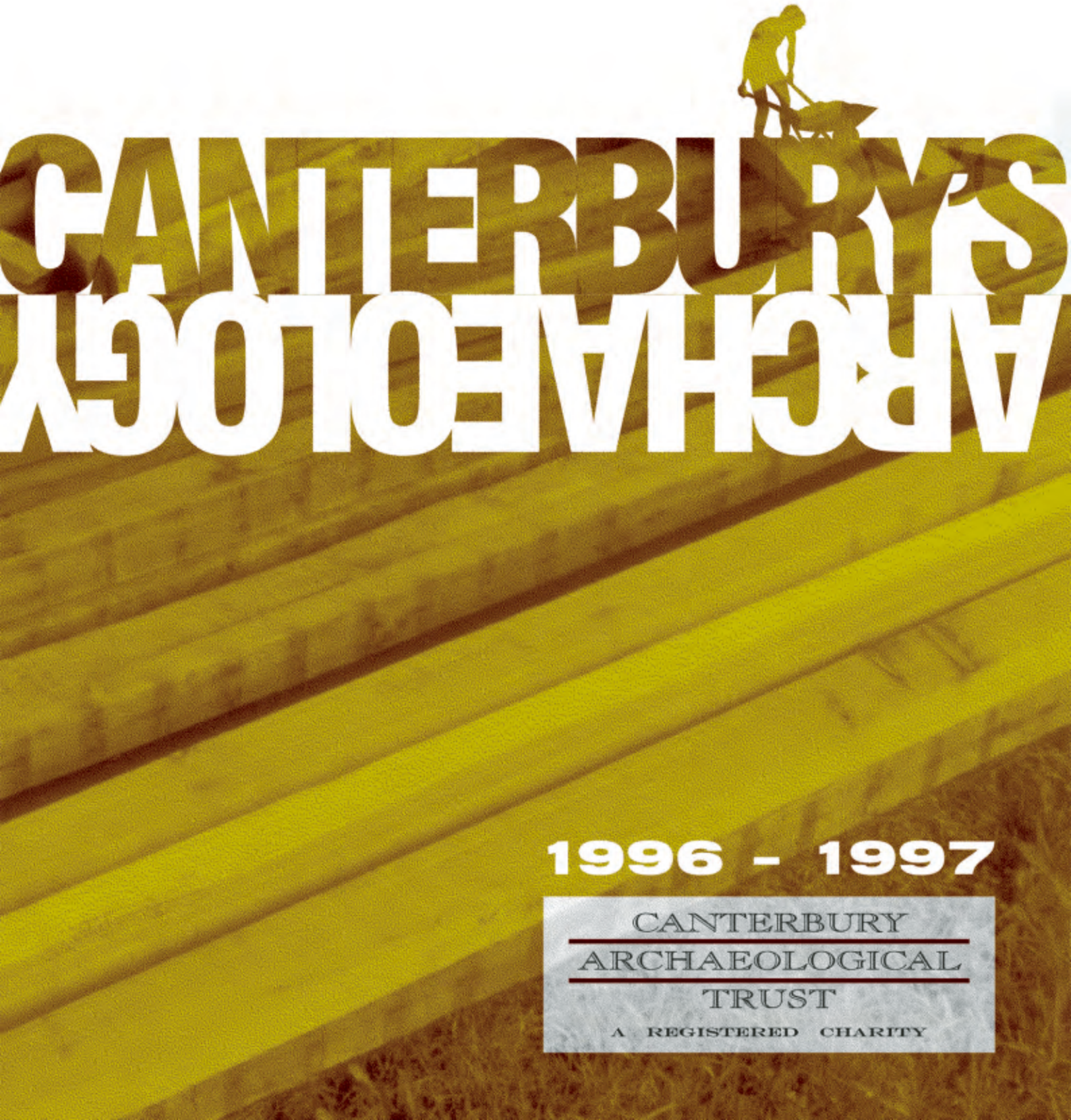

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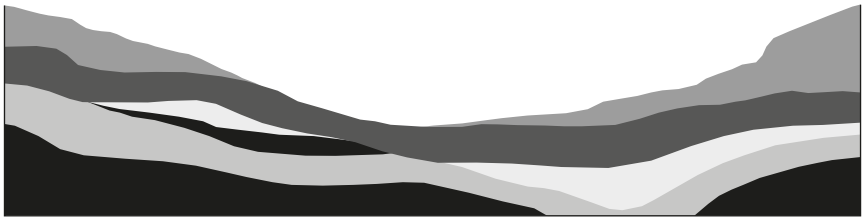

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21st ANNUAL REPORT

1996 PETERBURYS ROTORHEAD

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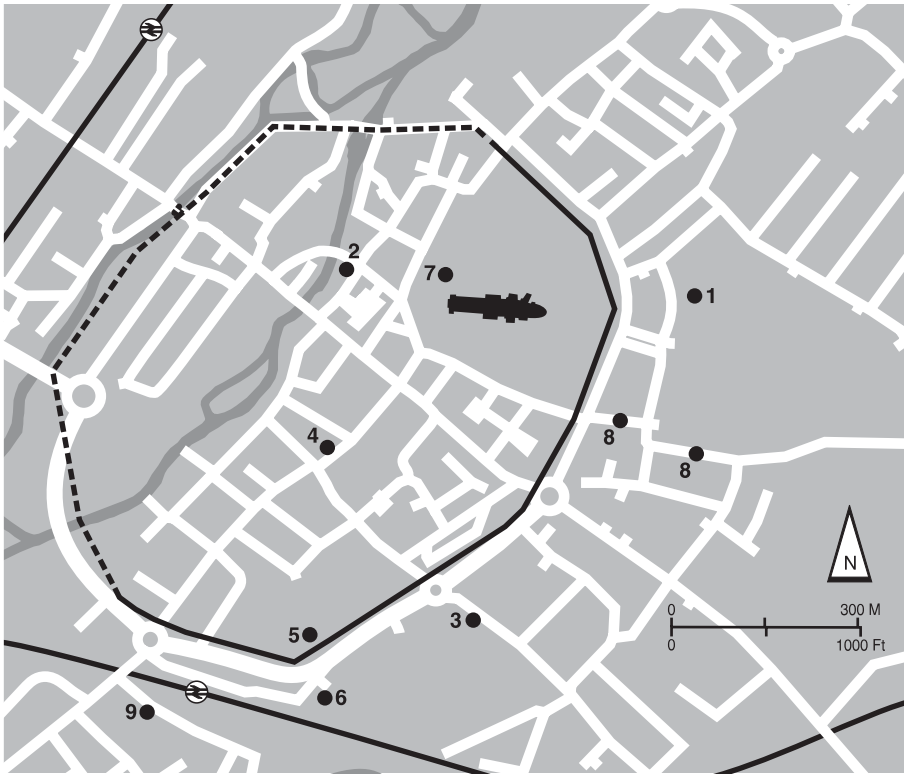
PART ONE

Fieldwork

I Canterbury City Sites



Canterbury city sites:
Excavation and watching brief reports discussed in this report.
1: Christ Church College
2: Best Lane
3: No. 24A Old Dover Road
4: No. 38 St Margaret's Street
5: The Dane John Mound
6: Rhodaus Town
7: The Archbishop's Palace
8: Church Street St Paul's and Longport
9: Nos 7–8 Gordon Road

1 Christ Church College

Mark Houliston

Excavations in the area of the old RFTV building at Christ Church College (TR: 15455785) were undertaken between April and September 1996. The excavation was the largest in a series of excavations, evaluations, and watching briefs undertaken during a period of some thirteen years by Canterbury Archaeological Trust within the grounds of the college campus. As with the earlier work the excavation was entirely funded by Canterbury Christ Church College.

The most significant discovery was a collection of fifty-four waste pits dating from the mid eighth to the mid to late ninth centuries. Generally these pits contained layers dense in iron slag, hammer-scale, fired clay, and carbon, interleaved with deposits rich in finds more typical of domestic occupation, such as animal bone, pottery, pins, buckles, beads, combs, knives, and querns. Evidence of small scale craft production was also retrieved. Dating was provided by the ceramics and a *sceatta* of *c.* A.D. 730–40. The discovery represents the most substantive evidence so far uncovered for the existence of an extra-mural settlement at Canterbury of mid Anglo-Saxon date.

One datable feature was earlier than the pits, a short segment of ditch which contained ceramics dating from A.D. 575 to 725. Its fills were similar to those of the pits and contained iron working debris and animal bone fragments, tentatively

Terraced feature and associated tanks.

placing the origin of the settlement in the late sixth or seventh centuries.

The settlement appears to have been spread across a relatively large area situated to the north of St Augustine's Abbey (to give the monastery its popular, post ninth-century title), and links between the two sites have long been suspected. Monastic institutions had an important role in the mid Anglo-Saxon period in organising trade and encouraging craft and industrial production, as evidenced at sites such as Barking (Webster and Backhouse 1991, 88–94), Brandon (Suffolk; Carr *et al*. 1988), and Jarrow (Cramp 1969), and the settlement at Canterbury may have come under similar monastic control.

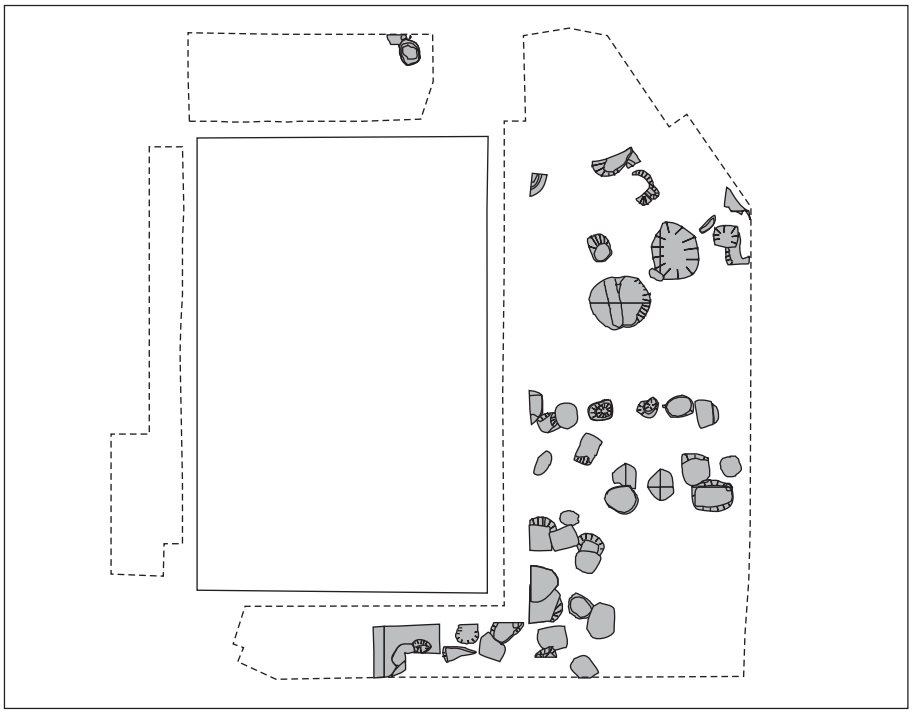
Support for such a link is reinforced by one of the earliest charters attributable to St Augustine's. Although earlier than most of the archaeological evidence, the charter, dated to A.D. 689, details how the abbey was allowed to extract iron ore, possibly from the Weald, by grant of King Oswine of Kent. The charter emphasises the strong links between the Kentish royal house and the abbey, and suggests that royal patronage may also have been involved in the establishment of the settlement.

Although established close to the south-eastern perimeter of the old Romano-British town, an area in which a religious 'central place' was established at the end of the sixth century, and a royal one from possibly even earlier, the finds from the recent excavation indicate that the Canterbury settlement was different in character from the so called 'wick' sites that were established elsewhere in England at around this time, such as that located on the western side of London. With the exception of pottery from Ipswich, the settlement does not appear to have been involved in extensive trade, either with other English Kingdoms or the continent. Furthermore, substantial evidence for ironworking suggests that the primary purpose of the settlement may have been production rather than trade.

The excavation recovered copious amounts of iron slag, evidence for iron smelting, and large quantities of hammer-scale, evidence for smithing. The latter was retrieved by sieving the fills of the waste pits through a fine mesh. Two bars and thirty-two strips of iron were also recovered, further evidence that ferrous metalworking was being undertaken.

No structural evidence such as post pits appears to have survived the later truncation of the area, though the arrangement of the pits strongly suggests that they respected existing structures or boundaries. In particular two groups were clustered around an 'unpitted' rectangular area in the south-east corner of the site.

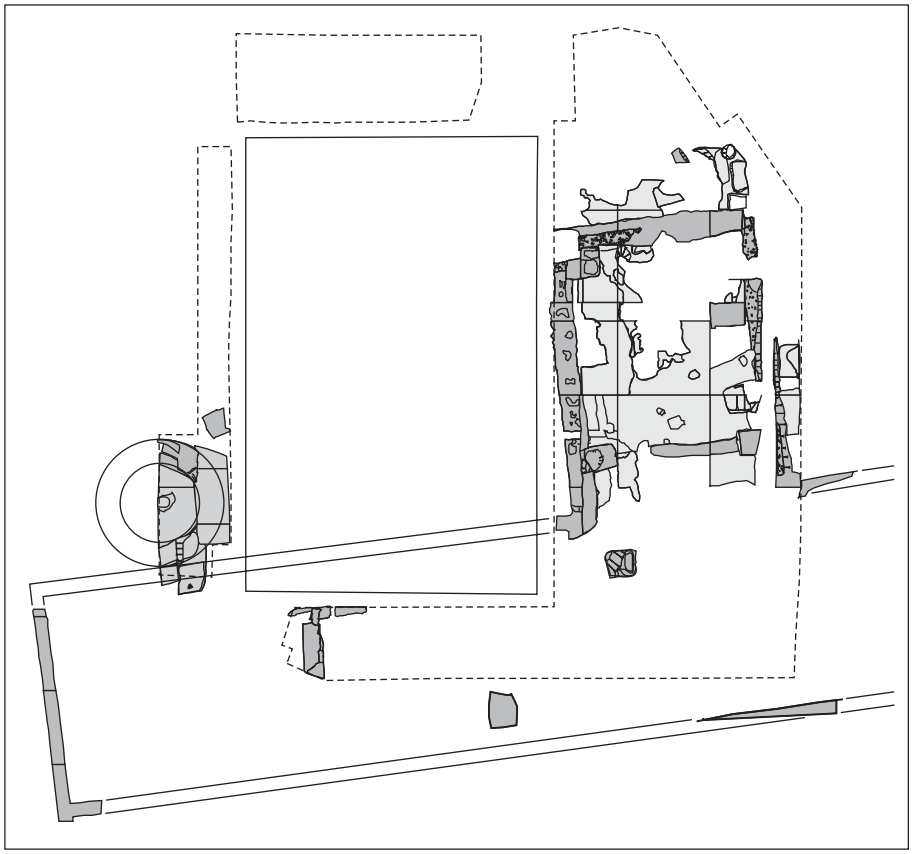
Unlike previous excavations the site produced no evidence of activity contemporary with either late Anglo-Saxon or Norman developments at the abbey. Evidence for the major changes undertaken in the area during the thirteenth century, however, were more abundant. A series of semi-industrial features, roughly aligned on a north–south axis were spaced across the main area of the excavation. They



Mid eighth- to mid ninth-century waste pits.

Ecclesiastical belt buckle.

Excavation of mid Anglo-Saxon pits.



Phase 4 features.

included a small oven, perhaps for malting or drying, a circular foundation constructed of flints and mortar with an associated ditch, and an arrangement of tanks and linking ducts. Three rectangular tanks were revealed, two in the south, and a larger, more irregular, one in the north. They were separated from the circular foundation by an east–west aligned drainage ditch, and joined together by stone-lined ducts. At present the functions of the these three sets of features – oven, foundation, and tanks – are not clear, though their locations indicate that they may have been deliberately constructed in a row to form part of a linked process, perhaps one associated with brewing. A line of possible tanning vats located in the southern excavation trench, and a large 'V'-shaped ditch located in the north, may be from the same period.

Towards the end of the thirteenth century the majority of the industrial features were demolished. A series of levelling deposits was laid over their remains, and through these were cut the foundations of the brewhouse/akehouse range, one of the principal buildings of a newly constructed Outer Court of the abbey. The eastern end of this range was revealed during excavations undertaken in 1994 (Hicks and Bennett 1994), while the opposite end, which was located 77 m. to the west, still stands as a ruin within the college campus. Contiguous with the northern wall of the building was a circular tower, possibly for the storage of water, and further to the east, a north–south aligned spur, two and a half bays long. The latter filled most of the main area of the excavation.

The two, smaller, rectangular tanks associated with the earlier industrial phase survived the construction of the new abbey buildings, though a circular wall, with an internal diameter of 6.5 m., was built on the northern side of the larger tank, presumably to enlarge it. The distinctive terracing observed within this wall appears to have formed during the later robbing of the structure, though the cut probably reflects the shape of part of the original infrastructure of the feature. In the centre of the structure a number of large stone blocks, set in mortar, lined the base of a deeply-cut hole, 2.5 m. deep. Fragments of wood and thin slivers of metal, possibly paint, were recovered from a deposit located immediately above the stones, and are currently awaiting examination.

David Knight sieving some of the 30,000 litres of soil sampled from the site.

During the late fourteenth or fifteenth century, the spur of the brewhouse/bakehouse range was substantially rebuilt. The building was re-roofed and extended to the north. New internal passageways were inserted along the western side of the building and across its centre.

Substantial portions of the brewhouse/bakehouse range, including the circular tower and the northern spur, were dismantled soon after the Dissolution in 1538. At this time large quantities of building rubble and dumps of rubbish from the abbey were thrown into the circular, terraced cut located north of the spur. Finds recovered from these dumps included a number of whole suckling pigs, an important assemblage of stained glass and a magnificent ecclesiastical belt buckle.

An assessment of the results of the excavation is now being undertaken with a view to integrating this work with the assessments of previous unpublished excavations in the area (Hicks 1996). Hopefully this will lead to the full publication of all seventeen sites undertaken by the Trust within the campus area, as a series of thematic articles and monographs.

The author wishes to thank all who worked on the project for their great dedication, enthusiasm, and skill, in particular the countless volunteers who assisted David Knight and Enid Allison in processing the mountain of environmental samples taken during the excavation.

2 Best Lane

Crispin Jarman

Between April and June 1996 the Trust conducted an archaeological investigation at the site occupying the corner of The Friars and Best Lane. The work was conducted prior to redevelopment and was funded by the developer Emerald Green Ltd. The site had been unoccupied since the Second World War, when Nos 1 and 2 Best Lane and the tannery buildings to their rear were demolished after bomb damage. Two trenches were opened up during the excavation. Trench A was located at the west end of the site, adjacent to the River Stour and extending 10 m. along The Friars. Trench B was 3 m. to the west of Trench A extending along the remainder of The Friars and along the Best Lane frontage.

Trench A: Roman deposits

Trench A was excavated by machine to a depth of *c.* 1.0 m. exposing the tops of tanning vats. The opportunity was taken to dig through the bases of three of the vats to investigate the strata preserved below. The three exploratory pits exposed a Roman metalled surface sloping down from east to west towards the present channel of the Stour. In the two pits closest to the river, wooden stakes had been driven into this surface, which was covered by a thick deposit of silt, possibly the post-Roman 'dark earth' observed elsewhere in Canterbury.

Trench B: late medieval and post-medieval buildings

The stratified deposits in Trench B lay between 0.1 and 0.4 m. below the existing surface. They were excavated by hand to a thick layer of organic silt which covered the whole area. Cut into this layer were a number of rubbish pits, none of which was excavated. This silt appears to have accumulated during the early and mid medieval period when the area may have been open, possibly a yard or market garden.

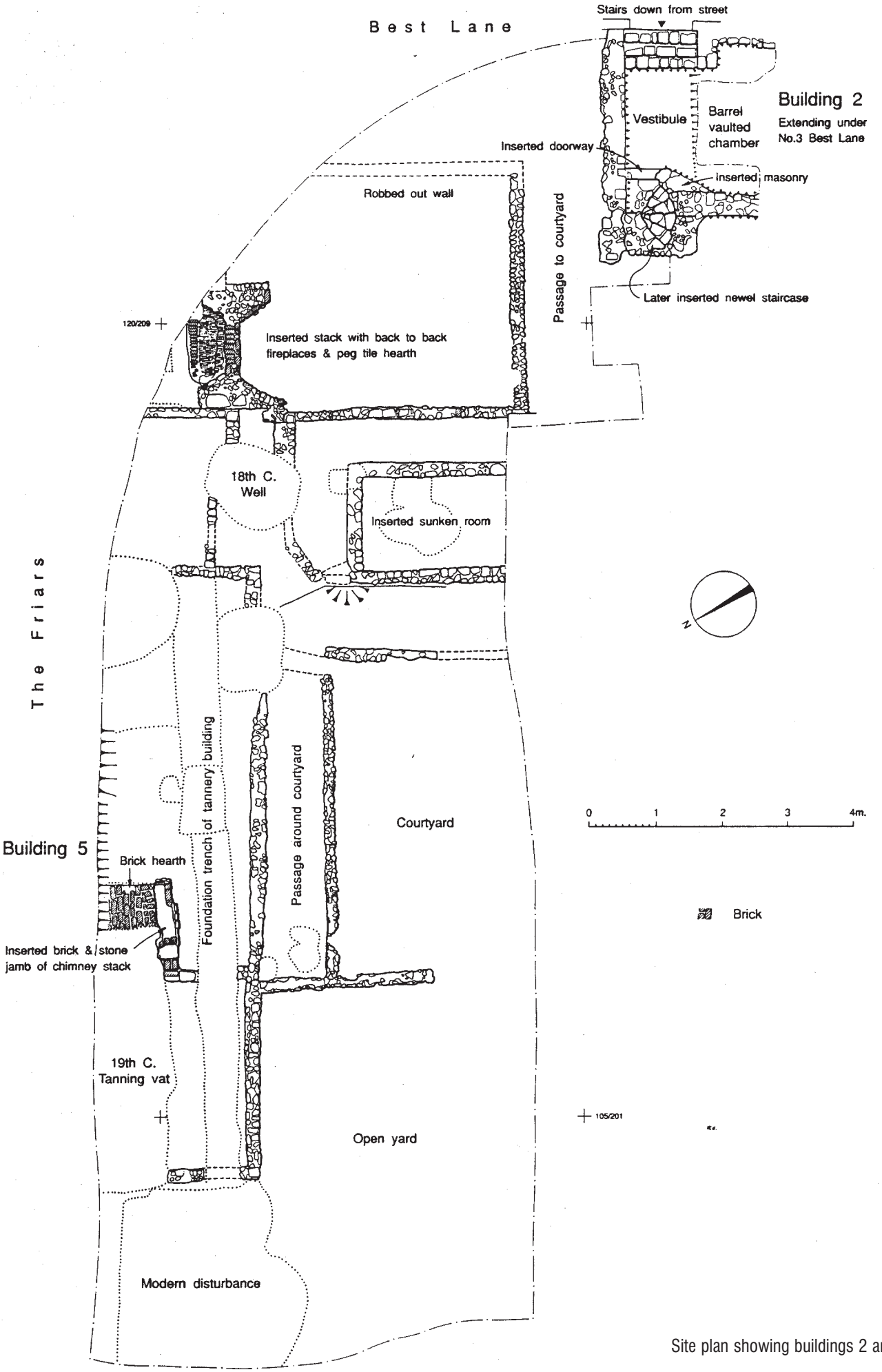
During the late fourteenth or fifteenth century the area began to be developed, and between then and the eighteenth century, a sequence of at least six buildings was constructed. The earliest building (Building 1) appears to have been a rectangular or square structure erected facing onto Best Lane. The footings consisted of crushed stone set in shallow foundation trenches and raised to form ridges, into which were set earth-fast timber posts. The stone ridges were intended to act as dwarf walls, though they do not appear to have worked well, as the scars of masonry walls were observed lying on the ridges and sealing the post-holes. Internal divisions indicated that the north end had been divided into two roughly equally- sized rooms, with a large room to their south separated from the street frontage by a north south aligned passage. Only the very north end of the large room and passage survived. The building was entered by a doorway on its east side, leading from Best Lane into the passage. This was subsequently modified by the addition of a porch.

The south end of Building 1 was removed by the construction of a cellared building (Building 2). The cellar was truncated to ground level and no trace of the superstructure survived. Its walls were built from chalk, flint and ragstone rubble faced with roughly shaped chalk blocks set in uneven courses. Caen stone was used to form door jambs, steps and quoining. The rough chalk walling had been plastered over and scored to give the impression of close set, ashlar stone work. The cellar was divided into two elements, a vestibule to the north and a chamber to the south.

The vestibule extended the full width of the cellar and was entered by a doorway at street level, leading from Best Lane. Four steps, including the threshold, descended to a robbed out flagstone floor. A wall flanked the south side of the steps, screening them from the chamber. Set into the flanking walls on either side of the doorway were iron hooks which would have supported double leaf doors. Another set of steps led from the vestibule into the main chamber.

The chamber extended the full width of the cellar, and survived to a height of 1.36 m., above which were the first two courses of a barrel vault,

General view of site looking north.



Site plan showing buildings 2 and 5

Entrance to cellar showing inverted doorway and newel stairs, viewed from Best Lane.

formed by chalk ashlar blocks. The top of the vault was projected to be about 1.0–1.5 m. above the present ground level. It is clear that the barrel vault only extended over the main chamber, as the base of the doorway into the vestibule was located at the same height as the barrel vault. It is probable that there was at least one chamber over the cellar, but this could not have extended over the vestibule. Stylistically, the cellared building can be dated to the fourteenth or fifteenth century.

A third building (Building 3) was built facing onto The Friars at the west end of the trench, again dated to the fourteenth or fifteenth century. It was rectangular in plan, aligned parallel to The Friars. Only the truncated dwarf walls of the building survived which would have supported a timber-framed structure.

To the rear of Buildings 1, 2 and 3 was a metalled yard. Cut into the north end of the yard was a square stone setting directing surface water into a stone conduit which headed north-east across the east end of Building 3.

Building 3 was replaced by Building 4, which occupied a similar position and partially re-used the walls of its predecessor. It was rectangular in plan, formed by low dwarf walls, which would have supported a timber frame. Within the fabric of the walls were a number of re-used fragments of worked Caen stone, suggesting that the building may have been constructed after the Dissolution of the monasteries in 1538. Inside was a large peg tile hearth, which was modified by the construction of two parallel, stone-floored ovens with a brick superstructure. Later floors respected the edges of the hearth and ovens suggesting that they remained in use throughout much of the life of the building.

By the late sixteenth century Building 4 had been replaced by an L-shaped building (Building 5) occupying The Friars and Best Lane frontages of the site. The building re-used parts of its predecessor's dwarf walls and extended over the demolished remains of Building 1.

Towards the end of the eighteenth century the whole site appears to have been levelled, and a row of three houses was constructed facing Best Lane. The southernmost, No. 3 Best Lane, still survives. In the mid–late nineteenth century a substantial building was constructed to the rear of No. 1 and parallel to The Friars.

These buildings all survived until the Second World War, and can be seen in a pre-war photograph (in the possession of Paul Crampton). The photograph shows the tannery complex built by the Williamson family, who now run the tannery by the Rheims Way. A large structure is shown in the same position as the nineteenth-century structure, with a brick south wall and weather-boarding on its gable end. To its west another building covers the area of Trench A, which may have housed the twenty-one oak-lined tanning vats observed in this trench, though the Ordnance Survey of 1872 suggests that they may have been in the open.

3 No. 24A Old Dover Road

Alison J. Hicks

During April and May 1996 an excavation at 24A Old Dover Road uncovered evidence of Roman, Anglo-Saxon and medieval occupation (Hicks 1997). Previous work within this area of Canterbury had already identified Roman activity. This took the form of burials flanking the line of Roman Watling Street, possible kilns at Vernon Place and St Sepulchre's nunnery, and deep cuttings near to the city wall which may have been clay quarries. The earliest post-Roman activity was represented by the nunnery of St Sepulchre, founded in *c.* A.D. 1100 by Archbishop Anselm. No evidence of Anglo-Saxon or later medieval occupation had been noted.

The excavation provided further evidence of Roman activity within the area. Features, largely comprising of pits, ditches and probable clay quarries, were uncovered, as well as the remains of a platform constructed from chalk rubble set within a dished depression. Post- and stake-holes were visible running around the surviving edge of the platform, suggesting that the feature originally supported wicker sides. With an estimated diameter of 2.50 m., it seems to have functioned as a kind of enclosed area, although what was contained or stored within this area is unknown.

No remains of Watling Street or its associated ditches, nor any Roman burials, were recovered from the site. Instead, the area seems to have been open land, cut by rubbish pits but principally used for clay extraction. It is tempting to think that the clay was extracted to serve the kilns thought to have been identified at Vernon Place and St Sepulchre's nunnery.

The Roman activity appears to have been late in date, the majority of the finds being of the late third to fourth century. Significant quantities of pottery were recovered, both from the Roman features and as residual inclusions within later features, whilst thirteen coins were also retrieved.

Features of Anglo-Saxon date were also uncovered. They mostly comprised rubbish pits, although a single grave, containing an iron knife of seventh-century date, was also excavated. The rubbish pits appear to have principally been used for the disposal of domestic debris and cess, although one contained frequent fragments of daub, charcoal and slag, suggestive of nearby industrial activity. Two pottery sherds recovered appeared to have been stained with madder, a pigment used in textile dyeing, perhaps indicating that such a process was occurring locally. The pottery retrieved was largely dated between *c*. A.D. 775–875, although a few sherds may have been as late as A.D. 950.

Medieval activity was attested by a number of rubbish pits, a clay extraction pit and two shallow,

View of excavation showing Roman chalk rubble platform.

linear trenches that may have been beam slots. The large number of late eleventh-century cooking pots recovered from these features provides convincing evidence of occupation at this date. Smaller quantities of pottery dated between the twelfth and sixteenth centuries were also retrieved. The area, apparently open ground during the medieval period, was probably used sporadically for clay extraction and the disposal of domestic refuse. This activity continued into the post-medieval period, when further pits were cut, those uncovered during the excavation yielding seventeenth- and eighteenth-century pottery.

The excavation at 24A Old Dover Road has provided important information regarding occupation within this little-known area of Canterbury and has suggested that the land, whilst largely rural in character, was far from empty, and has in fact been utilised since the Roman period. The Trust would like to thank Janus Developments Limited for funding the excavation, and for their help and co-operation throughout the course of the project.

4 No. 38 St Margaret's Street

Grant Shand

During November 1996, a small excavation was carried out to the rear of No. 38 St Margaret's Street (Alberrys Wine Bar), commissioned by Reeves and Neylan Chartered Accountants. The excavation took place ahead of the insertion of a fire escape serving the basement of the building. The excavation, entirely conducted by hand, was limited due to the small size of the intended fire escape, 4.2 m. x 1.5 m. x 3.0 m. deep, and was further restricted by the insertion of shoring to enable safe excavation of the lower levels.

Observations and excavations through many years in the past have shown this area to be rich in buried archaeological features and deposits. Perhaps the most significant was the discovery of the Roman theatre (Pilbrow 1871; Frere 1970). The earliest and most significant feature discovered was the remains of a substantial masonry wall. The full dimensions of the wall were not found, but it was observed standing at a height of 1.45 m. with a width in excess of 1.5 m. The wall is currently thought to represent the corner of the stage wall and the inner *cavea* wall of the second period theatre. Although much of the stage area and terminals of the *cavea* walls are inferred from observations made during the earlier excavations, this recent discovery suggests that the stage area may well be situated further to the south than previously thought.

A sequence of metalled surfaces abutting the wall may represent a pathway external to the theatre, leading to entrances through the *cavea* walls and along the radial passages into the auditorium.

Coarse silt deposits were found partially sealing the underlying sequence and these are thought to be derived from a Roman Street aligned north-east to south-west, a short distance from the excavation.

Above the Roman horizon, the remains of a cess-tank wall of medieval date aligned north-east to south-west was located this probably served properties fronting St Margaret's Street. Incorporated within the chalk block fabric of the wall was a single substantial portion of Roman wall with tiles coursed horizontally and bonded with mortar. It is likely that this may have originally come from part of the theatre wall.

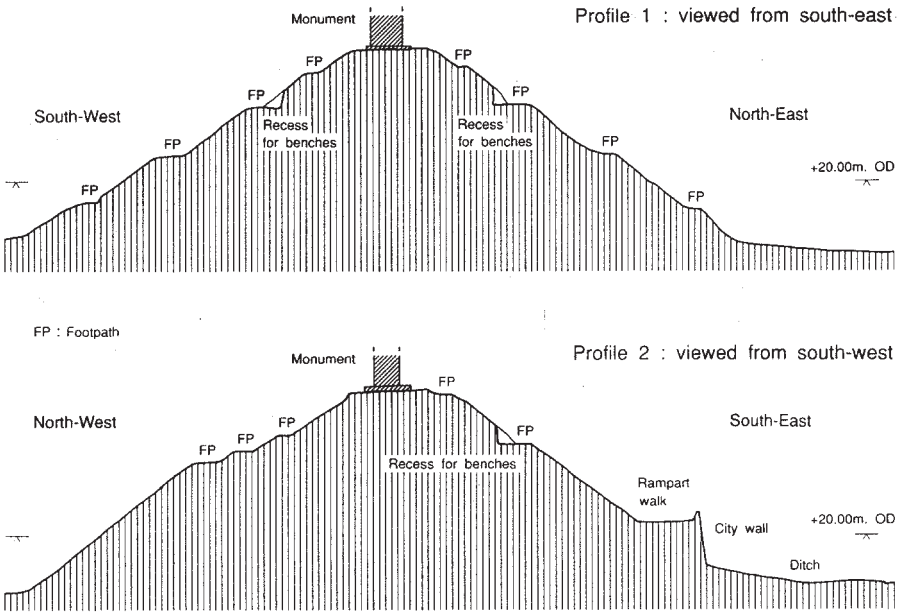
Fragment of theatre wall. Scale 0.5 m.

5 The Dane John mound

Crispin Jarman

During July 1996 a survey of the Dane John mound was undertaken. The work formed part of the preparation of a lottery commission bid to renovate the Dane John Gardens and to restore it, where possible, to Alderman Simmons' design, set out in the 1790s (Panton 1993).

View of the Dane John mound and city wall, looking east.



Profiles through Dane John Mound.

Two profiles of the mound were surveyed using an E.D.M. total station. The survey showed that the mound is circular, its diameter being almost exactly 60 m. The height of the mound is around 16.5 m., excluding the monument. The profiles show that the upper 5 m. of the mound is slightly off centre, probably representing the addition to the mound's height made by Simmons in the late eighteenth century. The height of the original Norman motte was about 12 m., with a platform about 30 m. in diameter at its summit. The mound has changed little since Simmons' landscaping; three recesses cut into the mound (presumably for benches) are still visible, together with a fourth probably created in the late nineteenth or early twentieth century. The original post and chain fence and quickthorn hedges (presumably *Crataegus oxyacantha*) bordering the paths ascending the mound are long gone, of course, but these could easily be replaced. Of more concern were the extensive areas of erosion, which were mapped in order to assist the restoration and future management of the site.

6 Rhodaus Town

Crispin Jarman

In September 1996 the Canterbury Motor Company informed the Trust of the discovery of human skeletal remains at their premises on the south side of Rhodaus Town (TR 514515 157310). The remains were located during the excavation of foundation trenches for the construction of a new wall in the company's body shop. Initially the coroner was called in, but he concluded that the bones were so far decomposed as to suggest an early date and that it was a matter for archaeological investigation. Archaeological inspection revealed two inhumation burials. They are probably of Roman date; dated examples have previously been found in the area.

Cut into natural were the remains of a burial lying prone with its head to the north-east, about 1.3 m. below the existing floor. Only the skull could be recovered. A second burial lay supine, with its head to the south-west, approximately 0.8 m. deep. No material was recovered from this burial as half of it lay within the section; the other half had been machined out and could not be located in the resulting spoil. No grave goods were found with either burial and so dating of the remains to the Roman period is conjectural.

No other burials were found as the ground beneath the existing building had been heavily disturbed by recent pitting and by the construction of air raid shelters during the Second World War.

7 The Archbishop's Palace

Simon Pratt

A series of small tasks was conducted in the grounds of the Archbishop's Palace at Canterbury, funded by the Church Commissioners. In August 1995, a watching brief during lowering of the ground level outside the western wall of the south wing of the current palace revealed the threshold of a blocked doorway, presumably medieval, in the second bay from the southern end of the building. In December 1996, a watching brief during landscaping of the sunken garden of the modern palace exposed further details of the east and west walls of the Lanfranc undercroft. In the same month, Trust staff also cleared out nearly a metre of garden detritus from a modern channel running along the western face of the east wall of Lanfranc's Palace and recorded the elevation thus exposed. A blocked opening, over 3 m. in width, was detected at this level in the Norman fabric near the northern end of the wall.

8 Church Street St Paul's and Longport

Simon Pratt

In October 1996, the Trust conducted a watching brief on behalf of and funded by Babtie and Southern Water Services on exploratory roadworks in the Longport area of Canterbury (TR 154 577). The purpose of the work was to establish the depth and positions of existing services and the depth, nature and quality of surviving archaeological deposits in order to determine the feasibility of installing a new foul sewer. Two slot trenches (numbered 3 & 4) were cut manually by the subcontractors across Church Street St Paul's and a further pair (Trenches 1 & 2) across Longport itself. Each slot was approximately 1 metre wide and 1.5 metres deep. The drilling of boreholes in Trench 3 & 4 was also monitored. Complex, high quality archaeology was encountered in all four trenches to the full excavated depths and clearly continued farther down, particularly along the central and northern parts of Longport.

Church Street

The Roman road to Richborough left Canterbury via what was to become the Burgate. It is the only principal Roman road out of the city whose precise line, both within and without the third-century city wall, is still open to conjecture, though it must have run roughly along the line of Church Street. There is some evidence to suggest that a Roman suburb, or at least ribbon development, may have existed in the area bounded roughly by Church Street and Longport, the city wall, Lower Chantry Lane and, perhaps, Dover Street.

During the recent watching brief, evidence of a Roman road bounded to the south by a building or by a portico fronting a building, was revealed in Trench 4. The position of its edge would be consistent with the road having run directly from Burgate to north of Cemetery Gate. However, the earliest deposit in Trench 3, at its southern end, was a flint metalling, showing a distinct camber to the south. This lay some way south of such a line and was probably a courtyard or another (earlier?) road alignment.

A series of 'dark earth' deposits developed over these early metallings and building in the post-Roman period. In Trench 4, perhaps in the middle Saxon period, further street metallings were laid down, probably bounded

to the south by a small ditch, later replaced by a post-built fence. Another metalled surface dipped gently south from the fence line to a flat-bottomed, vertical-sided cut, perhaps part of a sunken-floored Anglo-Saxon building or of a large timber-lined drain. A number of medieval and post-medieval road surfaces and drains completed the archaeological sequence.

Longport

The southern limit of St Augustine's Abbey originally ran along the Richborough road and it has been suggested that Anglo-Saxon walling by Cemetery Gate formed part of the perimeter (Cotton 1915, 291–2). The precincts were later enlarged and a new road, the Longport, created around the extension. The old road continued in use however, appearing in medieval documents as the *via media*. The date of the expansion of the precincts is uncertain. Twin cemeteries, perhaps separated by the *via media*, were consecrated in 1185, which has been advanced as a possible occasion for the enlargement (Sherlock & Woods 1988, 4). However, part of a substantial earthen embankment along the southern boundary was excavated in 1972 and contained several (possibly residual) sherds of pottery suggesting a date of *c.* 1100 (Blackmore 1988a, 36; Blackmore 1988b, 275; Sherlock 1988, 38). A still earlier date of *c.* 1045 was proposed by the late Frank Jenkins for the campanile mound in the south-eastern corner of the expanded precincts, south of the *via media* (CanCM Archives, SA72/8).

The ditch, which would have run alongside the embankment, would also have served as a common sewer and refuse dump for the open market that developed in Longport and for the dwellings built along it. The distance from the northern side of the embankment to the southern side of the ditch cannot have been less than about 21 m. and may have exceeded 25 m. By the end of the thirteenth century the place name *Bordiche* ('Borough ditch') was apparently used of a barrier, later known as the 'Longport Bar' (Urry 1967, 196n).

The earliest deposit in Trench 1 & Trench 2 was a thick band of gravel, probably representing an early medieval street, presumably running along the side of the Longport ditch. A wall footing of mortared chalk rubble was later cut from the surface of this metalling in Trench 1, probably representing the north-eastern corner of a timber-framed building. Deposits of garden soil overlay the early metallings in Trench 2.

The ditch itself was filled with thick deposits of clay silt. The fore part of a sole from a *poulaine* form of turnshoe, datable to the late fourteenth to mid fifteenth century, was recovered from these silts in Trench 1. Nine other pieces of similarly dated leather were found in Trench 2. The structure at the southern end of Trench 1 was demolished and a new metalling laid, partially overlapping the top of the razed wall. Further metallings were laid over the largely silted up Longport ditch, probably in the late fourteenth to fifteenth century. Subsequent late medieval and post-medieval metallings and drains completed the archaeological sequence.

9 Nos 7–8 Gordon Road

Jonathan Rady

Between 11th–14th of March 1997, an archaeological evaluation at Nos 7–8 Gordon Road was undertaken prior to the construction of new residential properties. The evaluation was commissioned and funded by the developer Moreland Jones Developments Limited. The site, previously occupied by a recently demolished garage and other workshops built on a bomb site shortly after the Second World War, lies on the south frontage of Gordon Road, on the southern side of the city about 150 m. outside of the walls and c. 50 m. east of Wincheap (TR 1452 5725).

The work was primarily undertaken to determine the presence or absence of Roman burials within the development area. Extensive Roman burials on the south side of the city have been revealed by previous work in the nineteenth and present centuries. The site also lies on or near the projected course of Roman Stone Street that emerged from the Roman town at Worthgate just to the north, and extended southwards to Portus Lemanis (Lympne) on the south Kent coast. No burials were found, but evidence of Roman street metallings was uncovered.

A single trench was machine excavated across the site, from the road frontage to the rear, i.e. from north to south, using a 1.7 m. wide ditching bucket or blade. It was found that the front or northern 10 m. of the site had been badly disturbed by the construction of the post war buildings.

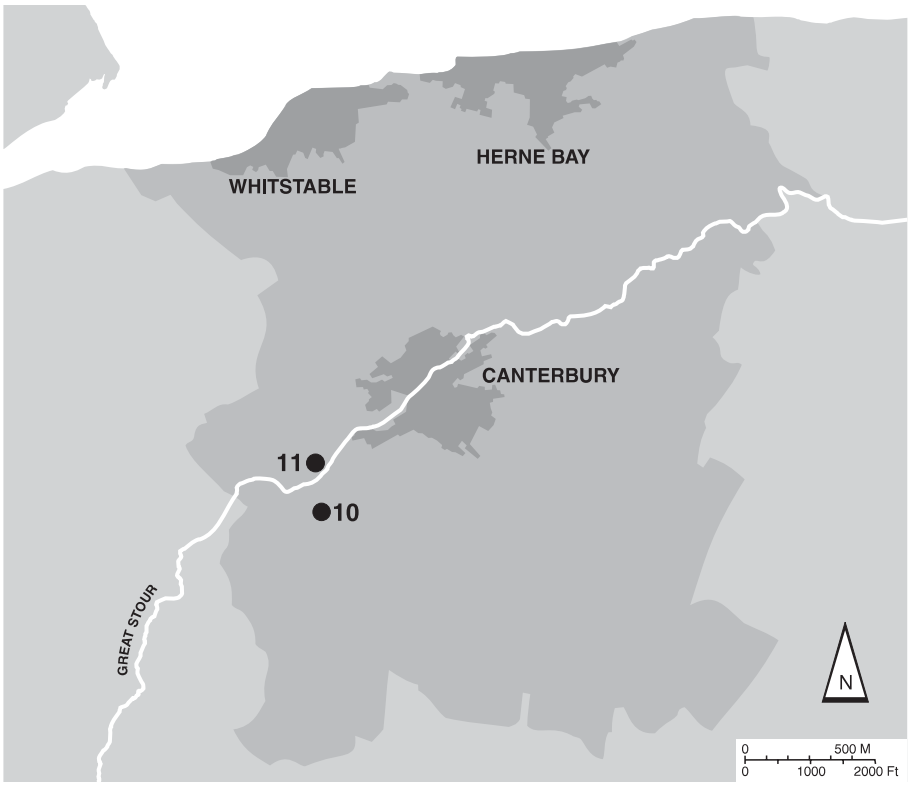
To the rear of the development, apart from the foundation trenches, building levels had been laid directly over the pre-war topsoils. Although therefore, the sequence here was generally undisturbed, the soil profiles suggested that some truncation of earlier deposits had also taken place, possibly by ploughing during the nineteenth century and before, when this part of the city was open land.

The earliest surviving deposit was a pre- or early Roman topsoil, a deposit known and excavated in many other parts of the city. Also found was the western side of a Roman street metalling, with the camber sloping down from east to west. This probably represents part of Roman Stone Street, whose exact alignment and position had not been known previously. It seems likely that the whole excavation area was originally sealed by this street during the Roman period, which may explain the absence of Roman burials.

After this road fell out of use, the area appears to have been given over to agriculture; a deposit of plough soil covered the site, containing finds from the Roman period through to the fourteenth century, though it almost certainly was reworked after this time.

The lower part of this layer was cut by a north–south aligned ditch, which almost certainly delineates the rear boundary of the medieval properties fronting Wincheap, which were in existence from at least *c.* 1200. Contemporary cathedral rentals, studied by Dr William Urry, show that this boundary was 300 feet (91.44 m.) from Wincheap, though possibly less north of Tudor Road, where the situation is not so clear (Urry 1967, Map 2(b) Large Scale. Sheet 10). There is even evidence that the boundary was defined by a ditch, remarkably, still visible in at least one place to the south as late as this century (Urry 1967, Map 2(b) Large Scale. Sheet 11). The boundary, obviously of some importance, probably still survives in part today. In the area of the site, the 1st Edition Ordnance Survey map of 1873, shows the rear boundary of the adjacent Wincheap property to be 68 m. from the road frontage, where it is defined by a brick wall.

II Canterbury District Sites



Canterbury district sites:
Excavation and watching brief reports discussed in this report.
10: St Augustine's Hospital, Chartham
11: Chartham Hatch

10 St Augustine's Hospital, Chartham

Jonathan Rady

Between 16th–26th of September 1996, an archaeological evaluation by means of machine-cut trenching, was carried out in the grounds of the former St Augustine's Hospital, Chartham, Kent (TR 111 542), to a specification supplied by Lawson Price Environmental. The evaluation was implemented on behalf of Wilcon Homes, who also funded the works, prior to their redevelopment of the entire disused hospital complex for housing. This phase of works was situated in a ploughed field, nearly five hectares in extent, at the extreme western end of the hospital grounds. The field overlies an Upper Chalk subsoil, and is situated on a north facing slope of the Chartham Downs, between c. 64 and 87 m. O.D.

In all, thirty-two trenches, totalling just over 710 m. in length and all 1.7 m. wide, were cut down through topsoil by machine. The only feature of any significance located was a large quarry pit of Roman date, situated in the south-eastern quadrant of the field.

The area was subsequently stripped of topsoil to reveal the full extent of the quarry, measuring about 20 m. x 17 m. The size of the feature precluded total excavation by hand, and therefore the upper levels of the quarry, which were mostly undifferentiated and artefactually relatively sterile, were excavated by machine down to the basal levels which were of more interest.

Although the quarry was the only significant archaeological feature identified, an aerial photograph, supplied by a local resident, did show a number of other features that were not located in the ground, as well as the quarry itself. These features were not crop marks, but differential soil discoloration, probably caused by deep ploughing disturbing the underlying subsoil, in this instance post-Roman hillwash layers, and mixing them with the topsoil. The soil marks, appear to generally represent linear features of which three are likely to have been archaeological features. First, a wide linear band about 150 m. long and extending approximately east–west across the north-eastern quadrant of the area, aligns closely with the course of the Mystole Road to the south, and possibly with linear crop-marks to the north. This possibly represents the remains of a Roman hollow way. Two other linear marks align with the postulated quarry entrance; in fact one leads right up to it. These may also be Roman hollow ways, serving the quarry itself.

The original shape of the quarry cut (F43) could not be accurately determined due to later quarrying activity. However, it is likely to have been about 18 m. long and 15 m. wide, probably subrectangular in plan, narrowing towards the north where there was probably an entrance ramp leading down into the main working area. Elsewhere, the vertical edges of the quarry cut into the natural chalk by just over 3 m.

The quarry was probably mainly used for the extraction of chalk. In this area during the Roman period, chalk would have been needed for the production of quicklime, used in the manufacture of mortar and concrete.

The original quarry was probably the result of a number of protracted cutting operations carried out over perhaps a few years or even decades. Although more than one individual cut was obvious during excavation, these could not be chronologically separated, since all were contiguous and filled by similar layers, probably by-products of the quarrying process or material naturally eroding into it.

Following this initial phase of digging and the accumulation of detritus in the quarry base, another phase of quarrying occurred,

cutting into the primary infills (Cuts F30, F36 and F46). The lack of finds from the fills of these cuts makes it difficult to date them, though they must have been made prior to the early second century A.D. This second phase of quarrying may have taken place some time after the initial phase; F36 cut through a metre of primary infill. Both F30 and F46 appeared to cut into the postulated entrance ramp, which would have severely restricted access. The size of these secondary cuts suggests that the scale of the quarrying was considerably reduced.

In the late first or early second century, following the backfilling of secondary quarry F30 with waste flint, a single cremation burial (F10), was inserted into its upper fills. This was a standard form for the period (Philpott 1991, 35), consisting of a burial urn containing fragments of burnt bone, probably the remains of a female, accompanied by a flagon and a bowl. The reasons for the positioning of this single burial at the base of the quarry are not known but may be due to the status of the deceased (Philpott 1991, 232).

The quarry seems then to be abandoned for a long while; the quarry pits appear to have been left open and eventually backfilled with natural accumulations of material eroded from the quarry edges. Eventually the whole feature was partially filled with hillwash, from which a second-century coin of Hadrian was recovered.

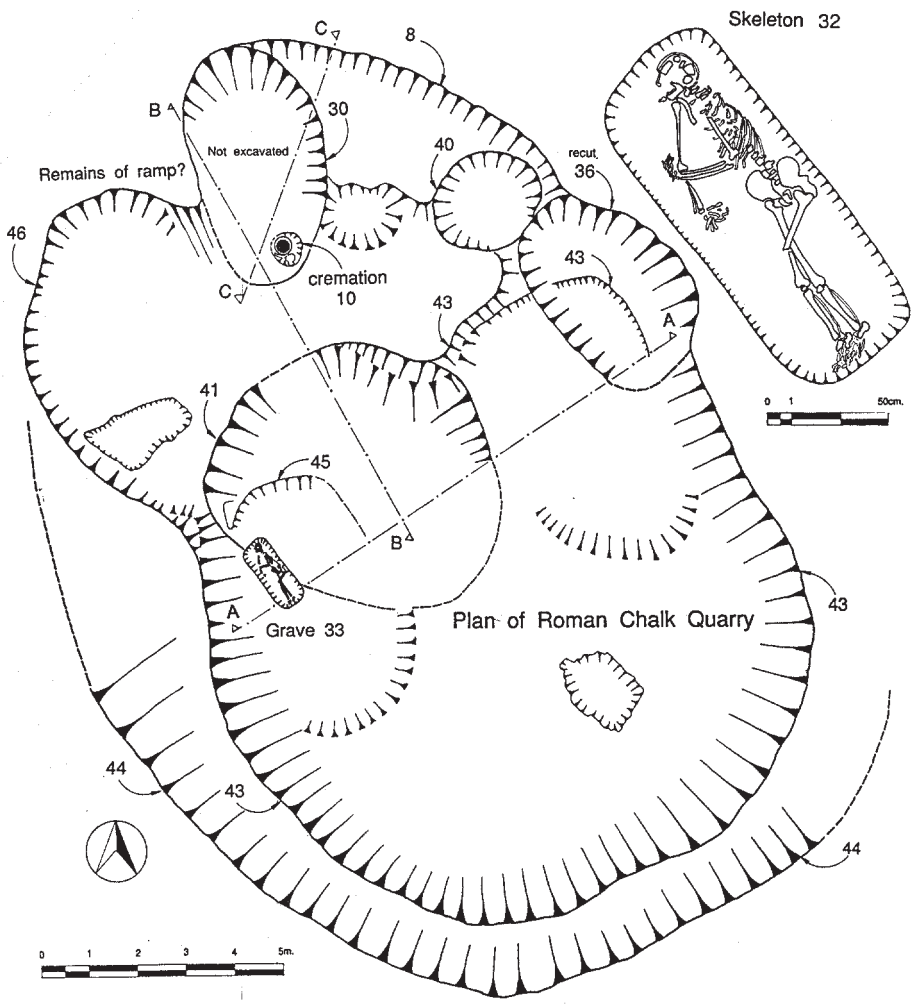
This deposit was cut by an oval flat-based pit (F41), about 6 m. across, which cut down through the accumulated infill of the quarry to the natural bedrock. On the northern side, the profile was stepped into the higher chalk of the earlier ramp area, suggesting that this feature was an even later attempt at extracting chalk, probably dating to some time towards the end of the second century A.D.

A considerable period seems to have elapsed before there was further activity within the quarry. During this time, cut F41 and the southern and south-eastern side of the quarry were partially infilled with a naturally derived slurry of redeposited clay-with-flints and chalk rubble which had entered the feature from upslope.

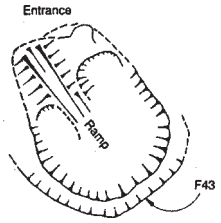
These deposits were sealed by a layer of flints, that sloped down from the entrance end of the quarry, and which covered most of the quarry area. This layer could not have accumulated naturally, but was laid specifically to form a hard and compact surface. This may suggest a late use of the quarry, presumably exploiting any remaining chalk exposures. A patch of charcoal and fire-fractured flint lying on this flint surface may represent a small bonfire.

At some time between the late third and the middle of the fourth centuries, the soil profiles within the backfilled quarry had stabilised, allowing the formation of a humic topsoil. Although the level almost certainly formed as a result of natural processes such as plant growth and animal activity, it was closely related to an episode of rubbish dumping. Towards the northern end of the quarry, this topsoil became

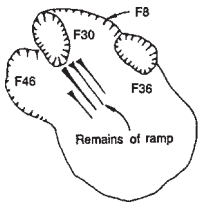
Plan of Roman chalk quarry showing phasing.



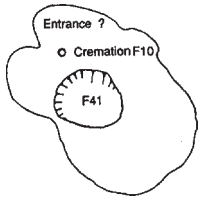
Phase 1: Original quarry.



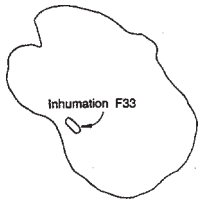
Phase 2: Secondary quarrying.



Phase 3: Tertiary quarrying and cremation burial.



Phases 4 & 5: Backfill, topsoil formation? and inhumation burial.



View of quarry looking east.

increasingly mixed with domestic waste, charcoal and ash.

The level as a whole contained large quantities of pottery, coins, metalwork, quernstones, Roman tile, animal bones and other material, which can be dated to the middle of the fourth century. The building debris presumably derives from a nearby building, perhaps a villa or farmstead. The nature of the tile assemblage, which appears to derive from structural alterations, suggests that the demolition or removal of a heating system had occurred, with the more complete tiles having been re-used. The smaller pieces, which were mostly flue tiles, were discarded and ended up in the quarry with the other domestic material.

The latest archaeological feature was a single inhumation burial, on the south-eastern side of the quarry. Although there were no associated finds, it is almost certain that the burial was late Roman in date. The skeleton, of a young adult male, showed no evidence for cause of death, but a single inhumation, outside a cemetery, coupled with the apparently casual disposition, suggesting a hurried burial, may well be indicative of foul play.

At some time, probably after the Roman period, the remaining depression of the quarry was filled with a virtually uniform deposit of hillwash, up to 1.75 m. thick in places. This deposit, naturally derived from the local subsoils produced very few finds, and may have been produced as a result of erosion from the higher slopes of the Downs due to agricultural denudation of the local landscape in the late Roman or early post-Roman period (Bell 1982).

11 Chartham Hatch

Tim Allen

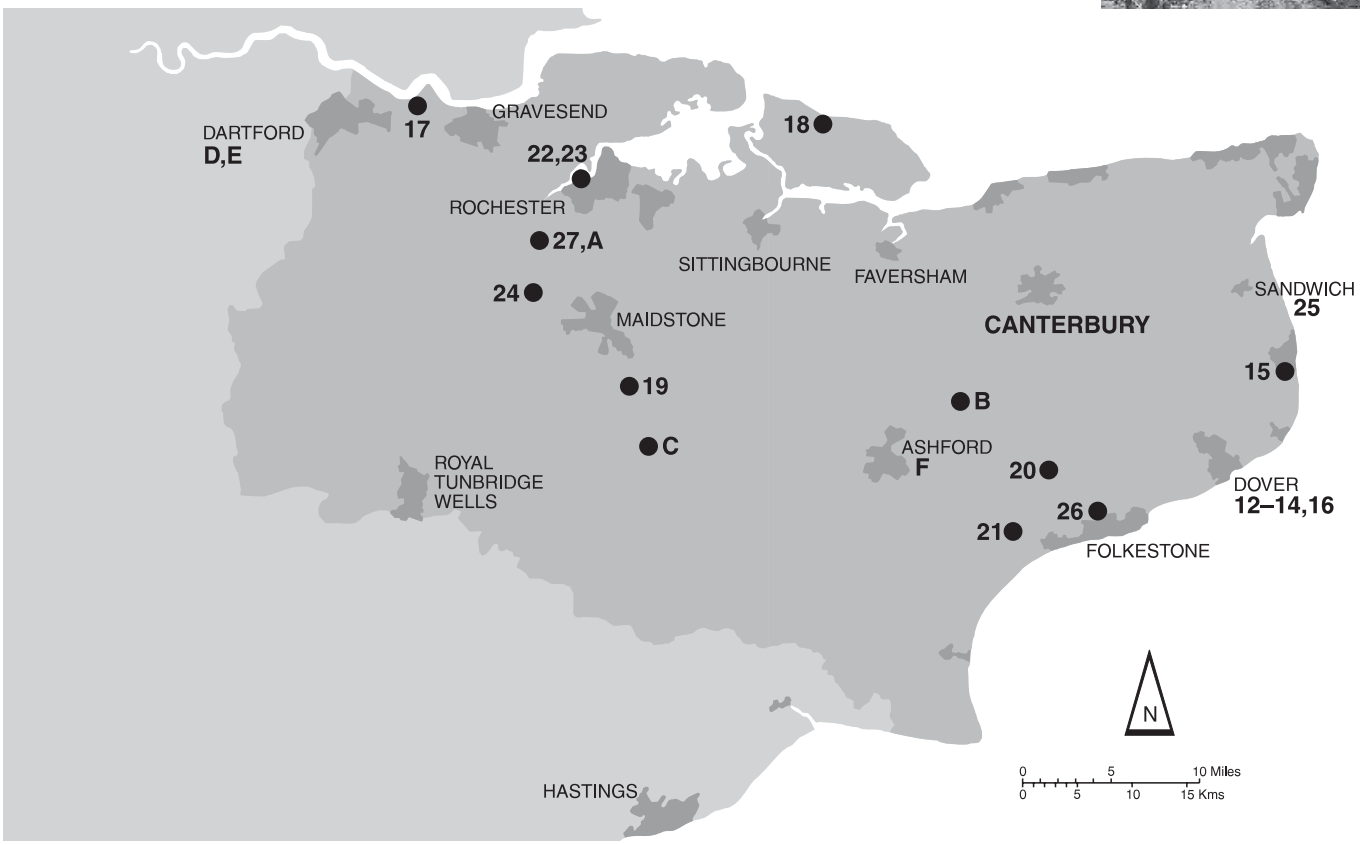
Three archaeological test trenches were machine-excavated in December 1996 in advance of development by Cattell Skinner Design Partnership on behalf of Motorway Sports Cars. The site lies 3.5 km. south-west of Canterbury within the Great Stour flood valley immediately south-west of the intersection of the A28 (Ashford Road) and Howfield Lane in Chartham Hatch (TR 1170 5595). The trenches revealed a 50 mm. thick organic deposit overlying natural clay, interpreted as a *palaeosol*. A fragment of a flint blade was recovered from this layer, apparently *in situ*, which could be roughly dated to the Neolithic or Early Bronze Age.

Cutting this *palaeosol* was a sub-rectangular pit about 0.6 m. deep with steep sides showing evidence of scorching. The primary fills of this feature were rich in carbon and fire-cracked flints, and it seems clear that the pit was used as a fire pit or hearth. The scorched and fire-cracked flints were probably 'pot boilers', known to have been used extensively in the Neolithic and Bronze Age as a means of heating water for cooking within vessels which could not withstand direct exposure to fire. Stones (commonly flints in Kent) were heated in the fire before being placed in the water within the vessel in order to bring it to the boil. Radiocarbon and thermoluminescent dating suggested the pit was used in the latter part of the third millennium B.C.

The pit was sealed by a 0.25 m. thick dark brown deposit which also contained large quantities of fire-cracked flints and a couple of struck flint flakes. A small fragment of flint-tempered pottery and another struck flake derived from the overlying subsoil were dated to the Neolithic or Early Bronze Age.

The evidence suggests that the site was fairly intensively used by people living in the Stour valley over 4,000 years ago; the large numbers of 'pot boilers' recovered indicate that the site was probably associated with cooking. The remarkable discovery of an intact *palaeosol* and an associated hearth of such an early date reminds us once again of the rich archaeological potential of the Stour valley.

III Kent Sites



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

12: Townwall Street, Dover
13: Dover Water Pipe (Stage 2)
14: Archcliffe Fort, Dover
15: Dover Road, Walmer
16: Cambridge Road Warehouses, Dover Harbour
17: Thameside and Sweyne Schools, Swanscombe
18: St George's School, Minster in Sheppey
19: Marshall's Cottage, Chart Sutton, Maidstone
20: Park House Farm, Lyminge
21: 'Sandtun', Dykeside Farm, West Hythe
22: Rochester Castle
23: Rochester City Wall
24: Bradbourne House, East Malling
25: The King's Arms, Sandwich
26: St Martin's Church, Cheriton
27: St Mary's Church, Burham
A: Petts Farm, Burham
B: Spring Grove Farmhouse, Wye
C: All Saints Church, Staplehurst
D: The Royal Oak, Spital Street, Dartford
E: The County Courthouse, Spital Street, Dartford
F: Knott's Cottages, Knott's Square, Ashford

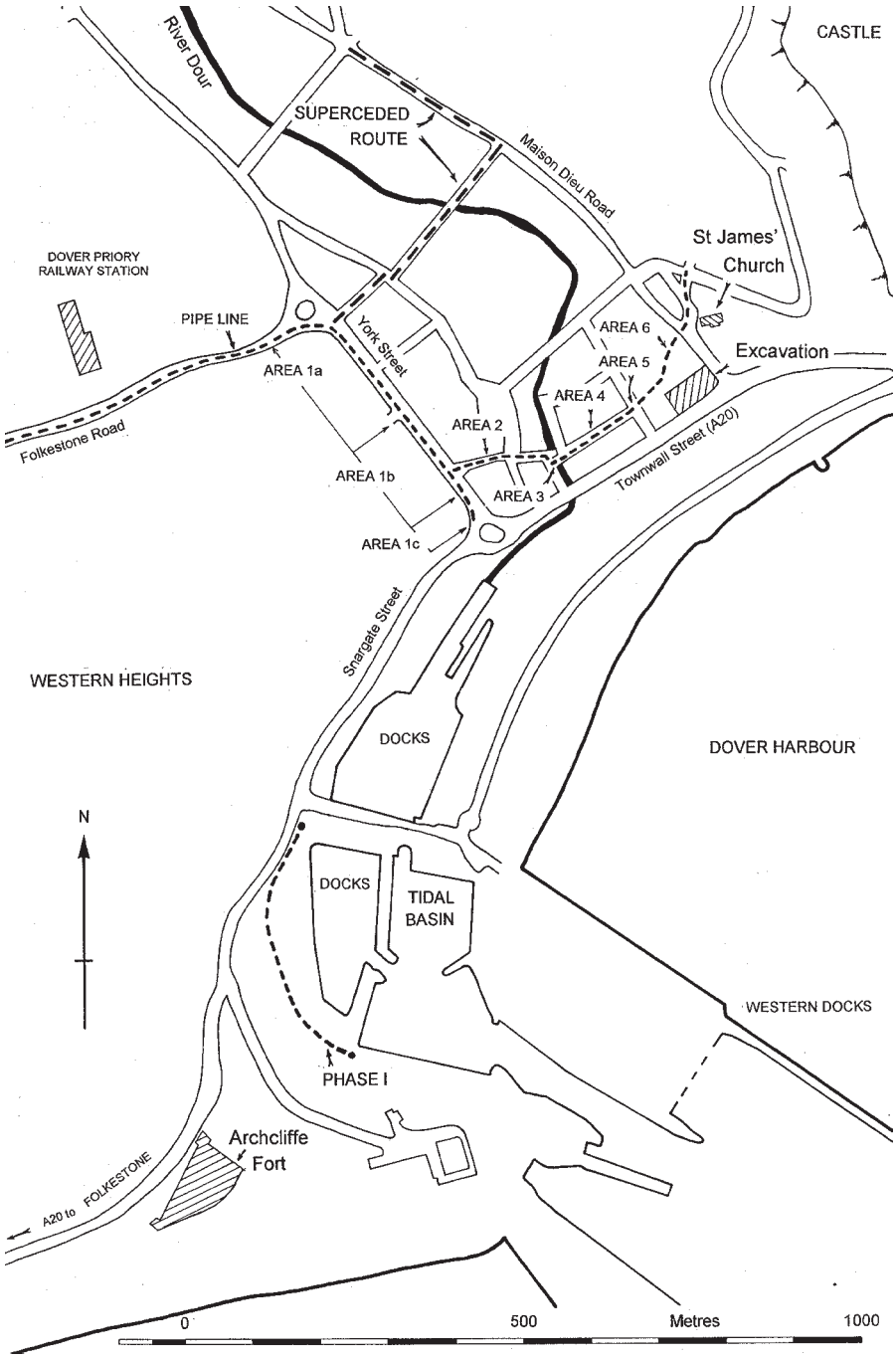
12 Townwall Street, Dover

Keith Parfitt

Commissioned and funded by BP Oil UK Ltd., extensive excavations were conducted by the Trust off Townwall Street at Dover during the summer of 1996, ahead of the construction of a new petrol filling station. Assessment of the results of the excavation is now complete and it is clear that the site forms a highly important one for the archaeology of the town.

The Townwall Street site lies below Dover Castle, on the eastern side of the town. Located some 150 m. to the north-west of the present sea shore and 200 m. north-east of the River Dour, it is bounded by the Townwall Street dual carriageway (A20) on the south-eastern side and Woolcomber Street on the north-east (TR 3223 4143). This area formed the important fishermen's quarter of the medieval town. The site stands upon a broad, low ridge at an elevation of between 6.50 and 7.50 m. above Ordnance Datum. The natural sub-soil here consists of a variable sequence of sands and sandy beach shingles, all of marine origin. The top of these marine deposits was generally sealed by between 2 and 3 m. of stratified archaeological deposits. The fourteenth-century town wall is believed to run somewhere in the area, although no traces of it were found in the excavations and it may have lain further to the south. The present excavations represent by far the largest investigation in this part of old Dover.

Dover was extensively damaged by bombing and shelling during the Second World War. Following major redevelopment in the 1950s and 1960s, it is now largely impossible to reconstruct the pre-war town-plan on the ground in this part of the town. Pre-war maps and photographs, however, show that much of the present site was



Map of Dover showing sites investigated 1996–97

then occupied by the imposing Burlington Hotel and its grounds, which stood on the site of Clarence House, a late eighteenth-century mansion. To the north-west of the hotel lay Clarence Street (originally Townwall Lane), which linked with Woolcomber Street. This was all swept away during the post-war redevelopment, which included the construction of a major new highway leading to the Eastern Docks, in the form of the present Townwall Street dual carriage-way (A20). The new road cut across earlier streets and buildings on a completely new alignment. On its north-west side, adjacent to Woolcomber Street, the original petrol filling station on the present site was established in the 1950s; it has now been rebuilt several times.

The area excavated was roughly rectangular and measured about 45 m. by 27 m. Over 4,100 archaeological contexts were recorded during the excavation, of which about 700 produced datable finds, including about 40,000 sherds of pottery. The pottery ranges in date from the late eleventh to nineteenth centuries, but principally to the later twelfth and thirteenth centuries. Large quantities of animal and fish bone and more than 2,000 small-finds were also recovered. The excavation generated more than 600 plans, 100 sections and over 1,000 photographs.

Based on the analysis of the stratigraphic sequence and pottery dating evidence, the development of the site has been provisionally divided into six periods (Periods 0–V).

Period 0: Pre-Conquest and early Norman activity

The natural sub-soil on the site consists of a complex series of marine deposited sands and shingles, probably relating to a coastal spit which extended out from the castle cliffs. Evidence suggests that primary occupation occurred on this spit no earlier than the twelfth century. Occasional localised traces of discoloured sand, burnt patches and trodden surfaces seen at the base of the stratified sequence were associated with a small quantity of animal bone and a few sherds of pottery datable to *c.* A.D. 1100 to 1225. From the character of these deposits and the small quantity of finds they produced it would appear that the earliest activity on the site was of a somewhat superficial nature and only just pre-dated the main colonisation of the area. Permanent occupation appears to have started quite abruptly during the mid to late twelfth century, and seems to have been fairly intense from the beginning.

Period I: twelfth- to thirteenth-century timber buildings and occupation

Some considerable time after the Norman Conquest, during the second half of the twelfth century, intensive colonisation of the site began with establishment of a series of small building plots. Eight separate plots were identified (Plots A–H) of which five were examined in detail (Plots A, E, F, G and H). The narrow Plot D probably represented a pathway rather than a building plot. Other contemporary plots must have lain immediately outside the excavated area and several would have been destroyed by the subsequent encroachment of the East Brook Water (see below).

The plots were occupied by the ephemeral remains of a complex succession of timber-framed buildings, characterised by floors of rammed chalk (Buildings Nos 1–41). Individual plots contained between three and ten successive structures but it was clear that the same boundary lines between properties had remained largely unchanged over many years and their precise positions must have been known and marked in some way. Several of these boundaries were subsequently replaced by stone-built walls (Period II).

The majority of the excavated buildings were represented primarily by one or more well-defined floors, generally formed from thin layers of

rammed chalk or occasionally clay. They were sometimes associated with beam-slots, post-holes, stake-holes and sometimes by external dwarf walls of chalk and flint rubble. The floors occasionally supported hearths or ovens and often showed evidence of surface burning. There was clear evidence that at least two buildings had been destroyed by fire on different occasions (Buildings 1 and 31). Most, if not all, of the buildings seem to represent dwellings, although others could have been workshops and out-houses. The buildings were associated with large quantities of domestic rubbish in the form of broken pottery, animal and fish bones. The fish bone, together with the recovery of many iron fishhooks, underline the importance of fishing to the people who lived in this area. The insubstantial nature of their houses indicates that these were among the poorer townsfolk who inhabited medieval Dover.

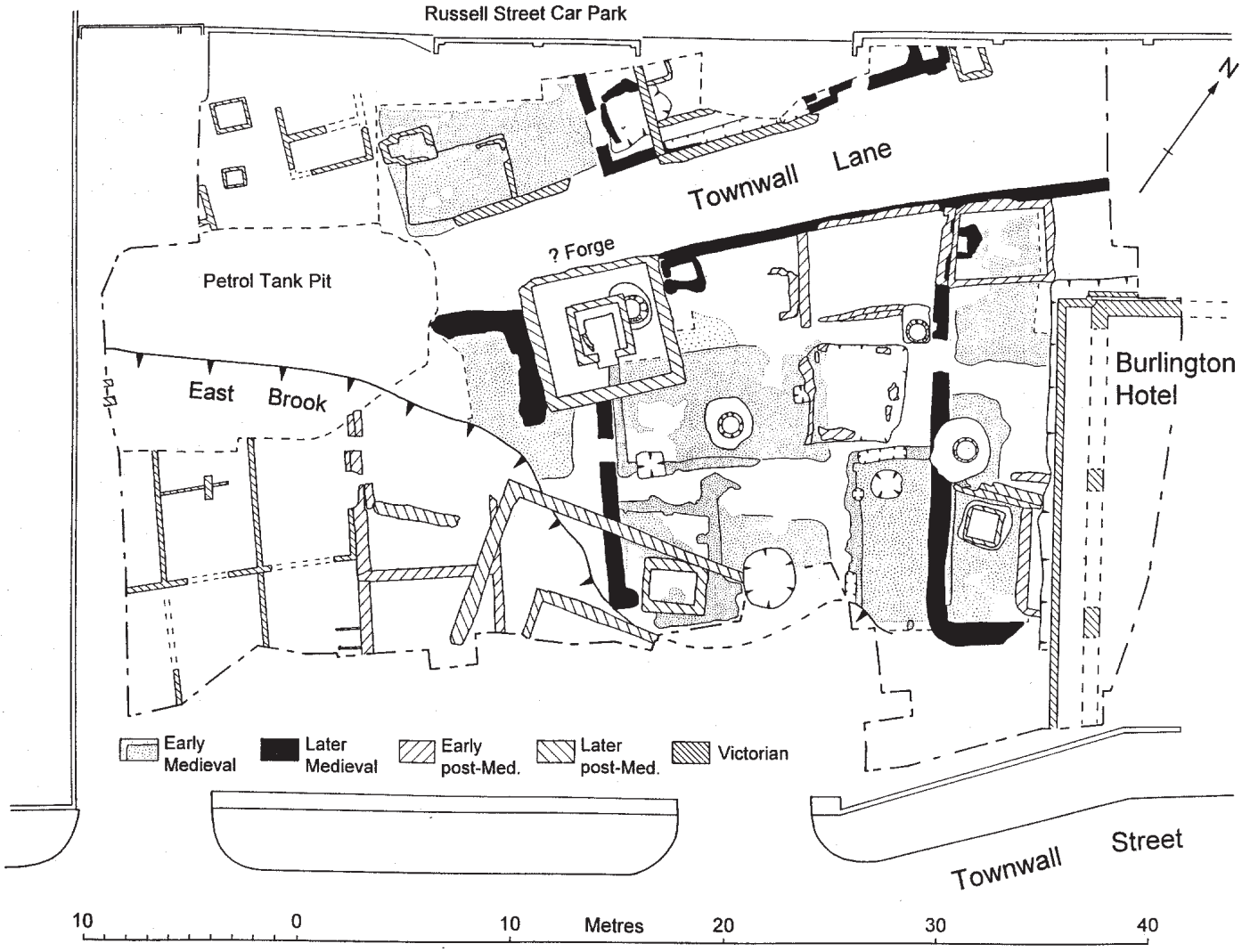
The continuity of the boundary lines between individual building plots, over many centuries is a common phenomenon seen in many historic towns. It was frequently found that an early wall line had been replaced by a later, more substantial stone wall, which effectively removed all traces of the preceding walling, leaving only the associated floors and other internal features of the earlier structure.

From the associated pottery and the density of buildings recorded upon the individual plots it would seem that the site was very intensively occupied for a period of little more than a century, between *c.* A.D. 1150 and 1275, after which the area seems to have gone into a decline. It has been possible to work out the sequence of buildings within each of the individual plots examined and these can be related to each other to form a matrix showing the overall development of the buildings on the site. From this, it is clear that some plots were more frequently redeveloped than others.

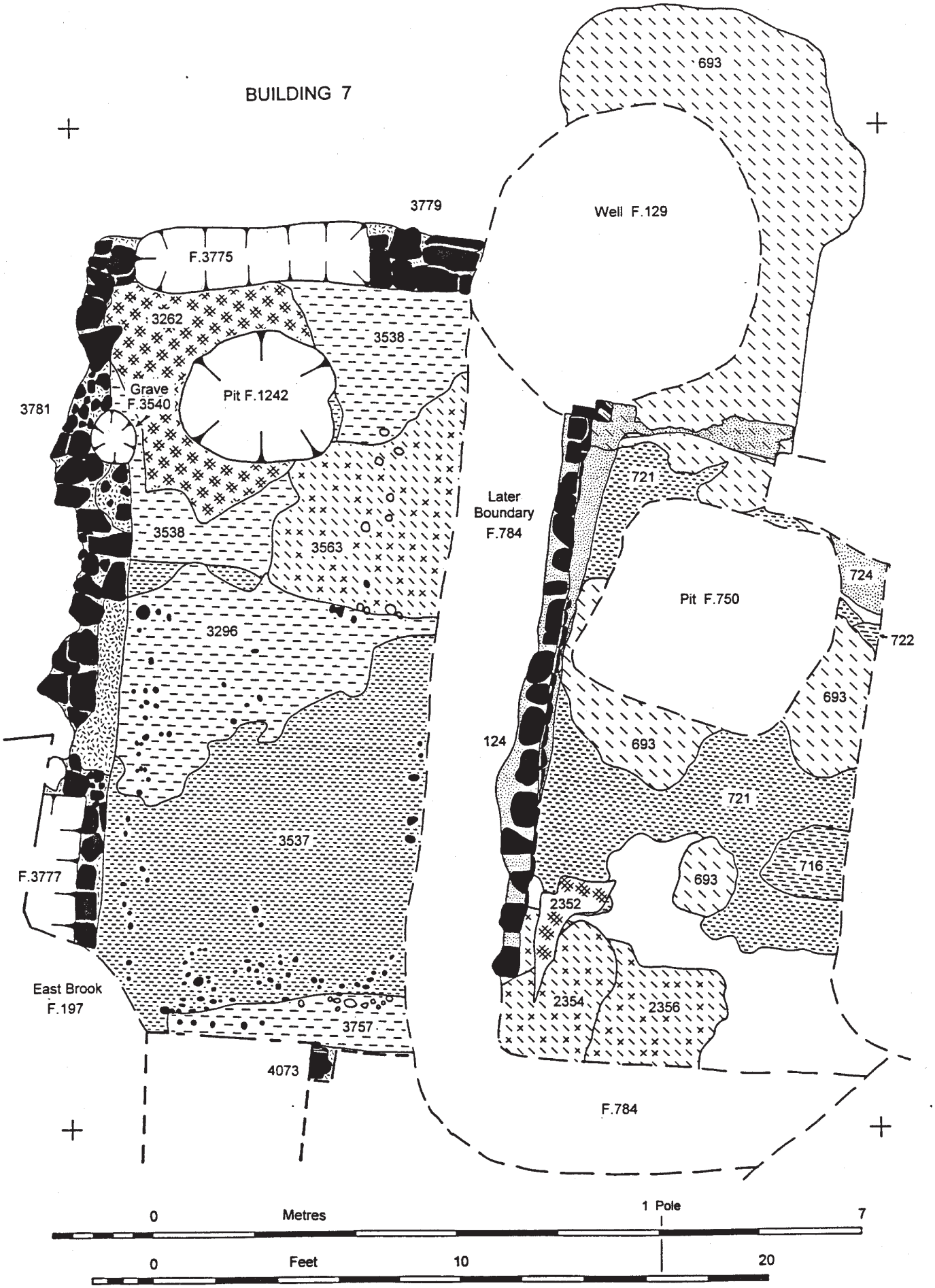
It is of interest to note that the construction dates of Dover Castle correspond very closely with the time at which the site was most intensively occupied.

Period II: decline, stone buildings and boundary walls

Following the succession of densely packed timber buildings associated with Period I there appears to have been a decline in activity at the end of the thirteenth century, with only the timber buildings on Plots B and C being replaced by stone structures. There does not seem to have been any significant break in the occupation on either of these plots. On both sites the size, shape and position of the new stone building appears to have been roughly the same as the preceding timber structures. The remaining building plots on the site were seemingly unoccupied, although a series of stone walls formalising the earlier plot boundaries and defining the south-eastern side of Townwall Lane were constructed at varying times during this period, indicating that the area, even if uninhabited, had not become derelict waste land. It is possible that the empty plots were then being used as gardens or work yards.



General site plan of the Townwall Street excavation.



Plan of medieval buildings 7 and 10 on the Townwall Street excavation.

Period III: hiatus

A general absence of structures, pottery and other finds dating from the period between *c.* A.D. 1350 and 1450/1500 strongly suggests that there was little or no occupation on the site during this time (one of the medieval stone buildings may still have been in use). Although the reason for the general lack of activity here is not certain, the construction of the town wall (probably located a short distance to the south-east) or coastal erosion (as recorded in a charter of 1440) may have been responsible.

Periods IV and V: the East Brook, early post-medieval structures and occupation (*c.* 1500–1950)

Occupation on the site seems to have resumed during the sixteenth and seventeenth centuries. A series of buildings was then constructed, fronting onto Townwall Lane (later Clarence Street). Traces of eighteenth- and early nineteenth-century buildings that also once fronted onto old Townwall Lane were recorded above these structures. Of particular interest was a large square building that could be a blacksmiths' forge. If so, it represents the first industrial building to be excavated within the town. Subsequently, probably in the late eighteenth century, the entire area on the southern side of Townwall Lane had been cleared to make way for the grounds of Clarence House and later the Burlington Hotel, built in the mid nineteenth century.

At an early stage of the excavation it became clear that a significant part of the present site lay across the site of the former East Brook Water – a large tidal lagoon formed sometime during the sixteenth century. An irregular, steep-sided cut running roughly east–west across the southern quarter of the site without doubt represented a section of the northern edge of this major coastal feature. It had clearly cut into the complex sequence of medieval buildings, but had eventually been deliberately in-filled with dumped layers of soil, building rubble and domestic rubbish during the late sixteenth and seventeenth centuries. A series of walled gardens was laid out across this area once it had been reclaimed.

The artefacts recovered from the excavations include fishhooks, net-weights, knives, hones, spindle-whorls, gaming pieces, metal buckles and other fixtures and fittings. Amongst the pottery fragments are significant quantities of vessels imported from the continent and not commonly found in England. Other finds of non-local material include large numbers of West Country roofing slates imported from Devon or Cornwall. There are also several large boulders of granite, which might originally have reached Dover as ship's ballast.

The information recovered from the Townwall excavation has the potential to provide us with a detailed and fascinating insight into the daily lives of the medieval townsfolk of Dover. Such a splendid opportunity for research has rarely occurred at Dover before and the results of the present work should make a major contribution to our knowledge of this important medieval town and Cinque Port.

High level view of the excavation, looking north-west.

13 Dover water pipe-line (Stage 2)

Ian Stewart and Barry Corke

During 1995 and 1996, a major new water pipe was planned for Dover (known as the Dover Main Spine). An archaeological watching brief was carried out by members of the Trust on behalf of environmental consultants RPS Clouston. The first phase of this work, in the area of the old Pier District, was described in the last annual report. When the route of the second stage pipeline was initially discussed, it was proposed that it should extend from the Snargate Street roundabout along the York Street by-pass, then extend north-eastwards along Worthington Street, into Pencester Road, north-west along Maison Dieu Road and then north-eastwards via Godwin Road.

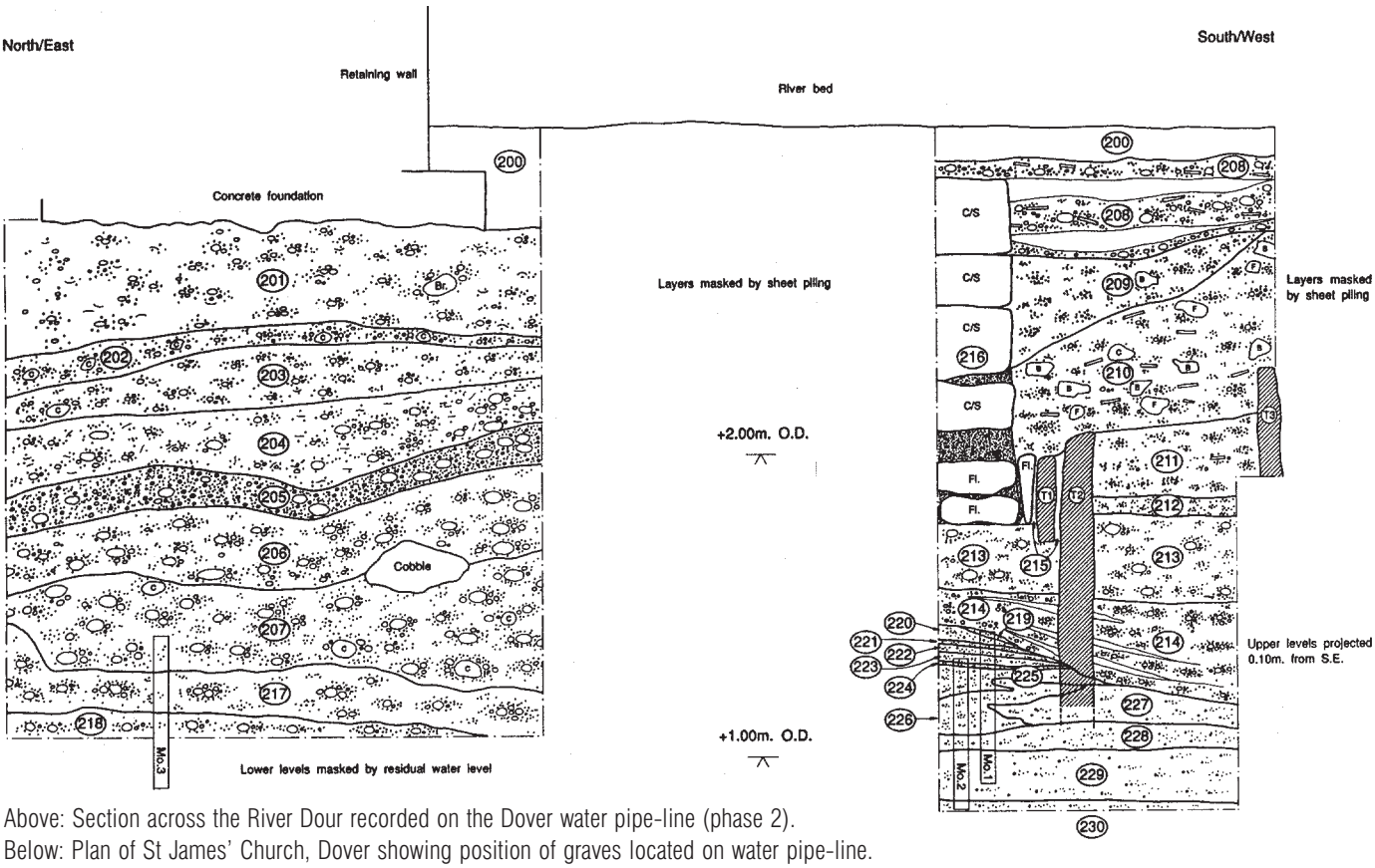
The York Street by-pass represented a key archaeological area containing highly important Roman structures but outside this area the pipe route lay within less archaeologically sensitive regions. Subsequently, the line of the pipe was changed to a new route cutting through other parts of the town which represented areas of great archaeological potential.

Trenching through the historic core of Dover progressed slowly. Seven areas of archaeological interest were inspected. These were:–

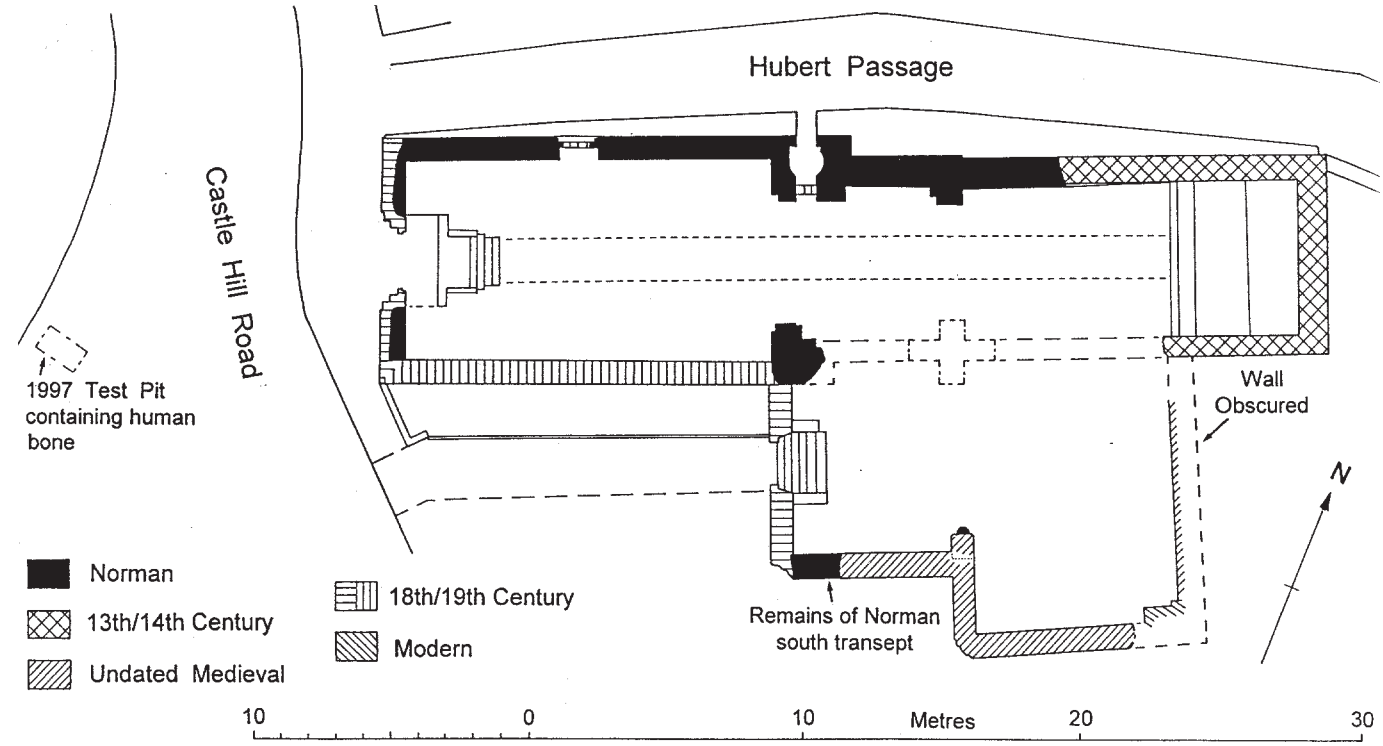
Area 1: The York Street by-pass
Area 2: Queen Street/Fishmonger's Lane
Area 3: River Dour crossing
Area 4: St James's Street
Area 5: Russell Street
Area 6: Russell Street car park
Area 7: Castle Hill Road

In Area 1 the pipe-trench was cut through a highly sensitive archaeological region containing the remains of the essentially unique second-century Roman naval fort of the *Classis Britannica,* overlain by a late-Roman fort of the Saxon Shore. Normally, trench excavation here was limited to a depth of 1.20 m., generally above the Roman levels. However, where the water pipe had to be carried beneath existing services, a deeper stretch of trench had to be excavated. This could be up to 2 m. deep in places and resulted in some significant damage to the fort remains. Of particular importance was the damage to the south-west corner bastion of the Saxon Shore fort, part of which was completely removed by the pipe-trench. This structure had never been fully excavated and has now suffered severe damage.

In Queen Street (Area 2), a greensand wall fragment, probably medieval, was revealed. It had



Above: Section across the River Dour recorded on the Dover water pipe-line (phase 2).
Below: Plan of St James' Church, Dover showing position of graves located on water pipe-line.



been disturbed by a Victorian grave associated with the former Zion Chapel which stood nearby.

A 3 m. deep trench was dug into the base of the River Dour, adjacent to Mill Lane (Area 3), to carry the water pipe beneath the river and a complex series of silts and gravels was recorded. A 1:10 scale section of the southern face of the excavated trench was drawn and photographed where accessible.

An early post-medieval revetment wall and associated wooden piles was recorded. Constructed from mortared greensand blocks with a flint foundation, the wall stood to a height of some 1.30 m. and had originally formed part of the east side of the river. It is one of a series of old riverside walls exposed within the present bed of the Dour in this area following the realignment of the river during the 1960s (*Canterbury's Archaeology* 1991–92, 11–14). Immediately in front of the wall two substantial vertical timbers had been driven into the early river-bed to protect the wall's base. A series of river gravel deposits abutted the west face of the wall.

Below the wall, the river sediments in the lower third of the trench were of particular interest as deposits of a very similar nature were found

overlying the remains of the Bronze Age boat discovered in the Bench Street underpass, only 75 m. to the south-west. The boat lay between +0.04 m. and -0.75 m. O.D. The bottom of the present trench was at +0.81 m. O.D. and no further traces of ancient timbers were revealed.

Beneath Russell Street (Area 5) the pipe trench revealed a well-stratified sequence of medieval and post-medieval deposits consisting of occupation layers, floors and walls. These deposits were very similar in extent and form to those excavated on the Townwall Street garage site, some 75 m. to the north-east. In the adjacent Russell Street car park (Area 6) the trench revealed further medieval deposits, generally poorly preserved due to disturbance by post-medieval cellars which had once fronted onto the south-eastern side of old St James' Street.

Rising up onto the lower slopes of Castle Hill (Area 7), the pipe-trench revealed a post-medieval well and a cellar wall on the north-west side of Castle Hill Road. Several disturbed human skeletons were also located in this area and these may relate to an otherwise unknown burial site opposite to the church of St James. It would seem that Castle Hill Road had originally been a narrow lane and the cellar and well must relate to post-medieval cottages fronting onto this early road, prior to its widening in the nineteenth century.

14 Archcliffe Fort, Dover

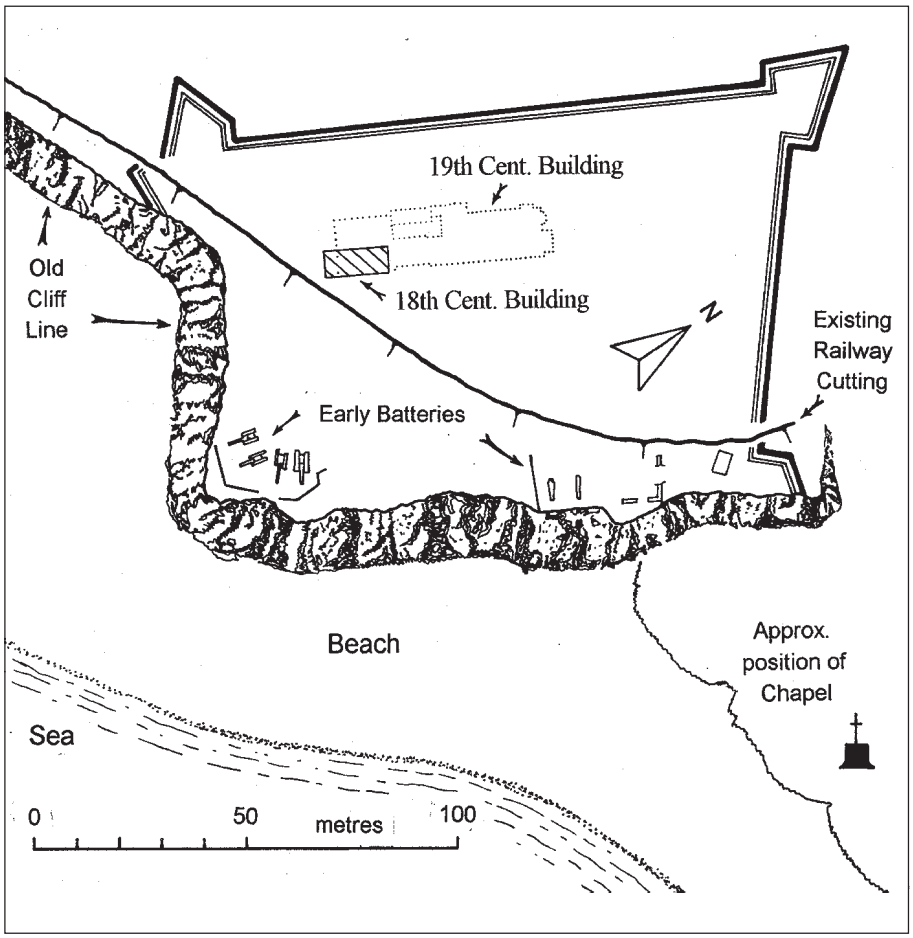
Keith Parfitt

At the request of English Heritage, the Trust undertook a watching brief at Archcliffe Fort, Dover during the cutting of two pipe trenches across the interior of the fort, together with a soakaway pit in the base of the outer moat. The fort is situated on the western outskirts of the town, adjacent to the old coast road to Folkestone, upon a low promontory overlooking Shakespeare Beach and the Western Docks (TR 3150 4030). In topographical terms, although the site occupies a cliff-top, it actually lies in the bottom of a dry chalk valley, truncated obliquely by the Strait of Dover. The truncation of this valley has led to the creation of a slight bay immediately to the north-east of the Archcliffe headland. Fresh water springs once issued from the base of the cliffs in this area. At the end of the fifteenth century the bay served as the focus for Dover's new Paradise harbour, which represented the very first phase in the development of the port's Western Docks.

In June 1996, a drain trench was cut roughly north south across the parade ground of the fort for a distance of about 40 m. Except at the extreme north end, where a nineteenth-century cellared building existed, the trench revealed undisturbed clay deposits between 0.60 m. and 0.70 m. below the existing ground surface. These clays produced a quantity of prehistoric struck flints, together with two prehistoric pot sherds and nine medieval, dating from the later twelfth to mid fourteenth century. The clays were overlain by a series of later post-medieval make-up layers. There was no evidence for the fourteenth-century or Henrican earthworks, nor any obvious rubbish pits associated with early military occupation on the site.

The bulk of the prehistoric flint material is reasonably fresh and was probably essentially *in situ*. The lithic assemblage is probably of late Neolithic–Bronze Age date and a decorated sherd of Rusticated Beaker recovered is likely to be contemporary. The other prehistoric sherd has been broadly dated to the Iron Age. Another small sherd of this date was recovered from the 1992 sewer trench under the north-west rampart, implying that there was some later prehistoric activity in the area.

The significant quantity of prehistoric flint material now recovered from Archcliffe Fort, including waste flakes, worked pieces and calcined flints (potboilers) is very suggestive of occupation in this area. It is tempting to see the promontory with its adjacent anchorage and fresh water supply as being the site of a permanent settlement some time in the late Neolithic–early Bronze Age period. However, we cannot be certain of the ancient topography of the coastline. Subsequent erosion of the chalk cliffs here has probably been substantial and it may well be that any occupation site on this spot was originally situated some distance inland of the prehistoric coastline. Nevertheless, it does seem clear that there was significant prehistoric activity in this general area and any further opportunities to investigate the nature and extent of this should be fully taken up.



Outline plan of Archcliffe Fort, Dover showing area previously destroyed by railway.

15 Dover Road, Walmer

Keith and Tina Parfitt

In January 1997 workmen excavating a large new soakaway at the rear of No. 429 Dover Road, Walmer near Deal (TR 3659 4968), discovered some human bones. These were taken to the Deal police, who contacted the Trust for assistance in determining whether the remains were of ancient or modern date. Examination showed that they were from two separate individuals – a child and a juvenile – and probably of some antiquity. A visit to the site was made the next day.

A large machine-cut pit had been dug towards the north-western end of the back garden. Seven cut features were visible in the vertical sides of the pit; one was modern and two others appeared to be natural hollows, but the remaining four were substantial circular pits of archaeological interest.

All the pits were filled with brown loam and chalk rubble deposits that produced a few small fragments of flint-tempered Iron Age pottery, together with a number of calcined flints (potboilers). A search of the adjacent spoil-heap produced further small amounts of similar pottery and burnt flints, together with a possible human toe bone. Most of the spoil from excavation, however, had already been removed from the site.

Eighteen small pot sherds were recovered from the site, broadly dating to around 600–200 B.C. A few struck flints were also recovered, which could be contemporary with the pottery but are more probably indicative of casual, earlier prehistoric occupation in the area. The pits presumably relate to some sort of settlement, probably a farmstead, in use during the early–middle Iron Age. They were probably storage pits, subsequently back-filled with soil, chalk rubble and some domestic rubbish.

Apart from the single toe bone, no other traces of human remains were found, but it seems likely that the two bodies recovered by workmen had been buried in one or other of the Iron Age pits, or within some other feature destroyed without trace.

16 Cambridge Road Warehouses, Dover Harbour

Keith Parfitt

In the summer of 1996, as the first phase of Dover Harbour Board's plans for the extensive redevelopment of the Western Docks, proposals were put forward to convert the old warehouses fronting onto Slip Quay, off Cambridge Road, into shops (TR 319 411). Past maritime activities have left a series of former workshops and other buildings along this quayside. Substantial alterations to the existing structures were planned, and the Trust was contracted to undertake an architectural and photographic survey of the existing buildings, prior to their alteration.

The site of the warehouses occupies a shingle spit formed during the sixteenth century. In the reign of Elizabeth I, in 1583, work began on the consolidation of this recently formed spit to enclose an extensive tract of water at the mouth of the River Dour. The area enclosed was known as 'The Great Pent', described by Eldred in the seventeenth century as covering some 16 acres. It is now represented by the modern Wellington Dock. In its original form the Pent, delimited by the Long Wall and the Cross Wall, was intended to provide a reservoir, closed by a sluice gate at the south-western end. Fed by a continuous flow from the Dour, at low tide the sluice would be opened, allowing a large volume of water to scour clean the tidal harbour which lay immediately beyond.

With no ready access from the town, much of the shingle spit remained undeveloped throughout the later seventeenth and into the eighteenth century. A new lease of life came in the early nineteenth century, however, with the construction of the New Bridge, which crossed the River Dour from Bench Street to the spit and allowed direct access to the town. A Harbour Board map of 1809 shows the area to the south-west of New Bridge as then being occupied by a scatter of isolated shed-like buildings. The main redevelopment of the area came in 1835 when Cambridge Road was laid out connecting with New Bridge. This new road must more or less have followed the line of Great Pente Wale Strete as shown on Eldred's map of *c*. 1640.

Development of the land on the north-west side of Cambridge Road adjacent to the Pent followed slowly. Access to the Pent for shipping was made possible by the replacement of the old sluice gates and stone quays were constructed here in the 1830–40s. A large stone-lined slipway, complete with steam-powered engine house, was added in 1850 (The Patent Slipway). The construction of this slipway led to a cutting back of the existing foreshore and the formation of a new quayside (Slip Quay). The Pent was renamed as the Wellington Dock in the course of these developments, in recognition of Wellington's work as Lord Warden of the Cinque Ports.

It seems clear that the majority of the buildings located adjacent to Slip Quay were mainly concerned with ship building and repairs. Until quite recently, they remained in use by Dover Harbour Board as stores and workshops. Over the past few years, however, most have become disused and have latterly served a variety of temporary uses. With the conversion of these units into retail outlets the buildings begin the next chapter in their history.

From Cambridge Road the warehouse structures appear as a reasonably uniform range of buildings occupying a block of land measuring some 350 m. by 55 m. The long axis of each building is set at a right-angle to Cambridge Road fronting onto Slip Quay. There is a general falling-off of the ground from Cambridge Road to Slip Quay of some 2–3 m., reflecting the contour of the original shingle spit/Elizabethan Long Wall of the Great Pent. The roadward elevation of the entire range of buildings presents as a continuous frontage, rendered and cream-painted with individual doors and windows picked out in green, blue or pink. Observation from the quayside, however, shows that these buildings

The warehouses and adjacent slipway.

are not an homogenous group, but comprise some sixteen individual units which incorporate elements of structures relating to different phases of quayside activity over the past 150 years.

The buildings are arranged in three separate blocks (Groups A, B and C). Group A contains building numbers 1–6 and lies at the north-eastern end of the range. The Group B buildings (numbers 7–9) occupy the central part of the range, being separated from Group A by a narrow passage-way leading to Slip Quay. The Group C buildings (numbers 10–16) include the earliest structures and lie at the south-western end of the range, separated from the Group B structures by an area of open ground, now a car park but formerly occupied by a series of small shed-like buildings. Of these buildings, only Groups A and B, occupying the north-eastern half of the range, were substantially affected by the new building works.

Many of the buildings within Groups A and B had subsequently been linked together to form larger stores, the interiors of most having been stripped of their original features and fittings in fairly recent times. Most showed evidence for more than one phase of construction but none appears to be particularly ancient. It is of interest to note, however, that although many of the individual buildings have been replaced over the years, the plot boundaries of the more recent structures often seem to closely follow the same property boundaries as shown on early maps.

A full record of all the buildings of Groups A and B has now been completed and further work is planned for the adjacent slipway and Group C buildings ahead of the next phase of the Harbour Board's redevelopment programme.

17 Thameside and Sweyne Schools, Swanscombe

Simon Pratt

Early in 1997 the Trust cut and recorded a large number of evaluation trenches and test pits on the site of the new Thameside School at Swanscombe (TQ 609 739) and the adjoining Sweyne County Primary (TQ 607 739), funded by the Kent Education Committee and Kent Property Services. No archaeologically significant deposits were encountered at the Sweyne site. At the Thameside site, however, important Pleistocene sands and gravels containing worked Acheulian flints were encountered over a large area. These deposits were assessed by Francis Wenban-Smith and Dave Bridgland in collaboration with Enid Allison and Tania Wilson of the Trust, and were identified as an extension of the internationally important Boyn Hill deposits known from several neighbouring quarries.

These Pleistocene deposits were cut by several Roman features. They included the mortared flint footings of a small building within a walled courtyard, probably a shrine, together with a number of ditches possibly flanking a minor Roman road. This road would have run up to the Swanscombe peninsular from a junction with Watling Street at Springhead, where a road on this general alignment has been noted (Penn 1965, 109; Smith 1991, 332–3).

Following these discoveries by the Trust, the Museum of London Archaeological Service was employed to undertake an open area excavation followed by watching briefs during groundworks. Their definitive report is in preparation.

18 St George's School, Minster-in-Sheppey

Simon Pratt

Introduction

From summer 1996 to spring 1997, the Trust conducted watching briefs on the adjoining sites of a new school, St George's (TQ 961 727, site MSG), and of its associated playing fields (TQ 960 727, site MSP). Both sites lay to the south of Chequers Road, on Mill Hill just east of Minster-in-Sheppey. Work on the two sites was commissioned respectively by E.C. Gransden Ltd on behalf of Canterbury Diocese and by Kent Property Services on behalf of K.C.C.

St George's School (MSG)

A roughly rectangular dark soil mark, aligned roughly north-west by south-east, was observed beneath the topsoil in the south-western part of the site. A sondage of about 1 m.^{2} was sunk into the western corner of this feature, revealing the rounded corner of a typical Anglo-Saxon sunken-floored building (SFB). Most of the bottom of the cut was taken up by an elongated oval feature (unexcavated), probably a post-hole. A small ledge on the south-western side held two stake-holes. The cut was filled with silty clay, probably eroded from the sides after the building's abandonment, overlain by deposits of domestic refuse containing much charcoal, shell, daub and pottery and some slag. Pottery from these fills dates to the mid to late seventh century, possibly prior to the establishment of Minster Abbey. Allowing for an initial period of abandonment, the SFB was probably built in the early to mid seventh century.

A set of five post-holes to the south of the SFB probably marked the position of a small hut. Though no dating material was associated with this structure, an Anglo-Saxon date seems likely. A small pit was identified to the north of the SFB datable to the seventh to eighth centuries. Another small pit near the south-west corner of the site was dated to the eighth to mid ninth centuries, whilst a number of linear features elsewhere on the site were of similar date.

The school playing fields (MSP)

Features on this site appeared to be restricted to an area around the middle of its eastern margin. A shallow north–south aligned ditch produced no dating evidence. To the south, the ditch appeared to be cut by an east–west ditch dated to the late seventh or early eighth century.

South of this ditch were two rubbish pits of late eighth- to early ninth-century date, plus a small undated hearth.

Though the evidence clearly indicates (not necessarily continuous) occupation from the mid to late seventh to the ninth centuries, the density of occupation would appear to have been quite low. The diffuse pattern, topography and the place name Borstal might indicate a large enclosure where livestock could be sheltered in time of unrest or adverse weather and watched over by the occupants of the huts. The eastern and southern boundaries of such an enclosure might be identified with the banks flanking the hilltop and the northern perhaps with Chequers Road. The western limit may have lain roughly along the line of an extant hedgerow along the western side of the playing fields or that of a north–south ditch with a modern fill to its east. In the latter case, the enclosure would have been about 9 hectares (22 acres) in extent.

19 Marshall's Cottage, Chart Sutton, Maidstone

Tim Allen

Five evaluation trenches were opened in October 1996 in advance of the demolition of Marshall's Cottage and the development of the site by Berkeley Homes (Kent) Ltd (TQ 79315332). The site lies about 1.5 km. east of a large Late Iron Age earthwork at Loose, generally identified as an oppidum (Cunliffe and Rowley 1976; Kelly 1971). Apparently associated with this oppidum are five extensive linear earthworks, presumably outworks of the Iron Age enclosure, one of which appears to extend across the site. Also nearby is a Roman building near Chart Sutton parish church (Neville Terry 1950) and a Roman bath-house at Brishing Court (Kelly 1971, 71).

The trenches revealed a number of shallow ditches probably representing field drains; although no dating evidence was forthcoming, it seems likely that these are post-medieval in date. Also exposed was a large ditch aligned east–west, about 3.6 m. wide and over 1.7 m. deep (it was not bottomed). Although this feature did not produce any datable finds from its fill, it is probable that this represents part of the linear earthwork extending east from the Loose oppidum and thus represents part of the oppidum's defensive outworks.

20 Park House Farm, Lyminge

Richard Cross

The proposed leisure development of a large tract of woodland north-west of Lyminge has included plans for the re-planting of existing arable land on the fringes of West Wood. During 1996 one such area was promoted for a woodland grant scheme, just north of Rhodes Minnis (centred on TR 1510 4420), between and abutting (Lyminge) Park Wood on the west and north-west, and Beveridge Bottom Wood on the east. As part of an assessment of the environmental impact that such a proposal may have had on the historic landscape, the Canterbury Archaeological Trust was commissioned by Planning Solutions Ltd in April 1996 to undertake an archaeological field survey of the area.

The survey was carried out over a large open field of approximately 132 acres (52 hectares). Both the field shape and size, however, indicated that the field had largely been carved out of adjacent woodland, probably during the post-medieval period. A small linear copse of mature standards was noted at the south-east end of the field. This probably represents the remains of a close division extant in 1848 when the whole of the field was divided into at least thirteen separate enclosures.

The topography of the survey area is one of gentle undulating ground of ridges and slopes rising to between 140–155 m. O.D., a landform typical of chalk Downland in this area. The soil type comprised a brown clay loam with an even but widespread scatter of both frost-fractured, though largely plough-damaged flint. On the higher ground more dense spreads of flints, including complete nodules, were noted. These were presumably derived, as a result of ploughing, from the underlying drift geological deposits here mapped by the British Geological Survey as clay-with-flints.

The survey was carried out by means of a systematic walk over the entire area of the field put down to winter wheat, some 110 acres. In addition, a detailed contour survey of the area subject to the walk over was made.

Archaeological material recovered during the course of the survey consisted overwhelmingly of two categories of material: ceramics and flint artefacts.

The bulk of the ceramic material recovered during the survey consisted of a widespread even distribution of roofing/peg-tile, mostly of seventeenth- to nineteenth-century and later date. Only a small quantity of pottery was recovered, consisting principally of ninety-two late post-medieval/modern sherds dated broadly between *c.* 1775–1950, plus a small group of clay tobacco pipe stems of seventeenth- to nineteenth-century date. A single sherd of Belgic coarse grog-tempered pottery was recovered, together with three fragments of Roman tile and four sherds of coarse medieval pottery, dated to around A.D. 1250–1350.

No evidence was found to indicate anything more than localised activity during the Roman, medieval and post-medieval periods. Both the classes of objects recorded and the quantities and distribution across the survey area suggested that all redeposited surface finds of these periods was probably derived from agricultural activities such as field manuring. Neither the type, quantity nor distribution of artefacts suggested *in situ* settlement.

A total of 873 prehistoric struck flint artefacts was recovered. This assemblage is discussed in detail below (p.36–37). The overall condition of this material, however, suggested that the assemblage is almost certainly derived locally, though it is not clear if a prehistoric settlement existed in the survey area. The distribution of the artefacts was even and widespread, and there are few readily discernible concentrations of lithic material. Although available air photographs do not indicate the presence of any settlement, this is not conclusive. A number of prehistoric of sites are, however, located close to the survey area.

Of particular interest is a large assemblage of flint artefacts, dated to the Neolithic–Bronze Age but as yet unpublished, from Wheelbarrow Town (centred on TR 15004600) immediately to the north. In addition, an archaeological field survey within West Wood carried out in 1994 by the Department of Archaeology Field Unit, University of Liverpool, revealed a Neolithic period occupation site (centred on TR 14255465) about 1 km. to the south-east. A number of earthen burial mounds are also located within West Wood, some of which are thought to be of Bronze Age date. Lastly, the associations of some 'thumb-nail' scrapers and the transverse arrowhead recovered during the field survey with early Bronze Age/Beaker activity is worthy of note. A fragment of Beaker pottery was recovered in West Wood during the 1996 excavations by South Eastern Archaeological Services.

Field survey showing surface distridution of flint artifacts at Park House Farm, Lyminge.

△ Flint Arrowheads.

▽ Flint Scrapers

○ Retouched Flint Flakes, Piercers, Borers, Denticulated/Utilised Flakes, a Microlith & a Burin

□ Thames Pick

o Flakes, Blades, Cores & Struck Lumps, Chunks, Chips & Bladelets

21 'Sandtun', Dykeside Farm, West Hythe

Richard Cross

An archaeological excavation was undertaken in October 1996 in response to a proposed redevelopment at Dykeside Farm, West Hythe (centred TR 1207 3382). The site, situated on the western edge of an extensive sand dune extending from the foot of the Greensand escarpment south-west to Sandy Ridge, forms part of the settlement named as *Sandtun* in a charter of A.D. 732. *Sandtun* has considerable local historical importance as the antecedent to the later medieval Cinque Port of Hythe.

The area examined had been extensively disturbed by machine clearance in breach of a planning condition requiring excavation, effectively removing much of the dune topography and surviving mid to late Saxon deposits. Subsequent rescue excavations revealed however some evidence of earlier settlement. An isolated linear rubbish pit contained pottery of late eighth- to tenth-century date, fish hooks, animal bone, an iron nail and fragments of worked silt-stone for the manufacture of spindlewhorls as well as considerable quantities of cockle shell and fish bone. Some unstratified material of similar date was also recovered, including pottery, a key and an early eighth-century *sceat*.

A view across the western edge of the sand dunes looking north-west to the escarpment.

Elsewhere part of a field boundary ditch was excavated, producing pottery dated to the tenth to twelfth centuries, including sherds of Northern French/Flemish wares.

22 Rochester Castle

Alan Ward

From January to April 1997 the Trust undertook a watching brief within the castle grounds whilst new services were inserted. Three long trenches (A–C) were dug by contractors whilst Trust staff undertook cleaning and recording.

Trench A: This north–south trench was 105 m. long and extended from 4 m. inside the modern north-east entrance to the south curtain wall of the castle. Excavation across the grassed area from the main entrance to the main path leading from the water gate to the keep revealed little of archaeological significance. To the south of the main path two modern robber trenches were revealed, probably relating to a masonry building of unknown date.

At the southern end of the trench, a sequence of clay floors, occupation deposits and demolition debris probably relate to a medieval building abutting the curtain wall of the castle bailey. A large assemblage of pottery was recovered, probably dating to A.D. 1175–1275.

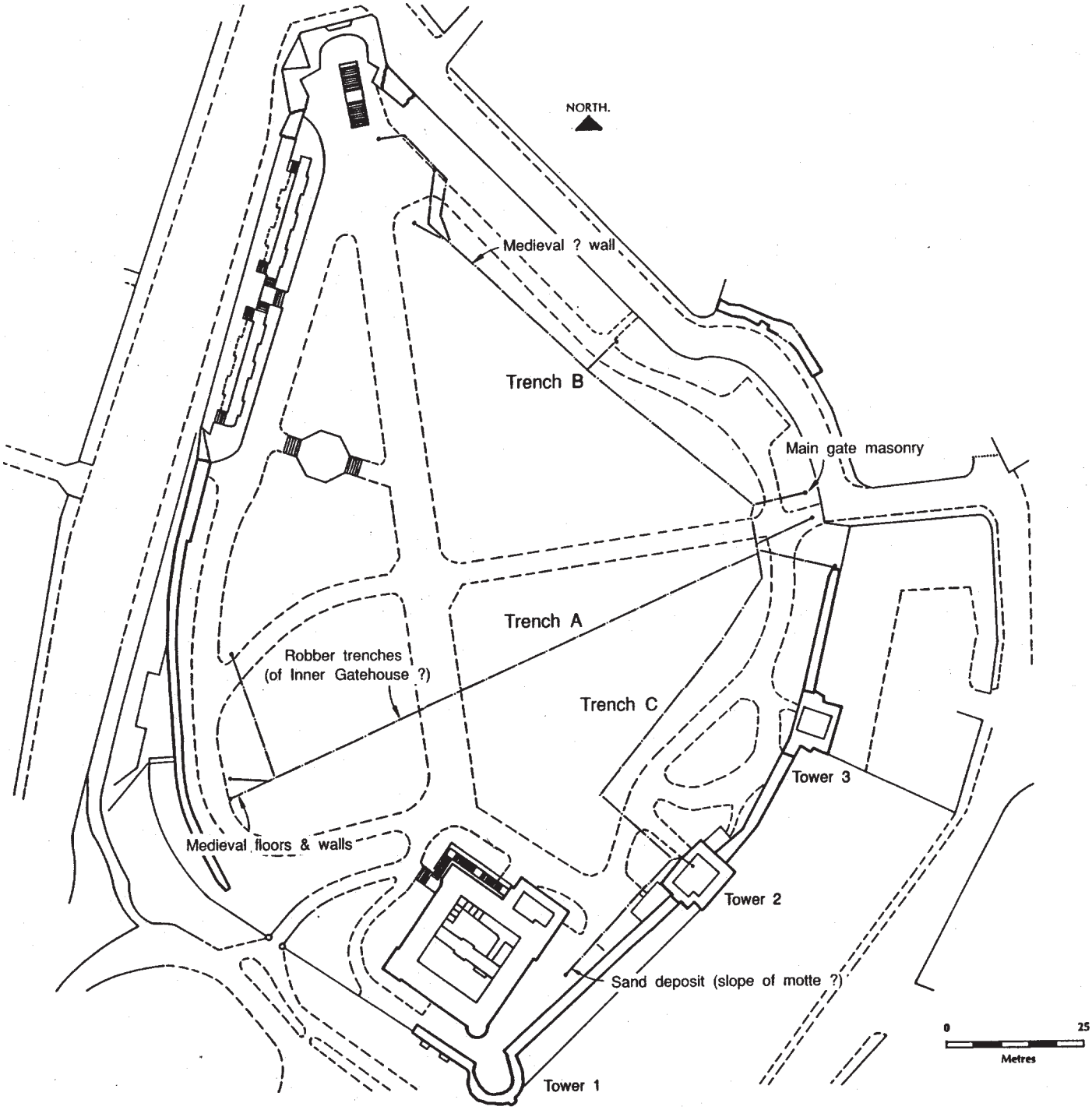
Rochester Castle: trenching across courtyard, looking east towards the cathedral.

Trench B: This 100 m. long trench, adjacent to the modern north-east entrance revealed the remains of the medieval masonry gate only 100–200 mm. below the modern ground surface. Unfortunately, no detail of the ground plan of the gatehouse could be seen. Maps of 1633, 1717 and 1816 indicate that it consisted of two projecting drum towers with a gate passage between

Further west an unmortared ragstone foundation about 0.85 m. wide was revealed, aligned north–south, tentatively dated to A.D. 1175–1250. At the western end of the trench an extensive deposit of gravel was noted, possibly representing the early Norman rampart associated with the first castle at Rochester.

Trench C: The first 60 m. length of this north–south trench revealed no features of archaeological significance.

This trench was continued for a further 25 m. adjacent to tower 2 and the eastern curtain wall. The offset for the west wall of the tower was observed along with evidence of an earlier wall on a slightly different alignment, possibly relating to an earlier tower. Trenching within the tower was abandoned once it was realised that well preserved archaeological deposits exist just below the modern surface; part of a cobbled floor survived along with evidence for an earlier door.



Plan of Rochester Castle showing line of service trenches.

23 Rochester city wall

Alan Ward

In both 1996 and 1997 the Trust undertook cleaning and recording along the impressive length of the Roman and medieval defences to the south of the High Street for Rochester upon Medway City Council. After the removal of shrubbery, weeds and moss the sections of wall were recorded by rectified photography.

The Roman south-east angle, external face.

Roman wall after cleaning, internal face.

24 Bradbourne House, East Malling
Alan Ward

In 1996 twenty-six evaluation trenches were excavated across Bradbourne Fields, prior to the construction of a new housing estate by Redrow Homes between Bradbourne House and the A20 just north of East Malling. Of these trenches, twenty spread along the base of a south and west-facing slope produced nothing of archaeological significance. However, at the eastern end of the area on top of the slope, well preserved archaeological deposits, primarily of early Roman date, were uncovered.

Subsequently a large area was stripped of topsoil to reveal a large number of pits, ditches and post-holes, along with a Roman cemetery. A large part of this area was reburied by a thick deposit to protect these discoveries from destruction by development. However, this was not possible over the whole area, and about one-third of the site, including the cemetery, will be excavated next year prior to the construction of the new housing estate.

25 The King's Arms, Sandwich
Ian Stewart

A watching brief was carried out at the King's Arms public house in May 1996 (TR 3292 5845) during the construction of a small extension at the rear of the building. This work was funded by Pubmaster Ltd in response to a planning condition by Dover District Council. The site is situated at the junction of the Strand and Church Street St Mary's, within the Sandwich conservation area. The public house is dated to *c.* 1593 but has undergone extensive alteration.

The watching brief recorded traces of two wall foundations of flint and sandstone blocks, which probably formed part of the original late medieval/early post-medieval inn. An associated cobbled surface may have been part of the original inn yard. After consultation with the contractors and a building inspector from Dover District Council it was decided that a concrete raft would be constructed over the archaeological deposits, preserving them *in situ*.

26 St Martin's Church, Cheriton
Mick Ward

An evaluation excavation was carried out in July and August 1996 as part of a programme of restoration, commissioned by Roger Joyce Associates, Chartered Architects. The work involved the excavation of a trench in the churchyard next to the south wall of the chancel to accommodate a central cantilever buttress. The evaluation excavation identified the depth of the foundations of the south wall and demonstrated that the wall was stepped to take into account the falling ground level at its eastern end. Burials of the late nineteenth century had disturbed the churchyard to the south of the chancel wall. One of these burials lay within the evaluation trench and was re-interred against the east wall of the chancel. The south wall of the chancel had disturbed the skeleton of a child, which pre-dated the construction of the wall in the first half of the thirteenth century. The architectural history of the church was reassessed. It appears that the south aisle had its origins in the thirteenth century. The blocked window in the south wall and the blocked door in the north wall of the chancel were not contemporary with the construction of the chancel. The door and window were inserted in the fourteenth century. It was not possible within the timescale of this project to re-survey the church. These features were added to the ground plan surveyed by Roger Joyce Associates.

27 St Mary's Church, Burham
Mick Ward

A watching brief was carried out in August 1996 during the cutting of drainage trenches in the church grounds (TQ 716 620), commissioned by the Churches Conservation Trust. The foundations of an earlier chancel were observed, probably dating to the eleventh or twelfth century, somewhat narrower than the present chancel and extending further east. In addition, substantial lengths of the thirteenth-century aisles were recorded which were demolished in the sixteenth century. The discoveries made during the watching brief, coupled with a rectified photographic survey of the external north and south walls of the church has allowed a re-assessment of the structural history of the church. It grew from an eleventh- or twelfth-century nave with a narrow chancel, to a fully aisled church in the thirteenth century. It was subsequently extended eastwards in the early fourteenth century, with the addition of a remodelled chancel along which aisles were extended. Later the church contracted, probably as a result in the shift of the village away from the church and general population decline. The aisles were removed before the middle of the sixteenth century and the east end of the north aisle was retained to form a small chapel on the north side of the chancel. The tower was added in the fifteenth century and the north chapel was eventually removed at a later date. The final decline came in 1881 when the church was abandoned for a new church built in the village.

PART TWO

Building Recording

A Petts Farm, Burham

Rupert Austin

View of dilapitated building prior to dismantling.

The summer of 1997 saw the completion of one of the Trust's longest building recording projects, the recording, dismantling and reconstruction of Petts Farm. Before it was moved to the Museum of Kent Life, the building was located close to the village of Burham near Maidstone. Unfortunately the building had remained empty for many years and by the time the museum acquired the property from Blue Circle Cement, it had fallen into a state of disrepair.

Petts Farm is a modest farmhouse that dates perhaps to the late eighteenth century. The building had survived largely in its original form, providing a fine example of what had been achieved in the design and construction of small houses at this time. The original arrangement of rooms and their functions was easily understood (and reinstated in the reconstruction) enabling one to picture something of the occupants' lives and the standard of accommodation that they could expect. In many ways this was up to date, in others surprisingly backwards.

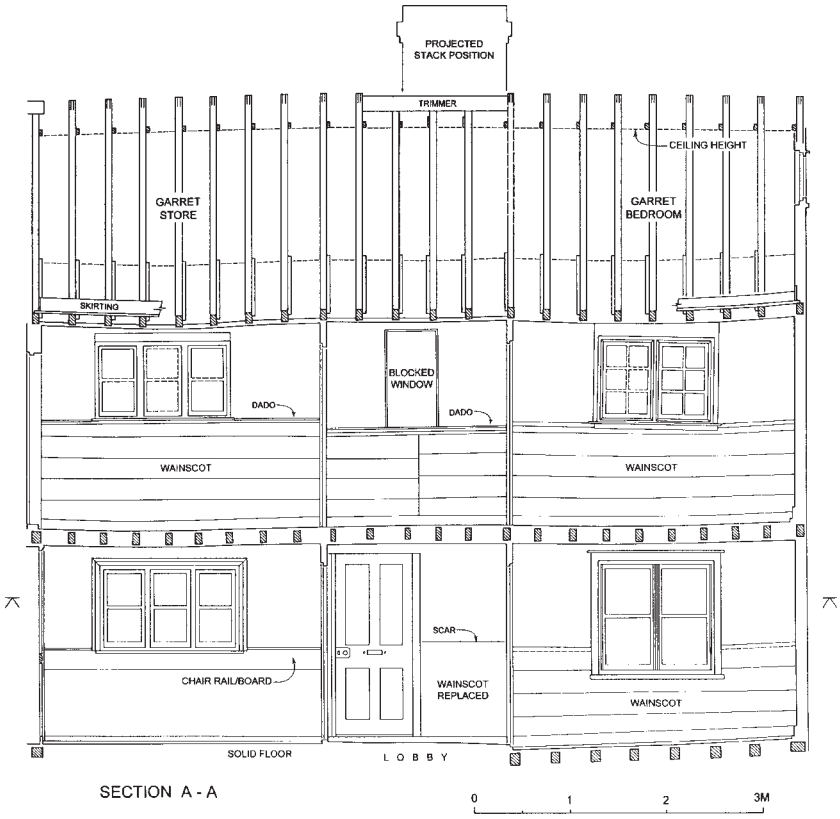
The building is typically Kentish in appearance with weatherboarded elevations, peg-tile roof and ragstone footings. Unlike its predecessors, constructed with heavy oak timbers, Petts Farm was built using a lightweight softwood frame. This timber may well have been imported and has clearly been machine sawn; surely an early example of mechanisation that predates the use of steam power. Two rooms, arranged around a central chimney stack and lobby entry, occupy the ground and first floors of the building with secondary accommodation in the roof or garret. A contemporary lean-to runs the length of the building at the rear; it is this that defines Petts Farm as a continuous outshot house.

All the better rooms of the house are furnished with pine wainscotting below a dado rail and simple wooden fire surrounds with mantle shelves. Surprisingly only one of the ground floor rooms, the parlour, had wooden floorboards; the others only aspired to stucco or clay floors. Stencilled decoration, an attempt to emulate early wallpaper, survived on the walls of the parlour further confirming this room's status as the best room in the house. The backhouse to the rear, beneath the continuous outshot is the most surprising and basic room in the house. Cooking and other messy household tasks such as washing would have been undertaken here. This room with its substantial hearth was originally open to the roof, the peg-tiles above left in plain view; its walls were unplastered and the timber-frame exposed. An extension, added in the early nineteenth century, provided Petts Farm with a further ground floor room, used in recent years as a dairy, and a fourth bedroom. A scullery, fitted with a small copper, was added a few years later.

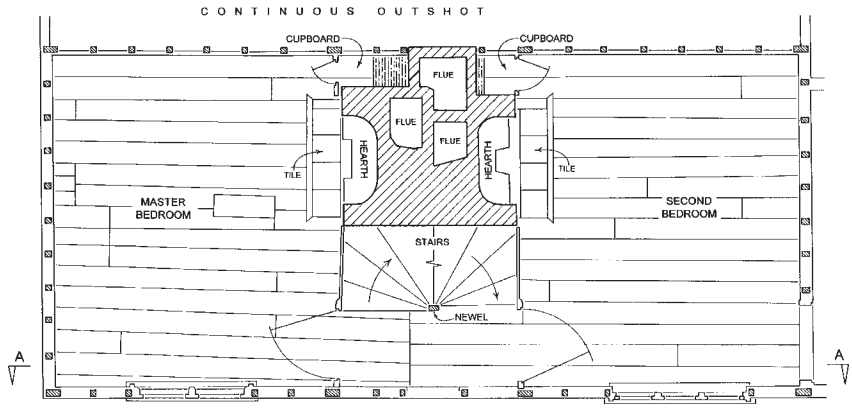
A child's leather boot and a small peg doll were discovered within the fabric of the building during works. These items, hidden away by previous occupiers, hint at lives more concerned than ours with superstition and folklore. A child's boot beneath the bedroom floor to start a new family, a doll by the front door to guard against witches?

Recording a building for dismantling demands some of the most detailed and accurate drawings possible. Every inch needs to be measured if the building is to be successfully reconstructed. With this in mind, several weeks were spent at Burham during the summer of 1995 preparing drawings and taking photographs.

Ground floor living room prior to dismantling.



SECTION A - A



FIRST FLOOR PLAN

Timbers new and old ready for reassembly.

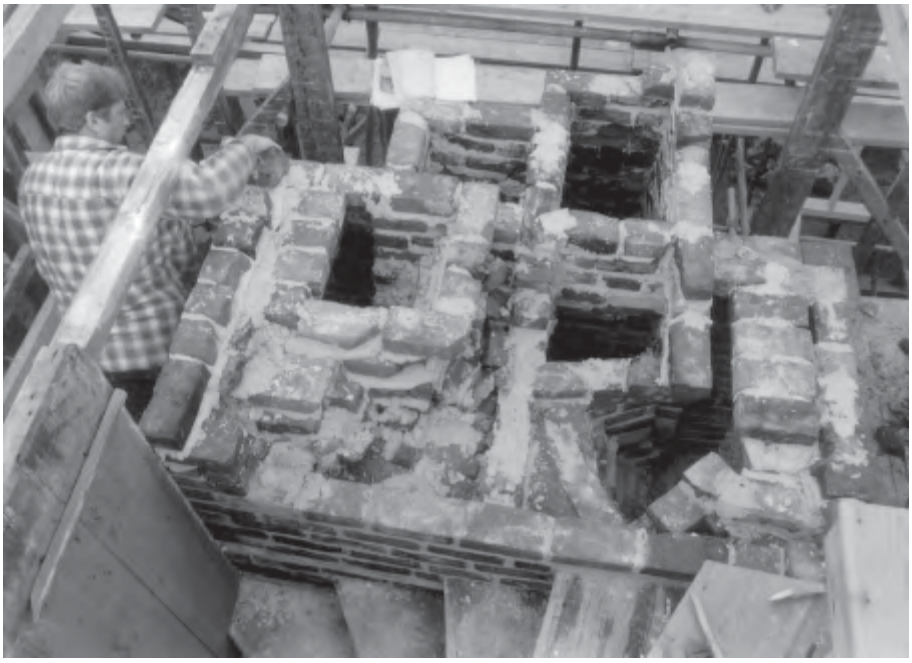
The Trust had been asked to undertake the dismantling, rather than a regular building contractor, as it was felt a team used to the disciplines of archaeology would be better suited to the demands of such work. Indeed several members of staff had prior experience dismantling Longport House on the Channel Tunnel site at Folkestone (now successfully rebuilt at the Weald and Downland Museum). Dismantling began at the beginning of November 1995 and lasted for eight weeks. Before components could be removed from the building they were identified with colour coded labels. Every weatherboard, floorboard, door and window frame was tagged and its code marked on an appropriate drawing. By the end of the project, thousands of pieces had been numbered in this way.

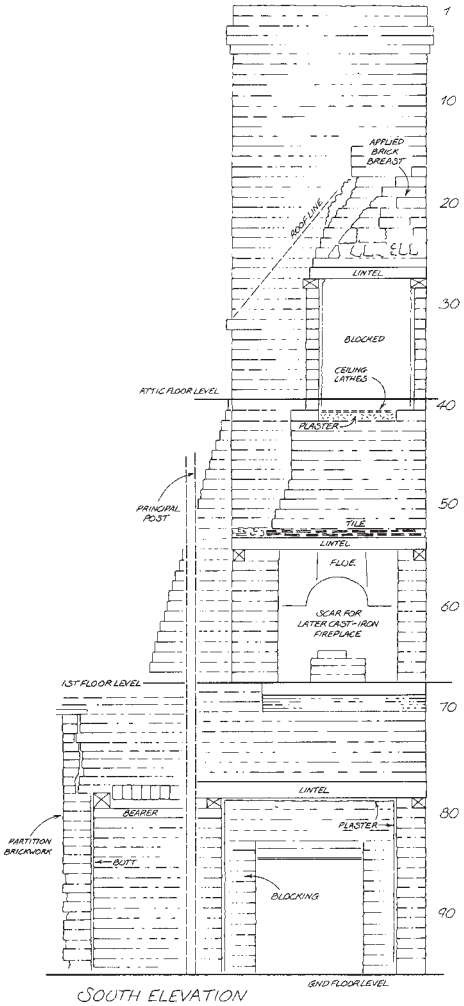
The framing proved relatively simple to dismantle, as the timbers were lightweight and easy to handle. At the centre of the building however was a substantial brick chimney stack containing no less than six flues all rising, twisting and narrowing in a horribly complicated manner. This was recorded and dismantled with great care. The painstaking removal and cleaning of its 5,000 bricks proved to be one of the most difficult aspects of the project.

Despite on occasion some appalling conditions the building was dismantled and in store at the Museum by the beginning of January 1996. The work had proved a refreshing change for those used to digging and was undertaken with considerable determination and enthusiasm. Without the efforts of the Trust staff, the project would not have reached this stage with such success.

At this point Petts Farm was placed in the care of the museum's carpenter, John Sharman, who had the task of treating, repairing and sometimes replacing each and every piece of the building. The sight of thousands of damp and often rotten pieces of wood languishing in great piles in an enormous poly-tunnel would have cast doubt into the minds of many, but we were not discouraged. By the end of July 1996, after several months of repair, Petts Farm was ready to be re-assembled. I rejoined John on site at this time, tools in hand, having spent some time prior to this preparing drawings and deciding the exact nature of the reconstruction. With the site prepared and footings laid the first components, the ground-plates, could be brought out from the poly-tunnel.

Re-erecting a building is a little like putting together a giant three-dimensional puzzle. Drawings have to be studied, components sought from dozens in store and each carefully put in position. As work progresses things become steadily easier as there are fewer timbers to choose from and fewer places for them to go.





Above: Detailed drawing of central stack.
Above left: The central chimney stack under construction.
Far left: General view of building during dismantling.
Left: Reconstructed staircase.
Below: General view of house during reconstruction.
Below left: General view of the backhouse in the reconstructed building showing the large central hearth.

The scullery in the reconstructed building showing the copper and sink.

First floor bedroom in the reconstructed building.

The unusual demands of reconstructing an old building are perhaps no more apparent than during these early stages. The entire timber-frame of Petts Farm was assembled in advance of its footings atop piles of railway sleepers. In this way the gentle undulations of the original building, which had settled and moved over the years, could be recreated by the careful adjustment of the ground-plates. Only when the frame was correctly positioned were the dwarf walls built beneath and the sleepers removed.

Traditional mortars were used for the construction of the dwarf-walls and chimney stack. Samples taken during the dismantling were analysed and suitable lime mortar mixes employed. Sand was even sourced from a local quarry to ensure the new mortar matched the old in colour and texture. Nearly all the footings were rebuilt stone for stone. The ragstone blocks had been recorded and numbered during the dismantling and each piece was carefully reinstated beneath the plates. The stack took five weeks to build and proved a particularly demanding task. Once complete a small celebration was had. A fire was lit in one of the hearths and it was with some satisfaction that we watched the smoke billow from the top of the chimney for the first time.

Once the frame was complete and the stack and dwarf walls built Petts Farm could be turned from a skeleton into a weathertight building. Roofing the farmhouse in traditional hand-made tiles, applying weatherboards and fitting doors and windows took many more months. It was not until the autumn that the building was weathertight and work could begin inside. Here floorboards had to be re-laid, wainscotting applied, doors hung and staircases assembled. Attention to detail was all-important. Traditional lath and plaster was used to finish the walls and distempers and oils used to decorate.

Saving a building from destruction and participating in its successful re-erection is, for those interested in old buildings, a most rewarding undertaking. To see a building that had become so familiar disappear and then reappear as if by magic on a new site is certainly a strange experience. Hopefully those who visit Petts Farm at its new home will enjoy a building that has considerable interest and character.

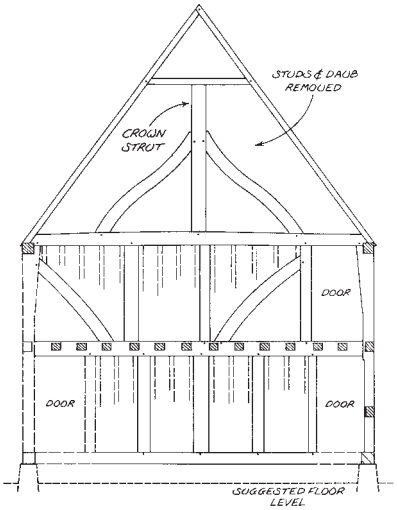
B Spring Grove Farmhouse, Harville Road, Wye

Rupert Austin

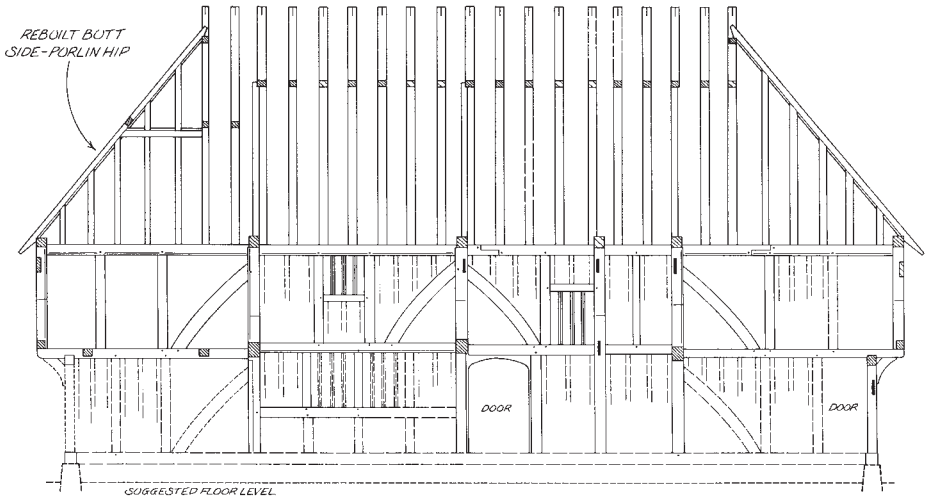
View of frontage.

The house at Spring Grove Farm, located half a mile to the west of the village of Wye, proved to be one of the more interesting timber-framed buildings recorded in 1996. A detailed survey of the structure, which probably dates from the late fifteenth or early sixteenth centuries, was undertaken at the request of its owner Mrs Heather Van den Bergh during restoration works. Beside the house, there is a brick oast, stable block and barn. These, however, have all been converted for domestic use and are all of considerably later date than the main house.

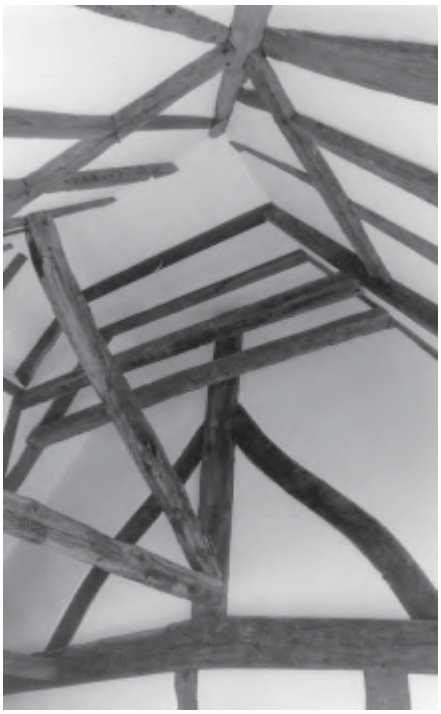
In its medieval form, Spring Grove Farm comprised a substantial end-jetty house of five bays. One of the most unusual features of the building, and the first to be noticed, is its crown-



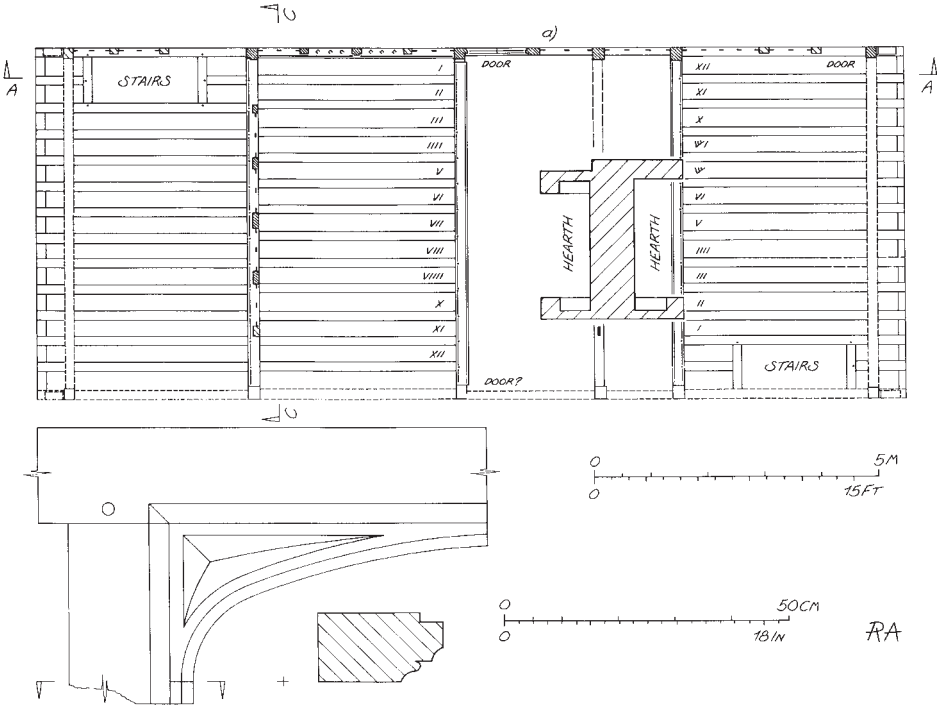
Section C–C. Cross section showing crown-strut roof structure.



Section A–A. Longitudinal section through rear of building.



Roof structure showing crown-strut



Reflected first floor plan and door frame detail.

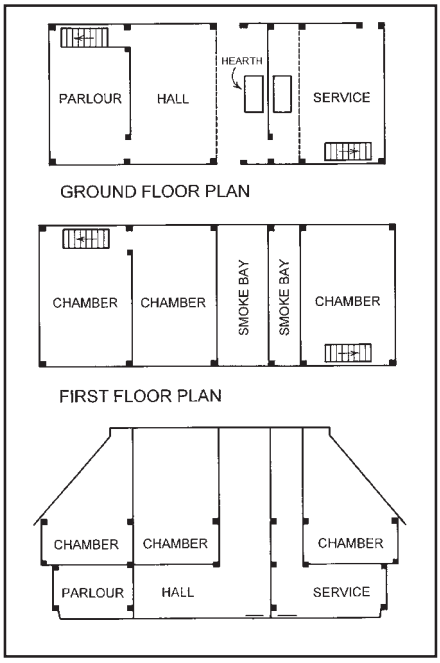
strut roof structure. This is not to be confused with the more common crown-post roof for it is essentially a modified collar-rafter roof. All that has been added is a crown-strut tennoned between tie-beam and collar. The collar-purlin seen in the crown-post roof is noticeably absent.

Crown-strut roofs are comparatively rare and those that have been identified are found almost exclusively over end-jetty houses. They are also associated with larger than average buildings of late medieval date.

Below the roof, the building appears at first to be straightforward. Single rooms occupy both the ground and first floors of the jettied ends. Stairs (now blocked) to the first floor chambers were located in the corners of the end bays. Evidence for plain mullioned windows and sliding shutters can be seen. Several edge-halved scarfs with bridled abutments survive; a dovetail with sallied shoulders has been exposed where a tie-beam has been removed.

The central two bays of Spring Grove Farm are however a little different for we see neither a fully floored building nor a simple open-hall house. Instead, an unusual combination comprising a partially floored hall arranged back to back with a smoke-bay is revealed. This has been achieved by dividing what would have been a single open-bay at the centre of the building with a further cross-frame. The larger half of this 'divided' bay adjoins the hall whilst the smaller lies with the service wing. Only the low end of the hall remains open to the roof however, the upper end is floored creating an extra first floor chamber. In this way accommodation is increased within the building whilst retaining the open hearth. An additional benefit of this arrangement may have been better heat retention, the upper chamber absorbing warmth from the hearth below.

The open-bay that adjoins the single ground floor service room measures only 4 ft long and is perhaps best described as a smoke-bay; although it lacks the restrictions around the hearth that are often seen in smoke-bay houses. This end of the building almost certainly functioned as a kitchen. By this time, kitchens were increasingly integrated within the main body of the house rather than being accommodated within a



Floor plans and section through building showing function of rooms.

separate structure. A small door, providing independent access to the outside, can be seen in the rear wall of the service room.

The unusual combination of partial hall and smoke-bay found at Spring Grove Farm is an interesting solution to the problem builders encountered as they attempted to advance from the open-halls of the medieval period to the fully floored buildings of the sixteenth century onwards. It is no surprise that this intermediate arrangement was rapidly updated within Spring Grove Farm; a brick chimney stack was inserted within the centre of the building and the open-bays floored at an early date.

Only one decorative feature survives within the building, a doorframe with low four-centred head. This is located in the rear, north elevation of the building and led directly into the open section of the hall. The head has sunken V-shaped spandrels whilst the jambs are finished with ogee/cavetto mouldings. It seems likely that the main entrance to the building, which no longer survives, was located opposite this door. A cross-passage with opposing entrances is a near universal arrangement at this time.

Unfortunately, evidence for the internal arrangement of the open-bays of the building is scarce. It seems likely, however, that the external doors entered directly into the building and not by way of a lobby. The smoke does not appear to have been restricted in any way within the roof space. Access from the hall through to the service wing was perhaps through a door located against the front wall.

Spring Grove Farm, as one might expect, has been subject to many alterations and modifications over the years. Both end jetties have been underpinned and the entire timber-framed frontage removed and replaced in brick. Although the framing of the rear elevation has survived, later extensions have internalised most of the fabric. A modern staircase, located against the inserted chimney stack within the centre of the building, replaces the earlier stairs in the wings.

C All Saints Church, Staplehurst

Rupert Austin

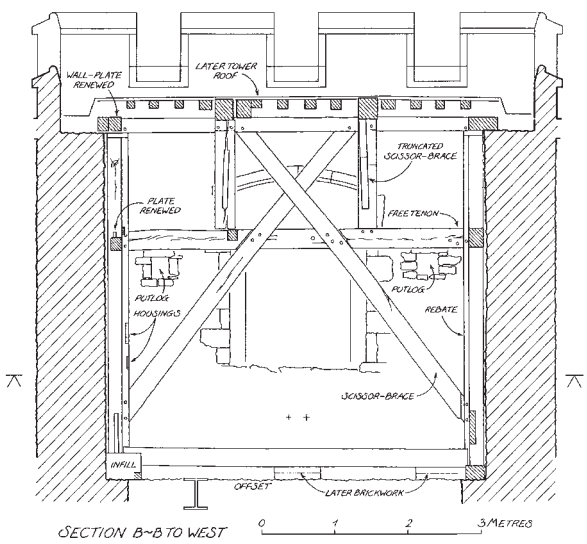
A nineteenth-century bellframe, which had been causing structural problems, was recently removed from the tower of All Saint's Church and the earlier framing of the spire-base and bell-chamber floor was exposed. A record of the exposed fabric was undertaken in advance of the reinstatement of a new bell-frame.

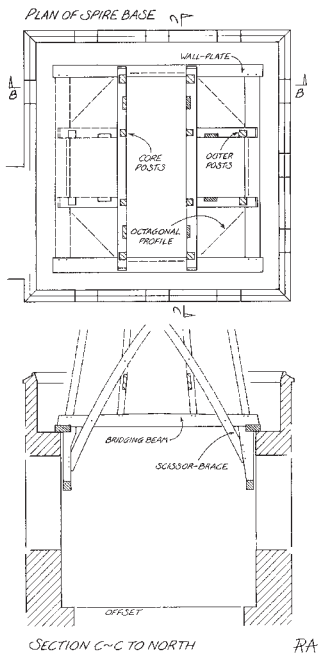
The west tower of All Saints Church, built between 1400–1425, was once surmounted by an impressive spire. Unfortunately this was blown down in 1673 during a great storm and never replaced. Only its base remains, capped by a later lead roof. Although this is but a fraction of what once existed, inspection of the surviving timbers revealed many clues about the construction of the missing spire.

The spire-platform comprises six bridging beams set across the top of the tower. These beams, which rest on substantial wall-plates, form a cross-shaped base for the spire. Although the upper surfaces of these timbers are obscured by the present roof structure, peg-holes on the sides of the beams indicate where the principal posts of the spire were located. An arrangement of four 'core' posts and eight outer posts, forming a spire of octagonal section, is suggested by this evidence.

Beneath this platform a supporting framework of posts and scissor-braces, located on an offset in the tower walls, survives. Whilst the first and lowest set of braces in this framing are intact, the next have been truncated and could easily be confused for arch-braces. These once rose into the spire itself (they were presumably snapped in half when the spire blew down) and were undoubtedly followed by further pairs of braces higher up. Several free tenons can be seen in the framing of the spire-base (joining plates to corner posts). Clearly, within the confines of the tower walls, these elements could not be assembled in the usual manner by spreading the timbers apart; free tenons are a simple solution to this problem.

The very nature of a spire dictates that the principal posts angle-in towards the centre to create a point. Any scissor-braces employed within the spire would necessarily follow the inclination of the posts. This is confirmed when we examine the truncated braces which, although only fragments, are clearly inclined towards the centre of the structure. It is clear from the dimensions of the spire-base that it was contained





Above: Section through bell chamber showing spire-base.
Right: Plan and section showing suggested form of lower stage of spire.

behind a parapet and did not extend to the outside face of the tower (like a broach spire). It would seem therefore that the present parapet, which has clearly been rebuilt, replaces an earlier one.

It is clear, from the construction of the tower that the bell-chamber is an integral part of the building with access afforded from the outset to both the ringing floor and bell-chamber via the adjoining stair turret. With this in mind it seems reasonable to assume that the chamber was always floored and housed a number of bells. How many and the form of the bellframe is another matter. The present ring of bells dates from 1885 and replaces a mixture of earlier bells cast between 1594 and 1748. The fourteen heavy joists currently spanning the bell-chamber floor may well be original timbers. However if this is the case they have been rearranged and shuffled about on many occasions over the years. Numerous scars, rope holes, and fixing points can be seen on these joists together with evidence for an earlier trap door. Some of these features undoubtedly relate to the nineteenth century bellframe, others to its predecessor.

A surprising amount of information about the spire and bell-chamber at All Saints Church has been gleaned from a relatively small number of timbers. Many of the construction features observed at Staplehurst bear close similarity to those employed in a spire recorded by the Trust at Wingham (*Canterbury's Archaeology* 1989–90, 42–43). The arrangement of the spire-base here is remarkably similar, its dimensions almost an exact match. One might speculate that it rose to a similar height; Wingham spire rises nearly 20 m. from its base.

Bell chamber with bell frame removed showing spire base above and floor joists below.

D The Royal Oak, Spital Street, Dartford

Rupert Austin

View of exterior during refurbishment.

A brief appraisal of this property was undertaken in November 1996 during refurbishment. It is presently owned by Shepherd Neame and remains in use as a public house. Although only a limited amount of historic fabric was exposed this was enough to gain a better understanding of the original structure which probably dates from the late seventeenth century.

The building, once timber-framed throughout, originally comprised three bays set long axis to the street. The most visible and perhaps best preserved parts of the structure are the principal beams of the first floor. These timbers clearly define the bay divisions within the building and confirm that the structure was fully floored and unjettied from the outset. Chimneys are a necessity in floored buildings and it seems likely that the stack built against the rear elevation of the east bay is an original feature (this was once external before the construction of later extensions). Its wide hearth can be seen on the ground floor; presumably a similar if smaller hearth heated the first floor. A second chimney, built internally in the west bay against the rear wall, is perhaps a later insertion.

A staggered butt side-purlin roof with 'queen-struts' survives over the three bays of the building. Both the east and west ends of this roof terminate in gables. An interesting feature of the building, and one that is consistent with the building's date, is the interrupted tie-beam arrangement. By the seventeenth century, garret accommodation within the roofspace was common. Unfortunately headroom in these attic rooms was often restricted and various means were employed to overcome the problem. Here the attic floor has been framed some 2–3 ft. below the eaves creating a half storey garret. This allowed one to walk unencumbered beneath the collars of the roof. Unfortunately without further modification access from bay to bay would have been prevented by the tie-beams. To overcome this, the ties are interrupted by the queen struts, which pass below eaves level to meet the attic floor frame. The unjowled principal posts of the timber-frame are also indicative of the building's relatively late date.

The original building has undergone numerous alterations since its construction, disguising for the most part its earlier origins. Several phases of brickwork now underpin the ground floor whilst fake timber-framing has been applied to the first floor. A large nineteenth century double pile extension has been built against the rear whilst a small brick house, once a separate property, has been incorporated into the present building to the east.

The Royal Oak is an interesting building, constructed at the end of the timber-framed tradition. By the following century, brick had taken over and timber was relegated to internal floors and roofs. Its features, in particular the half storey garret with interrupted ties, fit the last stages in the evolution of such houses well. The study of buildings such as this has often been neglected in favour of earlier medieval houses; this appraisal will be a useful addition to our records.

E The County Courthouse, Spital Street, Dartford

Rupert Austin

View of frontage.

A watching brief, photographic survey and written appraisal of this building was undertaken in January 1997 in advance of its conversion to a public house by Whitbread Brewery. The building dates from the mid nineteenth century and is located along the north side of Spital Street at its junction with Kent Road and its construction is typically Victorian. The frontage has received the most attention and exhibits a familiar array of embellishments; rubbed brickwork, raised keystones, rusticated quoins, etc. A projecting central 'bay', surmounted by a large crest, embellishes the main entrance to the building. Buff bricks have been employed for the walls and Welsh slate for the roof, which is of suitably low pitch. The Kent Road and rear elevations are far simpler than the frontage; the courtroom is not illuminated by first floor windows and consequently these elevations are largely blank. The plan of the original building, which includes a rear stairwell, is easily seen despite modern additions at the rear.

Internally the building has remained largely unaltered. Apart from the courtroom all the rooms are plain with little embellishment and most retained their fireplaces (cast-iron register grates with grey marble surrounds). A long hallway runs from an entrance lobby through the building from front to back, affording access to the ground floor rooms of the Courthouse. These rooms, presumably once busy offices, are now no more than empty shells. The only feature of interest on the ground floor, entered through a substantial modern firedoor, is the Courthouse strongroom with a vaulted brick and steel ceiling.

Two flights of stairs lead to the first floor; that to the rear was perhaps for public access to the courtroom and is a reasonably attractive cast-iron affair. The simpler staircase at the side was presumably for staff use. The front of the building at first floor level is occupied by the robing room and the judge's room. The judge's room is clearly positioned to give private access to the rear of the courtroom, via a small ante-room. A large bell pull, presumably used to inform the court of the judge's imminent arrival, can be seen here.

Not surprisingly, the courtroom is the most impressive room in the building with blind windows and wainscoting around all four walls and a partitioned ceiling. The judge's chair was located atop a raised dais at the 'high' end of the room. Damaged plasterwork in the wall behind indicates where a canopy and shield was fitted. A jury box runs down one side of the room, but this may well be a later feature.

Whilst the Courthouse is in many ways a rather ordinary Victorian building its survival as a courthouse into modern times (something that is becoming increasingly rare) made it worthy of record.

View of courtroom.

F Knott's Cottages, Knott's Square, Ashford

Rupert Austin

A brief appraisal of No. 2 Knott's Square was undertaken in February 1997 at the request of the owner and occupier John Davies. No. 2 is one of four properties contained within a large seventeenth-century building. The building, originally timber-framed throughout, lies to the east of North Street. It is not however one of properties facing the street lying instead some distance back from the main frontage behind a small courtyard.

The building survives largely in its original form. It is a two and a half storey structure of four bays; the upper rooms or garrets are necessarily contained partly within the roof space and lit by dormer windows. Contemporary extensions of one and a half storeys extend from the rear of each bay. The four properties within the building correspond to the bay divisions of the structure and are of equal size. Each shares a chimney stack with its neighbour and has a contemporary brick-lined cellar. This arrangement is undoubtedly original, each unit built as a separate tenement from the outset.

A simple collar-rafter roof, the rafter pairs numbered in sequence from north to south, extends along the length of the building. A face-halved and bladed scarf (a typical seventeenth-century joint) can be seen joining lengths of eaves-plate. A small centrally-placed newel staircase, crudely built with re-used balusters, affords access from the two ground floor rooms to the first floor (also two rooms) and garret.

The building is economically built with much re-used and wavy-edged timber in evidence (most of which was intended to be hidden by plaster). This and its position back from the main street frontage are indicative of its status. It was almost certainly built to house workers and not wealthy merchants or gentry.

Nineteenth-century brickwork now underpins the ground floor elevations of the building whilst the remaining first-floor timbers have been clad in weatherboards. Cast-iron casements to the rear and later wooden window frames at the front replace any earlier fenestration.

PART THREE

Post Excavation and Research

I The Finds Department

Introduction

Ian Riddler

The extensive excavations at Christ Church College, Canterbury and Townwall Street, Dover provided large quantities of ceramics, animal bone, small finds and building materials, and the study of these assemblages will go a long way towards advancing the study of the material culture of Middle Saxon and Early Medieval East Kent.

A fabric series for Canterbury's Middle Saxon ceramics has existed for some years, and was founded on the work carried out at St Martin's Hill and the first series of excavations at Christ Church College (Macpherson-Grant in Bennett 1986, 105–11; Macpherson-Grant in Rady 1987, 177–82). For this period there is a fascinating contrast to be made between the nature of intra- and extra-mural settlement and its relationship to historical sources, which outline the ecclesiastical and political development of the city. Middle Saxon ceramics can be found around most of the eastern and northern suburbs of the city and they turn up whenever sites are excavated in those areas, as at Old Dover Road, for example, as well as Christ Church College. Within the city they are harder to find, as noted in the Marlowe Theatre volume (Blockley *et al*. 1995, 870) and it may be that during the eighth and ninth centuries Canterbury functioned principally as an ecclesiastical city, with settlement clustering about its churches and their extensive domains. The development of the port at Fordwich at this time may also have diminished settlement within the centre of the city itself. Further work on the ceramics of this period, based largely on the Christ Church College assemblages, is expected to refine its dating framework and may also allow some insight into the function of some of the vessels, not all of which are simple 'cooking pots'. The madder staining seen on one of the Christ Church College vessels, described below by Penelope Walton Rogers, indicates that ceramics had many uses, some of which can be classed as industrial.

The work at Christ Church College has provided the impetus for a new appraisal both of the ceramics and of other elements of the Middle Saxon culture of Canterbury. The quantity of ceramics is slight, however, in comparison with the 40,000 sherds retrieved from Anglo-Norman deposits at Townwall Street, Dover. Some of these ceramics have been reported on already (*Canterbury's Archaeology* 1995–96, 74–81) and when their analysis is complete we will be in a position to judge, for the first time, how medieval Dover worked in relation to the rest of East Kent. The size of the assemblages retrieved from Dover are such that they will form a baseline for all future studies in this area. This applies not only to the ceramics, but also to the animal bone. Although several small faunal assemblages from Canterbury have been published in the past, the 30,000 fragments from Townwall Street will provide the first detailed study of animal management in medieval Dover. An interesting contrast with the contemporary use of animals in Canterbury is expected, but is yet to be fully understood.

Dover and Canterbury are inexorably linked throughout history, although not everybody would wish to acknowledge all of the connections which can be made. One of the most interesting to have been discovered recently stems from Townwall Street, where several bones of the caudal vertebrae of the common or harbour porpoise (*Phocoena phocoena*) have been identified. These can be compared with similar assemblages excavated some years ago in contemporary twelfth-century deposits within the Cathedral Precincts at Canterbury. A wider range of skeletal elements is present in the Canterbury material but the two assemblages are remarkably similar. The harbour porpoise was undoubtably caught in the nets of the Dover fishermen and would have been landed as an incidental catch which, in theory at least, would need to be reported to the Warden of the Cinque ports. Porpoise was regarded as a delicacy at this time and was fished in its own right by the French, and along the coast of Holland and Belgium. We cannot say whether the Dover porpoise meat, once removed from the spinal column of the animal, was transported to Canterbury or to Dover Castle, and whether the Canterbury assemblage came from English or French fishermen. None the less, the forthcoming study of these remains does provide a valuable insight into the medieval exploitation of marine mammals, a study which has hitherto remained heavily dependent on historical sources (Sabin, Bendrey and Riddler forthcoming; Gardiner 1997).

The study of material remains is concerned both with individual objects and with broader perspectives. The latter are developing for both lithic studies and for ceramic building materials. In both of these areas sufficient material has accumulated in recent years to allow for reviews

of our current understanding to be instigated. Future publications by the Trust will include the considerable fruits of this work, which are moving towards more synthetic appraisals of their subjects. Lithic studies are now an established element of the Trust's work and an integral part of the Annual Report. Studies of ceramic building materials, particularly of the Roman period, are also progressing and here too, the results can be quite spectacular, and are always interesting. Future sites will provide new directions of study but all of them will also serve to reinforce these broader views of the material culture of different periods.

1 Identification of dye on Middle Saxon pottery from Christ Church College

Penelope Walton Rogers

A purplish red staining was noted on the inner face of a vessel recovered from a Middle Saxon rubbish pit, at Christ Church College, Canterbury. The vessel is of a local Kent fabric (MLS2) dated *c*. A.D. 750–85/75. Two sherds of the vessel were provided for analysis, of which one was tested.

To remove the colorant, the inner face of the sherd was swabbed with cotton wool soaked in an acid/alcohol mix (10 per cent aqueous sulfuric acid + Industrial Methylated Spirits, 1:2, v/v). The cotton wool swabs were then analysed for dye using techniques developed for the analysis of dyed textiles (Walton & Taylor 1991). After swabbing, the sherd was soaked in water for three hours, to remove any traces of acid.

The dye extracts were analysed by absorption spectrophotometry and then thin-layer chromatography. These procedures showed the presence of alizarin, with a trace of purpurin. Alizarin and purpurin are the principal colouring constituents of madder, the red dye derived from the roots of Dyers Madder, *Rubia tinctorum* L.

Rubia tinctorum is not a native English plant, but there is evidence that it was being cultivated here as a dye source by the tenth century (Walton 1989, 400–401). It has been speculated that before that date the dye was imported: certainly, the merchants of St Denis, Paris, had established a trade in the dye by the ninth century (*ibid*.).

Madder staining has been identified on a number of other pottery wares. The earliest appears to be on seventh-century E-ware from sites in Northern Ireland and western Scotland (Walton unpublished a). The source of E-ware is likely to be outside the British Isles and the association of E-ware with madder could perhaps indicate that the one was used to transport the other.

The Christ Church potsherd is the earliest example of an Anglo-Saxon ware stained with the dye, although there are a number of later examples. Madder has been found on sherds from late Anglo-Saxon Thetford (Cole in Rogerson & Dallas 1984, 167), late Anglo-Saxon London (Taylor 1991, 169–170), late Anglo-Saxon and Anglo-Norman Winchester (Walton Rogers unpublished b) and medieval Norwich (Walton unpublished c). Most of these are also locally made pottery.

The sooting often seen on the outside of these vessels and on the Christ Church sherd (and also on some of the E-ware sherds) suggests that the pots have been used for heating the dye. Most madder-stained sherds come from modestly sized cooking vessels, which would indicate small-scale domestic dyeing, where only a little bit of fleece, or a hank of yarn was dyed at a time. Madder-stained sherds seem to have disappeared from the archaeological record as dyeing developed into a specialist craft and the dyeing of whole cloths became more usual. On the other hand, there are other recorded medieval uses of madder, as a medicament, a colorant for ivory and antler and as a paint (when deposited as a 'lake' on a mineral substrate), and any of these would have required a pot and a fire to heat it on.

2 Scattered flints: lithic analysis during 1996–97

Tania Wilson

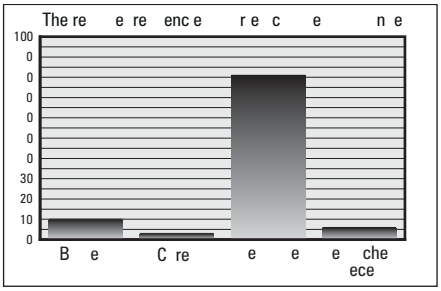
Over the past year there has been an increase in lithic studies at Canterbury Archaeological Trust, including both the detailed analysis of assemblages recovered from recent excavations and the examination of lithic material from sites excavated this year. The results of the analysis of flint artefacts recovered from the Monkton–Mount Pleasant excavations and those from the Medway Tunnel site are to be published in the near future. Rather than reiterate these findings, it is intended here to highlight some of the significant discoveries of the past year.

Lyminge

One of the best assemblages in terms of quantity and content was collected during the fieldwalking programme at Lyminge (see p.22). In all 873 purposely-struck flint artefacts were recovered.

Examination of the condition of the assemblage shows that the artefacts are quite 'fresh' and only a small number have slight patination as the result of exposure to the elements. This indicates that the assemblage is almost certainly derived from the vicinity and has moved little from its original place of deposition. As part of the fieldwalking programme all the finds were plotted on a plan of the field in order to determine whether there were any noticeable densities. This exercise demonstrated that there were no apparent 'clusters' of flint artefacts and that generally they were fairly well distributed throughout the field. On close inspection, it was evident that over two-thirds of the assemblage had experienced post-depositional damage almost certainly caused by farming practices, such as ploughing. This implies that the artefacts had been redistributed throughout the topsoil, probably over a number of years, hence explaining the general distribution observed.

Overall the assemblage can be divided into the following categories; blades, cores, debitage (flakes and other knapping debris) and retouched pieces (implements). The relative frequencies of these components within the assemblage are shown below:



It is clear that the majority of the assemblage consists of knapping waste and, additionally, a significant number of cores are present. This demonstrates that flintworking was almost certainly taking place within the locality. In addition a small number of chips (flakes less than 15 mm. in length) were recovered. It is unlikely that such pieces would be present had the material been knapped elsewhere and

	Quantity
Arrowheads	2
Backed Bladelet	1
Borers	2
Burin	1
Piercer	1
Miscellaneous Retouched Flakes	13
Scrapers	33
Thames Picks	2

Table 1. The Retouched Pieces.

subsequently brought to this location, hence confirming *in situ* knapping.

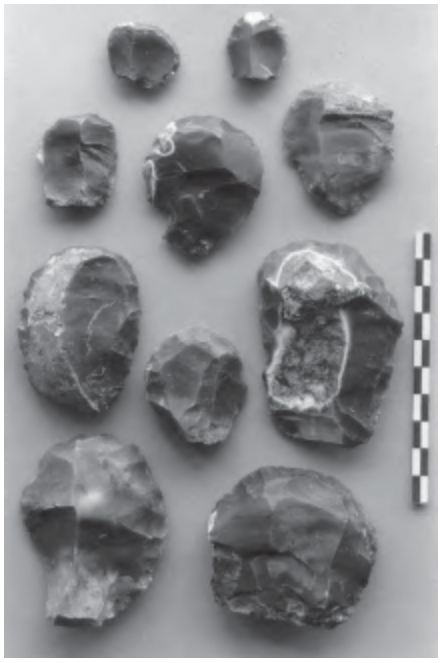
The retouched pieces include a range of forms summarised in Table 1.

Two very different types of arrowhead were collected, both Neolithic in date. The first is a leaf-shaped arrowhead of Green's type 3c (Green. 1984, 21). It has fine shallow flaking on both faces but unfortunately one end is now missing. The second is an oblique transverse arrowhead with bifacial working along one side.

Other retouched pieces worthy of note are the burin and the 'Thames Picks'. The burin or graver is formed on a blade-like piece and has two spalls detached from the distal end to form a strong, sharp point. These artefacts are often associated with the working of bone and antler. The Thames Picks, whose name comes from several similar examples recovered from the River Thames, consist of one incomplete but well formed example and one that appears to be a roughed out unfinished piece. This type of implement is Mesolithic in date and is thought to have been used for a range of activities.

By far the most prolific type of implement present within this assemblage is the scraper. Thirty-three were collected and these examples vary greatly in size and shape. The range includes small 'thumb-nail' scrapers often found in association with Beaker/Early Bronze Age sites and large well-formed examples which can be compared with Neolithic scrapers found on other Kentish sites. Scrapers are thought to have been used for a number of tasks including wood and leather working.

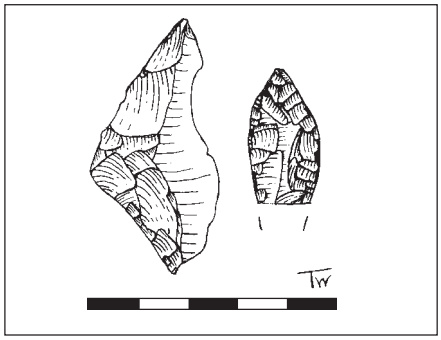
In summary, this assemblage tells us a great deal about prehistoric activity in the area. There is clear evidence for flintworking taking place within the locality but the significant quantities of finished tools strongly suggests that something more than simply a knapping area is represented. Therefore, it is suggested that this assemblage represents a domestic settlement, probably situated nearby. Another important factor is the range of dates observed within this assemblage.



A selection of the scrapers from Lyminge. Scale in cms.

Typologically the earliest activity is represented by the Thames Picks, the backed bladelet and the burin; some of the blades and cores also probably belong to this phase of activity. This phase can be assigned to the Mesolithic period, although what form of activity within this area it reflects remains uncertain. The second phase of activity, the settlement, is represented by the bulk of the assemblage and is probably Late Neolithic–Early Bronze Age in date.

Lithic chance finds from the vicinity also demonstrate activity from the Mesolithic through to the Bronze Age. In particular finds have been made from nearby at Elham (Toke 1945, 80; Kelly 1988, 298), Paddlesworth (Gibson 1971, 207–8), Hastingleigh (Bradshaw 1971, 238) and at the foot of the Downs at Brabourne (Bradshaw 1975, 203; Kelly 1976, 230). However, as yet, this assemblage remains the only clear evidence for the location of a settlement in this area of the Downs.



The Lyminge arrowheads. Scale in cms.

North Lane, Canterbury and the Tankerton foreshore

In addition to the Lyminge assemblage, two other artefacts of interest were discovered during excavations this year. The first is a complete Mesolithic Thames Pick which was found during excavations at North Lane in Canterbury (*Canterbury's Archaeology* 1995–96). The pick was probably disturbed from deposits close to the river by quarrying during the late first to mid second century and was subsequently dumped into a quarry along with the backfill. The pick measures 178 mm. in length and is made on a shattered nodule originally from a chalk source. The raw material consists of a grey semi-translucent flint with coarse almost cherty inclusions. These inclusions, which do not flake as readily as the remainder of the flint, appear to have been quite problematic for the knapper who nevertheless overcame this and produced this fine implement.

A discovery such as this from Canterbury is important in demonstrating that this location by the River Stour was popular long before urban settlement began.

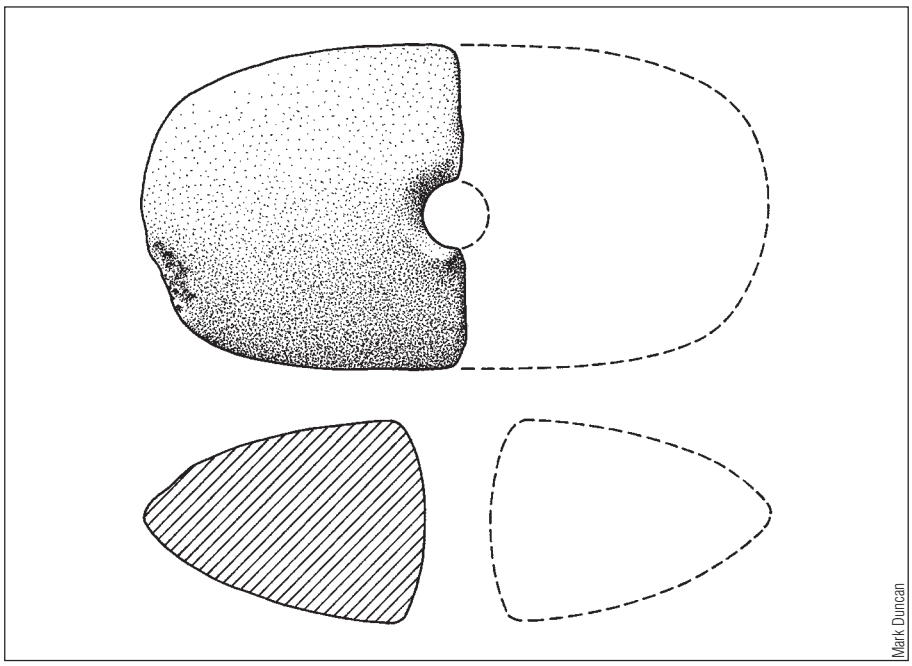
Lithic artefacts are not solely made from flint and include the use of several other stone types, as is exemplified by the recent find from the Tankerton Foreshore excavations. The implement, a shaft-hole adze, is of particular interest. The adze is incomplete, the break occurring in antiquity, and would have been

The Mesolithic Thames Pick from North Lane, Canterbury.

symmetrical in shape. It has an hourglass perforation and appears (by visual examination) to be made from Greenstone. This type of stone is not of local origin and is thought to be derived from a source in Cornwall, but without a detailed petrological examination this cannot be established.

Shaft-hole adzes are relatively rare with only around 265 examples recorded (Roe 1979, 36) but interestingly another example has been recovered from Tankerton (Kelly 1964, 225) which has been petrologically examined and is assigned to Group XVIII, the source of which is thought to be in the Whin Sill of northern England. The importance of the discovery of these 'exotic' stone implements lies in the evidence they provide for the continuation of a trade/exchange system established during the late Neolithic period.

All the discoveries made this year, whilst confirming the presence of prehistoric activity throughout east Kent, also embellish our understanding of the nature of this activity and it is through such finds that we gradually become to understand our prehistoric ancestors.



The shaft-hole implement recovered from the foreshore at Tankerton. Scale 1:2.

3 Ceramic building material from Dover

Louise Harrison

Although a great deal of Roman brick and tile has been studied from a number of different sites in the past year, more work is required before they can be presented as full reports. The following deals with brick and tile found at Townwall Street in Dover in 1995. The material was residual on a predominantly medieval site but was of intrinsic interest in terms of both its fabric and form.

The material consisted of thirty-five fragments weighing 7.675 kg. It consisted of four brick fragments (3.060 kg.), twenty flue tile fragments (3.325 kg.), two *imbrex* fragments (266 gm.), three *tegula* fragments (385 gm.) and three miscellaneous fragments (300 gm.). Although fragmentary, the material did not show many signs of weathering or evidence of re-use, such as mortar on the broken edge of the tile.

The Fabrics

The fabric of the tile has been studied under a 10x microscope. Six fabrics have been identified which can be sub-divided into two groups. Fabrics 1, 2 and 3 are red/orange in colour and have been divided by their sandiness, i.e. number of quartz grains present in the fabric's matrix. These three fabrics are commonly found in many areas including Canterbury, Maidstone and London. Fabrics d.1, d.2 and d.3 are all fired to a pale colour and share characteristic fine sanding on the back of the tile. They have been divided by the frequency of silty inclusions and the number of quartz grains present within the fabric's matrix.

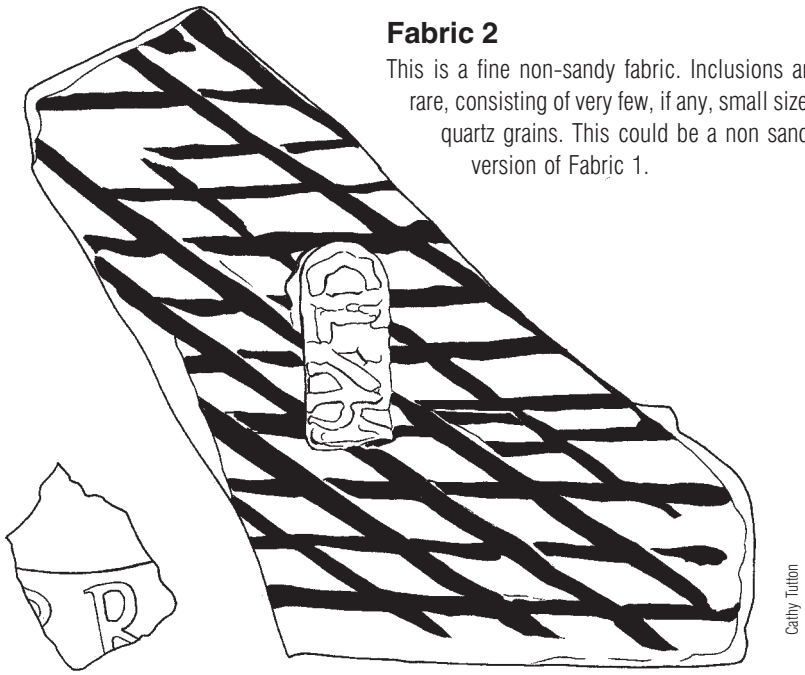
The material has been recorded by fabric type, which is based on the tile and fabric type series currently being compiled (Harrison in preparation).

Fabric 1

This is a fine, sandy fabric with few large quartz grains; occasional calcareous inclusions are sometimes present. This fabric is very similar to material excavated from two tile kilns in Canterbury at Whitehall Gardens and St Stephen's Hill (Jenkins 1956; 1960).

Fabric 2

This is a fine non-sandy fabric. Inclusions are rare, consisting of very few, if any, small sized quartz grains. This could be a non sandy version of Fabric 1.



CLBR stamp found on an imbrex (left) and on a keyed flue tile. Scale 1:2.

Fabric	Brick	Flue	Imbrex	Tegulae	Miscellaneous
1		1		1	3
1 NR 2	1				
2				1	1
1 NR 3					1
3		1			
D.1	3	11		1	1
D.1/D.2			1		
D.2		4	1		1
D.3		2			

Table 1: tile and fabric types

Fabric 3

This fabric has a fine, sandy matrix with a moderate amount of medium-sized quartz grains measuring up to 0.5 mm. across. There are no other inclusions. This could be a sandy variant of Fabric 1.

Fabric d.1

This is a pink coloured fabric. It is not sandy although occasional small (usually white) quartz grains are visible in the matrix. Its main characteristic is its colour, which is caused by its many silty swirls and lenses. Frequent red clay inclusions and white clay pellets are also present. The sanding on the back of these tiles is unusually fine. This fabric is similar to clay found in the central Weald and is presumably a product of a kiln nearby as yet unlocated. A large number of tiles bearing the CLBR stamp have been found in the same fabric (Peacock 1977).

Fabric d.2

This is possibly a variant of Fabric d.1. It is a similar colour and shares the same characteristic fine sanding on the back of the tile. It is not sandy and is not as silty as Fabric d.1 with silty swirls and lenses appearing only occasionally in the fabric's matrix.

Fabric d.3

This is white/cream in colour and has a fine sandy matrix with few large quartz grains. The characteristic feature of this fabric is the frequent red/orange inclusions (iron oxides) measuring up to 6 mm. Fine sanding is also visible on these tiles.

Table 1 indicates which tile types were present in each fabric type; Fabric d.1 was clearly the most common, appearing frequently usually in the form of flue tile.

The Material

Brick

Only four fragments of brick were retrieved from the excavation. Three pieces (Fabric d.1) bore characteristic keying consisting of wide, deep combing. These bricks appear to be similar to Brodribb's type 1 (Brodribb 1979). The other fragment (Fabric 1/2) has a faint incomplete signature mark, possibly type 2. The thickness of the brick ranged from 35 mm. to 41 mm., tentatively suggesting that they were probably parts of Bessalis, Pedalis or Lydion bricks.

Flue tile

The flue tiles found in Dover are unusual in their fabric and the keying technique employed. No similar tiles have been recorded in Canterbury at the present time. The most clear and diagnostic keying types are listed below. Unclear or small fragments bearing little keying have not been included; full details are recorded in the site archive.

Descriptions of flue tile types

Type A

This flue type has keying consisting of 'square' type lattice scoring. The gap between the scoring measures 20 mm.

Type B

This flue type is combed with lines that cross at right angles forming a series of squares. It is possible that two strokes were used, explaining the wide stroke. 11 teeth, width of stroke: 152 mm.

Type C

This flue type appears to be combed in a lattice type pattern. 3 teeth, width of stroke: 23 mm.

Type D

This flue type has keying consisting of wavy combing. 8 teeth, width of stroke: 51 mm.

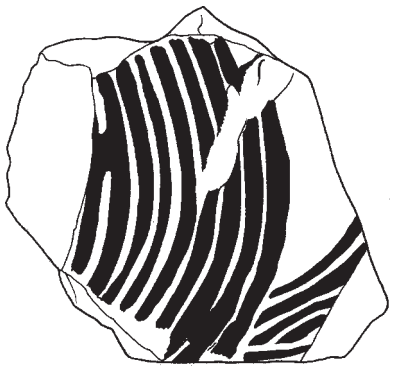
Type E

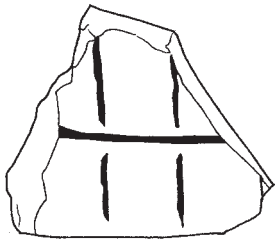
This flue type has keying consisting of one wavy and one ?straight stroke. 9+? teeth, width of stroke: 53+ mm.

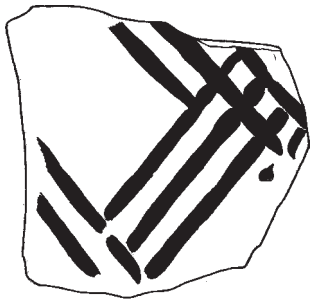
Type F

This flue type has very characteristic wide, quite deep, combing. It is not readily obvious what pattern it forms.

One combed flue tile fragment (Fabric d.1) which bore keying type 'B', also has a CLBR stamp. This appears to have been applied before the tile was combed which is unfortunate as the stamp is obscured by the combing. The stamp is rectangular and the less obscured C and L appear to be in low relief which tentatively suggests that the stamp might belong to group F (Philp 1981). Several of the flue tiles were unusually thick, measuring up to 32 mm. compared to the average thickness of approximately 12 mm. The reason for this is not clear, although it is likely that they were manufactured for a particular reason. Sooting was visible on the inside of three flue tile fragments. This suggests that these tiles were probably situated near the base of the hypocaust system close to the furnace.



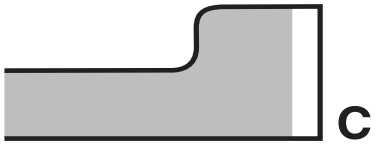




Cathy Tutton

Some keying types found on flue tiles. Scale: 1:2.

Flange profiles 2 & 29.



Lower cutaway C (flange profile 1).

Tegula

Three *tegula* fragments were present in the assemblage (Table 2). The flange and cutaway types are based on a type series provided by the Museum Of London. The small quantity of *tegulae* present precludes any meaningful conclusions.

Fabric	Flange	Cutaway
1	2	
2	29	
D.2	2	C

Table 2: Tegulae.

Imbrex

Only two imbrex fragments, both in Fabric type d.2, were present. One of these had an incomplete CLBR stamp on its upper surface. Although incomplete, the letters BR were visible in low relief. The stamp is probably rectangular and can be identified as being of group F (Philp 1981).

Signature marks

Only five tile fragments bore traces of signature marks of types 1, 2 and possibly type 10. They were all incomplete and have not been illustrated. (See *Canterbury's Archaeology* 1995–96, pp. 72–73 for illustrations of signature marks found in East Kent).

Conclusion

As mentioned above, fabric d.1 is very similar to the fabric of Classis Britannica tiles found in past excavations in Dover and elsewhere. Two tiles from Townwall Street bore CLBR stamps and both were in this fabric. The bricks in fabric d.1 bear the same deeply applied keying as those recorded from the Roman villa at Beauport Park, in East Sussex (Brodribb 1979). The flue tiles are also worthy of comment. Most are also of fabric d.1. They were all unusually thick and bore characteristic keying which is probably typical of flue tile in fabric d.1. This suggests that the bricks and tiles in this fabric were probably made to certain specifications for particular uses.

II Human Bone Studies

Introduction

Trevor Anderson

No recognised cemeteries have been excavated during the past year. However, several unexpected burials have been discovered outside known graveyards. These remains, from Canterbury, Chartham, Deal and Dover, are reported below. My only funded cemetery is the large sample of Anglo-Saxon skeletons recovered in 1994, in advance of housing development, at Buckland, Dover. As such, I am conserving my limited funding by working a two-day week. The combination of part-time work and the poorly preserved nature of the material under examination has meant that fewer than usual academic papers have been published (Anderson, 1996a–d, 1997; Anderson & Andrews, 1996, 1997; Anderson & Thomas, 1997; Carter & Anderson, 1996).

1 Buckland, Dover

Trevor Anderson

At the time of writing, most of the skeletons have been cleaned and 200 have been examined in detail. Two males display spectacular cranial weapon injuries, one of which shows evidence of healing and was not fatal (Anderson 1996a). Detailed examination of 168 individuals with teeth is being carried out in collaboration with Dr Jon Andrews, a dental surgeon. As well as examining evidence for dental disease and decay, we are able to study levels of severe childhood stress, as shown by hypoplastic lines of the tooth enamel. Once formed these defects rein present throughout life as an indelible marker of stress during the development of the tooth crown. In many cases, the jawbones have not survived and we are dealing with loose teeth. This allows us to examine, without the expense of radiography, abnormalities in root formation that we hope will provide valuable clues to familial groupings.

2 Canterbury Motor Company

Trevor Anderson

One burial, continuing outside the area of excavation, was unearthed. A damaged skull, mandible (lower jaw) and the upper five cervical (neck) vertebrae were recovered. The remains appear to be those of an elderly female, with a poor standard of oral health. Eight teeth had been lost during life and two of the five available teeth displayed carious cavities. Archaeological evidence suggests a Roman date.

3 Old Dover Road, Canterbury

Trevor Anderson

An isolated inhumation was discovered on this site. The remains consist of skull fragments; loose teeth; fragile long bones; eroded lower spine and pelvic fragments. The bones are extremely gracile and are clearly female. The roots of the third molars (wisdom teeth) are not fully formed, indicating she was only 15–17 years old. The skeleton was lying on its back (supine) with lower arms across the chest. The archaeological evidence suggests that the remains are Anglo-Saxon.

View of skeleton *in-situ*.

4 St Augustine's Hospital, Chartham

Trevor Anderson

The inhumation

A single inhumation was discovered. The skeleton was complete and the majority of the bones were solid and well preserved. The body was lying on its left side with the head facing to the left, the left lower arm flexed and the right extended. Both lower limbs were extended with the left leg lying over the right. The remains are those of a male aged 18–22 years, who was only 1.62m (5' 3¾") tall.

The feet displayed an anomalous articulation between two bones, a congenital condition known as calcaneo-navicular bridging. A benign bone tumour was noted in the region of the knee. Early stage joint disease was present in the spine. The left upper arm and the left lower leg displayed muscle markings. Both upper leg bones (femora) present with marked anterior-posterior bowing. The lower leg bones (tibiae) display slight medial bowing of their lower shafts. The lower anterior teeth displayed slight crowding. Two teeth presented with carious cavities. Calculus deposits were more marked in maxilla. There was no evidence for *ante-mortem* loss or hypoplasia. The right mandibular third molar was impacted.

View of skeleton *in-situ*.

The overall picture indicates a short stocky individual with poor oral health who had been subject to a rather strenuous life style, with over use of arm and leg muscles before his early death in late teenage/early adulthood. The benign tumours would have been asymptomatic. However, the calcaneo-navicular bridging may have given rise to a painful condition known as peroneal spastic flat foot. In modern clinical practice, as many as half the cases of calcaneo-navicular coalition are symptomatic (Braddock, 1961). The bowing of the leg bones does not appear to be related to malnutrition. It is more likely the result of some activity quite possibly horse riding. Before the advent of stirrups, a rider would need to grip the flanks of his mount quite firmly. Growing bones are quite 'plastic' and would be more likely to mould themselves in response to repeated strain. Although he may have been an habitual horse rider during his youth, he is unlikely to be a Roman cavalryman. According to Vegetius the absolute minimum height requirement for entrants was 5' 8". In addition, the nearest *ala* was stationed in northern Essex, at Brancaster (Johnson, 1976, 67). However, epigraphic evidence indicates that soldiers as young as 14 years were serving in the province of Britannia (Collingwood & Wright 1965, see inscriptions 502 & 523). As such, he was possibly serving in a part-mounted infantry regiment. By the later Roman period, this would not preclude him from being a native of the province.

There is no evidence of cause of death on the available bones. However, a single inhumation outside a known cemetery coupled with the casual disposition, suggesting a hurried burial, may be indicative of foul play.

The Cremation

A single cremation was discovered. A total of 574 gm. of cremated bone was recovered from the soil within the cinerary urn. Individual fragments up to 18 gm. in weight and 10 cm. in length were recovered. The majority of the sample, some 88 per cent by weight, could be identified. Only one individual was represented. The remains are female. The completion of the roots of a third molar, indicate that she was adult. The presence of a bony outgrowth (osteophyte) on the second cervical vertebra (upper neck region) suggests an older, rather than a younger, individual. However, there are no definite ageing criteria. No other pathology was recognised.

In modern crematoria, somewhere between 1.6–3.6 kg. of bone is recovered from an adult body (McKinley 1989). This suggests that our sample, at best, represents only one third of the body.

However, all skeletal elements, skull; axial; upper and lower limbs, were represented. Compared to the known weights of these elements in a complete body, the arms were under-represented and the skull and axial elements were over-represented. This is probably related to the fact that skull fragments are more easily recognised and the presence of large pelvic fragments has influenced the weight of the axial skeleton.

5 York Street, Dover
Trevor Anderson

During a watching brief at York Street, Dover, the mechanical excavator disturbed articulated human bones. Two individuals were recognised on site. Fragments of coffins and associated fittings indicate that the remains were post-medieval.

The first individual was represented by a badly fragmented skull; upper arms; upper spine and the shoulder region. The remains are those of a large muscular adult male. The second 'individual' was represented by long bones, pelvic fragments and lower spine. The presence of two left upper legs (femora) indicates that two individuals were present. Both were young adults, a female aged *c.* 20–25 years and a male *c.* 18–22 years. There was no evidence of pathology on the incomplete and fragmented bones.

6 Dover Road, Walmer
Trevor Anderson

Workmen excavating a large soakaway discovered bones, including part of a human skull in the back garden of a house in Dover Road, Walmer. Archaeological investigation indicated that the remains dated to the Iron Age.

The bones discovered by the workmen indicate that two individuals were present. A full-term foetus/new born child represented by skull fragments, left arm and a fragment of upper leg. A juvenile, *c.* 13–15 years old, represented by skull fragments; mandible; a rib and lower leg fragments. A search of the available spoil by the archaeologists unearthed further foetal/new born bones, pelvic fragments and a skull fragment as well as two juvenile feet bones.

7 Townwall Street, Dover
Trevor Anderson

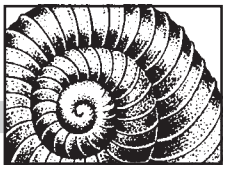
Recent excavation at Townwall Street, Dover has revealed a series of early medieval wooden buildings. In two of the buildings, a most unexpected discovery was the presence of a burial of a foetal/new born child. In building 33, the grave was dug parallel to, and in close proximity to, the north-west wall, furthest away from the street. The grave was well cut, subrectangular with near vertical sides. The skeleton was buried supine and extended with both arms by its side. The lower half had been cut away by a later feature. The available bones were solid and well-preserved.

Articulated human foetal/new born bones were recovered from building 7, some 20 m. to the north-east on the same street frontage. In this case, the grave was a shallow circular pit. The feature was adjacent to the south-west wall, some 1.5 m. from the north-west wall. The gravefill contained numerous blocks of chalk rubble and the skeleton was lying at an angle of *c.* 60°. It appears that body was unceremoniously deposited in a grave that was too small. No doubt, the difficulty of digging through the chalk was responsible for the inadequate grave. The skeleton was practically complete and the bones solid and well-preserved.

In both cases, the graves were sealed by later floor levels, indicating that the buildings continued to be occupied for some time after the burials had taken place. Metric examination indicates that both individuals are either full-term foetal or new-born. There is no evidence of cause of death on the bones and no sign of surgical intervention.

The medieval cemetery of St James was only 100 m. from these houses. It is possible that the parents were too poor to pay for a churchyard burial; or perhaps, more likely, the children were still-born or had died before they could receive baptism and were therefore excluded from the cemetery. The Council of Canterbury (1236) and the Council of Troyes (1310) indicate that it was unlawful to bury a female until the foetus had been cut out. The latter emphasised that a dead child was not to be buried in consecrated ground (Blumenfeld-Kosinski 1990).

III Palaeoenvironmental Studies



Environmental work was concentrated on the excavations at Townwall Street in Dover and at Christ Church College in Canterbury.

1 Townwall Street, Dover
Enid Allison

The deposits which had accumulated during 150 years of occupation of the medieval tenements in Townwall Street contained huge quantities of excellently preserved bones, especially of fish, together with charred plant remains and fragments of eggshell, shellfish and crabs. Samples of soil were taken and sieving carried out to maximise the recovery of this material. This whole assemblage is extremely valuable as it is unusual to recover such a closely dated and well stratified sequence of floor deposits. The fish and plant remains are of particular interest and no other work has been published in south-east England outside London for assemblages of this date.

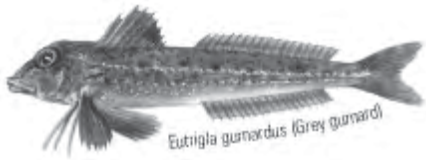
It is clear that the structures excavated in Townwall Street are connected in some way with the fishing industry, and that fish were an

important part of the diet of the inhabitants. There are an estimated 75,000 identifiable fish bones from the site. All fishes seen are marine. Herring bones were abundant in almost all samples along with those of cod and conger eel. Mackerel, thornback ray, gurnard and garfish were common, and scad and sea bream were present in smaller numbers.

Further analysis of the fish bones will not only aid interpretation of the site, but will also help our understanding of the early development of the port of Dover, and the English fishing industry. It will, for example, reveal whether fish were processed in the buildings, either for consumption by the inhabitants or for transport elsewhere, or whether the remains recovered represent culinary use only. Comparison of bones from the floors with those recovered from general dumps of rubbish may also provide interesting data. The relative importance of inshore and deep sea fishing to the local community can be assessed, and information may be obtained on both fishing and fish processing techniques.

Mammal remains from the site were predominantly the usual large domestic species, but the assemblage does contain some surprises, notably the tooth of a hippopotamus which appears to be contemporary with the deposits rather than a fossil from Pleistocene deposits which are present in the area! The range of seabirds present suggests that some birds may have been caught at sea while following fishing boats for offal.

Excellently preserved charred plant remains and a smaller quantity of mineralised material probably derived from cess were recovered. Cereal grains, nut shells and seeds of crops grown either for human or animal consumption were recorded. Brewing may have been important at the site. Evidence for this comes from finds of substantial quantities of sprouted barley and oat grains from a hearth which suggests that grain was being malted. Malting is a necessary precursor of the brewing process. Interestingly, grains of darnel (a type of rye grass) were present in some samples and some of these were also

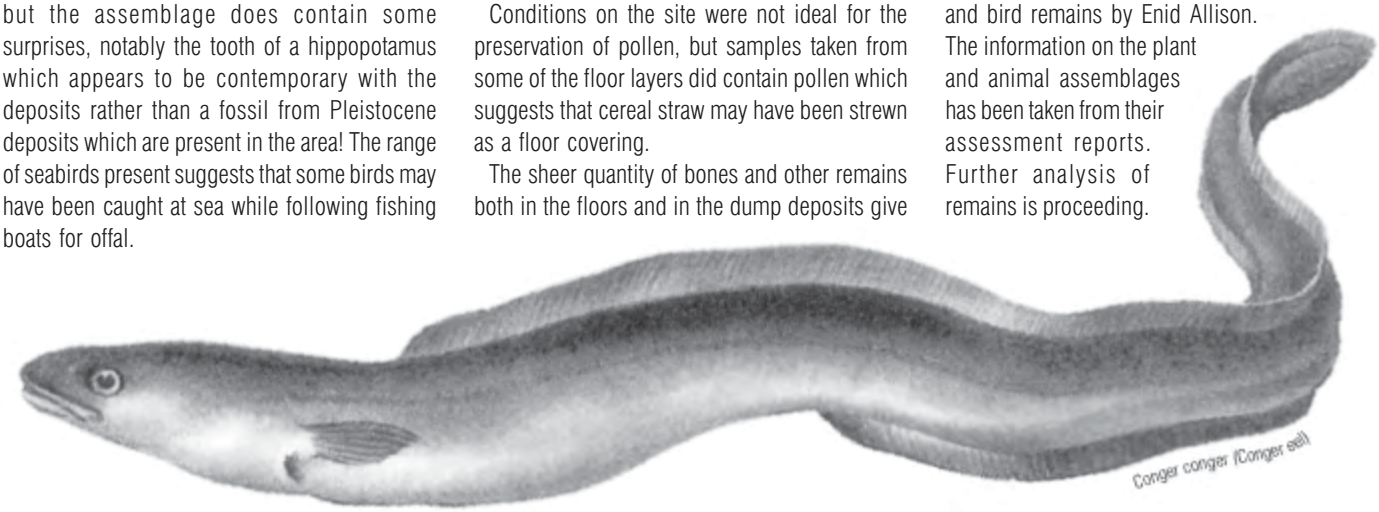


sprouted. Darnel has a toxic effect when eaten as a contaminant in wheat flour, causing a range of symptoms including vomiting and diarrhoea, but it was sometimes deliberately malted with barley to produce a very strong type of beer – hence the French name 'ivraie' for this plant (ivre = drunk, inebriated).

Conditions on the site were not ideal for the preservation of pollen, but samples taken from some of the floor layers did contain pollen which suggests that cereal straw may have been strewn as a floor covering.

The sheer quantity of bones and other remains both in the floors and in the dump deposits give some idea of what living conditions in the tenements would have been like. The dwellings would presumably have been cleaned out from time to time, but many of the smaller remains where pressed into the earth floors or perhaps covered by a fresh layer of straw. Mice and voles were fairly common on the site – there was obviously plenty of food available for them. One feature produced eggs of a nematode worm which have been tentatively identified as a species which infests the urinary tract of rats with the eggs being passed in the urine. Dumping of rubbish on the ground surface rather than in pits would have made the area rather smelly. Faecal concretions and faeces-coated stones were present among material recovered from these dumps suggesting that cess-pits and tanks were also emptied into these layers.

The charred plant remains have been examined by Gill Campbell, Environmental Archaeology Unit, University Museum, Oxford; the pollen and intestinal parasite eggs by Patricia Wiltshire, Institute of Archaeology, University of London; fish remains by Rebecca Nicholson, University of Bradford; mammal bones by Robin Bendrey; and bird remains by Enid Allison. The information on the plant and animal assemblages has been taken from their assessment reports. Further analysis of remains is proceeding.



2 Christ Church College, Canterbury

Enid Allison

Sampling at Christ Church was on an industrial scale with approximately 30 tonnes of soil being sieved from the site, most of it by David Knight. This massive sampling programme was implemented not only to enhance the recovery of small bones and other biological material, but also to recover the full range of slag and hammerscale present in the deposits associated with Anglo-Saxon metalworking operations. Charcoal, much of which would have been used to fire furnaces, was also recovered from many layers.

The extensive sampling carried out has enabled us to recover a range of small artefacts such as beads, glass and small metal objects which were not retrieved from hand-excavated contexts.

We have still not completed the sorting of the residues from the soil samples and so our work is in a less advanced state than with the previous site. Remains recovered so far are being assessed at the time of writing. A range of mammal, bird and fish bones was recovered, analysis of which will provide insights into the diet and economy of both Anglo-Saxon Canterbury, and from the medieval use of the area in association with St Augustine's Abbey. It will be possible to compare results from the later deposits with data obtained from St Gregory's Priory in Canterbury.

We are indebted to numerous volunteers and work experience students who have helped with the task of sorting through the dried residues from both Townwall Street and Christ Church College, and especially to Ingrid Corke, Bob Robson and Krystyna Zaleska whose painstaking work over a considerable period of time has been invaluable.

PART FOUR

Education

Marion Green

Aims, priorities and projects: a review and plans for the future

The Education Service managed by the Canterbury Archaeological Trust is jointly funded by the Kent Archaeological Society, the Trust and Kent County Council Education Department. The service derives policy guidance from the Education Committee of the KAS, chaired by Dr Alec Detsicas with myself as secretary. The implementation of the work of the service is managed on a part-time basis by myself, drawing on expertise of members of the Committee, members of the Trust and external educationalists as necessary.

The underlying aims of the Education Service are firstly to promote Archaeology through the county's educational establishments reaching as many young people as possible in the most economic way; and secondly, to do this placing particular emphasis on local aspects.

Certain priorities need to be established for the work we undertake, as resources for educational ventures are limited. Over the past few years our contribution has been varied and both reactive and proactive in nature. Hence a rather broad base has developed, with input being made at all levels of formal education, from the primary sector to the tertiary. However the focus has always been and will continue to be on Kent schools. The introduction of the National Curriculum for maintained schools in the late 1980s and early 1990s identified a particular need and thus helping teachers to implement the History programmes is our first priority.

Experience has shown more recently that, within this, some prioritization of the various possible education projects is the sensible route to take, if we are to fulfil our fundamental aims. In order to reach large numbers of school children, the most economic way is to empower teachers with knowledge and the capability to convey this to pupils. In attempting to achieve this, production of teaching materials supplemented by INSET (In-Service Training) for working teachers and tuition for student teachers is likely to be the most effective.

Teaching materials

Both *Roman Canterbury* and a more recent publication, *Discovering Archaeology in National Curriculum History* have been produced by the service specifically for use in primary and lower secondary schools. The former brings together much primary evidence for the Roman town in an easily digestible form and is a valuable case study for schools beyond East Kent in addition to those nearer to Canterbury itself. *Discovering Archaeology in National Curriculum History* is a teaching handbook of archaeological processes, classroom activities, local and national contacts and Kent sites to visit and is to be used across the county. Ian Coulson (a member of the Education Committee) does sterling work promoting both these books and the Education Service in schools throughout the county, in his professional capacity of Lead Consultant for History for the Kent Curriculum Services Agency.

The author of Roman Canterbury has been working on another written resource, this time for young secondary pupils. *Medieval Canterbury* should be useful to many secondary schools as a case study when looking at the study unit 'Medieval Realms'.

For the future, some form of educational resource for schools which embraces aspects of the archaeology of Kent, across the county, would be a worthwhile project. This will be discussed in due course within the Education Committee.

In-Service Training (INSET) and student teacher training

These are useful vehicles for reaching working teachers and those training in the profession. One INSET day has been hosted by the service to date for primary school teachers which was very well received. We are planning another day for the spring of 1998 and have begun discussions within the Education Committee for a further day based in the Rochester area on aspects of mid and north Kent archaeology for secondary school teachers. Ideally, INSET could become a regular feature of the Education Service, reaching both local teachers and teachers in other areas of the county. In addition, in January 1997 we accepted a primary school teacher on placement at the Trust for three days. She was the History Co-ordinator at Bethersden CP School and had a particular interest in artefacts and how archaeologists use them as evidence. The Teacher Placement Scheme is organised by the Kent Education Business Partnership for the CBI Education Foundation.

The Education Department of Canterbury Christ Church College has been liaising with the Trust regarding a series of tuition sessions for student teacher undergraduates. The focus is two-fold: the archaeological evidence for Roman

Canterbury to develop personal knowledge and the use of artefacts as a teaching resource. A number of these people will eventually be looking for teaching posts in Kent. I hope that this contact can be developed in the future.

Other areas of educational input

We envisage continuation of other aspects of our Education Service, which are largely reactive in nature, as long as they do not detract from the completion of priority projects and are financially viable.

While visits out to schools (in Canterbury, Herne Bay, Birchington, Ashford, Wingham and Margate in the past year) are without doubt beneficial and enjoyable, there is no plan at present to expand this area of input. Any development would be difficult to justify in terms of time expended and the inevitably limited numbers of young people who would benefit. This said, the small number of visits usually made will be maintained, to schools which are easily accessible.

Work Experience placements of one week's duration are given on a first come, first served basis and there is a quota in operation. Now the really keen schools approach us well in advance of placement time. This often means that the student is considering a career in Archaeology or a related area and therefore the experience of working in a unit will be particularly valuable. The nature of archaeological work can mean considerable supervision by Trust staff other than the Education Officer. Work Experience has therefore been a relatively expensive provision in the past, considering we can usually provide for only one or two students at a time. Many secondary schools are very appreciative of our role here as opportunities for budding archaeologists to get hands-on experience are rare. It is therefore planned to maintain the quota but revise the content of the programme to reduce expenditure. Over the past year we have been able to accommodate students from secondary schools throughout Kent: Maidstone, Tonbridge, Folkestone, Sittingbourne, Herne Bay, Canterbury, Ashford, Ramsgate and Faversham.

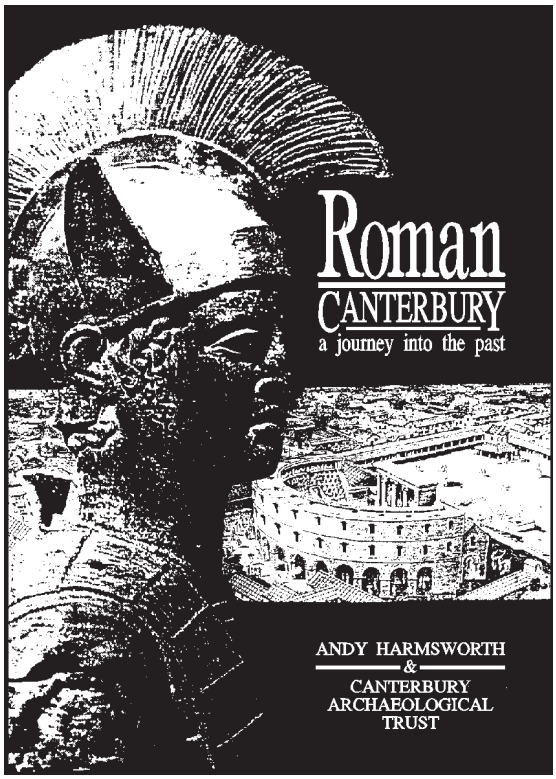
Excavation visits can be arranged when conditions allow and all Kent schools are invited to come and see archaeology in action. On the last such occasion (summer 1996) a member of the Trust field staff, Andy Linklater, very ably assisted with visits to the excavation at Christ Church College. We had groups (mostly primary schools) from Maidstone, Folkestone, Canterbury, Great Chart (near Ashford), Headcorn, Woodchurch, Benenden, Hoath, Wingham, Bridge and Broadstairs.

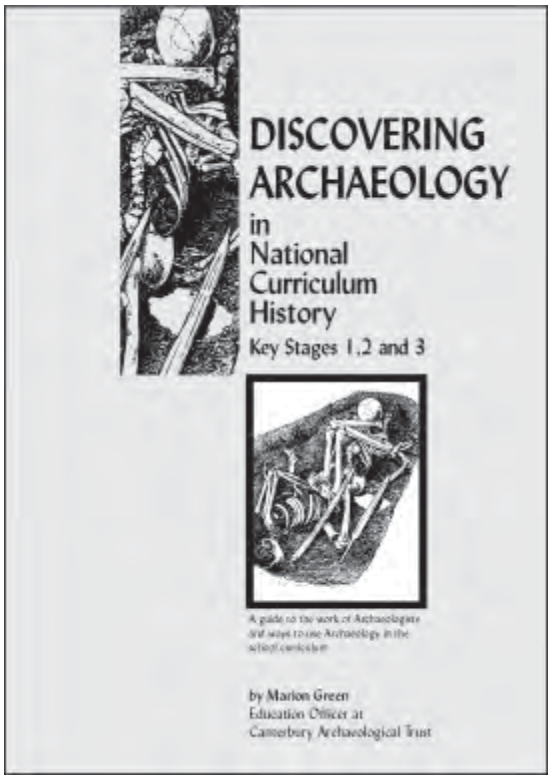
And finally ...

There are always a number of varied requests for information and data relating to individual student projects, from primary school to undergraduate level, both from within the county and beyond it. These are usually History related.

One interesting exception came from a mature student on a nursing course. She was embarking on a 'Community Profile' of the Northgate area of Canterbury and was looking for evidence of social strata, welfare and health conditions in the past. Although History was not a key element in her nursing studies, she had on this occasion taken the initiative to approach the Trust for assistance. She left with information about St John's Hospital (built under Archbishop Lanfranc) and the medieval cemetery at St Gregory's Priory, feeling that she had broken new ground.

I extend many thanks to those people and organisations who have continued to support our work. Firstly, to the Kent Archaeological Society and the Education committee which give guidance and financial support to our work; to Kent County Council for their financial support; and to the Friends of Canterbury Archaeological Trust for theirs. A special vote of thanks goes to Ian Coulson for his guidance and advice in curriculum matters.





PART FIVE

The Friends

The Friends of the Canterbury Archaeological Trust

Lawrence Lyle

The Committee, confirmed by the Trust Council in February, lost one of its longest-serving members when Barbara Rogers resigned. She had played a large part in the distribution of Newsletters and in the organisation of excursions. Her last great effort was the Mammoth Book Fair in April which involved collecting, sorting and transporting several hundred books. We are all most grateful for what she has done for the Friends and for the Trust. Ann Vine has joined the Committee.

During the year under review our numbers have fluctuated around 360, two-thirds of whom covenant their subscriptions. Thus our income from subscriptions has risen from £7,360 last year to £8,004 and the income tax recovered from £1,340 to £1,521.

The main grants to the Trust during the year have been:

- £2,500 to increase the capacity of the central file server of the computer network.
- £1,200 for photographic equipment for the dark room and for enlargements.
- £750 towards the cost of the Twentieth Anniversary Exhibition of the Trust in the Canterbury Heritage Museum.
- £600 to buy remaindered copies of Marjorie's Canterbury to be sold at profit by the Trust.
- Other smaller grants have been made from the Donald Baron Bursaries Fund to enable members of staff to attend conferences at some of which they have presented papers.

Exeter was the base for the short break in April. Laurence Fisher, assisted by Anthea Bryant and Meriel Connor, had devised a full programme which included an introductory talk by Anthea, visits to the cathedral, the Guildhall and Maritime Museums in the city and trips to Buckland Abbey with its associations with Francis Drake and to Lutyen's Castle Drogo.

Unfortunately this was the last short break organised by Laurence; he has our thanks for starting and carrying through an activity which has given much pleasure to many Friends.

Our summer excursion programme began with a proposed trip to Fort Amherst and Upnor Castle; lack of support led to its cancellation but Meriel Connor kindly agreed to take yet another party round the cathedral. In the event it rained hard! In June I took a party on a varied day in south-east London – small but well displayed Crofton Roman Villa, atmospheric Chislehurst Caves and Eltham Palace with its superb fifteenth-century Great Hall and the Courtauld's 1930s additions. In July Mark Houliston showed a party round the excavations he was directing at Christ Church College, presenting a number of intriguing problems. Combining with the Canterbury Archaeological Society we visited the remarkable Mysteries of Ancient China exhibition at the British Museum in December, enjoying half an introductory lecture (the coach broke down at Harbledown!), the objects and a film. A similar arrangement was made for a visit to the replica of Captain Cook's Endeavour at Greenwich, giving a vivid impression of life on board ship in the eighteenth century.

Three lectures were held during the winter. Cathy Haith of the British Museum gave a lavishly-illustrated talk about the finds from the Buckland cemetery. Peter Rowsome described his remarkable excavations at No. 1 Poultry; his team excavated below while construction workers built a new office block above them. Paul Bennett's Frank Jenkins Memorial Lecture in January was as comprehensive as usual – it was held in the same hall in Christ Church College where the public meeting was held in 1974 which led to the founding of the Trust several months later. The final event of the winter was a party in the undercroft of the Eastbridge Hospital with food and drink organised by Laurence Fisher and Liz Rothwell-Eyre and their helpers.

Organised by Meriel Connor, the ten Festival Walks in October were fully booked and resulted in a profit of over £400 for the Trust. During the year three Newsletters have been published, a vital means of keeping in touch with our members; we are all indebted to the team of distributors who deliver copies.

On behalf of all Friends may I thank members of the Committee who do so much to run the Friends and help us to achieve our main aim of supporting the work of the Canterbury Archaeological Trust.

PART SIX

Financial Accounts

The following financial statements represent a summary of the audited accounts of the Canterbury Archaeological Trust Limited for the year ended 31st March 1997. A full set is available at the Registered Office.

Report of the Directors

The Directors have pleasure in presenting their report for the year ended 31st March 1997.

Review of the Activities

The company was incorporated on 2nd August 1979 and acquired all the assets and liabilities of the unincoporated association "Canterbury Archaeological Trust". The principal activities of the company remained unchanged from those of the unincoporated 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 for the Trust for the year ended 31st March 1997 are as follows:

	1997	1996
	£	£
Main Account	28,386	5,658
Friends Account	5,974	6,661
Donald Baron Bursary Fund	602	864

Directors

The Directors during the year were:
F.H. Panton
M.H.S. Bridgeford
R. Westbrook

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 will be proposed at the forthcoming Annual General Meeting.

BY ORDER OF THE BOARD
Lawrence D Lyle
Secretary

26th January 1998

Report of the Auditors

We have audited the financial statements set out herein which have been prepared under the historical cost convention and the 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 conducted our audit in accordance with Auditing Standards issued by the Auditing Practices Board. An audit included 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 preformed 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 1997 and of the deficit) 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
26th January 1998

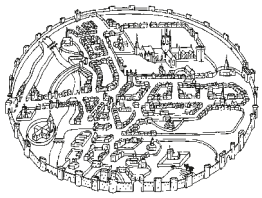
Main Account

Statement of Financial Activities for the year ended 31 March 1997

	1997 £	1996 £
Income		
Fees	744,190	740,482
Grants	36,840	36,000
Donations	12,106	14,956
Other	35,818	39,833
	828,954	831,271
Operating Expenditure		
Direct Project Expenditure	523,909	558,320
Management & Administration:		
Wages, Salaries & NIC	183,835	168,478
Overheads	92,824	98,815
	800,568	825,613
Surplus for the year	28,386	5,658

Balance Sheet *31 March 1997*

	1997 £	1996 £
Fixed Assets		
Tangible fixed assets	185,126	185,126
Current Assets		
Bank Account, Float & Debtors	260,652	212,454
Creditors (Due within one year)	(123,755)	(98,828)
Net Current Assets	136,897	113,626
Total Assets less current liabilities	322,023	298,752
Creditors (Due after one year)	(11,010)	(16,125)
Capital Account / Revenue Reserves	311,013	282,627



CANTERBURY ARCHAEOLOGICAL TRUST LTD

A REGISTERED CHARITY

The Friends Account

Statement of Financial Activities for the year ended 31 March 1997

	1997 £	1996 £
Income		
Subscriptions	7,779	6,856
Other Income		
Donations, Events, Interest	2,027	1,779
Total Income	9,806	8,635
Expenditure		
Stationery, Postage, Printing, Bank Charges	3,832	1,974
Surplus of Income over Expenditure	5,974	6,661

Balance Sheet *31 March 1997*

	1997 £	1996 £
Current Assets		
Bank Accounts & Debtors	19,912	17,418
Creditors		
Sundry Creditors (Due within one year)	(2,378)	(3,030)
Total assets less current liabilities	17,534	14,388
Represented by:		
Income and Expenditure Account		
Balance brought forward	14,388	12,907
Surplus of Income over Expenditure	5,974	6,661
		20,362
19,568		
Less payments on behalf of and to Canterbury Archaeological Trust Ltd	2,828	5,180
	17,534	14,388

The Friends Account – Donald Baron Bursaries Fund

Income and Expenditure Account *31 March 1997*

	1997 £	1996 £
Income		
Deed of Covenant / Interest Received	1,117	1,104
Expenditure		
Courses Paid	515	240
Surplus of Income over Expenditure	602	864
Balance brought forward	8,071	7,207
	8,673	8,071

Balance Sheet *31 March 1997*

Represented by:		
The Charities Deposit Fund	8,673	8,071

PART SEVEN

Members of the Trust Council

Patron:
His Grace the Lord Archbishop of Canterbury
(Dr George Carey)

Vice-Presidents:
*Cllr Bernard Collins
Mrs Margaret Collins
Mrs Margaret Scott-Knight

Chairman:
The Lord Mayor of Canterbury

Vice-Chairman:
*Dr Frank Panton, M.B.E., Ph.D., C.Chem., F.R.S.C., F.R.Ae.S., F.R.S.A.

Honorary Secretary:
*Mr Lawrence Lyle

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.A., 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.
The Dean of Canterbury (Very Rev. Dr John Simpson, M.A.)
Professor Alfred Smythe, M.A., Ph.D., F.S.A., F.R.G.S.
*Mrs Margaret Sparks, M.A.
Professor John Wacher, B.Sc., F.S.A.
*Mr Bruce Webster, M.A., F.R.Hist.S.
*Mr Michael Bridgeford, F.A.S.I.

*indicates Member of Management Committee

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.A., 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:
Cllr 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:
Cllr M. Jeffries
Cllr D. Sinnock
Cllr A. Linfoot
Cllr W. McLachlan

Non-voting members:
Mr Mansell Jagger, M.A., Dip. T.P., M.R.T.P.I.
(Director of Planning, Canterbury City Council)
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)

PART EIGHT

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