick can only be identified as being of a certain type, for example *Bessalis*, *Pedalis* or *Lyon* if all the dimensions are present. One *Bessalis* type brick measuring 190 mm. x 186 mm. x 40 mm. came from the Maidstone excavation. Brodrigg notes that the average size of a *Bessalis* is 198 mm. square (Brodrigg 1987, 34), indicating that the brick from Maidstone was relatively small. All other brick recorded was fragmentary and could not be classified to type.

v Signatures and other miscellaneous marks

The St George's Clocktower excavation yielded eleven different types of signature marks while the Maidstone Roman Villa produced only five with many being unclear or fragmentary. Signature marks types 1 and 2 were the most common, appearing frequently in both assemblages, possibly suggesting that these were being used by local tile

makers. However it should be noted that these two signature marks appear commonly in different areas of the country including London. Further work is required on signature marks from other areas of East Kent for any significant conclusions to be drawn about why this is so.

Both sites produced a number of other impressions including four hob nail boot or sandal impressions, one cat paw print and a number of different sized dog paw prints.

Conclusion

Study of these two groups of tile suggests that Canterbury and Maidstone were being supplied brick and tile from a number of common areas. Tile fabrics thought to have been produced at Eccles, London and possibly Radlett appear quite frequently in the tile assemblages from Canterbury, and at Maidstone to a lesser extent. Additionally, tile fabrics thought to have been produced in Canterbury appear in the Maidstone assemblage and tile fabrics commonly found in Maidstone seem to appear in Canterbury. This suggests trading was taking place between the two areas.

Further study is required on the differences in tile between the two areas. Material retrieved from the St George's excavation is a lot more varied, both in terms of form and fabric. The diversity of the different flange types present on the tegulae and the different examples of keying employed on the flue tile suggests that many different moulds and keying techniques were being used in the same area and probably at the same kilns.

I should like to thank Ian Betts (Museum of London Archaeological Services) for his help and guidance in compiling the two reports summarised above.

5 Ports, pots and packed lunches? An overview of the medieval pottery from Townwall Street, Dover John Cotter

Excavations at the Townwall Street site, Dover have yielded early half a tonne, or 44,000 sherds, of pottery. Initial identification, dating and cataloguing of this has just been completed. It is already clear that this is the largest and certainly the most diverse collection of medieval pottery excavated in Dover and that, when complete, a thorough study of the range of local and imported wares present should throw new light on many aspects of the economy and everyday life of this vitally important medieval port.

The pottery reveals a similar though greatly amplified picture to that revealed on some of the smaller sites excavated in 1990–2, in particular the twelfth century 'crypt' site beneath the Shakespeare Hotel in Bench Street (*Canterbury's Archaeology* 1991–92, 13). There, as at Townwall Street,

the shingle beach covering the Roman harbour does not appear to have been colonised until the Norman period. Except for some scraps of residual Roman pottery, all the pottery from Townwall Street appears to date from c. 1100 or c. 1125 onwards. In this case it is the local (Canterbury) wares that provide the most reliable indicators of date, as their evolution is better understood compared with the many foreign imports whose dates and sources are in some cases only approximately known.

Although detailed statistical work has yet to be carried out, it is clear that the bulk of the pottery from the site dates to the twelfth and thirteenth centuries, with much smaller amounts of late medieval and post medieval pottery up to the nineteenth century. As always the bulk of the twelfth to thirteenth century pottery is of local manufacture but there is

a fairly high proportion of imports (5 per cent of sherds), mostly French. At the 'crypt' site in Bench Street, however, up to one third of the pottery in use there during the twelfth and thirteenth centuries was imported from abroad, perhaps reflecting that this was a higher status site than Townwall Street. This is in marked contrast to inland sites such as the city of Canterbury, only 15 miles away, where despite its wealth and prestige only 3–5 per cent of pottery in use at this time was of foreign origin. Clearly the high proportion of foreign pottery at Dover is due to its geographic position as the nearest English port to the continent and its traditional role as the gateway port of England.

The percentage of imported pottery in use at Dover was, probably, never again as high as the 33 per cent it enjoyed in the twelfth and early thirteenth



Western Europe showing the sources of medieval and post-medieval pottery found at Dover.

century; it certainly never reached the 53 per cent enjoyed by late medieval Southampton (Brown 1993, 79), with its large community of resident foreign merchants. Because of this important difference it is much less likely that the foreign pottery present at Dover – some of which was fairly coarse – represents pottery traded in its own right as a desirable commodity or a luxury product. It is far more likely that it is there simply because it was easily obtainable. Much of it could have been purchased for the return journey from France or Flanders simply as vessels for cooking and drinking or as containers for pre cooked food and perhaps for use during the short stay at Dover itself. While interesting to the archaeologist, it is not then such a surprise to find so much foreign pottery here, even though Dover may not have been home to a community of foreign merchants such as existed in Southampton in the late medieval period (Brown 1993).

English medieval pottery, including coarse Tyler Hill jugs from Canterbury, is increasingly being recognised on the other side of the Channel at several French and Belgian ports (*Canterbury's Archaeology* 1990–91, 52; Hillwaert 1993, 62), and it is certainly not there because it is better than the local continental wares, which are usually of higher quality. It is there for much the same reasons that continental pottery occurs at Dover, as utensils for the crossing, perhaps in many cases of no more importance than the sandwich wrappers, plastic cartons and fizzy drinks containers of the modern day tripper?

At Townwall Street the primitive chalk block walling combined with the discovery of masses of fish bones and fish processing detritus, points to a fairly low status medieval site, most probably home to a fishing community. Hundreds of thin crushed chalk floors containing occupation debris are separated by thicker bands of make up and levelling which must have been brought from outside the site, possibly as rubbish dumped alongside the town wall. The site therefore contains a mixture of rubbish both from the poorer coastal fishing community and perhaps from better off areas further up town. This rather complicates the picture of exactly whose rubbish (and therefore pots) we are looking at and so until the excavators' stratigraphic report is available it would be unwise to assume, for instance, that all the coarse wares belonged to the poorer classes and all the finer wares belonged to the rich.

The pots from Townwall Street are all very fragmentary. There are no complete pots but several complete and near complete profiles can be reconstructed, mainly of cooking pots which are particularly abundant. At a later stage it may be possible to reconstruct some of the glazed finewares. All the drawings are of pots from Townwall

Street except Nos 14, 17 and 19 from the 'crypt' site in Bench Street, included here because they are either better preserved or interesting in their own right. We can now briefly consider the main types of pottery recovered from the excavation, starting with the local wares and finishing with the imports.

As far as we know Dover never had its own medieval pottery industry. The nearest medieval pottery industry of any size was located 16 miles away at Tyler Hill, just north of Canterbury, and it is no surprise that the vast bulk of Dover's medieval pottery came from here. The earlier products we know as Canterbury Early Medieval Sandy ware, a coarse orange brown or grey ware which mainly occurs in the form of large sagging based cooking pots of which No. 1 is the typical late twelfth century shape. Wide bowls also occur but are much less common. Between c. 1140 and 1200 spouted pitchers like No. 2 were also produced (this one lacking its tubular spout). The latter, with their rouletted decoration, high collared rims and (sometimes) external glaze were clearly local attempts to copy imported French pottery and are surprisingly common at Dover. Glazed spouted pitchers gradually developed into proper jugs with handles and a pouring lip pulled from the rim. The example shown here (No. 3) has the deeply stabbed handle with thumbled edges typical of Tyler Hill jugs between c. 1175–1225. Tyler Hill remained the main supplier of pottery to Dover until the industry died out between c. 1525–50.

Shell tempered pottery, mostly cooking pots and bowls but also some jugs and a curfew (see below), was also very common in early medieval Dover but we are much less sure about where it was made. Some is very similar to types of shelly ware used at Canterbury and may be from this area, but shelly ware jugs are almost unknown at Canterbury whereas they are fairly common at Dover. It is almost certain therefore that the shelly wares were coming from more than one source, some perhaps from abroad (see below), but as shelly wares are common all over Kent there could well have been a more local source supplying Dover. Curiously, although there was a twelfth century kiln producing a sandy shelly ware at Ashford (only 15 miles away), this seems hardly represented at Dover at all.

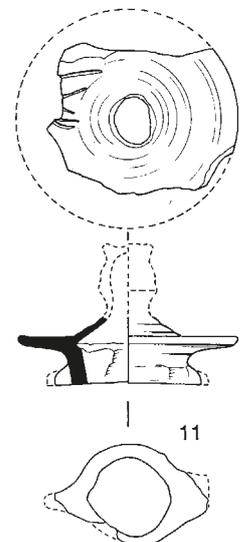
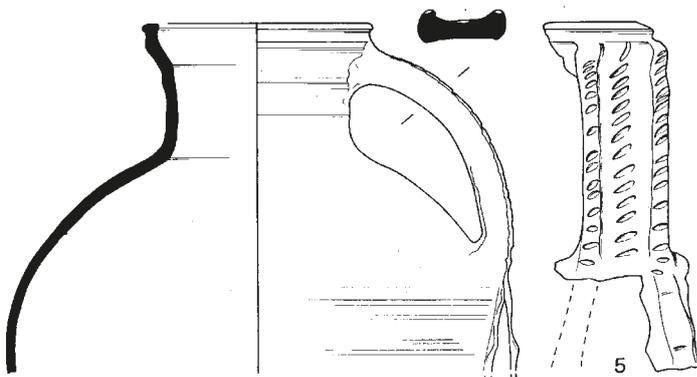
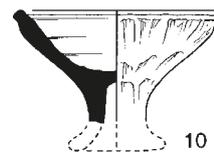
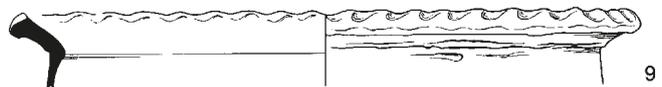
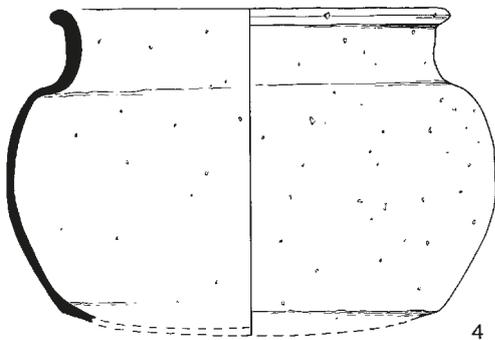
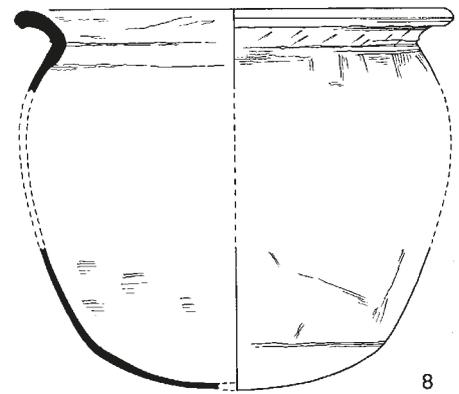
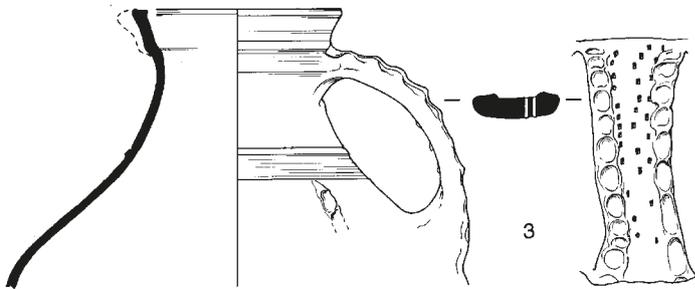
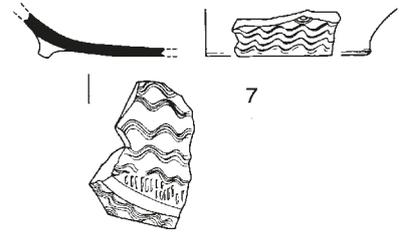
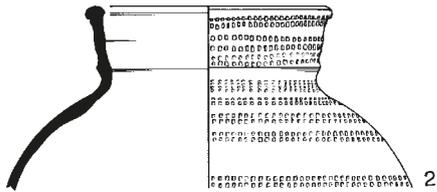
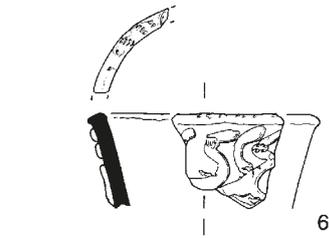
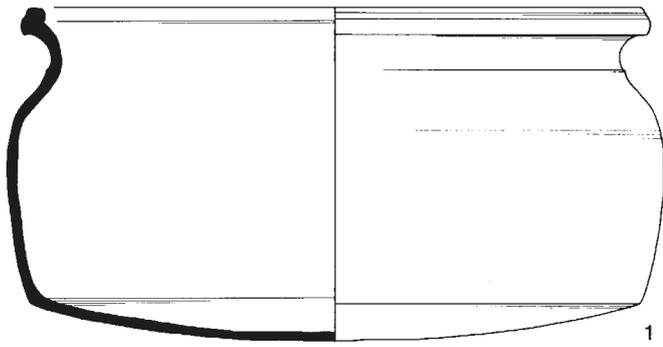
Another group of early medieval coarse wares well represented at Dover is the flint and shell tempered wares. These, as the name suggests, contain abundant coarse grits of flint, shell and sometimes quartz. There are several types or varieties present but the dominant type has a pale brown/fawn fabric with distinctive red brown flint grits. As usual, cooking pots are the commonest form (No. 4) but some unglazed jugs also occur (No. 5) which, by analogy with Tyler Hill jugs, suggest continued production into the first half of the thirteenth century. Another unusual flint

and shell tempered vessel form is the curfew or fire cover (not illustrated), a sort of large inverted bowl placed over an open central hearth at night to keep the embers alive till morning. Curfews are recognisable on account of the sooting found on the inside surface and also because they have large decorated handles (like the jug No. 5) with air holes at either end to keep the fire alive. At least six such vessels were found at Townwall Street. The same types of flint and shell tempered wares also occur further along the coast at Folkestone and similar wares are prolific even further west in the Romney Marsh area of Kent and adjoining areas of East Sussex. Probably the pots arrived in Dover as part of the cargo (or equipment) of small English coasting vessels carrying building stone (Greensand) from Folkestone, or the Cornish slate which is so common in medieval Dover.

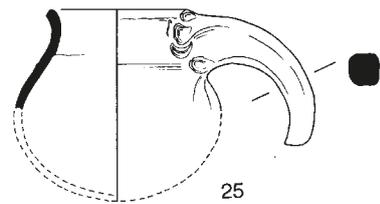
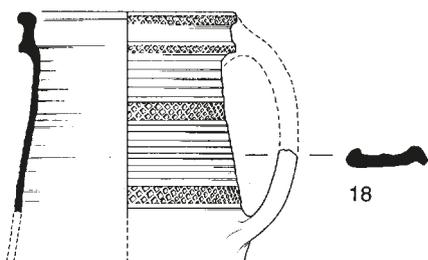
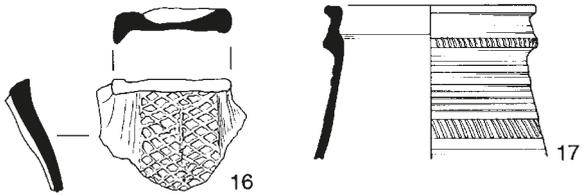
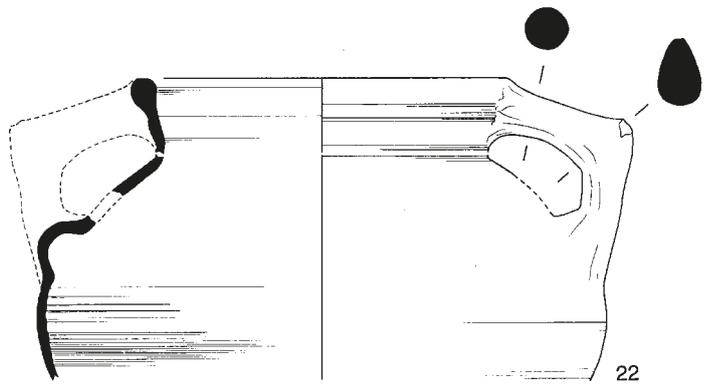
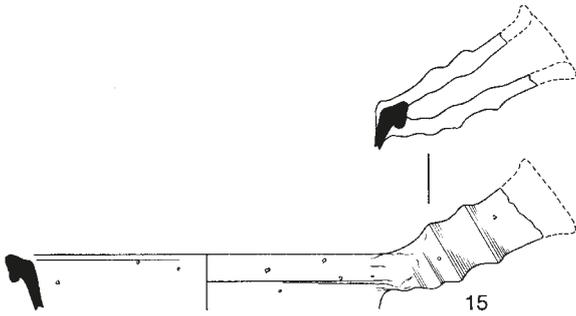
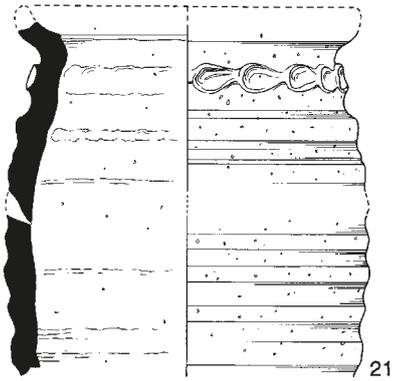
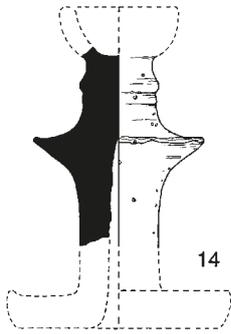
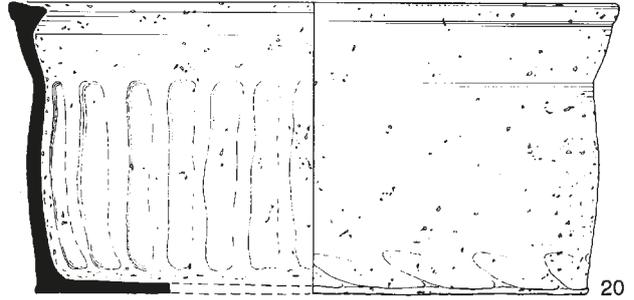
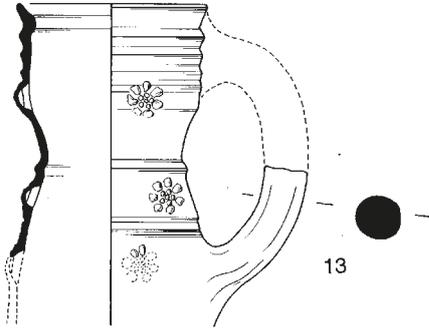
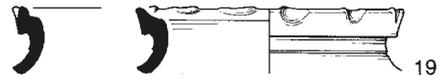
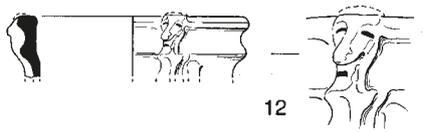
Besides jugs from Tyler Hill, glazed jugs in paler buff or orange pink fabrics were also reaching Dover (and Folkestone) between the thirteenth and sixteenth centuries. Some of these were green glazed and some had crude white painted decoration. The precise source of these 'Wealden types' is unknown but their home territory is somewhere on the paler firing Wealden clays of south Kent and East Sussex. Some closely resemble products of the Rye kilns in East Sussex and a few stamp decorated pieces at Townwall Street are almost certainly from Rye. Others contain a few shell and/or flint grits and may be descended from the earlier flint and shell tempered wares and some resemble jugs found in the Ashford area (*Canterbury's Archaeology*, 1992–93, 44, fig. 25) perhaps descended from the twelfth century Ashford industry mentioned earlier.

The range of English medieval pottery from areas beyond Kent is surprisingly varied as far as source is concerned but the more distant English wares are generally rare at Dover, rarer even than many of the continental imports. This is not so surprising as some of the English wares come from over 200 miles away whereas France on the other hand is only 25 miles away. With a few exceptions, notably London type ware, the remoter English wares found at Dover probably arrived on coastal trading vessels, though some were almost certainly personal items belonging to fishermen.

Glazed jugs in twelfth and thirteenth century London type ware are fairly common in Dover as they are at Canterbury. These probably arrived by road with goods, or passengers from London as did the few whiteware jugs from Kingston and Cheam in Surrey. There are at least three highly decorated glazed jugs or pitchers of characteristic twelfth century West Country type with a coarse gritty pale grey fabric under a greenish yellow glaze and with applied, combed and stabbed decoration (Nos 6 and 7). The base fragment No. 7 is doubly unusual in being decorated and glazed on the underside where



Medieval pottery from Kent, ?Sussex, Wiltshire, Norfolk and Yorkshire, twelfth and thirteenth centuries. Scale 1:4.



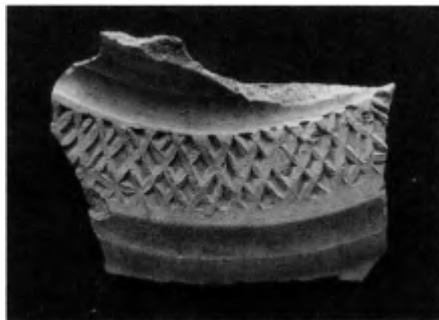


Parts of a highly decorated Rouen Ware jug, c. 1200–50, with applied ?hound in red, yellow and green glaze.

no one could see it assuming that it is a base at all. One example has a tubular spout fixed to the rim and another has stubby tripod feet. These have recently been identified as coming from south east Wiltshire (Alan Vince, pers. comm.) and it is highly unusual to find this type so far east of its source.

The post medieval pottery includes a few vessels in North Devon gravel tempered ware, another rare visitor to these parts. Perhaps even more surprising is the discovery of several cooking pots, bowls and even cresset lamps in a fine pale grey sandy ware from Norfolk (Nos 8–10). These are of twelfth century date, hand made (as indeed were many English cooking pots at this date), often very thin walled and with crude external knife finishing marks. There are one or two other examples from the port of Stonar, Sandwich, but otherwise they are unknown elsewhere in Kent. Very similar types occur at many sites in Norfolk including Kings Lynn, Norwich and at Great Yarmouth where they are particularly well represented from excavations at the fishing settlement of Fullers Hill (Mellors 1976). This is an interesting link as the medieval fishermen of the Cinque Ports had a long running dispute with the fishermen of Yarmouth over the rights to host the annual herring fair, known as Brodhull, which was held on a group of sand banks off the Yarmouth coast and which attracted great numbers of fishermen and traders from both England and the continent. The Yarmouth connection provides a convenient and plausible explanation for the presence of Norfolk cooking pots at Dover.

Yorkshire represents the most distant source of English pottery recognised at Townwall Street but again the numbers are fairly small, perhaps one or



Shoulder sherd from a cooking pot with diamond roulette decoration. Pasty cream-coloured ware probably from the Beauvais area or Seine valley, north-west France. Twelfth century.

two dozen vessels all told. Most of the recognisable Yorkshire wares are thirteenth century jugs, except for two jug lids, with pasty or sandy off white, pink buff and orange pink fabrics generally under a good quality green glaze. Among these are fragments of one or two Scarborough ware 'knight' jugs decorated with applied figures of mounted knights and hunting scenes (not illustrated; Phase I fabric c. 1200–25). This was a widely traded type and has been met with on other Dover and coastal Kentish sites before now. A rare find however is the Scarborough ware locking jug lid (No. 11; Phase II fabric c. 1225–1350). Rarer Yorkshire wares not previously recognised in Kent include York Glazed ware and the similar Brandsby type ware, also Beverley ware and possibly the later medieval Hambleton ware. Amongst the York Glazed ware is a jug with applied human masks (No. 12, or Brandsby?); there are other jug sherds with complex roulette decoration and a virtually complete locking jug lid (as No. 11). Beverley ware is represented by a jug with pushed out rosette stamps (No. 13). Glazed Yorkshire tablewares and one or two jugs in



Bodysherds from two Flemish Highly Decorated Sandyware jugs with roulette decoration and green glaze, c. 1200–1300.

Developed Stamford ware (Lincs), would certainly have been regarded as something of a luxury in Kentish households and one suspects they may have arrived on the site as rubbish from wealthier households elsewhere in town.

French wares not surprisingly head the list of foreign wares. There are several hundred sherds of French pottery from Townwall Street, mostly white or cream coloured fabrics, easily distinguished from local Kentish wares, and like them mostly date to the twelfth and earlier thirteenth century. Without scientific analysis of the clays one can only attribute many French whitewares to broad regional 'traditions' on the basis of shape and decoration.

Sherds from perhaps two dozen or more vessels in Normandy Gritty Ware are present at Townwall Street. These are normally unglazed and have – as the name suggests – a remarkably coarse fabric with quartz grits often up to 5 or 6 mm. across. A few have specks and splashes of red paint though no patterns. Forms present at Dover include pedestal cresset lamps (No. 14 from Bench Street), a skillet or frying pan with tubular handle (No. 15), large jugs including No. 16 with rouletted strips down the back of the handle and a rich yellow external glaze, sherds from cooking pots and a rim from a costrel or wine flask. Normandy Gritty Ware is rare in England and finds are largely confined to the south coast, but even here the number of vessels found is not very great. Examples of talc tempered céramique onctueuse pots from Brittany are known from Snargate Street, Dover and from Stonar (Sandwich) and Ramsgate (*Canterbury's Archaeology* 1989–90, 46–8). One or two coarse micaceous sherds from Townwall Street may also be from Brittany. These Breton coarsewares, usually hand made cooking pots or dishes are very rare in England and are



Part of a lobe-handled bowl (porringer) in Dutch tin-glazed earthenware. Purple-blue background with polychrome decoration. Probably made in Haarlem c. 1600.

much too crude to have been worth importing as a trade item. They might have served perfectly well as cooking utensils on fishing boats, and so found their way to this country.

Parts of several highly decorated Rouen ware jugs were also found at Townwall Street (see photo). These thirteenth century finewares probably arrived from Normandy in the same way as the Normandy Gritty Ware vessels.

By the middle of the thirteenth century various documents, including the Patent Rolls (mostly unpublished) make it increasingly clear that the traditional route taken by passengers to and from the continent was via Dover and the port of Wytsand (now Wissant) near Calais and this was probably of long standing tradition as Thomas Beckett fled by the same route in 1164. This route and its associated taxes was eventually enforced and regularised by royal charter in 1343 (Statham 1902, 53). It would then have been increasingly difficult for ordinary passengers to sail directly from Dover to Normandy or vice versa and this restriction must in time have restricted the types of French pottery reaching Dover. Fishermen and naval expeditions were probably exempt but at any rate Normandy wares are extremely rare in Dover (and most of England) after the thirteenth century.

The commonest French imports at Townwall Street are green glazed jugs in 'North French Monochrome Ware', which date to c. 1200–50 (Nos 17 and 18). These have a fine sandy white or cream fabric, bands of rouletted decoration, fine horizontal rilling and a good quality green glaze. Fragments of several dozen such jugs were found on the site and they were obviously the most widely used imported tableware in thirteenth century Dover. Identical jugs occur at Canterbury and Southampton which suggests that they might be from Normandy but their precise source remains uncertain. Unglazed cooking pots (No. 19) and probably spouted pitcher fragments, sometimes with crude strokes of red paint, are thought to have come from the Beauvais area of Picardy or from potting centres along the Seine valley. Saintonge ware from south west France, the classic French luxury ceramic of the thirteenth and fourteenth centuries, does occur at Townwall Street, but is surprisingly rare compared, for instance, to Sandwich or Southampton.

Post medieval wares from the above areas, mostly sixteenth and seventeenth century, include spherical wine flasks from Martincamp (Normandy) and a few sherds of Normandy and Beauvais stonewares together with decorative dishes with incised designs in Beauvais sgraffito ware.

Medieval shelly wares were also produced in the contiguous coastal areas of north France (Pas de Calais) and western Belgium (Flanders) although these can be difficult to distinguish from English shelly wares. The unusual flat based almost drum

shaped form of No. 20, a cooking pot, suggests it could be continental as does its 'soapy' feel and profuse shell content. No. 21, likewise, has a most unusual elongated form perhaps suggesting a specialised cooking or storage function, but while the form is distinctly 'foreign' the fabric is not unlike the bulk of local shelly wares found on the site and so a Kentish or continental origin seems equally plausible.

Other continental ceramic traditions well represented at Dover are the North French/Flemish grey wares which are also difficult to source precisely as they are all various shades of grey and all more or less sandy and unglazed. One likely source, for some at least, is the early medieval kilns at Sorrus (Pas de Calais) which lie at no great distance from Wissant and thus a short journey from Dover. Simple cooking pots and spouted pitchers in these grey fabrics occur at Dover from the early twelfth century until at least the fifteenth century. The two greyware vessels illustrated here (Nos 22 and 23) are from the same late fourteenth or fifteenth century context. No. 22 with its distinctive 'elbow' handles copies the shape of metal cauldrons or cooking pots while the rimless form of No. 23 is so far unparalleled; it may be a small flask or perhaps even a money box in which case it may originally have had a small knife cut horizontal slit to receive the coins, although this part no longer survives. The bluish grey surface sheen of this last piece is similar to samples of 'blauwgrijs' ware found at Kortrijk in southern Belgium.

To the Andenne kilns in eastern Belgium we can ascribe a few fine white or buff coloured vessels, usually spouted pitchers (No. 24) of twelfth to early thirteenth century date. There are numerous sherds also of Flemish Highly Decorated Sandyware jugs (alias 'Aardenburg' ware; see photo), a thirteenth century ware produced at various sites in western Belgium including Bruges. These have a white slip over a red sandy fabric and many vessels have complex rouletted decoration under a green glaze. A single sherd from a polychrome South Netherlands flower vase of c. 1475–1550, probably made at Antwerp, was also found.

Medieval Dutch wares are not well represented at Townwall Street, though some of the grey sandy wares mentioned above could be of Dutch origin. Most Dutch wares here are of post medieval date and include the usual range of plain glazed red earthenwares, some with trailed slip decoration, but there is also a very attractive tin glazed porringer or small hemispherical bowl (see photo) with polychrome decoration on a purple blue background. This was probably made at Haarlem c. 1600 (Jan Baart, pers. comm.).

German or Rhenish wares of the twelfth to thirteenth century are generally rare in this part of the country but parts of at least half a dozen Paffrath

ware 'ladles' (No. 25) have turned up at Townwall Street, an exceptionally high number from a single site. These unusual little pots have a dark blue grey stoneware like fabric, a globular body and a single distinctive claw like handle. They appear, from their sooted exteriors, to have been used as individual cooking pots or saucepans but would also have made ideal drinking vessels. The frilled base of another type of drinking beaker in yellow grey Pingsdorf ware was also found on the site. Medieval German stonewares seem to be rare at Dover until the late fifteenth century when we get an abundance of Raeren stoneware mugs and the usual later stoneware types. German slipware dishes of the sixteenth to eighteenth centuries however are surprisingly common.

Mediterranean wares are not very common at Dover. Nearly all the Spanish wares are coarse storage vessels but there is one sherd from a luxury item, an Andalusian Lustware jug from Malaga, probably of fourteenth century date. There is a piece of south Spanish amphora of late medieval date and a surprising number of fragments of post medieval 'olive' jars from Seville. These globular or carrot shaped vessels with pointed bases would have contained olives, olive oil, honey or dried fruit, etc and were imported between the sixteenth and early eighteenth centuries. The large number of these from Townwall Street suggests there may have been a warehouse for such imported goods somewhere in the near vicinity. A few sherds of micaceous Portuguese or west Spanish Merida ware, probably of fifteenth to seventeenth century date, were also recovered.

The bases of two fifteenth to sixteenth century drug jars or albarelli probably from Pisa in northern Italy, are present. These may have been contained medicines or perhaps even treacle or green ginger from Genoa which is often mentioned in late medieval documents and which was believed to have had medicinal properties. Of similar date is a single sherd from an incised slipware (graffita) dish from Tuscany or the Po valley. Some seventeenth to eighteenth century Pisan marbled slipware bowls, a few sixteenth to seventeenth century Montelupo maiolica dishes from Tuscany and an eighteenth century Ligurian maiolica fruit dish or tazza with the painted factory mark of Savona or Genoa, complete the list of Mediterranean imports. Although there were some Italian merchants (from Florence and Piacenza) in Dover as early as the thirteenth century, they do not seem to have left much trace of their presence. In the post medieval period English traders sailed directly to the Mediterranean for olive oil, raisins, figs and other exotica not available at home and doubtless they would have brought back pottery containers and showy foreign tablewares at the same time.

No significant groups of medieval pottery have

been published from Dover for more than a quarter of a century and the subject has never received anything like the attention it deserves. Our ability to recognise traded pottery types has also greatly improved in the intervening years and a new and detailed re evaluation of Dover's medieval pottery

would thus be of great interest. Because of its unique position and historical importance Dover is quite literally at the frontier of many aspects of British archaeology particularly vis a vis relationships with the continent. Medieval pottery is a small but important part of this overall picture. The pottery

from Townwall Street alone, once fully researched, illustrated and published, will undoubtedly add new and fascinating details to our knowledge of cross channel trade as well as insights into the daily lives of locals and travellers who lived in, or passed through, this busy port.

6 The Mount Pleasant Anglo Saxon cemetery

Ian Riddler

Archaeological work in East Kent almost inevitably reveals Anglo Saxon cemeteries. Their study goes back over 200 years and has developed to the point where the excavators themselves, as well as their cemeteries, have been the subject of detailed analyses (Hawkes 1990; Rhodes 1990).

In recent years several new cemeteries have been discovered and parts of existing burial grounds have been further explored, most notably at Buckland in Dover (*Canterbury's Archaeology* 1994–95, 27–31). The new discoveries include the small cemetery, consisting of only eighteen individuals, found during archaeological work on the Monkton Mount Pleasant road scheme (*Canterbury's Archaeology* 1994–95, 25–6). In order to avoid any confusion with other cemeteries in the area, of which there are several, this is known as the Mount Pleasant Anglo Saxon cemetery.

The cemetery is of a familiar type, which is generally described by the term Final Phase (Leeds 1936, 96–114; Hyslop 1963; Boddington 1990). Cemeteries of this particular type include comparatively few grave goods, which are normally of well established forms, reflecting changes in jewellery fashions and weapon designs that occurred during the course of the seventh century and early eighth century, and particularly in the period from A.D. 650–725 (Owen Crocker 1986, 85–105). This form of cemetery is then superseded, over the course of the eighth century, by the practice of unaccompanied inhumation burial within churchyards (Geeke 1992; Scull forthcoming).

Over the years, a great deal of attention has been paid to Final Phase cemeteries and they remain one of the most common forms of Anglo Saxon burial ground to be encountered. Since they are often quite small and contain relatively few grave goods, they are comparatively easy to study. In recent years, examples have been published from Ardale, Ashtead, Orsett, St Albans and Westbury, amongst other sites. None of these sites are in East Kent, however, and it is interesting to note that scarcely any Final Phase cemeteries have come from this part of the county. The cemeteries of Holborough, Polhill and Eccles, all of which can be placed in this category, lie to the west of the Medway (Evison 1956; Hawkes 1973; 1975; Shaw

1994). The Mount Pleasant cemetery is, therefore, a little unusual.

Final Phase cemeteries can be located at some distance from other burial grounds, and in the past much discussion has centred on this characteristic, which has helped to define the cemetery type (Hyslop 1963, 191; Meaney & Hawkes 1970, 53–4). Equally, however, it has always been clear that not all Final Phase cemeteries were that isolated (Boddington 1990, 190–1). Professor Evison's important excavations at the Buckland cemetery, in particular, have revealed that cemeteries of this type can occur, in effect, as sub sets within larger burial grounds (Evison 1987, 142–5). This unusual characteristic is pronounced in East Kent, and the Mount Pleasant cemetery is in effect a small, isolated burial ground which may only have been in use for one or two generations, lying within a broader landscape of large cemeteries which were used over a much longer period of time (Meaney & Hawkes 1970, 46).

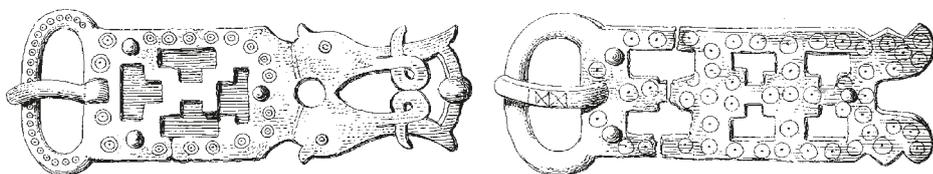
If the cemetery is unusual for its type, it may initially seem to be relatively commonplace for its contents. Eight of the eighteen burials were furnished with grave goods, which include knives and spearheads, as well as an iron pin, a firesteel, a Merovingian pot and an openwork buckle. Modern investigative conservation can reveal a great deal about the original components and technology of objects and the nature of their burial environment. Work undertaken by Margaret Brooks at the Wiltshire Conservation Centre in Salisbury has shown that plant remains were present on one spearhead, suggesting that it was laid in the grave on a bed of straw. The other spearhead from the grave, in contrast, had been laid on some form of textile, which may have been a cloth or blanket. It appears that the spear was laid on this textile, and was not wrapped in it, as is the case elsewhere (Evison 1987, 29; Wilkinson 1988, fig 49). Two

knives also included traces of mineral replaced textiles, which are currently being analysed by Penelope Walton–Rogers in York.

Two further objects produced greater surprises, following detailed investigation by Jacqui Watson at the Ancient Monuments Laboratory in London. The knife from grave 1 was enclosed within corrosion products which revealed that it had been contained within a leather sheath, probably made from sheep or goat skin. The sheath included the remains of a stitched edge, a very rare piece of evidence for this period, which has previously been encountered on only a handful of knives from other cemeteries.

The copper alloy buckle is a good example of its type, with a familiar openwork design on its plate (*Canterbury's Archaeology* 1994–95, 26). But was it originally intended to be an openwork design? It is now clear, as a result of detailed study, that it was backed by leather and that a layer of an organic substance, of either bone, antler or ivory, was inlaid into the leather behind the buckle plate. A contrast would therefore have been visible between the copper colour of the buckle, and the off white or cream backing of the organic substance, with these two components backed on leather. An potential Anglo Saxon interest in the interaction of colours and textures can therefore be revealed by the detailed study of an object which has now turned to a green monochrome from the oxidation of its corrosion products.

In the case of this cemetery, detailed investigative conservation has broadened the understanding of several objects, as well as providing some indications of the nature of the burial rite. Chalk cut graves may well look to be unrewarding burial environments, but a close study of burials, graves and their contents can still produce valuable results.



Perforated or inlaid? openwork buckles from Kent cemeteries.

7 Warp factors: weaving implement studies

Ian Riddler

Although previously regarded as stilettoes or spindles and – on one occasion at least – as fish gouges, a range of bone and antler objects can be confidently described as pinbeaters (MacGregor 1985, 189). It is now generally accepted that pinbeaters were employed as utilitarian tools in weaving textiles. They may have had several functions in the weaving process. Used on a vertical loom, the pointed end could serve to pick out individual threads of the weave, and the tool could also be used to beat down the horizontal threads of the weft, thereby ensuring that the textile was kept compact and even. These various functions have led to different names being applied to the implements, including pinbeater, thread picker and picker cum beater. The term pinbeater has been preferred here.

Two principal forms of pinbeater can be identified, which coincide neatly with two different types of loom. The double pointed pinbeater is sharpened at both ends and has a circular or oval cross section. It has been plausibly associated with the warp weighted loom, whose origins go back to the prehistoric period. Post Roman double pointed pinbeaters are relatively common, but those of Roman or earlier date are rare (Wild 1970). One example of a Roman pinbeater has come from the Tannery Allotments site and numerous post Roman examples are known from various Anglo Saxon contexts in Canterbury. They include a recent example recovered from Christ Church College.

The second form of pinbeater can be described as single pointed. This type is usually of a wide, flattened oval section and tapers from one end to the other. The narrow end is sharpened to a flat point and the other end is rounded. The blunt end is often concave in section and, with the object held in the hand, the thumb fits conveniently into this depression. This suggests that the object had a slightly different function to the double pointed pinbeater, which normally has a circular or oval section, with pointed ends of conical form and no groove or depression for the thumb. The broad, spatulate end was used, in all probability, to push threads upwards, and not downwards, as with the warp weighted loom. The single pointed pinbeater has been convincingly linked with the vertical two beam loom, which was introduced (or reintroduced) into England at some point in the ninth century. Its function has been thought to relate to the production

of patterned designs, rather than conventional cloth weaving (Brown in Biddle 1990, 227).

Evidence from both pinbeaters and loomweights suggests that both forms of loom continued in use until the eleventh century, at which point they were supplanted by the advent of the horizontal loom, a device which leaves little or no trace in archaeological terms (Walton Rogers 1990, 328).

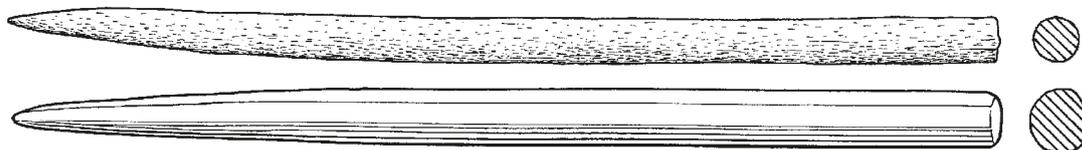
In the course of analysing finds for publication in Volume III in the Archaeology of Canterbury series, it has become clear that a third type of pinbeater can also be identified, which combines elements of these two forms. Essentially, this type closely resembles the double pointed pinbeater and has a similar circular cross section and one sharply pointed end. The other end, however, is blunt, and the type is noticeably long in comparison with the majority of the double pointed series. One example of this type of pinbeater has come from the Aula Nova, and it can be compared with a similar object from the Marlowe Theatre which has not previously been published. Both are long, well shaped sections of bone or antler of circular section, which have been trimmed to provided blunt stubs at one end. They are of similar lengths, extending in each case to almost 130 mm.

The Marlowe Theatre pinbeater is unstratified whilst the example from the Aula Nova comes from a Period IVa deposit of twelfth or early thirteenth century date. It is likely, however, that it is a residual find, particularly as pinbeaters, of whatever type, are seldom found in contexts from the twelfth century onwards. Both types of pinbeater are associated with vertical looms, and they were of little or no use with the horizontal loom. Similar pinbeaters are difficult to find, outside of Thetford in East Anglia. An object from Thetford previously identified as a pin is of the requisite size and has a rounded end. It is broken and the shape of the other end is not known (Rogerson & Dallas 1984, fig 190.43). A second object from the same site is of the appropriate size and shape, although it has been sliced along part of its length, so that it resembles an elongated single pointed pinbeater (Rogerson & Dallas 1984, fig 192.56). A third object from Thetford is related to this pair, but it is fragmentary and it comes from a Middle Saxon context. It is likely to represent a part of a spindle, rather than a pinbeater (Andrews 1995, fig 87.9).

A further example of this type of pinbeater has come from Winchester, where it has been placed in the category of miscellaneous weaving tools (Biddle 1990, 231 and fig 47.210). It comes from a context of late ninth or tenth century date.

Anglo Saxon double pointed pinbeaters range in length from 60 to 170 mm., and they appear to have been produced in two sizes, one of which is significantly longer than the other. The longest examples are generally around 120–130 mm. in length, with a few examples extending over 140 mm. and one from a grave at West Stow reaching 169 mm (West 1985, fig 272.10). The five pinbeaters described here extend from 128–138 mm., which allows them to be placed alongside the longer examples of the double pointed form. At the same time, they are appreciably shorter than Anglo Saxon spindles. The range of lengths of Anglo Saxon spindles extends from 185 to 220 mm. They are a rare commodity and the few examples to have been identified, to date, closely resemble double pointed pinbeaters in shape. It is possible, therefore, that the pinbeaters of this type have been re used from spindles of bone or antler. On the other hand, however, it is worth noting that the two Canterbury examples are neatly shaped at both ends and that there has been no attempt, with any of these objects, to modify them to a double pointed form. They represent, in effect, a transitional form of pinbeater, which incorporates elements of both the single and double pointed types.

Given that they incorporate elements of both pinbeater forms, it is difficult to assign these pinbeaters to a specific type of loom. They lack any allocation for the thumb and they are narrow in section, rather than broad. On the other hand, however, they are single pointed, and this characteristic serves to define pinbeaters associated with the vertical two beam loom, and to distinguish them from those used on the warp weighted loom. The two comparable examples from Thetford are not closely dated, but they come from sites which include finds largely of late Saxon and Anglo Norman date. This date corresponds with that for the Winchester example, and it suggests that this pinbeater variant is of late Saxon date.



Eleventh-century single-pointed pinbeaters. Scale 1:1.

II Human Bone Studies



Introduction

Trevor Anderson

Since the publication of last year's annual report the Trust has excavated a prehistoric burial complex at Whitfield (pp. 28–33) and a group of Roman

inhumations just outside the walls of Canterbury (pp. 16–19). Members of the public have also forwarded human bones which they unearthed as chance finds. The analysis of the medieval skeletons from St Gregory's Priory and the Bronze Age to Roman period skeletons from Monkton has

been completed. Furthermore, funding from the Smithsonian Institution has allowed a number of articles on human bone studies to be prepared (Anderson 1996a–e; Anderson & Andrews 1996a, b; Anderson & Carter 1995a, b; Carter & Anderson 1996; Mays & Anderson 1995).

1 Whitfield–Eastry by-pass (pp. 28–33)

Trevor Anderson

In Area 2, human bones were recovered from two contexts. An articulated skeleton was found in a rather cramped, shallow grave and a disarticulated cranium and child's hand bone in an Iron Age enclosure ditch.

In Area 3, seven articulated Bronze Age human skeletons were recovered, six of which were of children. The skeletons are represented by incomplete long bones and fragmented crania.

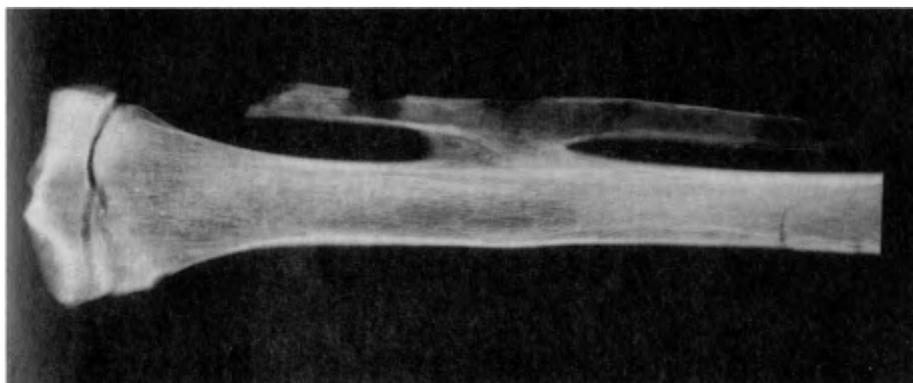
In the majority of cases, the hands, feet, ribs and spine have not survived, or at best are represented by eroded fragments. In all but one grave, elements of the skull and teeth are present, which will allow us to estimate the age of most of the children.

Only about two dozen Bronze Age inhumations are known to exist in the south of England (Mays & Anderson 1995), the majority of which are isolated burials, mostly unpublished. Only Monkton,

excavated by the Trust in 1994, has revealed as many Bronze Age inhumations (*Canterbury's Archaeology* 1994–95, 69–70), but the Whitfield–Eastry assemblage is unique in that 85 per cent of the sample failed to reach adulthood. Our research will attempt to find out if this is due to an abnormally high level of fatal childhood illness or if we are dealing with an area set aside for child burial.

2 North Lane, Canterbury (pp. 16–19)

Trevor Anderson



North Lane SK 5, juvenile male: radiograph, showing pathological fusion of the upper left tibia and fibula with loss of the normal contour and discontinuity of the cortical bone, the end result of trauma.

Five human skeletons, three adults and two sub adults, dated to the Roman period, were discovered during excavations in North Lane, Canterbury. The fact they are on the same alignment and in such

close proximity suggests that they were buried over a fairly short time span. One grave contained two individuals, possibly a mother and her child. Each inhumation was extended and supine, buried

without grave goods, suggesting a late third or fourth century date. They appear to represent ad hoc burials outside a formal cemetery, the nearest being some 500 m. to the south east, outside London Gate (Detsicas 1983, fig. 8).

The evidence from this small sample, buried outside a formal cemetery, suggests a rather harsh life style. The skeletons show signs of childhood health problems including broken bones and possible facial injury. The adults display evidence of back strain and over use of both elbow and ankle joints. Apparently activities such as carrying heavy loads; repeated squatting; and possibly walking over steep slopes were frequent in this group. One individual also displays evidence of chronic infection. Standards of oral health were not high; calculus deposits were universal, teeth had been lost before death and decay and hypoplastic defects were also present.

3 Ulcome

Trevor Anderson

A Belgic ceramic pedestal jar and associated cremated human bone was discovered by Mr Standen whilst digging a grave in Ulcombe

churchyard (NGR 846497) for A.W. Court, Funeral Directors. After collection by the deputy coroner's officer for Maidstone and initial examination at

Maidstone Hospital, the human bone fragments and associated pottery vessel were sent to the Canterbury Archaeological Trust.

The incomplete nature of the vessel meant that it was not possible to examine the bones *in situ* (Anderson & Fell 1995). After wet sieving and gentle drying, 432 gms of cremated human bone

was recovered, probably representing between a quarter to an half of the original deposit. The remains represent an adult female, possibly aged between 35–45 years. The overall condition of the

bones suggests that the firing temperature was less than 750°C and that they were burnt in a well oxygenated environment.

4 Lower Hope Point, Cliffe

Trevor Anderson

During February and March, a member of the public, Mr Philip Woollard, discovered several disarticulated human bones on the foreshore at Lower Hope Point, Cliffe. He kindly forwarded

the bones to the Trust for examination, which included two right tibiae, a right femur, two left tibia, a right rib and a left radius. All the bones are adult and their size suggests that they are female,

representing at least two individuals. There is no sign of disease on any of the bones. Though they could not be dated, there is evidence for both Roman and Anglo Saxon cemeteries nearby.

5 Monkton (*Canterbury's Archaeology* 1994–95, 20–7, 69–70)

Trevor Anderson

Prehistoric

The bones recovered from the eight Bronze Age inhumation graves have been examined, but all were poorly preserved. However, it was possible to ascertain that men, women and children were buried on the site. The youngest was about 3–4 years old and a double grave contained a 4–6 year old and a young teenager, possibly a girl.

Another prehistoric grave was discovered in the vicinity in 1993 by the Trust for Thanet Archaeology, which contained an articulated skeleton and a collection of disarticulated human bone. The skeleton lay on its left side, with arms and legs tightly flexed; a crouched burial. The head was to the south and a pottery vessel had been placed between it and the eastern side of the grave. The collection of disarticulated bones had been placed at the northern end of the grave and were not commingled with the crouched burial, which took up just over half the length of the grave.

The evidence suggests that the disarticulated bones represent the original occupants of the grave. At some time after their burial, the grave was re opened at least once, the skeletons collected and the final occupant of the grave then buried. The earlier burials were of an elderly female and two children, one about 2 years old and the other 8–10 years. The female had suffered facial trauma and showed signs of mandibular joint degeneration.

The final occupant of the grave was a 19–22 year old male, some 1.75 m. tall (5 ft 9 ins). Buried in a

spacious grave and accompanied by grave goods, the youth was no stranger to an active, possibly arduous, life style. His spine showed evidence of repeated compressional forces, whilst activities involving both exertion of the upper leg muscles and squatting had left their bony imprint.

Roman

Badly disturbed full term foetal or new born human bones were discovered in four shallow graves in three buildings in Area 4. In addition, disarticulated human foetal bones, representing a minimum of two individuals, were discovered in a large quarry pit near the centre of the main settlement. The burial of children within domestic buildings is well known in the Roman period. Kentish examples, which may be cases of infanticide, are known from Chalk (Johnstone 1972) and Lullingstone villa (Cave et al. 1979).

Three inhumations in Area 6 were considered to be of Roman date. All were very poorly preserved. Stature could not be assessed due to the absence of any complete long bones, and whilst the teeth showed evidence of general poor dental hygiene, little more could be learnt from them. An elderly male showed evidence of spinal degeneration.

Anglo Saxon

Eighteen Anglo Saxon graves were excavated, all aligned approximately east west and dated

to the seventh century. Bone preservation was very poor, the skeletons represented by eroded crania and long bones. Ribs and vertebrae rarely survived and no hand or foot bones were retrieved. In three graves no bone was recovered. The sample contained juveniles, adults and children; the youngest died at 2–3 years of age, one was 7–8 years old and two were adolescent. All but one female had died before the age of thirty, whereas three males could be classed as mature.

There was no definite evidence for gender segregation within the excavation area. In such a small sample, the fact that both children were buried on the periphery of the cemetery may be a coincidental finding, though the absence or rarity of young children in many pagan Anglo Saxon cemeteries suggests that deliberate exclusion of infants was widely practised (Anderson & Andrews 1996b). It is possible that we are witnessing a transition between such exclusion and full acceptance of young children within a Christian cemetery.

The predominant burial type is supine and extended, with one example of a crouched burial. In a larger sample from sixth century Deal, one skeleton, also a juvenile, was buried in a crouched position (Parfitt & Brugman forthcoming). There is evidence that this rite was more frequent in the early Anglo Saxon kingdom of Lindsey, the region of modern day Lincolnshire (Fisher 1995).

6 St Gregory's Priory

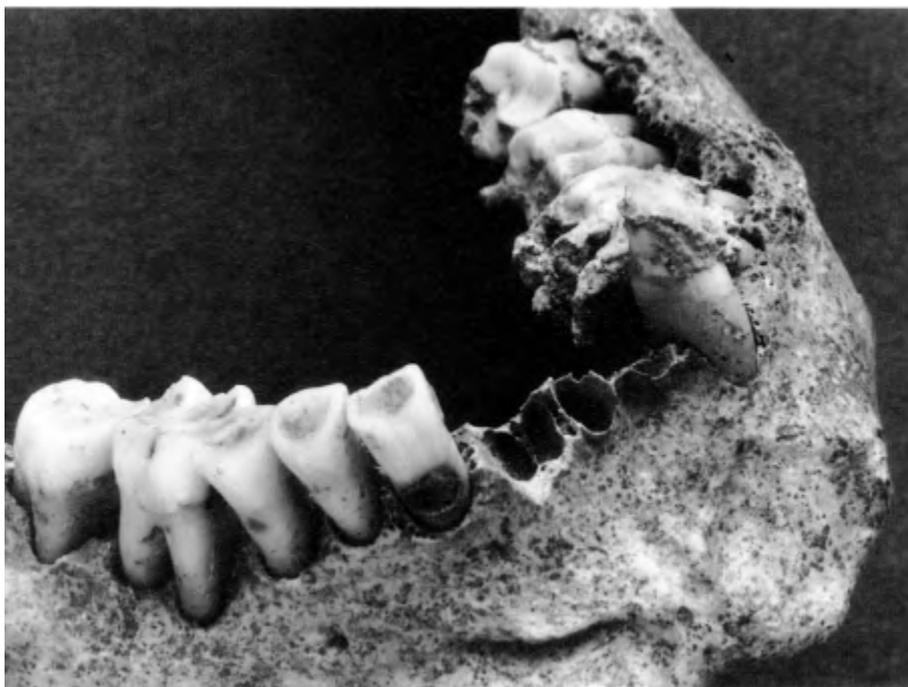
Trevor Anderson

During 1988–89, a total of 1,342 articulated skeletons were excavated from the cemetery and priory of St Gregory (*Canterbury's Archaeology* 1988–89, 16). Burials associated with the priory (91 in total), have

been studied as part of the post excavation project currently underway (Anderson, in preparation). Forty five of these graves were within the church, the remainder mainly located just outside the west front.

Ten burials were dated on archaeological grounds to the Lanfranc period (A.D. 1070–93).

The overall bone condition and preservation of these ninety one skeletons is good. Females



St Gregory's Priory, SK 27, an adult male: lingual collapse of the left maxillary teeth due to extremely poor state of oral health.

and children were mainly buried with arms by their sides; about half the males were interred with hands over the pelvis or on the chest. All the burials within the Chapter House, probably all priors, had flexed lower arms. This suggests the possibility that arm position may vary between clergy and laity.

Almost three quarters of the adults are male. There was no evidence that interment within the church was restricted to the clergy. Males were living longer than females; only 2 per cent of males were classed as young adult, whereas just over a fifth of females died before their thirtieth birthday. Just under a quarter of all burials failed to reach adulthood, the majority of children dying between 1–6 years; only one juvenile was recovered. The majority of the children were buried within the

cemetery, with only four sub adults found within the church, two dated to the Lanfranc period.

The mean stature for both sexes is tall for the medieval period. The evidence indicates that apparently privileged individuals, that is to say those buried within the church and within coffins, were not significantly taller than those within the cemetery surrounding the church. This, coupled with the high mean stature for the whole sample, suggests a high standard of health and growth during childhood, at least for those who survived to adulthood.

The overall standard of oral health was extremely low. Despite the fact that many teeth had been lost before death, the level of tooth decay is higher than at other medieval sites. It is possible that frequent meals would lead to an increase in oral

bacteria which would encourage such decay. It is known that the monks kept bees and it is possible that, in the absence of refined sugar, honey might be influential in the formation of caries.

Almost half the adults displayed evidence of enamel hypoplasia, a sign of growth problems during childhood. Both sexes were equally involved. The stature of individuals with hypoplastic defects does not differ significantly from the mean stature of adults with teeth and no hypoplasia. Indeed, the tallest female has hypoplastic lines and the female with the most widespread hypoplasia was relatively tall.

Just over a fifth of adults with teeth displayed minor malocclusion, the majority showing crowding or rotation of the anterior mandibular teeth. It has been suggested that certain rotations may be inherited; interestingly, three individuals with malocclusion were buried in the central area of the nave (SK 71, 79 and 87). Two children, one from this sample (SK 21) and the other from the main cemetery (SK 1244) displayed congenital absence of a permanent second molar (Anderson & Andrews 1996a). The fact that only 0.033 per cent of the population are missing this tooth also suggests that these two individuals may be related.

The skeletal sample from within the church and the surrounding cemetery appears relatively healthy when compared to other medieval material. The mean stature of both sexes argues for an above adequate level of nutrition during the first years of life. Levels of joint disease and trauma were quite low, suggesting a largely sedentary and peaceful lifestyle. However, bone changes in two children indicates that acute infection and respiratory problems were killers in the medieval period. A surprisingly poor standard of oral health may be related to eating between set meals, or a diet low in fat coupled with a high carbohydrate intake.

7 St Gregory's Cemetery

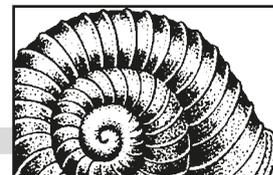
Trevor Anderson

Work continues on the rest of the burials from St Gregory's, thanks to a research grant from the Smithsonian Institution.

Acknowledgements

Jon Andrews, Dental Surgeon, Sittingbourne; Mrs Lynne Bowdon; Stuart Capel, Senior Lecturer, Department of Radiography, Christ Church College; Dr Adrian Carter, Consultant Radiologist, Kent and Canterbury Hospital; Miss Margaret Doe; Mrs Valerie Durrell; Miss Stella O'Mara; Dr Don Ortner, Director Natural History Department, Smithsonian Institution, Washington; Miss Helen Start; Dr Jennifer Wakely, Department of Anatomy, Leicester University; Roxie Walker, President of the Bioanthropology Foundation, Switzerland; Mr Peter Waltho; Mrs Diana Whiting.

III Palaeoenvironmental Studies



Introduction

Enid Allison

The analysis of biological remains, soils and sediments from an archaeological site can provide detailed information on both the immediate surroundings of the site and its broader regional setting. The impact of man on the environment and changing human living conditions, foodstuffs and diseases can all be studied. In many cases, examination of the soil micromorphology and

animal and plant remains from a feature of unknown or uncertain function can provide evidence for its purpose.

Relatively little detailed environmental work has been carried out in East Kent compared to some other parts of Britain, but as more sites are excavated by the Trust sampling strategies aimed towards the recovery of plant and animal remains are being implemented routinely from the beginning of excavations. Some of the work which has been carried out in the past year is

summarised below. Specialist analysis has been carried out by Mark Robinson and Gill Campbell of the Environmental Archaeology Unit, University Museum, Oxford; Richard McPhail and Patricia Wiltshire of the Institute of Archaeology, University College, London; Allan Hall of the Environmental Archaeology Unit, University of York; Dale Sergeantson, Pippa Smith and Adrienne Powell of the Faunal Remains Project, University of Southampton and by the author.

1 Monkton (see *Canterbury's Archaeology* 1994–95, 20–27)

Enid Allison

The site at Monkton was situated on chalk and the soil was very well drained. Bulk soil samples were taken from a range of feature types from each period represented on the site and a volume of 2,909 litres of soil was sieved mainly to recover small bones and plant remains preserved by charring. A small quantity of waterlogged sediment containing uncharred plant remains and insects was recovered by the boreholing of a Roman well and mineralised plant and insect remains were found in a medieval cess pit. Smaller samples for general biological analysis were taken from these deposits. Snails were common in many of the soil samples, and column samples intended specifically for the analysis of snails were collected from a number of locations on the site. Intact blocks of soil were also collected from various parts of the site for micromorphological analysis. To date, the biological remains recovered from the samples and the micromorphology samples have only been assessed for their potential to provide useful environmental data.

Preliminary analysis of the soils has been carried out by Richard McPhail, the plant macrofossils and snails have been assessed by Mark Robinson, and the pollen by Patricia Wiltshire. Their results are summarised in chronological order.

No *in situ* prehistoric buried soils were encountered on the site, but the fills of some features contained material eroded from the ancient soil cover. Further analysis of this will provide a clear picture of the prehistoric soils present. Few plant remains were recovered from prehistoric deposits. Those which were identifiable were a few wheat (*Triticum*) and barley (*Hordeum*) grains. There is a suggestion, from the presence of some woodland snail species with others typical of open country, that the land was not fully cleared until the end of the Neolithic period, or at least that there were episodes when

scrub regeneration occurred. After this, the land appears to have been very open. Snails from column samples taken from the prehistoric ring ditches have the potential of providing more detailed data on environmental changes during the periods when infilling was taking place.

A number of soil micromorphology samples were taken from the fills of two Romano British sunken buildings. Large amounts of loessic topsoil in some of the samples suggest the use of turf as a construction material for walls and/or roofs. Further work is necessary to determine whether this is true. Possible remains of crushed chalk and trampled or beaten mud floors were also noted.

One of the important aspects of the environmental assessment was to establish whether the palaeoeconomic aspects of the Roman settlement are as atypical of Roman Britain as the structures on the site. Charred plant remains were quite common in most samples, the majority of the assemblages being dominated by spelt wheat (*Triticum spelta*) with six row hulled barley (*Hordeum vulgare*) present in smaller amounts, as would be expected on a settlement of this date. The presence of peas (*Pisum sativum*) is more unusual for Roman sites, and the find of fragments of seeds of stone pine (*Pinus pinea*) is exceptional. The latter is a Mediterranean tree and its cones were traded during the Roman period. Cones have been recovered from several villas and a shrine. It is possible that the cones were used as altar fuel. They suggest that the occupants of the settlement were rather more cosmopolitan and sophisticated than the ordinary Romano British rural populace.

The waterlogged plant and insect remains recovered from the Roman well have the potential to provide more detailed information on the environment of the site. A greater range of plant taxa is

represented, mainly plants of disturbed ground such as would have grown around the settlement, and it is likely that some remains of horticultural crops will be found which may throw further light on the status of the site. The insect remains, mainly beetles, form a sample of the background fauna of the settlement and will provide more detail on the surroundings of the well and perhaps some information on living conditions in the settlement.

Preservation of pollen was poor as might be expected in calcareous soils but some interesting results were obtained which suggest that during the Roman period the area in the vicinity of the site was probably open, with few trees and dominated by grazed grassland. There were areas of disturbed soils, however, and cultivation of cereals was important.

The lower fill of a medieval cess pit contained well preserved cess in all stages of mineralisation. A layer of rich organic matter appears to be the remains of cattle dung. Further microphological study of this cess will provide an insight into the diet and toilet practices of the twelfth century inhabitants of the site. The mineralised plant material from the pit consisted of cereal bran and seeds which included pips of cherry (*Prunus avium*) and apple or pear (*Malus* or *Pyrus*). Full analysis of the mineralised remains, together with identification of the animal bone from the cess pit, will give a range of dietary information for the occupants of the medieval farmstead. The pollen from the cess pit indicates a very open landscape dominated by weedy grassland with areas of disturbed soils. Cereal production seems to have been important, and buckwheat (*Fagopyrum*) and mustard or cabbage (*Sinapis* type) may have been grown or imported for consumption.

2 Whitfield–Eastry by-pass, Site 2 (see pp. 28–33)

Enid Allison



Charred grain from Pit 16, Site 2, Whitfield Eastry by-pass.

This site was also very dry and chalky, and few deposits could be sampled. A very interesting assemblage of plant remains was recovered from an Iron Age pit, however. This has been examined briefly by Gill Campbell. The plant remains were preserved by charring and are in a good state of preservation. Emmer wheat (*Triticum dicoccum*), possibly spelt wheat (*Triticum spelta*) and six row hulled barley (*Hordeum vulgare*) are present,

together with a possibly cultivated oat grain (*Avena* sp.) and peas (*Pisum sativum*). There may also be a type of naked barley. The pit fill is dated on pottery evidence to 400–500 B.C. This assemblage is very unusual for this period and it may be that crop production in East Kent was rather different to that elsewhere in England. Full analysis of this assemblage has been recommended. No other crop remains from this period have been studied in detail

from East Kent.

Samples from fills of Anglo Saxon sunken featured buildings on the same site produced small quantities of occupation debris in a very fragmentary condition, together with a few small glass beads and possible fish hooks. This consisted of small, mostly unidentifiable, fragments of mammal, bird and fish bone. Identifiable bones included a few of herring (*Clupea harengus*), and bones of rodents and a mole which were probably intrusive. Eggshell of two species of bird, corresponding in size to that of goose and domestic fowl was present, although further work will be necessary to confirm this identification. Several species of shellfish were represented, these being oyster (*Ostrea edulis*), mussel (*Mytilus edulis*), winkle (*Littorina littorea*), ?rough periwinkle (*L. ?saxatilis*) and limpet (*Patella vulgata*). ‘Slug plates’ (the small internal shells of slugs) were very common. A few scrappy fragments of charred cereal remains included barley (*Hordeum* sp.) and possibly a free threshing wheat grain (*Triticum* sp.). The fish bones were identified by Pippa Smith, the cereal remains by Gill Campbell and the rest by the author.

3 St Gregory’s Priory (see *Canterbury’s Archaeology* 1988–89, 15–24; 1989–90, 1–5)

Enid Allison

Sieving of bulk samples was not routinely carried out at St Gregory’s, excavated in 1988–89, but two interesting deposits from the kitchen and refectory floors of the priory were recognised during excavation and sampled. The results of this work are now available. The samples were sieved to 1 mm., resulting in the recovery of many very small bones, especially of fish, which would not have been recovered by hand trowelling. These remains provide a considerable insight into the diet and living conditions of the inhabitants of the priory. They not only show that the earth floors of these two buildings were littered by pieces of food, bones, eggshells etc., but sufficient material is present to enable comparisons to be made between the types of assemblage found in the kitchen, where food preparation took place, and the refectory where the food was consumed. Interesting finds include the remains of several snake heads, and bones of a variety of small song birds which are likely to have formed part of the diet. Unfortunately no bulk samples were taken from the prior’s house, which had its own separate kitchen area, which might have revealed whether the prior ate differently to the rest of the inhabitants. All the bone from the

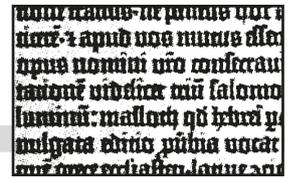
excavation, both hand recovered and that from the sieved samples, are currently being analysed by Dale Sergeantson (birds), Pippa Smith (fish) and Adrienne Powell (mammals, reptiles, amphibians).

Invertebrate and plant remains were found in some deep, waterlogged features on the site. Detailed analysis of the invertebrate and plant remains from two of these has been carried out by the author and Allan Hall. One sample from the basal fills of a late eleventh /early twelfth century square pit proved to contain a useful assemblage of food remains and intestinal parasite eggs indicative of human faeces, confirming the interpretation of the feature as a cess pit. The parasite eggs show that the users of the cess pit suffered from both whipworms (*Trichuris*) and roundworms (*Ascaris*). A number of human lice (*Pediculus humanus*) were also recovered which must either have been picked or fallen from the clothing or bodies of people using the pit. Some of the beetles present indicated that sweepings from buildings were being dumped into the pit.

A large part of the plant component in the sample consisted of wheat/rye (*Triticum/Secale*) bran, the fineness of which possibly indicates the

consumption of food based on finely milled or well sieved wholemeal flour. Seeds of blackberry (*Rubus fruticosus* agg.) and strawberry (*Fragaria*) achenes were very abundant. This assemblage included fragments of pea (*Pisum*) and bean (*Vicia faba*) seeds which are only rarely found uncharred in archaeological deposits, together with the remains of bean weevils (*Bruchus rufimanus*) which were probably eaten in infested pulses. Other plant remains included several other probable food or flavouring plants such as fig (*Ficus carica*), opium poppy (*Papaver somniferum*), hop (*Humulus lupulus*), ‘plum’ (*Prunus domestica* spp. *insititia*), possibly dill (*Anethum graveolans*), and fragments of leek or onion leaves, most probably leek (*Allium porrum*). Fragments of corncockle (*Agrostemma githago*) seeds were present which most likely arrived with milled grain. This attractive flower is now quite rare in the wild but was much more abundant in the past, being a common contaminant of cereals. Eating the seeds can lead to a variety of unpleasant symptoms and the presence of so many fragments in flour was a potential health hazard.

IV Documentary Research



1 The wreck of the S.S. Castor (1870–1894) Richard Cross

It is often forgotten that two thirds of the administrative boundary of Kent is littoral, a fact emphasising the importance of the maritime history and archaeology of the county. However, virtually all previous work on this broad theme has comprised studies of dry land sites, such as ports, harbour works and industrial foreshore and inter tidal sites such as salt mounds. Even where essentially maritime artefacts have been excavated and preserved, as in the case of the Bronze Age boat at Dover or the late tenth century Anglo Saxon boat at Graveney, these too have been recorded on dry land sites.

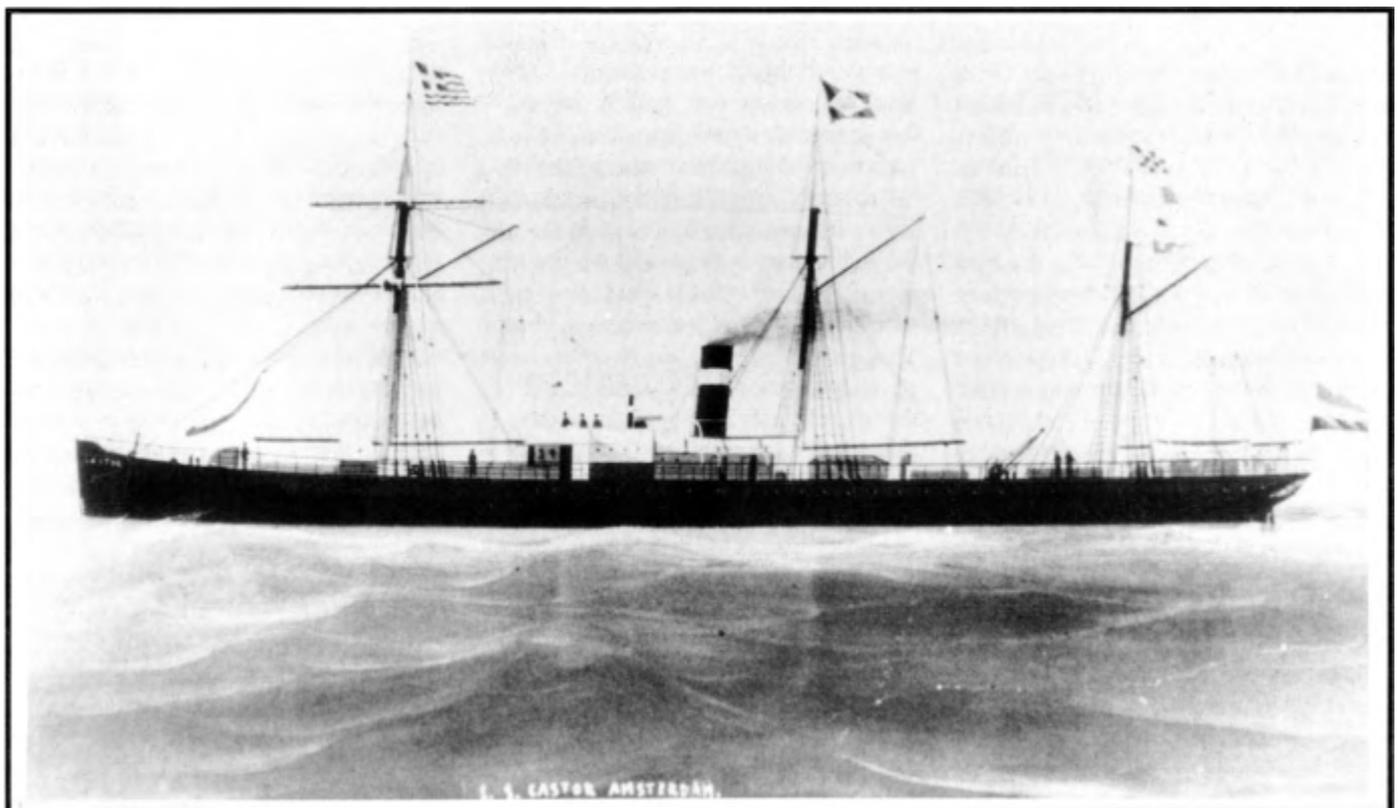
And yet there remains in the shallow waters off the north Kent coast, the Dover Strait and the English Channel an immense archaeological resource consisting principally of the sites of shipwrecks. Recognition of the importance of this resource and the development of policies for its heritage management has recently been dramatically improved with the addition in 1995 of a nationwide Maritime Monuments Index to the record keeping functions of the RCHME and the introduction of the Code of Practice For

Seabed Developers. The relevant section of the index covering Kent has now been transferred to the County Sites and Monuments Record held by the KCC Planning Department and managed by the county archaeologist, Dr John Williams. To this data base may be added the definitive listing of historic shipwreck sites published by Lloyd's Register in 1995. This details the locations of over 7,000 shipwrecks known from documentary sources, primarily the sites of post medieval vessels. This number may be expected to be far greater when the wreck sites of earlier dated ships and boats is taken into account.

Whilst the basics for the management of this resource are now in place, considerable work needs to be done to establish the means and funding for the exploration of these shipwreck sites. The first priority will be the assessment of the state of preservation of wrecks and the enhancement of the record by the addition of unknown sites of the prehistoric, Roman and medieval periods. To date the discovery of shipwrecks has occurred largely as a result

of accident rather than design, from such legitimate sea faring activities as trawler fishing. For instance, the second century Roman cargo vessel off the Pudding Pan Rock, about 3 miles north west of Whitstable in the lower reaches of the Thames Estuary, is a wreck known from the many finds of barnacle encrusted Samian pottery vessels bought up in fishing nets since the late eighteenth century and subsequently adorning the mantelpieces of numerous houses in the Whitstable area. More recently the growing fraternity of sports divers has discovered wrecks and perhaps the singular most important such discovery has been the finding of a Late Bronze Age assemblage of nearly 400 items on the sea bed at Langdon Bay, Dover.

It is due also to the activities of local sports divers that the present discovery of archaeological material on the seabed reported upon here, a modern hoard of second century Greco Roman marble sculpture and inscribed grave markers, has been made by members of the Folkestone 301 Branch of the British Sub



Aqua Club during late 1994 and 1995. In this case the discovery was also quite accidental as the material was recovered from the spilled cargo hold of a late nineteenth century steamship, the S.S. Castor, one of many ships being explored by the sports divers and whose visits are routinely marked by the recovery of one or more souvenirs from each vessel. Such late shipwrecks are also reasonably well documented, enabling the full story of the ship's history and final wrecking to be recounted in some detail. This is not only the case here with the Castor. Fortunately documentation from museum archives has been preserved concerning the trade in antiquities of which the consignment shipped aboard the Castor formed part. The following account describes in turn the history of the Castor from

launch in 1870 to final voyage, the loss of the vessel off Dungeness in 1894, and the eventual, though to date incomplete, story of the recovery of part of the ship's cargo in 1995.

The history of the S.S. Castor (1870–1894)

The Castor, launched on 18th June 1870, was one of two steamships constructed by the Glasgow shipbuilders, A. & J. Inglis for the Koninklijke Nederlandsche Stoomboot Maatschappij (Royal Netherlands Steamship Company or K.N.S.M.). An iron steamship, the ship's overall length was 253 ft, displacing 1500 tons gross.

During its first decade of service with the K.N.S.M. fleet, the Castor operated mainly within

the Baltic and the Mediterranean. Between 1880–83 she sailed the North Atlantic route, carrying passengers to a new life in America.

The loss of the S.S. Castor

From 1883 the Castor returned to operate on the Mediterranean routes of the K.N.S.M. and during the mid 1880s and early 1890s was regularly sailing from the eastern seaboard of mainland Turkey carrying general cargoes for Amsterdam. A regular port of departure for the Castor was Smyrna. During the 1880s the Dutch Vice Consul there, Alfred Oscar van Lennep R.O.N. (1851–1913) regularly used K.N.S.M. ships to export antiquities. A well known figure in the European community, as well as in Turkish circles, he had a reputation as a skilled amateur archaeologist, contributing artefacts to the British Museum from such sites as Ephesus and Colophon.

From 1885 one of his principal clients was the Rijksmuseum van Oudheden in Leiden, Holland, to whom van Lennep shipped significant numbers of antiquities, assisting the museum in building up a representative collection of Greco Roman sculptures and inscriptions.

At the beginning of July 1894 a further consignment of Greco Roman sculptures and inscriptions, comprising fourteen pieces packed in two crates, was shipped by van Lennep from Smyrna aboard the Castor. After leaving Smyrna the Castor called into Algiers en route for Amsterdam, but she was not to make her home port. On the final leg of the voyage, the master, J.R. Visser, took a course past Dungeness. In dense fog in the Channel at a point about 5 miles south south west off Folkestone on 28th July 1894, in easterly wind conditions force 2, the steamship was in collision with the German barque Ernst. Struck amidships, the Castor foundered, sinking in about 200 feet of water. Fortunately, the crew of twenty five, together with three passengers, were all saved and brought to Folkestone.

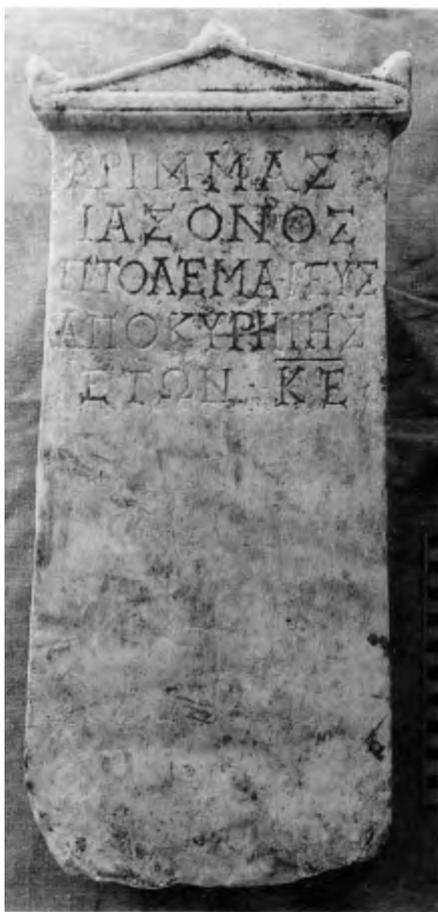
Locally, the sinking of the Castor only occasioned a brief newspaper report, shipwrecks during this period not being uncommon events. No attempt was made at salvage and the Castor remained, along with her cargo, on the seabed for the next eighty years.

The circumstances of the discovery of the wreck

The wreck of the Castor was first located in 1977. The wreck site was dived on by amateur sports divers first in 1985, when the vessel was reported as an unidentified steamship, upright with bow and stern still recognisable, but in a poor state



One of the two sculptured marble heads recovered from the wreck site. The head of a boy resembling the young Marcus Aurelius (ruled A.D. 161–80).



Pedemental stele inscribed in Greek. Assimas Ptolemaieus, son of Iason (Jason) from Cyrene (died) aged 25. Hellenistic Greek.

of preservation with none of the superstructure remaining.

The wreck site was again located by the members of the British Sub Aqua Club, Folkestone Branch 501 in 1994–95 when the vessel was reported as lying with its bow upright, but with the stern keeled over to starboard and the steel plating of the amidships section twisted and torn, a description which provides some indication of its present state of preservation and a reminder of the circumstances of the sinking.

During the course of the successive dives made on the wreck site between 1994–95, part of the vessel's cargo, consisting of eight marble antiquities packed in a wooden crate with wood shavings, was discovered located amidships and partly buried within silts. This was brought piecemeal to the surface.

Following attempts by the amateur sports divers to ascertain the nature of the cargo, seven of the marbles were eventually bought to the offices of the Trust for identification, for record photography and declaration to the Receiver of Wrecks.

An assessment of the marbles, comprising two sculptured heads and five funerary monuments, all inscribed, indicated that the antiquities were Greco Roman, probably originally from mainland eastern Turkey, and of second century A.D. date.

Documentary research later confirmed that this group of marbles were those contained within one of the crates shipped aboard the *Castor* by Alfred O. van Lennep in July 1894 from Smyrna to Leiden.

In addition to the marbles, a number of other objects was also recovered from the wreck of the *Castor* by the sports divers, the most significant of which is the maker's brass plate found attached to one of the ship's boilers. Later, in August 1995, one of the ship's chronometers was recovered, as well as pieces of cutlery bearing the shipping company's K.N.S.M. monogram.

Survey of the wreck site

Both the wreck of the *Castor* and the remaining *in situ* cargo was surveyed and assessed in June 1995 for the Department of National Heritage by the Archaeological Diving Unit, Scottish Institute of Maritime Studies, University of St Andrews.

The objectives of the survey involving 3 hours 55 minutes of diving, but of which only 2 hours 16 minutes were spent on the wreck, were twofold: (i) to ascertain the likelihood of further antiquities remaining on board; (ii) to determine whether the wreck site should be recommended for designation under the Protection of Wrecks Act 1973. In the event, the survey indicated that there was insufficient archaeological justification for legal protection to be extended to the wreck of the *Castor*.

The archaeology of the marbles

The advice of shipment sent by van Lennep to the Rijksmuseum van Oudheden, Leiden on 5th July 1894 gave a listing of the antiquities, packed into two cases and consigned aboard the *Castor*. These were described as follows:

Small Case, containing three boxes, containing six items of marble, comprising an intact sculpture, a sculpture in two pieces, and three fragments.

Large Case, containing eight items of marble, comprising two sculptured heads, and five inscriptions, one in two pieces.

The inscriptions were numbered 4 and 6–9 by Van Lennep and provenances were given for all of the items within the large case.

The complete sculpture in the small case is alluded to in a later letter written by van Lennep to the Rijksmuseum van Oudheden, Leiden on 4th August 1894 as very beautiful. The same letter regrets that no drawings were made of the antiquities prior to shipment. The provenance for all of the items is given as Nysa (Nicaea). Otherwise, no further details concerning the antiquities is known to have been preserved.

The two sculptured heads of the large case have been the subject of a preliminary assessment by Dr Susan Walker, Deputy Keeper, Department of Greek and Roman Antiquities, British Museum.



One of the five funerary monuments recovered from the wreck site. Lucius Julius Maximus built the memorial while alive for himself and for Claudia Tyrannio (his wife and for their children and their descendants). Roman, late first or second century A.D.

The five marbles bearing inscriptions, one with inscriptions on both faces, have been studied in greater detail by Dr Joyce Reynolds, Newnham College, University of Cambridge, a leading expert on provincial Greek epigraphy, who has prepared a detailed catalogue.

One of the more interesting funerary monuments commemorates a gladiator of the type called *murmillo* whose characteristic was a helmet with a fish on it (in consequence a *murmillo* was often put to fight with a *retiarius* whose characteristic was that he tried to catch his opponent with a net). The inscription, in Greek, reads: For Cladus the *murmillo*; his own wife Trypha made the tomb in his memory. Cladus, be of good courage. Provenance: Smyrna (Izmir). Roman, c. first century A.D. Some gladiatorial tombstones record the number of victories won – a subject on which this one is silent; but one should not be too quick to assume that he had not been good at his job,

for the existence of a wife and of a tomb of some substance shows him to have been reasonably prosperous. His status is not clear. Smyrna was a city in which troupes of gladiators are recorded in the possession of eminent citizens who maintained them for use at public festivals connected with the cult of the Roman emperors. He may, in fact, have been a slave, although if so, one allowed considerable freedom. The concluding exhortation to the deceased is a very common conclusion to simple funerary texts.

Conclusion

The foregoing account of the discovery of these Greco Roman marble sculptures and funerary inscriptions and the documentary evidence of the Van Lennep Correspondence preserved in the archives of the Rijksmuseum van Oudheden, demonstrates clearly that two cases of antiquities were being shipped

by Oscar van Lennep from Smyrna to Leiden in 1894, and that only the apparently less important antiquities in one case have so far been recovered from the wreck of the *Castor*.

The summer months of 1996 will see renewed attempts by the amateur sports divers of the British Sub Aqua Club, Folkestone Branch 501 to salvage the second case and hopefully bring to the surface the complete statue described by van Lennep as *trés belle*.

However, it is by no means certain that this second case although known to have been on board at the time of sinking of the *Castor*, remains *in situ*. The case and its contents might have been dispersed and destroyed during the sinking, or the antiquities might have already been salvaged. However, it is also possible that van Lennep was shipping other antiquities aboard the *Castor* for destinations other than the Rijksmuseum van Oudheden, Leiden.

2 Broome Park, Barham

Richard Cross

During 1995 a major leisure development of parts of the former Broome Park Estate near Barham was proposed by Inplace Ltd. Subsequently the Trust, in close association with the planning department of Canterbury City Council, has been involved in assessing the impact that these proposals may have on the heritage resource.

This assessment is continuing, but to date three studies have been undertaken. These comprise an impact assessment of the proposals on the historic environment of the Broome Park Estate as a whole; a field evaluation in August 1995 of a site immediately to the north east of Broome House where leisure chalets are to be built; and an architectural study of the one remaining range of early seventeenth century stables located immediately east of Broome House. No developments have been proposed for Broome House itself, a Grade I listed building, although the impact of the proposals on the landscape setting of the building and the opportunity the proposed developments offer for maintenance of the house have been studied and assessed in some detail by English Heritage.

The proposed developments at Broome Park extend across a considerable part of the former estate, an area sufficiently large to enable a valid geographic perspective of the landscape to be made for the late prehistoric, Roman and succeeding medieval and post medieval periods. The historic environment assessment has thus taken the form of a landscape study.

Two local land forms, dry valleys, have been formed within the Broome Park area, one of which extends from Denton on the south, north to Broome

House and north west to Derringstone. Another lies further east extending south to Shelvin Farm. The local topography of the Broome Park area is thus one of gently undulating countryside typical of chalk downland. The valley floor lies at about 55 m. O.D., and slopes gently north westwards towards Barham. The valley sides rise relatively sharply to about 100 m. O.D. On the east Walderchain Wood occupies a flat ridge which gradually rises to about 120 m. O.D. on the south. On the east the valley side also rises gradually to a ridge at about 120 m.

The archaeological evidence indicates that the dry valley in which Broome House is presently situated has been settled since at least the late prehistoric period. On the western ridge of the valley, now covered by Walderchain Wood, earthen burial mounds were thrown up during the Bronze Age. The sites of two survive. The ridge, mantled by clay soils derived from the underlying clay with flints, has always been marginal land, and this undoubtedly influenced the choice of site for burials. The topography would also have been significant. Burial mounds were located in prominent settings, demonstrating possibly both established rights of land ownership and marking out territorial boundaries.

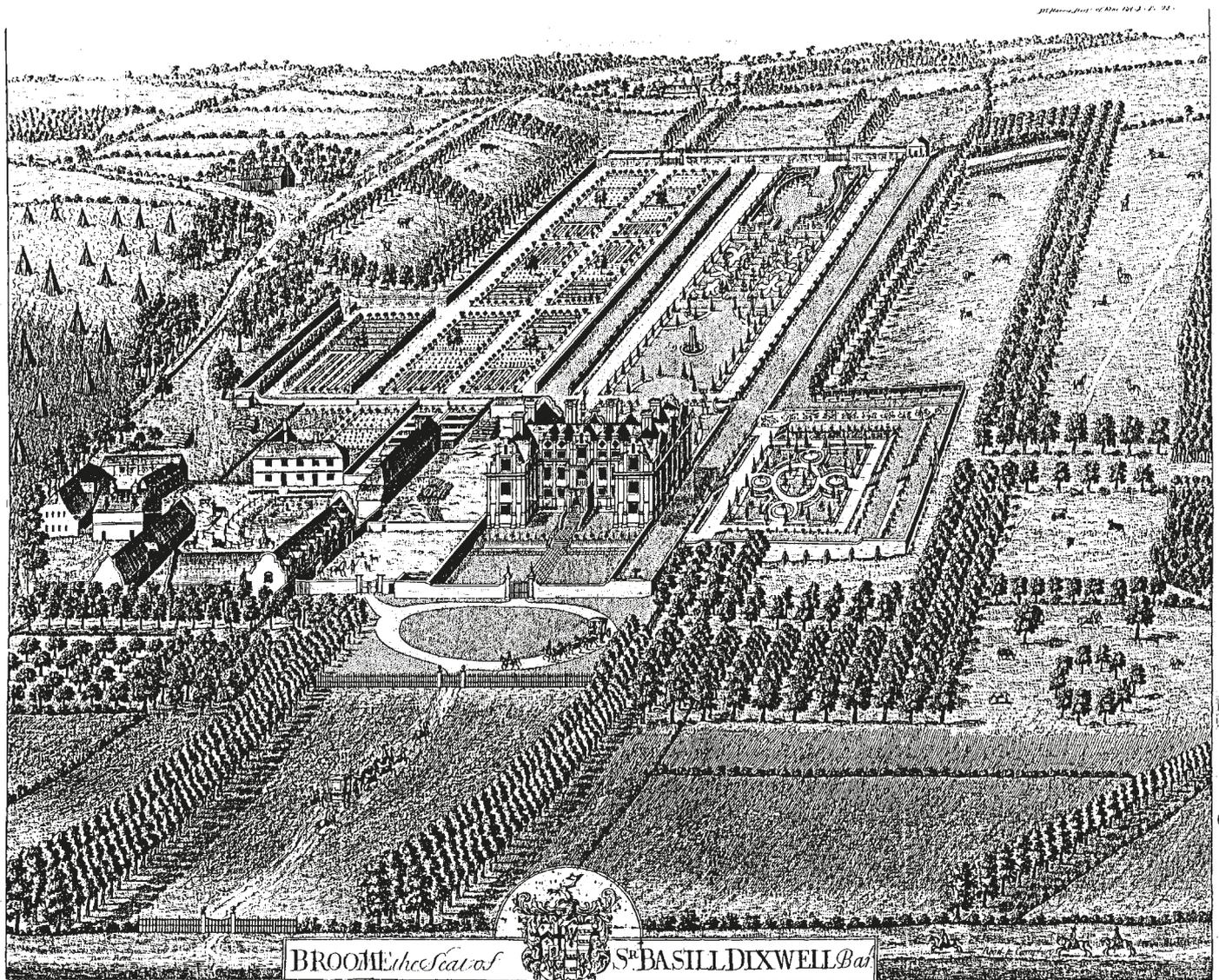
Although there is little direct evidence for late prehistoric settlement in the dry valley, the sites of two farmsteads, consisting of enclosures with adjoining trackways and parts of associated field systems, are known from air photographic evidence to have been sited on both the western and eastern valley sides. One, or perhaps both of these, may incorporate elements representing

Bronze Age and Iron Age settlement during the first and second millennium B.C. A find of some Middle Bronze Age metalwork (perhaps part of an itinerant metalsmith's hoard or a votive deposit associated with burial ritual), was recovered from the southern edge of Walderchain Wood.

More positive evidence for the location of Late Iron Age and early Roman settlement has been recorded during evaluation excavations carried out during August 1995 some 400 m. north east of Broome House on the eastern valley side. Pottery recovered from a refuse pit on the site and dating to between A.D. 25–75, together with finds of metalwork, indicates *in situ* occupation. The form, type and extent of this settlement, however, has not been determined, but is likely to be a small farmstead. A single find of a Roman coin has also been noted, recovered from a location immediately south of Broome House.

There is some evidence to indicate continued settlement in the valley during the succeeding early medieval period. Again the evidence is funerary, consisting of inhumation burials of the eighth and ninth centuries A.D. located at the northern end of the eastern valley side, immediately south of Barham Crematorium, on the west side of the Canterbury Road. The burials are likely to represent only part of the total cemetery.

A small rectilinear enclosure, together with other associated linear features, located immediately to the east, just south west of Barham Crematorium may be a small farmstead of the same period. A number of linear features adjacent to the enclosure probably represent ditches, sections



Birds-eye view of Broome House and Estate c. 1720 published by Thomas Badeslade, drawn and engraved by Joannes Kip.

of the field system attached to the farmstead. The nearby inhumation burials may thus represent a small family cemetery containing the graves of the occupants of the farmstead.

A named settlement in the valley is first recorded, as de Brome, in 1240 and by this date the settlement was also a manor. Little documentary evidence for the tenurial and agrarian history of the medieval manor of Brome has apparently survived, but it may have extended south east and south west to include parts of Shelvin and Denton. Nor is it known how early the manor as an administrative and judicial structure and an economic landholding was established. The location, occupying the south eastern part of the ecclesiastical parish of Barham, suggests that the manor was a post conquest creation of late eleventh or twelfth century date. Certainly it seems to post date the layout of the ecclesiastical parish of Barham, the boundaries of which had become firmly established in the landscape by the tenth century.

The extent of the demesne, or home farm, of the manor of Brome during the late medieval period

was probably much the same as the extent of the later mid seventeenth century Broome Park Estate. The southern boundary of the manorial extent was probably marked by Agester Lane, the western boundary by Walderchain Wood, with the northern boundary probably delineated by Rabbit Hole Lane. On the east and south the extent of the manor is marked by the course of the former Canterbury Road which also delineates the medieval parish boundary. This former road alignment is preserved in part by an earthwork, in part by a metalled track and road between Agester Lane and a point just north east of Broome House. At this point, a short section of the road has recently been recorded during archaeological evaluation excavations undertaken in August 1995. Other sections of probably the same or a connecting route have been recorded on air photographs just north of Broome Corner, which show as linear features representing the flanking ditches.

Both the manor as a whole, and the demesne in particular, would have contained all the economic agrarian components: arable land, meadow, pasture

and woodland. Although detailed information on land use during the medieval period is lacking, one source records that prior to the establishment of the Broome Park Estate in the mid seventeenth century, the land had been cultivated as arable for a very long period. This presumably referred to cultivation along the valley floor and lower slopes, with adjacent meadow and pasture on the valley sides. On the west the expanse of woodland now named Walderchain Wood, sections of which comprised the demesne woodland, is first recorded, as Waterchine, in 1263.

The precise location of the medieval manorial farm buildings comprising the settlement of Brome is not known. Air photographs show a pair of enclosures, one curvilinear and partly bivallate, the other rectilinear, indicating the site of a substantial settlement located 300 m. north west of Broome House. The form and layout suggests a sizeable settlement, located on the lower western valley slope, of a type and layout indicating that this may represent the site of the mid thirteenth century settlement of de Brome.

By the early fifteenth century the manor of Broome was in the ownership of John Digges and had become united with the manor of Outelmeston alias Diggs court, which lay just to the north, also in Barham parish. On his death in the 1530s, the two manors again became independent, the manor of Broome being inherited by Leonard Digges. Ownership passed successively into the hands of Thomas Digges in 1571, and then to Sir Dudley Digges. The turning point in the history of the manor of Broome occurred in the early seventeenth century. In 1611 John Herdson of Folkestone purchased from Sir Dudley Digges for £1500 the manor of Broome, the sale presumably including only the demesne farm, which then extended to 381 acres.

On the death of John Herdson in 1622 the whole of his estate passed to his nephew, Basil Dixwell, created a baronet in 1628. In the early 1630s he looked towards Canterbury and his manor of Broome as the location for the creation of a new residence and seat. The reasons for the choice of Broome were likely complex, but the desire to be resident amongst his peers, the county gentry of east Kent, was probably significant. Sir Basil's neighbour on the south at Great Maydekin was Henry Oxenden (1608–1670) whose memorandum book has

fortunately survived, providing a detailed record of Sir Basil Dixwell's creation of his new estate and the building of the present Broome House.

Thus, in 1634, Henry Oxenden records how Sir Basil Dixwell diked & quicksetted the great pasture feilds beside the house, viz. before it, & layd them to pasture, wch before had been errable ground time out of the memory of Man and how he planted the Orchard in Kell dane, viz. West ward, & diked it & caused it to be doubly quicksetted and further caused the walkes to be cut out in Broome ward and planted all the ashes in the 2 great feilds before his house & also 2 rows of lime trees from his garden towards his ward.

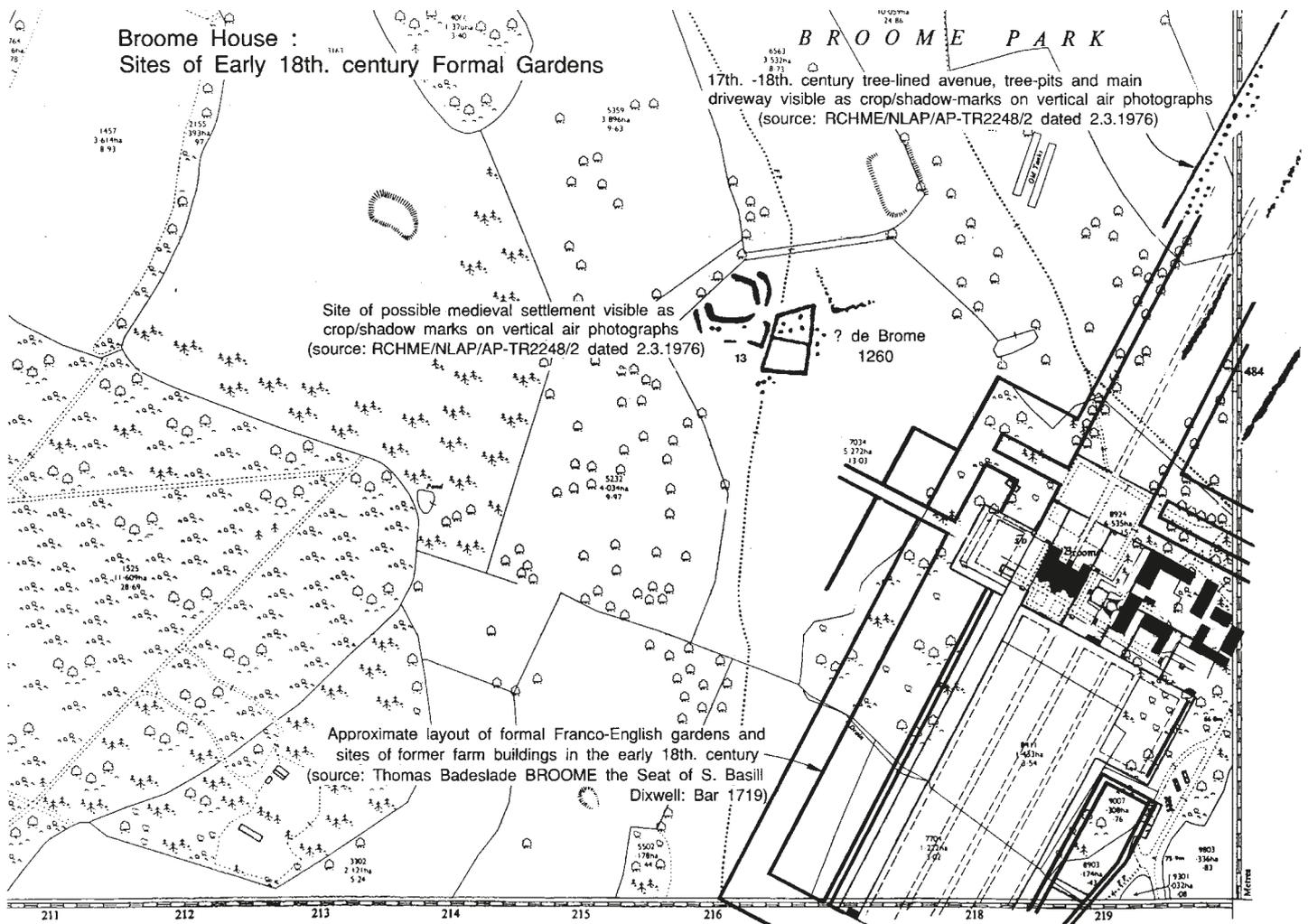
With the main woodland features of the parkland set out, in Ap. 1635, Sir Basil Dixwell layd the foundation of the house at Broome, it was up by the middle of No: following: but although the maine house was builded, reared & tiled by the time aforesaid, yet the in work, as sealing, boording &c. was not done till the end of the year 1636 and it was Sept. following in the year 1637 before the joiners had made any great progress in wainscoting the roomes, & it was St Mich. 1638 before they & the painters had finished their work, & made the house ready for Sir Basil to come into

it: who came thither about six weeks after that St Michael & tarried there till St. Mich. 1639.

The site chosen for the new buildings and gardens lay in the valley bottom, at a point from where the valley slopes gently north westwards towards Barham. The main house, the principal entrance of which also looked northwards, was laid out on a symmetrical H plan with complex Dutch gables, the whole built in rosy English bonded brick. Henry Oxenden records that in all There were used about the house, outhouses, & walling, twentie and seaven hundred thousand bricces which hee made, besides thousands which hee bought: the sand which was bought came to 500li & the lead used about the house to 500li. Presumably the moulded bricks used in the pilasters, cornices and gable pediments were those that were bought in, with the rest probably made locally.

Besides the main house, other structures were erected, including the surviving stable block to the east; the garden boundary walls which were laid out on a symmetrical plan in 1636; and in 1637, a brew house, also presumably located to the east.

In 1638 and 1639 when the fitting out of Broome House was in progress, Sir Basil carried out further



Broome House: Sites of medieval settlement and layout of early eighteenth-century formal gardens.

outdoor works. In February 1638 he caused the rows of ashes, & other trees to be set in Kell dane, and the green feild above his garden, as also in the little pasture feild agt his barnes, and in 1639 planted the Orchard agt his back door agt the Hall. Such then was the sight which his visitors must have viewed in June 1639: the house outwardly complete, along with the stable, the brewhouse and other outhouses including barns, as well as a walled garden, an orchard and a park, the last set with rows of ashes and limes.

By May 1639, however, Sir Basil was talking of returning to live at Folkestone, a move effected in September of the same year. Thereafter he appears to have resided now at Terlingham, now at Broome. In November 1640, for example, he gave instructions and perhaps supervised, the planting of those ashes which stand agt his house & the middle row of the trees in Kell dane at Broome.

The succinct entries made by Henry Oxenden in his memorandum book enable a reasonable view to be had of the local landscape in the early seventeenth century. The observations made in 1634, moreover, provide a glimpse of the layout of the manorial demesne in the late medieval period. Reference is made in the memorandum book to the 2 great feilds before, that is, north of the new house, another field to the west, both severally named Kell dane; a small pasture to the south east; and woodland to the west and north west called Broome ward.

The great fields refer to the large enclosures which would have comprised the main parts of the manorial demesne put down to arable cultivation, not on the pattern of large medieval open fields, but of a size and location, adjacent to the manorial buildings, typical of this class of Kentish settlement and land tenure. As has been seen, the lands of the manorial demesne of Broome inherited by Sir Basil Dixwell in 1622 amounted to 381 acres. Much later, the Tithe Apportionment of 1842 probably records the same two large enclosures, by then both named simply Broome Park, lying north and south of the main house, and which then extended to 293 acres and 103 acres respectively, a total of 395 acres.

Other improvements to the parkland at Broome were carried out during the 1640s and 1650s, including the planting of an hundred walnut trees about the house; principally in the base court & at the right hand going up the Down and between 1651–52 the construction of the dovehouse and the walling in of the kitchen garden to the east of Broome House.

The next major changes to Broome occurred during the period between the late seventeenth century and the early eighteenth century when another Sir Basil Dixwell laid out new gardens. The style, distinctly French but inevitably Anglicized

in scale, echoed more simply that conceived by Andre Le Nôtre for Louis XIV at Versailles.

The primary source for the layout of the new gardens at Broome is a print, first published by Thomas Badeslade in 1719. The view, taken from Barham Downs and looking south west towards Great Maydekin and Denton, may or may not be an accurate delineation in all its details, but in broad terms may be taken as reasonably reliable. The 1719 print shows that the gardens were located principally to the south of the main house, the whole laid out on a geometric pattern and divided up into smaller individual gardens or parterres. The more elaborate of these are the gardens immediately south and west of Broome House, with their sculpture; fountain; gazebo or summer house further to the south; and topiary, the latter a Dutch element in the design which had been become fashionable in England around the time of the accession of William and Mary in 1688.

Other elements of the gardens, the avenues of trees to the north and west of the house, were already in existence. First planted between 1634 and 1652 these rows of ashes and limes would have been about 30 ft high with well developed canopies by c. 1700.



Sir Basil Dixwell, KT., of Broome Park. From a portrait attributed to William Dobson, in the possession of Galerías S. Hartveld, Antwerp. Photographer, Medici Society.

In 1753 the Broome Estate passed to the Oxenden family by inheritance. Further improvements and enlargements were made to the house by Sir Henry Oxenden in 1778, the work being carried out by James Wyatt A.R.A. who made alterations to the interior, in particular creating the drawing room. Besides these works, no other records of Broome during the second half of the eighteenth century appear to have survived.

His son, another Sir Henry, succeeded to the Oxenden Estate, now incorporating Broome, in 1803. One of his major achievements was the altering and turning of the alignment of the Canterbury Folkestone Road onto its present course. This realignment resulted in the final layout of the Broome Estate on an elliptical plan, incorporating both the Gamekeeper's Cottage and the walled garden to the east of the main house. In so far as Broome Park was concerned this was largely put down to pasture, Sir Henry running a large flock of South Down sheep.

By the early 1840s Broome no longer served as the home farm of the Oxenden estate. Within Barham parish the estate extended to about 1,805 acres in 1842, comprising some pasture and woodland, but the bulk was under arable cultivation and let out to tenant farmers, mainly at Giddings, Shelvin and South Barham farms, but also at Derringstone, Diggs Hill and elsewhere.

At Broome some 365 acres remained in the direct occupation of Sir Henry Oxenden, who had succeeded his father as 8th Baronet in December 1838. This consisted solely of woodland which was scattered widely as individual parcels across the parish from Hoath and Priory Woods on the north to Denton Wood on the south. The two great expanses of former parkland to the north and south of Broome House which extended to 293 acres and 103 acres respectively were, moreover, also let out to tenants as pasture. In addition, the buildings to the east of the main house, which in the opening decades of the nineteenth century had formed the nucleus of a highly successful farm, had been largely demolished. Only the stable block, first erected in 1636, and the walled garden further to the east dating from 1652, remained *in situ* by 1842.

A major change in the management of the Broome estate had thus been put in place by the mid nineteenth century. The retention of 93 acres of woodland to the west of the main house, which by 1842 comprised the greater part of Walderchain Wood, and the Gamekeeper's Cottage to the south east, indicates clearly that the function of Broome House, as far as its occupants perceived it, was its role as a country house for amenity with attached woodland for sport.

In the vicinity of Broome House, the earlier formal gardens had been replaced by an informal landscaped background based on the even earlier seventeenth century parkland. Close to the house, lawns and a mixed woodland garden of oak, beech,

ash, chestnut, lime and hornbeam, as well as firs, reflected the diversity of gardening concepts that were fashionable during the second half of the nineteenth century. This garden, described in 1908 as 'pleasure grounds', consisting of 'ornamental shrubberies and plantations', was located principally to the south west of the main house, where there was also a summer house. The principal entrance to the estate, however, remained on the north side, at the junction with the turnpike road where a wrought iron gateway hung on piers surmounted by the now well known eagles was formerly located. This use of Broome House and its environs continued throughout the remainder of the nineteenth century. In 1884, however, the Oxenden estate, now synonymous with Broome, was mortgaged by the Oxenden family for £30,000.

By 1907 the house had become vacant. In September of the following year the whole estate, including Broome, burdened by mortgage debts which had risen to £40,000, was put up for sale by public auction in one lot. Broome formed the nucleus

of the estate which was described as a 'residential, sporting, agricultural and manorial domain of 5408a. 3r. 22p.' Interestingly, the sale catalogue suggested that 'In the Park itself an excellent private golf course could be laid out'.

The Oxenden Estate was finally sold intact for £14,000 to Lord Kitchener in 1911. In the short period until his untimely death in 1916, Kitchener made extensive alterations at Broome, principally to the interior of the house, with much of the work being carried out by his own sappers of the Royal Engineers based at Brompton Barracks. Much work was also done on the gardens in the immediate vicinity of the house creating the present Italianate garden. Originally this also contained some Roman antiquities including a local tombstone, since lost, and some statues, one of which remains *in situ*. It was from this date, 1911, that Broome finally became known as Broome Park.

Kitchener's residence of Broome was never permanent, nor of long duration, circumstances

reminiscent of those of the builder of the house, Sir Basil Dixwell, nearly 300 years previously. Surprisingly, Broome House today is remembered for its association with Kitchener, not with either the Dixwells or Oxendens. Inherited by Henry Elliot Chevallier, the Oxenden Estate was finally broken up in September 1928. That part now comprising Broome House and Park as it is seen today was also to have been broken up, the house being threatened with demolition. The timely purchase by a business man, James Jell, however, preserved the building although his own curious death on the estate was later the subject of much debate. From that date, except for a brief period between September 1939 and 1945, when it was requisitioned and became the headquarters of a Canadian armoured regiment, the Fusiliers Mont Royal, Broome House has continued to function as a country house hotel and more latterly as a leisure facility and golf club.

3 The papers of the late Dr Frank Jenkins, M.A., Ph.D., F.S.A. (1915–1991)

Richard Cross

Following the sudden death of Dr Frank Jenkins in August 1991, staff of the Canterbury City Museums were invited to collect from his home his manuscript papers, plans, drawings and photographs, as well as a significant quantity of archaeological artefacts all of which had been bequeathed to the museum.

At the time of collection, the manuscript archive was roughly sorted, listed and boxed by Mrs Beth Richardson, who compiled an initial listing of the extent and contents of the archive. The order of the material in the boxes has no archival significance. Some division between manuscript material and printed matter was made during collection, and a decision was taken to retain as part of the archive all of the specialist archaeological and historical foreign language periodical literature. The remainder of Dr Jenkins' library, including a proportion of non archaeological works, was subsequently sold to a local Canterbury bookseller. Enquiries of the latter revealed that no manuscript material was included within this sale.

A programme for the full cataloguing and storage of the archive was commenced by the author in June 1995 funded by Kent County Council through the offices of the County Archaeologist, Dr John Williams. The work has been divided into two stages.

The first stage of work comprised an initial sorting of the archive during which records relating to individual archaeological sites by the dates at which investigations were undertaken were collated and other records relating to individual

archaeological and historical studies, including studies undertaken in preparation for educational purposes, were separated. The major group of records involved in this last group of papers are those relating to a detailed academic study of Roman pipe clay figurines. All printed matter was removed from the archive in preparation for sorting by publication type, language and subject. Finally a second more detailed listing of the contents of the archive was compiled.

The second stage of work has involved the making of the full catalogue of the archive. For archaeological sites, the archive has been classified by type of record and referenced by both a site code and an archive number, enabling the archive to be integrated into the Canterbury Archaeological Trust Site List. Much of this work has now been completed. All materials have been placed in archival quality wallets, photographic envelopes and boxes and stored in stable conditions. A few minor tasks remain to be completed, notably the final labelling of the records and the production of a summary abstract of individual sites excavated, for inclusion on the Kent Sites and Monuments Record.

The archive represents the results of over 30 years active participation by Frank Jenkins in the excavation and recording of a large number of archaeological sites within Canterbury and elsewhere in Kent. An entry in a personal diary preserved in the archive, records that in April 1938 he and his friend Paul Ashbee assisted W.P.D.

Stebbing in the excavation of a denehole at the Eight Bells, Wingham, but his real work began in August 1944 when in his spare time he helped Mrs Audrey Williams of the Office of Works who was then directing the excavation of a bombed damaged site east of Burgate Lane. By May 1946 Frank Jenkins and John Boyle, the Town Clerk of Canterbury, were directing in their spare time their own excavations in the cellar of No 47 Burgate Street and at No 1 Watling Street. In the following year he became a member of both the Canterbury Archaeological Society and the Kent Archaeological Society. A long series of excavations and watching briefs followed, culminating in an important investigation of the Chapel of St Pancras, St Augustine's Abbey, between 1974 and 1975.

Many of the sites excavated by Frank Jenkins have been published in detail, others only as interim reports. The records for the majority of these investigations are now preserved within the archive. It is clear also, however, that many of the records of archaeological works undertaken by Dr Jenkins are not preserved within the present archive. For example, an excavation report, together with some of the site records, of works undertaken on a Roman building and early medieval cemetery at Warren Road, Folkestone in 1952 survives only as a poor quality photocopy, the original papers having been deposited with Folkestone Reference Library. It is hoped in the near future to bring together in one publication all of these less well known, though nevertheless important, investigations.

EXCAVATIONS IN THE MARLOWE CAR PARK AND SURROUNDING AREAS

Some of the largest and most important urban excavations ever undertaken in Europe are presented in this publication. They were conducted in the heart of the City of Canterbury, giving a record of its occupation over the last 2,000 years. Early excavations were carried out by the Canterbury Excavation Committee between 1946 and 1955, and more recently by the Canterbury Archaeological Trust between 1978 and 1982, prior to the construction of a large shopping arcade.

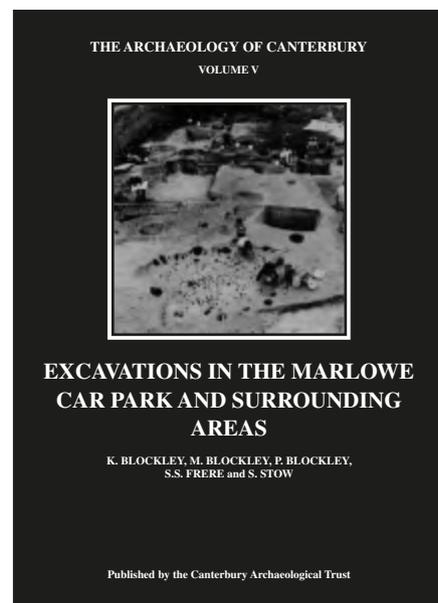
Part I provides an interpretation of over 100 structures which are discussed and illustrated in detail. These include a Belgic triple-ditched enclosure containing round-houses; the Roman public bath-house, *portico* and *piscina*, with adjacent town-houses, shops and streets; Anglo-Saxon sunken structures; medieval churches with associated burials, stables and rubbish pits; and a number of post-medieval buildings.

Part II contains extensive reports on the finds including important groups of Late Roman, Anglo-Saxon and post-medieval pottery. Amongst the small find reports is a large collection of brooches dating from pre-Roman to Anglo-Saxon times; waste from a Roman bone pin workshop; a unique group of Roman horse harness equipment; and Anglo-Saxon bone combs. A large assemblage of glass including a fragment of a Roman chariot race cup is published, as well as specialist reports on building materials including painted wall plaster, marble and tile.

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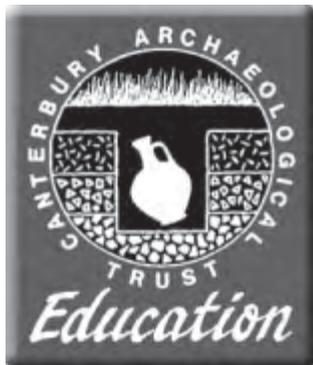
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Education



Marion Green, Education Officer

The Education Service continues to operate a work pattern which includes visits to schools, Work Experience placements and requests for assistance with individual projects. We continue to work on production of written resources and have begun liaising with Andy Harmsworth (author of *Roman Canterbury*) with a view to producing a Medieval Canterbury resource book for children. This year we hosted a successful In Service Training Day for the first time, for Kent teachers.

Summaries of the year's work in various areas are given below.

Involvement with Special Needs children

At the time of writing we have just said goodbye to the last group of children to visit the current excavation at Christ Church College. There will be more about this in next year's report, but I would like to say something here about the response from the Special Schools who came to see the site. Three schools took up our invitation to make a site visit: Bower Grove, Maidstone (moderate learning difficulties) made two visits; Gap House, Broadstairs (speech and language); and St Nicholas, Canterbury (severe learning difficulties) who made three visits.



'What do archaeologists do?'
Pupils from St Nicholas School.

Lee attends St Nicholas School. On the day he visited it was his birthday and he was eleven. He was thrilled with the whole adventure. Although verbal communication was limited, he was keen to ask lots of questions about the diggers and proudly conveyed to us that he understood what was happening on site. The following week at his school fete Lee recognised me on the school field

and smiling, said 'digging'. Each group from the Special Schools was small in number so enabling close interaction between us, the children and school staff. The exercise for some was as much a social experience as an opportunity to view an archaeological site. I think we all gained from it.

I had the opportunity to meet two other special needs groups last year. Children from St Anthony's School, Margate (moderate learning difficulties) came to the Trust offices and had a session handling artefacts before visiting the 1995 excavation at Christ Church College to see people at work. I also visited East Court School, Ramsgate which caters for dyslexic children. In this case, slides and artefacts were perfect resources to use with young people who have specific language problems relating to reading and writing. Encountering archaeological terminology also stimulated their language experience.

In Service Training (INSET): Romans, Anglo Saxons and Vikings in Britain

In May 1995 the Trust hosted an INSET day for south and east Kent primary school teachers. The focus was on National Curriculum Study Unit, Romans, Anglo Saxons and Vikings in Britain which is taught at Key Stage 2 (7–11 years). The day had been planned to encompass three major elements, these being: to develop teachers' local history knowledge, to suggest ways in which children can be introduced to archaeological concepts including hands on experience with artefacts and to help teachers plan the unit in

order to fulfil the requirements of the programme of study. This was achieved in a variety of ways including slide talks, a practical artefact session, a walking tour of Canterbury and guidance in using resources of all kinds.

The day was well attended with teachers from schools in Birchington, Ashford, Broadstairs, Ramsgate, Folkestone, Wye, Greatstone (New Romney), Boughton under Blean (near Faversham), Canterbury, Biddenden, High Halden, Petham and Walmer. Their reaction during the day and comments on evaluation sheets showed this venture to have been productive and suited to their needs. There were also constructive comments about content for future INSET events.

Course tutors were Paul Bennett and myself from the Trust, Ian Coulson (Lead Consultant: History, Kent Curriculum Services Agency) and Dr Alec Detsicas (Roman historian and archaeologist). I would like to thank Ian Coulson for his guidance in initial planning of the event and Margaret Cook of Kingsmead County Primary School, Canterbury for arranging trial artefact sessions with junior school children.



C.A.T.'s INSET day for Kent teachers.

Schools Adopt Monuments (SAM)

This project was initiated by the Pegasus Foundation, a European cultural association founded by members of the European Parliament from all countries of the Community (see *Canterbury's Archaeology 1994–95*, 72). It was established to encourage schools from chosen cities in countries within the European Community to 'adopt' a local monument by researching it and eventually presenting it through various

media to other schools, parents and so forth. All participating countries are engaged in this project for a period of three years.

Canterbury is the chosen city for England. Local schools have produced a range of good quality work and last autumn a display was presented by Jan Stewart (project co ordinator) at Eastbridge Hospital. The Trust has been involved with two schools in particular.

St Edmund's School (Juniors) are studying the Blackfriars site and as part of their work focused on the locally made floor tiles which paved the nave of the church. We hired the lecture room at 92b Broad Street and had a session relating to the Tyler Hill potting industry in medieval times. The children could handle a whole range of pottery, domestic and architectural, and suggest how and where the monks at Blackfriars would have used such things. They traced designs from decorated floor tiles (on loan from Canterbury Museums) recording colour, dimensions, etc, with the aim of trying out their own craftsmanship back at school in the summer term. Thanks are extended to John Cotter for his help with the event.



St Edmund's School. Examining medieval material from the Tyler Hill Kilns.

Pupils at the King's School are incorporating the area of the Mint Yard and Norman Staircase within the cathedral precincts in their studies. These sites are currently occupied by the King's School and the students were interested not only in the standing remains but in the whole history of the area as revealed by archaeological excavation. We were able to supply data ahead of publication for their use. One of the extraordinary finds from the Mint Yard excavation was the isolated burial of an adult male, buried (or dumped ...) some time in the eleventh century when the area was wasteland. This find sparked some imaginative speculation as to what had happened. Some of the King's pupils

subsequently attended a talk I gave to the Pater Society (Classics Department) to find out more about archaeology in general.

Visits to schools

- ❑ Bridge and Patixbourne CEP School (The Egyptians)
- ❑ Dymchurch CP School (Introduction to Archaeology)
- ❑ St Margaret's CE Junior School, Rainham (The Romans)
- ❑ Ashford School (Juniors) (Celts and Romans)
- ❑ Herne Bay Junior School (The Tudors)
- ❑ Mundella CP School, Folkestone (The Romans)
- ❑ Garlinge County Junior School (How do we know about the past?)
- ❑ Wingham CP School (The Romans)

Work Experience placements

Requests for placements are more numerous than ever. This year we were able to accommodate:

- ❑ St Anselm's Catholic Comprehensive School, Canterbury
- ❑ The Harvey Grammar School, Folkestone
- ❑ St Edmund's Senior School, Canterbury
- ❑ Sir Roger Manwood's School, Sandwich
- ❑ Barton Court Grammar School, Canterbury
- ❑ Sevenoaks School
- ❑ King Ethelbert School, Birchington
- ❑ Simon Langton Grammar School for Boys, Canterbury
- ❑ Archbishop's School, Canterbury
- ❑ Maidstone Grammar School for Girls
- ❑ Canterbury College

Other educational activities

In May we again took students on placement from the University of Kent as part of their Medieval Monasticism course. We also assisted a number of girls from Highsted School, Sittingbourne, who were studying for GCSE Archaeology. Five girls spent time with Trevor Anderson in the Bone Department identifying and examining human skeletons, while two others identified and recorded Roman pottery with Andrew Savage.

At the end of the summer term I was asked to take part in a Careers Day organised by Kent Careers and Guidance Service, for Year 10 students at Canterbury High School. It is actually quite difficult to convey the many, varied aspects of archaeology as a profession. Working as a site excavator is a vastly different experience to someone dealing with planning applications for a

local authority, yet both can be archaeologists. I concentrated on the typical work of a unit such as the Trust, including as an example of a fascinating site, the Anglo Saxon cemetery excavated at Buckland, Dover in 1994.

In July 1995 the Kent Archaeological Society took part in the Kent County Show. Members mounted displays about projects they had undertaken and a series of mini talks was given. The Trust participated with a display of educational work. It was a good opportunity to meet members and for the general public to see this aspect of our work. Thank you to the Friends of the Trust and Enid Allison for supporting the venture and for helping to man the sales stall.



GCSE Archaeology. Highsted School students chose Roman pottery studies for their individual project.

Finally we must thank the Kent Archaeological Society for their continued support of our work. Also my thanks to Kent County Council Education Department for once again providing funding at a time when county finances are very tight indeed. It is very much appreciated. I am pleased to be able to say that the reaction from Kent teachers shows that the funds are being well spent.



C.A.T. Education display at the Kent County Show.

Excavations Abroad

This section records work done outside the UK by staff on leave from the Trust, working for and funded by other organisations.

1 Quattro Macine: a deserted medieval village in southern Italy

Trevor Anderson

In July 1995, a further season of excavation took place at the southern Italian site of Quattro Macine, Puglia. The site is located 3 km. north west of present day Minervino di Lecce (population c. 3,000), mid way between Maglie and Otranto. Excavation, carried out under the direction of Dr Paul Arthur, lecturer in medieval archaeology at Lecce University, concentrated on the associated cemeteries. I was called in to supervise the excavation of the human skeletal material and to carry out analysis of the remains.

The deceased had all been buried in stone lined tombs which had been opened and re used in medieval times. A typical grave contained an articulated skeleton, with a collection of disarticulated bones at the feet or placed around it, belonging to earlier occupants whose remains had been collected to make room for the final articulated occupant.

Tombs contain both males and females as well as children supporting a view that the tombs are

familial. There is a high sub adult mortality of 45 per cent, with peaks occurring perinatally; 3–5 years and 6–8 years. Juvenile mortality was rare. Female life expectancy was shorter than that of the males.

Preliminary investigation of the skeletal material suggests a fairly harsh life style. In both sexes the stature is quite short. This may be related to low levels of nutrition, especially during the first years of life. There is also evidence of iron deficiency anaemia.

Early onset of osteoarthritis was seen in both sexes, the joints of predilection being the shoulder and the foot. Males were more likely to suffer broken bones, but there was no evidence for weapon injuries. All fractures suggest accidental falls or repeated stress. The bones had healed without apparent complications. A mid shaft femoral fracture, was firmly re united with only very minor residual angulation. This is a testament

to the skill of medieval surgeons and indicates that the individual had received expert treatment, including complete reduction and continued immobilisation.

A high level of squatting facets, standard of oral health and low level of chronic infection is characteristic of a small rural population (it would not be out of place in a British Iron Age or Anglo Saxon settlement). However, the level of sub adult mortality and the frequency of enamel hypoplasia (evidence of growth disturbance during childhood) is suggestive of the higher population densities of an urban medieval sample. The archaeological evidence indicates a small village community. This raises the interesting question of population movements. Perhaps some of the adults may have grown up in major towns before they came to farm the land, break their bones, and eventually die at Quattro Macine.

2 Castelporziano, Italy

Martin Hicks

In September 1995 Alison and myself were able to continue with a project first started whilst we were research assistants at the British School at Rome. The then Assistant Director of the School, Dr Amanda Claridge is now based at the Institute of Archaeology at Oxford and has restarted the excavations as part of an archaeological field



View of excavation showing upstanding Roman walls and to the left the remains of a staircase leading to an upper gallery.

school for students studying classics at Oxford University. We were invited to help teach the students practical archaeology.

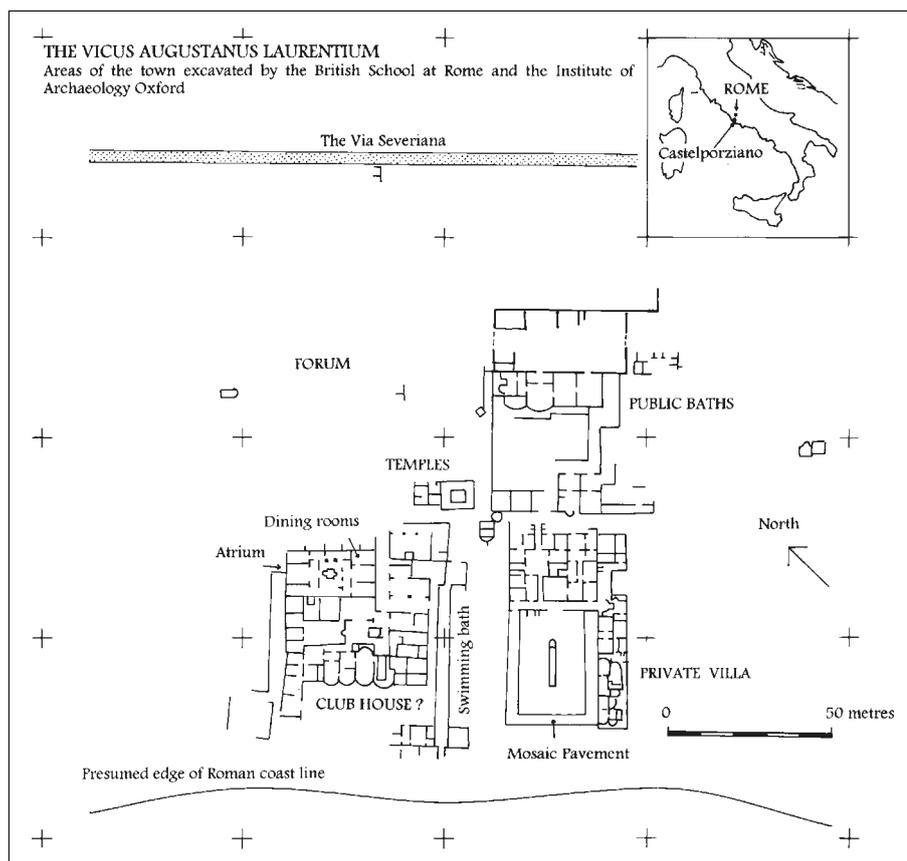
The excavation, located 17 miles south west of Rome, bridges the gap between archaeology and classics. For the classical students the main focus of interest is the projects aim to find Pliny's Laurentine villa, described in his letters to a friend Gallus (Letters 2,17), whilst archaeologically, the project affords a unique opportunity to excavate a complete and well preserved imperial town.

The site, lying within 32,000 acres surrounding the President of Italy's private residence, consists of a series of villas and a small town on the sea shore at the Ager Laurens, close to the imperial seaport of Ostia. The town appears to have been founded in the first century B.C., developing into the surviving building plan around A.D. 40. An inscription found on the site by Queen Elena in the early twentieth century describes the towns name

as Laurentium Vici Augustanor(um), indicating that the town or vicus was an imperial dependency.

A direct road called the Via Laurentina connected the town with Rome, whilst a coastal road, the Via Severiana, connected it with Ostia. The original road surface of the Via Severiana, formed from large basalt blocks, can still be traced in the forest floor.

The numerous villas stationed along the shore line were dependent on the town for basic supplies and amenities, and the town also provided the supplies needed to maintain a vast imperial palace. Although partially surveyed, most of the palace remains hidden within the undergrowth. The sheer size of the edifice is hard to comprehend when comparing it to structures excavated in Britain. The palace was built by Emperor Antoninus Pius in the mid second century, and its masonry ground plan measures 1.5 km. by 500 m. So far three bath house wings have been identified.



An archaeological excavation carried out by the Italian state uncovered approximately 10 per cent of one of the bath buildings.

Previous survey and excavation by the British School at Rome has centred on the town centre, revealing substantial remains of the forum, temples, public baths and a private villa which had a peristyle garden facing onto the sea. Prior to 1995, the last excavation took place in 1987, and since then the area had been left to nature.

Work began again in 1995 with the clearance of dense undergrowth and selective area excavation on a range of buildings which originally edged the Roman shore line (the present day coastline at Ostia Lido now lies 800 m. away). The ravages of forest growth had severely affected the fabric of the surviving structures with tree and plant roots taking hold in the opus reticulatum walls. One of the areas cleared appears to belong to a possible clubhouse (Collegiae). Clearance of the forest floor revealed the walls and mosaic floors of a large atrium surrounded by small individual

(dining?) rooms and a range of baths that would have overlooked the sea. A spectacular, and largely intact swimming pool, 80 m. long, was attached to the eastern wing.

A further area to the south west was excavated to reveal part of a substantial road separating the clubhouse from other, as yet unexcavated, buildings to the west. A glimpse of these unknown structures was provided along the main section which was formed from a complete length of opus reticulatum wall which had evenly spaced recessed settings for a colonnade. Among the spectacular finds from this area was a complete Ionic capital and an emblama, the central panel of a mosaic floor formed from small multi coloured glass tessera. The emblama panel showed a theatrical scene with sadness and joy masks, columns, drapery and satyrs.

The 1995 season, effectively restarting the project, was very much an exploratory operation to survey and assess the potential of the site with a view to using it as practical field school



Part of an intact mosaic pavement found in the peristyle of the private villa.

for the classics students. This first year bode well, and what the students lacked in practical archaeological skills was more than made up for by their enthusiasm and unending good humour. Further work is anticipated on the site next year, hopefully concentrating on areas flanking the Via Severiana and in the region first exposed last autumn.

Our thanks go to the Canterbury Archaeological Trust for the extra release from post excavation commitments, the British Archaeological Association and the Institute of Archaeology at Oxford.

All photographs are reproduced courtesy of Dr Amanda Claridge, Director of the Castelporziano project.



Statue bases located within an exploratory trench in the Forum.

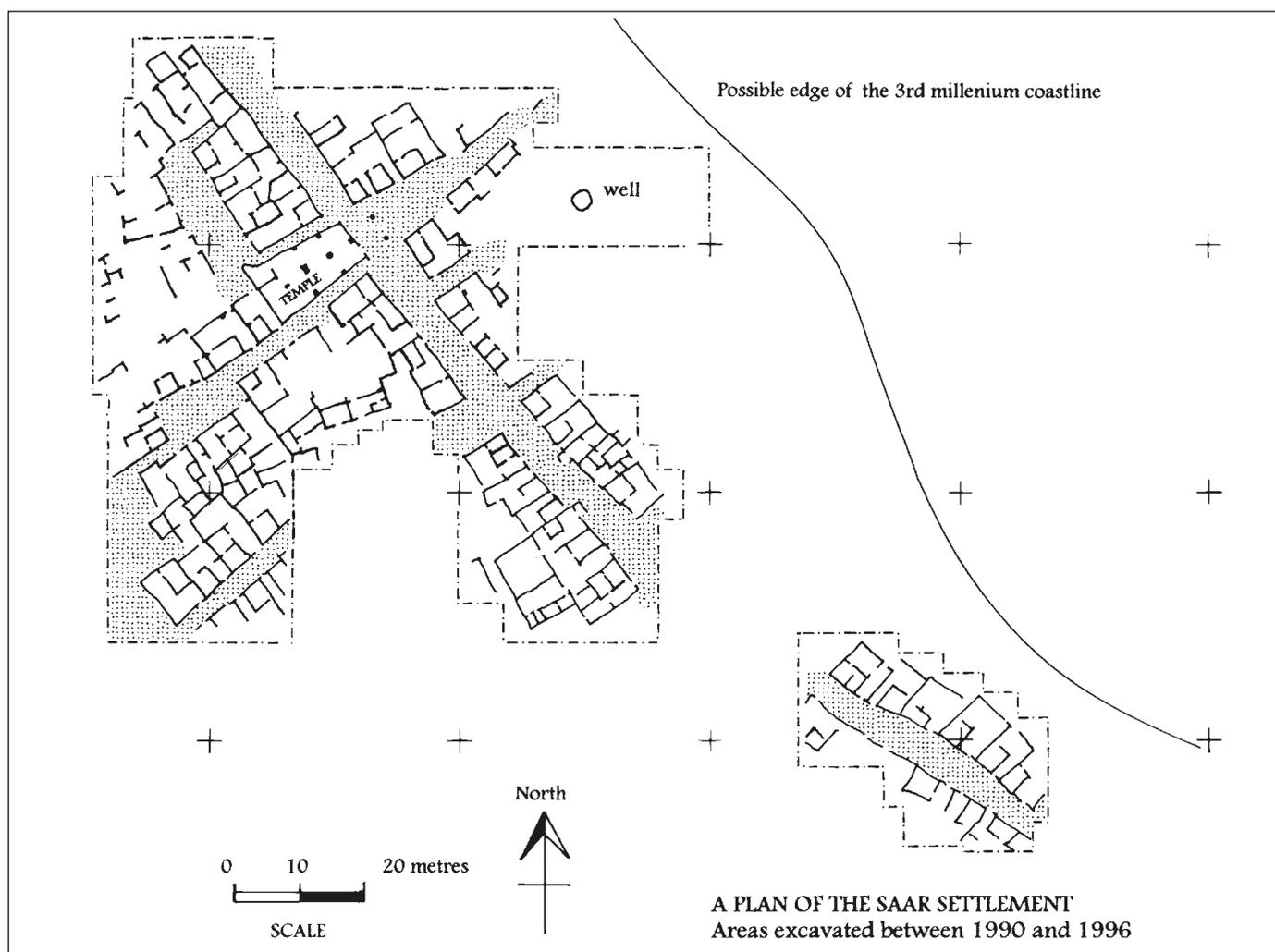
3 The London Bahrain Archaeological Expedition

Martin Hicks

The London Bahrain Archaeological Expedition was set up in 1990 with the aim of carrying out a detailed scientific excavation of the Dilmun settlement at Saar, located on the Island of Bahrain in the Arabian Gulf. The joint directors of the project, Dr Robert

Killick and Dr Jane Moon formed the expedition following their departure from the British School in Iraq when it closed prior to the Gulf War. The academic base for the expedition is the Institute of Archaeology in London, whilst the main sponsors

are the Ministry of Information, Bahrain, the British Academy, the British Council and the Bahrain and American Petroleum Company. Alison and myself were appointed senior archaeologists on the project at its inception and since 1990 have made annual



visits to Bahrain, excavating between January and June. The programme of work is due to continue until the year 2000.

The Dilmun civilisation occupied the island of Bahrain and most of the Gulf coast between Kuwait and the United Arab Emirates. It flourished between 3,000 to 500 B.C., probably under the jurisdiction of Mesopotamia. The 'land of Dilmun' was first mentioned in the Gilgamesh legend. Forming part of the world's oldest poem, the legend is a heroic, semi-mythical account of the

Sumerian king Gilgamesh, ruler of Uruk c. 2850 B.C., and his quest for immortality following the death of his friend Enkidu during their attempt to slay the 'Bull of Heaven'.

The identification of Bahrain island as the site of the 'Land of Dilmun' was made by Geoffrey Bibby in the 1950s, but it was not until the early 1990s that an intact Dilmun town was found in an area of open desert to the east of the island.

Portions of the town, founded approximately 2500 B.C., have been excavated every year since 1990.

This season's work culminated in the excavation of the fiftieth town house. Most of the walls of the buildings stand to over 1.40 m. in height, whilst several near to the temple stand to almost their entire height of 3 m. The houses are constructed of stone with crude gypsum floors. Most of the buildings conform to a regular plan consisting of two rooms laid out across a rectangular space. Studies of the flooring conducted by Wendy Matthews of Cambridge University have identified that the outer space was generally open and used



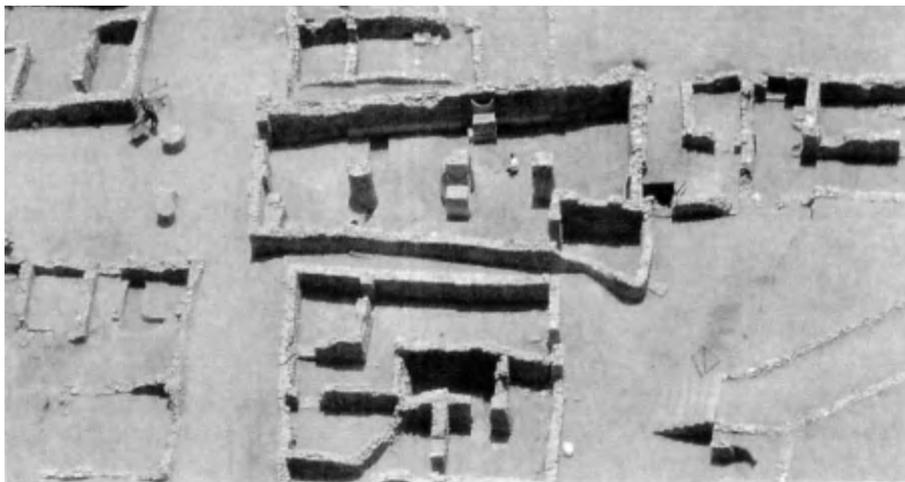
Excavations of one of the houses.



Features and floor to a 'merchants house'.



Lifting of a complete storage jar, dated 1900 B.C.



Aerial view of the temple clearly showing the bull's horn altars.

as the communal work area whilst the smaller chambers would have been roofed by palm fronds with a coating of palm leaves across the floor. These are presumed to have been the sleeping areas. Many domestic installations such as hearths and ovens have been found set within the floor surfaces. Some of these have the addition of small pillars of plaster, often with a stone core arranged to form a tripod stand. Also set into some of the floors have been complete storage vessels and scattered across most surfaces are large varieties of material, all dating from 2000 B.C., consisting of stone tools, jewellery and steatite seals.

The largest and most impressive building is the trapezoidal temple. Its walls all stand to a height of 3 m. and it is resplendent with two altars capped by stylised bulls horns formed from plaster. Several tables and benches were found built against the side walls. Their function remains unknown, but rectangular impressions on their surfaces have been interpreted as imprints of statue bases, possibly gifts from wealthy worshippers or offerings to the gods and the 'Bull of Heaven'.

The town now sits just below the surface in the middle of the desert. Environmental samples taken last year however, have shown that at the time of the Gilgamesh legend Saar was a coastal trading centre, surrounded by mangroves and a rich diversity of bird and other natural wildlife. Along the coastal strip were fruit trees and date palms, whilst around the settlement were fields of cereal crops including wheat and barley. The now barren desert plain is landlocked with the nearest stretch of coastline some 7 km. away. The reason for the abandonment of the settlement and the quantity of material left behind is puzzling. The most plausible suggestion so far is that the tidal course of the ocean changed. This may have resulted in the small harbour silting up, therefore killing trade, and the settlement may have simply moved closer to the new shoreline.

The main objective of the remaining four years is to excavate fully the settlement site, specifically trying to locate the harbour, store houses, fresh water source and administrative buildings. Discovery of these buildings will undoubtedly help

our understanding of the island which held the survivors of the 'great flood' and a once mythical people described in a text, long before the Iliad, by a Sumerian king over 4,000 years ago.

A 50 page publication entitled 'Ancient Saar. Uncovering Bahrain's Past' has recently been produced by the London Bahrain Archaeological Expedition. The book is available in soft back with over 43 colour plates detailing the background to the Gilgamesh legend, Mesopotamian trade and the discoveries made during the excavations from 1990 to 1995. If you would like a copy, they are available from Martin Hicks at Canterbury Archaeological Trust. Price £8.50 including postage.



Impression from a steatite seal found at Saar. Showing a male and female figure clutched an unknown object beneath a star and crescent moon.

4 Euesperides, Libya

Paul Bennett

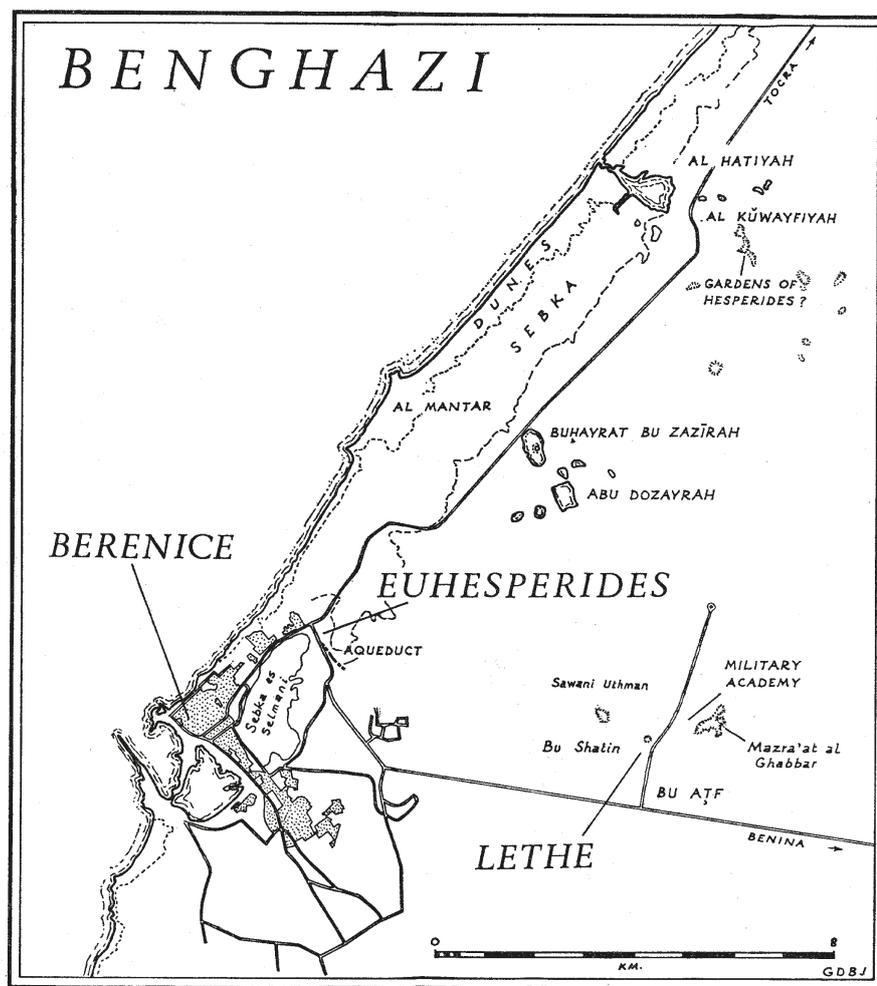
In the spring of last year the writer spent four weeks at the site of Euesperides, a Greek colony founded in the mid sixth century B.C., situated on the outskirts of modern Benghazi, Libya.

This was my fourth Libyan season in twenty odd years. Two long seasons in the early 1970s were spent in Benghazi itself, on the seafront in the shadow of a Turkish lighthouse and within earshot of the melodic incantations of the Muezzin, investigating the remains the Roman and Byzantine predecessor of the present city. A third season in the mid 1980s was spent on the edge of the sand sea mapping, recording and excavating Roman subsistence farming settlements, in that remote and hostile environment where even the sturdy Landrover finds the going hard.

Euesperides was founded by Greek settlers from Cyrene or Barce, perhaps as early as 540 B.C., on the northern bank of a sheltered salt water lagoon known as the Sebka es Selmani. The nucleus of the city lay on a slight eminence now occupied by the redundant and partially cleared Sidi Abeid moslem cemetery. Sometime during the fourth century B.C. the city was extended south westwards across the partially dried up lagoon bed with the addition of a suburb laid out with a regular pattern of streets. The foundation and prosperity of the city was governed by the siting of a port here and early writers made a clear distinction between the city and port of Euesperides. The importance of the harbour to the life of the city is most dramatically revealed by the

total removal of Euesperides to a new site some 3 km. to the south east in 246 B.C. This new city, Berenice, named after a Ptolemaic princess, sited on a promontory between the lagoon and the sea, now lies beneath the old core of Benghazi.

Much of ancient Euesperides has now been submerged beneath tarmac and buildings. Parts of the lower city site can be just discerned in scrub and wasteland and elements of the former salt marsh are still in existence though encroached upon by high and low rise buildings. The cemetery is still a prominent landmark and again redevelopment is an ever present threat. As recently as 1992 unauthorised excavations for a new shopping precinct north of the cemetery



saw the exposure of quantities of building stone, pottery and other artefacts of the Greek period.

Early in 1995 a three week season of work by the Society for Libyan Studies and the Department of Archaeology of Gar Younis University, Benghazi, sought to evaluate these reports and further determine the quality of preservation and refine our understanding of the ancient city, its extent and development. At the same time it was hoped that this work would raise public awareness of the presence of important ancient remains in this part of Benghazi and lay down a marker in an attempt to hold back future development. Five areas received a measure of attention in 1995.

The 1996 season, again sponsored by the Society for Libyan Studies and the Department

of Archaeology of Gar Younis University, and supported by the Department of Libyan Antiquities, saw further excavation in four of the five areas worked on in 1995.

With a team of thirty students from Gar Younis University all sites were worked simultaneously. In an area in the northern part of the cemetery immediately south of an area destroyed by bulldozer in 1992, a sequence of stone and mud brick walls revealed in 1995 proved to form a small multi cell courtyard house, one of the first Greek period domestic buildings to have been excavated in North Africa. At least one and possibly two phases of domestic buildings were found to underlie it, but were not excavated. A large robber trench located to the north of the house in 1995, proved to form

part of the city defences. A defensive wall over 2.5 m. wide was found to rest on rubble stone foundations and was entirely faced in mud brick. The basal elements of the wall were in situ with much collapsed mud brick from the wall face found lying in front of the wall. In addition, a pair of stone foundations located perpendicular to and outside the defensive line proved to form a rectangular wall tower with a well positioned in an internal corner. It is currently thought that the tower may form part of a principal gate. The defensive wall may prove to be a primary feature with the sequence of domestic buildings built to the rear of the protective screen. Pottery from the lowest domestic levels provided a date of the early to mid sixth century B.C.

In the south east corner of the cemetery, a sequence of road deposits was meticulously excavated, recorded and sampled for environmental evidence. Earlier analysis of soil samples identified wheat, barley, vine, fig and pulses, together with animal bones, fish vertebrae and abundant shell fish remains. This season should as a consequence of work at these two areas provide a more detailed picture of the economy and diet of the city. Other excavations provided evidence of a road intersection with wall foundations and floors for a substantial domestic property.

Further extensive earthmoving by a JCB in an area on the northern limits of the city exposed more of the stone quarry, which appears to have in part functioned as an outer defence work for the city. Three additional tombs were exposed and excavated and large quantities of masonry blocks, some almost certainly from a monumental building, were recovered from the quarry fills. A group of pottery kilns were exposed and recorded together with a number of waster pits and a well. The Greek period kilns are some of the first ever located and excavated in North Africa.

The successes of the 1996 season owed much to our Libyan co workers and particularly their supervisors. The English team were marvellous and I was exceptionally impressed with the skills, enthusiasm and ability of all those who participated in the excavation. A third and final season at Euesperides is planned for the spring of 1997.

5 Excavations in Beirut, Lebanon

Peter Clark

The ancient city of Beirut (ancient Biruta, classical Berytus) lies on the northern coast of a triangular peninsula set at the base of the Lebanon mountains. It lies on an important nodal point, not only possessing a natural harbour but also controlling the southern coastal route through the two limestone and marl hills of Ras Bayrut and Asrafiyyeh and the northern coastal route avoiding

the deep ravines of the Bayrut river further inland. To the south of the city is a flat plain of agriculturally rich colluvial soils derived from the eastern mountains, though with extensive areas of sand dunes along the coast.

Beirut was possibly first settled in Neolithic times, around 5,000 B.C. and Bronze Age, Phoenician, Hellenistic, Roman, Arabian, Crusader,

Ottoman and French occupations have left their mark on the city.

In the decades of the Lebanese Republic since 1946, though poverty and tension remained endemic throughout the country, Beirut became renowned as a centre of finance and tourism. The heady mix of eastern and western influences, and the sophistication and beauty of the old city all

contributed to its reputation as one of the most attractive destinations in the world.

But the damage to Beirut of the years of war from 1975 to the early 1990s was substantial, and the very heart of the ancient city was ruined almost beyond repair. Large areas of the historic centre would need to be cleared for redevelopment, and modern building techniques would entail massive destruction of the buried archaeology. It was for this reason that the Lebanese Ministry of Culture and Higher Education and the Directorate General of Antiquities invited an international team of archaeologists to assist its own experts in preserving and recording the buried heritage in advance of redevelopment. Most of the work has been funded by Solidere, the Lebanese Company for the Redevelopment and Reconstruction of Beirut Central District.

A number of staff from the Canterbury Archaeological Trust have helped the international team excavating in the heart of Beirut over the last couple of years. Apart from myself, Mark Houliston, Alison Denton, Andrew Hutcheson, Andy Linklater and Patrick Kent have all at one time or another worked on the excavations in the Old Souks area of the city, heavily damaged during the war and now being developed as part of the ambitious scheme to revitalise this ancient and cosmopolitan centre.

Many archaeological teams are working in advance of the reconstruction and redevelopment of Beirut Central District, an area of some 1.8 million square metres, and we worked for a joint British/Lebanese team formed by the AUB (American University of Beirut) and ACRE (Archaeological Collaboration for Research and Excavation). One of the objects of the work is to train Lebanese students in good archaeological practice.

My first visit to the city was in June 1994, at the very start of the project. At this stage the team was quite small, and we were partially funded by the Leverhulme Trust to develop methods of stratigraphic excavation and to evaluate the survival of archaeology on the site. A very detailed excavation of a small area was undertaken, which showed good survival of Byzantine, Roman and Hellenistic levels. The small team of British archaeologists worked closely with a group of enthusiastic and talented Lebanese students.

This initial, small scale exercise was very successful and a joy to participate in. When I returned in March 1995, the small evaluation and research project had developed into the largest urban rescue excavation I have ever seen.

The site measured some 200 m. by 350 m., an area of 70,000 m.², lying on a low limestone promontory overlooking the ancient harbour of Beirut. The earliest archaeology encountered by the team was Hellenistic in date; it appears that this area was first settled in the second century B.C. An

irregular street grid was established, marking out plots of land in which buildings were constructed, made of ashlar blocks set directly on the limestone bedrock, with no traces of mortar bonding.

The Hellenistic street plan survived throughout the classical period and provided the basis for the Islamic town plan. Although in later years the area appeared to decline, it seems likely that the walls of buildings remained standing and were re used in the medieval period. This is in contrast to the pattern in England, where, as at Canterbury, the Roman street patterns were obscured and largely forgotten by the time urban centres were redeveloped during the Anglo Saxon period.

The development of the town during the Roman period largely followed the pattern of Hellenistic occupation; a fourth major phase of construction has been dated to the Augustan period, characterised by strengthening of the walls and the more widespread use of mortar. Features and floors of the first and second centuries A.D. were recorded within these early Roman buildings, including a number of tile and clay lined ovens (probably bread ovens). Remains dating to the third century were not common, and may have been removed by later truncation. An altar dedicated to the Severan empress Julia Domna was found re used in the foundations of one of the Ottoman buildings. Julia Domna was the wife of the emperor Septimus Severus (A.D. 193–211) and mother of the emperors Caracalla (A.D. 198–217) and Geta (A.D. 209–212). The altar probably post dates A.D. 204 and is some indication that the area was occupied in the early third century.

The fifth major phase of construction is of Byzantine date, and although the Hellenistic street pattern continued to be largely respected, the layout of the buildings changed considerably. Rooms were enlarged, new drains and water pipes installed, and a large number of mosaics laid out. A large portico running along the southern part of the site, presumably flanking the Via Decumanus, one of the major roads of the Classical city, was floored with an extensive mosaic. Indeed, in the section of a pit cutting through this feature, several mosaic floors could be seen, one lying upon the other. The recording and recovery of so many extensive mosaics was one of the many problems the team had to cope with. Several more were found in an extensive building on the eastern side of the site, whilst in the west another set of mosaics included a Greek inscription set into the floor. Elsewhere were several small paved courtyards and at least one large garden surrounded by a peristyle with a central fountain. It was this phase of construction that was perhaps most evocative on site. Whole streets and buildings were revealed by the team, and it was possible to walk along a Byzantine road and cross the threshold into a house, walking from

room to room on mosaic floors nearly 1,500 years old.

Evidence for occupation after an earthquake of A.D. 551 was equivocal. There were no clear destruction horizons, though the number of stone thresholds split in two may be signs of earthquake damage. It is clear that the buildings did not collapse, and there were no assemblages of pottery or household goods smashed in situ, indicating that people were able to retrieve material after the earthquake. Indeed, the presence of post earthquake coinage issues and amphora dumps overlying the latest Byzantine floors suggest that, whilst perhaps not living in these buildings, people continued to occupy the area well into the seventh century A.D.

At present, the evidence suggests that between the seventh and twelfth centuries the site remained an open ruin enclosed by the medieval city defences. Although no sign of the city wall was found, the city ditch ran along the western side of the site, its upper part lined with chamfered ashlar blocks. An important medieval building, the ribat of Ibn 'Iraq al Dimashqi was constructed in 1517. This small domed monument, still revered by the people of Beirut, is to be preserved and incorporated in the new development. Another building excavated by the team was a glass workshop, constructed of re used ashlar blocks. The latest phase of construction on the site was the nineteenth century Ottoman souks, set into thick rubble and soil dumps overlying the earlier buildings. The souks were still standing only a few years ago, but were irrevocably damaged during the civil war.

The excavations in this area finished in October 1995, and the team is now busy with the post excavation analysis of the enormous amount of data recovered from these important excavations. The task is a daunting one; apart from the stratigraphic evidence of a large area of the ancient city, nearly 7,500 coins were recovered, 3–4 million sherds of pottery, plus thousands of other finds, which all need to be catalogued and studied. The understanding of the site will no doubt improve and change as this material is studied, and the brief description presented here is even more tentative than usual for an interim account. As a junior member of the excavation team, I have drawn on the expertise and research of the AUB/ACRE project to prepare this account, particularly Professor Helga Seeden, Tim Williams, Dominic Perring and Kevin Butcher. More authoritative information about the progress of the post excavation research can be found on the World Wide Web at http://www.aub.ac.lb/aub-online/faculties/arts_and_sciences/archaeology/index.html. My thanks go to Professor Seeden for allowing me to join her in Lebanon, and to all the team for their welcome and friendship during my stay.

The Friends

The Friends of the Canterbury Archaeological Trust

Lawrence Lyle

Our numbers vary between 350 and 360, of whom 260 covenant their subscriptions. Thanks to the increase in subscription rates which began to have an effect during the year, our total income has risen from £6,700 to £7,360 of which £1,340 was income tax recovered on covenants.

Peter Leeming has taken over from Robert Shine as Membership Secretary and Jose Rogers has joined the Committee in place of Bridget Russell. Bridget has been a tower of strength in the Friends organising sales and tours at excavations, leading enjoyable day trips and helping tirelessly with publicity and Newsletters. We are most grateful for all she has done for us.

We have been consulted over the plans for the Whitefriars Development and two members of the Committee have attended meetings at which plans have been explained. They were reassured that extensive archaeological investigation will take place before building starts.

The two main grants during the year were for an EDM, an electronic method of surveying which Paul was able to obtain at substantial discount and a scanner which will make the use of colour slides in research and publication much easier. The interest on the Donald Baron Bursary Fund has also been used to subsidise several members of staff on courses and to attend conferences;

a number of books have also been added to the Library.

Peterborough was the base for the short break in April. Neither Laurence Fisher nor Elizabeth Williamson were able to go at the last moment, but their carefully prepared programme was carried out by Meriel Connor and myself. We had an interesting day in Northamptonshire, a walk round Stamford and a visit to Burleigh House and were shown the Cathedral by Canon Higham. The fascinating site at Flag Fen and Audley End were included on our way home.

Visits during the year have included a day in St Albans in June organised by Meriel Connor; her later specialised visit to the Cathedral was so oversubscribed that she kindly took another party a few weeks later – and still more members were waiting! In May Paul showed some of us the excavations in the industrial area at Christ Church College; Tim Allen later surveyed all the work the Trust had done there, standing in for Martin Hicks. I led a visit to the

Museum of London with its magnificent new Palaeolithic galleries and a walk along the line of the Wall in July. The Friends provided the refreshments at the launch of the great Marlowe volume in June, a landmark in the publishing history of the Trust. We also helped to staff the Kent Archaeological Society display at the County show to which the Trust had contributed a section. The usual walks took place during the Canterbury Festival in October and yielded us a small profit.

The Frank Jenkins Memorial Lecture which we share with the Canterbury Archaeology Society and in which Paul reviews the work of the Trust in the previous year, was the usual masterly *tour d'horizon*, lavishly illustrated with slides.

Two enjoyable social events were held during the year under review. In September Peggy Hayes laid on a delicious lunch in her garden and in February we inaugurated the Trust's twentieth anniversary year with a party in the undercroft of the Eastbridge Hospital at which the Lord Mayor cut a birthday cake made by Elizabeth Rothwell-Eyre.

It has been a busy year and my thanks to all the members who enable the Friends to run smoothly and, I hope, successfully, are no mere formality.

FRIENDS

of the
CANTERBURY
ARCHAEOLOGICAL

TRUST

Accounts

The following financial statements represent a summary of the audited accounts of the Canterbury Archaeological Trust Limited for the year ended 31st March 1996. A full set are available at the Registered Office.

Report of the Directors

The Directors have pleasure in presenting their report for the year ended 31st March 1996.

Review of the Activities

The company was incorporated on 2nd August 1979 and acquired all the assets and liabilities of the unincorporated association 'Canterbury Archaeological Trust'. The principal activities of the company remained unchanged from those of the unincorporated association, that is to advance the education of the public in Archaeology and to acquire and promote knowledge of the past of and in Canterbury and the surrounding area.

Results

The results of the Trust for the year ended 31st March 1996 are as follows:-

	1996	1995
	£	£
Main Account	5,658	46,610
Friends Account	6,661	6,508
Donald Baron Bursary Fund	864	495

Directors

The Directors during the year were:-

F.H. Panton
M.H.S. Bridgeford
N.G.H. Taylor (resigned 19th May 1996)
R. Westbrook (appointed 20th May 1996)

Secretary

The Secretary during the year was Lawrence D. Lyle.

Registered Office

92A Broad Street, Canterbury, Kent.

Registered Charity Number

The company is registered under charity number 278861.

Auditors

A resolution to reappoint Chantrey Vellacott as auditors was passed unanimously at the Annual General Meeting.

BY ORDER OF THE BOARD
Lawrence D. Lyle
Secretary

17th February 1997

Report of the Auditors

To the Members of Canterbury Archaeological Trust Limited

We have audited the financial statements set out herein which have been prepared under the historical cost convention and accounting policies.

Respective responsibilities of directors and auditors

The company's directors are responsible for the preparation of financial statements. It is our responsibility to form an independent opinion, based on our audit, on those statements and to report our opinion to you.

Basis of opinion

We concluded our audit in accordance with Auditing Standards issued by the Auditing Practices Board. An Audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgements made by the directors in the preparation of the financial statements, and of whether the accounting policies are appropriate to the company's circumstances, consistently applied and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or other irregularity or error. In forming our opinion we also evaluated the overall adequacy of the presentation of information in the financial statements.

Opinion

In our opinion, the financial statements give a true and fair view of the state of the company's affairs as at 31st March 1996 and of the surplus for the year then ended and have been properly prepared in accordance with the Companies Act 1985.

CHANTREY VELLACOTT
Chartered Accountants
Registered Auditor

7 Dane John
Canterbury
Kent CT1 2QS.
17th February 1997

Main Account

<i>Balance Sheet</i>	31st March 1996	
	1996 £	1995 £
Fixed assets		
Tangible fixed assets	<u>185,125.41</u>	<u>185,125.41</u>
Current Assets		
Bank Account, Float and Debtors	212,453.79	262,059.08
Creditors (Due within one year)	<u>(98,827.67)</u>	<u>(149,219.51)</u>
Net Current Assets	<u>113,626.12</u>	<u>112,839.57</u>
Total Assets less current liabilities	<u>298,751.53</u>	<u>297,964.98</u>
Creditors (Due after one year)	<u>(16,124.86)</u>	<u>(20,996.26)</u>
Trust Capital Account/ Revenue Reserves	<u>£282,626.67</u>	<u>£276,968.72</u>

Statement of Financial Activities for the year ended 31st March 1996

	1996 £	1995 £
Income		
Fees	740,482.01	855,495.46
Grants	36,000.00	34,650.00
Donations	14,956.25	7,418.21
Other	<u>39,832.85</u>	<u>36,544.83</u>
	<u>831,271.11</u>	<u>934,108.50</u>
Operating expenditure		
Direct Project Expenditure	558,320.29	669,089.44
Management and Administration:		
Wages, Salaries and NIC	168,478.19	218,408.62
Overheads	<u>98,814.68</u>	<u>)</u>
	<u>825,613.16</u>	<u>887,498.06</u>
Surplus for the year	<u>£5,657.95</u>	<u>£46,610.44</u>

The Friends Account

<i>Balance Sheet</i>	31st March 1996	
	1996 £	1995 £
Current Assets		
Bank Accounts and Debtors	17,418.20	18,028.32
Creditors (Due within one year)	<u>(3,029.66)</u>	<u>(5,120.53)</u>
Total assets less current liabilities	<u>£14,388.54</u>	<u>£12,907.79</u>
Represented by:		
Income and Expenditure Account		
Balance brought forward	12,907.79	10,987.28
Surplus of Income over Expenditure	<u>6,660.98</u>	<u>6,508.23</u>
	19,568.77	17,495.51
Less payments to Canterbury Archaeological Trust Ltd	<u>5,180.23</u>	<u>4,587.72</u>
	<u>£14,388.54</u>	<u>£12,907.79</u>

Statement of Financial Activities for the year ended 31st March 1996

	1996 £	1995 £
Income		
Subscriptions - Covenanted	3,501.00	3,364.00
Income tax reclaimed	<u>1,403.38</u>	<u>1,121.33</u>
	4,904.38	4,485.33
Subscription - Not covenanted	<u>1,951.50</u>	<u>2,035.00</u>
	6,855.88	6,520.33
Other income:		
Donations, Events, Interest	<u>1,778.92</u>	<u>1,184.39</u>
Total Income	8,634.80	7,704.72
Expenditure		
Stationery, Postage, Printing, Bank Charges,	<u>1,973.82</u>	<u>1,196.49</u>
Surplus of Income over Expenditure	<u>£6,660.98</u>	<u>£6,508.23</u>

Donald Baron Bursary Fund*Income and Expenditure Account for the year ended 31st March 1996*

	1996 £	1995 £
Income		
Deed of Covenant,	500.00	500.00
Income tax reclaimed	166.66	166.66
Interest received	<u>436.95</u>	<u>347.13</u>
	1,103.61	1,013.79
Expenditure		
Courses paid	<u>239.90</u>	<u>518.95</u>
Surplus of income over Expenditure	863.71	494.84
Balance brought forward	<u>7,207.78</u>	<u>6,712.94</u>
	<u>£8,071.49</u>	<u>£7,207.78</u>

Balance sheet

31st March 1996

Represented by:		
The Charities Deposit Fund	8,048.86	6,945.25
Sundry Debtors	262.53	262.53
Sundry Creditors	<u>(239.90)</u>	<u>-</u>
	<u>£8,071.49</u>	<u>£7,207.78</u>

**Education:
Statement of income and expenditure**

(Abstracted from CAT Main income and expenditure account)

	1996 £	1995 £
Income:		
KAS (Education grant)	5,000.00	4,000.00
KCC (Education grant)	3,000.00	3,000.00
Fees (Miscellaneous institutions)	<u>2,672.00</u>	<u>991.07</u>
	10,672.00	7,991.07
Expenditure:		
Wages, materials	<u>14,563.00</u>	<u>9,302.13</u>
(Deficit) for the year	<u>(3,891.00)</u>	<u>(1,311.06)</u>

Members of the Trust Council and Staff

I The Trust Council

Patron:

His Grace the Lord Archbishop of Canterbury
(Dr George Carey)

Vice-Presidents:

Clir Bernard Collins

Mrs Margaret Collins

Mrs Margaret Scott-Knight, B.A.

Chairman:

The Lord Mayor of Canterbury

Vice-Chairman:

Dr Frank Panton, M.B.E., Ph.D., C.Chem., F.R.S.C., .R.Ae.S., F.R.S.A.

Honorary Secretary:

Mr Lawrence Lyle, M.A.

Honorary Treasurer:

Mr Nigel Taylor

Canterbury Museums Officer:

Mr K.G.H. Reedie, M.A., F.S.A. (Scot.), A.M.A.

Mr David Anning, F.C.A.

Dr T.F.C. Blagg, M.A., F.S.A.

Professor B.W. Cunliffe, C.B.E., M.k Ph.D., Litt.D., F.B.A., F.S.A.

Professor S.S. Frere, C.B.E., M.A., Litt.D., F.B.A., F.S.A.

Mr Michael Nightingale, O.B.E., B.Litt., F.S.A.

Mrs Caroline Simpson, B.A.

The Dean of Canterbury (Very Rev. Dr John Simpson, M.A.)

Professor Alfred Smyth, M.A., Ph.D., F.S.A., F.R.G.S.

Mrs Margaret Sparks, M.A.

Professor John Wachter, B.Sc., F.S.A.

Mr Bruce Webster, M.k F.R.Hist.S.

Mr Michael Bridgeford, F.A.S.I.

Management Committee:

Mr Michael Bridgeford, F.A.S.I.

Clir Bernard Collins

Mr Lawrence Lyle, M.A.

Dr Frank Panton, M.B.E., Ph.D., C.Chem., F.R.S.C., .R.Ae.S., F.R.S.A.

Mr K.G.H. Reedie, M.A., F.S.A. (Scot.), A.M.A.

Mr David Rose

Mrs Margaret Sparks, M.A.

Mr Nigel Taylor

Mr Bruce Webster, M.k F.R.Hist.S.

One person appointed from each of the following bodies:

The Dean & Chapter of Canterbury Cathedral:

Mr John Burton, Dip. Arch., R.I.B.A.

Council for British Archaeology:

Mr Tom Hassall, M.k F.S.A., M.i.F.A.

University of Kent at Canterbury:

Mr Andrew Butcher, M.A.

Canterbury Archaeological Society:

Mrs P. Garrard

Kent County Council:

Clir Terry Pears

The British Museum:

Dr Leslie Webster, B.A., F.S.A.

Royal Archaeological Institute:

Mr Geoffrey Beresford, F.S.A.

British Archaeological Association:

Mr Brian Davison, F.S.A.

Kent Archaeological Society:

Mr Arthur Harrison, B.A., F.S.A.

Heritage Projects Limited:

Dr Peter Addyman, M.A., F.S.A., M.I.F.A.

Four members of Canterbury City Council:

Clir M. Jeffries

Clir Mrs Hazel McCabe, M.B.E.

Clir A. Linfoot

Clir W. McLachlan

Non-voting members:

Mr Christopher Gay, L.L.B. (City Chief Executive)

Mr Mansell Jagger, M.A., Dip.T.P., M.R.T.P.I. (Director of Planning)

Mr Peter Kendall, B.A. (Historic Buildings and Monuments
Commission (England))

Honorary Legal Advisors:

Furley Page Fielding & Barton (Mr Nigel Jones)

Auditors:

Chantrey Vellacott (Mr David Anning)

II The Trust Staff

DIRECTOR	Paul Bennett	PROJECT MANAGERS	Tim Allen Alison Hicks Martin Hicks Mark Houliston Keith Parfitt Nick Pearson Simon Pratt Alan Ward
DEPUTY DIRECTOR / POST EXCAVATION MANAGER / COMPUTER SERVICES MANAGER	Peter Clark	ASSISTANT PROJECT MANAGERS	Barry Corke Martin Herdman* Crispin Jarman Grant Shand
SENIOR FIELD OFFICER	Jonathan Rady	PROJECT ASSISTANT / PHOTOGRAPHIC ASSISTANT	Adrian Murphy
ADMINISTRATION / FINANCE	Jayne Shilton	PROJECT ASSISTANTS	Kevin Appleton Angela Batt Brian Blanks* Neil Chaney Alison Denton* Michael Diack Russell Gant Peter Godden Lynne Harris Kerry Harris Alistair Hawkins Philip Hodges* Patrick Kent* Andrew Linklater Ivan Mack* Trevor Marsden* Philip Mayne Paul Molenkamp* Simon Nicholls Philip Rye Martin Smoothy Ian Stewart Joanne Sturgess*
EDITORIAL ASSISTANT	Jane Elder		
SECRETARY	Maureen Oliver		
FINDS CO-ORDINATOR Conservation / Small Finds Finds Assistants	Ian Riddler Pan Garrard Louise Harrison Tania Wilson		
CERAMICS SPECIALISTS	Nigel Macpherson-Grant John Cotter		
Ceramic Analyst / Photographer Ceramics Assistant	Andrew Savage Mark Davey		
EDUCATION OFFICER	Marion Green		
OSTEO-ARCHAEOLOGIST	Trevor Anderson		
BUILDING RECORDING OFFICER	Rupert Austin		
LANDSCAPE HISTORIAN	Richard Cross		
ENVIRONMENTALIST	Enid Allison		
NUMISMATIST	Ian Anderson		
SENIOR ILLUSTRATOR Draughtsmen	Mark Duncan David Dobson* Peter Atkinson		

* indicates no longer in Trust employ

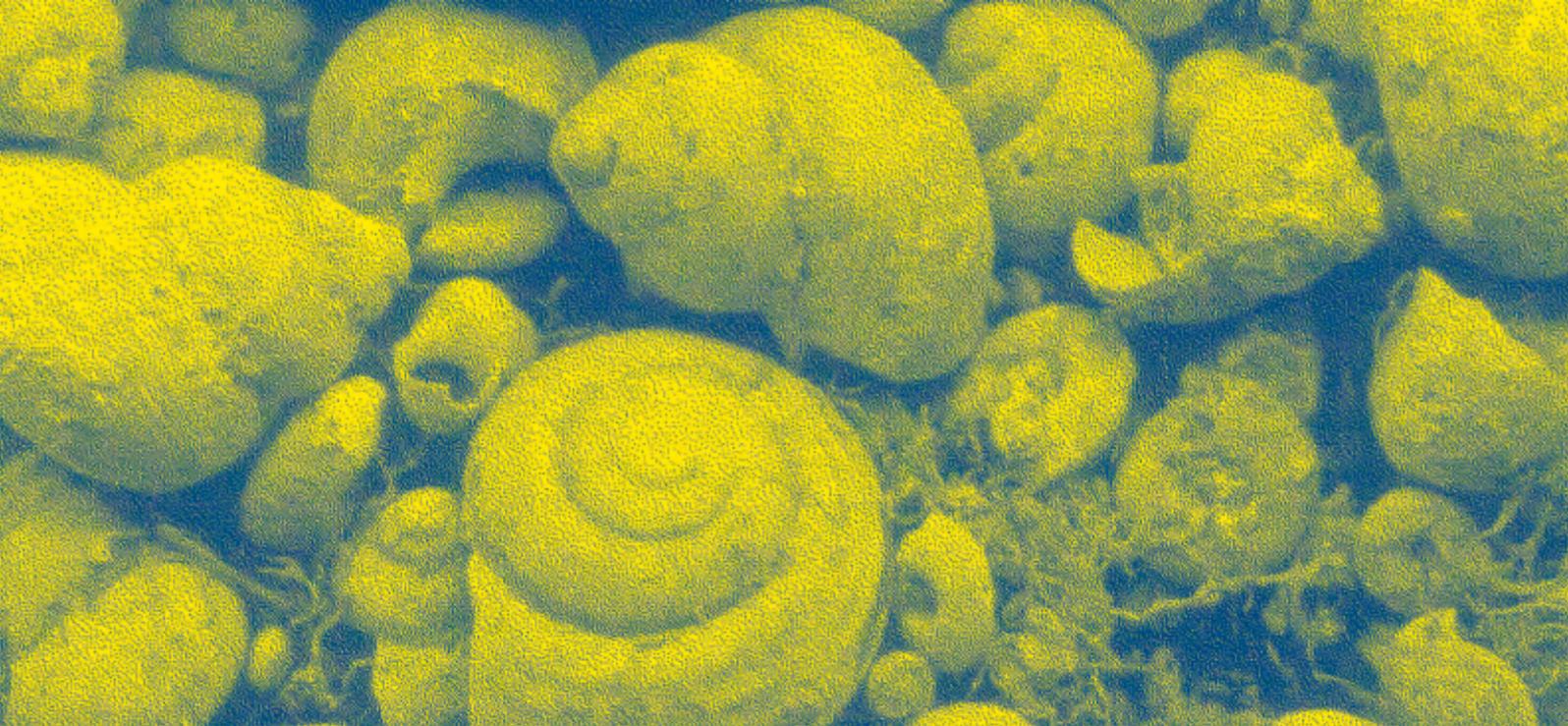
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