Canterbury's Archaeology

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annual review of the
Canterbury Archaeological Trust

CANTERBURY ARCHAEOLOGICAL TRUST LTD
A REGISTERED CHARITY

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

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Contents

Recent discoveries at three excavations – Turing College, the Marlowe Arcade and Rhodaus Town – have shed new light on the origins of Canterbury. Peter Clark, in collaboration with Ross Lane, Andy Macintosh and Adrian Gollop (respective project managers), describes how a new story is emerging, one that places the birth of the city in the context of a social and economic revolution that swept across Europe in the later Iron Age, a story in which the famed Roman general Julius Caesar plays his part.

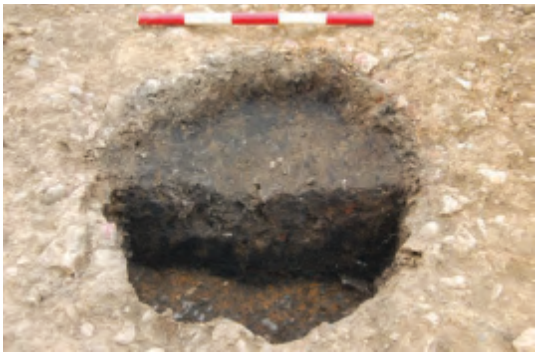
Turing College, University of Kent

One of the late Bronze Age cremations.

Major excavations covering around four and a half hectares on the ridge of St Thomas's Hill (NGR 613689 159411) on the northern edge of the Stour valley about 1.7km from the heart of the modern city revealed an extensive Iron Age settlement, possibly a small manufacturing centre given over to the production of textiles, pottery and metalwork. It seems to have been established in the late Bronze Age/early Iron Age in the first few centuries of the first millennium BC, but reached its *floruit* during the middle Iron Age, around 600–100 BC, declining and finally being abandoned in the century or so before the Roman conquest of AD 43.

The first sign of settlement here was a small group of cremation burials on the flat hilltop. These have not yet been closely dated, but would appear to be of late Bronze Age or early Iron Age date, maybe around 1,000–600 BC. There were four small pits containing cremated bone, two with large burial urns *in situ*, one placed upside down above the cremation and one crushed. Possibly associated with these features were six similar pits containing abundant charcoal, maybe representing debris from the funeral pyre. The potential early date of this cremated material suggests that it may be related to

Left: charcoal pyre material. Below: excavating a charcoal pit.



Loomweights and the wood lined pit.

the late Bronze Age enclosure system glimpsed just over 100m to the west at St Edmund's School (CAT 2014), and we may assume that the ridge line here was first occupied at this date.

However, it was in the early Iron Age, around the middle of the first millennium BC that the upper part of St Thomas's Hill was enclosed by an extensive ditch about 1m wide and 0.4m deep, delimiting the flat plateau at the top of the hill. Whilst it cannot be considered a defensive ditch as seen at other sites of similar date, it did mark out a completely new settlement that was to be occupied for many generations on this gravel and clay ridge overlooking the flood plain of the River Stour to the south.

The history of the site has yet to be studied in detail, but it seems that fairly early on the initial enclosure was subdivided into discrete zones by a second phase of internal ditches, with a trackway and hollow way approaching the settlement from the south-east. The settlement seemed to have been given over to the manufacture of certain products such as metalwork (iron and maybe also copper alloy), textiles and ceramics, with production of each being focussed in different zones. The north-eastern part of the site seemed to be dedicated to textile manufacture. Sixteen complete or fragmentary fired clay loomweights were recovered here, mostly placed in pits, along with four clay spindle whorls (one complete), evidence both of weaving and wool processing (DeRoche 2012). Also found in this zone was a large rectangular oak-lined pit, possibly a 'retting pit', used to extract fibres from textile plants such as flax, hemp and nettles (Andresen and Karg 2011). Though no dating evidence was recovered from this pit, the planks of its timber lining were radially split, a technique common before the introduction of sawn planks during the Roman period.

The south-western zone seems to have been devoted to pottery manufacture, perhaps along with some

A knotty problem

One very unusual feature at St Thomas's Hill has thus far stumped the archaeologists trying to interpret it. Cut into the gentle slope on the south-west area of excavation was a pit just over 2m long, about 1m wide, and 0.9m deep. It seems to have been cut deliberately for the burial of two large oak logs, both about 0.22m in diameter, one 1.3m long and the other 1.6m. Both were rather degraded, suggesting that they had decayed and weathered for several years before being buried. One had been worked with an axe and was probably the bough of a tree rather than a trunk. It had been used as a chopping block to axe cut other timbers on. Why these rather unprepossessing logs had been so carefully buried is a mystery. Were they some kind of votive deposit, a ritual offering to the gods? It is hard to imagine the gods would have been very impressed, but no other explanation readily presents itself ...

metalworking. At the eastern extremity of the excavation area were a number of large, deep pits; quarries for clay. Three potential kilns (1–3) lay roughly equidistant in a line running 70m downslope to the south-east. Two of these (kilns 1 & 3) are thought to have been for pottery manufacture, with some structural complexity and backfilled with burnt clay daub, charcoal and pottery fragments. The third kiln (kiln 2) was somewhat different, a simple circular cut with signs of intensive burning at its base with *in situ* reddened flint and hardened clay. It was filled with the remains of an upper structure along with fragments of slag and part of a crucible, suggesting it was used for metalworking.

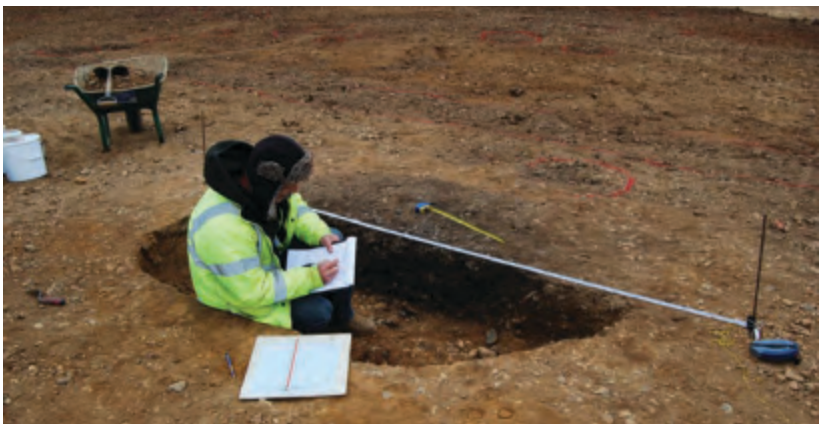
Scattered across the entire excavation area, both within the hillside enclosure and outside to the south-east, was a large number of mostly small to medium-sized pits with sterile fills, but also including particular pit types that may throw some light on the manufacturing practices taking place. For example, in the south-western zone there were large features characterised as 'rubbish pits', many of which contained concentrations of broken pottery, charcoal and burnt flint, sometimes crushed. The latter may have been intended for flint temper; flint–tempered ware was the most common type of pottery found on the site and indeed throughout Kent during the early to middle Iron Age.

In addition, there was a large number of pits that had signs of *in situ* burning at their base, mostly situated at the western side of the south-west zone. These can be described as 'fire pits' and may have been used for a variety of industrial processes, such as 'clamp kilns' for the manufacture of pottery, or for metalworking, for charcoal production, for food preparation or smoking. Also concentrated in the south-western zone, and extending down the hillside to the south-east beyond the enclosure ditch were around forty pits with no *in situ* burning but characterised by abundant quantities of charcoal. Preliminary analysis of this charcoal suggests that it is mostly wood from both wild and managed oaks, perhaps evidence of a charcoal burning industry supplying other industrial activities occurring on site.

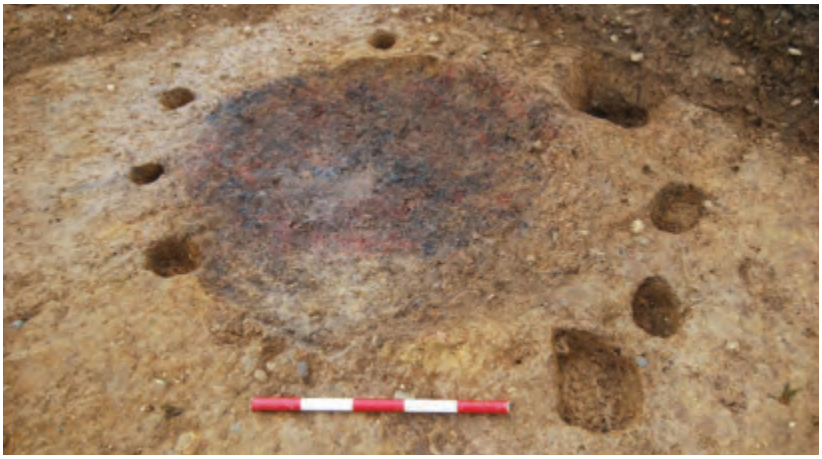
Scattered across the excavation area, though concentrated in the plateau area of the north-eastern zone was a large number of post-holes and stake-holes (nearly 900 in total). Many of these appeared to form rectangular or sub-square four-post structures, usually interpreted as 'granaries'. Much more work needs to be done on the spatial arrangement of these post-holes, but already larger six-posted structures and several potential large round-houses or other structures can be made out, which may represent manufacturing workshops.

Six unusual structures were revealed during the excavation that might be best described as sunken-featured structures (SFS 1–6): large, subrectangular cuts that presumably formed the sunken floor of an overlying timber superstructure. They did not correspond to a particular zone within the enclosed settlement, with

One of the kilns.

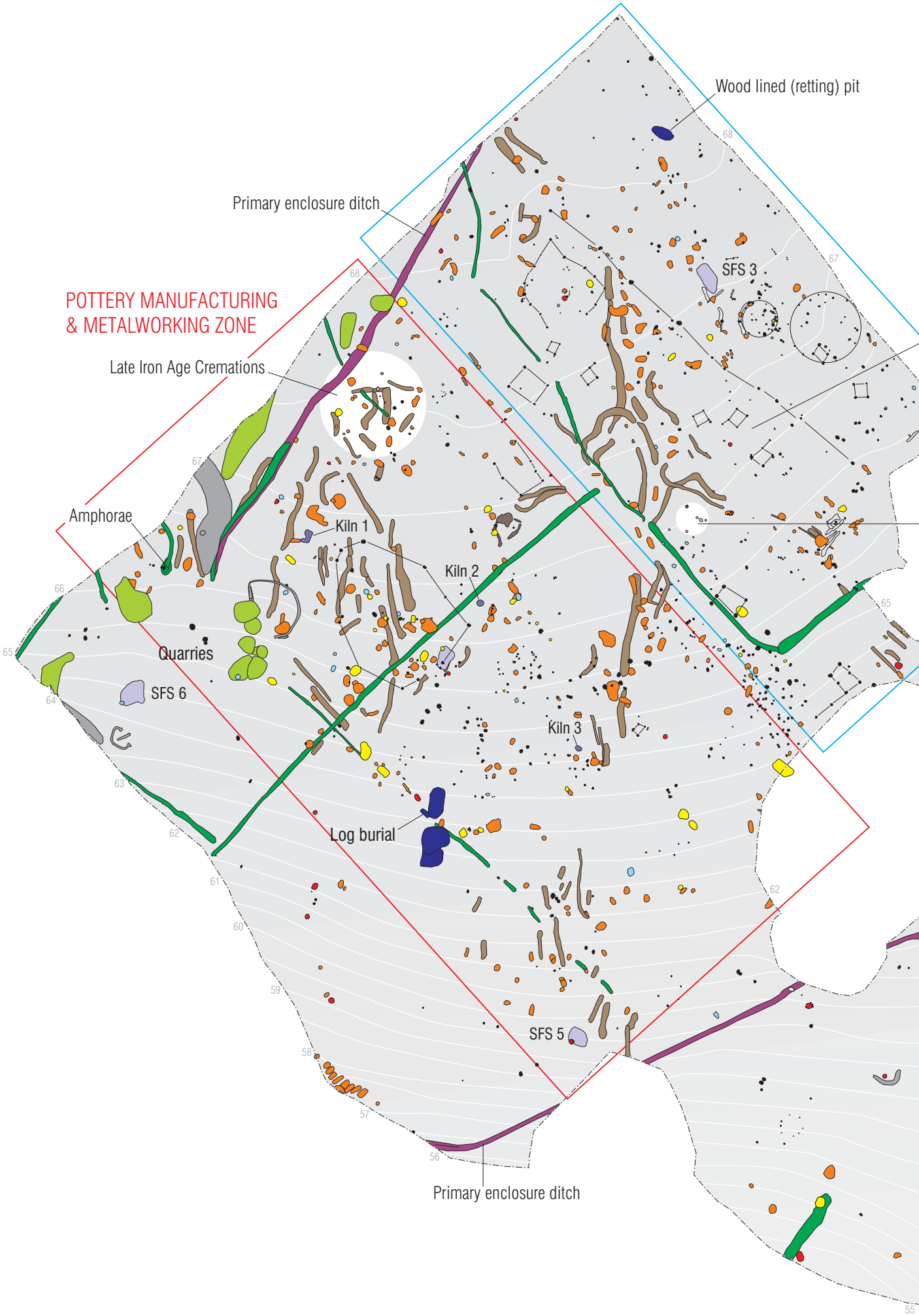


Recording a large rubbish pit.



A fire pit.

Charcoal pit.


Wood lined (retting) pit
Primary enclosure ditch
POTTERY MANUFACTURING
& METALWORKING ZONE
Late Iron Age Cremations
SFS 3
Amphorae
Kiln 1
Kiln 2
Quarries
SFS 6
Kiln 3
Log burial
SFS 5
Primary enclosure ditch
68
67
66
65
64
63
62
61
60
59
58
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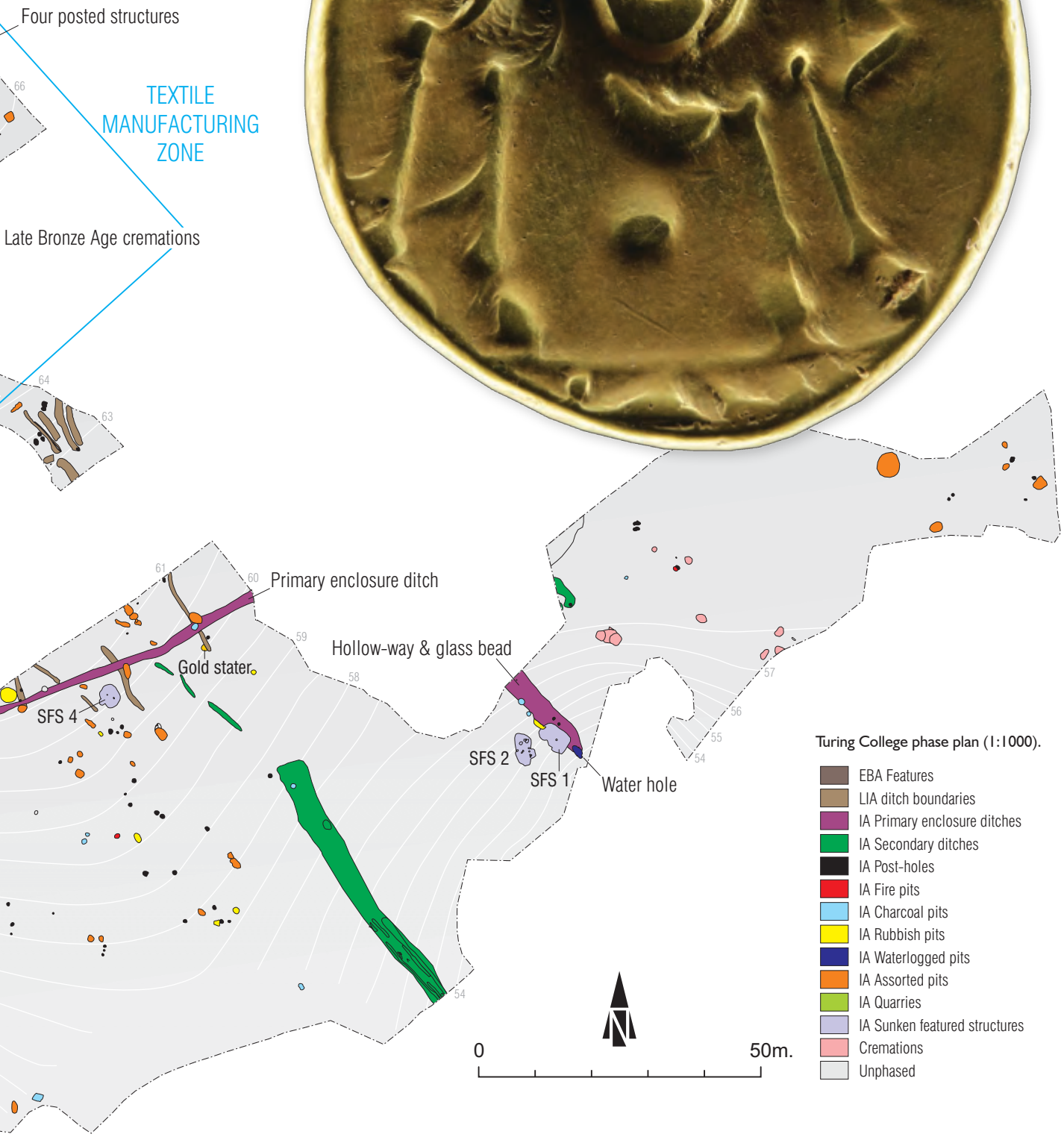
56
55

This gold Gallo-Belgic coin found at Turing College dates to around 58–57 BC and is one of many such 'staters' struck in Gaul to help finance the war against Julius Caesar.



three lying within the enclosure (SFS 3, 5 and 6) and three outside to the south-east (SFS 1, 2 and 4). SFS 1 produced a fragment of shale bracelet from its fill, whilst SFS 3, in the north-eastern zone of the enclosure, produced evidence of several phases of occupation with at least two clay floors overlain by thick deposits of occupational trample and charcoal.

The settlement at St Thomas's Hill might be understood as an 'industrial centre', focused on the production of pottery, textiles and perhaps metalwork. Its full extent is unknown, and it may have been part of a focus of settlement along this ridgeline on the northern edge of the Stour valley. People may have moved here in response to the far-reaching changes affecting western Europe around 800 BC, when along with the onset of colder and wetter climatic conditions, there was a major change in social structure, as the focus of social power moved away from the control of exchange networks and the conspicuous consumption of bronze to the control of land and agricultural production (Needham 2007). This latter may indeed be a response to the uncertainties of the harvest; the appearance of large storage pits and the four-poster 'granaries', so much a feature of the St Thomas's Hill site, may reflect the crucial importance of grain in a fast-changing world.

Whilst people at this time may have had less cosmopolitan horizons as the need for bronze diminished and the necessity for importing supplies over long distances dwindled, society did not become entirely insular. A small glass bead, found in association with earlier Iron Age pottery in a hollow way running towards the ridge-top settlement from the south-east shows that contact was maintained with the continent during this period. Whilst glass workshops are known from the British Iron Age where glass was reworked and coloured to create distinctive beads (such as the Meare Lake village, Somerset and Culbin Sands, Moray; Henderson 1980; 1987; 1991, 122–35) there is no evidence for the primary production of glass itself (English Heritage 2011a, 25; Jordan 2010). Current understanding is that glass manufacture took place on the Continent and was imported as scrap or ingots. Similarly, the fragment of shale bracelet from SFS 1 is also evidence of long-distance movement of materials. The most likely source for the shale is Kimmeridge Bay in Dorset, which was exported across western Europe as far south as Switzerland during the Iron Age and Roman periods (Teichmüller 1992; Baron *et al* 2007). Kimmeridge may have also been the source of the shale used at the shale jewellery workshop at Burham (*c* 1150–800 BC), just 50km west of the St Thomas's Hill site, where 10kg (*c* 7,000 pieces) of shale fragments were recovered, including 517 rough bracelets, armlets or bangles in various stages of manufacture and ten finished but broken examples (Pitts 2010a).

During the later Iron Age, from about 100 BC onwards, activity at the St Thomas's Hill site decreased dramatically. The zoned areas and roughly north-east/south-west co-

The 'waterhole'

In the far south-east of the site was a small waterhole, about 1.4m by 2.6m across and around 1.8m deep. It was probably dug in the late Bronze Age and though such features are relatively rare in the archaeological record they are sometimes found associated with Bronze Age settlements where they are thought to be intended to provide water for livestock. Waterholes of this date have been found at Swalecliffe in Kent (Masefield *et al* 2003), Perry Woods in Surrey (Brown *et al* 2006) and at Reading Business Park, Berkshire (Brossler 2001)

The feature is thought to have silted up during the early Iron Age and thanks to the unusually high 'perched' water table, the fills were waterlogged, preserving important environmental information such as insect remains, pollen, seeds and grain as well as fragments of wood, including a section of a notched log ladder that had been used to access the waterhole. Also recovered from the feature was a fragment of a human skull and a near intact pottery vessel, possibly deliberately placed in the disused waterhole as votive offerings.

Expensive tastes

At least some of the inhabitants of Canterbury in the years leading up to the Roman Conquest had sophisticated tastes. The broken amphora found at St Thomas's Hill was of a type often used to hold Falernian or Caecuban wine, two of the *premiers crus* of Republican Rome. Both were white wines, highly praised by the Roman poets of the day; the writer Horace (65–68 BC) extolled the virtues of Caecuban, whilst Catullus (84–54 BC) preferred the strong Falernian wine. What would have been the tipple of choice in pre-Roman Canterbury?

Horace 2004, Book I, XX, 61; Catullus *et al* 1913, XXVIII, 33

axial arrangement of land division went out of use, with perhaps a few irregular ditches suggestive of agricultural or pastoral activities associated with a number of pits that did not produce any datable material. The hilltop was thus abandoned after centuries of occupation, and given over to agriculture or stock raising, as it was to stay until the present-day development. There were signs that people did visit the hillside in the late Iron Age, however. A gold Gallo-Belgic coin, or '*stater*', was found in one of the re-aligned ditches downslope on the south-eastern side of the excavation. Stamped with a horse and crescent on one face, but blank on the other, it probably dates to around 58–57 BC. This type of coin is not particularly uncommon; they were struck in vast numbers to help finance the war against Julius Caesar in Gaul. Further upslope, on the north-west side of the site, was a small group of six cremation burials, which produced eight pottery vessels full of cremated human and animal bone along with abundant charcoal. The pots were all of grog-tempered 'Aylesford-Swarling' type, well known throughout north and north-west Kent, and thought to date from around 25 BC until the middle of the first century AD. This type of pottery is amongst the first wheel-thrown pottery to be found in Britain.

About 50m south-west of these cremation burials was a shallow pit from which the broken fragments of a Roman jar or *amphora* were recovered. Study of these fragments revealed that they were from a black-sand Dressel 1B amphora. These tall cylindrical storage jars with angular shoulders, long straight handles and a distinct collar held about 24 litres of wine (Tyers 1996a; 1996b, 89). They were produced in the Campania region of southern Italy between 75 and 10 BC (long before the destruction of Pompeii and Herculaneum by the eruption of Mount Vesuvius), and were imported to Britain by boat across the western Mediterranean (Tyers 1996b, fig 56) and by river through Gaul and then across the channel to Britain (Galliou 1982; Fitzpatrick 1985).

Despite this tantalising glimpse of the trans-European links enjoyed by at least some people in late Iron Age Kent, it is clear that people were no longer living at St Thomas's Hill at this time; but where did they go?

Marlowe Arcade

Just over 2km south-east of St Thomas's Hill, on the southern slopes of the valley floor running down to the River Stour, the Trust excavated three small trenches within the footprint of a modern building in the Marlowe Arcade (currently the 'Primark' store), about 250m south of the river (NGR 6149 157637). One was not deep enough to penetrate modern make-up, but the other two trenches (dug in advance of a lift and escalator pit) were up to 5m deep, cutting through the archaeology into the natural Head brickearth. The area had been excavated twice before, once by the Canterbury Excavation Committee

in the post-war years (1946–1957) and again by a team from the Trust between 1978 and 1982 (Blockley *et al* 1995). However, these earlier excavations did not always reach the bottom of the archaeological sequence, and the deepest (and therefore earliest) archaeology had survived untouched beneath the modern building.

In both trenches, the earliest activity appeared to date to the century or so before the Roman conquest, between 100 BC and AD 70, with a late Iron Age cultivated soil directly overlying the natural brickearth. In the westernmost trench (trench 2), cutting through this soil, was the northern edge of a large ditch, at least 1m deep running east–west. The southern side of the ditch was truncated by a later pit.

Pottery was recovered from the upper fills of the ditch which dated to the late first century BC or early first century AD, *ie* the decades leading up to the Roman invasion of southern Britain by Aulus Plautius in AD 43.

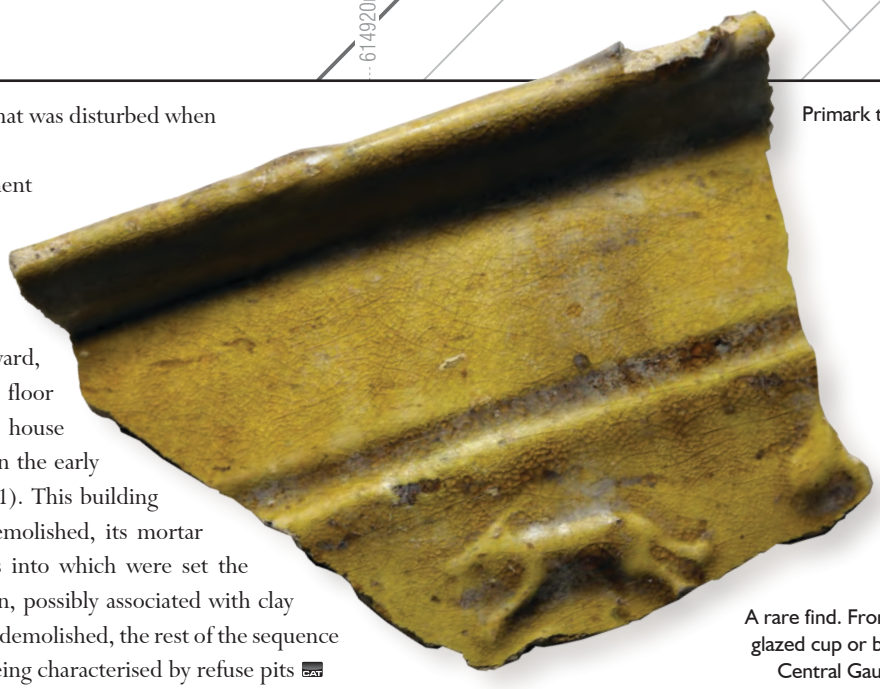
This ditch was undoubtedly part of one of those discovered during the Marlowe excavations in the 1970s and 1980s (Blockley *et al* 1995, 37–9), forming a triple-ditched enclosure with a staggered entrance surrounding a settlement complex with two round-houses, hearths, ovens and other features. The newly discovered small length of ditch not only confirmed the postulated line of the innermost ditch of this enclosure, but also produced further possible evidence of the settlement lying within it, a small pit and gully on the north-eastern (internal) side of the ditch.

However, a few short decades after the Roman invasion this late Iron Age settlement was razed to the ground, its buildings destroyed and its ditches infilled; the precise date of this is uncertain, but certainly a layer of 'grey loam' had built up over the early settlement by AD 70–80. This deposit was also found in the latest excavation from which two residual copper coins were recovered, both 'potins' of the *Cantii* dated to around 50–45 BC, with the head of Apollo cast on one side and the figure of a bull on the reverse. Other material recovered from this layer included metalworking debris and part of a human skull, that of somebody in their late

Primark trench location (1:250).

teens, possibly part of an earlier burial that was disturbed when the settlement was destroyed.

The destruction of this early settlement so soon after the invasion may, of course, be coincidental, but shortly afterwards the site was redeveloped; a phase of rubbish disposal was followed by the creation of a gravelled courtyard, subsequently covered by a mortar floor possibly relating to a Roman-style house (previously seen in a trench excavated in the early 1950s; Blockley *et al* 1995, 269, fig 131). This building ultimately went out of use and was demolished, its mortar floor sealed beneath dumping deposits into which were set the remains of a Roman period oven or kiln, possibly associated with clay floors. This, too went out of use and was demolished, the rest of the sequence from the late Roman period onwards being characterised by refuse pits



A rare find. From a small lead-glazed cup or beaker made in Central Gaul, *c* AD 40–70.

Rhodaus Town

About 400m south of the late Iron Age and Roman discoveries in the Marlowe Arcade, and 2.5km south-east of St Thomas's Hill, on the gentle north-facing slope of the southern side of the Stour valley, excavations at Rhodaus Town (NGR 615020 157255) also revealed evidence of early occupation, though of a very different character. Here, as at St Thomas's Hill, there was evidence of occupation in the late Bronze Age and early Iron Age, though it was more ephemeral than on the other side of the valley, largely consisting of residual pottery in later features and a single 38m long stretch of substantial ditch running north-west to south-east, possibly part of a field system. Similarly, a group of discontinuous ditches apparently forming a co-axial land division on an east–west/north–south alignment produced a very small amount of flint-tempered pottery of possible Bronze Age or Iron Age date. However, all of this pottery is very broken-up and abraded and suggests the area was used for low level agricultural purposes until the later Roman period.

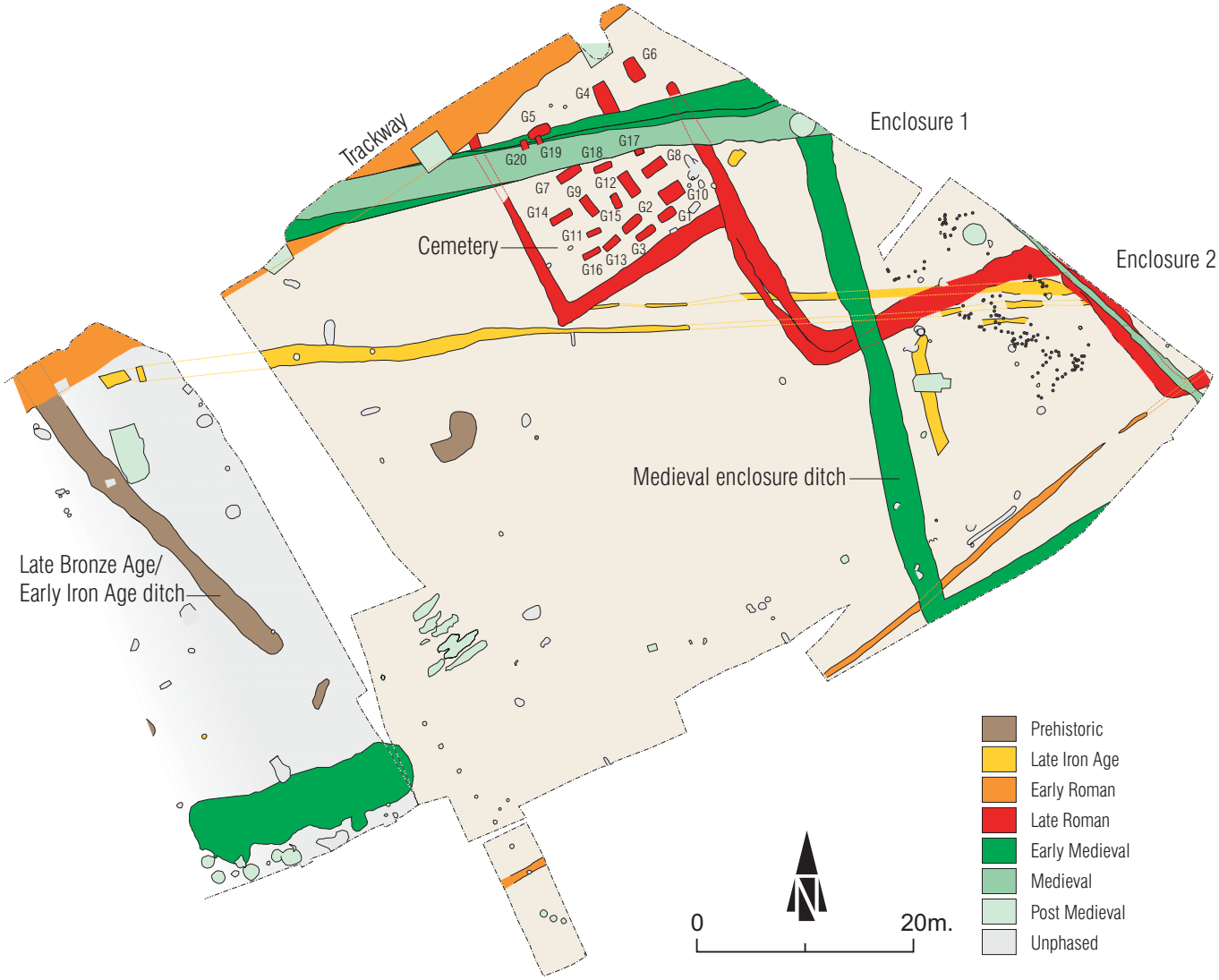
More intensive activity in the area was signalled by the establishment of a trackway running south-west to north-east in the northern part of the site. Archaeologically, this took the form of a worn hollow way, infilled with mixed colluvial and waterlain deposits and residual finds. The feature itself is difficult to date, but its alignment suggests it was a spur from the Roman road from Canterbury to Dover, about 100m to the north-east. A boundary ditch ran parallel to the trackway about 55m to the south-east. The trackway itself formed the north-western boundary of a ditched enclosure (enclosure 1) at the eastern end of the site (towards the line of the Canterbury to Dover road), probably sometime in the late third century, around the time that the first town wall was being built. Only the westernmost part of the enclosure was revealed in the excavation area, and it is difficult to establish what its purpose was. Another enclosure ditch (enclosure 2) ran south-east from its south-eastern edge.

Grave 6, with the decayed wooden casket under excavation.
Grave 9 with a late fourth- or early fifth-century pottery vessel placed next to the skull.

On the south-western side of enclosure 1 a small inhumation cemetery was established, demarcated by a ditch about 2m wide and 1m deep which, along with the western ditch of enclosure 1 and the trackway to the north, formed an area roughly 17m square. Within this area were 20 burials, all dated from the late third century to the late fourth (possibly early fifth) century AD, and quite different from other burials of similar date, many being more elaborate both in terms of their construction and the wealth of the accompanying grave goods. The graves were aligned with the sides of the square enclosure, with eight set roughly north–south and twelve east–west. There was only one instance where one grave cut another (graves 5 and 19) but otherwise they respected each other, suggesting they were marked in some way above ground. They varied in depth enormously, with about half being under 0.5 m deep and four being over 1.5m deep. Skeletal remains were found in all but one of the graves (grave 17) in varying states of preservation.

There was evidence for coffins in about half of the graves in the form of coffin outlines and coffin nails, and several had internal features such as earth-cut ledges; some may have been shored with timber planking. Fourteen burials were accompanied by grave goods, including complete pottery vessels (nineteen were recovered in all, one a possibly unique Oxfordshire ware vessel with elaborate demi-rosette decoration and a face mask, *see above*), copper alloy brooches, 'anklets' and pins, a shale ring, glass beads, hobnailed boots or shoes, and other objects of iron, glass and lead.

The two deepest burials, grave 4 (2.1 m deep) and grave 6 (1.8m deep), contained evidence for a wooden box or casket having been placed in the grave with the body. In grave 6 the box had been placed across the thighs of the deceased; though the wood itself had



Rhodaus Town phase plan (1:625).

Grave 8, with a large Oxfordshire 'face pot' at the feet of the deceased.

decayed away, the corroded metal fittings had survived, along with an iron locking mechanism. Inside the box was a coin, a copper alloy brooch, a naturally rounded pebble and a boar's tusk, all perhaps originally contained in a cloth bag. A vessel of frosted white glass (still with its stopper) had been also placed behind the body's head. In grave 4 there were traces of a similar box or casket placed above the deceased's head but here there were no other grave goods.

Located around 100m distant from the main Dover to Canterbury Roman road, the cemetery cannot be considered a 'roadside cemetery' associated with this thoroughfare. The chronology of the hollow way which forms its northern boundary is not fully understood at present, though in general the area seems to have been given over to low intensity agriculture in the later Iron Age and early Roman periods. The construction of the town wall may have led to a metamorphosis in the way in which the land was perceived and utilised. With the boundary between intra- and extra-mural town clearly defined in flint and mortar, the sprawling ribbon development that had built up alongside the main roads leading from the town went into decline, as can be seen along Watling Street, Wincheap and elsewhere (Helm 2014, 140; Weekes 2014). Roman law and tradition decreed that burials should only take place outside of the town (Cicero 1928, Book II, XXIII, 58, 445; Toynbee 1971, 48), and whilst the boundary of the town itself was poorly defined, the dead were disposed of at some distance from the core of the town. With the building of the town wall in *c* AD 270–290, burials could take place closer in, but clearly outside the boundary of the urban centre. To the south of the town wall, land previously used for agriculture and quarrying began to be given over to burial and other ritual purposes (Helm 2014). An extensive, predominantly inhumation, cemetery developed around Pin Hill some 360m to the west of the Rhodaus Town site, whilst just to the north a plot of land set between two groups of quarry pits (which themselves were deliberately backfilled with rubbish in the years following the establishment of the town wall) became the focus of more inhumation burials in the late third century and the construction of a polygonal shrine by the mid fourth century. This shrine was therefore roughly contemporary with the small cemetery plot lying 80m to the south, and it is tempting to think there may be some connection between them, though the entrances to both the shrine and the cemetery appear to face north-east, orientated on the line of the road to Dover rather than suggesting a spatial link between the two.

Sometime during the fifth century AD the area ceased to be used for burial, and soil deposits developed sealing the cemetery. During the eleventh or twelfth century a large enclosure was constructed, the north-east corner of which was revealed in the excavation area. The size of the ditches and the evidence for an associated bank suggests that the ditch had a defensive function, perhaps related to the turbulent times following the Norman Conquest, though insufficient evidence was found properly to understand its function. It was probably slighted and backfilled in the second half of the twelfth century, when the area returned to open agricultural land

Durovernum Cantiacorum: birth (and death) of a city

It is not unusual that evidence of early prehistoric activity can be found in the accounts of excavations and other interventions in the Canterbury area. Many sites produce 'background noise' of activity in early periods; Mesolithic, Neolithic and Bronze Age finds, usually residual, and occasional features are not uncommon (two Neolithic pits were found during the excavations at St Thomas's Hill). Currently this evidence does not suggest any nucleated settlement, but rather the general exploitation of the landscape of the Stour valley throughout early prehistory.

The beginnings of the nucleated settlement of what was to become '*Durovernum Cantiacorum*' seems to have taken place in the later Iron Age, and it lasted for around four centuries until its abandonment in the fifth century AD. The three sites reported here all have a contribution to make to a more nuanced understanding of the rise and fall of the settlement which was ultimately to form the core of the modern city.

The occupation of St Thomas's Hill overlooking the Stour valley in the late Bronze Age took place in a period of profound change for the communities of south-east England.

The end of the Bronze Age saw a much wider variety of settlement types compared to earlier periods, including enclosed and unenclosed sites (Needham 1992, 57–9). Most striking was the construction of settlements enclosed by banks, ditches and palisades as at Highstead and Mill Hill, Deal in Kent, Springfield Lyons and Mucking in Essex and many other places in southern Britain (Bennett *et al* 2007; Brown and Medlycott 2013; Bond 1988; Roberts 2013, 542–3). In France, fortified upland settlements became much more frequent in the late Bronze Age (Milcent 2009, 466–70, figs 17–18) whilst elsewhere settlements became more nucleated, like the 'village' of late Bronze Age round-houses clustering around the defensive ring-fort at Malleville-sur-le-Bec in Normandy (Marcigny *et al* 2005; Marcigny and Ghesquière 2003).

In addition to the move to upland (sometimes fortified) settlements on ridges and hilltops, other changes can be seen in the archaeological record indicative of a period of crisis; swords created specifically for combat make their first appearance which suggests a period of social discord and warfare (Osgood 1998; Osgood *et al* 2000). Analysis of around 160 examples of Irish late Bronze Age swords showed that over 90 per cent of them had indeed been used for hand-to-hand fighting (Bridgford 1997), a pattern that seems repeated across western and central Europe (Kristiansen 1999; 2002; Uckelmann and Moödlinger 2011). Spears also were used for interpersonal violence. At West Littleton Down in Gloucestershire two late Bronze Age people had been killed by spears; one had a hole in the pelvis made by a lozenge-sectioned spearhead that had been driven into his side, whilst the other had a bronze spearhead embedded into his spine, with the tip of another discovered in his pelvis (Knight *et al* 1972). Again, the evidence is not restricted to southern Britain, for there are signs of increasing violence across Europe at this time. A Bronze Age spearhead was found embedded in the vertebrae of a skeleton found at La Grotte du Pas de Joulie at Trèves (Gard, France; Knight *et al* 1972, 17), and another wedged in the pubis of 50–60 year-old man in a grave at Over Vindinge in Svaerdborg, Denmark (Bennike 1985, 109–10).

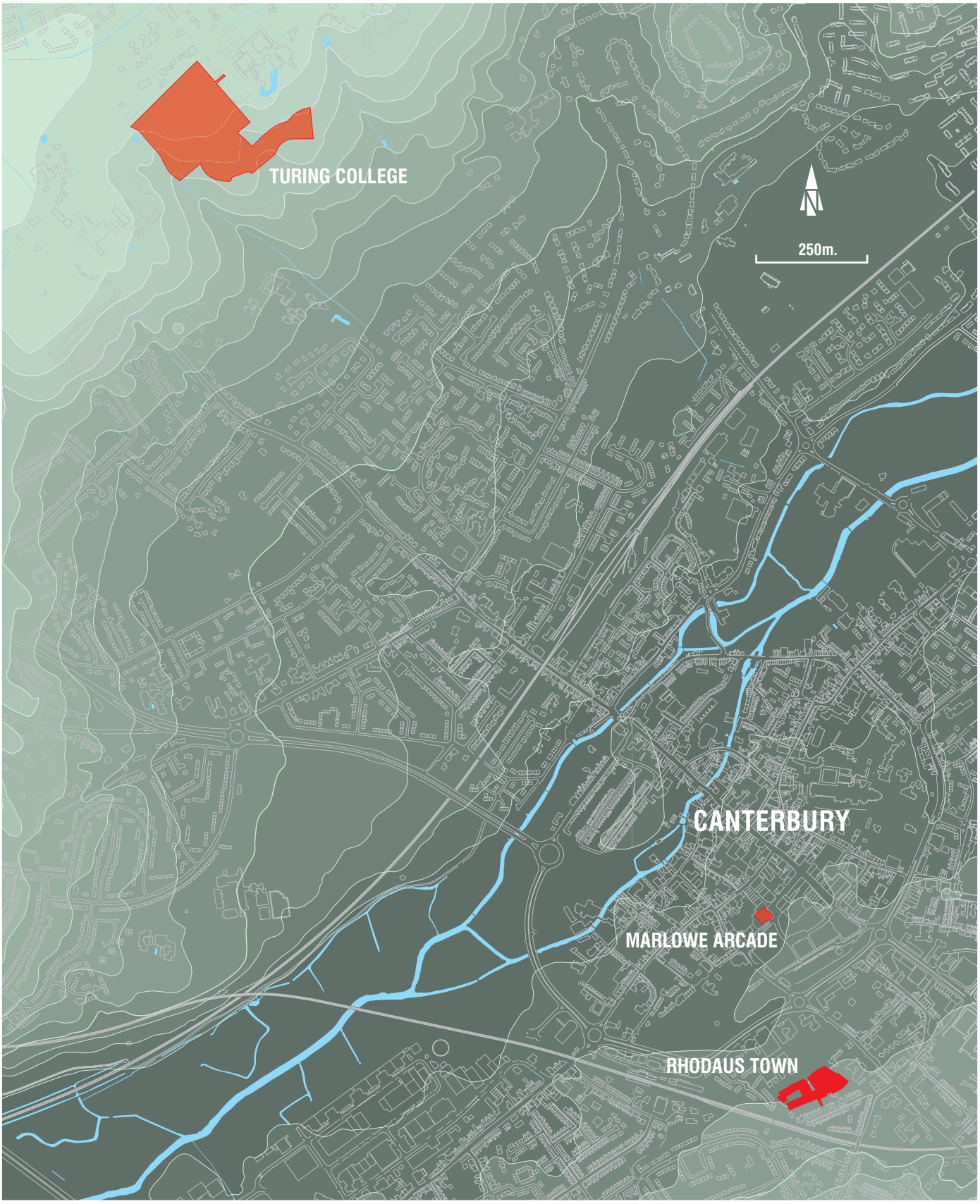
At the same time, there seems to have been a drastic change in the way in which bronze itself was perceived

Four-poster 'granaries'

The ubiquitous 'four-poster' is a common feature on Iron Age sites throughout Western Europe. They usually consist of four post-holes in a roughly square arrangement, and are generally interpreted as supports for an above-ground granary, keeping grain safe from pests and damp. But why this interpretation? Initially this was based on the discovery of wheat grains in the post-holes of one of these structure excavated by General Pitt-Rivers at Rotherley, Wiltshire, in 1888. Certainly there are ample ethnographic parallels for such raised storage structures from all over Europe (like the 'Regards' of France, the 'Horréos' of Spain and the 'Hambars' of the Balkans). In England, examples are well known from the medieval period, though from the 1600s onwards they were set on 'staddle-stones', a relatively common feature of the English countryside. Whilst of course not all 'four-poster' structures can be understood as raised granaries, in general this interpretation is universally accepted. On Iron Age sites they are sometimes found in conjunction with deep grain storage pits; it is though that the pits were used for long-term storage of grain (*ie* seed corn) whilst the raised granaries provided everyday access to grain for consumption.

by society. After centuries of dependence on bronze for practical, political and religious reasons, by the late Bronze Age its place in the cosmological, social and economic world of western European communities became redundant, and with it an entire social value system collapsed. This brought with it far-reaching changes, not least the long-distance network of social and economic contacts that had characterised the Bronze Age of the second millennium BC (Needham 2007). Between 900 and 800 BC huge quantities of Ewart Park metalwork were permanently deposited in hoards throughout Britain, particularly in the Thames Valley and the south-east, with a rate of deposition five times that of the previous 300 years; bronze itself had

The flood plain of the River Stour at Canterbury, showing the position of the three sites.



become 'redundant' (*ibid*, 53, fig 6), and after 800 BC the practice of depositing metalwork in hoards drastically reduced. Similarly, in western France, the deposition of metalwork in (non-funerary) hoards peaked during the period 1000–800 BC and then almost completely stopped (Milcent 2009, 461–2); the eighth century BC in France was 'clearly a period of profound change and often crisis' (*ibid*, 453). There are also signs of a significant decline in population during this period; detailed research has suggested a distinct peak in human activity in Ireland at around 1050–900 cal BC followed by a steady decline to around 800 cal BC and a rapid fall to *c* 750 BC (Armit *et al* 2014, 2), and this model may be extrapolated to the rest of north-western Europe (*ibid*, 1).

What caused this collapse of a centuries-old way of life is not yet properly understood. The adoption of iron itself does not appear to be the stimulus for these profound changes; though iron objects were known to communities from around 800–750 BC, *eg* at Lyn Fawr, Wales (Savory 1980, 123–5; O'Connor 2007; Huth 2000, 26–7), there is actually very little iron known from the late Bronze Age/early Iron Age transition; indeed between 800 and 400 BC very little metal exists at all in the archaeological record, whether iron, bronze or gold; a 'virtually ametallic four centuries' (Roberts *et al* forthcoming) in which it is difficult to argue for the direct replacement of bronze objects with those of iron. Indeed, the widespread adoption of iron production and objects only really takes off post-400 BC (*ibid*), and in France the day-to-day use of iron tools can only be seen from the fifth century BC onwards (Milcent 2009, 460).

This changing and uncertain world should therefore be the context in which we understand the first settlement at St Thomas's Hill, a difficult time perhaps exacerbated by climatic deterioration from about 800–750 BC onwards, with colder temperatures and wetter conditions shortening the growing season and increasing pressure on subsistence. This crisis seems to have affected all of western Europe at least, the cold spell lasting for 200 years, exacerbated by series of volcanic eruptions in the northern hemisphere during the eighth and seventh centuries BC (Brun and Ruby 2008, 55). However, this environmental deterioration does not appear to be a cause of the changes in society; the decline in population appears to pre-date this episode by at least a century (Armit *et al* 2014), and in western Europe the appearance of swords and a more warlike way of life occurs much earlier in central and northern Europe than the west (Kristiansen forthcoming) suggesting that there might not be a simple causal link between climate change and social change. Notwithstanding this, the worsening conditions must have had an impact. The evidence of four-poster granaries at St Thomas's Hill during the early and middle Iron Age are indicative of a greater concern with the management and storage of foodstuffs that can be seen throughout western Europe (Gent 1983), complemented by the use of deep grain storage pits, again seen on both sides of the Channel (*eg* Marcigny and Ghesquière 2003, 56). These four-poster granaries are a common feature of Iron Age sites throughout Kent, as at White Horse Stone (Booth *et al* 2011, 203–6, fig 4.30) and Gravesend (Allen *et al* 2012, 134–8, fig 3), throughout lowland England (particularly within defensible enclosures as at Maiden Castle, Dorset and Harting Beacon, West Sussex (Wheeler 1943; Bedwin 1978, fig 3)) as well as in France, the Low Countries and elsewhere in north-west Europe (Gent 1983, 261).

All this may be taken as the signs of a people having to cope with a diminishing food supply, greater competition for what was available, the advent of warfare and, of course, a change in the relationship between man and the gods.

The density of features and intercutting ditches on the upper plateau of St Thomas's Hill suggests the site was occupied for some time; initial assessment of the pottery indicates a date range of around half a millennium, from about 600 BC to 100 BC, but we do not know yet if the site was occupied for all that time. However, occupation of the site seems to all intents and purposes to have ceased by about 100 BC, with just a small group of cremation burials and a few refuse pits post-dating that time.

We cannot know precisely why the site was abandoned in the years leading up to 100 BC, but it may be that this was symptomatic of broader social and economic changes in the late Iron Age which, like the late Bronze Age/early Iron Age transition, affected most of the communities of Western Europe at the time.

From around 150 BC onwards there appears to be a change in the ways in which societies were organised; settlements became more centralised with relatively small scale production centres becoming focused on highly centralised and generally large-scale organisations with a wide range of material products (Henderson 1991), whilst society became more hierarchical with the formation of 'proto-states' and an increase in political and economic contacts over long distances (Fernández-Götz 2014; Fichtl 2012; Arnoldussen and Jansen 2010).

One symptom of this was the appearance of very large defended settlements – the '*oppida*' of Caesar – all across Europe from Hungary to western France (Henderson 1991), often with extensive evidence of industrialised activity. These are the most obvious sign of a powerful hierarchical economic and political system – the '*oppidum* system' – that was to a large extent a reaction to both the trading and diplomatic potential and military threat of the fast-expanding Roman world (Fitzpatrick 1989; Kristiansen 1998, 344–50)

Southern Britain was not immune to these changes and here, too, we begin to see signs of centralisation and the development of 'proto-states' or 'kingdoms' during the first and second centuries BC, brought

The Iron Age cremation pots discovered at Turing College.

about by increasing population and connections with the continental *oppidum* system and the fast expanding Roman world (Henderson 1991).

English Heritage (2011b) identify around twenty potential *oppida* in England though it is clear that Caesar used the term rather loosely, using the term for what we now would call 'hillforts' which themselves are centralised settlements that may have been symptomatic of a more hierarchical and politicised society.

The discovery of the late Iron Age ditch at the Marlowe Arcade is further evidence of the late Iron Age settlement close by the crossing of the River Stour, confirming the discoveries of the 1950s and 1980s and validating their original interpretation. The triple-ditched enclosure with its associated round-houses and other features is not the only evidence for new occupation on the valley floor near the river crossing over the Stour (thought to be near Water Lane) during the first century BC. On the other side of the river, around Whitehall Road, occupation deposits, pits, a rectangular building of beam-slot construction and a subrectangular stake-built wooden building were found of similar date (if a little later; the base of a pit beneath the primary floor of the stake-built structure produced a coin of Dubnovellaunus (15 BC–AD 5); Frere *et al* 1987, 47–52). These discoveries, along with other late Iron Age finds from elsewhere in the city, including a small but significant collection of metalwork, coins, possible coin mould fragments and an enamelled piece of horse harness (Frere 1954; Blockley *et al* 1995, 1102–03; Pilbrow 1871, 159; Haselgrove 1987, 139–45) have led some to believe that this early version of Canterbury was an *oppidum* (English Heritage 2011b, 3; Pitts 2010b; 2014,), though this as yet cannot be stated with confidence (Blagg 1995, 7–10; Millett 2007, 140).

However, it does seem that there was significant new occupation on either side of the river crossing during the first century BC, shortly after the manufacturing site at St Thomas's Hill was abandoned. This was also the time of Julius Caesar's conquest of Gaul and his two expeditions to Britain in 55–54 BC (Frere 1978, 42–54). Excavations at the Iron Age hillfort at Bigbury, 3km to the west of Canterbury, along with new survey work at Homestall Wood, suggest that this was the site besieged by Caesar in his second campaign of 54 BC, after which the ramparts were slighted and presumably the inhabitants of the hillfort dispersed (Blockley and Blockley 1989; Thompson 1983).

Communities in south-east Britain of course had strong connections with the continental *oppidum* system and the Roman world well before Caesar's invasion. It seems likely that such communities would respond to these connections by congregating in larger, more centralised settlements situated on nodal points with good communication routes by land and sea to facilitate long-distance commerce and political contact. The site at Canterbury was ideally suited to this, and we might imagine a burgeoning settlement on the banks of the Stour during the first century BC, perhaps attracting the weavers, potters and metalworkers from St Thomas's Hill and possibly refugees from Caesar's destruction of Bigbury.

What form this settlement took we cannot say for sure, whether it was a grand nucleated *oppidum* like Silchester or Colchester (Fulford and Timby 2000; Hawkes and Crummy 1995), or (perhaps more likely) a cluster of dispersed and variable settlement complexes on either side of the River Stour (Champion 2007, 121).

Another potential reason for the site of Canterbury being chosen as the focus of new settlement is that there may have been a religious sanctuary or shrine near the river crossing, forming a nucleus around which this late Iron Age settlement developed (Bennett *et al* 2003, 193).

No such shrine has ever been discovered, of course, and the evidence is circumstantial and speculative (Clark and Weekes, in preparation).

Without further excavation and new discoveries the suggestion that there was a pre-Roman cultic centre that formed the nucleus of Roman *Durovernum* must remain speculation; certainly this idea has by no means won universal support. However, for the moment, there seems enough circumstantial evidence to make a case for this possibility and that maybe 'we should understand the early development of *Durovernum Cantiacorum* primarily as a religious sanctuary rather than a conventional town' (Millett 2007, 158).

The late Iron Age settlements at the Marlowe Arcade and Whitehall Road appear to have gone out of use about the same time, in the middle of the first century AD. The site on the Marlowe Arcade was deliberately demolished and was covered by a thick levelling layer, whilst one of the buildings at Whitehall Road was destroyed not long after AD 50 and another sealed directly beneath the line of Watling Street (Blockley *et al* 1995, 47–52).

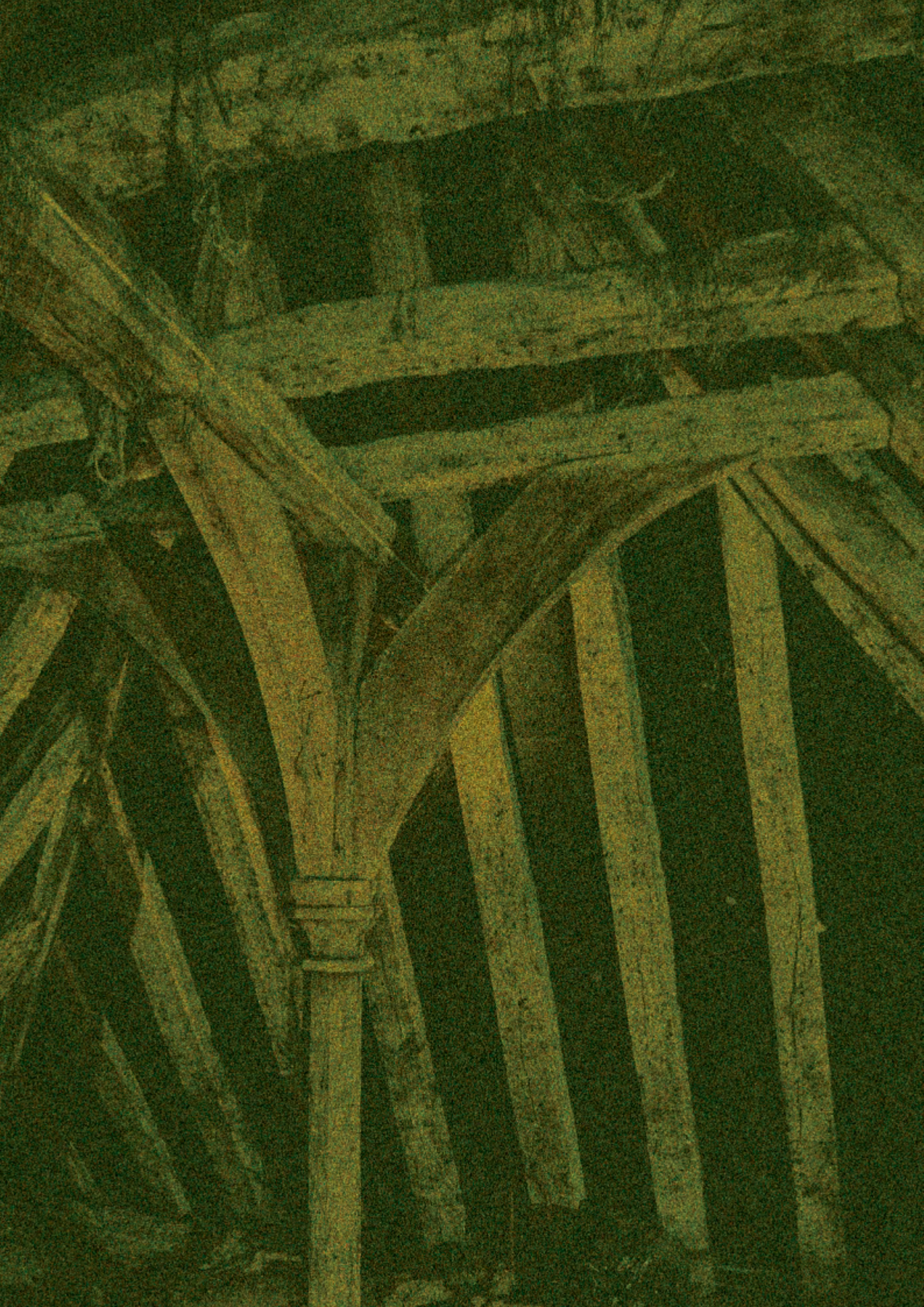
The fact that this settlement was levelled very shortly after the legions of Aulus Plautius arrived in Kent in AD 43 may be coincidental, and it seems there was no immediate impact on the settlement here; there was no change in the pattern of imports of amphorae, samian pottery and other goods from the Roman world, and the local potin coinage continued in circulation for at least half a century after the invasion (Blagg 1995, 9–11). However, within a generation or so signs of Romano-British urban construction begin to appear, with Roman-style buildings (maybe retail or workshops), the temple precinct and the theatre being constructed in about AD 70–80. Roman Canterbury was born. It was to last for around 350 years, becoming the cantonal capital of the Cantiaci before its eventual abandonment in the first half of the fifth century AD.

Durovernum Cantiacorum was to hold a key role in the south-east of *Britannia* throughout the Roman period, and the new discoveries at Rhodaus Town are an important addition to our understanding of this part of Canterbury, particularly towards the end of the Roman town in the late fourth and early fifth century. This area, to the south of the town and west of the ribbon development along the Canterbury to Dover road saw little significant development before this period. During the late Iron Age it was largely given over to farmland, though also a focus of possibly high-status burial mounds (Helm 2014, 137). For much of the history of *Durovernum* the area was divided by boundary ditches, presumably for agricultural land plots, though it was also exploited for quarrying and refuse disposal. It was not until the fourth century AD that the land was given over to burial and ritual purposes, as seen at the Rhodaus Town cemetery and the nearby polygonal shrine at Augustine House (Helm 2014). The shrine seems to have gone out of use in around the 360s AD, though the small enclosed cemetery to the south-east seems to have continued in use potentially to the early fifth century AD.

But the end of formal Roman influence in AD 410 seemed to have a marked effect on the fortunes of *Durovernum*. The town went into rapid decline and by around AD 430 the town was abandoned; the Rhodaus Town cemetery went out of use, and soil deposits built up above the graves. Within the town walls the great Roman buildings were uninhabited and fell into disrepair, overgrown and decaying. A few 'squatters' may have occupied simple timber huts amongst the ruins, but the great days of *Durovernum Cantiacorum* were over, and it became a place of ghosts and silent halls. It was to stay this way for perhaps half a century, and we see the first signs of meaningful regeneration some time later, probably in the early sixth century (Brooks 1986, 91). This heralded the re-birth of the city that was to become known as *Cantwaraburg*, the Canterbury that we know today

The Canterbury Excavation Committee

Following the devastating bombing raids of 1942, much of the south-eastern part of Canterbury lay in ruins, overrun with 'wild vegetation, dominated by buddleia and elder bushes' (Frere 1983, 7). Canterbury Archaeological Society saw this as an opportunity to discover something of the archaeological past of the city before rebuilding again covered the wide areas exposed. The Canterbury Excavations Committee was set up and the first excavations took place in September and October 1944, shortly after the liberation of Paris from German control, the arrest of Anne Frank in Amsterdam and the allied defeat at Arnhem in the Netherlands. The first excavation was directed by Mrs Audrey Williams from the Office of Works with four paid labourers and a total of eighty-four volunteers, working on a site between the blitzed ruins of St George's Church and the old city wall adjoining St George's Gate. Thus began a long series of largely volunteer excavations, lasting around 6–10 weeks each year during holiday periods and mostly excavating in the cellars of buildings destroyed by the bombing. From 1946 onwards work was directed by Sheppard Frere and in 1952 he conducted the first excavations beneath the present day Marlowe Arcade.



Our building recording team, led by Rupert Austin, has enjoyed another productive year. Demand for architectural surveys and assessments continues and a wide variety of commissions were undertaken at around forty different locations. Accounts of just seven are given here.

From Romanesque arches to timber-framed halls

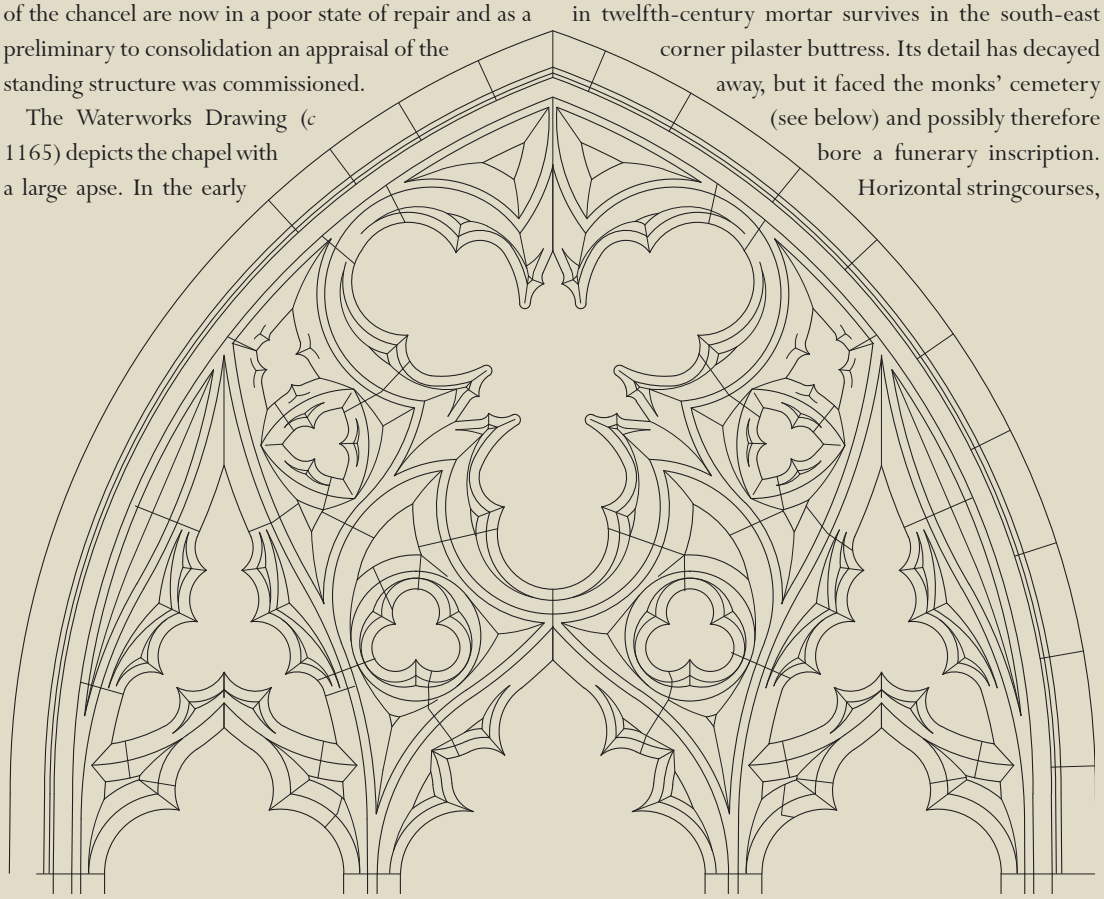
Over the years we have assisted the Dean and Chapter of Canterbury Cathedral with many building recording tasks, most in connection with the constant challenge of maintaining the ancient fabric. Amongst several commissions this year were a number undertaken in order to inform consequent repair and conservation. Two are described here, the first at the **Infirmary Chancel** (NGR 61522 15793).

Construction of the Infirmary at Christ Church Priory was probably begun under Archbishop Anselm, *c* 1120. Intended to house sick or elderly monks, it was a huge building (over 250 feet long) with an aisled hall and a chapel, dedicated to St Mary, added at its east end probably during Prior Wibert's time (1153–1167).

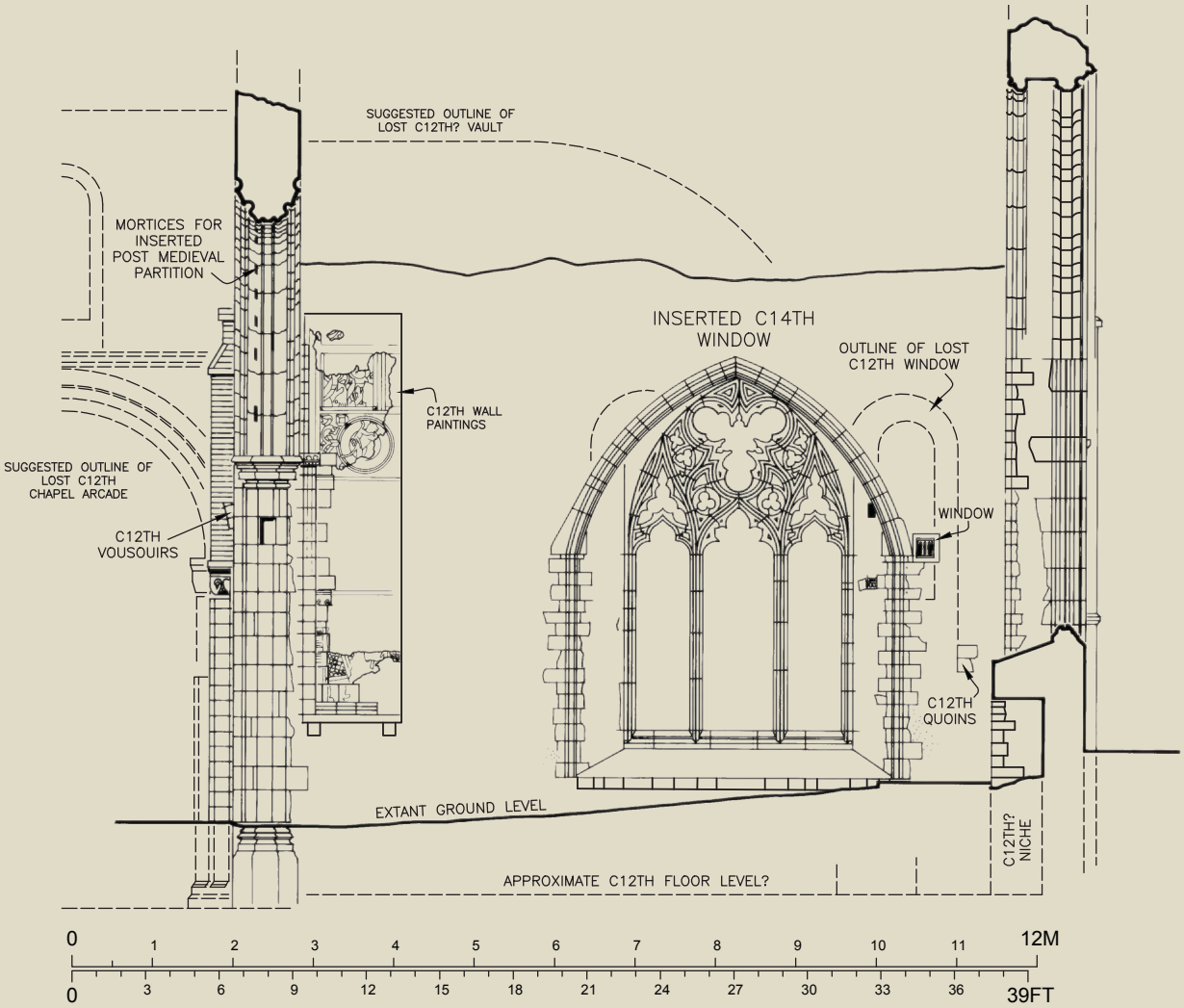
Parts of the Infirmary complex stand in ruins at the north-east end of the cathedral; other parts survive incorporated into post-Dissolution buildings. Five bays of the south arcade of the Infirmary hall, the south arcade and chancel of the chapel remain standing. Parts of the chancel are now in a poor state of repair and as a preliminary to consolidation an appraisal of the standing structure was commissioned.

The Waterworks Drawing (*c* 1165) depicts the chapel with a large apse. In the early nineteenth century the cathedral architect W D Caroe exposed part of what may have been a hemispherical vault springing from a moulding in the chancel's north wall, just inside the chancel arch. It is possible that it was a failure of this vault that necessitated a reconstruction of the chapel's putative apse in the twelfth century. Whatever the cause, it seems the apse was replaced with the present rectangular and aisleless chancel not long after the drawing was made.

The present chancel is about 10.5m long by 9.8m wide. It was thoroughly remodelled in the fourteenth century, but enough Norman fabric remains to understand much of its mid twelfth-century form. Like the rest of the Infirmary, and most of the monastic buildings of the Priory, the chancel was built to a high standard, its walls faced with Caen stone ashlar, internally and externally. The walls were strengthened in the usual Norman manner, with shallow pilaster buttresses. A Caen-stone plaque set in twelfth-century mortar survives in the south-east corner pilaster buttress. Its detail has decayed away, but it faced the monks' cemetery (see below) and possibly therefore bore a funerary inscription. Horizontal stringcourses,



North window, exterior face, partially restored.



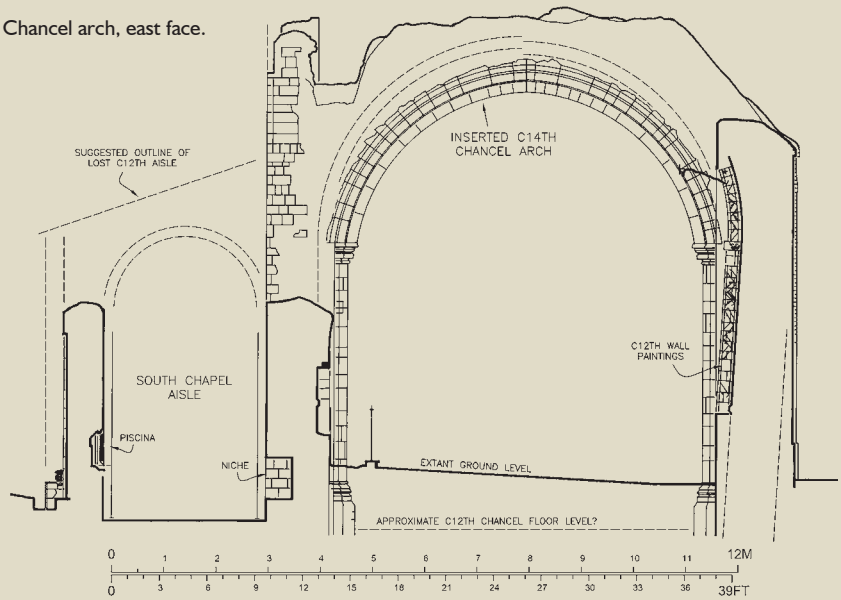
North elevation, interior.

with typical Norman profiles, articulated its elevations. A column base atop the uppermost stringcourse, over the south-east corner buttress, suggests the chancel elevations once rose higher, with perhaps a blind arcade or a clerestory. The outline of a semicircular Norman chancel arch is preserved above the west face of the present fourteenth-century chancel arch.

The chancel was lit by pairs of windows in its elevations, those in its north and south walls displaced eastwards, to avoid the apsed chapel aisles which slightly overlapped the chancel's walls. All were replaced in the fourteenth century, but fragments survive. The windows opened at the same level, immediately over the first visible stringcourse, their semicircular heads formed in the usual manner with small voussoirs and protected externally by shallowly projecting hood moulds. The window heads comprised three orders, the outermost provided with flat chevron ornament; the next, with a plain angle roll; the innermost, with a broad chamfer. The window reveals were splayed internally and embellished externally with plain, cylindrical nook shafts. The shafts terminated with decorated capitals, three of which survive; that belonging to the north window is richly carved, and of beaded water-leaf form.

In 1909 Caroe discovered twelfth-century wall paintings on the chancel's north wall against the chancel arch, where the vault remnant survives. The base of the vault appears to have been decorated, in part, with angels. A 'frieze of beasts' ran near the top of the wall, enclosed in roundels inscribed in square panels, with foliage in the interstices. Below this may have run a series of figures, including 'the Virgin and Child attended by saints, of whom the figure on the left is that of a layman, possibly a king in armour, clad in mail and surcoat.' These seem to have been framed by architectural motifs including, here, a tall tower of ashlar under a domed roof.

Chancel arch, east face.



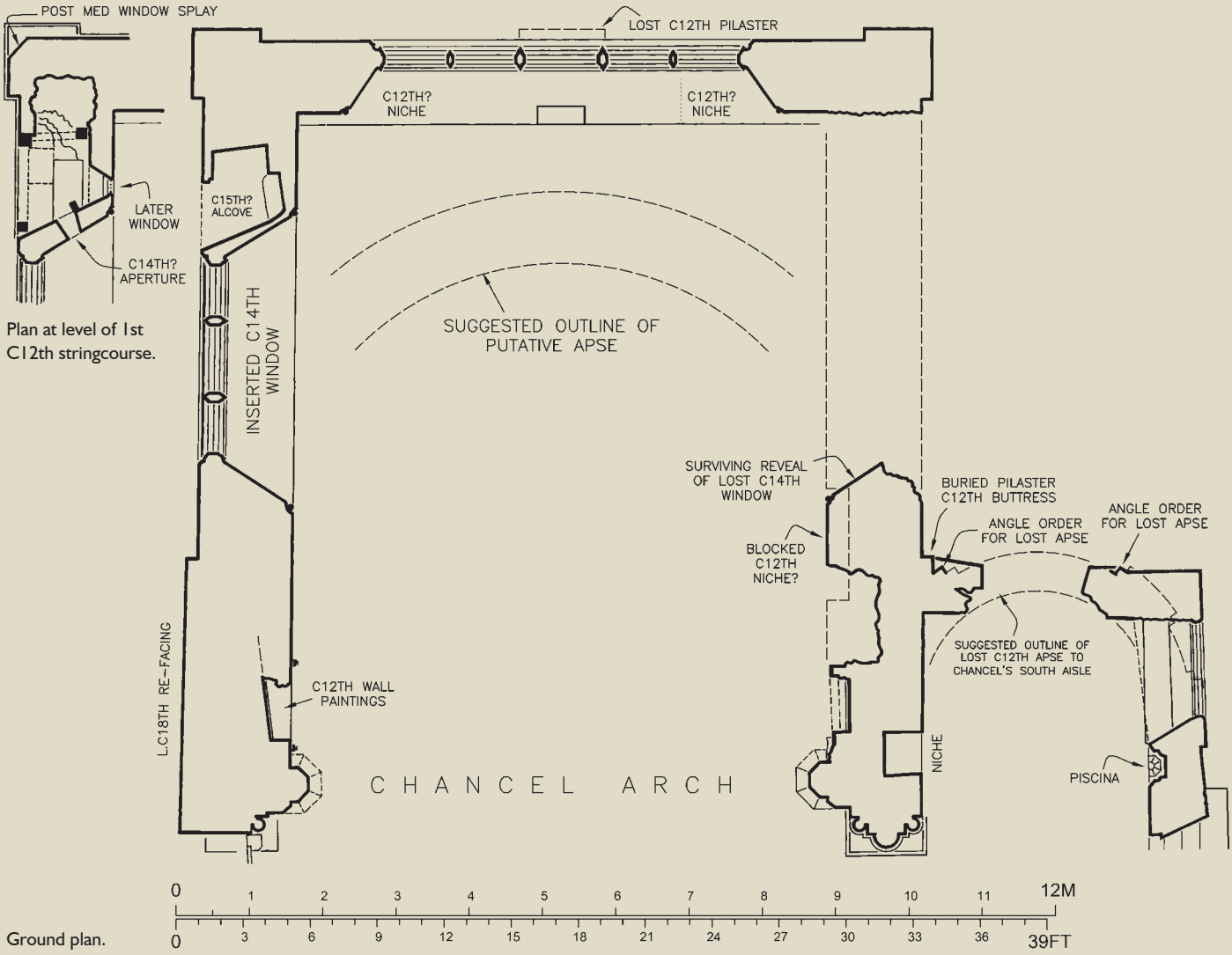
Ground levels have risen considerably over the years, both within and without the chancel, as they have within the chapel. It seems reasonable to suggest the chancel's floor lay at roughly the same level as the chapel floor, with perhaps just a single step between the two. The chapel floor and the pier bases of its arcade were exposed through excavation in the 1860s, so that we can estimate the chancel's floor level.

The Infirmary, standing close by the east end of the cathedral, suffered badly in the great fire that ravaged the choir in 1174. The damage, still evident today in the reddish hue of much of its surviving masonry, was noted by the monk Gervase in his first-hand account of the event. There is, however, no sign that the fire spread as far as the Infirmary chancel.

The chancel, along with many other parts of the cathedral and monastic buildings, was remodelled in the gothic style during the fourteenth century. The new masonry differed from the original as it was not faced with ashlar, the rubble presumably being rendered. Worked or dressed stone was reserved for architectural features such as windows and comprised larger blocks than those used in the twelfth century, more accurately cut, which allowed them to be more tightly jointed.

Remains of one of the twelfth-century south chancel windows.

The alterations did not alter the chancel's dimensions, but they transformed its appearance, replacing its round-headed Norman windows with larger gothic examples, one in each wall. That formed in the east elevation was particularly large, occupying the whole breadth of the chancel, and comprising five lights. Unfortunately its mullions and tracery have been lost, diminishing it to a gaping hole, but its sill stones remain, heavily weathered but retaining the stools upon which the mullions stood. The north window is fortunately intact, the three light opening filled with tracery of split-cusp or 'Kentish' form – such tracery is complex, incorporating both geometric



Plan at level of 1st C12th stringcourse.

Ground plan.

Twelfth-century window capital in the north chancel wall.

and flowing lines in its design, its numerous apertures embellished with combinations of cusps and foils.

The chancel arch was also replaced with a new gothic arch, slightly smaller than its predecessor, with polygonal responds and moulded bases and capitals in the gothic style. The crown of the arch is surprisingly low compared with its width and the feature is barely two-centred as a result, having an almost segmental, not pointed shape.

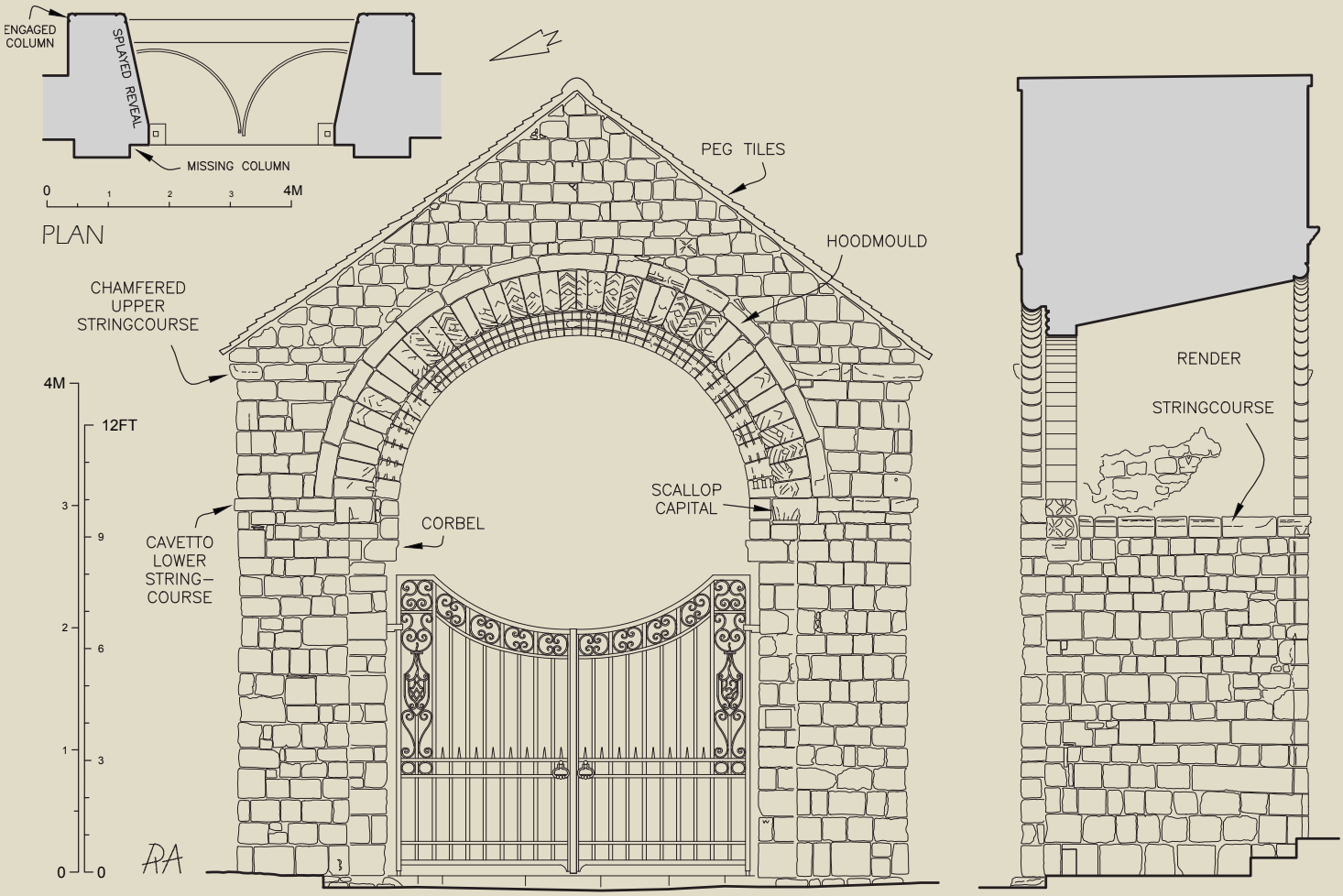
About 1265, the Table Hall (dining hall) was erected adjoining the north aisle of the Infirmary hall. In 1342, Prior Hathbrand improved the Table Hall, erecting new chambers for the infirm, with pentices adjoining, The east wing of these new chambers, extending southwards from the old 'Prior's New Chamber' of the Waterworks Drawing, abutted the north-east corner of the Infirmary chancel. Margaret Sparks (2007, 44), suggests 'the new chambers were two storeyed, probably stone and flint below and timber-framed above,' having '*solaria*' on the upper floor. Various later donors fitted-out chambers, or provided them with kitchens. The earthquake of 1382 damaged the north side of the Infirmary chapel, requiring expenditure of £11 '*in reparacione capelle infirmarie ex parte boriali per terremotum destructe*'.

With the Dissolution and New Foundation (1540–41) the monastic Infirmary was rendered obsolete, whilst there arose unprecedented demand for private dwellings for the canons and other members of the Chapter. Due to its late medieval subdivision into chambers, and the erection of further chambers around courtyards on its north side, the former Infirmary seemed eminently suitable for conversion as lodgings, and was among the first buildings so treated (Sparks 2007, 126). Early in this process, in 1545, the lead roof of the Infirmary hall was taken down and the present Brick Walk formed. The Infirmary chapel roof would also certainly have been dismantled at this time. By 1546, six prebendal houses, of varied size and quality, had been carved out of the Infirmary fabric. The Infirmary chancel still retains evidence within its fabric for the dwellings that were formed within and against it in post-medieval times.

A second commission undertaken to inform conservation was at the **Cemetery Gate** (NGR 61523 15787), almost within sight of the Infirmary chancel. The poor condition of the gate's structure had become apparent when fragments of masonry fell from the arch and plans for repair were quickly put in motion.

The Cemetery Gate, a Grade II listed structure is now located in the west wall of the memorial gardens, but it was originally set in a wall which ran from the corner of St Anselm's tower probably to the southern priory boundary, separating the lay (or outer) cemetery to the west from the monks' (or inner) cemetery to the east. Generally attributed to Prior Wibert (early 1150s–1167), the gate appears on the Waterworks Drawing (*c* 1165) where it is depicted with planked timber doors, hung on ornamental hinges.

Cemetery Gate, west elevation and section to north.



Probably during the second half of the seventeenth century the Cemetery Gate was provided with a pair of matching 'shaped' or 'Dutch' gables – whether in stone or brick is unclear – the gables perhaps first depicted in Collins' prospect of *c* 1684, but shown more clearly on Carter's engraving. These had been lost by the time the gate was moved in 1840.

The gate was repaired towards the end of the eighteenth century, seemingly in an accurate manner, using Portland stone to replace some of the original Caen. The gate was left freestanding in 1836 when the cemetery wall was demolished, and in 1840 it was agreed that it should be moved to form an entrance into the Bowling Green which after the First World War became the Memorial Garden.

The gate was dismantled and rebuilt using the original Caen and later Portland stone under the direction of cathedral architect George Austin. Other examples of his work evince his understanding of medieval architecture and demonstrate great attention to detail; analysis of the present structure and comparison with early illustrations confirms the accuracy his work here. On its new site the gate retained its original orientation and has evidently seen few repairs since it was transplanted. The present iron gates bearing the date 1921 were added after the formal laying out of the Memorial Garden.

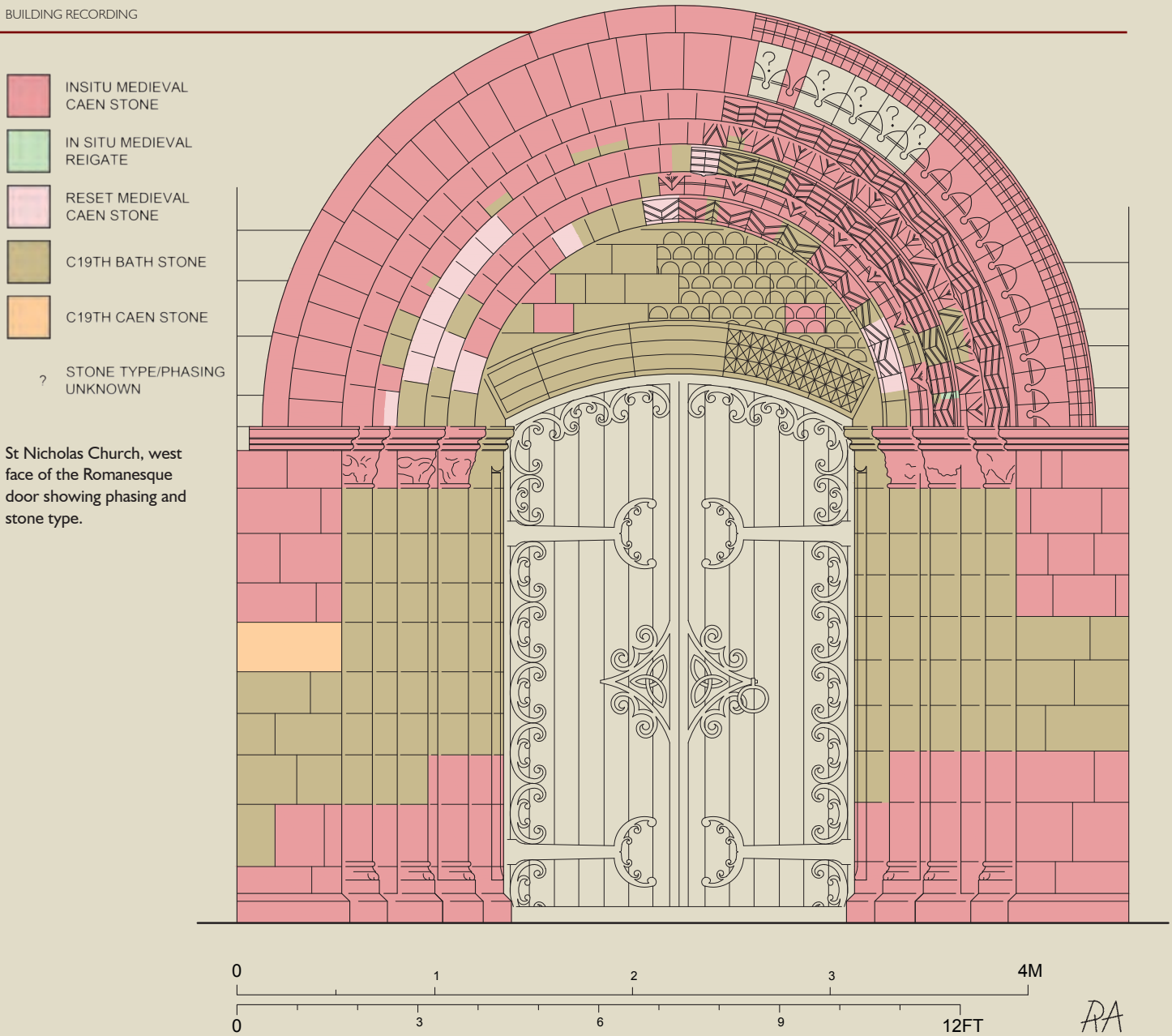
Although the gate's overall appearance is well recorded in early views, its detail is harder to determine from such sources, and we must rely on the present structure for information, and trust the accuracy of Austin's reconstruction. The gate, as rebuilt, is approximately 5.6m wide, 2.3m deep, and 6.6m high at its western face. Curiously, the opening is splayed eastwards, perhaps for aesthetic reasons, or maybe to allow its doors, if they rose above the springing of the arch, to open without fouling the soffit of the arch.

The gate has a semicircular arch, as one would expect of a Romanesque structure, springing from capitals on its east and west faces. The capitals are now badly eroded, but where their detail survives, a scallop form (a development of the cushion capital used in early Norman work) is revealed. The capitals' abaci have a common Norman profile with a plain upper face, quirk, and hollow lower chamfer and continue across the face of the gate in the manner of string-courses. Engaged columns were present originally beneath the strings and capitals on both sides of the gate, but only those on the east face have survived. Those on the west face appear to have comprised separate nook shafts, and must have been lost before the gate was relocated; they are missing on early illustrations.

The west face of the arch comprises two orders beneath a hoodmould, the fabric still mostly medieval. The first and lowest comprises chevrons, the second an angle roll embellished with a cable moulding beneath zigzag ornament. The hoodmould, being the most exposed element, is badly decayed, but fortunately something of the original decoration (an alternating pattern of upright then inverted T shapes) can be determined through inspection of the surviving fragments and study of early photographs of the gate newly relocated. A rebate, perhaps for the original doors, survives behind the arch,

Carter's engraving, based on a drawing of 1785.

Decorated twelfth-century voussoirs on the west face of the arch.



St Nicholas Church, west face of the Romanesque door showing phasing and stone type.

but this no longer continues to ground level, stopping instead at a pair of later corbels just below the springing point.

The east face of the arch is simpler, comprising only a single order beneath its hoodmould. The order is relatively well preserved, comprising an angle roll embellished with cable moulding. The moulding runs contiguously from stone to stone, indicating the voussoirs were placed in the correct order when the gate was relocated. The hoodmould is again badly eroded, but enough detail remains to suggest its original appearance: a repeating pattern of linked semicircles, embellished with beading, and some form of tri-lobed motif.

Romanesque work was also recorded at **St Nicholas Church, New Romney** (NGR 60654 12475). The deteriorating condition of its lavishly decorated Romanesque west door had become a cause for concern and a campaign of conservation and repair was initiated. Analysis and recording was undertaken in advance of these works.

St Nicholas church is located on the southern edge of New Romney, one of the five Cinque Ports, and is thought to have to been constructed *c* 1140, when the town developed largely as a consequence of the harbour at 'Old' Romney silting up. Originally the church stood close to the sea and a large new harbour, but this too began silting up in the late thirteenth century and was then damaged by a great storm in 1287. The church now lies almost 2 kilometres inland. New Romney belonged to one of the largest of Christ Church Priory's manors, that of Aldington, and it has been suggested the architecture of its church was strongly influenced by its archiepiscopal patronage and funding (Campbell 2010). Comparisons have been made between its earliest fabric, and the surviving Norman elements of the eastern arm of Canterbury cathedral.

The church has been enlarged over the years. The impressive western tower might be the first significant addition, though the lower stages, including the west door, were formed in the Norman style, perhaps around 1150. It has been suggested that the tower may represent an early change in design, rather than an outright addition. The upper stages were completed in the early Gothic style perhaps in the late 1180s. The pause in

construction has been attributed to the appointment by Henry II in 1162 of Archbishop Thomas Becket, and the turbulent events that then overtook the priory, not only Becket's murder in 1170, but also the destruction of the eastern arm of the cathedral by fire in 1174. Similarities between the upper stages of the tower at St Nicholas and the early Gothic rebuilding of Canterbury's eastern arm by William of Sens after the fire, suggest that masons from Canterbury were brought to New Romney to finish the tower. A tall stone spire was raised upon it around the middle of the thirteenth century, but has been lost.

Despite later repair and restoration, rather more of the Norman fabric of the west door survived than was expected. Formed in Caen stone with masonry laid in a coarse lime mortar, fine axe marks still survive in places on the general masonry with finer chisel marks visible on sculptural elements. The semicircular arch is constructed in the manner one would expect for the period, and can be resolved into six orders surmounted by a shallow hoodmould. (No evidence for a pediment or canopy like those over the Norman doorways at Patrixbourne or St Margaret's at Cliffe was observed.)

The first, third and fifth orders have angle rolls, their decoration running fully around these rolls onto their foreshortened rear faces. The second and fourth orders are without rolls, but are similarly decorated. All except the sixth order are embellished with chevrons, these orientated either with the plane of the door, or perpendicular to it, their points aligned with the centres of the voussoirs, as one would expect. Triangular motifs and frequently foliated lozenge shapes interrupt the chevrons at intervals.

The sixth order is deeper than the rest, as it brings the face of the arch flush with that of the tower. Interestingly its angle roll is superimposed by unusual lobbed cusps. These have been interpreted as the 'last abstract vestiges of beakheads' an ornament resembling the head of a bird, human or beast (Newman 1991, 433). Identical decoration can be seen around the quire triforium windows at Canterbury, but interestingly these belong with Sens' Gothic rebuilding. His work does, however, include a number of antediluvian features (for example round arches over some door and window openings) and this is not perhaps unexpected.

Plain corner shafts, with moulded bases and sculptured capitals, flank the door. The shafts have been replaced, but luckily the original medieval capitals and bases survive – the capitals are of foliated form (acanthus and/or waterleaf) with angle volutes, the bases of debased attic profile (a convex then concave moulding, followed with a roll beneath the column) with leaf-shaped spurs.

A tympanum decorated with faceted semicircles fills the space beneath the arch, supported by a low segmental arch with chip-carved, saltire ornament. This has been thoroughly restored, in Bath stone (below),

Left: detail of 3rd, 4th and 5th orders of arch.
Below: northern capitals and springing of arch.

West tower of St Nicholas Church showing lower Norman stages & door, and Early Gothic upper stages.

but the door's innermost reveals rise from medieval bases to support it, suggesting it is an original feature. Furthermore three pieces of perhaps medieval Caen stone survive within it. The accuracy of its restoration is, however, unclear; most medieval tympana were supported by flat stone lintels.

The door has been restored on several occasions, first perhaps in the late nineteenth century, but maybe not alongside the campaign of restoration started at St Nicholas in the 1880s by architect George Gilbert Scott. This was halted after the intervention of the newly formed Society for the Protection of Ancient Buildings (SPAB), who objected to the wholesale rebuilding that characterised most 'restorations' of this period. Although some of the door's stone was replaced, a mostly lighter touch was adopted here and most of the medieval fabric retained. Stones were patched and repaired wherever possible rather than being renewed. Caen was difficult to obtain by this time, and where new stone was needed, Bath stone was substituted.

Unfortunately the Bath stone has performed poorly, the hard mortar used perhaps accelerating its decay; much of it is now in a worse state than the medieval fabric. The surviving medieval stone has also continued to deteriorate. Further episodes of conservation have therefore been necessary, but these employed rather different techniques. Stone was not replaced but consolidated instead with plastic repair, a mortar-like mixture being applied to the fabric when wet and shaped to recreate lost detail. Two such interventions were identified, the first employing a soft, pale grey coloured sand and lime mortar (the grey colour can perhaps be attributed to the inclusion of ash within the mix) and mostly applied to the Norman fabric. The second, presumably in response to the rapidly deteriorating Bath stone, was executed using a hard, buff/brown coloured sand and cement mortar. The repairs, because they are so heavily weathered, now appear crude, but it is clear they were skilfully executed, accurately reconstructing decayed decoration.

Further round the coast, and some 19 miles inland on the River Stour, another interesting building connected to Kent's Cinque Ports was recorded. **Fordwich Town Hall** (NGR 61805 15981) stands on the south bank of the river in the centre of the village. Such buildings are rare, and are often referred to as Guildhalls or Court halls, on account of their judicial function. Remarkably the hall remains in use today for regular meetings of the Fordwich Town Council, and contains

General view of the hall looking south.

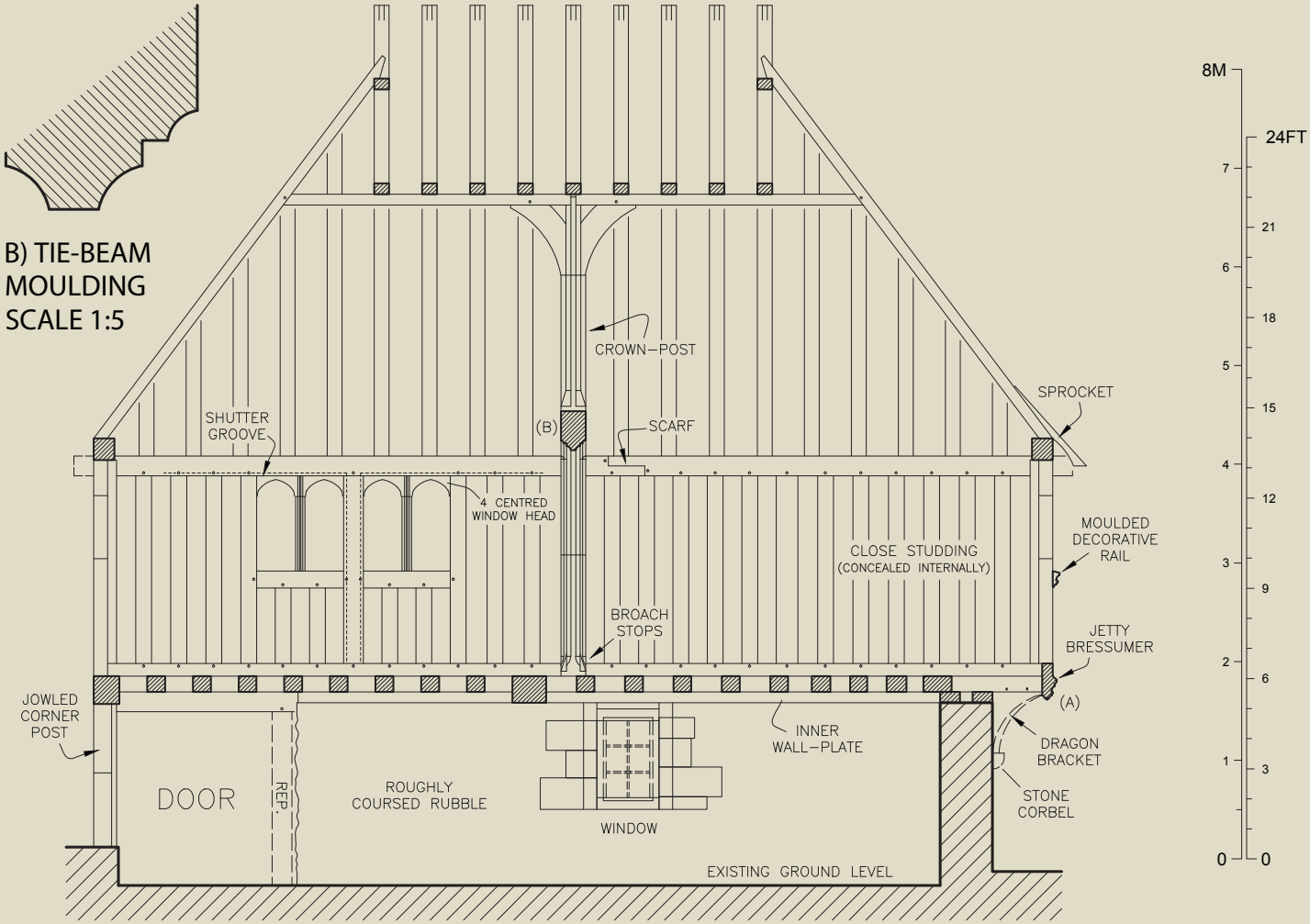
many interesting historic artefacts, including the town's muniment chest and drums, an Elizabethan table, the bar against which the accused stood, and a ducking stool. The Grade II* listed structure is remarkably well preserved, almost certainly on account of its continued municipal use which has spared it the repeated alterations often suffered by domestic dwellings.

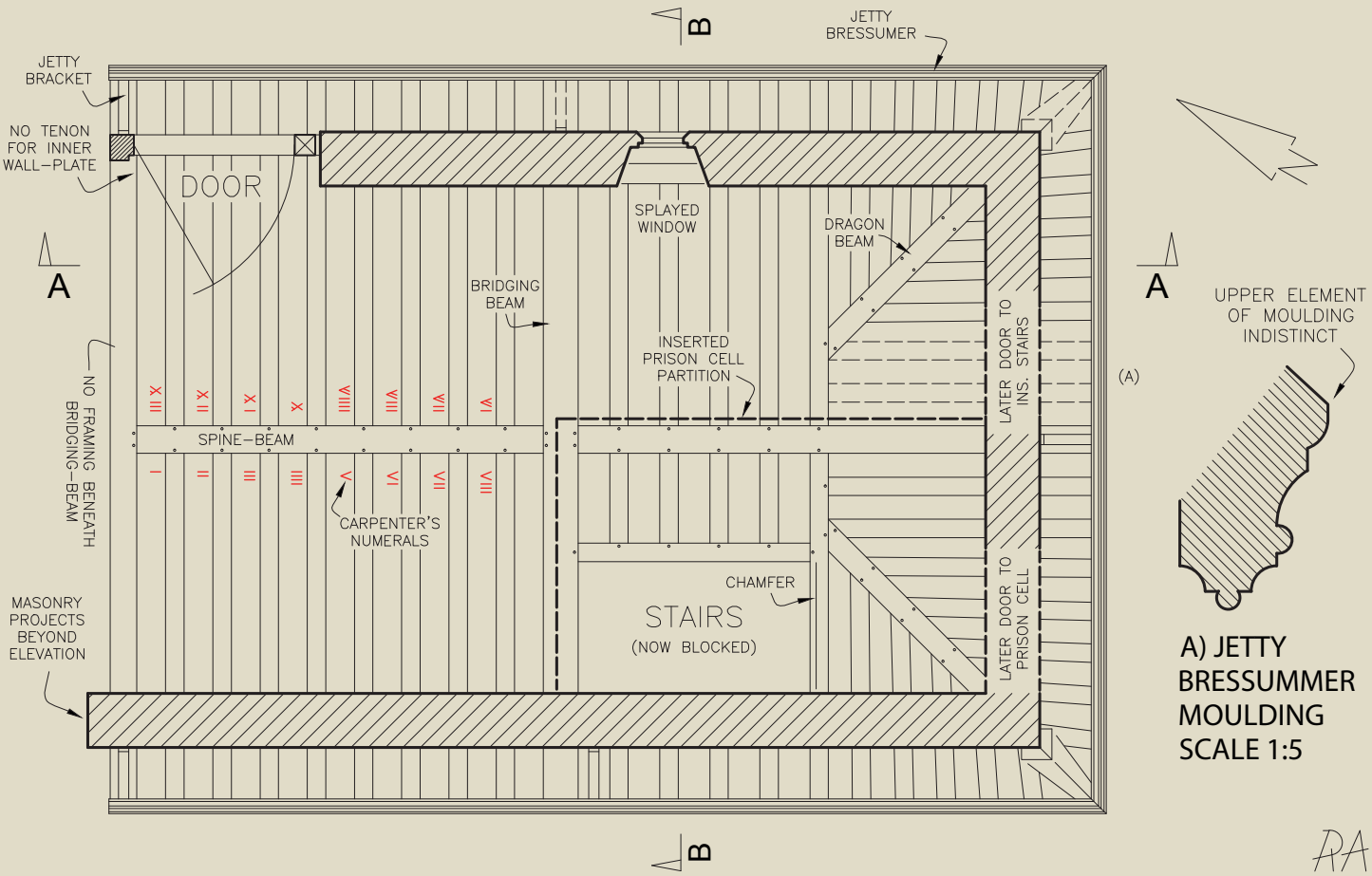
The installation within the building of a lift for the disabled has been under consideration for many years and an assessment of the fabric was commissioned by the Trustees of Fordwich United Charities in order to better understand the structure and identify potential locations for the facility.

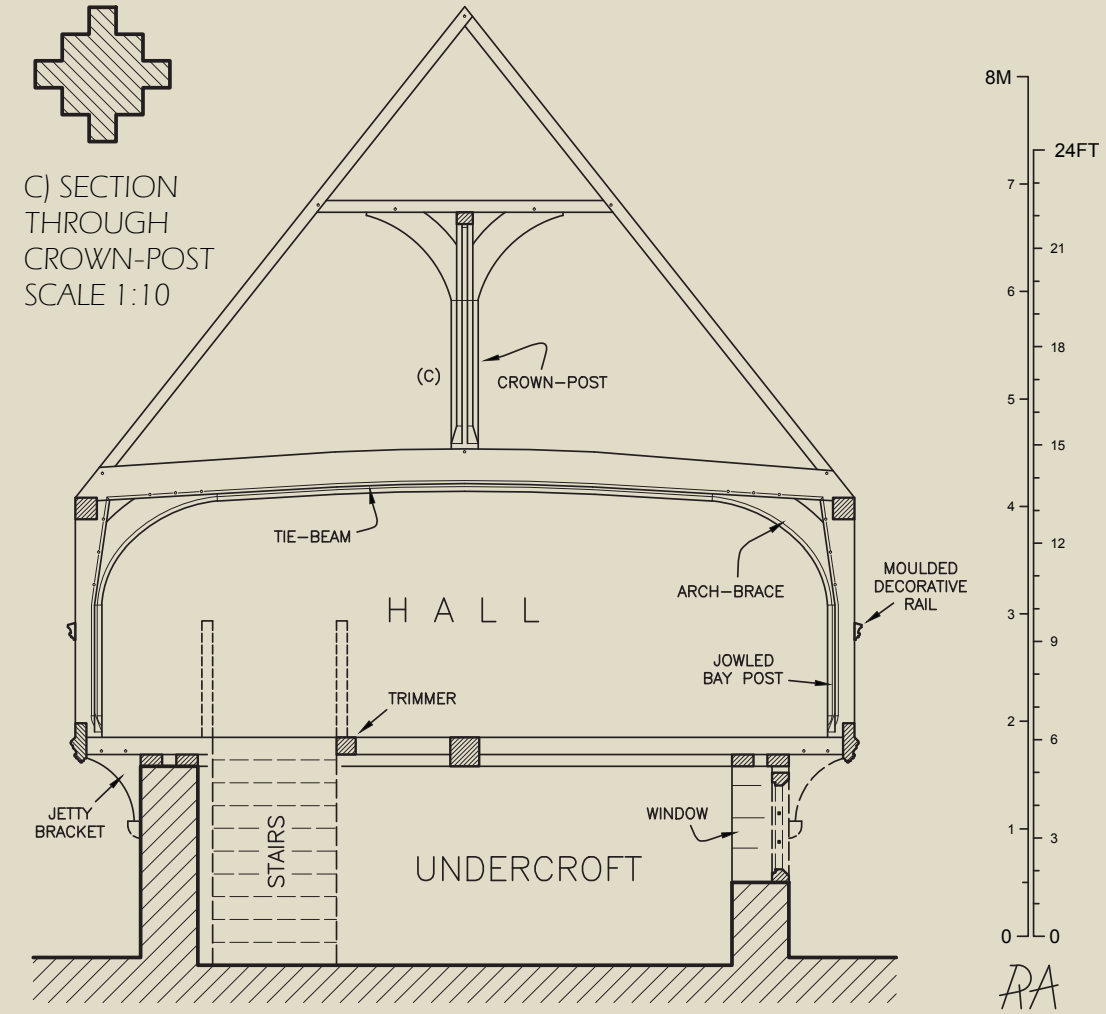
The hall appears from stylistic details to have been formed in the early sixteenth century; dendro-chronological samples were taken, but unfortunately failed to date. It comprises a low undercroft surmounted by a lofty hall and is of relatively modest proportions, measuring approximately 9 metres long by 6 metres wide. The undercroft has masonry walls of roughly coursed rubble. It was poorly lit, most likely used for storage, and was entered as it is today through a wide door in its east wall. The two-bay hall, from where the town's affairs were administered, is fully timber-framed, and jettied and close-studded on its south, east and west sides. Curved brackets support the jetties and their attractive moulded bressummers. Surprisingly the north elevation is unjettied and unlit, suggesting the building was raised against an existing structure – it presently abuts an eighteenth-century crane house (see below). Furthermore the elevation comprises large panel framing, not close-studding, its ground floor unframed and open with whatever stood to the north.

The hall remains open to a handsome crown-post roof, and was well lit by attractive four-light windows with four-centred heads and cyma and cavetto moulded reveals and mullions. The windows were unglazed, but could be closed, in the medieval manner, with sliding wooden shutters. Investigation revealed the hall was originally reached by stairs located in the south bay of the undercroft, against its west wall, where the extant prison cell is located. These were presumably, by today's standards, relatively steep, comprising solid oak treads fixed to oak bearers.

A 'jury room' is located in the south-west corner of the hall, enclosed by close-studded partitions. That the room was present from the outset is indicated by the south hall window, which has a hinged rather than sliding shutter because of its proximity to the room, but whether it was originally intended to be used by a retiring jury seems questionable and may have been a later use. The room is plain and utilitarian and was clearly intended to be secure, lit by a small, unshuttered window with notably stout and secure wooden bars or mullions. Its surviving, original plank-and-ledge door opens outwards and is secured by external draw bolts. That it was built as a holding cell or a strong room seems a more likely explanation.


B) TIE-BEAM MOULDING SCALE 1:5
CROWN–POST
SCARF
(B)
SHUTTER GROOVE
4 CENTRED WINDOW HEAD
SPROCKET
MOULDED DECORATIVE RAIL
CLOSE STUDDING (CONCEALED INTERNALLY)
BROACH STOPS
JETTY BRESSUMER
(A)
JOWLED CORNER POST
INNER WALL–PLATE
DRAGON BRACKET
STONE CORBEL
DOOR
REP.
ROUGHLY COURSED RUBBLE
WINDOW
EXISTING GROUND LEVEL
8M
24FT


B
JETTY BRESSUMER
JETTY BRACKET
NO TENON FOR INNER WALL–PLATE
DOOR
SPLAYED WINDOW
DRAGON BEAM
A
A
BRIDGING BEAM
INSERTED PRISON CELL PARTITION
LATER DOOR TO INS. STAIRS
(A)
UPPER ELEMENT OF MOULDING INDISTINCT
NO FRAMING BENEATH BRIDGING–BEAM
SPINE–BEAM
CARPENTER'S NUMERALS
CHAMFER
STAIRS
(NOW BLOCKED)
LATER DOOR TO PRISON CELL
MASONRY PROJECTS BEYOND ELEVATION
B
A) JETTY BRESSUMMER MOULDING SCALE 1:5



Far left: Section A–A to east, partially restored and reflected ground plan, partially restored.
Left: Section B–B to north, also partially restored.

Significant alterations were made to the building in the late sixteenth or early seventeenth century. Municipal records show profits generated by the crane at the quayside (see below) increased during the seventeenth century and perhaps these profits funded the new works. The medieval stairs were removed and a new winding Jacobean-style staircase was installed. A jury bench and judge's seat were fitted in the hall and a prison cell formed in the undercroft, all of which can still be seen today.

The new stairs were formed within a lath and plaster enclosure against the south wall. The stairwell was protected by handrails and posts with onion-shaped finials (the arrangement has since been altered slightly, see below).

The wooden bench for jurats and a raised central judge's seat (a rare and significant survival), was fitted against the hall's north wall, beneath an oak canopy. Contemporary small-square oak panelling covers the wall behind the bench and seat.

The prison cell was formed within the south-west corner of the undercroft by inserting partitions and a new cell door in the south wall. The cell was provided with a small privy which projected from the undercroft's west wall. The walls and ceiling were lined with thick oak planks, for added security. A small yard to the west of the building, referred to in the past as the 'press yard', was presumably used to exercise prisoners, the last of whom (three poachers) occupied the cell in 1855. The last court cases were held at the Town hall in 1886 (Woodruff 1895, 110–13).

The hall's original lath and daub infill (that between its close-studding) was perhaps replaced with the extant herringbone brick-nogging at this time; by the

Left: undercroft, looking north-west.
Middle: south hall window.
Below: door to so-called jury room.

The prison cell.

eighteenth century this nogging, and the timber-framing, was concealed behind lath and plaster.

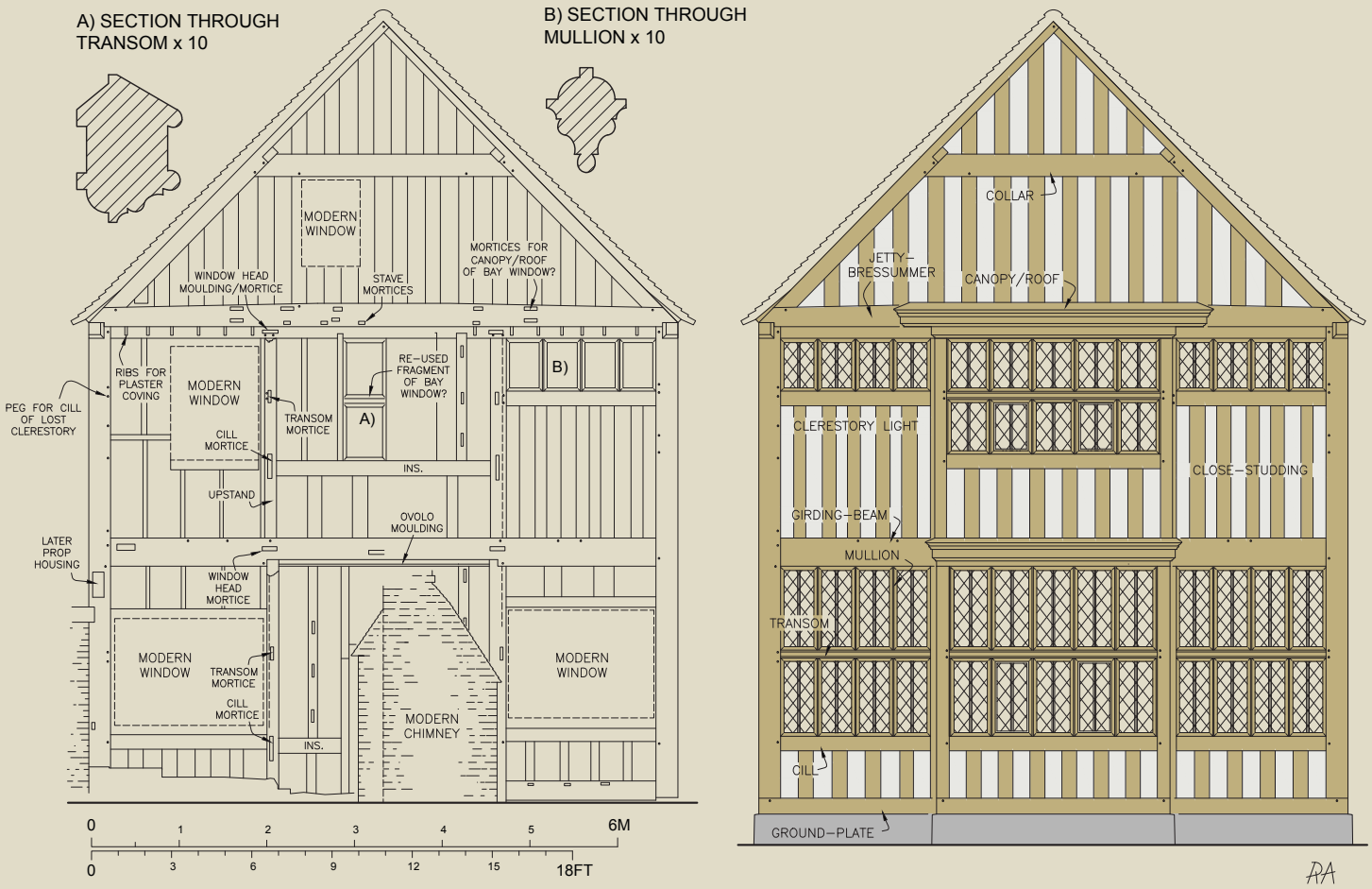
The Town Hall was restored in the late nineteenth or early twentieth century, a photograph of 1906 showing it shortly after completion of works. Fortunately the building had survived in reasonable condition and the restoration was not too aggressive. The lath and plaster was removed and repairs made to the framing in new oak. The winding Jacobean stairs were altered to run straight by relocating handrails and fitting new steps and the oak planking lining the prison cell may have been renewed at this time, and the bunk restored.

A timber-framed, single-storey **crane house** stands on the quayside against the hall's north wall. The River Stour played a key role in the fortunes of Fordwich which prospered throughout the medieval period largely because of its role as a port on the highest navigable point on the Stour for barges bringing goods upriver from Sandwich. Most of these went on to Canterbury, notably the stone used at Christ Church Priory, St Augustine's Abbey and other religious establishments. Fees for using the quayside crane to unload barges were a chief source of revenue for the town. The closing of the north mouth of the Wantsum channel, and the silting up of Sandwich haven in late medieval times affected trade, but the quay at Fordwich remained an important source of income into the eighteenth century.

The crane house may have been formed in the eighteenth century though there is evidence that it replaced an earlier structure (perhaps also housing a crane) in this position. Although not of the same antiquity as the hall, the structure is nonetheless interesting and significant. It is robustly framed using proper carpentry, despite its late date, and was probably weatherboarded from the outset. It was clearly purpose built to accommodate a crane, its single room open to the roof, a capstan mounted at its centre. The crane resembles a gallows, being mounted on pintels at the north-east corner of the building, from where it could be swung out over the river to unload barges. Light river traffic continued into the nineteenth century with the last trading barges being unloaded at the quay in the 1870s.

Branden, 1.4km south-east of Sissinghurst in the south of the Kentish Weald, is a Grade II listed building (NGR 58063 13725). The house stands in a partly wooded valley just north of the Crane brook, water from which has been diverted to feed a large garden pond. The property can be divided into two parts: an historic timber-framed east range, dating perhaps to the late sixteenth century, and an early to mid twentieth-century west range. A large, three bay timber-framed barn, of perhaps broadly similar date to the house, stands immediately to its north, an oast kiln to its south-east. Other agricultural buildings are shown on early Ordnance Survey maps, suggesting that this was at one time a small farmstead. Any agricultural activity here has, however, long since ceased and the site is now converted to gardens.

Branden, north elevation.



North elevation at Branden, unrestored and restored.

Much of the framing of the east range survives and is largely conventional for the period and locality. Of the many interesting features perhaps the most notable are a moulded and compartmented floor within its northernmost bays, a clasped side-purlin roof, and timber-framed, close-studded north wall. The central chimney proved to be a later insertion (see below), the range seemingly unheated originally, suggesting it originally formed part of a larger house with a hearth located elsewhere, but this was not proven. Evidence for a lost south bay was, however, observed.

The listed building description suggests that Branden was a cloth hall. By the middle of the fourteenth century Cranbrook (3.3km to the south-west) was the principal cloth market in the Weald, the town's prosperity in this respect starting during the reign of Edward III (1327–1377) after continental clothiers, mainly Flemings with cloth making skills, settled here. An abundance of natural resources necessary for cloth making, and the town's position at the centre of communications contributed to the success of the industry. Despite a decline in the late sixteenth century, cloth manufacture continued for another century or so.

Unsurprisingly supposed cloth halls are common in this locality, but in reality many are probably nothing of the kind. Cloth halls proper perhaps resembled court halls or guildhalls, with large first floor halls; such structures are rare and should be considered a distinct building type. Whether they were used as warehouses, for storing cloth, or places to manufacture or sell fabric, is a matter for debate.

The many claimed cloth halls in this locality are more often probably hall houses that happened to be owned by cloth merchants. Some of these might have served a two-fold purpose as both dwelling and office or warehouse, but few such structures have been confidently identified. Whether there was space within such buildings for looms, and therefore weaving, might also be questioned.

Unfortunately the original internal arrangement of the east range here is now difficult to determine, and as a result its original purpose is unclear, but it seems unlikely Branden was a cloth hall proper, given its surviving features, and relatively isolated location. A domestic origin is more probable and it could have been the house of a cloth merchant, but parts of it might have been non-domestic, and used for stowage or as a workshop. Such suggestions cannot be confirmed, but the potentially unheated nature of the east range, and particularly well lit north ground floor room (see below), are perhaps significant. The pond could be significant, as water was used during the manufacture of cloth, for washing and fulling.

The north wall of the east range was examined particularly closely. The elevation is surmounted by a jettied gable, and retains much of its original close-studding, but numerous alterations have been made, its handsome two-storey bay window now removed. The

Branden, north elevation of east range showing remains of sixteenth-century framing.

Detail of moulded beams over the north ground floor room and north elevation showing evidence for lost bay window.

owners wish to restore the elevation and reinstate the window. Reconstruction drawings of this feature, based on the surviving evidence, were therefore prepared.

The window almost certainly had square not canted side-lights, these lit not blind (sometimes early bay windows, or indeed oriel windows, had blind side-lights, fitted with oak boards, rather than glass). High level, so-called clerestory lights flanked the feature on the first-floor. Tall transommed windows flanked the window on the ground floor so that the elevation here comprised almost entirely glass, the room behind remarkably well lit. The bay's mullions were embellished, as one would expect, with mouldings (combinations of rolls, hollows, cyma and ovolo) the ground-floor transoms with sunken flats, a common detail of this period.

The window cannot have been fully accommodated beneath the gable's relatively shallow jetty and where it projected it was protected by a shallow roof or canopy fixed to mortices in the gable's jetty-bressumer. The bay appears to have been a walk-in feature, and was probably supported upon a timber base, but a stone plinth is possible.

Numerous alterations have occurred since the house was built, the construction of a lean-to against its east wall seemingly the first major addition, but the most significant changes occurred in the eighteenth century, when the east range was thoroughly rearranged around a large new central chimney. The building, whatever its origins, appears to have become wholly domestic by this point.

Further north in the Weald we were fortunate to study two interesting, high status Wealden hall houses. In addition to their many interesting features, both had unusual arrangements that illustrate the sort of differences from the standard medieval plan so often encountered in such buildings. The first, **Parsonage Farmhouse**, a Grade II* listed property, is located within East Sutton approximately 2km east of Sutton Valence (NGR 58333 04929). Several redundant farm buildings – an oast house, barns, stables and farm cottages lie adjacent. An historic buildings assessment was commissioned by new owners in 2013, in order to inform alterations and accompany a listed building application. The property had previously been studied by the Royal Commission on the Historic Monuments of England, and is considered to be an unusually high status, medieval, timber-framed open-hall house of Wealden design. Dendrochronological analysis revealed it to have been built *c*1440.

In most respects, Parsonage Farmhouse is like any other medieval house. It can be resolved into four bays and comprises a tripartite plan with a central open-hall flanked by floored in-line wings. The high-end wing is that to the south-east of the hall, the low-end wing that to the north-west. Both were double-jettied, the front jetties giving the house its characteristic recessed hall and Wealden form. Handsome dragon posts still survive beneath the corners of the now underpinned jetties. The house had close-studded elevations.

Parsonage Farmhouse (top) and the ground-floor hall, looking east towards the front door and the sixteenth-century hearth.

The open-hall comprised two bays, a handsome open cross-frame, with heavy cambered tie-beam and arch-braces, located between them. Large four-light, unglazed windows fitted with plain wooden mullions and shutters, pierced its front and rear walls. A cross-passage passed though its low bay, as it did in every hall house, between its front and rear doors. Luckily the original four-centred front door, with attractive quatrefoils in its spandrels, has survived.

In most hall houses the low-end wing contained two ground-floor service rooms (the buttery and pantry), but surprisingly only one service room was present here, and only a single door (four-centred, and with plain spandrels) leads from the cross-passage into the wing. Furthermore the best upper chamber (the solar) appears to have been located over this room. This has an attractive crown-post in its roof (the opposing chamber lacks such a feature) and is also the largest. Such an arrangement

Above: single service room door.
Right: soot blackened roof space partition over low-end of hall.
Far right: painted seventeenth-century decoration on parlour chimney breast.

is unusual, the solar normally being located over the parlour, at the high-end. The crown-post is smaller, but similar to that over the hall and interestingly a vivid red ochre, perhaps early post-medieval decoration, survives on the post and other timbers in this room.

A remarkably intact roof covers the building, its robust central crown-post having an octagonal shaft and moulded base and capital. Interestingly both up and down-braces spring from the plain crown-posts in the high and low-end roof space partitions, an unusual but not unknown feature that is surely indicative of the building's high status. Heavy soot blackening covers the hall's roof timbers, as one would expect.

Like many of its contemporaries the house evolved over the years. Its hall was floored to form a ground-floor hall and hall-chamber, perhaps in the sixteenth century, and a substantial stone chimney was constructed against its high-end wall, with hearths for the new rooms. Only the parlour's hearth retains its original four-centred timber lintel. A handsome, two-storey bay window with leaded lights was formed against the front wall of the house, to illuminate the new rooms. This rose from a stone plinth, beneath the hall's overhanging roof. Its upper half has survived largely intact, its mullions cavetto and cyma moulded, its sills with rolls and deep hollows.

New winding stairs were very likely formed behind the new chimney and later extended into the attic after a garret was formed in the roof. Another unusual feature, a small chamber for smoking meat, was formed in front of the chimney once the garret was created. Its small plank-and-ledge door survives. Painted, perhaps seventeenth-century decoration (alternating red and white triangles) was unexpectedly discovered on the chimney breast during investigative works, an unusual and rare survival.

Also, perhaps in the sixteenth century, a small two-storey wing was formed to the rear of the house, beneath a simple collar-rafter roof. The wing provided the house with a new ground and first-floor room. Its lower storey stands upon a hollow chamfered plinth, and comprises squared sandstone blocks to a height of 1.4 metres, then thin, red, clamp-fired bricks laid in English bond. Its upper storey is timber-framed, but has been heavily rebuilt, and is now tile hung. A remarkably well preserved, three-light window, with moulded mullions was discovered behind the tile hanging during works.

Below: moulded capital of hall crown-post.
Middle: solar crown-post.
Right: moulded capital of solar crown-post.

The second Wealden hall house to be visited during the year was the Grade II listed **Swan Inn, Sutton Valence** (NGR 58142 04924). Like many public houses this had recently closed and a return to wholly residential use was being considered.

Dating to the late fourteenth or early fifteenth century, the medieval house measured approximately 16.9 metres long by 6.8 metres wide, its size, quality of framing, and unusual high-end features indicating it too was a high status building. Like Parsonage Farmhouse, it mostly conformed to the standard medieval plan, the high-end wing that to the west of its central hall, the low-end wing to the east, but investigation again revealed several unusual features.

The low-end wing was arranged as one would expect. Two service rooms occupied the ground floor (the buttery and pantry) and a single chamber the first floor, but the high-end wing was unusual, also containing two ground-floor rooms rather than the single conventional parlour. Furthermore the high-end stairs were not contained within the wing, but accommodated instead within a small external stair turret, against its west wall. The best upper chamber (solar) is also usually found within this wing, but that here was small and seemingly less imposing than its counterpart, suggesting the solar, like that in Parsonage Farmhouse, was located over the service rooms. A crown-post roof also covers this house, and is generally well preserved

Above: framing for the high-end wall of the former hall. Left: west wall of the former open-hall, showing doors (left and right) to high-end rooms.

The weevil *Notaris acridulus* and its host plant, reed sweet-grass. Photograpy by Udo Schmidt flickr.com/photos/coleoptera-us/.

When she isn't organising the processing, analysis and reporting of environmental samples from our own excavations, Enid Allison, our Environmental Specialist, undertakes work on insect remains for other units and organisations. She describes one such recent commission showing how much information can sometimes be gleaned from detritus in hidden corners within old buildings, the work coinciding with finds of concealed objects, and accompanying wildlife, from a building recorded by the Trust in the past year. Examination of archaeological chicken bones can also reveal more than one might think…

Concealed spaces and hidden faunas

Concealed spaces within old buildings containing deliberately placed shoes, clothing and other objects are regularly encountered during demolition, building and restoration work. Many of these spaces are situated close to fireplaces, but all are inaccessible during normal use of the buildings. The shoes and garments have almost invariably had considerable wear. Shoes most commonly belong to children, and usually only one of a pair is found. The earliest known shoe concealment dates to the thirteenth century, but almost half the known finds of shoes are from the nineteenth century (Dixon-Smith 1990). Knotted or twisted plant stems are frequent inclusions with these caches.

The largest group of objects so far recorded in Britain was discovered in a public house in Sittingbourne in Kent during building recording prior to its demolition. Over 500 artefacts were found, the majority in voids beside a brick chimney. The rest were mainly from two separate locations beneath floorboards. Finds from the chimney voids included shoes, a felt hat, scraps of fabric and paper, pieces of leather harness, rope and clay pipe fragments. The under-floorboard finds included a set of

stays that turned out to be the second oldest set currently known in Britain (dated *c* 1620/1630), and what might be the lining of a pair of breeches (Eastop 2006; 2007).

Shoes and items of clothing are sometimes encountered within the fabric of buildings recorded by the Trust. Most recently, a large group of objects was recovered during a watching brief by Andy Linklater at Parsonage Farmhouse, East Sutton, about 7 miles south-east of Maidstone. The building is a medieval timber-framed open-hall house of Wealden design probably constructed *c* 1441 (see pp 33–4). Shoes, boots, other leather items, gloves, a knitted sock and twisted plant stems (possibly reeds) stitched together in rows, were found within a concealed compartment underneath a cupboard beside a fireplace that had probably been added in the sixteenth century. Most of the shoes and clothing were either worn or incomplete, some having obviously cut edges. A preliminary examination of the shoes by Pat Reid indicates that the styles are typical of the mid seventeenth century.

The shoes, garments and other items in these caches could have been hidden by various people involved with the buildings whether builders, craftsmen, owners or inhabitants, and in some cases there may have been more than one episode of concealment. It is generally thought that such objects were concealed to bring luck on the household, but also sometimes to ward off evil or negative circumstances such as illness or economic problems. For some, the practice might simply have been a persistent tradition rather than a deeply held superstitious belief. Builders and craftsmen may also have wanted to leave their 'mark' on a building. The advanced wear or incompleteness of shoes and garments appears to be an important part of the custom. There are no known documentary records describing the practice, possibly because referring to it might have been thought to reduce the hoped-for effect!

Not all material found within voids in buildings would have been deliberately placed. Depending on their position, some spaces would tend to accumulate material from construction or household activities. Small dropped items such as pins or buttons, for example, would have easily slipped through gaps in floorboards. Voids also often contain a surprising variety of animals associated with human occupation.

An invertebrate fauna was recently investigated from a previously unknown sealed void above a fireside cupboard in the fore-kitchen at Epworth Old Rectory in Lincolnshire. The rectory had been the family home of John and Charles Wesley, the founders of Methodism, and is now a museum. The fore-kitchen void was constructed in 1709 when the Rectory was almost completely rebuilt by the Reverend Samuel Wesley and his wife Susanna following a disastrous fire that is thought probably to be the result of arson by disgruntled parishioners. The young John Wesley almost perished in the fire, having to be rescued from an upstairs window (Epworth Old Rectory website).

The void and the material within it was described and sampled by Colin Briden, the Archaeologist-in-Ordinary for the Rectory. The base consisted of oak

John Wesley in later life. Left: the position of the concealed space against an outside wall at Parsonage Farmhouse.

'Woollybear' larva of a fur beetle (*Anthrenus*) and footwear from the concealed space at Parsonage Farmhouse. Photography by André Karwath.

Two-spotted carpet beetles (*Attagenus pellio*). © Lech Borowiec.

or elm boards, the sides of solid brickwork, and the upper surface of a substrate of reeds to the lime-ash first floor. It contained about 20 kilograms of builders' waste consisting mainly of wood chips, brick fragments and lime mortar in a slightly sooty sediment matrix. Lying on top of this was a well-worn man's left shoe dated *c* 1680 and two identically knotted plant stems plausibly interpreted as lovers' tokens, all deliberately placed. A sample of the matrix was processed for the extraction of insects and other invertebrates, with the aim of providing information on living conditions within the house.

Although the void was completely sealed as far as the human inhabitants of the house were concerned, there had clearly been access to a wide variety of insects, other invertebrates and small rodents throughout much of its existence. The fauna would have begun to develop soon after the void was constructed, although it was not possible to say which species were present when the Wesley family themselves lived at the rectory.

Thirty-nine species of beetles were identified together with remains of cockroaches and their oothecae (purse-like structures in which the eggs develop), fly puparia, tiny ants, a bumble bee, parasitic wasps, a ground bug, insect larval fragments, mites, pseudoscorpions, rodent droppings and a few mouse bones.

The invertebrate assemblage as a whole was very typical of a post-medieval house fauna, and the beetles specifically of a relatively high quality, clean, dry building. Common woodworm beetle (*Anobium punctatum*) and waney edge borer (*Ernobius mollis*) were common and appear to have infested the wooden parts of the void. Beetles associated with mouldering vegetable material and mildews (*Latridius minutus* group, *Dienerella*, *Cryptophagus* species, *Ephistemus globulus*, *Typhaea stercorea* and *Xylodromus concinnus*) are characteristic of ancient buildings where plant material of various kinds was used as flooring and roofing material or where cut vegetation was stored. Reeds used in the flooring above the void would have provided a suitable habitat as it began to decay, and some of the species may have fed on mildewy walls and plaster.

There were a number of insects from outdoor habitats that would not have been able to live and breed successfully within a building. Some, including water beetles and a weevil found mainly on reed sweet-grass (*Glyceria maxima*), were probably imported alive or dead with reeds used in the flooring above the void. Others were probably common in the immediate surroundings of the rectory and would have entered through cracks after finding their way indoors. Several species found on plants of disturbed or cultivated ground may have come from the garden, particularly if vegetables were grown.

The inhabitants of the house would almost certainly have been aware of the effects of spider, fur and carpet beetles, all of which cause damage to household goods. Spider beetles feed on dried stored foodstuffs and other dry organic material and would have formed populations in food residues in the pantry and kitchen. Even if storage cupboards and the like were cleaned regularly, the population within the void and in other concealed spaces within the building, would have provided a reservoir for re-infestation. The most numerous spider beetle was *Tipnus unicolor* which appears to typify long-lived relatively high-status buildings in the post-medieval period. The proportion of this beetle relative to other insects appears to increase with general cleanliness (Kenward 2009, 309).

Fur and carpet beetles may have been a more obvious nuisance. Their 'woolly bear' larvae can cause significant damage to woollen textiles, silks, and other materials of animal origin such as feathers, furs, hides and stuffed animals. Some of them would have fed on the corpses of other insects within the void: there were in fact signs of this on many of the insect remains. The hairs of carpet beetle larvae if present in sufficient quantity in household dust, can cause skin and eye irritation and allergic reactions such as rhinitis and respiratory asthma in some people (Robinson 2005, 95). Adult carpet beetles are likely to have been commonly seen on and around windows at certain times of the year as they attempted to leave the house to find flowers where they feed on nectar and pollen.

Right: *Tipnus unicolor* – a spider beetle that feeds on stored foodstuffs and other dry organic material. © Lech Borowiec.

Cockroaches would potentially have presented a more serious problem for humans. They were probably American cockroach (*Periplaneta americana*) but the name is misleading since it is thought to have originated in tropical Africa, having spread to various parts of the world on board ships including those used in the slave trade. They feed on a wide range of animal and plant matter, including decomposing organic material and faeces, and they enter drains and sewers as well as larders and kitchens. A wide range of disease-causing bacteria have been recorded from them. They can also act as vectors for a number of parasitic worms affecting man such as the maw worm (*Ascaris lumbricoides*) and whipworm (*Trichuris trichiura*), and viruses such as polio and hepatitis (Robinson 2005, 36–7). Allergens contained in their remains and faeces can cause respiratory asthma.

A sample of the matrix within the concealed space beneath the fireside cupboard at Parsonage Farm, East Sutton was also examined for insects and other invertebrates. Some of the leather objects showed signs of attack by insect larvae, as did the twisted plant stems and the timbers surrounding the space. Although there were no cockroaches, the large invertebrate assemblage had many similarities with the Epworth fauna. All of the same groups of insects were represented but there were differences in the proportions of some beetle groups. In particular there was a wider range of species that attacks timber, including species associated with fungal rot, and greater numbers of taxa from outdoor habitats. Remains of fleas and a tick were also present.

Some of them would have fed on the corpses of other insects within the void

Common woodworm beetle was the most numerous of the timber attacking species. Infestation of the timbers was clearly longstanding and some beetle remains were of relatively recent origin: the woodboring weevil *Euophryum* is an introduction from New Zealand, first recorded in Britain in 1937. Powder post beetle (*Lyctus linearis*) can have a serious effect on timber, over time reducing it to powdery dust as its name suggests. Death watch beetle (*Xestobium rufovillosum*) primarily infests oak timbers that have been exposed to rainwater or excessive moisture and as a result have been subject to microbial attack, while *Mycetaea subterranea* can be found in rotten wood infested by the dry rot fungus (Hinton 1945; Palm 1959). The bark beetles *Hylesinus varius* and *Dryocoetes villosus* are found on ash and oak respectively; the former in particular is often brought into houses with infested ash logs. A small longhorn beetle *Gracilia minuta* is most likely to have come from imported wickerwork used close to the cupboard. It is chiefly a Mediterranean species and is seldom found in the open in more northerly parts of Europe. Since its larvae often live in osiers that are used for making wickerwork, they are frequently unwittingly brought to Britain with imports, and can sometimes cause extensive damage to wicker items (Harde 1984, 39, 256).

Latridius minutus group, a minute brown scavenger beetle and *Typhaea sterorea*, a hairy fungus beetle; both are commonly found in old buildings and barns. Photograpy by Udo Schmidt flickr.com/photos/coleoptera-us/.

The abundance of outdoor beetles in the Parsonage Farmhouse assemblage reflects the location of the space against an outside wall, and also its position close to the ground. The most numerous of the species represented was the two-spot ladybird, considerable numbers of which appear to have crept into cracks in the fabric to shelter or overwinter. Many of the living insects had probably been parasitized by tiny wasps since their remains were also common, and many dead insects had been nibbled by beetles that feed on dried animal matter, probably mainly carpet and fur beetles.

Analysis of insect assemblages from old buildings can not only inform on past living conditions within those buildings, but data can also be obtained on the introduction and spread of particular insects species that are associated with man and human occupation, many of which originated overseas. Additionally, data from buildings of known type is particularly useful in the identification of 'house faunas' and interpretation of living conditions on archaeological sites where few structural remains survive, even in cases where occupation material is no longer *in situ*.

Concealed shoes from a house in Stelling Minnis.

Creepers, crests and five-toed chickens

'Fancy' chickens at the Deanery, Canterbury Cathedral.

A number of varieties of domestic fowl were known in the ancient world but there is very little documentary evidence of different breeds between the end of the Roman period and the seventeenth century. A notable exception is a description by Marco Polo in the thirteenth century of the Silkie in China '... *a species of domestic fowl which have no feathers, their skins being clothed with black hair resembling the fur of cats*' (Rhys 1908, 315).

Bones of domestic fowl are very common on British archaeological sites from the Roman period onwards. Evidence that differential breeding or 'improvements' were taking place is mainly observable in the form of differences in body size, with a trend towards larger fowl as time progresses.

The affected fowl from Canterbury appear to be a particularly tiny form

Apart from size differences, many modern breeds are distinguished on superficial characters such as feather colour which would not be discernible in the archaeological record. A few characters that are manifested in the skeleton are potentially observable however, although it is not possible to say whether particular breeds were represented, only that certain traits were present.

One genetic condition having a striking effect on the external appearance of fowl, and also potentially identifiable in archaeological material, causes a cerebral hernia around which the skull is expanded to form a large, almost globular tuberosity. This character has been incorporated into various breeds because the hernia is associated with the development of a prominent crest of feathers on the head. A very rare example of a cranium showing the condition was found in a pit dated to AD 150–250 during excavations at Canterbury Police Station in 1997 (Allison 2005). A similarly affected cranium was recorded from the Roman temple at Uley (Brothwell 1979).

More commonly, both in Canterbury and elsewhere, there is evidence for the presence of fowl with five toes rather than the usual four, another character that appears in a number of ancient and modern breeds. Tarsometatarsi (the bone forming the lowest part of a chicken's leg) of these fowl can be often be identified by the presence of a substantial bone 'sheath' that partially surrounds the tendons on the posterior aspect of the bone. This is usually seen in cocks with a well-developed spur.

Distinctive bones of small fowl with disproportionately short limbs have now been identified from a number of Canterbury sites. The earliest of these came from a pit dated to AD 200–230, with later finds from mid-Anglo-Saxon, early and late medieval, and post-medieval deposits. There were records from four of the Whitefriars sites (Allison 2009; Allison forthcoming), and more recently from three separate excavations within the main campus of Canterbury Christ Church University (Allison forthcoming), and from a medieval refuse pit in St George's Place excavated prior to the construction of the new Student Union building there. The last find consisted of most of the major elements of a single skeleton and all of the limb bones were considerably shorter than those of a normally proportioned fowl. The bird might have been prepared for the table since bones from the feet and wing tips were absent.

The degree of shortening observed in all these bones is highly suggestive of the effects of the creeper mutation, another character that has become the basis of several modern breeds. The length of all the limbs bones is affected, but the shortening is more pronounced in the legs than the wings. The effect is particularly obvious in the longest bone in the leg, the tibiotarsus (the main bone contained within a chicken drumstick). This bone is not only very short but is bowed backwards, and the

Top: a Silkie cock from the Deanery flock and (below) an exhibition standard white bearded Silkie hen showing the characteristic fur-like feathers.
Photo: My Pet Chicken, www.mypetchicken.com.

A White-crested Black Polish cock with a well developed crest of feathers. Photo by Derek Sasaki, www.mypetchicken.com.

A normally proportioned tibiotarsus of a cross-bred bantam (left) compared with tibiotarsi of short-limbed chickens from Canterbury (middle, anterior view; right, side view).

Tarsometatarsi of five-toed (left) and more commonly occurring four-toed cocks.

lower ends of the fibula and tibiotarsus are fused. This causes restriction of movement compared to normal fowl. Badly affected individuals are unable to stand because of twisting of the shaft of the tibiotarsus and some have permanently curled toes. Tibiotarsi showing this combination of characters were recorded from five separate features on the Canterbury sites. Bones from such fowls have only rarely been identified elsewhere among archaeological material. Examples showing a similar degree of shortening were noted in very large bird assemblages from Anglo-Scandinavian, medieval and post-medieval deposits in York (Allison 1985). The affected fowl from Canterbury appear to be a particularly tiny form.

The creeper gene is semi-dominant and lethal to homozygotes (possessing a creeper allele on both chromosomes), and these all die as embryos within the egg (Landauer and Dunn 1930). Adult creeper fowls are therefore heterozygotes, *ie* with a creeper allele on one chromosome and a normal allele on the other. Two-thirds of live offspring produced by mating two such fowls will also have the creeper allele on one chromosome and show the condition, while the remaining third will be normally proportioned with normal alleles on both chromosomes. The trait could therefore be easily selected against if it was considered undesirable. The fact that individuals have now been identified from deposits spanning the Roman through to early post-medieval period in Canterbury, and from a number of sites, indicates that the character persisted throughout the centuries and may have been actively maintained by some within the local population, perhaps even as a distinct 'breed'. The sites where the bones were found all lie in the eastern part of the city, but since this also reflects the sites where bird bone has been examined in detail, it is not currently possible to say whether the location of finds is significant.

Recent research has provided promising results using DNA analysis to separate goose species (Barnes *et al* 1998; Barnes and Young 2000). Although the preservational state of bone would affect the amounts of extractable DNA, the possibility exists that such work might provide unequivocal proof that the creeper gene is responsible for the observed shortening of the limbs in the archaeological material

Boughton Blue hens at the Deanery.

Some of the international flavour of last year continues in Marion Green's account of the work of the Archaeology in Education Service over the past year. Marion would like to thank colleagues at the Trust who took part in schools' activities and also Graham Birrell at Canterbury Christ Church University for continued collaboration on the 'Boat 1550 BC' project. Once again thanks are extended to the Kent Archaeological Society for its very welcome financial support of the Archaeology in Education Service, enjoyed in Kent and beyond.

At home…

Lyminge excavations

Andy Macintosh is now a familiar face at Lyminge Primary, updating the school on discoveries from the excavations taking place almost next door! Andy is also a member of our fieldwork team supporting this Reading University led project. He worked with the school on two occasions this year giving workshops to four year groups and whole school assemblies each time. His autumn visit synchronised nicely with a 'Royal Anglo-Saxon Lyminge' themed project planned by the school and on this occasion the children had an added bonus of seeing some Anglo-Saxon jewellery on loan from the Kent Archaeological Society collections at Maidstone Museum. The Anglo-Saxons are key in the primary school History curriculum and Andy has made further use of the materials generated from the Lyminge project by delivering workshops at a Sittingbourne school.

Our Little Dig has also become a regular feature at the Lyminge excavations Open Day.

Andy's classroom visits are much appreciated by both primary and secondary schools and he has become an annual visitor to Canterbury's Simon Langton Grammar School for Boys where, as a former pupil, he has found it particularly rewarding to deliver an archaeology workshop to each of the four classes making up the Year 7 intake. We have a firm relationship with the Langton which began back in the days of the Whitefriars BIG DIG when the school chose the Trust to be the beneficiary of a charitable donation and we have been delivering regular workshops there for the past ten years, Andy having given the majority of these.

Teaching resources

CAT BOX, CAT KIT and ARK loans are used and valued across the county – and we now have a number of fans who borrow on a regular basis.

'The helmet brought gasps from the class … and produced some magical vocabulary!' **Aldington Primary**

'The children thoroughly enjoyed being able to find and touch real 'old things'! We'd also like to thank you for the incredible amount of fascinating educational resources that you have available on your website' **Ramsgate Holy Trinity CEP**

'I took the CAT KIT as an ice breaker…It was very successful…He really enjoyed exploring the kit and we had a very good conversation' **Headcorn Primary**

Using the CAT KIT as a model, Mary Thomsett, a volunteer at Minster Gatehouse Museum has now built six loans boxes of local finds for schools on the Isle of Sheppey, making good use of material that hitherto had been stored away, unseen.

Canterbury Christ Church University School of Education partnership

We continued to support undergraduate teachers with lectures and workshops showing them the important role Archaeology has to play in primary school History – and how it can be used in a cross-curricular fashion as well. This year we have further developed our strong partnership with CCCU by beginning also to contribute to the History programme for PGCE students. In all of our work with the students we can of course promote the great bank of teaching resources that we now have to our credit. On more than one occasion, working Kent teachers have borrowed loans from us because they first saw them as CCCU students.

We also now have first year Archaeology students from CCCU coming to the Trust to find out how a commercial unit operates.

Other local partnership activities

Several CAT staff found themselves talking to East Kent primary school groups during Dover Museum's annual Roman Week. I think I can say that it is an acquired skill to be able to pitch information at a young person's level while retaining the integrity of the subject and they all did well and enjoyed it. We also joined forces with Canterbury's Roman Museum for the CBA Festival of Archaeology where a public weekend event included a presentation from Lloyd Bosworth of the Department of Classical Archaeological Studies, University of Kent, about the 3D modelling of the Iron Age helmet found in Bridge back in September 2012.

and abroad…

Boat 1550 BC

The Boat 1550 BC exhibition moved from Ename to Dover and the focus of the educational work continued to be on production of fifty-two teaching kits for schools in Kent, Flanders and Pas de Calais. The launch of the kits for Kent schools took place in May 2014 with a very successful Career and Professional Development (CPD) day delivered by ourselves and Canterbury Christ Church University, both major partners in the Boat project. At the Boat 1550 BC planning stage, Prehistory barely got a mention in the English school curriculum but now primary schools are required to teach the Stone Age through to the Iron Age and teachers are ravenous for all things prehistoric!

New resource for a new Prehistory programme – the BOAT KIT

The BOAT KIT contains a Teaching Guide, a USB pen with videos, animations and a Bronze Age themed scheme of work, a replica bronze axe, pottery 'Beaker' and bronze dress pin, a catalogue from the 'BOAT 1550 BC' exhibition and other items for classroom activities.

Twelve Kent primary schools enjoyed the CPD day where they used resources based on the Dover Bronze Age boat and a Bronze Age burial from Thanet.

'…had it not been for your course, I wouldn't have considered teaching archaeology and am looking forward to using some of the kits you showed us. I have also been preparing our staff for the changes in the History Curriculum and feel that we are in quite good shape for some interesting hands-on prehistory lessons' Key Stage 2 teacher, Folkestone

'I must admit I knew very little about the Bronze Age before. I am very interested in the subject area now!…I see archaeology in a different light after this course' Key Stage 2 teacher, Folkestone

'Bless you for that!' Acting Head, Goodnestone

On a second day of CPD we took the same teachers to Provincial Archaeological Museum Velzeke in Flanders to see how Prehistory was presented there. This museum has extensive hands-on collections for Prehistory - and other periods - and is an impressive set-up for a small town.

CAT and CCCU also used BOAT KIT resources with seventy teachers at the Wroxham Schools Alliance national conference.

'It's good to have a period where we don't know all the answers' Key Stage 2 teacher, Wroxham

During the Boat 1550 BC project, the Bronze Age and the BOAT KITs were introduced to student teachers and working teachers in England and to teachers in France and Belgium. We now have twelve kits in our CAT loans collection with another twenty lodged in France and twenty in Belgium.

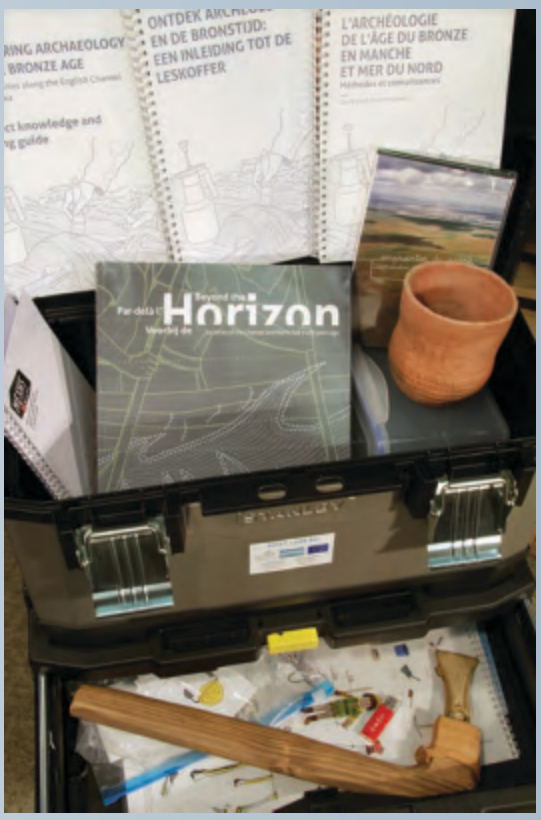
The BOAT KIT is certainly a valuable asset to our Kent primary schools at this time of change in the curriculum and this new resource has recently been used in schools in Ashford, Barming, Bethersden, Dover, Folkestone, High Halstow, Larkfield, Maidstone and Whitstable and we expect demand to grow. A BOAT KIT is also on permanent loan to Dover Museum for use there. Happy teachers have said:

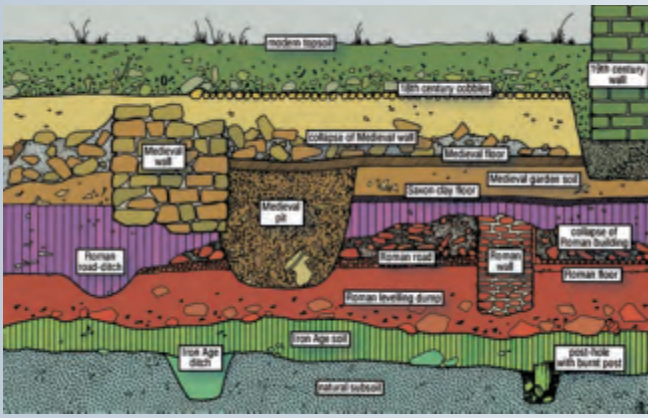
'I showed them all the goodies in the Magic Box … we went to a Forest School and looked at how shelters would have been made – the axe took a star turn here!' Key Stage 2 teacher, Ashford

'It was impressive how much knowledge the children retained' Key Stage 2 teacher, Folkestone

'We created tunics so we could look at how the clothes pin could have been used' Key Stage 2 teacher, Ashford

It would be good to see the BOAT KIT also used at secondary level, perhaps by Modern Languages





departments looking for something different for their students (the Teaching Guide is available in French and Dutch) and at university level, the accessible language in the Guide has even caught the eye of an Archaeology department as an introduction for undergraduates.

Visitors from Germany and Japan

In the spring, on behalf of Canterbury Museums, Andrew Richardson and I ran an Archaeology and Anglo-Saxon themed workshop in the Learning Lab at the Beaney for secondary school students from Angeln, the small peninsular on the north German coast believed to have been the home of the Angles. Their migration to Britain in the fifth and sixth centuries, along with other Germanic tribes, gave us the 'Anglo-Saxons' and the school brought the students to Kent to see the archaeological evidence for this shared culture. As a result of the visit there is now a proposal for this school to link up with a Kent secondary school with some project work. Perhaps more on this one next time …

In the summer, Japanese secondary students at Concorde International very much enjoyed a workshop about Canterbury's archaeology. Their teacher was thrilled to finally understand how stratigraphy works, by using one of our pictures originally drawn up for younger people – result!

Pas de Calais liaison

In the autumn, we took part in a partnership event with Canterbury Cathedral, Canterbury Museums, Historic River Tours and Canterbury Tales to deliver a day of workshops and tours at the various venues for 240 French secondary school teachers keen to develop their Kent visits programme for their students. We partnered up with Canterbury Museums and the day did, as they say, go like clockwork.

Libya

In December, largely as a result of Paul Bennett's long-term relationship with Libya's archaeology, a delegation of Libyan colleagues (including a UNESCO representative and Head of the then new government's Tourism and Antiquities Committee) spent a very intensive week in England to learn about how we protect and promote our heritage. During their time in Kent, myself and Graham Birrell, Senior Lecturer at Canterbury Christ Church University School of Education gave a presentation showing the many opportunities open to children in England to learn about their heritage through exposure to History and Archaeology. This was an interesting meeting for all and yes, they were particularly taken with the engagement that happens when you can touch the past …

Community Archaeology

Andrew Richardson with project volunteers, 'Up on the Downs'.

The Trust has a reputation for 'punching above its weight' in terms of community archaeology, outreach and partnerships and 2013/14 was a very busy period in this regard. During this time two major partnership projects, 'A Town Unearthed: Folkestone before 1500' and 'BOAT 1550 BC' drew towards successful conclusions and the Lyminge Archaeological Project, led by Reading University and supported by several Trust staff, continued to produce spectacular new insights into an Anglo-Saxon Kentish royal centre of power. At the same time two new projects in which the Trust is a key partner commenced: the 'Westgate Parks' project and the 'Up on the Downs' Landscape Partnership Scheme. Both are funded by substantial grants from the Heritage Lottery Fund. The Westgate Parks project is led by Canterbury City Council, with Jake Weekes, our Research Officer, project managing the historic environment aspects. 'Up on the Downs' is led by Dover District Council and we are involved with projects at South Foreland Lighthouse in conjunction with the National Trust and, as Andrew Richardson our Outreach and Archives Manager describes below, working with volunteers to map and assess twentieth-century defences around Dover and Folkestone.

In addition to our involvement in these partnerships, Andrew has sought to expand our activities into new areas, most notably by launching a series of one-day courses on a range of archaeological subjects. The most popular of these proved to be 'First Steps in Archaeology' which succeeded in introducing a number of students to the subject and it was especially rewarding to have some local sixth form students considering studying archaeology at university join us for this one. These courses and other initiatives planned for the near future are part of a strategy of diversification, but they are also firmly rooted in the Trust's core role as an educational charity.

'Let them speak for themselves'

recording twentieth-century defences around Dover and Folkestone

In 2013 we commenced work on an ambitious community project to map and assess the twentieth-century military and civil defence archaeology around Dover. The project title 'Let Them Speak for Themselves' is a reference to the way in which numerous pillboxes and other structures stand as silent testament to the impact of the First and Second World War (as well as the Cold War) on the landscape of this part of the world. The project is part of a wider Landscape Partnership Scheme, 'Up on the Downs', led by Dover District Council. As a Heritage Lottery Funded scheme, 'Up on

The pagoda pillbox at Great Farthingloe.

the Downs' has a strong emphasis on working with the local community and volunteer participation. Thus 'Let Them Speak for Themselves' was from the beginning conceived as a project that would be undertaken primarily by volunteers drawn from Dover, Deal and Folkestone and the surrounding rural communities.

The 'Up on the Downs' study area extends from South Foreland at St Margaret's to East Wear Bay at Folkestone, taking in the iconic White Cliffs either side of Dover. The area also extends inland as far as Denton and Lyminge and includes the Downs overlooking Folkestone. Within this large area are hundreds of structures and sites relating to twentieth-century conflicts, from First World War earthwork redoubts and trench lines forming the landward defences of Dover (now mostly invisible in the landscape) through a plethora of Second World War sites, including pillboxes, defence lines, anti-aircraft batteries, coastal and heavy batteries and aircraft crash sites, as well as Royal Observer Corps bunkers dating to the Cold War, the latter thankfully never needed.

Collectively, this probably represents one of the most significant complexes of defensive archaeology in Britain, if not Europe. However, it is surprisingly poorly understood. There have been various attempts in recent years to document the defences of Britain and Kent, making considerable progress in recording both surviving structures and (by using aerial photographs, maps and other sources) the many sites that no longer survive as visible structures. Unfortunately this work has also generated an amount of duplication and cumulative

The pagoda pillbox at Little Farthingloe and the overgrown window of a Type 24 pillbox.

error, whilst at the same time still omitting some sites known only to local observers. For example, on this writer's family farm, Little Farthingloe Farm, just west of Dover, most sites were inaccurately mapped in the Kent Historic Environment Record, with one unfortunate pillbox appearing no less than three times in the database but never in the correct location. Much of this was down to inaccurately calculated map grid references submitted by volunteers during earlier defence projects, and achieving consistently accurate grid references from everyone taking part has been one of the most difficult aspects of 'Let Them Speak for Themselves'. GPS technology is not always useful here, partly due to the dense woodland locations of some of the structures. However, over the course of the project dozens of volunteers have thus far succeeded in improving the accuracy of locations for perhaps half of the 730+ sites in the study area, whilst at the same time adding records of dozens of newly identified sites and helping to flag up duplicate entries in the HER. This means that we have a steadily improving record of what survives of this internationally significant defensive landscape. Only when we have a clear and accurate record of what and where the sites are can we begin to fully understand the strategic and tactical thinking that lay behind their siting and design.

Another goal of the project is to assess the current condition of the surviving structures, and what risks threaten their future and, in the next stage of the project, carry out remedial works at selected sites. The

The Dover Harbour pagoda pillbox with, below, the view from inside. Photos: Paul Wells.

View from pagoda window (left) and Type 24 (right) at Little Farthingloe.

threats vary from litter, graffiti (some of which covers and obliterates earlier graffiti dating to the wars) and encroaching vegetation, to accidental or deliberate damage. Many structures, originally built to last for only a few years of conflict, survive remarkably well but others have collapsed, or are close to collapse, simply through the passage of time. Another part of the project aims to record oral accounts of this threatened and gradually diminishing archaeology, not just in terms of the dwindling number of people who remember them being constructed, but also in terms of the memories of those who have grown up in a landscape populated by these structures. This includes some people who even played a part in the demolition of many sites in the post-war years, including the County Council's notorious 'eyesore removal' campaign of the 1970s.

Much of the focus of 'Let Them Speak for Themselves' has been on the less impressive, but more ubiquitous structures such as individual pillboxes. Most in the scheme area are examples of ministry approved standard types (most notably Type 22 and Type 24 pillboxes) and their variants which can be found across the British landscape. However, one group is restricted to the Western Heights and Farthingloe valley to the west of Dover. This is the 'pagoda' pillbox (sometimes inaccurately identified as 'Dover Quad' or 'Square' pillboxes), of which just over twenty survive. This type represents a local innovation, devised by troops stationed in Dover early in the Second World War in an effort to construct a series of landward defences around the town (a similar network of defences had existed during the First World War). Pagoda pillboxes are characterised by a square or rectangular brick structure with a flat, overhanging concrete roof and wide embrasures immediately below the roof. They are generally situated on high slopes below ridge lines and command wide views over the western approaches to Dover. Whilst well protected from air attack, they are deemed very vulnerable to incoming fire from below, as the combination of wide embrasures and overhanging roof would be likely to result in a large proportion of incoming rounds entering the interior, either directly or as a result of ricochets.

They are, in short, 'bullet traps'. This possibly explains why their construction ceased; at Little Farthingloe Farm two unfinished examples remain, covered in heavy undergrowth but with piles of aggregate still in their interior, presumably ready for the construction of roofs that were never completed. From there the defensive ring behind Dover is characterised by a series of standard Type 24 pillboxes. When 'Let Them Speak for Themselves' started, the majority of both pagoda and Type 24 pillboxes at Farthingloe were inaccurately mapped and/or duplicated in the Historic Environment Record. These errors have now been corrected, allowing for the first time this section of Dover's landward defences during the Second World War to come into sharper focus and be properly understood and appreciated

Below, a Type 24 and, right, an unfinished pagoda, both on the hill above Little Farthingloe Farm.

The Friends
of the Canterbury Archaeological Trust

The Friends continue to produce a newsletter three times a year and to distribute the Trust's *Annual Review* to its members. The Committee is proposing to explore if there is any interest from members in receiving the newsletter electronically in order to reduce distribution costs. Back copies of the newsletter are already available on the Community section of the Trust's website.

Our Treasurer submits the Friends' accounts each year for auditing with the Trust's accounts. An overview of the Friends' finances was prepared by the Treasurer for the Winter Newsletter 2013. Membership has increased slightly to around 380. The Committee continues to make regular grants to the Trust to purchase equipment and to facilitate staff attendance at conferences and training events.

Income from the walks organised by the Friends for the Canterbury Festival remains the second largest source of income after members' annual subscriptions. During the seventeen years when Meriel Connor organised these walks, they have raised over £23,000 for Friends' funds. Mrs Connor decided that she would step down in 2014 but we are fortunate that Dr Doreen Rosman has agreed to take on this important role.

The Committee has continued to organise a varied programme of activities for members during the year. A visit to the British Museum for the exhibition *Life and Death in Pompeii and Herculaneum* in June 2013 was preceded by an introductory lecture by our Treasurer Roger Sharp. In August an expedition was arranged to Lyminge for a guided tour of the village followed in the afternoon by a visit to the Anglo-Saxon excavations organised by Dr Gabor Thomas from the University of Reading. The Trust's Deputy Director, Peter Clark gave a presentation on the Dover Bronze Age Boat in November. Many members had of course been following closely the success of the construction of the half-size replica of the boat.

Lectures have included 'Royal Castles in Kent' by Richard Eales and 'The Building Stones of Canterbury' by Geoff Downer. Dr Bennett gave his annual survey of the Trust's activities in January 2014 at the Frank Jenkins Memorial Lecture. In February, a symposium was held on recent work on the medieval period in East Kent with four speakers. This was followed by a talk in March by Professor David Birmingham looking at Canterbury's early history from the viewpoint of a modern historian.

The Committee was without a chairman during the year in question but its members ably supported the acting chairman in organising the range of activities reported above

David Shaw, acting Chairman, 2013–2014

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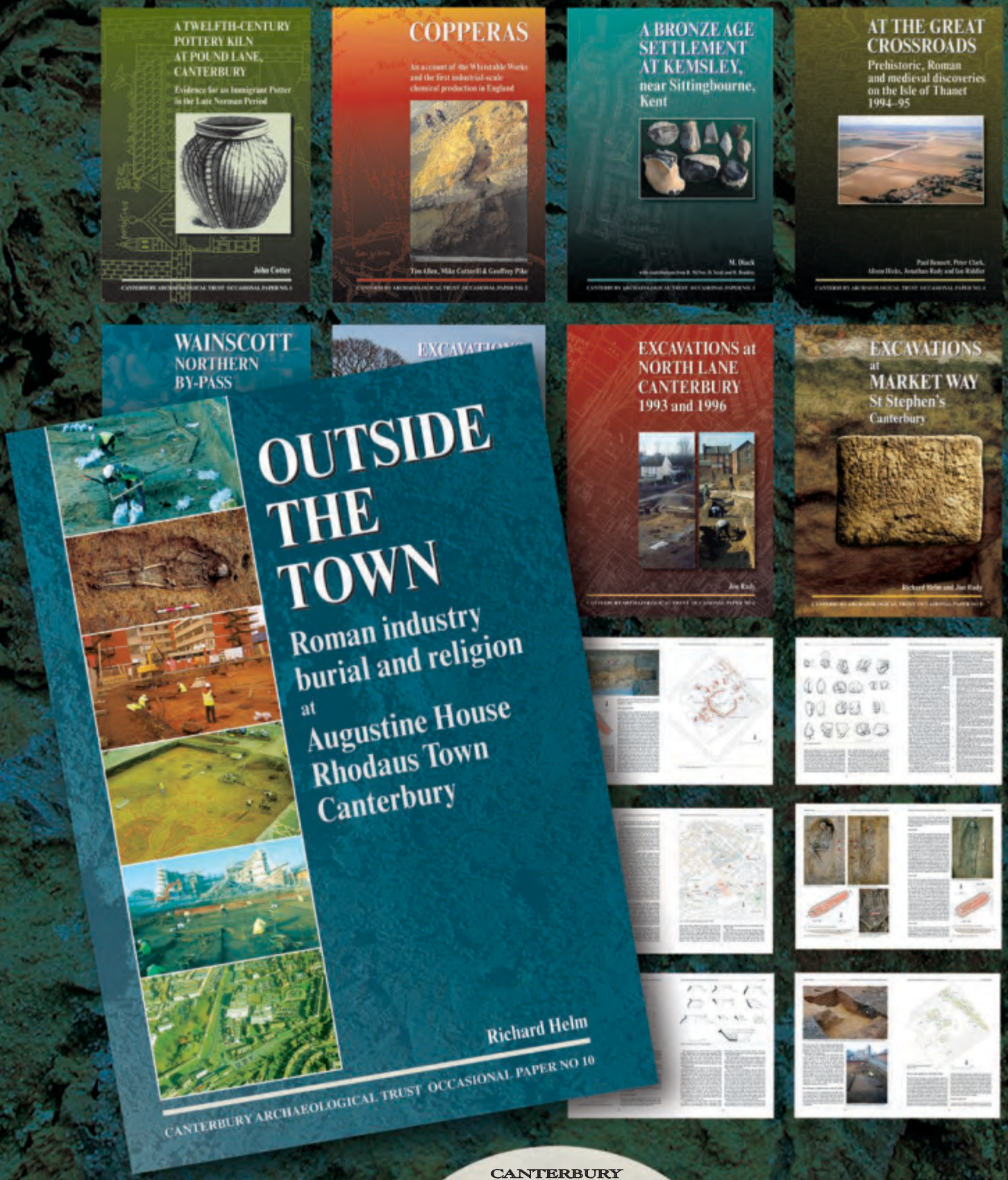

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