

The Cambridge 33kv Reinforcement Cable Route

An Archaeological Watching Brief, 2004 - 2008



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Summary

An archaeological watching brief was undertaken on an intermittent basis between the 6th of November 2004 and the 14th of January 2008 along the route of the 33kv reinforcement cable. As part of this project, approximately 5.12km of trenching was inserted along roads and across common ground on the northern and eastern sides of the City of Cambridge (extending from TL 45310/61375 to TL 44805/59002). Monitoring of this work revealed evidence of a possible 12th century channel, a 14th century laneway and the foundations of 17th century warehouses within the area of the new electricity sub-station at 24 Thompson's Lane, along with the remnants of 17th to 19th century cellars located beneath nearby St John's Road. In addition, evidence of an extensive network of palaeochannels running across the Jesus Green and Midsummer Common area was uncovered; these were succeeded by numerous episodes of consolidation and ground-raising activity, dating from the 17th to 20th centuries, along the southern bank of the River Cam.

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Introduction

An archaeological watching brief was undertaken by the Cambridge Archaeological Unit (CAU) along the length of the Cambridge 33kv reinforcement cable route on an intermittent basis between the 6th of November 2004 and the 14th of January 2008. In total the length of the route was around 5.12km, extending from TL 45310/61375 to TL 44805/59002, and it took the form of a large ‘U’ shaped circuit around the northern and eastern sides of the historic core of the city (see Figure 1). A monitoring presence was maintained during trenching work associated with the insertion of the replacement cabling in order to identify, excavate and record any archaeological remains encountered. The project followed specifications issued by the CAU (Dickens 2004; Dickens 2006a) and approved and monitored by Kasia Gdaniec and Andy Thomas, Development Control Archaeologists at Cambridgeshire Archaeology Planning and Countryside Advice (CAPCA); it was commissioned by EDF Energy.

Methodology

Due to the length of the cable route, which resulted in it passing through a number of individually distinct and otherwise unconnected ‘locales’ at various points along its course, seven discrete *subsections* have been identified (see Dickens 2003). The extent of these subsections has been determined by variations in both the nature of the archaeology encountered and the methodologies that were used to examine it, and they have been defined as follows (see also Figure 1):

- Zone 1:** comprises the northern end of modern day King’s Hedges Road, between TL 46601/60990 and TL 45620/61735.
- Zone 2:** comprises the route of modern day Green End Road, between TL 46645/60938 and TL 46730/60050.
- Zone 3:** comprises the length of Water Lane in Chesterton, on the northern side of the River Cam, between TL 46730/60050 and TL 46675/59900.
- Zone 4:** comprises the southern side of the River Cam on Stourbridge Common, between TL 46705/59825 and TL 46629/59566.
- Zone 5:** comprises the southern side of the River Cam at Riverside between TL 46605/59580 and TL 46130/59130, and continuing onto Abbey Road and Occupation Road between TL 46130/59130 and TL 46320/58500.
- Zone 6:** comprises the length of Jesus Green and Midsummer Common, between TL 46080/59050 and 44950/59090.
- Zone 7:** comprises the substation at 24 Thompson’s Lane, Thompson’s Lane itself and St. Johns Road and is centred at TL 44805/59002.

Therefore, rather than consider the entire route chronologically, each subsection will be assessed individually in relation to its own particular local context. In practice, this has led to the creation of five essentially separate reports (Zones 1, 2 and 3 having been considered together for reasons of practicality). Where relevant, the finds and environmental specialist information recovered has been amalgamated on a zone-by-zone basis, and a general conclusion relating to all seven zones is presented at the end of the document.

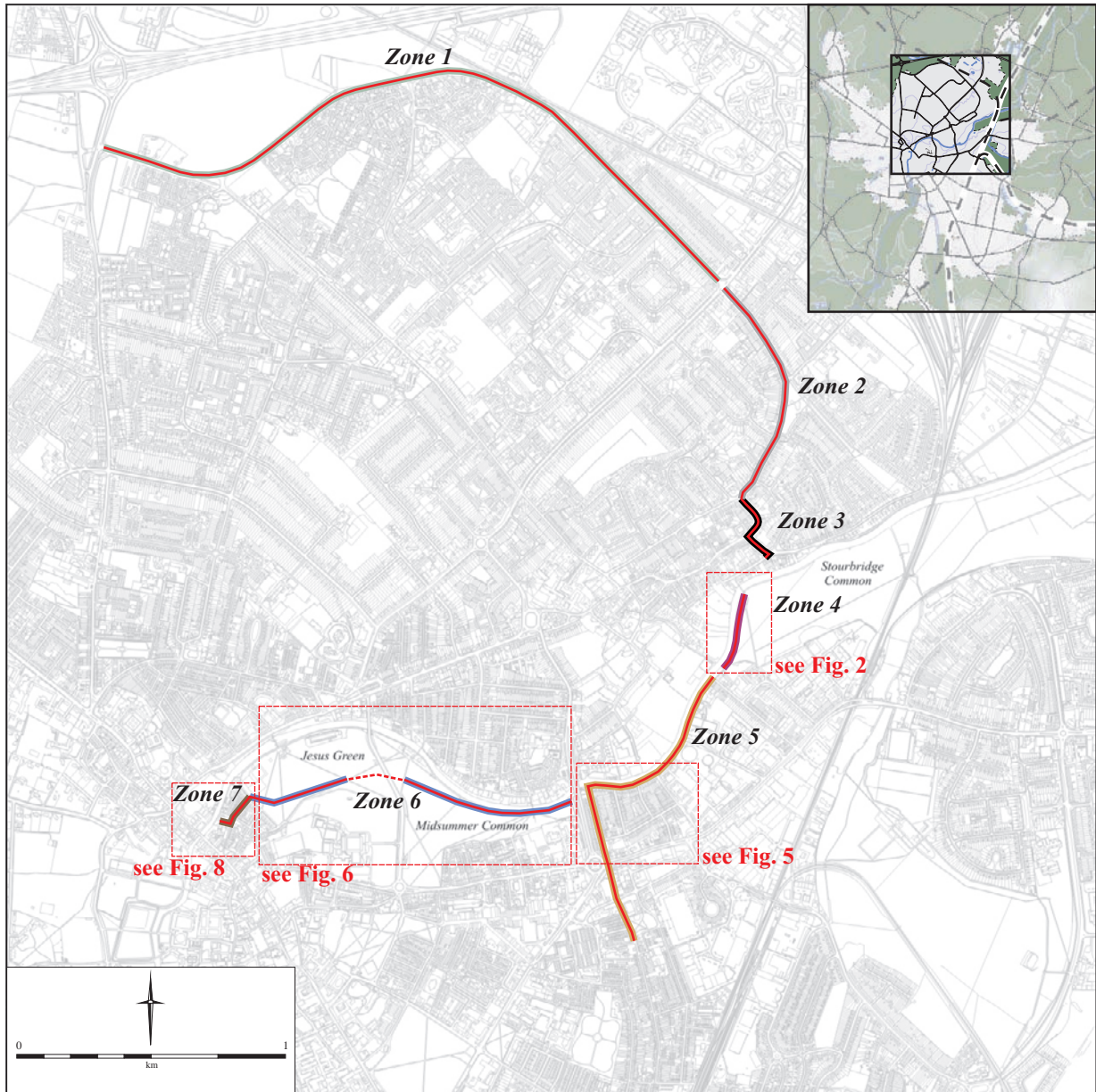


Figure 1. The 33kv reinforcement cable route, showing zone subdivisions.

The methodologies employed during this investigation took a number of forms, dependant primarily upon the nature of the work undertaken and the anticipated nature of the archaeology to be encountered. Principally, stretches of cable trenching dug by the contractor were monitored by constant archaeological supervision (although the confined nature of many of the trenches meant that they were often too unstable to be examined intensively). Additional trenches specifically targeting suspected areas of archaeological interest were also inserted in certain instances, along with occasional archaeological test pits and deeper geological test pits designed to aid understanding of the early alluvial history of the floodplain. The project sought to document all archaeological remains encountered within the area impacted by the route of the 33kv reinforcement cable; however, increased attention was given to the zones deemed to be of greatest archaeological potential (see below). All work was carried out in strict accordance with statutory Health and Safety legislation, and with the recommendations of SCAUM (*cf.* Allen & Holt 2007). The recording followed the CAU modified version of the MoLAS system (Spence 1994); context numbers are indicated within the text by square brackets (e.g. [001]), and feature numbers are denoted by the prefix F. (e.g. F.03). Base plans were drawn at a scale of 1:20, whilst sections were drawn at a scale of 1:10. The photographic archive for this project consists of digital images.

Geology

The geology encountered varied markedly along the length of the reinforcement cable route, and was not observable in all areas due to the severity of truncation by modern services. 2nd and 3rd Terrace Gravels were recorded during trenching in Zones 1, 2, 3 and 5 whilst the lower lying Zones 4, 6 and 7, which are situated within the floodplain of the River Cam, were characterised by the presence of Cretaceous Gault Clay and small 'islands' of 1st Terrace Gravels (British Geological Survey, sheet 188). A more detailed account of the geology encountered in each individual zone is presented at the beginning of each of the appropriate subsections, below.

Historical and archaeological background

A comprehensive evaluation of the likely impact of the 33kv reinforcement cable route has been outlined in three preceding desktop assessments (Dickens 2003; Dickens 2006b), including one considering alternative routes for the project (Appleby & Dickens 2004); in addition, the specific historical and archaeological background of each individual zone is presented in depth as appropriate at the beginning of the subsections. Therefore, only a brief summary of the overall route is presented here. There is evidence to suggest the potential presence of activity from Prehistoric times through to the Post-Medieval period within all seven zones, although this rarely appears to have risen above what might be termed a level of 'general background noise'. Within the region of Zone 1 finds of both Iron Age and Roman date have previously been recorded, whilst in Zone 3 the route passes through part of the Medieval village of Chesterton. In Zone 4, Stourbridge Common is known to have been the location of an important Medieval and Post-Medieval fair, whilst the Medieval Priory of Barnwell represents the greatest potential for archaeological remains in Zone 5. A second fair of Medieval and Post-Medieval date, known as 'the Pot Fair' or 'Midsummer Fair', is also known to have been located within Zone 6. Finally, Zone 7 represents the area that is situated closest to the core of the Medieval

city, where there is perhaps the greatest likelihood of encountering Medieval or Post-Medieval remains.

Zones 1, 2 and 3: King's Hedges Road to Water Lane

The archaeological watching brief within Zones 1, 2 and 3 commenced on the 5th of September 2006 and ran intermittently until the 20th of November 2006. It was undertaken in order to observe the route of the 33kv reinforcement cables along several stretches of road running round the northern and eastern edges of the City of Cambridge, namely Water Lane and Green End Road in Chesterton and King's Hedges Road in Arbury. Zones 1, 2 and 3 all failed to produce any finds of archaeological significance and the three zones will therefore be discussed together. The site code for these zones was TKR06.

Location and geology

Zone 1 represents the area around King's Hedges Road, and is located well to the north of the city (TL 46601/60990 – TL 45620/61735; see Figure 1). The watching brief was focused on the areas deemed most likely to yield archaeological material, which ran from the junction of King's Hedges Road and Milton Road to the east up to and slightly beyond the railway crossing and King's Hedges Farm to the north. Natural gravel and sand was encountered at a depth of approximately 1.0m below the modern ground surface, and the height of the natural appeared to rise slightly towards the western extent of the route. This is consistent with the results of archival boreholes and geological trial pits recorded within the area of Arbury, which predict the presence of 3rd Terrace River Gravels (Boreham 2004). Zone 2 represents work on Green End Road, close to the junction with Milton Road and King's Hedges Road to the northeast of the city (TL 46645/60938 – TL 46730/60050; see Figure 1). Natural was not observed in this area due to the severity and depth of truncation by modern service trenches, although the underlying geology is believed to be 2nd Terrace Gravels on top of Cretaceous Gault Clay Bedrock (British Geological Survey, Cambridge sheet 188). Zone 3 represents the area of Water Lane and excavations leading on to Green End Road (TL 46730/60050 – TL 46675/59900; see Figure 1). Some sections of trenching and directional drilling were carried out prior to the watching brief and were not observed. Trenching exposed the top of an alluvial sequence at a depth of 0.8m to 0.9m below the modern ground height at the junction of Water Lane and Green End Road, and continuing below the limits of the excavated trench at 1.2m below. The natural 2nd Terrace Gravels suggested by the British Geological Survey (Cambridge sheet 188) were not observed.

Methodology

The methodology employed for the work conducted in Zones 1, 2 and 3 remained consistent between the different zones. Archaeological monitoring and supervision was carried out daily by a single archaeologist across all of the zones, meaning that some trenches were pre-excavated before recording while those deemed of greatest archaeological potential were excavated under constant supervision. Excavation was undertaken using 360° a mechanical digger with toothed buckets of between 0.7m to 1.1m in width. The trenches varied in width and depth as required for the logistical operation of inserting the 33kv reinforcement cables, but remained 1.10m wide and

1.10m deep along the majority of the length of the route. Modern road tarmac was broken using a tracked top-cutting machine. The lack of archaeological remains meant that no context or feature numbers were assigned for these areas of the project.

Historical and archaeological background

Finds dating from Prehistoric times through to the later Medieval period have previously been made within the area of the 33kv cable trench route in Zones 1 to 3. Because the historical and archaeological background of these zones has been outlined in depth in two earlier desktop assessments (Dickens 2003; Dickens 2006b), only a brief overview of each area is given below.

Zone 1

The northernmost part of the cable route crosses an area of known intense Iron Age and Roman activity, with at least three important sites lying in close proximity to the study corridor. The most significant of these is Arbury Camp, which has undergone several phases of archaeological investigation over the past 120 years; these have revealed evidence of an extensive ringwork, a large 'tower-like' gate structure and scatters of residual Iron Age and Roman pottery (Evans & Knight 2002). Secondly, strung out along the Roman road into the fens (later known as Akeman Street) are a number of smaller Roman sites, some of which were investigated during the 1950's by Professor Frend and some during the 1960's by John Alexander (Browne 1974). These included, close to Arbury Road, a range of houses that had remained in continuous usage from around AD130 until at least 400; across much of the area evidence was also found of a broader landscape of field boundaries, minor roads and tracks that dated not only to the Roman period but also to the preceding Iron Age (*ibid*). In addition, an excavation conducted by the CAU in 1991 uncovered part of the metalled surface of Akeman Street along with evidence of earlier pits and ditches (Evans 1991). The final site consists of King's Hedges Camp, which lies to the north of the route of the cable trench and is now partially sealed beneath Cambridge Regional College. Sir Cyril Fox recorded this monument as consisting of a rectangular earthwork, one side of which bordered the Mereway that marks the line of Akeman Street (1923, 178). Although Babington reported recovering Roman coins from within it (1883, 14), little further work has since been undertaken and the site remains something of an enigma.

Zone 2

If Zone 1 is characterised by finds of the Iron Age and Roman periods, Zone 2 is notable for finds of Bronze Age date. Two hoards of Bronze Age metal objects have been found during gravel quarrying near Green End Road, Chesterton; the 'Winship Hoard' was found in 1927 in Brown's Gravel Pit, whilst a second hoard was found in the same gravel pit in 1931, around 200 yards from the first on the opposite side of Milton Road (Lethbridge 1932, 61). These finds have been described variously as either founder's hoards, *i.e.* the raw material for production of copper alloy tools and objects (RCHM(E) 1959), as the abandoned loot of an invading force (Taylor 1999) or as a form of currency (Lethbridge 1932).

Zone 3

The route of the 33kv reinforcement trench skirts the eastern edge of the village of Chesterton. In recent years, several archaeological investigations have taken place in this area that have contributed to the interpretation and definition of a Post-Conquest settlement founded to the east of the earlier Saxon focus (*cf.* Cessford with Dickens 2004). One of the most recent investigations is that undertaken at the site of the former Yorkshire Grey public house, where in 2001 evidence of non-intensive occupation of the site from the 11th century onwards was revealed, along with minor Prehistoric activity (*ibid*). In addition, several important Post-Medieval buildings are known to survive in the centre of the village itself.

Results

The excavation of the 33Kv reinforcement cable trenches produced no archaeological material. Modern tarmac sealed a layer of aggregate or hardcore ranging in depth from 0.2m to 0.4m in all observed parts of the trenches. Modern service cuts were very frequent and truncated the sequence to a depth of 1.0m or greater in places. The service cuts were generally backfilled with a mixture of sands, clays and gravels that contained no residual archaeological material. Within Zone 1 on King's Hedges Road natural sandy gravels were observed in places at a depth of 1.0m below the modern ground surface, where not truncated, and appeared to rise up slightly towards the western extent of the cable trench at a point beyond the modern junction with Campkin Road. In Zone 2 large sections of the trench on Green End Road followed the line of the wider and deeper cut of a gas main; as a result no undisturbed deposits were seen. In Zone 3, introduced alluvial clay was identified but this again produced no datable material. It is likely that these deposits correspond to ground raising activity similar to that seen on Midsummer Common (see further Zone 6), and they therefore probably date to the 18th or 19th century.

Discussion

Given the wealth of evidence of activity dating from the Iron Age to the Post-Medieval period indicated by the historic and archaeological assessment (*cf.* Dickens 2003), the lack of any archaeological remains along this section of the 33kv reinforcement cable route can perhaps be seen as slightly unusual. However, in all three zones the sequence was heavily truncated by modern service cuts. Whilst Zone 1 has often been assumed to lie within the agricultural fringe of the town, no well developed soils were encountered in this locality. Indeed, this area of Cambridge was not densely settled until well into the 20th century (Bryan 1999, 137-9) and it might therefore be expected that the earlier archaeology would be characterised by negative features, typically quarry pits and field boundaries. As natural was only encountered intermittently along the route – and predominantly at the western end of the cable trench, the end situated furthest from the town – there remains potential for further work within the vicinity of King's Hedges Road to produce more positive archaeological results. Similarly, Zones 2 and 3 were heavily affected by Modern services (in addition to intense modern quarrying activity in Zone 2) and no evidence of the Medieval village of Chesterton was encountered. The difference in road and property layout between Zones 1 and 2 is noticeable, and the agglomerated nature of properties within the Chesterton stretch of the 33kv reinforcement cable route attests to its greater history of occupation. Unfortunately, it is likely that the line of the

trench in Zones 2 and 3 followed long established roads and therefore the chance of uncovering remains of buildings or related features was negligible. However, there is still a strong likelihood of archaeological remains surviving within modern day property plots (outside the areas of quarrying; see Mackay 2001), and potentially also at depths greater than the 1.1m below current ground height observed by this investigation.

Zone 4: Stourbridge Common

The archaeological evaluation within Zone 4 was undertaken between the 1st to the 14th of September 2004, whilst the subsequent watching brief commenced on the 20th of September and ran until the 6th of November 2004. This work was carried out on behalf of EDF Energy to assess the potential of any surviving archaeology, and to recover geotechnical data prior to trenching and cabling along a stretch of the route of the 33kv reinforcement cables across Stourbridge Common. The site code for this zone was TKS04.

Location and Geology

The area evaluated lies on the southern side of the River Cam, between the Green Dragon footbridge and Riverside (TL 46705/59825 – TL 46629/59566; see Figure 1). The evaluation consisted of four excavated ‘T-shaped’ trenches, numbered 1 to 4, which ran southwest to northeast parallel to the river tow-path and two further trenches, Trench 5 which was orientated northwest to southeast and Trench 6 which was orientated southwest to northeast (see Figure 2). In addition, a further stretch of narrow trenching (Trench 7) was monitored by watching brief; this ran parallel to the River Cam on its southern bank for approximately 260m (see also Figure 2). The height of the modern ground surface varied from 5.45m OD to 4.78m OD, and natural gravels were reached with Trenches 2 and 4 at a height of 1.58m OD and 1.98m OD respectively. The British Geological Survey (Cambridge, sheet 188) records the presence of Cretaceous Gault Clay in the area of Stourbridge Common. The gravels encountered during excavation may therefore represent small bars of 1st Terrace Gravels within the flood plain, close to the present day river course, which were overlain by a varying alluvial sequence.

Methodology

The investigation was undertaken in advance of preparations for cable laying on this stretch of the route, which also included drilling for the line beneath the River Cam. In total, six archaeological trenches were dug on Stourbridge Common using a 360° mechanical excavator with a 2m wide toothless ditching bucket. Within Zone 4 work was carried out in two successive phases, initially as short trenches to examine the upper portion of the sequence followed by deeper excavations to establish the paleoenvironmental history of the Common. Due to the nature of the technology used in the 33Kv reinforcement cable work, it was not possible to locate the archaeological test pits and trenches directly on the line of the cable route or the drilling pits in this zone. The archaeological investigations therefore took place at the closest available point within the working area. As a result, four ‘T-shaped’ trenches – numbered 1, 2, 3, and 4 and measuring 6m in length and 2m in width, with the top of the ‘T’ measuring 4m by 2m – were dug to the south of the line of the cable route and

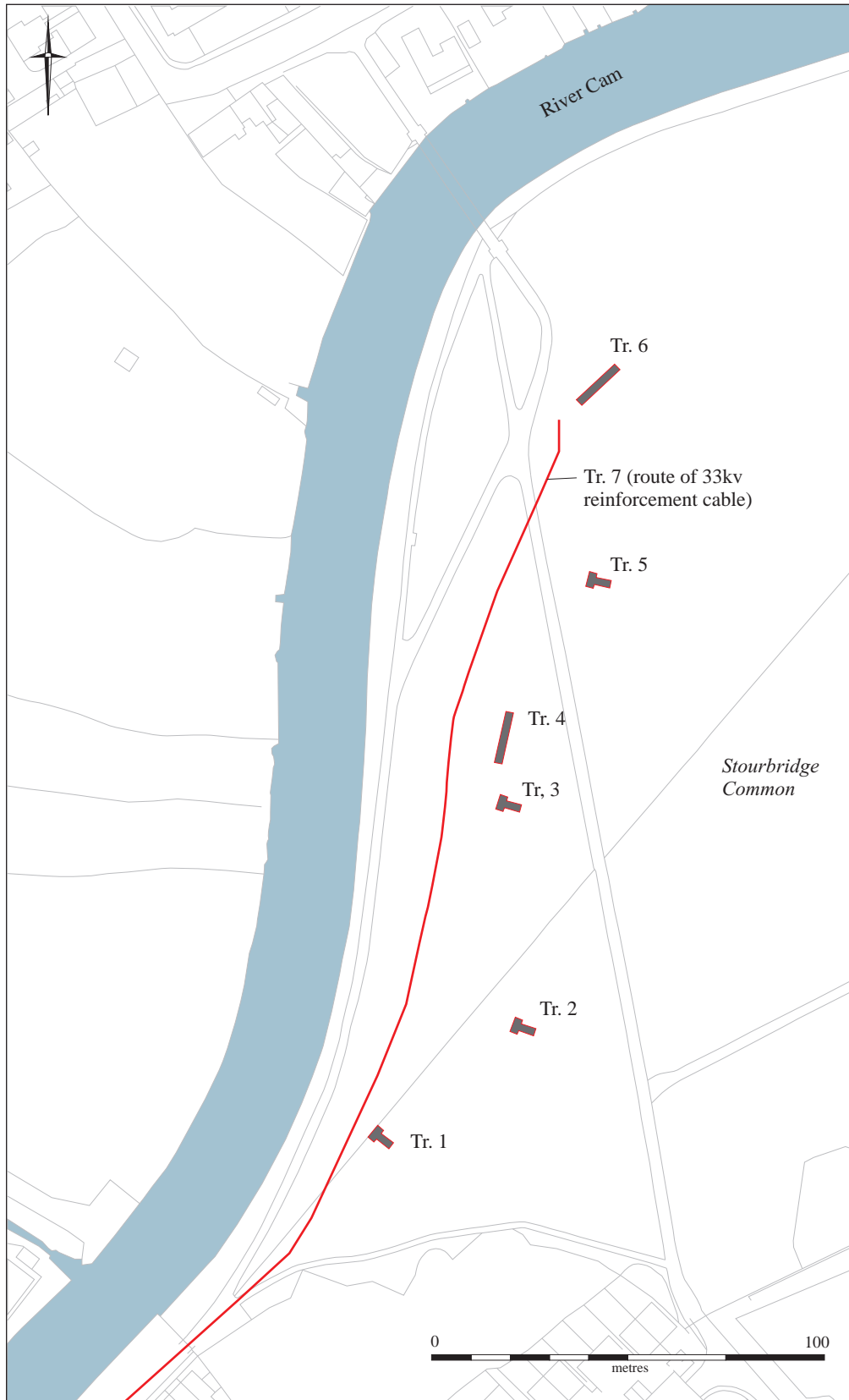


Figure 2. Trench locations, Zone 4: Stourbridge Common.

orientated so as the top of the 'T' was aligned towards the route of the cable trench. Each of these smaller trenches covered an area of 16m². Two further trenches – 5 and 6, measuring 10m in length by 2m in width and 15m in length by 2m in width respectively – were also excavated. The purpose of Trench 5 was to monitor the potential impact of drilling pits, while Trench 6 was positioned in order to investigate a potential earthwork observed running east to west across the area. It was thought possible that the earthwork may have been evidence of a 'hythe', a man-made channel cut for the purpose of docking and unloading watercraft.

In addition the main cable trench, which consisted of two narrow parallel trenches c.0.60m wide and approximately 260m in length, was opened by the contractor using a 360° mechanical excavator with a toothed bucket. This work was monitored in sections by archaeological watching brief, with finds being recovered and the alluvial sequence recorded. Once the upper portion of the sequence of the short trenches had been recorded, the opportunity was taken to excavate a geological test pit within the confines of each trench (although this was not possible in Trenches 3 and 6 due to severe flooding). These excavations went to a maximum depth of 3.57m within Trench 2 and were recorded without entering the test pits due to health and safety constraints. Each trench was planned at a scale of 1:50 and archaeological features were recorded in section at a scale of 1:10.

Historical and Archaeological Background

The historical and archaeological background of the zone has been outlined in a previous desktop assessment (Dickens 2003), and also in a supplementary desktop assessment (Appleby and Dickens 2004), and only a summary is therefore presented here. Stourbridge Common, once the site of the famous Stourbridge/Sturbridge Fair, lies to the east of the City of Cambridge. The fair extended over an area of about half a square mile, and originated around or before 1211AD (Bryan 1999). Its location on the south bank of the River Cam allowed for the distribution of sea-borne goods, particularly in its early days (Gray 1921). A new charter in 1589 stated that the fair "far surpassed the greatest of and most celebrated fairs of all England" (Taylor 1999, 117). Following Inclosure in 1811 the fair, already in decline, decreased markedly in both length and importance. Indeed, by the time of its abolition in 1933 it had almost faded away completely. The fair lives on, however, in the street names of the area; Garlic Row, Oyster Row and Mercer's Row. Garlic Row in particular occupies the same location as its original namesake, a row of stalls at the centre of the fair. With the exception of existing services, the area on and around Stourbridge Common remains relatively undisturbed, with no known archaeological investigations having been carried out to date.

Results

The excavation of the archaeological trenches and geological test pits produced evidence of a series of alluvial inundations, relict channels and peat formations similar to those observed elsewhere on the route of the 33Kv reinforcement cable. The nature of the methodology here, however, enabled a much greater depth of deposits to be seen compared to other zones and as a result direct comparison of the early sequence is difficult. The alluvial sequence consisted of multiple bands of fluvial material seen in places to overlie relict channels. The results suggest prolonged

periods of water-logging interspersed with repeated and site-wide flood events which may have continued in occurrence into the 20th century. In addition, deposits of deliberate ground-raising material and extant old ground surfaces were present, consistent with activity recorded on Midsummer Common and Jesus Green (see further Zone 6). Pottery dated to the 17th to 19th centuries was recovered from several contexts thought to represent deliberately dumped ground raising events, which utilised re-deposited alluvial clay. No physical evidence of Stourbridge Fair was discovered, although rudimentary surfaces or hard-standings of coarse sand attest to temporary or episodic use of the Common close to the river during the late Post-Medieval period; the presence of turf horizons indicates that the area was beginning to dry out and become more widely used at this time.

Alluvial Deposits

The general alluvial sequence observed is characterised by a series of bands of alluvial clays overlying intermittent relict channels of varying sizes. There appears to be a significant difference between the earliest deposits on Stourbridge Common. Within Trenches 1 and 2 this was represented by deposits [028], [029], [008], [024] and [025], light blue and grey silt clays with occasional orange mottles throughout and occasional small mollusc shell inclusions measuring between 80mm+ and 1.88m thick (see Figure 3). The lowest levels may represent palaeochannel fills although they appear different in nature to those seen on Midsummer Common and Jesus Green. Within Trenches 4 and 5, 0.7m to 0.8m+ thick layers of light grey green sand and sandy gravel [044] and [059] containing occasional inclusions of small mollusc shell showing large quantities of washed natural material accumulated, resulting in the formations of sand bars and ridges. Overlying these sand and gravel deposits, and also in Trench 3 where the sequence was only excavated to a depth of 1.29m below the modern ground surface, were various layers of mid to dark brown and green brown clay peat, [061], [041], [043], [057] and [058], ranging in thickness from 0.1m+ to 0.46m and containing occasional to moderate small mollusc shell and organic inclusions. The most recent alluvial activity is represented by an apparently site-wide episode of flooding which resulted in the creation of layers [027], [006], [012], [050] and [034], a dark brown and greyish brown clay and silt clay material 0.08m to 0.27m thick appearing between 1.0m and 1.35m below the modern ground surface. Preceding horizons of similar mid to dark brown silty clays, [060], [007], [042] and [035], may suggest such flooding was a common occurrence during the later Medieval and Post-Medieval periods and may even have been part of deliberate seasonal management of pastures on the River Cam flood plain. While much of the Common appears to have seen deliberate attempts to raise the ground height and consolidate marginal wetland from the 18th century onwards, in Trench 5 alluvium may have continued to form into the 20th century. This is demonstrated by layers of mid to light grey and brown silt clay, [033], [032] and [031], 0.19m to 0.41m thick, some containing inclusions of small mollusc shell immediately below the current turf and top soil layer. Neither the palaeochannel fills, alluvial clays or water lain sands and gravels contained any material culture.

Later Activity

Later activity identified within Trenches 1, 2, 3, 4, and 5 consists of multiple ground raising deposits, old buried ground surfaces and modern turf and topsoil horizons. In Trench 1 three deliberate dump layers were visible. The earliest, [018] a mid brown silty clay with interrupted wavy lenses of orange sand, contained occasional bone, shell and charcoal inclusions. The deposit measured 0.25m thick. Above this was [017], also 0.25m thick and composed of mid brown silt contained bone, charcoal and occasional to moderate grit and gravel inclusions. [018] contained pottery dating from between the 17th and 19th centuries, including four sherds of Glazed Red Earthenware, two of Staffordshire-type Slipware, two of Pearlware and two of Red Coarseware. [017] produced a single sherd of Iron Glazed pottery and Staffordshire Salt Glazed Stoneware, consistent with an 18th century date for the layer. Finally, lying below the modern topsoil, was a mixed deposit of grey silt with frequent mottled patches of re-deposited blue clay, moderate to frequent brick and tile fragments and occasional glass and gravel inclusions. The deposit measured 0.5m thick. To the southwest in Trench 2 three deliberately introduced deposits were recognised. The earliest of these was [005], a mid grey clay 0.5m thick and overlain by a dark brown clay silt [004] 0.15m thick. It is difficult to establish whether this represents

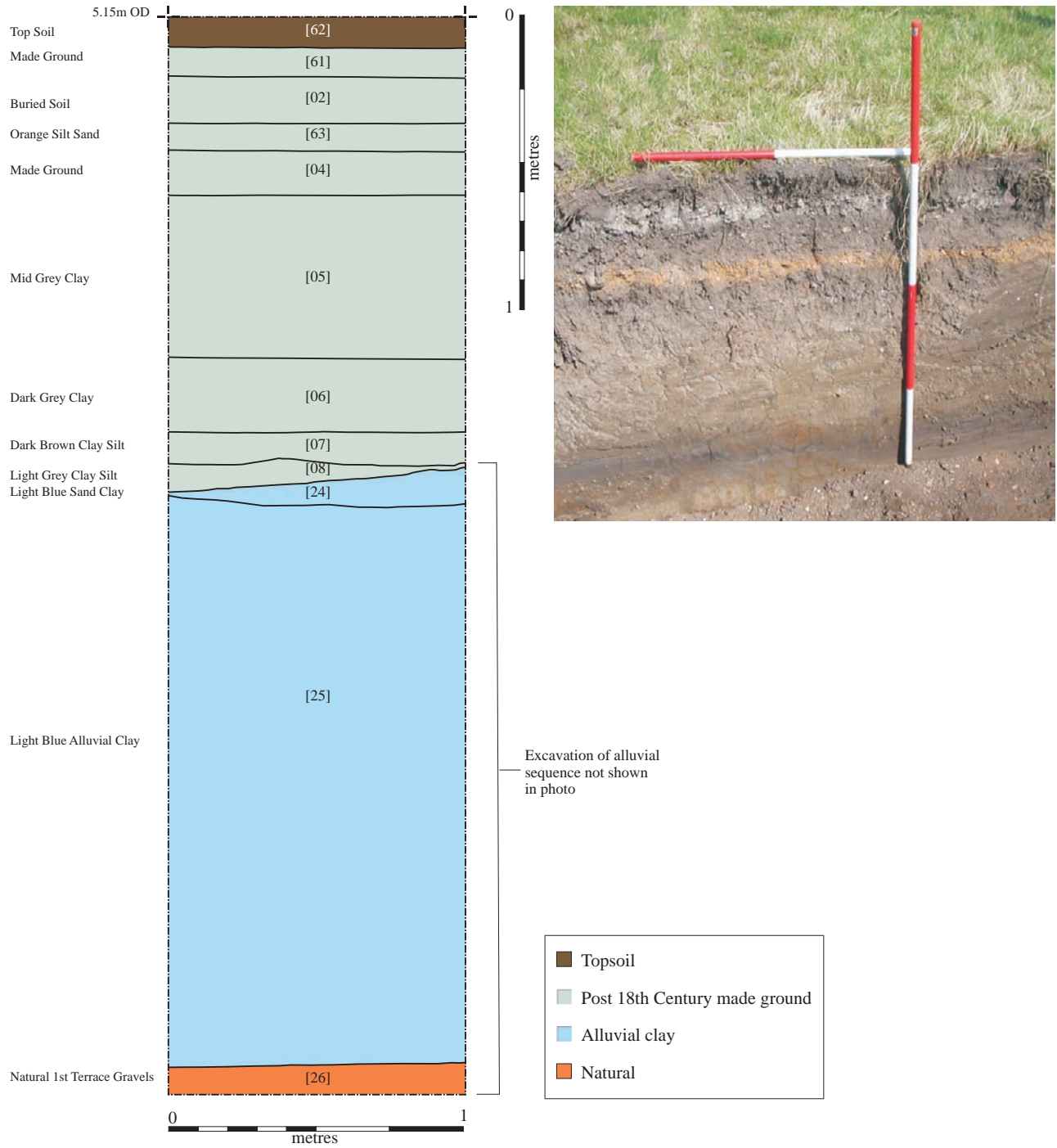


Figure 3. Section and photo from Trench 2 on Stourbridge Common.

alluvial inundation during the 19th century or redeposited alluvial clay introduced as a ground raising deposit. [004] contained eight sherds of Glazed Red Earthenware, one sherd of Staffordshire-type Iron Glazed pottery, two of Staffordshire-type Slipware, ten sherds of Pearlware, two of Red Coarseware and a sherd of Refined White Earthenware. The pottery dates the formation of the context to the late 18th or more probably the early 19th century.

Trench 3 shows a similar sequence with a mid grey silt clay [011], 0.39m thick, overlain by [010] a mid brown silt clay 0.17m thick. The uppermost deposit, [009], was a light brown silt 0.24m thick that contained occasional inclusions of shell, fragments of coal, iron and glass. [009] produced one sherd of 19th century Refined White Earthenware. The lack of material culture within layers [048] and [049] make it difficult to establish whether these deposits represent alluvial material or deliberately introduced ground raising events, although their similarity with dump deposits seen elsewhere would suggest the latter. [048] is a light grey clay, 0.3m thick overlying [049] a mid grey clay, 0.14m thick. Above this [047] is a light grey brown silt clay containing occasional to moderate inclusions of oyster shell and [046] a mid brown clay silt with moderate fragmentary shell, occasional coal, grit and gravel. The uppermost layers measure 0.3m and 0.14m respectively. In the two trenches to the southwest it was possible to identify old ground surfaces surviving. Within Trench 1 these surfaces were represented by thin layers [014] and [016], which were between 50mm and 100mm thick and consisted of mid brown silt. Between these horizons was a 70mm thick layer of orange silty sand [051]. A similar orange silt sand layer, [003], also 70mm thick, was visible in Trench 2. Here it overlay dump deposit [004] and was sealed by a desiccated silt layer of mid brown turf [002]. The modern turf and topsoil layer [013], [062], [063], [064] and [030] measured between 0.1m and 0.20m across the six trenches and consisted of a relatively loose mid brown clay silt.

Trench 6 was opened to the south of the line of the cable trench (here referred to as Trench 7) to establish whether an earthwork visible running east to west across Stourbridge Common represented the remains of a hythe. Excavation proved this was not the case and the earthwork was in fact a natural undulation. A mid grey alluvial clay deposit [055], a surviving turf layer [053] and two dumped deposits [052] and [054] were identified before the trench was backfilled. Natural was not reached in Trench 6. Trench 7, which was observed under watching brief conditions, exhibited an alluvial sequence consistent with that observed in the excavated trenches. Old ground surfaces were identified and appear consistent with those described above (as [014] and [016]). Pottery recovered from below this turf horizon, approximately 15m from the southern end of Trench 7, was dated to the late Post-Medieval period and may represent cut features sealed by this turf layer. The logistics of this part of the project meant that recording was conducted from the top of the trench and heavily restricted due to the width and instability of the trenching. Palaeochannel deposits were observed along the course of Trench 7, and while the trench varied in depth between 1.0m and 1.2m natural gravel was not encountered. Within Trenches 2 and 4 the excavations exposed layers of gravel at a depth of 3.57m and 2.8m respectively. This is likely to represent natural 1st Terrace gravels and demonstrates the variation in height within this part of the flood plain. It is clear that the relatively flat topography of the Common seen today masks a varied sub-surface 'landscape'; a result of a long history shifting environmental conditions and changing courses of the River Cam.

Finds reports

Only a very small amount of material was recovered from Zone 4 (58 items, weighing 849g), all of which was derived from 17th century and later contexts. Therefore, considering the very limited quantities of material available for study, an intensive analysis is not warranted and a summary of the material is therefore presented with elements of specific interest highlighted.

Animal bone assessment *(by Ben Davenport)*

A total of 12 pieces of disarticulated animal bone, <002>, <010>, <013> and <017>, weighing 136g were recovered from four contexts [004], [017], [018] and [053] within Trenches 1, 2 and 6. The assemblage was very small and showed very mixed overall preservation ranging from quite poor to quite good. It was deemed unnecessary to retain the bones for further analysis.

Clay tobacco pipe assessment *(by Craig Cessford)*

A very small assemblage of clay pipe fragments from Zone 4 consisting of three stems weighing a total of 6g, <006>, <011> and <014>, was recovered from contexts [009], [017] and [018]. It was deemed unnecessary to retain the stems for further analysis.

Glass assessment *(by Craig Cessford)*

A very small assemblage of 19th and early 20th century glass was recovered from Zone 4. None of the material is particularly interesting but some of it provides useful dating information. The fresh nature and large size of most of the pieces indicates rapid deposition. The assemblage is comprised of three fragments of bottles weighing a total of 457g.

<005> [009] One fragment of bottle (40g). 19th or early 20th century.

<008> [010] One fragment of bottle marked *CAMBRIDGE / M... / WINE* (59g). 19th or early 20th century.

<018> [056] one fragment of bottle (358g) marked *WOODS AND SON CAMBRIDGE MINERAL WATERS*. The Woods family had been dealing in mineral water in Cambridge from 1864; this bottle probably relates to T Woods & son who had business premises at 128 Fitzroy Street from 1891 to 1921, by 1931 they had moved to Gold Street.

Pottery assessment *(by Craig Cessford and David Hall)*

The total amount of pottery recovered during work carried out in Zone 4 comprised 40 sherds, weighing 250g, which date exclusively to the Post-Medieval and Modern periods. Considering the limited quantities of pottery recovered over such an extensive area, an intensive analysis is not warranted. A summary of the material is therefore presented, which is broken down by broad chronological period and with elements of specific interest highlighted.

17th and 18th century

The pottery from this period was recovered from three contexts within Trenches 1, 2 and 6 and is represented by 18 sherds weighing 174g. Two of the contexts producing pottery from this date represent dumped deposits of ground raising material ([004] and [018]). <001> [004] contained two sherds of Staffordshire-type Slipware (17g), one Staffordshire-type Iron Glazed handle (3g) and eight sherds of Glazed Red Earthenware (57g). <012> and <015> [018] contained two sherds of Staffordshire-type Slipware (10g) and one handle from a Glazed Red Earthenware vessel (56g). Both of these contexts also contained pottery dating to the 19th century, and due to the recovery methods used during the watching brief it is difficult to establish whether these sherds represents residual material or derive from a stratified deposit beginning in the 17th century.

18th century

The pottery from this period was recovered from a single context within Trench 1 and is represented by 2 sherds weighing 3g. <009> [017] represents a dump of ground raising material and contained one sherd of Staffordshire-type Salt Glazed Stoneware

(1g) and a sherd of Iron Glazed pottery (2g). An unstratified sherd <019> of Notts-Derby Stoneware (9g) also dates to this period.

Late 18th and 19th century

The pottery from this period was recovered from three contexts within Trenches 1, 2 and 3 and is represented by 19 sherds weighing 64g. Dump deposit <001> [004] in Trench 2 contained one sherd of Refined White Earthenware (1g), two sherds of Red Coarseware (9g) and ten sherds of Pearlware (17g) while similar deposit <012> [018] in Trench 1 contained two sherds of Red Coarseware (8g) and two sherds of Pearlware (10g). As discussed above, this may represent the final deposition within a stratified sequence of ground raising activity. <004> [009] in Trench 3 also represents a redeposited dump of clay but contained only 19th century pottery, in the form of a single sherd of Refined White Earthenware (6g). In addition, an unstratified sherd of bone china <019> was also recovered from Trench 1.

Summary

It would appear that none of the contexts on Stourbridge Common that produced pottery originated earlier than the 17th or even 18th centuries. A few contexts may have seen deposition beginning in the 17th century, but the majority of the material is of a later date and the assemblage generally lacks the range of pottery types retrieved from Midsummer Common and Jesus Green (see Zone 6). The mean sherd weight is also very low at 6g. It is probable that these sherds represent more mobile and redeposited material but also, by virtue of advancements in production technology, pottery of more recent periods is typically much lighter than that made with earlier fabrics. The absence of any imported material is noticeable and this may be due to the non-domestic depositional context from which the pottery was recovered. It is, however, still surprising when you consider the history of Stourbridge Common that earlier pottery was not recovered. The Medieval fair at Stourbridge was well documented and we can only assume that the absence of pottery from this period was due to the wet alluvial conditions of this part of the Cam flood plain during this period.

Discussion

The archaeology encountered within Zone 4 provides new evidence with regards to the history of use of Stourbridge Common and its Medieval and Post-Medieval fair (see Figure 3). However, the lack of comparative excavations within the area means that care must be taken as to the extent that these findings can be seen to represent Stourbridge Common as a whole, let alone the 'Barnwell Fields' more generally. The earliest archaeological deposits identified within the excavated areas were 17th century in date, and represented deliberate ground raising deposits made into a wet alluvial floodplain. This area was therefore clearly still prone to frequent flooding in the 17th and 18th centuries, and the attempt to reclaim marginal land within the Cam floodplain may have been a response to the increase in population of the town during this period (*cf.* Bryan 1999, 99). These activities continued into the 19th century, an indication that efforts at consolidation continued far later than previously thought and were certainly maintained long after the 1807 Parliamentary Act which saw the enclosing of large areas of common land four years later (*ibid.*, 102-3).

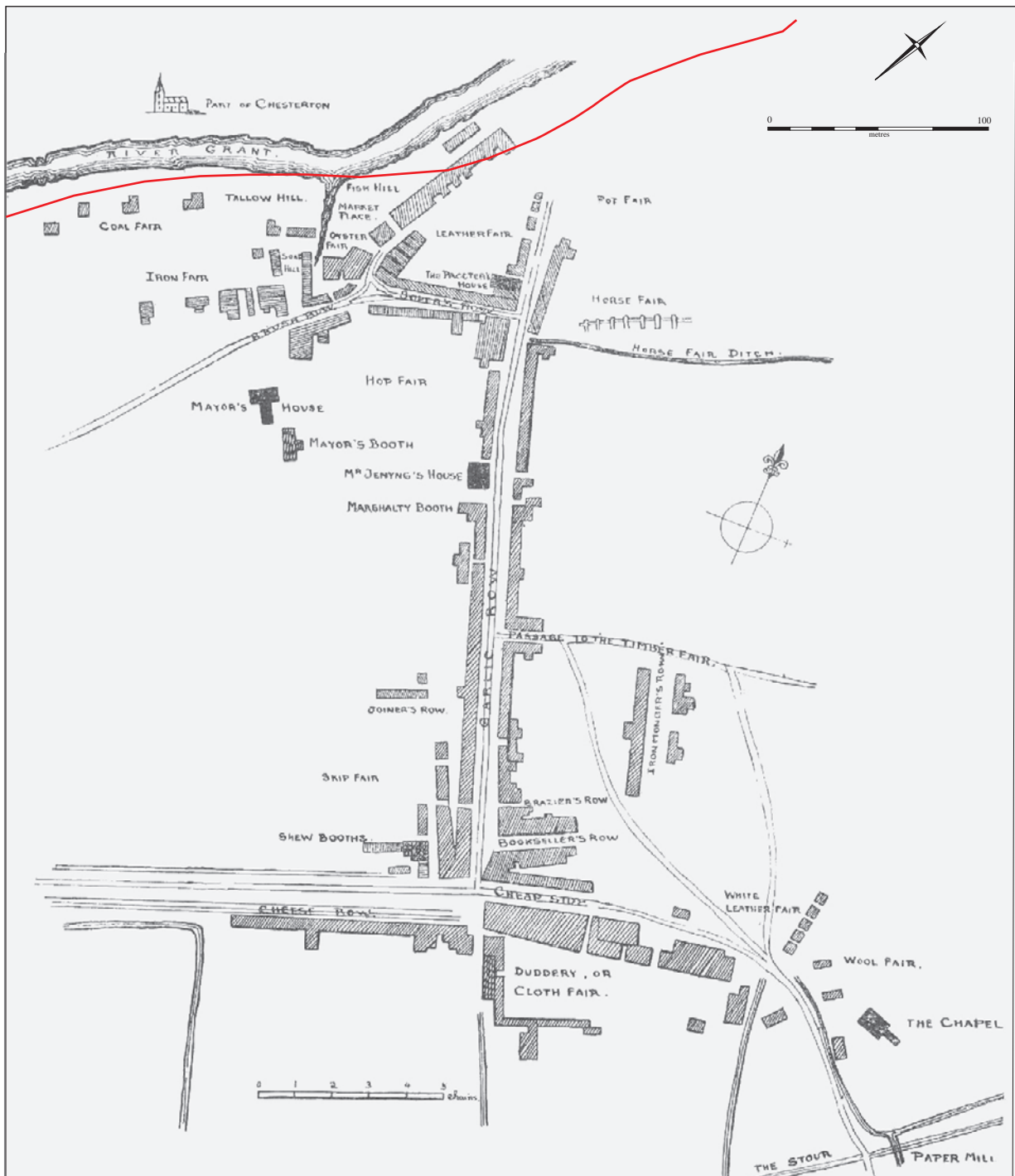


Figure 4. Plan of Stourbridge Fair in 1725 (cable route in red).

Despite repeated mention of the size and importance of Stourbridge Fair from the 13th century onwards in literary sources, cultural material of the Medieval period was conspicuous by its absence. There are a number of possible explanations for this. One is the prospect that archaeological remains have not survived within this river edge location due to processes of washing or erosion by the river or adverse conditions of preservation. This seems unlikely, however, as the alluvial sequence appears to be rather more indicative of seasonal alluvial inundation rather than high energy flashflooding in this area of the Cam flood plain. The general uniformity of topography also discourages interpretations suggesting the washing of material into the River Cam, or into unidentified relict channels. A second possibility is that this area saw greater alluvial formation than adjacent areas, and that material of pre-17th century date has been sealed beneath a build-up of later alluvial clays. Yet the observation of natural gravels consistent with the 1st Terrace gravel natural predicted for the area (Boreham 2004) at a height of between 1.58m OD and 1.98m OD within the deeper geological test pits argues against this theory also. Perhaps more probable, therefore, is a combination of factors. The absence of Medieval material in the river edge location supports the interpretation, consistent with the observed sequence in Zone 7, that prior to the Post-Medieval period no significant activity was taking place within the immediate vicinity of the south bank of the River Cam. The Medieval fair was clearly centred closer to Newmarket Road, and while the river may have had an important role to play in the transportation of goods this did not extend to the erection of permanent riverside structures. Thus, by the time that conditions within Zone 6 were conducive to even seasonal occupation, the fair was in decline. Discrete layers of orange sands and gravels identified within the archaeological trenches may be the only evidence of 19th century stall plots or hard standings, although further excavation is clearly needed to establish the true extent of Medieval Stourbridge Fair.

Zone 5: Riverside to Occupation Road

The archaeological watching brief within Zone 5 commenced on the 5th of September 2006 and ran intermittently until the 20th of November 2006. It was undertaken in order to observe the route of the 33kv reinforcement cable along several stretches of road running around the northeast side of the City of Cambridge – *viz.* Riverside, Abbey Road and Occupation Road – although excavation failed to produce any finds of archaeological significance. The site code for this area was TKR06.

Location and Geology

Zone 5 includes Riverside (TL 46605/59580 – TL 46130/59130), which runs northeast to southwest along the south side of the River Cam and on to Abbey Road, and Occupation Road (TL 46130/59130 – TL 46320/58500) which continues to the south beyond the round-about and subway at the junction of East Road and Newmarket Road along the western edge of the precinct of Barnwell Priory (see Figure 1). Natural was not observed along the stretch of trenching at Riverside at a depth of 1.2m below modern ground height. This section of the route ran parallel to the River Cam and represented one of the most dynamic geological zones within the study area. The British Geological Survey (Cambridge, sheet 188) maps areas of 2nd and 3rd Terrace Gravels partially overlying exposed Cretaceous Gault Clays at a height of 3m to 4m OD. The 3rd Terrace Gravels predicted within the area uncovered by trenching on Occupation Road were not reached at a depth of 1.2m. Here, the

alluvial clay seen within the excavated trench may perhaps be anthropogenic in origin.

Methodology

Archaeological monitoring and supervision was carried out daily by a single archaeologist across the entirety of Zone 5, meaning that some trenches were pre-excavated before recording while those deemed of greatest archaeological potential were excavated under constant supervision. Excavation was undertaken using a 360° mechanical digger with toothed buckets varying in width from 0.7m to 1.1m. The trenches varied in width and depth as required for the logistical operation of inserting the 33kv reinforcement cables, but remained 1.1m wide and 1.1m deep along the majority of the length of the route. Modern road tarmac was broken using a tracked top-cutting machine. The lack of archaeological remains meant that no context or feature numbers were assigned for this area of the project.

Historical and Archaeological Background

Within Zone 5 the Medieval priory of Barnwell represents the most significant archaeological and historical element, although finds dating from Late Prehistory through to the Late Medieval period have also been made within the area around the route of the cable trench. Because the historical and archaeological background of the area has been outlined in an earlier desktop assessment (see Dickens 2003), only a brief overview is given below.

Details of the provenance of finds attributed to this area are generally poor. A Prehistoric metal object is known to have been found in a garden on New Street in 1905, and a bronze object is recorded from York Street (the latter may perhaps be the small bronze bell listed in the University of Cambridge Museum of Archaeology & Anthropology catalogue as a globular bronze horse bell dating to the 15th century). Other Medieval material includes an iron object and pottery found during dredging works on the river. Of primary importance, however, is the fact that the route of the 33kv reinforcement cable runs along the eastern edge of the precinct of Barnwell Priory. This religious establishment was originally founded in 1092 by the first Sheriff, Picot, at St. Giles Church on Castle Hill; the canons were then moved in 1112 by the second Sheriff, Pain Peverel (son of William Peverel, bastard son of William I) to a new site on the south bank of the River Cam. This second location lay between River Lane and Walnut Tree Lane and ran from Newmarket Road down to the river, east of what is now Elizabeth Way; the priory existed here until it was dissolved in 1538 (Haigh 1988, 6-7). The probable location of the priory buildings is shown in a map compiled by J. W. Clark in 1893 (see Figure 5). This indicates that the eastern expanse of the site was never occupied, although sand and gravel extraction undertaken in this area during the 19th century is likely to have removed any potential evidence. Many of the priory building were demolished and their stone robbed in the early 19th century, so that the only standing element of the former monastery comprises remnants of the Cellarer's Chequer (*ibid*). The 17th century residence known as Abbey House now occupies part of the former site, along with a modern housing development.

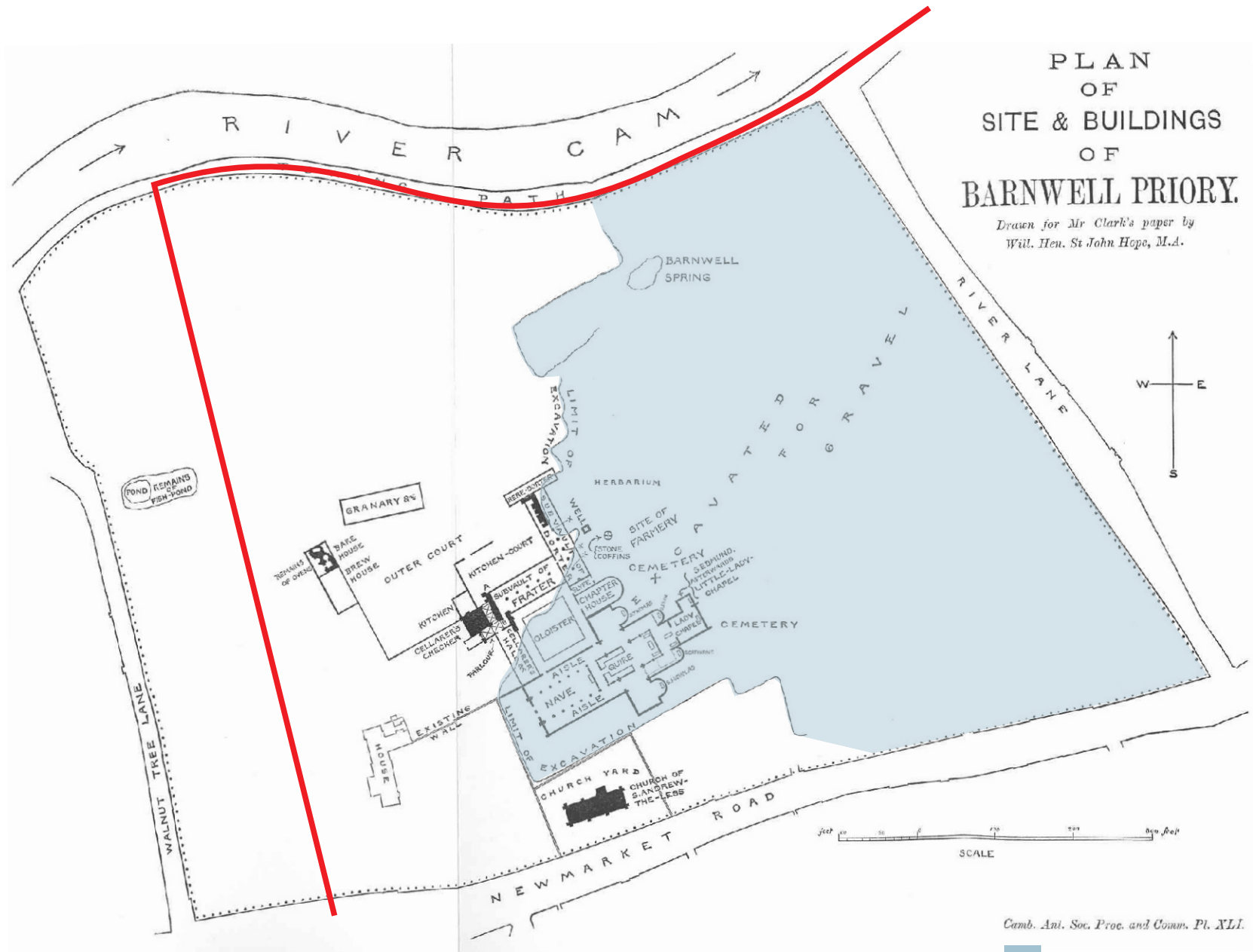


Figure 5. Plan of Barnwell Priory, after Clarke 1893 (route of 33kv reinforcement cable shown in red).

■ Area of gravel extraction

Results

The excavation of the 33Kv reinforcement cable trench produced no archaeological material; modern tarmac sealed a layer of aggregate or hardcore, ranging in depth from 0.2m to 0.4m, in all observed parts. Modern service cuts were also very frequent and truncated the sequence to a depth of 1.0m or greater in places. These were generally backfilled with a mix of sands, clays and gravels and contained no residual archaeological material. A deposit of introduced alluvial clay was identified, but this also produced no datable material. It is likely that this deposit corresponds to ground raising activity similar to that seen on Midsummer Common (see Zone 6) and may date to the 18th or 19th century. At Riverside, several brick culverts, probably late 19th century in date, ran down to the river. These were in poor condition and had been constructed from unfrosted yellow brick measuring 220mm by 110mm by 60mm. The only archaeological deposits observed at Riverside were redeposited alluvial clays representing material introduced during the revetment of the frontage in the 19th and 20th century. No evidence any earlier revetment was visible.

Discussion

Whilst failing to produce positive archaeological remains, this investigation does provide an important negative result in regard to Barnwell Priory. Although the effect of gravel extraction on any potential archaeological deposits within the eastern limit of the land owned by the Priory has long been known (*cf.* Clark 1893; see also Figure 5), the absence of any surviving material along Riverside and the line of Abbey Road implies that Modern revetments to the river and the insertion of 20th century services are likely to have removed any traces of the Medieval Priory within this area of its precinct also. Whether any remains of Priory buildings survive to the east of Abbey Road is still unknown, although the presence of 19th century brick culverts draining into the Cam along Riverside may suggest that any extant archaeology here has again been significantly truncated by later activity.

Zone 6: Jesus Green and Midsummer Common

The archaeological watching brief within Zone 6 commenced on the 21st of August 2006 and ran intermittently until the 19th of November 2006. It was undertaken in order to observe the route of the 33kv reinforcement cable across Midsummer Common and Jesus Green (TL 46080/59050 – 44950/59090; see Figure 1). Zone 6 will be discussed in three parts, which comprise; the launch and exit pits excavated by Chiltern Thrust Bore for directional drilling beneath Victoria Avenue and across Jesus Green, a length of cable trenching across Midsummer Common and Jesus Green, and four archaeological test pits located on Jesus Green. The site code assigned to this area was TKM06.

Location and Geology

This zone runs approximately east to west along the southern floodplain of the River Cam and is situated to the north of Cambridge city centre, within an area of open common ground. Two launch pits for the directional drilling equipment were dug on Jesus Green, close to Victoria Avenue. Launch Pit 1 measured 6.4m in length by 1.1m in width while Launch Pit 2 was L-shaped in form and measured 3.0m by 2.5m. On Midsummer Common Exit Pit 1 and two sumps were dug close to Victoria Avenue.

The exit pit measured 3.0m by 3.0m in extent, Sump 1 measured 7.0m by 3.0m and Sump 2 4.0m by 3.5m in extent. A narrow trench measuring between 0.5m and 0.7m in width joined the three holes. Exit Pit 2 was dug further to the west, close to the intersection of the two main footpaths that cross the Green. The second exit pit measured 6.5m by 5.5m in extent. In addition four archaeological test pits, each measuring 3.0m by 2.0m, were excavated on Jesus Green to either side of the route of the trenching along the line of the Jesus Ditch.

The cable trench transected Jesus Green, meandering from the western edge at its highest point on St. John's Road (6.26m OD) down towards Exit Pit 2 (5.08m). After a drilled section beneath mature trees and Victoria Avenue, the trenching continued uninterrupted from the site of Exit Pit 1 to the limit of Zone 6 at the far eastern side of Midsummer Common. The height of the modern ground surface varied from between 6.26m OD to 4.94m OD, and natural was encountered at a height of between 3.77m OD and 4.69m OD. The geology of the Green and Common has been mapped by the British Geological Survey (Cambridge, sheet 188) as consisting of alluvial deposits overlying 1st Terrace Gravels. Excavations, however, encountered Blue Gault Clay across the first 100m of trenching running east from St. John's Road at approximately 3.45m OD and 1st Terrace Gravels along the remainder of the trench across Jesus Green at between 4.69m OD and 3.77m OD. On Midsummer Common a deeper alluvial sequence meant that natural was not visible at a depth of up to 1.45m below the present day ground height. It is worth noting that on both sides of the River Cam, at Mitcham's Corner and at Jesus College, narrow steep sided palaeochannels are recorded running beneath the terrace gravels and extending to well below sea level (Boreham 2004).

Methodology

As described above the work was conducted in three phases, which were observed by different archaeologists who adopted varying methodological approaches as appropriate to the logistics of the operation. The sumps, launch and exit pits were dug by Chiltern Trust Bore Ltd on behalf of Visser & Smit Hanab between the 21st of August 2006 and the 31 of August 2006. Whilst the launch and exit pits were excavated under constant archaeological supervision using a small tracked machine with a 1.1m wide toothed bucket, the sections of the sumps were not visible due to the clay and water mix pumped through the drill shaft to reduce friction and resistance on the reamer head. The pits were dug to a depth of between 1.2m and 1.9m. The excavation of the 33kv cable trench was also conducted under constant archaeological supervision and used a small tracked machine with a 0.8m wide toothless bucket; it was excavated to a depth of between 1.4m and 1.64m. The archaeological test pits were numbered one to four from west to east. The test pits were excavated in 100mm spits using a small tracked machine with a 1.5m flat bladed ditching bucket. Two 0.25m² control pits were hand excavated in the northwest and southeast corners of each test pit and the volumetric quantity of individual contexts was recorded. The sumps, launch and exit pits were given a rough location plan at 1:500 and their sections recorded at 1:20. A running section of the trenching was recorded at 1:20, where it was deemed appropriate, and planned immediately at 1:20 to locate the position of relic channels along its length. The four test pits were planned at 1:20 and their sections were also recorded at 1:20. The locations of all excavated areas were digitally surveyed using a GPS system. All ceramics and diagnostic finds of metal,

glass and clay tobacco pipe were retained; undiagnostic material, brick and tile was noted and discarded. Finds of bone were retained only from hand-dug context. Context numbers were assigned between [100] and [199]; additional numbers were assigned beginning at [400].

Historical and Archaeological Background

The historical and archaeological background of the area has been outlined in a previous desktop assessment (Dickens 2003), and also in a supplementary desktop assessment (Dickens 2006b); only a summary is therefore presented here. Both Midsummer Common and Jesus Green lie within the East or Barnwell Fields of Cambridge, part of a typical 'Three Field' system which surrounds the town. Historically, both were originally part of the same common, called Green or Grene Croft, with Jesus Green only physically being separated from Midsummer Common in 1890 when Victoria Avenue was built. Part of the area, close to Maid's Causeway, is called "Butts Green" – the name reflecting use of the area for archery practice during the Medieval period. Butts Green originally extended to the edge of Jesus Close, the area around the College, but was split upon the construction of Victoria Avenue and subsumed into the College's playing fields in 1930 when Jesus exchanged land held elsewhere for the strip between its precinct and Victoria Avenue. Sadly, this led to the demolition of the boundary wall and its painted reminders of the 1914/15 horse lines of the 68th Welsh Division, billeted in the area pending orders for France. This, Arthur Gray mooted, should have been preserved as a memorial (Gray 1921, 71). Gray's comments, written around 1920, give a sense of how much the area had changed in appearance within his lifetime:

"The present appearance of Midsummer Common, now laid out in conventional public-park fashion, presents a striking contrast to the once free and open greensward with its meandering ditches and extensive and picturesque level tracts. [...] It is difficult for members of the present generations clearly to visualise the aspect of the Common before its rich pasture was seared and scarred by modern concrete paths, notice-boards, railings and roadways leading to the useful, but far from beautiful, iron bridge." (Gray 1921, 69-70)

In 1211 Barnwell Priory was granted a charter by King John formalising the holding of an annual Fair on Midsummer's Eve on the Common, which was gradually lengthened to 14 days in duration. In 1505, the right was transferred to the town Corporation for an annual fee. In the 18th century the fair became famous as "Pot Fair", and still survives as a large annual funfair held on Midsummer Common.

Finds of Prehistoric, Roman and later material have been made on and around the Common, but little archaeological investigation of this area of Cambridge has taken place. The two most significant investigations are the 1995 sewer test pits (Pollard 1995) and the 2003 excavation just inside Jesus Close to the south of Jesus Green (Evans & Williams 2004). Iron Age settlement occupation on the eastern bank of the Cam was revealed by the Jesus Close excavation, work which also indicated Neolithic and Bronze Age activity in the vicinity. The sewer test pits indicated a great variation in the ground underlying the modern Common surface. As well as being criss-crossed by older relict channels there are distinct episodes of flooding and some evidence of consolidation, although it appears that the latter is for the most part late. The occurrence of deep, if localised, peat indicates that parts of the common existed for a long time as marshy ground, perhaps extending into the late Medieval period, so limiting the uses to which this land could be put. What is clear is that the relatively

flat topography of the Common seen today masks a potentially varied sub-surface 'landscape' with the potential to inform reconstruction of environmental history of this part of the Cam. The information from the test pits matches well with historic map evidence, which suggests that by the 16th century the common land fronting the Cam served as a water meadow; it is possible that the build up of alluvial clays is indicative of controlled water management and intentionally designed winter flooding. As Pollard notes (1995, 4) land-use was clearly zoned in relation to the local topography and geology. The southern margin of the Common, in the Butts Green area, saw gravel extraction on the 1st Terrace gravels. The date of extraction is not absolutely established, but it is reasonable to assume it is Post-Medieval and probably associated with the expansion of the town from the late 18th century onwards.

Of particular note was the reported discovery in 1952 of human remains on Midsummer Common during preparation work for a marquee at the Cambridge Trades Fair. The only reports available were from the local newspaper (*Cambridge Daily News* 1952, August 11th, 12th, 14th and 15th) and speculation was clearly rife as to their origins. The general consensus appears to have been an association with the use of Midsummer Common as a site for "Plague Huts" during various episodes of the disease in the 16th and 17th centuries, and the remains were presumed to have derived from burial pits. Although the Museum of Archaeology and Anthropology was involved at some stage, they played no part in the excavation and it is not clear whether any definitive interpretation was ever established. The identification of the find as being evidence of "Plague Pits" was further promoted by a 1957 article in the *Medical History Journal* (Williamson 1957, 59). It is clear, however, that Dr Williamson has no further information at his disposal than the original newspaper articles. These references to the possible use of the area for the disposal of plague victims impacted upon methodological considerations of the project. In Modern times Jesus Green is used for purely recreational purposes, whereas Midsummer Common is used for grazing and is the site for various temporary entertainments such as fairs and circuses.

Results

Due to previously mentioned differences between the methodologies adopted and the archaeology encountered in each of the three phases, the results of work undertaken by Chiltern Thrust Bore, Visser and Smit Hanab and in the archaeological test pits will be discussed separately. However, in all areas undisturbed sequences of alluvial deposits as well as layers of introduced alluvial material, Post-Medieval surfaces and evidence of relic channels were identified (see Figure 6). On both Midsummer Common and Jesus Green, 19th century ground surfaces and gravel hard-standings were recorded. In addition, evidence for structural elements was encountered on Midsummer Common in the form of driven stakes, a small pit and a concrete raft; the latter probably comprised the foundations of a boat house.

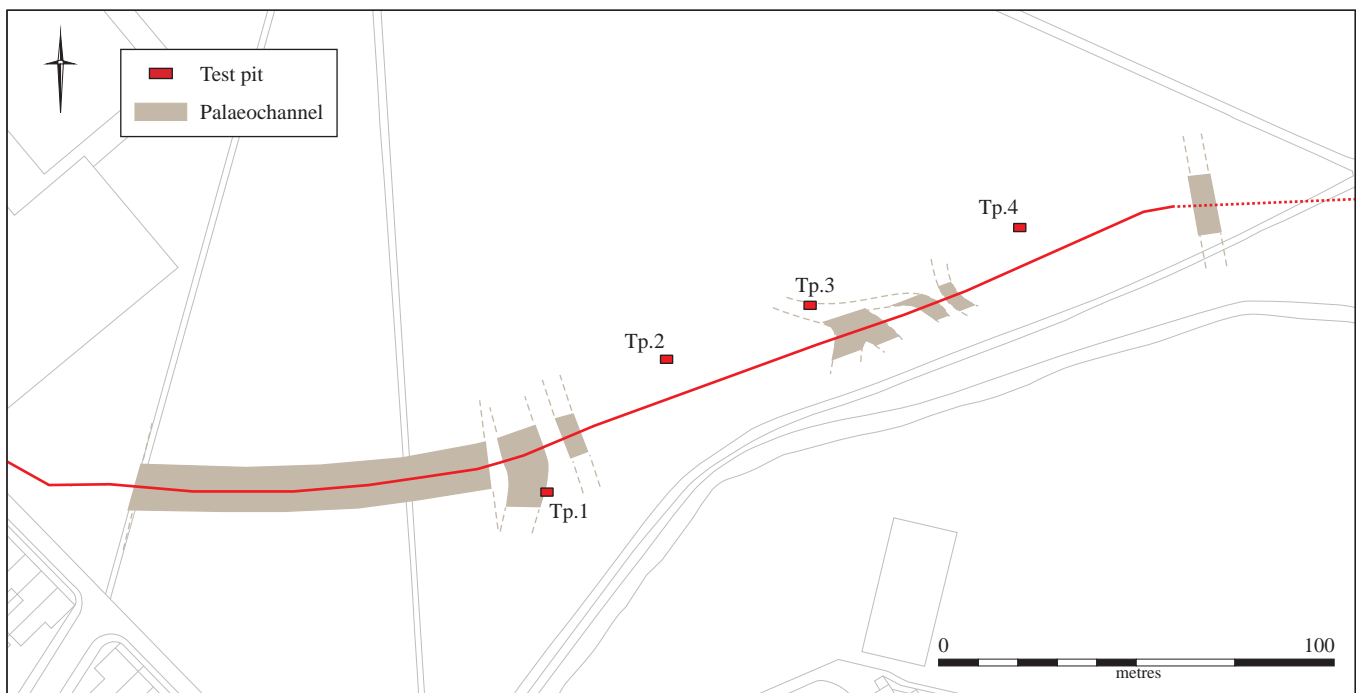
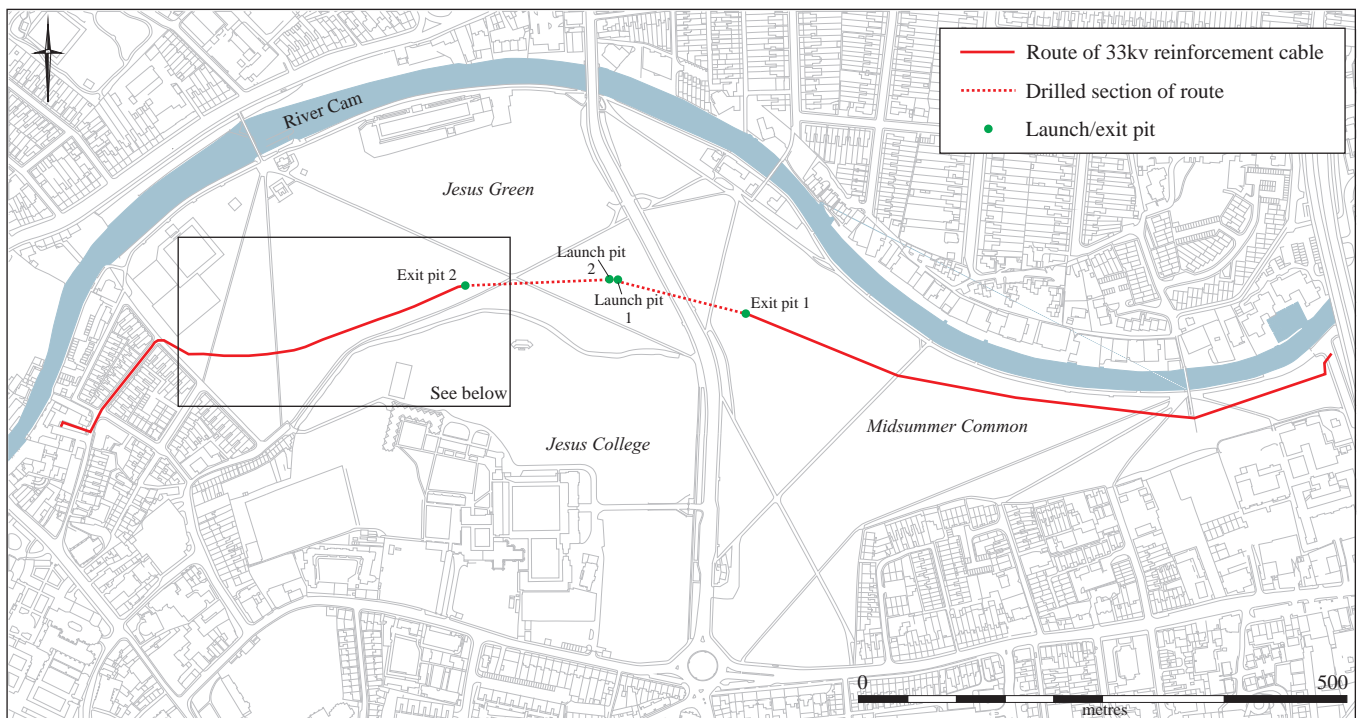


Figure 6. Location plan of Zone 6: Midsummer Common and Jesus Green, showing network of palaeochannels.

Launch and Exit Pits

Alluvial Deposits

The earliest deposit observed during this phase of the watching brief was represented by [184], a firm mid greyish blue clay palaeochannel fill 0.7m+ thick within Exit Pit 1 on Midsummer Common. This was overlain by [185], a 'proto-peat' formation between 0.14m and 0.2m thick that consisted of moderately well compacted and dark brown in colour with a significant fibrous, organic component. This differed from the sequence seen in Jesus Green, within Launch Pits 1 and 2 and also in Exit Pit 2. Here, thick deposits of moderately firm pale to mid grey alluvial clays [182] and [187], ranging in depth from 0.24m in Exit Pit 2 to 0.5m in Launch Pit 2, were preceded by the episodic introduction of banded deposits composed of mid orange brown [186] and mottled grey [181] clayey sandy silts, 0.36m and 0.1m to 0.2m thick respectively. The mixed nature of these deposits, the absence of mollusc remains and the presence of fine gravels suggests that the banded deposits were laid down during high-energy events such as floods. Neither the palaeochannel fill, the alluvial clays nor any of the water lain sandy silts contained any material culture.

Later Activity

On both Midsummer Common and Jesus Green, evidence of the deliberate introduction of material late in the sequence was observed. In Exit Pit 1 a loosely compacted horizon of light grey gravelly sand [102] overlay 'proto-peat' deposit [184]. This contained 20 sherds of Refined White Earthenware, seven sherds of English Stoneware, two sherds of Glazed Red Earthenware and single sherds of Pearlware, Staffordshire-type Slipware, Staffordshire-type Iron Glazed pottery and Staffordshire Salt Glazed Stoneware, all dating to the 18th and 19th centuries. Four fragments of stem from clay tobacco pipes, one with a makers mark dated to the mid to late 19th century. Amongst the occasional inclusions of iron and copper alloy fragments, a rectangular copper alloy purse frame and a badly worn copper alloy halfpenny dated 1861 were recovered. In addition, the deposit produced occasional fragments of un-diagnostic bottle glass, plus brick and tile. Within Launch Pit 2 the 19th century ground surface – represented by [152], a mid brown root disturbed sandy clay silt deposit – survived beneath a thin deliberately introduced layer of small sub-rounded gravels, [151]. [152] produced a single clay pipe bowl dating to the first half of the 18th century. [151], the overlying surface, contained two fragments of clay pipe spur. Both had maker's marks that would place their deposition in the early 19th century. The turf and topsoil layer [100] = [101] = [103] = [145] varied in depth from 0.18m to 0.36m between trenches and consisted of relatively loose, semi-friable mid to dark brown root disturbed material with occasional gravel inclusions. Later 19th and 20th century field drains were seen to truncate layers [100], [145], [181] and [186]. [100] = [101] = [103] = [145] produced one sherd of English Stoneware and one sherd of Refined White Earthenware dating to the 19th century within Launch Pit 1, along with finds of un-diagnostic bottle glass and animal bone. A George III copper alloy halfpenny of 1797 was recovered from topsoil deposit [145] of Launch Pit 2 should be considered residual, as should a sherd of Roman pottery, of 3rd to 4th century date, that was recovered from Exit Pit 2. Natural gravels were reached in Launch Pit 1 and Exit Pit 2 at a depth of 1.2m and 0.7m below their respective modern ground surfaces. A firm mid blue gault clay was seen to overlie gravels at a depth of 1.1m below the modern ground surface in Launch Pit 2. Natural was not reached at a depth of 1.3m in Exit Pit 1.

Jesus Green 33kv cable trench

Alluvial deposits

The general alluvial sequence observed on Jesus Green is characterised by a series of bands of alluvial clays overlying intermittent relic channels of varying sizes. The lower alluvial clays [140], [147], [148] and [150] ranged from relatively firm light to mid brownish grey and greyish brown, with occasional to frequent orange mottles and occasional to frequent patches of small mollusc shells. Sample 2 was taken from layer [148] for environmental analysis at a point 133m along the cable trench route; the results of its analysis are discussed at the end of this section. Towards the east, the alluvial clays [164], [169] and [175] became slightly firmer and ranged from a light to mid greyish blue and bluish grey colour and generally appear to contain less mollusc shell. The lower alluvial deposits ranged from 0.1m to 0.76m thick. [175] contained 11 pieces of animal bone, while [164] contained seven small fragments of bottle glass, including a circular green embossed glass base registered in 1899 and 17 sherds of coarse red

earthenware of 19th century date. The upper layers of alluvial clay, [139], [146], [170] and [180], varied from light to mid greyish brown and brownish grey silt clay to light brown and light grey clay, with patches of occasional to frequent gravel and small mollusc shell inclusions. Banding was visible at various points along the route, and root disturbance was also occasionally present. The thickness of the layers ranges from approximately 0.6m at between 35m and 55m along the length of the trench to 0.5m at between 70m and 120m, and thins out to 0.22m thick at between 210m and 280m from the trench's start point on St. John's Road. Environmental Sample 1 was also taken from [146], at the same distance along the cable trench as Sample 2. The results of its analysis are discussed at the end of the section.

One large palaeochannel, and up to six smaller palaeochannels, were recorded on Jesus Green (see Figure 6). The larger channel was approximately 90m wide and crossed the route of the reinforcement cable trench at between 52m and 142m along its length, running in a roughly north to south direction. The western edge of the channel was not visible due to the lesser depth of the trench at this point, while the eastern edge appeared to slope moderately steeply. The fills of the palaeochannel varied from mid to dark blue grey clay [143] on the western edge to dark brown and grey brown fibrous clay silts [144], [149], [153] and [154] – which contained occasional to frequent small mollusc shells and organic fleck inclusions – in the centre of the channel. Finer mid to pale grey clay [158], which also contained frequent small mollusc shell and organic inclusions, was present on the eastern edge of the channel. Sample 3 was taken from this material at the interface between the alluvial clays and the underlying palaeochannel deposit, at a point 133m along the length of the cable trench and directly below Samples 1 and 2. The result of the environmental analysis of this sample is discussed at the end of the section. Similar, although much smaller, palaeochannels with bright blue clay fills containing moderately frequent gravel fills ([161] and [179]) were visible at between 156m to 158m and 323m to 326m along the length of the trench respectively, and both appeared to be orientated in a north to south direction. At between 145m and 152m along the trench a channel was seen to run in a north-northwest to south-southeast direction that contained dark brownish grey friable clay silt deposit [159], with frequent mollusc shells. At between 229m and 239m along the trench a 10m wide channel with shallowly sloping sides, which appeared to widen to the south, contained white clayey silt deposit [173] on its western edge. Overlying this was dark brown fibrous clayey silt deposit [172], which contained occasional mollusc shell inclusions, was in turn sealed by mid to dark bluish grey clay fill [171] that produced 37 pieces of animal bone. Sample 4 was taken from deposit [171] at a point approximately 230m along the length of the cable trench. Two further channels, which probably formed part of a network of relic watercourses, were present at between 245m to 249m and 250m to 254m along the trench. The easternmost of these channels had a steeply sloping western edge and a shallowly sloping eastern edge, potentially representing a bend in its course at this point. Both channels contained identical mid grey blue clay deposit [176], which contained frequent gravel and occasional mollusc shell inclusions.

Between the networks of channels, ridges of natural were seen. These varied in height from between 1.25m below the modern ground surface at 35m from St. John's Road, where the natural appeared to be blue grey Gault Clay, to 1st Terrace river gravels along the rest of the route. The gravels lay at between 1.38m below the modern ground surface at 140m from the start point of the trench to 0.54m below the modern ground surface at 310m.

Later Activity

The later activity on Jesus Green was characterised by made-ground deposits, a buried soil horizon, a gravel surface and modern turf and topsoil layer. This sequence is consistent with the deposits seen in both the Launch and Exit Pits and in the Archaeological Test Pits. Layer [138], a mid to dark grey clay deposit with frequent charcoal and occasional yellow brick fragment inclusions, contained several pieces of un-diagnostic glass and bone (which were discarded). The deposit was between 0.1m to 0.16m thick and represents deliberately introduced ground-raising material close to the western edge of Jesus Green. [138] also contained a single sherd of Red Coarseware dating to the 19th century that was recovered at 30m along the length of the trench. As in Launch Pit 2, an early 19th century ground surface ([136] = [152]) was present that consisted of mid brown root disturbed sandy clay silt, which ranged from 0.06m to 0.12m thick. These deposits contained a small marble, a small complete rectangular glass perfume bottle embossed with 'ROGER & GALLET / PARIS', a clay pipe spur fragment complete with makers mark and a clay pipe bowl. The clay pipe suggests an early 18th century date, as does a sherd of Notts-Derby Stoneware. However, the glass bottle must date from after the perfume house's foundation in 1862 and the nine sherds of Refined White Earthenware that were

also recovered indicate a depositional date in the late 19th century. Layer [136] = [152] was overlain in places by a discontinuous thin gravel surface, described elsewhere as [151], which measured between 0.02m to 0.04m thick. Above this deposit lay turf and topsoil horizon ([135] = [145]), which measured approximately 0.1m thick and consisted of mid to dark brown sandy silt clay. Finds of modern plastic and metal from these layers were discarded. A series of modern drains were also present. A large drainage cut – [142], which was situated adjacent to St. John’s Road – was backfilled with free-draining pea grit deposit [141] that also included associated layer of sand and gravel [137] which extended over an area of 30m. A second large drain – [163], which was located between 217m to 224m along the length of the trench – again contained a mixed gravel fill, [162], and ran east-northeast to west-southwest across Jesus Green. A field drain and collapsed brick culvert ([156], which was backfilled with dense clay deposit [155] and was constructed within cut [157]) both attest to continued attempts to drain the Jesus Green during the 20th century.

Midsummer Common 33kv cable trench

Alluvial Deposits

Despite less intensive monitoring of the route of the 33kv reinforcement cables across Midsummer Common, a slightly different sequence to that seen on Jesus Green was observable; the alluvial clays present on the Common, for example, appeared to exhibit significantly less banding and it was often not possible to identify successive layers of inundation. The earliest layers encountered – [199], [408] and [415] – all represented mid to pale brown silty clay deposits with varying degrees of orange mottles and occasional to frequent small mollusc shells and organic fleck inclusions; they varied between 0.2m and 0.56m thick. The uppermost of these layers, [199], contained five sherds of Staffordshire-type Iron Glazed pottery and seven sherds of Glazed Red Earthenware dating to the 17th century, a Babylon ware pedestal base of 16th century date and a single abraded sherd of residual Roman Nene Valleyware from the mid 2nd to 4th century AD. Palaeochannels were also identified on Midsummer Common, although in this instance no discrete edges were discernable. One of these channels was represented by dense mid to dark blue grey silty clay deposit [195], which was recorded at a depth of 1.22m below the modern ground surface and measured 0.18m+ thick. Further to the west along the cable trench, other palaeochannel deposits were also encountered. Dark brownish black organic-rich peat deposit [409] was overlain by mid to dark greyish blue silty clay deposit [413], which contained frequent inclusions of small mollusc shells but a much smaller organic component than the preceding layer. These deposits, which measured 0.28m+ and 0.94m+ thick respectively, were both overlain by a thinner layer of dense mid to dark brown clay [405] that contained occasional gravel and organic inclusions and measured between 0.12m and 0.22m thick. [405] also contained two sherds of Glazed Red Earthenware dating to the 16th or 17th centuries. Natural was not encountered at any point along the route, despite trenching reaching a depth of up to 1.4m below the modern ground surface in places.

Later Activity

The later activity on Midsummer Common was characterised by the presence of made-ground, a buried soil horizon, modern concrete foundations and footings and a modern turf and topsoil layer. Cutting the layers of *in-situ* alluvial clay was driven wooden stake [400]. This measured 0.8m in length and varied between 0.13m and 0.2m in diameter; it was worked to a point by means of seven axe-cut facets starting 0.25m from the tip. The stake was driven vertically through alluvium [199] and appeared to be sealed by anthropogenically introduced alluvial clay layer [194], suggesting that it pre-dated any major ground-raising events in this area. It is likely that further stakes lay outside of the route of the cable trench, and these may have been related to the mooring of boats or a more general attempt to stabilise or reclaim the surrounding area. Layer [194] comprised a mid greyish brown clay silt with occasional brick and tile fragment inclusions. The deposit appeared more banded at its western extremity, indicating that it was derived from a series of smaller dumps of re-deposited alluvial clay rather than a single episode of activity. The date range of the pottery recovered this context supports this interpretation, although machine excavation of the layer meant that confirming a stratified vertical accumulation based on spot-dating was difficult. A discrete dump of early 20th century glass recovered from the upper part of the layer was recorded as separately as [414]. The eastern extent of [194] was not seen, but made-ground was present from approximately 60m from the start of the trench beneath

the Elizabeth Way fly-over to 250m along its length, at which point the quantity of material culture recovered diminished markedly.

Finds group [414] contained a range of vessels, including a complete clear circular Vaseline bottle, a fragment of a bottle from '*The Star Mineral Water Works Cambridge*', a fragment of a green glass bottle, a clear deep glass dish, two complete bottles marked '*Woods & Son Cambridge Mineral Waters*' and fragments of six Codd bottles with markings of companies in Cambridge and London. The group also contained nine clay pipe bowls, three with makers marks, of late 17th, 18th and 19th century date and fragments of pipe stem. Pottery recovered included four sherds of Glazed Red Earthenware of 16th or 17th century date, a piece of Coarse Red Earthenware pedestalled garden furniture and a collection of Staffordshire-type Slipware and Staffordshire-type Iron Glazed pottery. The sherds amounted to 21 fragments dating to between the 17th and 18th centuries, two sherds of 18th century Notts-Derby Stoneware, a sherd of late Slipped Redware from the 18th or 19th century, two sherds of English Stoneware and seven sherds of Refined White Earthenware of 19th century date; three sherds could not be more closely date than between the 16th and 19th centuries. [194] also contained four fragments of animal bone. Several features were seen to cut and truncate layer [194], the earliest of which is most likely to have comprised F.102. Cut [401] continued beyond the limits of the trench and comprised part of a larger sub-circular pit with steeply sloping, partially concave sides. The base of the feature was not reached at a depth of 1.4m below the modern ground surface, and the pit was seen to extend 7.2m in length by 0.8m+ in width and 1.2m+ in depth. It contained [402], a mixed and banded deposit of bluish grey clay and small and medium sized gravels. The pit also contained two large railway sleepers driven vertically into its base, probably in an attempt to shore-up or stabilise the sides of the pit. The pit was located approximately 168m along the length of the cable trench on Midsummer Common to the west of its start point beneath the Elizabeth Way flyover. The fill produced a single base from an English Stoneware vessel, dating from the 18th or 19th century.

A little way to the west a second cut feature, F.101, was encountered; this consisted of cut [416] that was backfilled with [193], a mixed and mottled deposit of pale grey clay containing interrupted wavy lenses of mid orange yellow clay. The cut extended beyond the limits of the cable trench and measured 4.64m by 0.8m+ in extent and 0.28m to 0.42m deep. This was overlain by pale white concrete layer [192], which was between 0.12m to 0.14m thick and contained a 0.48m deep concrete footing at 72m along the trench. A 0.02m thick tarmac surface, [191], extended across the eastern portion of this concrete raft. Above this lay [190], a layer of demolition rubble containing large amounts of roughly mortared broken concrete that measured between 0.2m and 0.4m in depth and extended over an area 12m+ by 0.8m+ in extent. A band of orange sandy gravels ([197]) and a noticeable area of disturbance ([198]) may indicate the robbing of elements of F.101 at its western edge, 77m along the trench, although the proximity of pipe cuts A and B may also indicate truncation by modern services. The concrete raft and associated structural elements suggest the presence of a boat house, or similar riverside structure, on the southern bank of the River Cam during the 19th or early 20th century, perhaps comparable to those still standing on the northern side of the river. At approximately 200m along the length of the route, modern electric cables were observed truncating layers to a depth of 1.1m below the modern ground surface. A posthole – F.103, which was 0.45m in diameter and 0.4m deep – was observed in the south facing section approximately 591m along the trench. Cut [412] appeared to be sub-circular in plan and had steeply sloping sides that broke sharply onto a flat base. This was filled with dark brown decayed wood deposit [411], which indicates that the post had been left to rot *in-situ*. Although no dating evidence was obtained, the post must date to the 19th century or later as it truncates 19th century make-up layer [410]. This latter layer was composed of fine sand and gravel 0.28m thick. An earlier ground surface – [196], which was up to 0.1m thick – was visible along sections of the cable trenching. [196] contained 20 sherds of Refined White Earthenware, eight sherds of English Stoneware including several complete and near complete examples of 19th century ginger beer bottles displaying the names of '*Wadsworth of Cambridge*' and '*Steward and Pateson Ltd of Norwich and Swaffham*'. It lay beneath modern turf and topsoil horizon [189] = [403] = [406], which contained glass two Codd bottles and a complete clear glass Vaseline bottle. Finds of clay pipe were also recovered from this deposit, including two bowls, a residual 17th or 18th century example and a 19th century type with makers mark. In addition, a badly worn copper alloy coin was present, although this was not well enough preserved to provide a date.

Archaeological Test Pits (Figure 7)

Natural gravels

The height of the natural gravels varied greatly due to the presence of relic channels. Whilst in Test Pits 2, 3 and 4 the height of the modern ground surface remained relatively consistent, this masked a more diverse sub-surface landscape (see Table 6.1). The volumetric quantity of hand-dug contexts within the archaeological test pits is presented in Table 6.2.

	Test Pit 1	Test Pit 2	Test Pit 3	Test Pit 4
Modern ground surface	5.51m OD	5.10m OD	5.12m OD	5.10m OD
19th century Horizon	5.41m OD	5.00m OD	5.02m OD	5.00m OD
Upper Alluvium	5.31m OD	4.90m OD	4.88m OD	4.90m OD
Lower Alluvium	5.07m OD	4.60m OD	4.58m OD	4.76m OD
Top of Palaeochannel deposits	4.81m OD	-	4.32m OD	-
Natural	4.69m OD	4.54m OD	3.77m OD	4.50m OD

Table 6.1: Relative heights OD through time in Test Pits 1 to 4.

Context(s)	Description	Volume (lts)
Test Pit 1		
[104] & [108]	Top soil	95
[109]	Upper alluvial clay	150
[110]	Lower alluvial clay	190
[111]	Palaeochannel deposit	100
[112]	Weathered natural	60
Test Pit 2		
[113] & [114]	Top soil	80
[118]	Upper alluvial clay	220
[119]	Lower alluvial clay	110
Test Pit 3		
[120] & [122]	Top soil	150
[123]	Upper alluvial clay	170
[124]	Lower alluvial clay	190
[125] & [126]	Palaeochannel deposit	100
Test Pit 4		
[130] & [132]	Top soil	150
[133]	Upper alluvial clay	120
[134]	17/18thc clay horizon	60

Table 6.2: Volumetric quantities of hand dug deposits in Test Pits 1 to 4.

Alluvial Deposits

Palaeochannels were also identified during the excavation of the archaeological test pits. Within Test Pit 1, dark bluish grey silty clay deposit [111] that was 0.4m+ thick contained frequent inclusions of black organic plant matter, moderate to frequent flints and stones and occasional small mollusc shell inclusions. This overlay a soft yellowish grey fine silty sandy gravel deposit of washed-in natural, [112], which attested to the presence of a relic channel running to the northwest of Test Pit 1. Excavations within Test Pit 3 suggest that a larger, albeit shallower, relict channel was also present; this exhibited signs of having undergone a period of 'drying-out' before being sealed by alluvial clay. The earliest deposit was comprised of [126], a 0.34m thick mid greyish brown clay silt with moderate

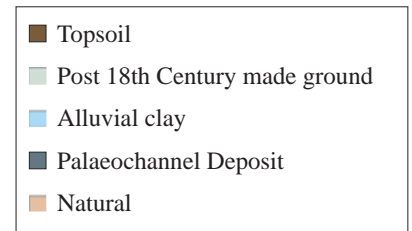
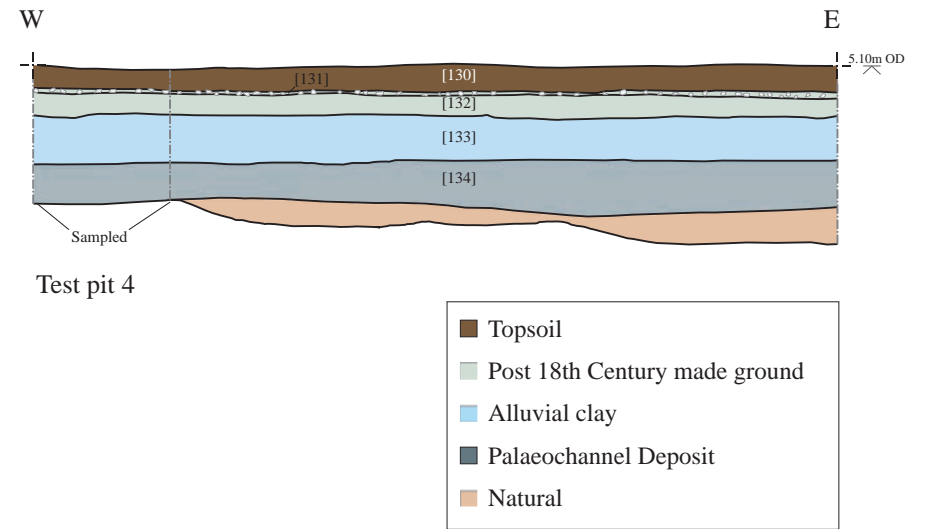
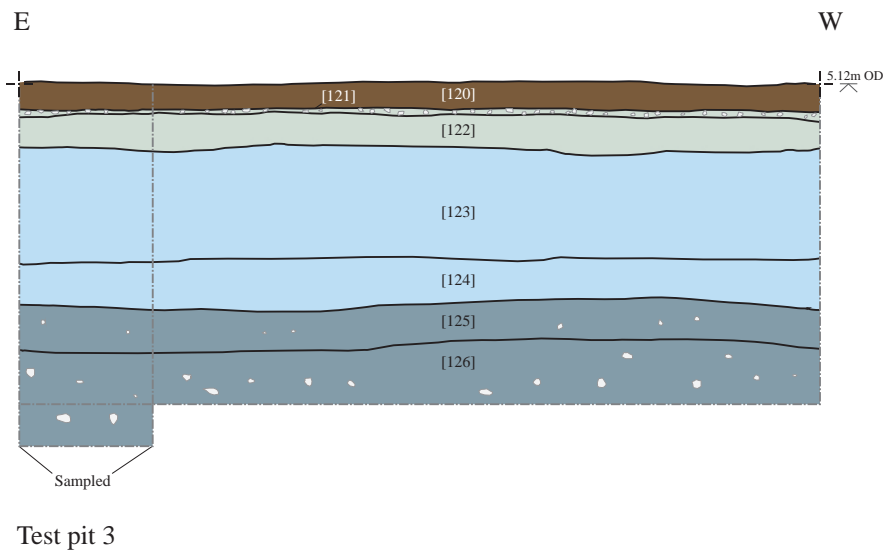
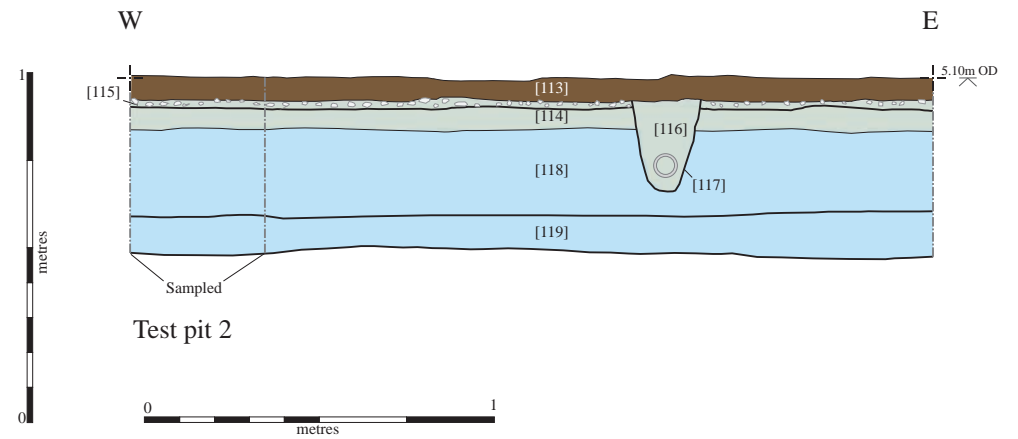
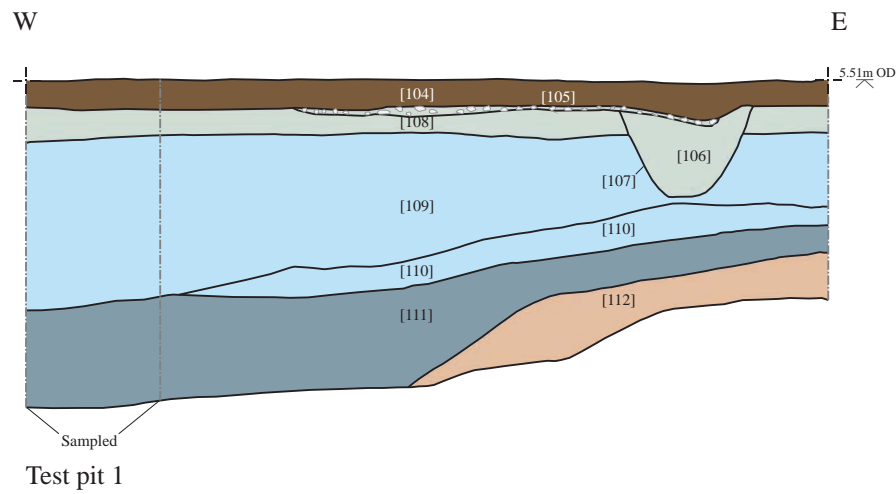


Figure 7. Sections of Archaeological Test pits 1 to 4 on Jesus Green (Zone 6).

inclusions of small mollusc shells, flints and stones and a single fragment of animal bone. Above this lay [125], a 0.17m thick dark brownish grey silty clay deposit with frequent green mottles, which produced 22 animal bone fragments. Overlying this was [124], a mid greyish brown laminated silty clay deposit with frequent brown mottle inclusions; this was moderately root disturbed and contained significant quantities of small mollusc shells. [124] also contained a single animal bone fragment and varied in thickness between 0.39m to 0.43m. The sequence of deposits that accrued within this palaeochannel, which includes highly mottled layers with abundant mollusc shell inclusions, is indicative of a slow moving water-course that perhaps existed as a backwater marsh for some time. In Test Pit 3, natural gravel was only reached within the southeast hand-dug control pit at a depth of 1.32m below the modern ground surface. The palaeochannel ran in a northwest to southeast direction, with its deepest point lying to the south of Test Pit 3.

Slight variations in the sequence of alluvial deposition were visible between the test pits. Within Test Pit 1 a thin layer of mid greyish brown alluvial clay silt – [110], which contained frequent brown mottles, occasional small mollusc shell inclusions and a moderate organic component – was distinguishable from later inundation deposit [109]. This latter comprised a layer of brownish grey silty clay with frequent orange mottles, occasional to rare gravel and frequent small mollusc shell inclusions. In Test Pit 2 the earliest deposit was represented by [119], a mid to dark greyish brown silt clay deposit 0.18m thick, which contained discrete brown mottled patches and frequent small mollusc shell inclusions. [119] also contained six animal bones. The earliest alluvium in Test Pit 4 was [134], a mid to dark brownish grey silt clay 0.18m thick, which contained occasional orange brown mottles and occasional to rare charcoal and slag inclusions. [134] contained a single tile fragment, seven pieces of animal bone, two clay pipe stems and a fragment of bottle glass. Unfortunately, neither the clay pipe nor the glass can provide a secure date for the context. In Test Pit 2, Test Pit 3 and Test Pit 4 layers [118], [123] and [133], which ranged in thickness between 0.16m to 0.6m, were identified as comparable alluvial episodes to [109]; however these layers overlay differing deposits, perhaps suggesting greater variation in the early alluvial history this part of the River Cam floodplain.

Later Activity

Later activity identified within the archaeological test pits consisted of a buried soil, a gravel surface and a turf and topsoil horizon. The sequence appeared remarkably uniform across the four test pits and is also consistent with that observed in Launch Pit 2. All four test pits contained a lower mid to dark brown silt clay soil ([108], [114], [122] and [132] respectively) measuring between 0.08m and 0.12m in depth. Each deposit was moderately root disturbed, and contained occasional gravel and rare charcoal inclusions. In terms of material culture, [108] contained five pieces of animal bone, an iron nail, two fragments of tile and a single abraded sherd of late Glazed Earthenware pottery; [114] produced four pieces of animal bone, five small fragments of bottle glass (some with embossed decoration and lettering), an iron nail, four fragments of tile, an undatable clay pipe stem and a sherd of English Stoneware; [122] also contained a single fragment of animal bone, a chronologically un-diagnostic secondary flint flake, four small fragments of bottle glass, one fragment of tile, four undatable clay pipe stems, one bowl, five sherds of Refined White Earthenware and a sherd of English Stoneware; [132] produced two fragments of tile, an undatable clay pipe stem, a spur and a bowl fragment along with single sherds of Staffordshire-type Slipware and late Glazed Earthenware. Much of the pottery indicates an 18th century date for the deposit, as do the datable clay pipe bowls (which fall between the 17th and 18th centuries); however, the fact that sherds of English Stoneware and Refined White Earthenware were also present suggests that the earlier pottery is likely to represent residual material, and a more probable date for the deposits is the mid to late 19th century. These layers may therefore represent the early 19th century ground surface that was also seen in Launch Pit 2 and was numbered there as [152]; this layer was also machine excavated over an area of 23m² and recorded as [129]. A late 19th or early 20th century field drain within Test Pit 2 had partially truncated layer [114].

A small posthole, **F.100**, was seen to cut layer [108] within Test Pit 1. Cut [107] was only visible in the south facing section and had steeply sloping sides that broke relatively sharply onto a flat base that appeared to slope slightly from east to west. It would appear that the posthole had been deliberately backfilled with mid to dark brown sandy silty clay deposit [106], which contained moderately frequent coarse yellow sandy mortar inclusions along with moderately frequent coke, charcoal and occasional gravel, brick and tile fragments. A thin, discontinuous layer of grit and small and medium sized gravels, [105], sealed the posthole. This gravel surface measured a maximum thickness of 0.02m and was also present in Test Pits 2 (as [115]) Test Pit 3 (as [121]) in Test Pit 4 (as [131]) and in Launch Pit

2 (as [151]). [151] produced two clay pipe spurs with makers marks, which dated to the early 19th century. Layer [151] was also machine excavated over an area of 23m² and recorded as [128]; this produced four animal bones, one iron nail, three small fragments of glass bottle, four undateable clay pipe stems, seven sherds of Refined White Earthenware and a sherd of English Stoneware of mid 19th to early 20th date. Overlying this material was turf and topsoil horizon [104] = [113] = [120] = [130], which measured approximately 0.1m thick and consisted of mid to dark brown sandy silt clay. The topsoil was also machine excavated over an area of 23m² and recorded as [129]. Layer [130] within Test Pit 4 contained three fragments of animal bone, one of bottle glass and two of clay pipe. The only dateable material was a black plastic cigarette holder dating from the early 20th century, whilst [129] produced a single copper alloy .303 rifle ammunition casing dating also dating from the early 20th century.

Finds and environmental reports

Only a small amount of material was recovered from Zone 6 (444 items, weighing 15.16kg), all of which appears to have been derived from Medieval and later contexts. Therefore, considering the limited quantities of material available for study, an intensive analysis is not warranted and a summary of the material is therefore presented with elements of specific interest highlighted.

Metalwork assessment (by Ben Davenport)

A small assemblage of metal work was recovered from the deposits on Midsummer Common and Jesus Green. This included nine copper alloy and iron artefacts in total, with a combined weight of 1518g.

<073> [102] A copper alloy purse frame, rectangular in form with rivet hole to attach it to the purse fabric (5g). Probably 19th to 20th century.

<074> [102] A copper alloy Victorian half penny coin (5g) bearing the date 1861. In 1860 all the copper coins were redesigned in a smaller size and were made of bronze rather than copper, as the latter did not wear well. For the first time the denomination appears on the reverse of the coin. The design lasted until 1894, with issues every year.

<075> [127] A copper alloy shell casing for a British .303 rifle round (11g). The .303 British was first adopted by the British military in 1888 and underwent as many as seven versions, the most important being the conversion from black powder to cordite propellant in the 1890's. The .303 round continued to be used in active military service up until 1958 and played a major role in both the first and second world wars.

<076> [145] A 1797 George III copper penny coin (25g). These were the first copper coins that Matthew Boulton minted for the British Government in his Soho mint in Birmingham. They were commissioned in an attempt to solve the problem of counterfeit coinage that had been rife in the 18th century. The new penny coins were known as 'cartwheels' because of their large size and raised rims. However they proved to be both heavy and cumbersome and most were melted down three years later when the price of copper rose. The copper penny was re-issued in 1806. The redesigned coin was two-thirds the weight of the cartwheel penny.

<077> [406] A very worn copper alloy coin (5g). The date and denomination is unknown.

<078> [108] An iron nail (1g).

<079> [114] An iron nail (2g).

<080> [128] An iron nail (4g).

<082> [194] A large iron ring (48g). Possibly a fitting from a river boat or barge.

<083> [194] An iron boat hook (251g). An iron hook and point originally hafted on a long wooden pole and used from a position on the shore to bring river vessels and barges into moorings.

Pottery assessment (with Craig Cessford and David Hall)

The total amount of pottery recovered during work carried out in Zone 6 comprised 195 sherds weighing 5085g and dating almost exclusively to the Post-Medieval and Modern periods. Considering the limited quantities of pottery recovered over such an extensive area, an intensive analysis of the assemblage is not warranted. A summary of the material is therefore presented, which is broken down by broad chronological period and with elements of specific interest highlighted.

Roman

Two sherds of pottery from the site were identified as Roman in date. A single sherd of residual grey ware <004> weighing 13g and dating to the 3rd to 4th century was recovered from the topsoil [103] of Exit Pit 2 on Jesus Green. An alluvial clay layer [199] on Midsummer Common produced an abraded sherd of Nene Valley ware <060> weighing 2g and dating between the mid 2nd and 4th centuries. This alluvial deposit also produced pottery from the 17th century and so both sherds must be considered redeposited.

16th and 17th century

The pottery from this period was all recovered from three contexts on Midsummer Common and is represented by 26 sherds weighing a total of 1264g. The earlier of the contexts represents an organic rich formation accumulating above the upper deposits of a relict channel [405]. This produced two sherds of Glazed Red Earthenware <066> weighing 53g. Overlying this material was a naturally accrued alluvial clay [199] that contained exclusively 17th century material. This comprised a sherd of Babylon ware weighing 188g, five sherds of Staffordshire-type Iron Glazed pottery weighing 32g and seven sherds of Glazed Red Earthenware weighing 270g. It is likely the pottery represents material dumped within a still wet river edge environment with the commencement of more commercial activity in this area in the 17th century. Above this alluvial formation on Midsummer Common a deliberately introduced deposit [194] produced a total of 11 sherds weighing 721g that can be dated to the 16th or 17th century. This included predominantly Glazed Red Earthenware (8 sherds, 169g), but also Ely type Glazed Red Earthenware (1 sherd, 45g) and Red Coarseware in the form of pedestalled garden furniture (2 sherds, 507g). The deposit also contained material from the 18th and 19th century. This can be explained by the accumulation of stratified dumps of material from the 17th century onwards in an attempt to reclaim this wetland area on the south side of the River Cam. However, the fact that the layer comprises imported material means it should be noted that there is much potential for the introduction of residual material. The 16th and 17th century material has been considered together here as in many cases it is not possible to distinguish between the two. The mean sherd weight of 16th and 17th century pottery on Midsummer Common was 49g. This is relatively high, suggesting the deliberate dumping of larger sherds and little movement or redeposition of material. In general 17th century assemblages have been relatively poorly represented in excavations within Cambridge town centre at sites such as Grand Arcade (Cessford 2007), Bradwell's Court (Newman 2007) and St John Triangle (Newman *in prep*).

17th and 18th century

The pottery from this period is represented by 48 sherds weighing a total of 471g. A deliberately introduced deposit [194], already described as containing 16th and 17th century pottery, also contained six sherds of Staffordshire-type Iron Glazed pottery weighing 15g and 24 sherds of Staffordshire-type Slipware weighing 336g. In addition the deposit included two heavily abraded and unidentifiable sherds, also probably from this period, weighing 36g <056> and <065>. Also on Midsummer Common a gravel surface [102], believed to be mid 19th century in date, produced two sherds of Glazed Red Earthenware (75g), one sherd of Staffordshire-type Iron Glazed pottery (7g) and a sherd of Staffordshire-type Slipware (5g) <002>. A buried soil horizon, [132] excavated within Test Pit 4 on Jesus Green, produced a sherd of Staffordshire-type Slipware (5g) <134>. The pottery of the 17th and 18th century recovered within Zone 6 shows some noticeable difference from the preceding period. While (for reasons explained above) it is likely [194] represents stratified deposition, both [102] and [132] are of 19th century in date and pottery from these contexts may be residual. The mean weight of sherds for the period is much less, at 10g. It is probable that these sherds represent more mobile and redeposited material although, by virtue of advancements in production technology, pottery of more recent periods is typically much lighter than that made from earlier fabrics. The 17th and 18th century material has been considered together here as in many cases it is not possible to distinguish between the two.

18th and 19th century

The pottery from this period is represented by just 8 sherds weighing a total of 646g. The pottery was recovered from a range of contexts on Jesus Green and Midsummer Common. Gravel surface [102] once again produced two sherds date from this period <002>; they included one of late Slipped Redware (56g) and one of Staffordshire-type Salt Glazed Stoneware (6g). Should these sherds proved to be of 19th century date rather than 18th century date, which seems likely, they confirm the 19th century origin of the gravel surface. A buried soil horizon [108] in Test Pit 1, considered the same as [132] excavated within Test Pit 4, contained a single sherd of late Glazed Earthenware (3g) <006>. The stratified layers of [194] (see above) continued to accumulate through the 18th and 19th century as attested by a sherd of late Slipped Redware (40g) and two sherds of Notts-Derby Stoneware (22g) <056>. A pit [401] cut through this layer contained the base of an English Stoneware vessel (509g). It would appear the fill of the pit [402] was deliberately backfilled with material, in part derived from that which it cut, namely [194]. The pottery from this period therefore seems to reinforce the interpretation of intensification of activity adjacent to the river through time. The mean sherd weight for this period is heavily skewed by the discovery of a single base from a Stoneware vessel that accounts for more than 75% of the total weight of the assemblage.

19th and 20th century

As would be expected the pottery from this period was the most abundant with 113 sherds, weighing 2694g, recovered in total. Most of this pot was recovered from the topsoil. It includes <042> from [135], two sherds of Refined White Earthenware (16g) on Jesus Green and from <001> [100] Launch Pit 1, one sherd of English Stoneware (21g) and one sherd of Refined White Earthenware (1g). On Midsummer

Common <054>, <063> and <064> from [189]; eight sherds of English Stoneware (1147g) including ginger beer bottles bearing the names of 'Wadsworth's, Cambridge (Ye Olde Home Brewed Ginger Beer)' and 'Steward and Patteson Ltd, Norwich and Swaffham (Brewed Ginger Beer)' were recovered. The layer also contained 17 sherds of Refined White Earthenware (409g). Gravel surface [102] continued to produce pottery; seven sherds of English Stoneware (160g), one sherd of Pearlware (5g) and 20 sherds of Refined White Earthenware (347g), including a Keiller Marmalade Jar that dates to c.1873. The buried soil horizon was seen to spread across most of Jesus Green and Midsummer Common and produced comparable material. An additional area of gravel, very similar in nature and believed to also represent ground consolidation in the 19th century, <025> [128], contained one sherd of Coarse Red Earthenware (7g) and seven sherds of Refined White Earthenware (23g). In Test Pit 2 <010> [114] contained one sherd of English Stoneware (18g), in Test Pit 3 <016> [122] contained five sherds of Refined White Earthenware (8g) and one of English Stoneware (18g) and, elsewhere on Jesus Green, <043> [136] contained nine further sherds of Refined White Earthenware (52g). Made ground on the edge of Jesus Green near St. John's Road (<047> [138]) contained a sherd of Refined White Earthenware (68g). The rise in ground level on this part of the Green has already been noted and the pottery suggests that this landscaping may be a recent feature. However, the presence of Coarse Red Earthenware (57g), identified as being a late type, within lower alluvial clay deposit <050> [164] seems suspicious and may represent intrusive material. Finally, two sherds of English Stoneware (145g) and seven of Refined White Earthenware (106g) <056> were also recovered from [194], marking the latest deposition of dumps within the made ground on the southern bank of the River Cam.

Summary

The assemblage is relatively small considering the extent of the area opened up as a result of trenching across the zone and, with the exception of two residual sherds of Roman date, the pottery is limited to the Post-Medieval and Modern periods although most of the fabrics common to Cambridge are represented. The absence of any imported material is noticeable and this maybe due to the non-domestic context from which the pottery was recovered.

Clay tobacco pipe assessment (by Craig Cessford)

A small assemblage of clay pipe fragments from Zone 6 consisting of stems, bowls and heel or spurs dating from the 17th to 19th centuries was recovered. No complete examples were identified and the disproportionate number of a bowls and bowl fragments can be attributed to a function of the recovery methods during watching brief phases of work. None of the material is particularly interesting, although some of it provides useful dating information.

<003> [102] Four fragments of stem. One with lettering reading SAUL/CAMB in decorated circle (3g) dating from 1830 to 1892. The three remaining fragments of stem (11g) are not closely datable.

<005> [104] One fragment of heel/spur (2g) with a rather unclear makers mark probably reading IK on the spur dates from 1713 to 1750. The two fragments of stem (4g) are not closely datable.

<014> [114] One fragment of stem (1g) was not closely datable.

<019> [122] One type 6 bowl (22g) dated from 1660 to 1680. Four fragments of stem (21g) were not closely datable.

- <028> [128] Four fragments of stem (11g) were not closely datable.
- <031> [130] Two fragments of bowl (1g) of unidentified type were not closely datable.
- <035> [132] One fragment of bowl (4g) of unidentified type was undatable as was a fragment of stem (1g). A heel/spur (1g) dated from the 18th to early 19th century.
- <039> [134] Two fragments of stem (2g) were not closely datable.
- <044> [136] One fragment of heel/spur (4g) with a makers mark reading IK on the spur dated from 1713 to 1750. A type 9 bowl (18g) dated from 1680 to 1710.
- <048> [151] Two heel/spur fragments, one with PW on the spur (6g) dated from 1730 to 1850. The second with TM on the spur (1g) was in production from 1830 to 1839.
- <049> [152] One type 10 bowl (19g) dated from 1700 to 1740.
- <055> [189] One type 9 bowl (14g) dated from 1680 to 1710.
- <057> [194] A total of nine bowls included three type 6 bowls (53g) dated from 1660 to 1680 and two type 9 bowls (45g) of 1680 to 1710 date. A type 15 bowl (4g) with cross keys on both sides of the bowl and oak leaf decoration dated from 1840 to 1880, while three examples of type 24 bowls (21g), one a fluted bowl, two with oak leaves on the front and rear, all dated from between 1810 and 1900. A single stem fragment (3g) failed to produce a date.
- <068> [406] One type 24 fluted bowl (10g) with oak leaves on the rear dated from 1810 to 1900.

Glass assessment (by Craig Cessford)

A small assemblage of 19th and early 20th century glass was recovered from Zone 6. None of the material is particularly interesting, although some of it does provide useful dating information. The fresh nature and large size of most of the pieces indicates rapid deposition. The assemblage is comprised of the following:

- <012> [114] Five small fragments (41g), some with embossed decoration and lettering. 19th or early 20th century.
- <018> [122] Four small fragments (2g). 19th or early 20th century.
- <027> [128] Three small fragments (27g). 19th or early 20th century.
- <033> [130] One small fragment (1g). 19th or early 20th century.
- <038> [134] One small fragment (1g). Probably 19th or early 20th century.
- <045> [136] Complete small clear glass rectangular perfume bottle with bevelled edges. Embossed lettering 'ROGER & GALLET / PARIS' (12g). Roger & Gallet is a premiere perfume house still in operation that was founded in Paris in 1862.
- <051> [164] Seven small fragments (21g) plus a complete circular green glass base (372g) for beer or a similar liquid with embossed lettering *REGD N° 336418*. This design was registered in 1899.
- <059> [194] Part of a torpedo or egg shaped bottle (219g), this form of bottle was developed in the 1840s and used until the 1880s for soda or mineral water. It has embossed lettering *RICKARDS / ...RIOR / ...TER/ ...Y*, based on the location of the lettering it will probably have originally read *RICKARDS SUPERIOR SODA WATER COMPANY*. This does not match any known Cambridge company. Plus a complete circular green glass bottle for beer or similar liquid with stone screw top (792g), later 19th or early 20th century.
- <069> [406] two Codd bottles and a Vaseline bottle. Codd bottles contained soda or mineral water and were invented by Hiram Codd in 1872 and were common from the 1880s onwards. The complete example (672g) is marked *WOODS & SON CAMBRIDGE MINERAL WATERS*. The Woods family has been dealing in mineral water in Cambridge from 1864; this bottle probably relates to T Woods & son who had business premises at 128 Fitzroy Street from 1891 to 1921, by 1931 they had moved to Gold Street.

A fragmentary Codd bottle (510g), which has been deliberately broken to obtain the marble, is marked *CAMBRIDGE SODA WATERWORKS SIDNEY STREET* and *J KILNER & SONS MAKERS WAKEFIELD*. The Cambridge Soda Water Works is only listed in directories after the First World War. John Kilner established a glasshouse at Whitwood Mere in 1829 moving to Dewsbury near Wakefield soon after. The name used dates the bottle to 1857 to 1951.

The small complete clear glass circular bottle (74g) is marked *CHEESEBROUGH MFC CO VASELINE*. Robert Cheesebrough (1837-1933) was a British-born chemist and inventor of petroleum jelly that he named Vaseline. He invented the product in Titusville Pennsylvania in 1869, opened his first factory in 1870 and patented his product in 1872.

<072> [414] Parts of six Codd bottles and two other vessels. There were two marked *BARKER & SON CAMBRIDGE*, a smaller complete example (486g) and a larger example made by *KILNER BROS Ltd MAKERS LONDON*, which has been deliberately broken to obtain the marble. Charles Barker began selling soda water in Cambridge in 1875, the bottle post dates 1883 when the business became Barker & Son, this partnership continued well into the 20th century.

There were two complete examples of similar size marked *WOODS & SON CAMBRIDGE MINERAL WATERS*, one (660g) was made by *DOBSON & NALL Ltd BOTTLE & CASE MAKERS*. The second (658g) has a makers mark *THE RYLANDS BARNSLEY 4*. See discussion above for Woods & Son.

Another fragmentary example that has been deliberately broken to obtain the marble is marked *THE STAR MINERAL WATER WORKS CAMBRIDGE* and was made by *A [] RYLANDS [] LEEDS & LONDON*. The final fragmentary example (288g) has been heavily heat effected and is not legible. The Star Brewery Company appears to have begun to sell mineral water in the early part of the 20th century between at least 1911 and 1921.

The two other vessels are part of the neck of a green glass bottle (68g) and a complete clear glass deep dish (332g).

Worked Flint (*with Emma Beadsmore*)

No features containing worked flint were observed in the course of the watching briefs within Zone 6.

<021> [122] A single chronologically non-diagnostic secondary flake (1g) was recovered from a topsoil layer during hand excavation of a 0.50m² sample area within **Test Pit 3**.

The find should be considered residual but highlights at least a sparse Prehistoric presence on the wetland environs on the southern side of the River Cam flood plain. This is supported by material and features of Prehistoric date found to the south within Jesus Close (Evans *et al* 2004).

Animal bone assessment (*with Vida Rajkovaca*)

A small quantity of animal bone within Zone 6, totalling 26 fragments that were derived from seven contexts identified as alluvial clays or palaeochannel fills, was retained for analysis. The zooarchaeological investigation followed the system implemented by Bournemouth University with all identifiable specimens recorded (NISF) and diagnostic zoning (amended from Dobney & Reilly 1988) used to calculate MNE (Minimum Number of Elements) from which MNI (Minimum Number of Individuals) was derived. Identification of the assemblage was undertaken with the aid of Schmid (1972) and reference material from the Cambridge Archaeological Unit. Taphonomic criteria including indication of butchery and surface modification as a result of weathering were also recorded when evident. The assemblages showed very mixed overall preservation ranging from quite poor to quite good. All bones were derived from domesticated species with the exception of one red

deer bone from a lower alluvial clay deposit interpreted as the drying out of a relict palaeochannel. According to toothwear data the cow is an adult animal. Only two bones demonstrated signs of butchery and both were fine cut marks performed using a fine blade.

<015> [119] Total of six fragments from three bone (71g). Four fragments of domesticated cow metacarpal. Two fragments of UMM (unidentified medium mammal, sheep or goat sized) one of which was identified as a rib fragment.

<022> [124] One red deer astragalus (26g).

<023> [125] Total of 13 fragments from two bones (70g). Ten fragments of cow horn core. Three fragments of ULM (unidentified large mammal, cattle sized) skull.

<024> [126] One right cow scapula (168g).

<037> [134] Four fragments of UMM (55g). Two fragments identified as limb bones. Two fragments identified as humerus.

<052> [171] 15 fragments from four bones (2227g). One right and one left cow mandible and one loose tooth exhibiting a degree of wear consistent with an adult individual. Fragments of ULM skull and one of maxilla. Two ULM vertebrae and one rib fragment with signs of fine cut marks indicating butchery with a fine blade while carcass was tabled and handheld.

<053> [175] Seven bone fragments from two bones (121g). Seven fragments of ULM including pelvic bones and a femur exhibiting seven fine cut marks using a fine blade while carcass was tabled and handheld. Marks are indicative of butchery for meat removal.

Environmental assessment (by Anne de Vareilles)

Methodology

Four samples from Zone 6 (Samples 1 – 4) were analysed for this assessment report. Except for Sample 4, all were processed using an Ankara-type flotation machine at the Cambridge Archaeological Unit. The flots were dried indoors. Sample 4 was processed indoors and kept wet for the recovery of waterlogged remains. The flots were collected in 300µm aperture meshes and the remaining heavy residues washed over a 1mm mesh but not sorted. Sorting and identification of macro remains were carried out under a low power binocular microscope. Identifications were made using the reference collection of the G. Pitt-Rivers Laboratory, University of Cambridge. Nomenclature follows Stace (1997) for flora and Beedham (1972) for molluscs. All environmental remains are listed in Table 6.3.

Preservation

Charred plant macro-remains were present but rare in all samples. Waterlogged material was found in Samples 3 and 4. A sub-sample from Sample 3 was not processed specifically for waterlogged plant matter because the dried flot revealed that very little had survived; only fragments of wood and ‘woody’ seeds (lignin rich) were preserved. All samples revealed a rich assemblage of molluscs deposited before the River Cam was canalised.

Results and Discussion

Charred plant macro-remains: charcoal was mostly present in Sample 3 [158] where it occurred in small quantities. Context [158] also contained two cereal grains (*Triticum/Secale* and an indeterminate fragment) and one wheat glume base. A straw

node was recovered from Sample 4. Although these finds cannot be directly linked to food processing activities they do suggest nearby human habitation.

Waterlogged wild plant seeds: all wild plant seeds were waterlogged. A few were recovered from the dried flot of [158] and suggest that the context was at least seasonally waterlogged. It is also possible that [158] was once below the water-table but has since gradually dried up. The seeds from Sample 4 [171] show a wet, open landscape in keeping with a wide, marshy floodplain. The range of species was diverse, attesting to a well established floodplain environment. These included sedges (*Carex sp.*), wet meadow or grassland taxa such as celery-leaved buttercup (*Ranunculus sceleratus*), fool's water-cress (*Apium nodiflorum*) and mint (*Mentha sp.*), and some aquatics such as water-plantain (*Alisma plantago-aquatica*) and duckweeds (*Lemna sp.*). The area had a nitrogen-rich soil and was certainly not left intact, suggesting nearby human and/or animal occupation (*e.g.* cattle grazing). A few *Prunus* stone fragments were found in Sample 4. These are large and are probably from cultivated plums. They would fit within, if not beyond, the larger *Prunus* stones of those measured by myself (in Newman 2007) from 16th century Bradwell's Court, Cambridge and P. Murphy (1988) from 11th and 15th century St-Martin-at-Palace-Plain, Norwich. This finding suggests that [171] dates to the 15th century or later. The picture, therefore, is of a damp floodplain with nutrient enriched and disturbed soils

Molluscan assemblages: the four assemblages are quite similar and all agree with a wet floodplain. This is especially the case for Sample 3 [158] which contained many more fresh-water species. The increased concentration of snails may point to a more intensive flooding period or actually represent a change in the River Cam's course whereby the latter ran closer to [158] than ever before. Further samples taken specifically for molluscs would allow for detailed environmental and riverine information to be drawn.

Conclusion

Very few charred plant remains were found. Their association to human habitation and food processing would have to be explored through lateral sampling. The environment around the four samples from Zone 6 was that of a wet floodplain used or frequented by humans and/or groups of animals. It appears that the soil around Zone 6 has been getting increasingly dryer, with only the deeper deposits retaining any plant material from past environments. Context [171] is likely to date to no earlier than the 15th century AD. The potential for an informative molluscan analysis is good.

Sample number		1	2	3	4
Context		147	148	158	171
Sample volume - Litres		7	5	9	1*
Flot fraction examined - %		100	100	100	100
<i>Ranunculus acris/repens/bulbosus</i>	Meadow / Creeping / Bulbous Buttercup				b
<i>R. sceleratus</i>	Celery-leaved Buttercup				b
<i>R. Subgen, BATRACHIUM</i>	Crowfoot				-
<i>Urtica dioica</i>	Common Nettle				c
<i>Urtica urens</i>	Small Nettle				+
<i>Chenopodium murale</i>	Nettle-leaved Goosefoot				-
<i>Chenopodium sp.</i>	Goosefoots				-
<i>Atriplex patula/prostrata</i>	Oraches				+
<i>Stellaria media</i>	Common Chickweed				c
<i>Persicaria maculosa</i>	Redshank				++
<i>Persicaria hydropiper</i>	Water-pepper			b	
<i>Polygonum aviculare</i>	Knotgrass				
<i>R. conglomeratus/obtusifolius/sanguineus</i>	Dock				b
<i>Rumex sp.</i>	Dock				-
<i>Capsella bursa-pastoris</i>	Shepherd's-purse				
<i>Rubus sp.</i>	Bramble			+	
<i>Potentilla sp.</i>	Cinquefoils				-
<i>Prunus sp.</i>	Cherries stone fragments				+
<i>Conium maculatum</i>	Hemlock				+
<i>Apium nodiflorum</i>	Fool's Water-cress				b
cf. <i>Pastinaca sp.</i>	Possible parsnip				-
Indet. Apiaceae Type 1	Carrot family seeds				-
Indet. Apiaceae Type 2	Carrot family seeds				-
<i>Hyoscyamus niger</i>	Henbane				-
<i>Solanum sp.</i>	Bittersweets				
<i>Lamium sp.</i>	Dead-Nettle				
<i>Ajuga reptans</i>	Bugle				-
<i>Lycopus europaeus</i>	Gipsywort				-
<i>Mentha sp.</i>	Mint				b
<i>Salvia sp.</i>	Claries				-
<i>Sambucus nigra</i>	Elder			++	-
<i>Carduus/Cirsium</i>	Thistles				+
<i>Sonchus asper</i>	Prickly Sow-thistle				+
Indeterminate Asteraceae	Daisy family seed				-
<i>Sagittaria cf. sagittifolia</i>	Arrowhead				
<i>Alisma plantago-aquatica</i>	Water-plantain				++
<i>Potamogeton sp. large</i>	Pondweeds			a	
<i>Lemna sp.</i>	Duckweeds				b
<i>Juncus sp.</i>	Rushes				
<i>Eleocharis sp.</i>	Spike Rushes				++
<i>Cladium mariscus</i>	Great Fen Sedge				-
trilete <i>Carex sp. type1</i>	trilete Sedge seed				+
trilete <i>Carex sp. type2</i>	trilete Sedge seed				+
lenticular <i>Carex sp. Type 1</i>	flat Sedge seed				++
Indeterminate wild plant seeds					3

Table 6.3: Waterlogged wild plant seeds from the bulk soil samples.
(Key: '-' 1 or 2, '+' <10, '++' 10-25, 'a' 25-50, 'b' 50-100, 'c' 100-500, 'd' >500 items).

Sample number	1	2	3	4
Context	147	148	158	171
Feature				
Feature type				
Phase/Date	?	?	?	?
Sample volume - litres	7	5	9	1*
Flot fraction examined - %	100	100	100	100
Cereal Remains				
<i>Triticum / Secale</i> - Wheat or Rye grain			1	
Indeterminate cereal grain fragment			1	
<i>Triticum</i> sp. (glume wheat) glume base			1	
Culm node				1
Charcoal				
>4mm			+	-
2-4mm			+	+
<2mm	+	-	++	++
Vitrified pieces	+		-	
Fresh water Mollusca				
<i>Bithynia tentaculata</i> (operculum)	++ (+)	-	c (a)	-
<i>Valvata</i> sp.	-			
<i>Valvata piscinalis</i>			a	
<i>Lymnaea peregra</i>		-	a	
<i>Lymnaea stagnalis</i>			++	
<i>Lymnaea truncatula</i>		++	++	-
<i>Lymnaea palustris</i>	+			
<i>Planorbis planorbis</i>	a	+	a	+
<i>Planorbis carinatus</i>			b	
<i>Anisus vortex</i>	++		b	
<i>Anisus leucostama</i>		++		++
<i>Gyraulus albus</i>	-		b	
<i>Bathymphalus contortus</i>			a	
<i>Acroloxus lacustris</i>			a	
Bivalvia: <i>Pisidium</i> sp.			b	
Damp / Shade loving species				
<i>Carychium tridentatum / minimum</i>				-
<i>Succinea</i> sp.	-		++	-
<i>Columella edentula</i>				-
<i>Vallonia excentrica / pulchella</i>				+
Catholic species				
<i>Trichia</i> sp.		-	+	++
<i>Ceciloides acicula</i> -Blind burrowing snail	+	-		

Table 6.4: Charred plant macro-remains and mollusca.

(Key: '-' 1 or 2, '+' <10, '++' 10-25, 'a' 25-50, 'b' 50-100, 'c' 100-500, 'd' >500 items. * = the whole of sample 4 was processed as waterlogged). The bulk of Sample 5 was floated and dried, but a sub-sample of 300ml was processed for waterlogged plant remains.

Discussion

Little is known archaeologically of the area immediately surrounding Jesus Green and Midsummer Common. Although potential ‘waterfront structures’ were observed a little way to the south during construction work undertaken at the George & Dragon pub in the early 1970’s (Webster & Cherry 1974, 199), this excavation remains unpublished and the site’s date and significance are therefore unclear (Dickens 2003, 11). A number of other comparable riverside sites have been excavated in Cambridge over the past 15 years, however, although they are again located someway to the south of Zone 6; indeed, with the exception of the southernmost site at Clare College Master’s Garden (Clarke 2002), all of them are situated within the bounds of the Medieval town itself. Details of the most relevant of these excavations are summarised in Table 6.3 below:

Site Name	River Bank	Distance Back from River	Height of Natural (O.D.)	Depth of Alluvial Sequence	Date ‘Capped’
Gonville & Caius Boathouse	West	3m	0.60m	c.3.60m	?
Jesus Green & Midsummer Common	East	5-50m	3.77m-4.69m	1.35m+	17th century
24 Thompson’s Lane	East	35m	2.97m	2.10m	14 th century
St. John’s College (Chapel Court and Master’s Garden)	East	50m	c.4.20m	c.1.30m	13 th century
Trinity Hall (New Library Extension)	East	c.5m	3.03m	1.91m	16 th century
Clare College (Master’s Garden)	West	c.90m	2.60m	3.40m	19 th century

Table 6.5: Comparable riverside excavations in Cambridge (in order of location from north to south).

Perhaps the most notable features observed at many of these sites comprise probable channels or ‘barge-pulls’ that were utilised for the loading and unloading of cargo from small shallow-draughted vessels. One such channel, which was around 4.5m wide and 0.5m deep, was identified during excavations at St. John’s College (Dickens 1996, 18) whilst other potential examples were also seen at 24 Thompson’s Lane (Newman 2008a; see also Zone 7, below) and during an adjacent 1982 excavation (Firman & Pullinger 1987). However, no such anthropogenic ‘interaction’ with the river appears to have taken place within Zone 6, where the majority of deposits were associated either with natural palaeochannels or else with later made-ground material. Somewhat more comparable, therefore, is the site excavated at the Trinity Hall New Library Extension in April 1997 (Alexander 1997). Here, an extensive alluvial sequence was capped at 4.94m OD by a shallow peat horizon that represented the beginning of a much drier phase. This contained 16th century pottery and at least four wooden stakes that had been driven into its surface, most probably to assist with the reclamation of the former wetland zone (*ibid*, 6-7). It appears likely that this episode was associated to Trinity College’s acquisition of the land in 1544, when it was thought that the first phase of a riverside revetment wall may have been constructed (*ibid*, 10-12). Subsequently, a significant amount of make-up material containing mainly 17th century pottery and domestic refuse was introduced (*ibid*, 8-9). This is clearly a very similar sequence to that observed on Midsummer Common and Jesus Green, although reclamation appears to have begun somewhat earlier at the Trinity Hall site (and also to have been undertaken rather more intensively).

Within the area of Zone 6 itself, a significant peat deposit was encountered at 1.80m below the present ground surface during a trial pit evaluation undertaken across Midsummer Common in July 1995 (Pollard 1995, 2). This material was identified within Trial Pit MC5, which measured 1.8 by 1.8m in extent and was located roughly in the centre of the Common approximately 70m back from the present course of the river. The peat, which was 1.40m deep, had been overlain by an extensive layer of dark bluish-grey alluvial clay that was found to contain 17th/18th century pottery in several of the other trial pits examined; however, the peat itself was undated and was only present within Trial Pit MC5 (*ibid*, 4). It therefore appears likely to have comprised part of a discrete ‘pond-like’ feature, of Medieval or earlier date, which was later sealed during the late 17th or early 18th century when the environment of the surrounding floodplain altered. Such a pattern is entirely consistent with the results of the current investigation, which indicates that the natural alluvial sequence on Jesus Green and Midsummer Common continued largely uninterrupted until the 17th century; following this date, discrete ground-raising deposits were inserted along the edge of the river. Interestingly, despite its presence being recorded in documentary sources from 1211 onwards, no physical evidence of the annual ‘Pot Fair’ was identified prior to 19th gravel hardstandings [108], [114], [122], [132], [136], [138], [151], [152] and [194], posthole F.100 and bottle dump [414]. However, if other changes were made to the environment and landscape of the area during the Post-Medieval period, these may perhaps be visible in the historic map sequence.

Unfortunately, Zone 6 lies for the most part outside the area covered by the historic maps of Cambridge as the majority of these were focused almost exclusively upon the University buildings in the centre of the city (*cf.* Baggs & Bryan 2002). Although the area does appear on the fringes of Hammond’s map of 1592, the only surviving copy of this work is too badly degraded for sufficient detail to be discernable. Custance’s map of 1798 does show the relevant area, however, and although no features other than footpaths are recorded upon either Jesus Green or Midsummer Common themselves this depiction reveals that an intriguing feature labelled the ‘Cambridge Sluice’ was positioned athwart the Cam at the boundary of the two areas (see also Newman 2008b). The sluice is shown in association with a small island upon which several buildings are depicted; these structures are shown in greater detail in Baker’s map of 1830, where one is labelled as the ‘Fort St. George’. This building, which is still extant, was constructed as an inn of ‘T’ shaped form during the 16th century (RCHM(E) 1959, 348), implying that the island upon which it was once situated was already in existence at this time. Indeed whilst it is probable that this island was at least partially natural in origin, it may also have been quite heavily consolidated or augmented at the time of the building’s construction. This activity may well therefore have been at least partially associated with the active management of the River Cam that it is implied by the later presence of the Sluice.

The active management of the River Cam and its floodplain

Cambridge first emerged as a significant regional centre during the mid to late 10th century and the city’s rapid economic expansion at this time appears to have been largely fuelled by a dramatic growth in its river-based trade. In the 12th century *Liber Eliensis*, for example, late 10th century Cambridge was linked to a group of important trading centres including Norwich, Thetford and Ipswich (Fairweather 2005) and by the beginning of the 13th century the city acted as the leading inland port in the

county, through which goods and services were disseminated to many of the surrounding regional towns (Cam 1934, 43). Such flourishing trade was made possible because during the early Medieval period tidal waters flowed across the Wash as far as Waterbeach, allowing sea-going vessels passage along the Ouse and then the Cam all the way into the city itself (Taylor 1999, 136). However, the gradual silting-up of the river channel, combined with large-scale drainage of the surrounding fenland, meant that by the 17th century many larger vessels were prevented from making this journey and loads had instead to be transported via barges from King's Lynn (Chisholm 2007). Yet even with such limitations, river trade remained an important, if somewhat less central, mainstay of the local economy until the arrival of the railway in 1845 (Bryan 1999, 103-5).

The origins of the Cambridge Sluice appear likely to lie in the later part of this period, as it is known that the Cam became increasingly silted-up during Post-Medieval times and regularly overflowed its banks (Taylor 1999, 136). This greatly inhibited any potential development of the inundated areas along much of its length, but the expansion of college buildings onto the Backs – beginning with the acquisitions made by St. John's and Trinity Colleges in 1610 and 1613 respectively (Bryan 1999, 98) – stimulated increased management and canalisation of the river's course (*cf.* Chisholm 2003). This newly acquired impetus can also be allied with the impact of Cornelius Vermuyden's Fenland drainage scheme, which was completed in 1652; a number of potentially comparable sluices were constructed as part of this work, the most notable being that placed across the Ouse at Salter's Lode and now known as the Denver Sluice (Chisholm 2007, 179). These factors therefore indicate that the Cambridge Sluice is most likely to have been constructed at some time during the early to mid 17th century, and to have been sited so as to take advantage of the narrow inlet created by the island already occupied by the Fort St. George. This agrees very closely with the date at which an active interest first appears to have been taken in the consolidation of the land along the southern bank of the river, and the two events are very likely to have been associated. The earliest ground-raising activity undertaken on Jesus Green and Midsummer Common can thus be seen as part of a much wider attempt to control the seasonal inundations caused by the regular flooding of the Cam, an attempt which was to continue until well into the 19th century.

Zone 7: Thompson's Lane to St. John's Road

The archaeological watching brief within Zone 7 commenced on the 3rd of September 2006 and ran intermittently until the 14th of January 2008. It was undertaken in order to observe works conducted on the site of 24 Thompson's Lane, which included the erection of a new electrical sub-station, and the replacement of 33kv cables running between the old station and the edge of Jesus Green. Zone 7 will be discussed in two parts. These comprise; firstly, the watching brief carried out within the compound at 24 Thompson's Lane and, secondly, the watching brief carried out along Thompson's Lane and St John's Road. This is due to the varying methodologies employed in the two areas, allied with differences in the nature and extent of the archaeology that was uncovered. The site codes used for this zone were TKT06 and TKT07.

Location and geology

Zone 7 lies within the flood plain of the River Cam, immediately to the northeast of Cambridge city centre. The line of the 33kv reinforcement cable trench ran from the compound at 24 Thompson's Lane, situated approximately 27m to the southeast of the river, in a north-easterly direction along the line of St John's Road roughly parallel to the course of the Cam. Within the compound, three excavated areas lay at the northern end of the yard and were connected to the entranceway by a trench 26m in length and a maximum of 3.2m in width. A second trench, 10m in length and a maximum of 4m in width, then joined these excavations to the trenching along Thompson's Lane and St John's Road (see Figure 8). The modern concrete ground surface varied in height between 6.40m to 6.90m OD. Although natural deposits were not reached during the course of work carried out for the 33kv reinforcement cable project, previous excavations in the area indicate that 1st terrace river gravels lie at around 2.97m OD (Newman 2008a, 9).

Methodology

The work was conducted in two phases, which were observed by different archaeologists adopting differing methodologies as appropriate to the degree of archaeological material encountered and the logistics of the operation being undertaken. During the first phase, the three areas at the western end of the yard were excavated using a 360° mechanical excavator with a 1.5m toothless bucket prior to archaeological observation whilst the southeast to northwest oriented trench, which ran along the central spine of the compound, was excavated under constant archaeological supervision using a small tracked machine with a 0.4m toothless trenching bucket. In the latter case, the nature of the replacement cables required that in places the original cut be widened and deepened into previously undisturbed deposits; auger columns were taken to relate the newly exposed material to any underlying stratigraphy, and to locate any river gravels that may have been present. In contrast, the second phase of work related to the 33kv reinforcement cable trench that ran along the line of present day St. John's Road, from the centre of its junction with Thompson's Lane/New Park Street to its terminus at the western edge of Jesus Green. This area was excavated using a 360° mechanical excavator with a 1.1m toothless bucket under constant archaeological supervision.

During the first phase, centred within the compound at 24 Thompson's Lane, the excavated trenches were planned at 1:50 due to the size of the area and the lack of stratified archaeological deposits; where appropriate, sections were recorded at 1:20. Any newly exposed deposits or features were drawn and recorded, and all finds were retained. During the second phase, on the section of trenching along St. John's Road, all sections were drawn at 1:20 and a representative range of material was retained. During the first phase, contexts were assigned in ascending order, beginning at [1000], whilst during the second numbers began at [300]. Unfortunately, many of the trenches situated within the compound area required permanent shoring and were therefore unavailable for intensive examination due to health and safety constraints.

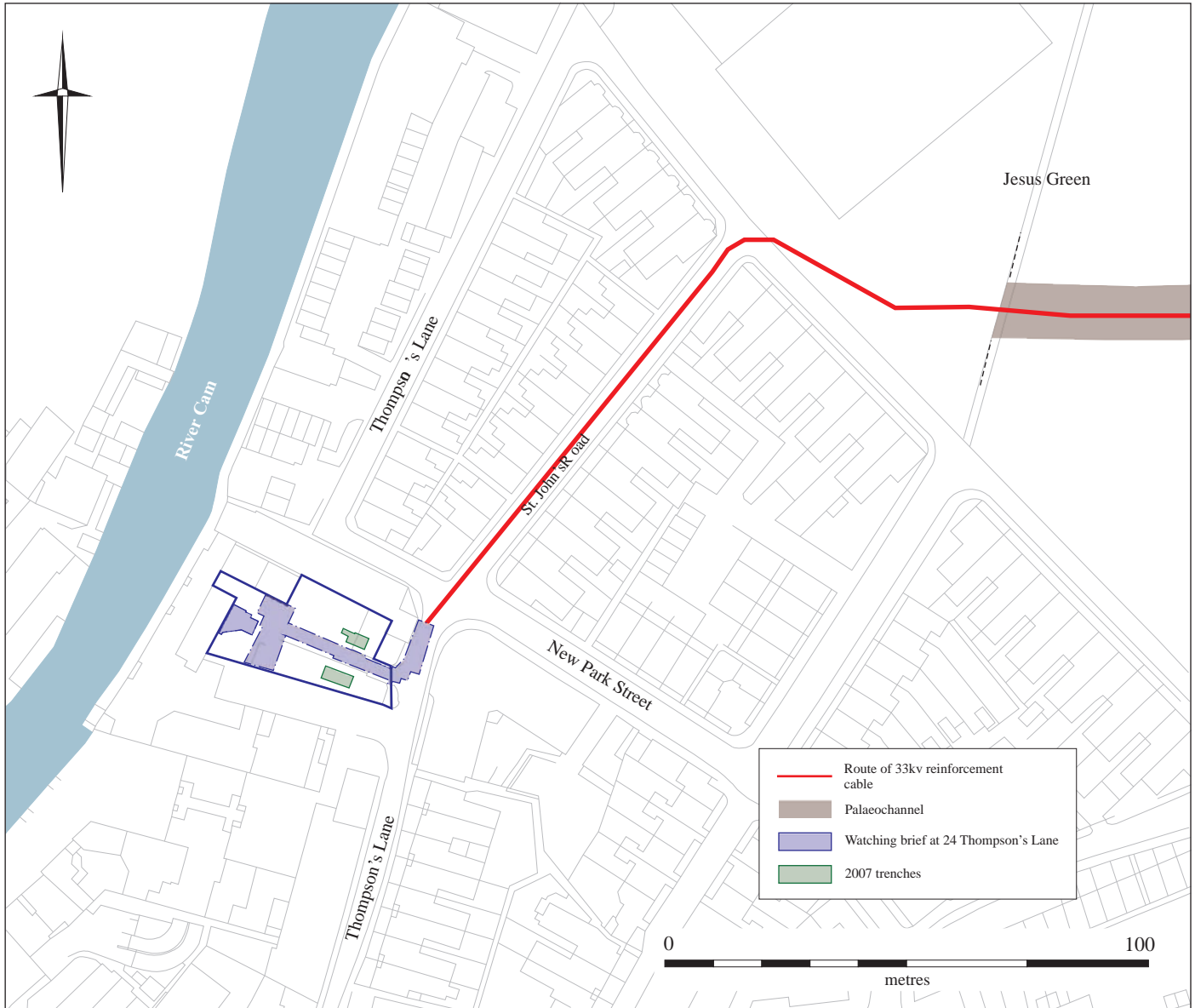


Figure 8. Location of route of reinforcement cable (Zone 7).

Historical and archaeological background

Zone 7 lies on the margin of the historic city of Cambridge and, because the historical and archaeological background of the city has been reviewed in numerous published sources (see especially Cam 1934; Lobel 1975; Bryan 1999; Taylor 1999), it will not be reproduced here in full. Nevertheless, it is necessary to briefly outline the city's background in order to place the zone securely within its wider context. Details relating directly to the area's specific history and archaeology have been incorporated into the discussion section, below.

Little is known of the earliest inhabitants of the area. Although there is diffuse evidence of Prehistoric occupation and activity, most notably of Iron Age date, scattered across much of the extent of the lower town no definite or intensive large-scale settlement has yet been identified (Taylor 1999, 15-23). Occupation appears instead to have begun in earnest shortly after the Roman invasion in AD43, with the accepted picture of Cambridge during this period being one of a settlement centred almost exclusively upon the Castle Hill area (*e.g.* Alexander & Pullinger 2000). Recent fieldwork, however, is demonstrating that this interpretation is somewhat limited, with significant settlement having been detected to the east (Dickens 1996; Alexander *et al* 2004; Newman *in prep*), south (Dickens 1999) and west (Evans 1996; Lucas & Whittaker 2001) of the presumed centre. It is therefore clear that the extent of Roman settlement away from the Castle Hill area was greater than has generally been supposed and that the outlying hinterland, within which Zone 7 probably lies, was extensive although it remains poorly understood. Following the withdrawal of the Roman legions in AD410 the level of occupation in the area appears to have decreased; the evidence for Early Saxon activity in and around Cambridge primarily comprises material recovered during the 19th century from pagan cemeteries on the outskirts of the city (*c.f.* Fox 1923; Dodwell *et al* 2004; Cessford with Dickens 2004). Whilst it is notable that one of these cemeteries – that discovered at Strange's Boathouse, on the western bank of the Cam (Fox 1923, 244) – is located only 180m to the north of the present zone, very little direct settlement evidence from this period has yet been recovered. However, it is likely that any structures employed at this time would have been relatively ephemeral in nature and therefore highly susceptible to later truncation.

In fact the area appears to have remained merely an “economically viable backwater” up until the mid 10th century (Hines 1999, 136). Following this date, however, Cambridge emerged as a significant urban centre, to the extent that by the beginning of the 13th century the city acted as the leading inland port in the county (Cam 1934, 43). By this time the settlement was fully established on the eastern side of the river, and is likely to have already been at least partially enclosed by an extensive boundary work that later became known as the ‘King’s Ditch’. The ‘king’ in question is usually interpreted as being either John (1167-1216), who repaid the bailiffs of Cambridge the costs of enclosing of the city in 1215, or Henry III (1207-72), who paid for its refortification in 1267 (Cooper 1842-53). However, both monarchs were in all probability simply financing the consolidation (and potentially also the combination) of elements of pre-existing ditches that may well have originated from the Late Saxon period onwards; indeed, radio carbon determinations taken from the base of this feature further to the south at the Grand Arcade site indicate a construction date in the late 11th or early 12th centuries (Craig Cessford *pers comm*). The resultant boundary

was potentially of greater symbolic than military importance (Cessford 2007, 72), but is of particular relevance to this zone as it is projected to have lain beneath the line of modern New Park Street. During the Medieval period Cambridge's role as a dominant port gradually declined (Bryan 1999, 97) and the economic wealth of the city became largely centred on the University, which had been founded in 1209. The expansion of this institution had greatly benefited from royal investment, especially from the 15th century onwards (*ibid*, 94-6), and its growth was also given significant impetus by the Dissolution of the Monasteries in 1536-40 since many of the disbanded religious houses were subsequently converted into Colleges (*c.f.* Willis & Clark 1886). The influence of these Colleges has been one of the primary factors in shaping the landscape of Cambridge and its immediate surroundings ever since (Bryan 1999, 95).

In addition, the most significant modern developments in the city have comprised the arrival of the railway in 1845 and the rapid suburban expansion, largely begun in the 19th century and continuing to this day, into what had once been its surrounding rural hinterland. Much of the area surrounding Zone 7 forms part of this belt of later suburban development (*ibid*, 103-7).

Recent excavation

An archaeological excavation was undertaken within the compound at 24 Thompson's Lane between the 29th of July and the 12th of August 2007 (see Newman 2008a). Due to the spatial limitations imposed by the nature of works contemporaneously being undertaken at the western end of the site, which included the construction of a new electricity sub-station and the insertion of related cabling, only a small portion of the area was available for detailed investigation. For this reason only two trenches, covering a combined total of 30m², were excavated; both were located 35m to the east of the present course of the river (see Figure 8). In addition, due to health and safety constraints, the lower alluvial deposits could only be excavated in test pits measuring 1.2m by 1.2m in extent. Unfortunately, because these test pits became highly unstable once the water table had been punctured, the very base of the sequence was determined by auguring. Despite these limitations, however, five phases of activity were identified within the excavated sequence at the site. These comprised:

1. The accumulation of alluvial layers from Prehistoric times to the 14th century.
2. The creation of 'made-ground' in the 14th to 16th centuries.
3. The redevelopment of the area in the early 17th century.
4. The establishment of a brewery on the site in 1788.
5. Modern activity spanning the mid 20th century to the present.

Where relevant, the specific results of the excavation will be incorporated into the discussion of the watching brief below.

Results

Due to previously mentioned differences between the varying methodologies adopted and the nature and extent of the archaeology encountered, the results of the work

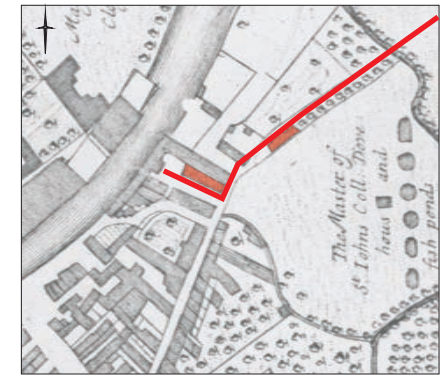
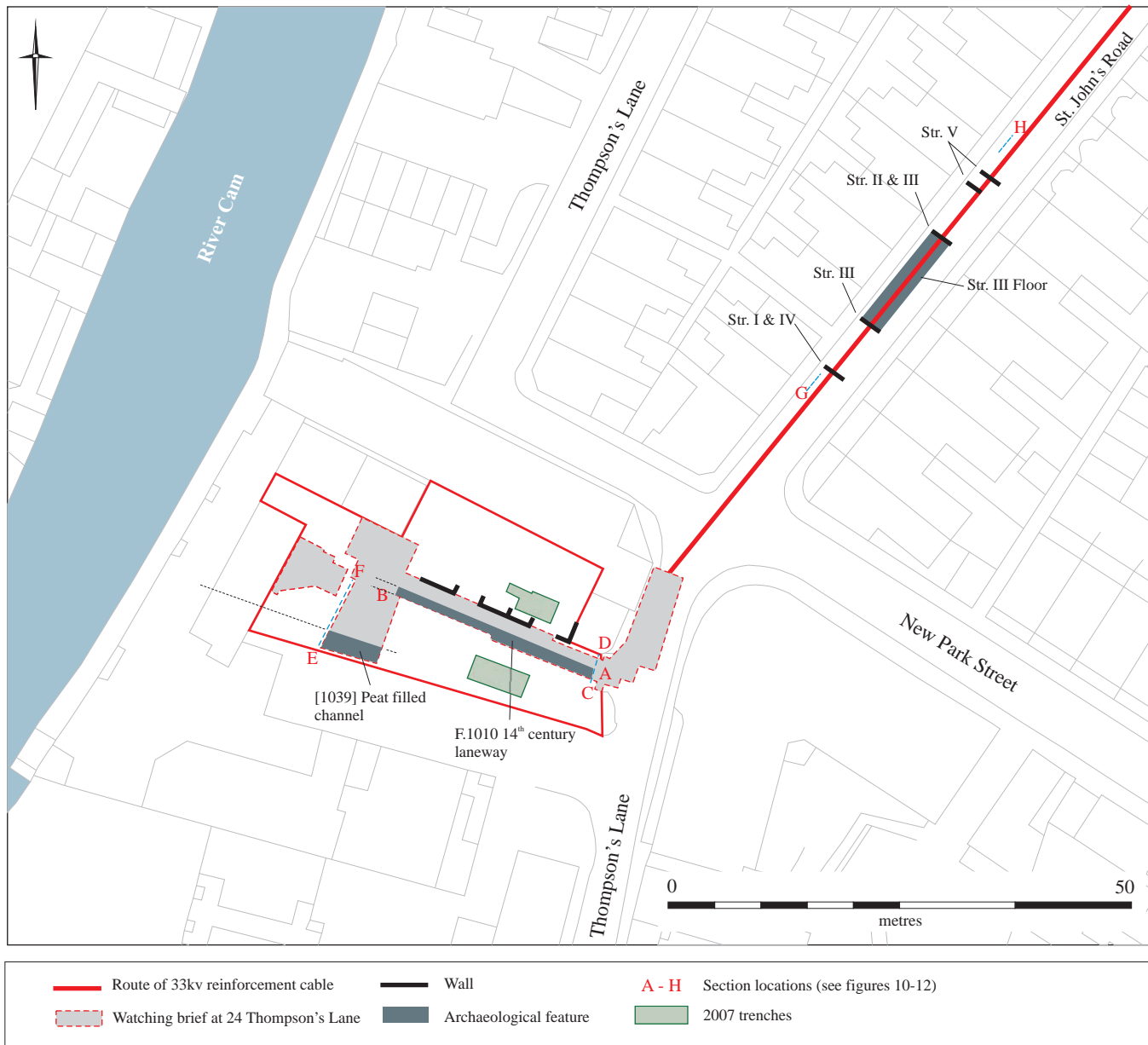
undertaken within the compound at 24 Thompson's Lane and that on Thompson's Lane and St John's Road will be discussed separately.

Phase 1: the 24 Thompson's Lane compound

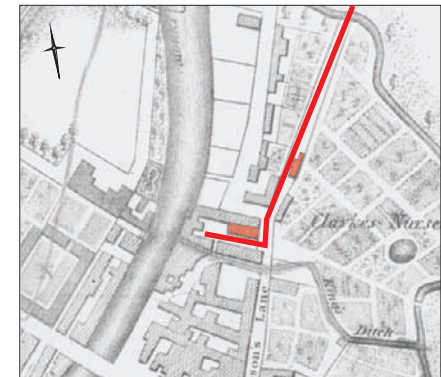
Within the compound at 24 Thompson's Lane, an extensive archaeological sequence was encountered (see Figure 9 for plan). The earliest deposits to be identified represent *in-situ* flood-lain or alluvially derived layers of 10th to 12th century or earlier date, which appear to have accrued within an open and undisturbed environment. By the end of the 12th century, however, the use of the area appears to have changed as a probable boat channel or 'barge pull' was created close to the river. Subsequently, the area reverted once again to its former wetland state until, at some time during the 14th century, the land appears to have been actively reclaimed and a central laneway was constructed. Then, despite at least one temporary inundation event during the 15th century, activity continued in the form of introduced 'made-ground' deposits until the early Post-Medieval period when a series of buildings were constructed on the site. These structures, which are likely to have been associated with the flourishing mercantile district situated immediately to the south (*cf.* Bryan 1999, 32-3), were maintained, modified and extended throughout the succeeding centuries, especially following the establishment of a brewery on the site in 1788. Eventually, however, following the closure of the brewery in 1902, an electricity substation was erected and a large number of service trenches were inserted. Unfortunately, these works heavily truncated the uppermost part of the archaeological sequence.

Alluvial Deposits

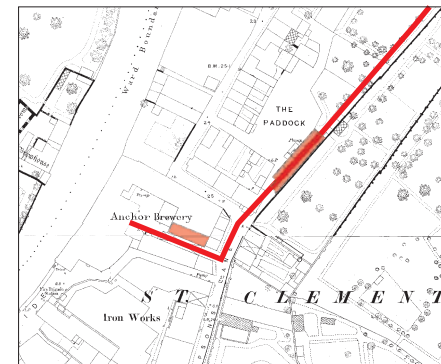
The three earliest deposits within the southern trench were identified as alluvial or flood deposited material, and were present in all visible sections. The earliest of these, [1006], was exposed to a maximum thickness of 0.1m and comprised a moderately compacted mid to light grey silty clay with large quantities of snail shell; this suggests a long period of exposure within a relatively stable, continuously wet environment. Lying immediately above [1006] was [1005], a 0.22m thick well compacted mid-grey moist silty clay with occasional bands of fine-grained sandy gravel and mottles of orange sandy clay. The mixed nature of this layer, and the absence of any mollusc remains within it, indicates that it was laid down during a rapid high energy event such as a flood. [1005] contained fragments of Saxo-Norman Thetford type and St Neots type wares, suggesting a 10th to 12th century date for its deposition; this layer directly equates to deposit [1024] = [1025] = [1026] = [1028] = [1029] = [1031] = [2034] = [2036] = [2037] = [2038] = [2039] = [2040] that was encountered during the 2007 excavation (Newman 2008a, 3-10). Immediately above [1005] was [1009], a 0.32m thick deposit of firmly compacted mid grey silty clay with occasional small sandy gravel bands and infrequent small angular stone inclusions. No material culture was recovered from this deposit, although it equates to the earlier stages of made-ground deposit [1019] = [1020] = [1021] = [1022] = [1023] = [1030] = [2019] = [2020] = [2021] = [2022] = [2023] = [2035] that was encountered during the 2007 excavation (Newman 2008a, 14-16). To the north, in the trench excavated for the foundation of the new electricity sub-station, the east-southeast facing section revealed a 'proto-peat' formation. This material, [1039], comprised a firmly compacted very fine dense brown silt deposit with occasional to frequent organic and shell inclusions which measured 0.6m+ thick and produced no material culture. It appears strikingly different to surrounding deposits at the same height and was probably therefore situated within a discrete 'channel', although it is unclear whether this was natural or man-made; the rapidity of the transition between this material and the surrounding alluvial clays, however, strongly supports an anthropogenic interpretation. An environmental sample (Sample 5) was recovered from this deposit, and the results of its analysis are discussed at the end of the section.



Loggan 1688



Custance 1798



OS 1:500 Series 1888
 — 33kV cable route
 ■ Building remains encountered

Figure 9. Archaeology encountered within Zone 7

Early Activity

Immediately above [1009], and visible only in the northeast face of the southern trench, was a 2.2m long by 0.11m thick deposit of firmly compacted mid to light greenish grey clay [1008] with occasional charcoal flecking. Above and associated with [1008] was a 0.08m thick lens of very firmly compacted angular gravels and sand, [1007]. Both [1007] and [1008] appear to represent the bedding and gravels layers for a compacted surface (F.1010), their position possibly representing an earlier central laneway. Also immediately overlying [1009], and seemingly contemporary with F.1010 within the northeast facing section, was [1013] F.1011, a compacted deposit of large broken clay tile fragments 0.17m thick within a mid to light grey sandy clay matrix with frequent charcoal inclusions. The compacted nature of the tile fragments and their uniform horizontal layering suggests that F.1011 was used as a floor surface, or perhaps more probably as an external yard area. The tile fragments have been dated to the 15th century. Overlying surface F.1011 and probable laneway F.1010 in the northeast facing section, and physically overlying [1009] in the southwest facing section, was [1004], a 0.2m thick moderately compacted mid to dark grey silt clay with frequent loose angular stones and occasional charcoal inclusions. The form of [1004] was similar to that of preceding alluvial deposits [1006] and [1005], suggesting that it was also the result of water inundation. This deposit clearly post-dated the creation of the lane and yard surfaces, and indicates that the area may have temporarily gone out of use at this time.

Following the deposition of [1004], an irregularly sloping partially stepped cut - [1021], which was a maximum exposed depth of 0.76m and exposed length of 7.5m - was made. This cut, F.1004, was only visible in the southwest facing section and truncated deposits [1006], [1005], [1009], and [1004]. The cut was filled with [1010], a moderately compacted mid to dark brownish grey rather humic silty sandy clay deposit with high quantities of loose angular stones, frequent charcoal and occasional oyster shell and animal bone inclusions; it also contained two fragments of a Glazed Red Earthenware basting dish, suggesting a sixteenth century date for its deposition. In addition, [1010] formed a layer 0.4m thick overlying [1004], visible in both northeast and southwest facing sections, which appears to be consistent with a phase of deliberate ground consolidation; it equates to the later stages of made-ground deposit [1019] = [1020] = [1021] = [1022] = [1023] = [1030] = [2019] = [2020] = [2021] = [2022] = [2023] = [2035] that was encountered during the 2007 excavation (Newman 2008a, 14-16). It is therefore possible that F.1004 represents the extraction of material in order to establish stronger flood defences by the river's edge, following the preceding phase of inundation, and that this subsequently allowed further made-ground deposits to be inserted within the property's interior. Indeed, deliberate ground raising deposits were also present to the north of the compound. In the trench excavated for the foundation of the new electricity sub-station, for example, a layer of dense mid greyish brown silt clay, [1040], was observed overlying [1039]. This deposit contained occasional to rare inclusions of brick and tile, charcoal flecks and gravels; it measured 0.9m+ thick and was truncated by [1041], the cut for a 19th or 20th century cellared building. At the extreme northern end of the compound an irregularly shaped trench, dug to expose 33kv cables relating to the sub-station, contained a heavily truncated layer of introduced material [1034] surviving at the base of the excavated sequence. [1034] comprised a firm mid greyish blue clay, with occasional darker blue mottled streaks and occasional to rare inclusions of brick, tile and gravel. The layer measured 0.2m+ deep and was truncated by modern service cuts [1035].

Later Activity

Several walls of Post-Medieval date were recorded within the southwest facing section of the southern trench. The earliest of these was F.1000, which ran for 10.2m from the entranceway on Thompson's Lane. This wall was constructed within a steeply sloping flat bottomed foundation cut, [1018], which had truncated ground raising deposit [1010]. It consisted of rubble foundation deposit [1015], which was composed of large angular and sub-angular unworked stones, uncoursed roughly squared blocks and occasional faced squared stones (measuring 0.26m in maximum diameter). At least four re-used Medieval architectural fragments were identified within [1015] (see Figure 11), and the rubble was bonded with friable light yellowy-brown sandy lime mortar. The construction trench was subsequently backfilled with [1017], a mixture of loose sandy gravels, lime-mortar dust, ash, cinders, brick fragments and occasional charcoal inclusions, and on top of stone foundation [1015] was constructed brick wall [1014]. This survived to a maximum height of seven courses (measuring 0.37m+) and was composed of narrow handmade bricks, 70mm thick, of probable 17th century date. These were arranged

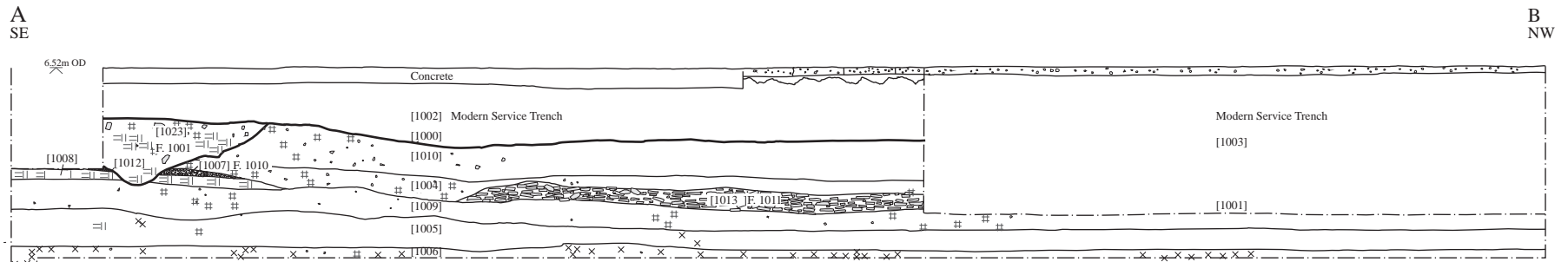


Figure 10a. Section of F. 1001, F. 1010, F. 1013.

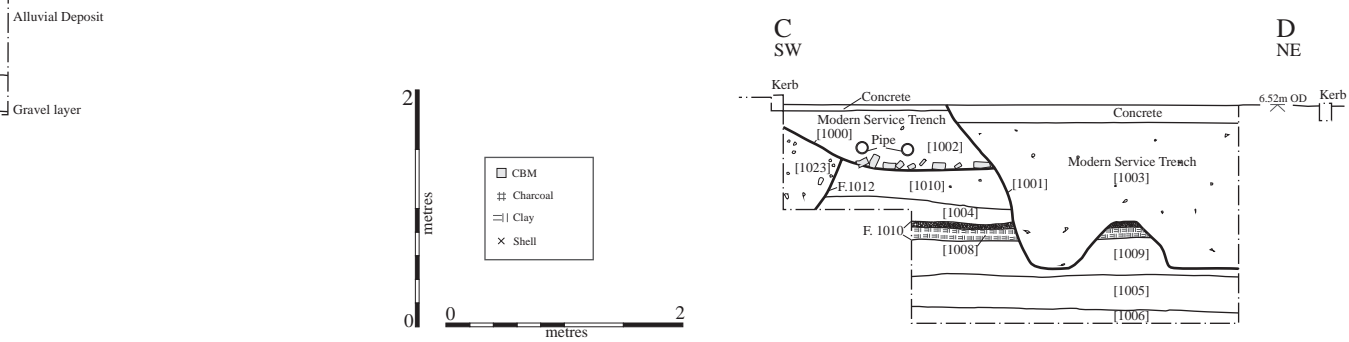


Figure 10b. Section of F. 1010 and F. 1012.

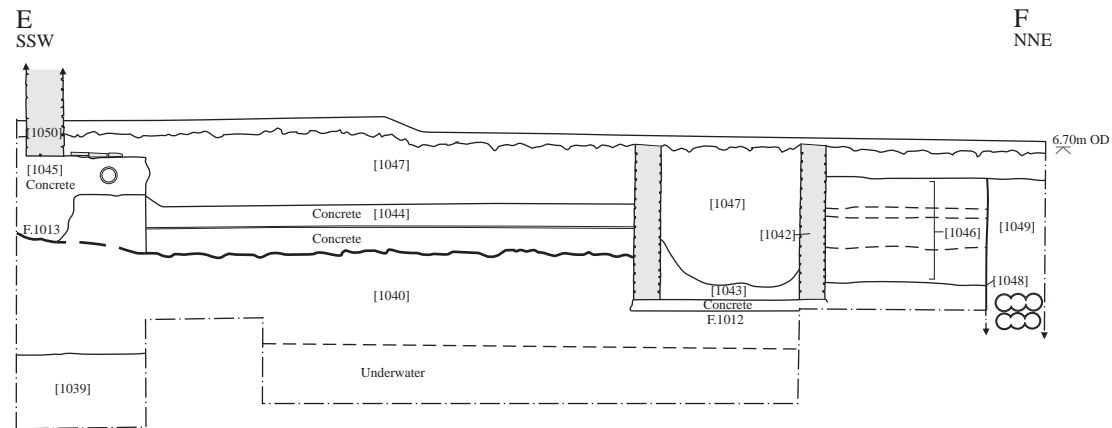


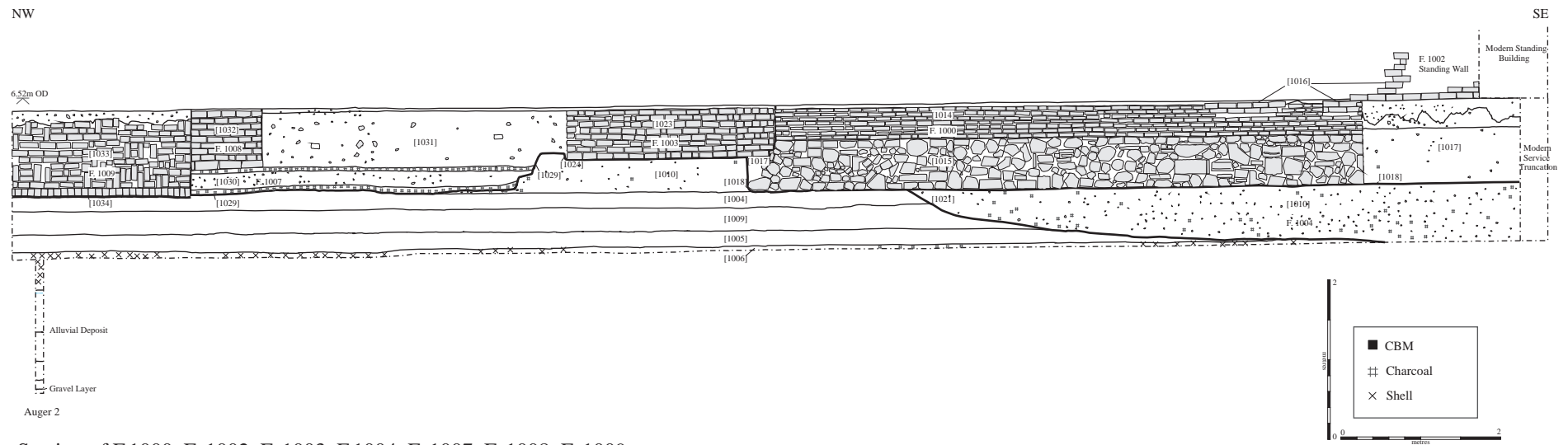
Figure 10c. Section of F.1012, F.1013 and possible channel [1039] (see Figure 9 for locations).

in an irregular stretcher bond, and were set with thick yellowy-brown friable lime-mortar identical to that used within [1015]. The northwest end of **F.1000** presumably marked the corner of a building turning in a southwest to northeast orientation, and abutting **F.1000** to the northwest was a second wall, **F.1003**, which clearly represented a second structure. This latter was constructed within shallow flat bottomed cut [1024], which was a maximum of 0.23m in depth. Brick wall [1022], which survived to a height of eight courses, was then erected within this trench. The lower three courses were composed of yellow Cambridgeshire bricks arranged in a stretcher bond pattern, whilst the remaining five courses were comprised of red bricks in an English bond pattern; both forms appear contemporary, and are of probable early 19th century date. The backfill deposit within cut [1024] - [1025] - comprised a loosely compacted mid to light greyish brown sandy clay deposit with loose angular stones and occasional charcoal inclusions. **F.1003** was 2.6m in total length and seemed to form the southwest facing wall of a small outbuilding, which was most probably associated with the earlier structure represented by **F.1000**.

Following with the construction of **F.1003**, an irregularly sided cut was made into [1010] that almost uncovered the foundations at the northwest end of the wall. This cut, [1029], was a maximum of 0.55m in depth and extended to the northwest beyond the limit of excavation. The primary fill, [1030], comprised a mixed deposit of dark grey sandy silty gravels with frequent charcoal inclusions and bands of dark grey charcoal rich ash and cinders; this may well represent industrial waste relating to a fire, furnace or kiln. A single sherd of sixteenth century pottery was recovered from this deposit, although it appears to be residual in origin. A short wall, [1032] **F.1008**, was then built directly onto [1030], seemingly without a foundation cut. Instead founded upon a single course of three large roughly squared and faced stones, which were up to 0.35m in diameter, wall [1032] survived to a height of eight courses and was composed of handmade red bricks arranged in stretcher bond. It is probable that **F.1008** is the terminus of a southwest-northeast orientated wall running parallel to walls **F.1000** and **F.1003**, of rather later 19th century date. Following the construction of **F.1008**, a vertical straight sided cut with a flat base, [1034], was made through [1030] and into flood deposit [1004] to a maximum depth of 0.34m. Within this cut an irregular uncoursed brick wall, [1033] **F.1009**, was built abutting wall [1032]. A single course of Rowlock bonded yellow Cambridge bricks formed the foundation of **F.1009**, whilst the surviving 0.9m above was comprised of a mixture of brick types and sizes in a random uncoursed bond. The mixture of bricks used suggests a 19th or probably early 20th century date.

Visible at the southeast end of the central cable trench, immediately adjacent to Thompson's Lane, was a circular brick feature measuring 1.05m in diameter, [1027] **F.1006**. The bricks used in its construction were mechanically produced squared bricks, arranged seventeen to a course in stretcher bond. No mortar was present between the individual bricks, and the form of the structure as well as the high quality of the bricks used is suggestive of a 19th century well/water pump. The fill of **F.1006** comprised a mixture of loose light brown and grey sandy gravels and industrial and building demolition detritus, identical to that which filled the service trenches, suggesting that the well was backfilled at the same time as their insertion. A moderately sloping irregularly sided and concave based cut, [1012] **F.1001** visible in the northeast facing section, truncated the ground consolidation/ garden soil [1010], laneway flood deposit [1004], laneway surfaces [1007] and [1008] and alluvial deposit [1009]. **F.1001** was filled by [1023], a loosely compacted mixed grey sandy clay deposit with building rubble, mortar and large loose nodules of light grey clay inclusions. The orientation of **F.1001** suggests that it may have formed a drain or gully at the Thompson's Lane end of the yard, and the fragments of brick with it again suggest a late 19th or early 20th century date for its construction. It may therefore have been contemporary with well **F.1006**.

A later wall, [1016] probably dating to the late 19th or early 20th century, was built onto the remaining seven courses of wall [1014]. This structure was demolished immediately prior to the engineering works commencing, and seemed to form a southeast orientated structure running from the side of the warehouse to the yard. A single thin layer of concrete was used to secure the stability of [1014] prior to its construction, suggesting a later, probably 20th century date for its construction. Indeed the marks left by its gable end as it met the warehouse show it to have originally obscured one of the 18th or 19th century windows. Remnants of late 19th or 20th century walls were also visible in the trench excavated for the foundation of the new electricity substation at the northern end of the compound. Here, **F.1012** constitutes a cellared building whose walls, [1042], survived to a height of c.17 courses and a concrete floor 0.1m thick, which were both constructed within cut [1041]. Possibly contemporary to this building were a series of banded layers 0.9m thick, [1046], lying to the northeast of it and two phases of concrete surface 0.4m thick, [1044], situated to the southwest of it. Layers [1046] are composed of



Section of F.1000, F. 1002, F. 1003, F.1004, F. 1007, F. 1008, F. 1009.



Figure 11. Section and photograph of walls within Thompson's Lane compound with reused Medieval masonry.

alternating bands of dense orange gravels and mortar, charcoal and cinder rich silts, which may indicate external surfaces truncated to the northeast by modern service cut [1048]. At the southwest end of the trench a concrete footing [1045] appeared to have been reused as a foundation for the existing wall ([1050]) that marks the current boundary of 24 Thompson's Lane. As the sequence was only observed in section, the stratigraphic relationships remain uncertain. However, wall [1050] may relate to a phase of demolition and levelling which saw the introduction of pure orange sand [1043] into the base of cellar [1042] before deliberate backfilling with a layer of loose brick rubble across the extent of the trench. This would then have formed a solid levelling deposit onto which the modern concrete ground surface could be laid.

Modern Activity

Within the southern trench a series of modern cuts - [1000], which was backfilled with [1002] and [1001], which was backfilled with [1003] - represented the insertion of 33kv cables, lower voltage cables and other services throughout the 20th century. This recently deposited backfill was comprised of building demolition detritus, modern waste and redeposited material similar in form to preceding deposit [1010]. The truncation was most visible in the southeast facing lateral section, and almost entirely eliminated any newly exposed material in a large proportion of the northeast facing section. The modern cuts continued into the northern half of the compound where they were also visible at the northeast end of the trench excavated for the foundation of the new electricity substation. Here, cut [1048] contained six 33kv cable ducts and was backfilled with [1049]; it completely truncated the building sequence at northeast end of the trench. In the two further trenches excavated in the northern half of the compound, modern services were still more densely cut. Three service cuts - [1035], each containing between six and nine ducts and backfilled with a mixture of demolition detritus, clays, silts and gravels [1036] - ran approximately east to west and may equate to those observed in the trench to the south. At least one subsequently inserted service cut - [1037], set in concrete and filled with brick rubble [1038] - was apparent in the irregular shaped trench to the extreme north of the compound. Following the construction of a manhole immediately to the south of this trench, this area saw far a greater degree of modern truncation than most other parts of the compound, perhaps explaining the lack of later 19th century activity in this part of the compound.

Phase 2: Thompson's Lane and St John's Road

During the watching brief undertaken along Thompson's Lane and St John's Road, the remains of several buildings dating from the 17th to the late 19th centuries were discovered. In total, five structures (labelled **I** to **V**) were identified, although the majority of these buildings were only visible in section and so their complete dimensions could not be determined. Despite these limitations, however, it appears that **Structures I** and **II** represent 17th century buildings, visible on Loggan's map of 1688 (see Figure 9), which equate to the first phase of settlement expansion along the riverside area during the Post-Medieval period. **Structure III**, in contrast, appears to be 18th or early 19th century in date and is probably part of an additional cellared building whilst **Structures IV** and **V** are mid to late 19th century in origin. Because of the limited depth of the cable trench, no pre-17th century deposits were encountered; for this reason, no evidence of the Medieval town boundary known as the King's Ditch, which is thought to lie beneath the Thompson's Lane/St. John's Road junction, was recovered.

Later Activity

The earliest deposits to be encountered in this area are represented by two successive dumps of silty clay; these probably consisted of redeposited alluvial material and were located at the southwest end of the trench at the junction of Thompson's Lane and St. John's Road. Initial deposit [301] consisted of mid to pale grey sandy silty clay while overlying layer [300] consisted of mid brown grey silt clay. It appears that these layers were deposited in quick succession, and they thus most probably represent differentially derived dumps within the same ground-raising event. In terms of material culture, [301]

contained four sherds of Glazed Red Earthenware whilst [300] contained five sherds of Glazed Red Earthenware, two sherds of Red Coarseware and a single sherd of Iron Glazed Coarseware. The pottery assemblage and tile samples retrieved from both contexts are entirely consistent with a late 17th century depositional date for the layers. Cutting through these deposits was construction cut [304]. This shallow cut measured 1.32m+ wide by 0.3m+ deep and was observed 21m north from the trench's starting point on the Thompson's Lane/St. John's Road junction. Within the construction trench was built wall foundation [302]. This measured 0.5m wide by 0.48m deep and was truncated to a height of two courses; it was composed of irregularly squared limestone blocks. The lower course consisted of thin limestone slabs, measuring approximately 220mm by 100mm by 80mm on average, which were bonded to an upper course of rougher blocks measuring approximately 200mm by 150mm by 150mm on average. These were all bonded with a coarse sandy yellow mortar, and represent the only surviving element of **Structure I**. The construction cut was backfilled with [303], a mixed deposit of grey clay and silt with frequent inclusions of broken brick and tile. Although no pottery or direct dating evidence was recovered, it appears on stratigraphic evidence that this structure dates to the late 17th or early 18th centuries.

A second structure - **Structure II**, which may perhaps have been contemporary to **Structure I** - was equally badly truncated by later activity and was observed at a point 39m along the trench. It consisted of a remnant of wall, [316], which survived to a height of two courses and was composed of thin hand-made red bricks; these measured approximately 200mm by 105mm by 65mm on average and were bonded with a very hard white mortar. This remnant, along with fragment [302] from the previous structure, both appear to represent the base of wall foundations, and there is no evidence of cellaring within either building. As already mentioned, however, both of these structures were heavily truncated. In the case of **Structure I** this truncation took the form of a phase of rebuilding that utilised the earlier wall as its foundation. Brick wall [329] survived to a height of five courses and was composed of thin hand-made red bricks measuring 230mm by 100mm by 55mm deep on average; these were laid as stretchers in an overlapping bond and were set with a coarse sandy yellow mortar. The wall sat within cut [328], which measured 8.2m+ in length and up to 0.56m+ deep. This also acted as a levelling cut that removed most of the earlier phase of structures and formed the construction cut into which a later cellared building was inserted. This rebuild has been labelled as **Structure IV**.

Apparently contemporary with **Structure IV**, although relating to a separate building (**Structure III**), is wall [306], which was observed at 26m from the start of the trench on the Thompson's Lane/St. John's Road junction. This wall measured 0.53m wide by 0.54m deep and was constructed from roughly coursed hand-made red bricks of varying thickness, which were set with a hard 'off-white' mortar. No foundation or footing was visible, although the wall was seen to abut a series of layers representing a make-up deposit ([310]), an internal brick floor ([309]) and an accumulated coal dust layer ([308]); interestingly, both the wall and make-up deposit appeared to sit within general levelling cut [328] with which **Structure IV** was also associated. Make-up deposit [310] consisted of a highly mixed deposit of clay and broken brick and tile fragments. It measured 0.1m thick at its deepest point and was overlain by badly damaged brick floor [309]. This floor was originally constructed from a single course of pale yellow bricks, although unfortunately no examples of whole bricks survived. That the floor was heavily used, and had undergone some repair, is suggested by the inclusion of additional broken brick and tile fragments pressed into its surface. Overlying the floor surface was deposit [308], which consisted of fragments of coal and compacted coal dust up to 0.17m thick running up to wall [306] to the southwest. This accumulation of coal dust suggests a prolonged use of **Structure III** as a coal cellar. The layer was subsequently truncated by a modern service cut that removed all archaeology down to a depth of 0.9m+ below the modern ground surface, and partially truncated underlying layer [301].

At 38m along the trench an additional series of walls and an associated floor probably represent the corresponding northeastern limit of **Structure III**, although truncation by later cut feature [333] had removed any definite relationship with [306]. The sequence in this location appears to have begun with the construction of wall [318] which, as with [329], was constructed utilising the truncated remnant of an earlier wall as its foundation. [318] measured 0.4m wide by 0.92m+ deep, and survived to a height of nine courses. It was constructed from unfrogged light yellow bricks, measuring 230mm by 110mm by 80mm on average, and was set with a pale creamish yellow mortar. The relationship of [318] to adjacent wall [320] was difficult to discern in section, although it does appear that the latter represents a later addition to, or re-modelling of, the cellar; certainly, the brick type used in [320] differed from that utilised within [318]. [320] measured 0.6m wide by 0.92m+ deep and contained of pink and yellow

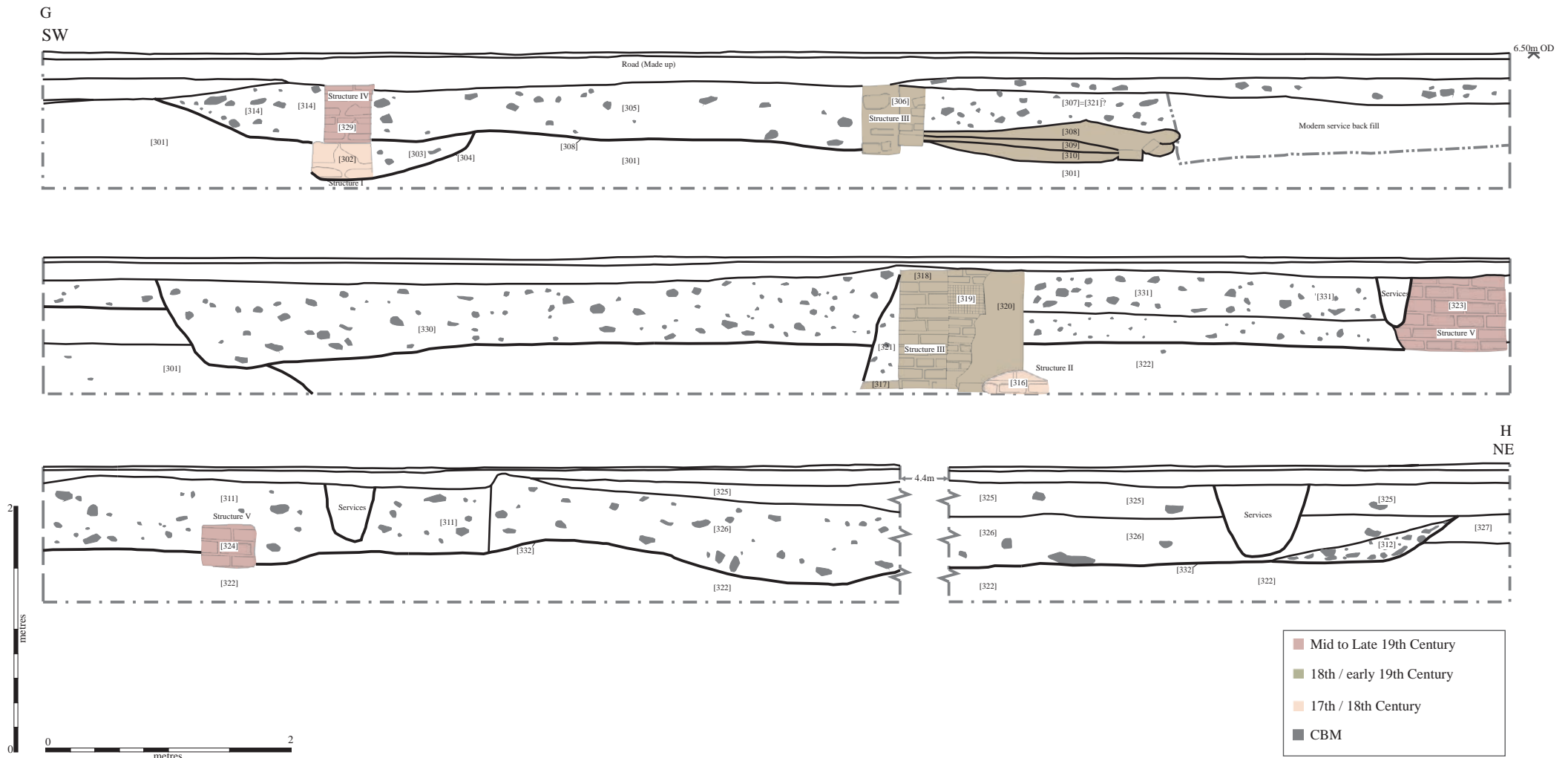


Figure 12. Section of structures along St. John's Road (see Figure 9 for location).

bricks that measured 220mm by 110mm by 65mm on average. The bricks were set with a similar pale creamish yellow mortar to [318] and contained traces of a possible light grey rendered surface on their external northeast face. An 'alcove' type void within the original build of [320] measured 0.3m wide by 0.26m deep and contained an extremely dense deposit of fine soot, charcoal and coal dust ([319]). This unusual feature is perhaps best interpreted as the remains of a coal shoot into the cellar, and its presence may help to explain the modifications to **Structure III** suggested by the addition of wall [320]. The final element of the structure in this location comprises floor [317]. This was heavily truncated by later disturbance, and was seen in section to extend over an area approximately 1.1m+ by 1.0m+ in extent by 80mm thick. It consisted of a single course of whole unfrogged yellow bricks, which measured 220mm by 110mm by 65mm on average. The floor here was therefore significantly deeper than probably contemporary remnant [309]; however, the re-modelling of the structure noted above in association with the insertion of wall [320] may also have included the modification or 'stepping' of the floor surface in this area.

It appears that the cellar space within **Structure III** was backfilled at some time during the 19th century; fills [307] and [321] represent the deliberate backfilling of the cellar with mixed deposits of clay and silty clay containing frequent inclusions of broken brick and tile. This backfilled material was later partially removed by cut [333], which also truncated much of the cellar floor and was itself backfilled with red brick rubble. [333] probably represents the demolition of the above-ground element of **Structure III** and the use of the resultant demolition debris to create a firm level surface prior to the construction of St. John's Road in the early 20th century. Outside **Structure III**, layers appear to have accumulated from the partial demolition of earlier wall [316], although it was not possible to firmly establish the relationship between the sequence of walls and external layers in section given the prevailing watching brief conditions. For this reason, also, the possibility of a cut within which the early walls were constructed cannot fully be ruled out. However, the weight of evidence would seem to suggest that the accumulation of re-deposited alluvial clay [322] during the early 18th century represented a further attempt at raising the general ground level. This layer measured 0.4m+ deep and was composed a light to mid grey clay similar to broadly contemporary deposits [301] and [300] to the southwest. The upper surface of this material is likely to have been the height of the contemporary ground surface at the time of the structural modifications made within cut [328]. Overlying these make-up deposits was a banded deposit of demolition debris and possible make-up layers ([331]) that measured 0.6m+ deep. The upper portion of the sequence in this area was heavily truncated by modern services, and may perhaps include material incorporated from later phases of demolition although the lower band consists of finer rubble and crushed mortar consistent with the demolition of preceding wall [316].

The construction materials used date the latest phase of structural remains encountered within the trench to the 19th century. This final phase is represented in part by wall [323], which formed part of **Structure V** and was located 42m along the length of the trench. The wall was constructed from red and yellow unfrogged bricks, measuring 220mm by 110mm by 80mm on average, which were set with a light brown sandy mortar. It measured 0.9m+ wide by 0.6m+ deep and survived to a height of six courses. A second heavily truncated and possibly contemporary base of a wall, [324], was located at 44m along the trench. This measured 0.44m wide by 0.34m+ deep and was composed of yellow unfrogged bricks set with sandy yellowish brown mortar; it was seen to run at right angles to the line of the trench on a northwest to southeast alignment. A possible northeast to southwest aligned robber cut also ran from wall [324] and may have represented the removal of an internal partition within **Structure V**. Several broken portions of mortared brickwork survived in the base of the robber cut, which was visible continuing for over 4m before being entirely truncated by later cut [332]. At between 3m and 5m along the length of the cable trench a heavily truncated 19th century drain, [313], was also encountered. The two surviving courses of yellow bricks, measuring 240mm by 120mm by 80mm on average, sat on a bedding layer of sandy yellow mortar and were cut by modern services on all sides.

Historic map evidence suggests that the 19th century structures along the line of the later St. John's Road may have remained standing until the very end of the 19th century. They were finally removed by cut [332], which extended from wall [323] for a distance of 16.5m to the northeast. This cut is likely to represent the final clearance of **Structure V** prior to the establishment of the new road. Although a laneway had existed in this general location since at least the 16th century, providing access to pastures beyond the most northerly branch of the King's Ditch (Bryan 1999, 97; see also Figure 9), the marked expansion of the settled area of the town during the 19th century appears to have resulted in the clearance of the area and the creation of St. John's Road. An opportunistic dump of rubbish ([312])

within the base of levelling cut [322] contained identifiably 19th century brick, tile and other material and was overlain by fill [311] = [326]. This latter consisted of a mixed and mottled layer 0.66m deep composed of mid grey clay with frequent inclusions of brick, tile and crushed mortar. Contemporary concerns over the compaction and stability of this deposit are suggested by the later addition of a layer of thick mortar, [325], which sat within the top of [332] and measured up to 0.24m thick. This deposit was seen to continue beyond 60m from the start of the trench on the Thompson's Lane/St. John's Road junction, at which point no further structural elements survived and archaeological monitoring ceased. Modern road make-up deposits measuring between 0.05m and 0.18m deep ran along the entire length of St. John's Road and were sealed by modern tarmac.

Finds and environmental reports

Only a very small amount of material was recovered from Zone 7 (53 items, weighing 14.31kg). Therefore, considering the very limited quantities of material available for study, an intensive analysis is not warranted and a summary of the material is therefore presented with elements of specific interest highlighted.

Pottery assessment (*with Craig Cessford and David Hall*)

The total amount of pottery recovered during work carried out in Zone 7 comprised 22 sherds weighing 528g, which date from the Saxo-Norman period to the 19th century. Considering the limited quantity of pottery recovered, an intensive analysis is not warranted. A summary of the material is therefore presented, broken down by broad chronological period and with elements of specific interest highlighted.

Saxo-Norman

A total of five sherds of pottery, weighing 99g, were recovered from two 10th to 12th centuries contexts, both of which appear to represent alluvial inundations. [1004] contained a single sherd of Stamford ware (4g), while [1005] contained one sherd of Thetford type (13g) and three sherds of St Neots type ware (82g).

16th century

A total of three sherds dating to the 16th century were recovered from two contexts; these weighed 115g. [1010] is the fill of a large cut and contained two sherds of a Glazed Red Earthenware basting dish (115g), while [1030] is a layer of dumped material lying beneath 19th century wall. [1030] contained a single sherd of late Surrey ware (3g) that may represent residual material.

17th and 18th century

A total of 13 sherds dating to the 17th or 18th century were recovered from two contexts; these weighed 347g. [300] represents a redeposited layer of clay and contained five sherds of Glazed Red Earthenware (248g) while [301] represents a similar underlying deposit also containing five sherds of Glazed Red Earthenware (81g) and two of Red Coarseware (11g). In addition, the deposit produced a sherd of Iron Glazed earthenware (7g). It is likely that these deposits represent levelling and consolidating layers set down prior to the construction of buildings and the change in use of the area during the late 17th and 18th centuries.

19th century

A single sherd dating to the 19th century was recovered from context [1017]; this weighed 7g. This context comprised the backfill of a foundation cut for a wall running within the 24 Thompson's Lane compound. The pottery was a single sherd of hand painted porcelain (7g) of mid 19th century date.

Summary

The pottery assemblage recovered from Zone 7 provides evidence for the earliest activity identified within the 33kv reinforcement cable route. This is attested by the presence of all three of the main Saxo-Norman pottery types found in Cambridgeshire; namely Stamford, Thetford type and St Neots type wares. There was an obvious lack of material from the 13th century up to the 16th centuries and this poses some interesting questions regarding the history of the site (*cf.* Newman 2008a). The ground raising and landscaping deposits in this area of the 33kv reinforcement cable route appear to date from the 14th to the 16th centuries, and were later sealed beneath a long-lived building sequence; this contrasts markedly with the sequence the open ground of the Common further to the east.

Brick and Tile (*by Ben Davenport*)

A total of 13 brick samples, weighing 12414g, and 15 tile samples, weighing 1131g, were taken from five different contexts; [300], [301], [303], [1010] and [1013]. Considering the limited quantities recovered, it has been decided that an intensive analysis is not warranted. A brief description – and, where known, the date of the brick and tile samples – appears in the text.

Animal Bone (*by Ben Davenport*)

Two pieces of disarticulated animal bone, weighing 52g, were recovered from context <003> [1005]. The assemblage was very small and but showed quite good overall preservation. It was deemed unnecessary to retain the bones for further analysis.

Environmental remains assessment (*by Anne de Vareilles*)

Methodology

One sample from Zone 7 (Sample 5) was analysed for this assessment report. 300ml of Sample 5 was processed indoors and kept wet for the recovery of waterlogged remains; the flot was collected in a 300µm aperture mesh and the remaining heavy residue washed over a 1mm mesh, but not sorted. Sorting and identification of the macro remains was carried out under a low powered binocular microscope. Identifications were made using the reference collection of the G. Pitt-Rivers Laboratory, University of Cambridge. Nomenclature follows Stace (1997) for flora and Beedham (1972) for molluscs. All environmental remains are listed in Table 7.1.

Preservation

Charred plant macro-remains were present; waterlogged material was found in Sample 5. The analysis revealed a rich assemblage of molluscs deposited before the River Cam was canalised.

Results and Discussion

Waterlogged wild plant seeds: all wild plant seeds were waterlogged. The range of species was diverse, attesting to a well established floodplain environment. These included rushes and wild grasses grassland taxa such as celery-leaved buttercup (*Ranunculus sceleratus*), and mint (*Mentha sp.*), and some aquatics such as water-plantain (*Alisma plantago-aquatica*). The area had a nitrogen-rich soil and was certainly not left intact, suggesting nearby human and/or animal occupation (e.g. cattle grazing). The seeds from Sample 5 are from a similar environment to that seen in Zone 6. The concentration of seeds was quite low and may attest to worsening preservation conditions. Nevertheless, the picture of a damp floodplain with nutrient enriched and disturbed soils is true for both Zone 6 and Zone 7.

Molluscs: the mollusc assemblage was quite similar to samples from Zone 6 and agrees with a wet floodplain. Further samples taken specifically for molluscs would allow for detailed environmental and riverine information to be drawn.

Conclusion

Very few charred plant remains were found, and their association to human habitation and food processing would have to be explored through lateral sampling. The environment around Zone 7 was that of a wet floodplain used or frequented by humans and/or groups of animals. It appears that the soil around Zone 7 has been getting increasingly dryer, with only the deeper deposits retaining any plant material from past environments. The potential for an informative molluscan analysis is good.

Sample number	5 = 100	5 = 100
Context	1039=1009	1039=1009
Sample volume - litres	12	0.3*
Flot fraction examined - %	100	100
Charcoal		
>4mm		
2-4mm	+	-
<2mm	++	+
Fresh water Mollusca		
<i>Bithynia tentaculata</i> (operculum)	b (a)	-
<i>Valvata piscinalis</i>	+	-
<i>Lymnaea stagnalis</i>	+	
<i>Lymnaea truncatula</i>	+	
<i>Planorbis planorbis</i>	a	-
<i>Planorbis carinatus</i>	++	
<i>Anisus leucostama</i>	a	+
<i>Gyraulus albus</i>	b (a)	-
<i>Bathymphalus contortus</i>	+	
<i>Acroloxus lacustris</i>	++	-
Bivalvia: <i>Pisidium</i> sp.	++	-
Catholic species		
<i>Trichia</i> sp.	+	

Table 7.1: Charred plant macro-remains and mollusca from the bulk soil samples.

(Key: '-' 1 or 2, '+' <10, '++' 10-25, 'a' 25-50, 'b' 50-100, 'c' 100-500, 'd' >500 items. * = the bulk of Sample 5 was floated and dried, but a sub-sample of 300ml was processed for waterlogged plant remains).

Sample number		5
Context		1039=1009
Sample volume - Litres		0.3
Flot fraction examined - %		100
<i>Ranunculus acris/repens/bulbosus</i>	Meadow / Creeping / Bulbous Buttercup	-
<i>R. sceleratus</i>	Celery-leaved Buttercup	b
<i>R. Subgen, BATRACHIUM</i>	Crowfoot	b
<i>Urtica dioica</i>	Common Nettle	++
<i>Urtica urens</i>	Small Nettle	-
<i>Chenopodium murale</i>	Nettle-leaved Goosefoot	
<i>Chenopodium sp.</i>	Goosefoots	+
<i>Atriplex patula/prostrata</i>	Oraches	
<i>Stellaria media</i>	Common Chickweed	-
<i>Persicaria maculosa</i>	Redshank	
<i>Persicaria hydropiper</i>	Water-pepper	-
<i>Polygonum aviculare</i>	Knotgrass	-
<i>R. conglomeratus/obtusifolius/sanguineus</i>	Dock	-
<i>Rumex sp.</i>	Dock	-
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	-
<i>Rubus sp.</i>	Bramble	-
<i>Potentilla sp.</i>	Cinquefoils	
<i>Prunus sp.</i>	Cherries stone fragments	
<i>Conium maculatum</i>	Hemlock	-
<i>Apium nodiflorum</i>	Fool's Water-cress	
cf. <i>Pastinaca sp.</i>	Possible parsnip	
Indet. Apiaceae Type 1	Carrot family seeds	-
Indet. Apiaceae Type 2	Carrot family seeds	+
<i>Hyoscyamus niger</i>	Henbane	-
<i>Solanum sp.</i>	Bittersweets	-
<i>Lamium sp.</i>	Dead-Nettle	-
<i>Ajuga reptans</i>	Bugle	
<i>Lycopus europaeus</i>	Gipsywort	
<i>Mentha sp.</i>	Mint	+
<i>Salvia sp.</i>	Claries	
<i>Sambucus nigra</i>	Elder	
<i>Carduus/Cirsium</i>	Thistles	
<i>Sonchus asper</i>	Prickly Sow-thistle	
Indeterminate Asteraceae	Daisy family seed	
<i>Sagittaria cf. sagittifolia</i>	Arrowhead	-
<i>Alisma plantago-aquatica</i>	Water-plantain	+
<i>Potamogeton sp. large</i>	Pondweeds	
<i>Lemna sp.</i>	Duckweeds	
<i>Juncus sp.</i>	Rushes	+
<i>Eleocharis sp.</i>	Spike Rushes	
<i>Cladium mariscus</i>	Great Fen Sedge	
trilete <i>Carex sp. type1</i>	trilete Sedge seed	
trilete <i>Carex sp. type2</i>	trilete Sedge seed	
lenticular <i>Carex sp. Type 1</i>	flat Sedge seed	
small Poaceae	small wild grass	+
Indeterminate wild plant seeds		2

Table 7.2: Waterlogged wild plant seeds from the bulk soil samples. (Key: '-' 1 or 2, '+' <10, '++' 10-25, 'a' 25-50, 'b' 50-100, 'c' 100-500, 'd' >500 items).

Discussion

The earliest evidence of activity in Zone 7 was recovered from within the compound area at 24 Thompson's Lane. Overlying sterile alluvial layer [1006] was deposit [1005], which directly equates to layer [1024] etc. that was encountered during the 2007 excavation (Newman 2008a, 3-10). Saxo-Norman (10th to 12th century) pottery was recovered at a height concomitant with the earliest stages of this layer's formation, and this material appears to be well stratified given the 13th century material that was also recovered from its uppermost horizon. It is therefore between the 10th to 13th centuries, during the period in which deposit [1005] was created, that

the earliest evidence of nearby occupation may be discerned. The pollen signature revealed by analysis of a monolith sample taken from this material in 2007 indicates that the area was being gradually cleared and maintained at this time (Boreham in Newman 2008a). Indeed, probably by around the middle of the 12th century, it appears that there were gardens in the near vicinity as the pollen of cultivated shrubs such as holly, juniper and box are then present within the sample. This evidence suggests that at this time the site at 24 Thompson's Lane was located on the outskirts of, but was probably not a part of, the occupied city.

Additional support for this view is to be found in the presence of peat filled channel [1039]. This feature appears on stratigraphic grounds to have been created during the 12th or 13th centuries and was located towards the western, or riverward, end of the compound (see Figure 9). However, as it was only seen in section no dating evidence was recovered and it is not entirely clear whether it represents a tank of some sort, a drainage ditch or (perhaps most likely) a potential 'barge pull' for shallow-draughted vessels. Interestingly, a number of similar features have also been identified on other sites in the near vicinity. One example, which was around 4.5m wide and 0.5m deep, was encountered during excavations at St. John's College (Dickens 1996, 18) whilst another was seen during the adjacent 1982 excavation (Firman & Pullinger 1987). Described as a "deep trench" (*ibid*, 85) this channel was at least 1.5m+ wide, although it appeared to extend well beyond the limit of the excavated area, and was also aligned at right angles to the river (to which it appears to have been connected). Unfortunately it was not bottomed, and few of its early fills could be investigated as it had been extensively recut at a later date. The only dating evidence recovered comprised three sherds of pottery from the uppermost fill of its final phase, the latest of which was Late Medieval/Early Post-Medieval in form. Therefore, whilst it may have been contemporary with the potential channel at 24 Thompson's Lane and had simply been recut and remained in use for longer, on the present evidence this example could as easily have post-dated it by a margin of some two or more centuries. Similar features identified at other sites in the region, including Broad Street, Ely (Cessford *et al* 2006) and Ramsey, Cambridgeshire (Spoerry *et al* forthcoming), have been interpreted as 'landing bays' intended for the loading and unloading of rivercraft, and this appears to be a reasonable interpretation of the Thompson's Lane example.

A new phase of activity began at the site following the deposition of made ground layer [1009] (and its later equivalent [1010]), which sealed probable channel [1039]; these deposits directly equate to banded ground raising material [1019] etc. that was encountered during the 2007 excavation (Newman 2008a, 14-16). Along with residual Saxo-Norman material, the basal horizon of [1019] etc. produced a number of sherds of Ely ware and it is this fabric which provides the most reliable indicator of the date of its initial formation. Ely ware is known to have been manufactured in the eponymous city from at least the 12th century onwards (Hall 2001), but only appears to have begun to reach Cambridge by around the 14th century (Spoerry 2008). The made-ground at 24 Thompson's Lane therefore probably began to be created at some time between the late 13th and the late 14th centuries. The deliberate introduction of material that accompanied the formation of this deposit clearly distinguishes it from the preceding alluvial layers, and marks a significant increase in the degree of anthropogenic activity being undertaken at the site. It is also notable that a similar,

although much shallower, deposit of broadly similar date was observed during the adjacent 1982 excavation (Firman & Pullinger 1987, 85).

In fact, a number of new and more intensive activities were now being undertaken on the site; of key importance is laneway **F.1010** of probable 14th or 15th century date that was observed at the eastern end of the compound (see Figure 9). This was at least 2m wide, as it extended beyond the width of the cable trench, although as it was not found to be present in either of the trenches excavated in 2007 its maximum width must have been less than 6m in total (see Newman 2008a, 16). It also appears to have been quite heavily used for at least part of it was later resurfaced by **F.1011**, a deposit of large flat-laid broken tile fragments (though these may alternatively represent the initially rather patchy construction of the feature). Subsequently, at some point during the late 15th or early 16th century, the laneway was sealed beneath alluvial layer **[1004]** that appears to represent a temporary flooding/inundation event. Following this episode, irregularly step-sided pit **F.1004**, which was at least 7.5m long, was dug at the eastern end of the compound; the backfill of this feature was identical to the surrounding made-ground deposit. Since **F.1004** does not appear to have contained sufficient refuse material for it to have comprised a deliberate rubbish pit, it may perhaps represent the extraction of alluvial material in order to strengthen or repair the flood defences closer to the river in order to prevent further inundation. Ground raising activity then continued into the 16th century in the form of deposit **[1010]**.

Historical sources reveal that a successful mercantile district was situated immediately to the south of Zone 7 from the 12th century onwards (Bryan 1999, 32-3), and the gradual expansion of this district may provide the context for the marked increase in activity in the compound area around two centuries later. For example, it is known that during the mid 15th century a local merchant named Roger Harleston acquired a parcel of land in either the 24 Thompson's Lane property or an adjoining tenement "where a mill is with an adjoining garden" (Faber 2006, 141). Although it is impossible to link this reference with certainty to the present site (Rosemary Horrox *pers comm*), such a usage would be highly compatible with the nature of the archaeological sequence encountered. For the presence of the laneway indicates that a frequent and potentially quite heavy flow of traffic was entering the site, whilst the absence of cut features and domestic waste suggests that these visitors were most likely to have been involved in commercial as opposed to domestic activity. In addition, should a mill building (or indeed any similar such structure) have been present at this time, it would almost certainly have been constructed immediately adjacent to the river in order to capitalise on this freely available power source and would therefore have been situated well outside the area of the current investigation.

The date at which the reclamation and increased usage of the site began, at some point between the late 13th and late 14th centuries, indicates that it may be associated with a probable shift in the alignment of the adjacent King's Ditch that also appears to have been undertaken at around this time. This feature, which comprised the Medieval boundary of the town, is known to have been sub-divided in this area into three segments (thus implying a degree of chronological evolution). These segments have been termed the 'inner', 'middle' and 'outer' spurs (see Figure 13). The inner spur most probably followed an irregular alignment immediately to the south of the 24 Thompson's Lane property, whilst the middle spur appears to have become



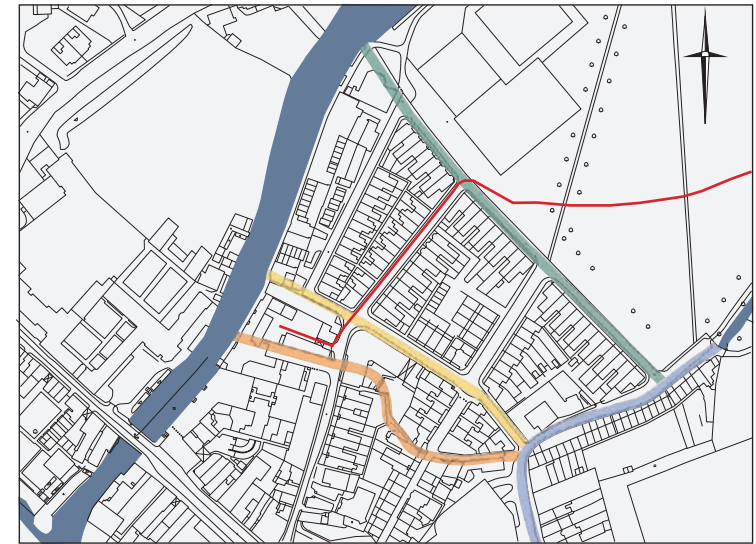
Hammond 1592



Logan 1688



Custance 1798



The various ditch phases as they relate to the modern OS

- Cable route
- 'Jesus' ditch
- King's ditch (middle)
- King's ditch (inner)
- King's ditch (outer)

Based on the Ordnance Survey 1:2500 map
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Figure 13. The route of the King's Ditch as shown in the historic map sequence.

‘fossilised’ by the route of present day New Park Street; much the same process of fossilisation also seems to have occurred in the case of the outer spur, which is broadly represented by the line present day Park Parade. Unfortunately, due to the limited depth of the cable trenching, no physical trace of any of the three spurs was encountered during this project.

It is notable, however, that all three segments were referred to at various times as comprising elements of the King’s Ditch (Faber 2006, 33), indicating that this term came to be used somewhat flexibly to define what was then perceived as the current city boundary. These variations have contributed to a significant degree of confusion within the surviving historical sources, with the result that the development of this feature cannot be traced with absolute certainty. Despite this obstacle, however, a general model may be presented. It seems likely that the inner spur was the earliest (being created in the 12th century or earlier), and that it was subsequently replaced by the middle spur in the late 13th or early 14th century until the inner alignment was again re-established, between 1607 and 1609, under the aegis of the St. John’s College (*cf.* Newman 2008a, 19-22). The outer spur appears to have remained in consistent use as a field boundary throughout this period. Therefore, the compound area can be seen to have lain at first outside the city boundary, before later becoming incorporated within its bounds and then later still being situated outside them once again. However, the extent to which the King’s Ditch comprised an accurate, or indeed even widely recognised, boundary to the city by the time of its final repositioning in the early 17th century is open to question.

Evidence recovered during the 2007 excavation revealed that, by around the middle of the 16th century, the creation of made-ground represented by [1009]/[1010] had ceased and at least one new structure had been erected on the site. A substantial rubble-filled foundation of 16th century date was encountered (Newman 2008a, 17-20), which contained a quantity of Late Medieval building materials (thus implying the demolition of an earlier building, or buildings, in the near vicinity prior to its construction). Usefully, it is during this phase of activity that cartographic information first becomes available as a viable resource, scaled plans of Cambridge only having been compiled from the late 16th century onwards (*cf.* Baggs & Bryan 2002). The earliest extant plan to depict the zone in sufficient, as well as reliable, detail is that of Hammond in 1592 and his map clearly shows a number of buildings to have been present along the southern perimeter of the 24 Thompson’s Lane compound, with an apparent quadrangle located at the eastern end of the property that extended further to the north than any of the other structures. It appears likely that the 16th century foundation encountered in 2007 was associated with this quadrangle, and that these buildings relate to the expansion of the successful mercantile district situated further to the south; the buildings closest to the river at least may well have functioned as warehouses or other commercial properties at this time. It is also known that present day Thompson’s Lane was commonly referred to as Harleston Lane during this period (Reaney 1943).

The next plan to give an accurate depiction of the site was that compiled by Loggan in 1688, which presents a very different picture to that shown by Hammond almost a century earlier. By this date a series of large buildings had been constructed that extended across the whole width of the compound area and bore little or no relation to the layout of their predecessors; the route of earlier laneway **F.1010**, which was

conspicuously absent in Hammond's 1592 depiction, had also clearly been re-established. These structures, which are virtually indistinguishable on Custance's map of 1798 from those shown in 1688, are listed in a will of 1788 as consisting of "granaries, maltings, etc" (Faber 2006, 143-4; see also below). They therefore appear to have been largely commercial in origin, and indicate the continuing expansion of the southern mercantile district at this time. It is also notable that the area to the north of the site, which contained only fishponds in 1592, had now also been at least partially developed and had a number of buildings constructed upon it (see Figure 9); it appears highly likely that **Structures I** and **II** along St John's Road were directly associated with this initial phase of expansion, although their precise function remains unclear. The beginning of the process of redevelopment in this area can be linked with some certainty to the movement of the King's Ditch in 1607-9, when all of the land concerned was united under the ownership of St. John's College. It seems likely that a degree of 'property speculation' was being undertaken, with the College able to charge much higher rents for commercial tenants (since a large corpus of documents from this period is known to survive in St. John's College, this might provide a fruitful avenue for future research).

A potential example of one of the new structures that were constructed within the compound area in the early 17th century was identified during the present project in the form of **F.1000**. Despite the absence of associated datable finds, the presence of significant quantities of reused architectural fragments within this building's foundation (many of which appear highly likely to have been of ecclesiastical origin – see Figure 11) strongly indicates that it is post-Dissolution in date. However, it is also possible that many of these materials had simply been reincorporated into a slightly later structure. It is certainly clear that the Thompson's Lane property was being developed on an almost continual basis during the Post-Medieval period, with additional construction probably being prompted by the twin stimuli of business expansion and technological progress. Although little is known of the precise layout of the premises at this time, beyond what is depicted on the historic maps, a good deal of other historical information about the area has survived in documentary form.

For example, the will of the merchant William Tassel – which was proved on the 23rd of August 1788 – requested the sale of his "granaries, maltings etc." at 24 Thompson's Lane (Faber 2006, 142-3); these buildings can therefore be linked with some certainty to the structures shown on Loggan and Custance's maps. Within a few months of this date much of the estate had been purchased by one Thomas Clarke, a river merchant, for £680 (or around £125,000 in modern terms) with the remainder of the property being leased to Messers Whittred and Haggerston, Common Brewers (*ibid*, 143-4). In 1796 John Haggerston purchased the entire property for almost double what Clarke had paid eight years before, and a detailed account of the items he acquired has survived. This included "all that freehold... malting or merchant's yard... chambers, granaries, stables and other buildings" then in the ownership of Clarke. The 'other building's' apparently included "that freehold Messuage or Tenement called or known by the sign of the Ship [a tavern?], now in the tenure of John Haggerston and in the occupation of James Swallow his undertenant". This structure may or may not have been situated in the 24 Thompson's Lane property itself, since the lease of a coalyard on an adjacent property was also included in the sale.

It is clear that the Whittred and Haggerston brewery quickly extended into these newly acquired premises; a document of the early 18th century records the presence of a 'Brewhouse' at the east end of Harleston Lane, where "bones were found in 1797 on digging there, about the brewhouse well" (*ibid*, 145). There is no specific reference to human remains being revealed at this time and it seems much more likely that these bones relate instead to a domestic refuse deposit, probably one very similar to those encountered in the 1982 Thompson's Lane excavation (Firman & Pullinger 1987, 85-9). The well itself may perhaps equate to **F.1006**, which was encountered during trenching at the eastern end of the compound, although unfortunately this cannot be directly proved on the present evidence. The brewery subsequently passed into the ownership of William Casburn, under whose name it appeared in an 1830 brewer's directory, and then to Francis Eaden, under whose name it appeared in directories of 1839 and 1847. The brewery was eventually acquired by one William Potts around the middle of the century, and it appears to have been at this time that it first became known as the 'Anchor Brewery' (Faber 2006, 145). It is likely that buildings **F.1003** and **F.1008** represent additions made to the brewery premises during these decades of expansion and development in the first half of the 19th century. Potts finally auctioned off the premises in 1896, when the maltings building was bought by the Great Northern Railway Co. and transformed into a bonded warehouse. The majority of the remaining structures were purchased by the Star Brewery, which continued production on the site (without a maltings) until 1902 (*ibid*). The property was then put up for auction for a second time, bringing to an end its long brewing history.

It is only really within the past century that the form of the zone has significantly differed from that depicted by Loggan in 1688. Following the final sale of the brewery complex in 1902, that part of the compound which was soon to be occupied by the first electricity substation had been purchased at auction by the Cambridge Electricity Supply Ltd. in 1906 (Faber 2006, 147), and the initial stages of the seemingly oft-replaced associated cabling presumably date from this period. An industrial glassworks was also established in the former maltings building during the early 20th century (this space is now occupied by The Glassworks fitness studio), whilst many of the original warehouses and brewery buildings were clearly either demolished or replaced in the latter half of that century. In addition, the expansion of domestic housing around the suburban fringe of Cambridge in the early 20th century led to the demolition of **Structures III** to **V** and the construction of St John's Road (*cf.* Bryan 1999, 32-3). These changes resulted in the form of the area which remains visible to this day.

Conclusion

Due to the notable length of the 33kv reinforcement cable route, a rare opportunity has been presented to investigate seven individually distinct and otherwise largely unrelated 'zones' at various points along its course. This has resulted in the present document consisting of a series of essentially separate reports, each dedicated to the specific results derived from a particular zone; the importance of this approach rests in the fact that each of these investigations has been able to remain grounded within its own unique local context. A number of caveats do need to be stressed, however. Observations were perforce limited to the deposits exposed by the contractor during trenching; for this reason, the complete sequence was never revealed and the scope for detailed examination was limited. In addition, health and safety considerations



Zone 1: King's Hedges Road



Zone 2: Green End Road



Zone 3: Water Lane



Zone 5: Abbey Road

Figure 14. The varying nature of the cable trench (zones 1-5).



Zone 6: Midsummer Common



Zone 6: Jesus Green



Zone 7: Thompson's Lane



Zone 7: 24 Thompson's Lane Compound

Figure 15. The varying nature of the cable trench (zones 6 and 7).

meant that access to the trenches themselves was sometimes restricted (see Figures 14 and 15). In such cases, observations had to be made from a distance and without recourse to cleaning. Yet, despite these limitations, a number of important results were recovered during the archaeological monitoring.

Although essentially a negative result, the marked absence of archaeological deposits in Zones 1, 2, 3 and 5 will potentially be of use when consideration is given to future works in these areas. (It must be noted, however, that the investigations in these zones were restricted to trenches situated within modern roadways, locations which are inherently likely to have been subject to high degrees of truncation. As these may have acted as long-lived routeways, there is also the additional possibility that activities undertaken in the near vicinity did not extend into the specific areas observed). More positive results were recovered from Zones 4 and 6, where the trenching represented a rare opportunity to examine the archaeological and palaeoenvironmental histories of these areas of extramural common land; the dating evidence recovered from the earliest stages of ground-raising activity in Zone 6 is of particular significance. Finally, Zone 7 represents the area of greatest archaeological potential to be encountered along the cable route. The works undertaken in this zone, whilst remaining restricted in scale, were more intensive than those enacted in any other area. Fortunately, this intensity coincided with the presence of a much greater degree of archaeological activity than was encountered elsewhere. Indeed, the results obtained from monitoring in Zone 7 illuminate the use of this area throughout the Medieval and Post-Medieval periods, and usefully compliment those obtained from the recent excavation (Newman 2008a).

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Oasis Form

OASIS ID: cambridg3-43883	
Project details	
<i>Project name</i>	An archaeological watching brief along the route of the Cambridge 33kv cable reinforcement route
<i>Short description of the project</i>	An archaeological watching brief was undertaken on an intermittent basis between the 6th of November 2004 and the 14th of January 2008 along the route of the 33kv reinforcement cable. As part of this project, approximately 5.12km of trenching was inserted along roads and across common ground on the northern and eastern sides of the City of Cambridge (extending from TL 45310/61375 to TL 44805/59002). Monitoring of this work revealed evidence of a possible 12th century channel, a 14th century laneway and the foundations of 17th century warehouses within the area of the new electricity sub-station at 24 Thompson's Lane, along with the remnants of 17th to 19th century cellars located beneath nearby St John's Road. In addition, evidence of an extensive network of palaeochannels running across the Jesus Green and Midsummer Common area was uncovered; these were succeeded by numerous episodes of consolidation and ground-raising activity, dating from the 17th to 20th centuries, along the southern bank of the River Cam.
<i>Project dates</i>	Start: 06-11-2004 End: 14-01-2008
<i>Previous/future work</i>	Yes / Not known
<i>Any associated project reference codes</i>	834 - Contracting Unit No.
<i>Any associated project reference codes</i>	ECB 2961 - HER event no.
<i>Type of project</i>	Field evaluation
<i>Site status</i>	None
<i>Current Land use</i>	Residential 1 - General Residential
<i>Current Land use</i>	Other 11 - Thoroughfare
<i>Current Land use</i>	Other 14 - Recreational usage
<i>Monument type</i>	CHANNEL/'BOAT-PULL' Medieval
<i>Monument type</i>	BUILDING FOUNDATIONS Post Medieval
<i>Monument type</i>	LANEWAY Medieval
<i>Significant Finds</i>	POTTERY Medieval
<i>Significant Finds</i>	POTTERY Post Medieval
<i>Significant Finds</i>	MOULDED STONE Medieval
<i>Methods & techniques</i>	'Targeted Trenches','Test Pits','Visual Inspection'
<i>Development type</i>	Pipelines/cables (e.g. gas, electric, telephone, TV cable, water, sewage, drainage etc.)
<i>Prompt</i>	Direction from Local Planning Authority - PPG16
<i>Position in the planning process</i>	After full determination (eg. As a condition)

Project location	
<i>Country</i>	England
<i>Site location</i>	CAMBRIDGESHIRE CAMBRIDGE CAMBRIDGE Cambridge 33kv cable reinforcement route
<i>Study area</i>	3072.00 Square metres
<i>Site coordinates</i>	TL 46705 59825 52.2166509275 0.147697625074 52 12 59 N 000 08 51 E Point
<i>Height OD</i>	Min: 2.97m Max: 4.69m
Project creators	
<i>Name of Organisation</i>	Cambridge Archaeological Unit
<i>Project brief originator</i>	Local Authority Archaeologist and/or Planning Authority/advisory body
<i>Project design originator</i>	Alison Dickens
<i>Project director/manager</i>	Alison Dickens
<i>Project supervisor</i>	Ben Davenport
<i>Project supervisor</i>	Ben Davenport
<i>Type of sponsor/funding body</i>	Developer
<i>Name of sponsor/funding body</i>	EDF Energy
Project archives	
<i>Physical Archive recipient</i>	Cambridge Archaeological Unit
<i>Physical Archive ID</i>	TKT07
<i>Physical Contents</i>	'Ceramics','Environmental','Glass','Industrial','Worked stone/lithics'
<i>Digital Archive recipient</i>	Cambridge Archaeological Unit
<i>Digital Archive ID</i>	TKT07
<i>Digital Contents</i>	'Ceramics','Environmental','Glass','Industrial','Survey','Worked stone/lithics'
<i>Digital Media available</i>	'Spreadsheets','Survey','Text'
<i>Paper Archive recipient</i>	Cambridge Archaeological Unit
<i>Paper Archive ID</i>	TKT07
<i>Paper Contents</i>	'Ceramics','Environmental','Glass','Industrial','Worked stone/lithics'
<i>Paper Media available</i>	'Context sheet','Drawing','Matrices','Notebook - Excavation',' Research',' General Notes','Plan','Report','Section','Survey '
Project bibliography	
<i>Publication type</i>	Grey literature (unpublished document/manuscript)

<i>Title</i>	The Cambridge 33kv Reinforcement Cable Route: An Archaeological Watching Brief, 2004-2008
<i>Author(s)/Editor(s)</i>	Davenport, B., Newman, R. and Slater, A.
<i>Other bibliographic details</i>	CAU Report No. 834
<i>Date</i>	2008
<i>Issuer or publisher</i>	Cambridge Archaeological Unit
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<i>Description</i>	An A4 wire bound document, with plastic laminate front. It is 78 pages long, with 14 figures.
<i>URL</i>	http://ads.ahds.ac.uk
<i>Entered by</i>	Richard Newman (rn276@cam.ac.uk)
<i>Entered on</i>	13 June 2008

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