Channel Tunnel Rail Link

London and Continental Railways

Oxford Wessex Archaeology Joint Venture

The Prehistoric, Roman and Medieval Landscape at Tollgate, Gravesham, Kent

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ABSTRACT

The Museum of London Archaeology Service (MoLAS) was commissioned by Union Railways (South) Limited (subsequently London and Continental Railways) to undertake a watching brief and detailed excavation between Wrotham Road and Scalers Hill, south of Gravesend, Gravesham, Kent, south of Gravesend, Kent. This work formed part of an extensive programme of archaeological investigation carried out in response to the construction of the Channel Tunnel Rail Link (CTRL). This report provides an account of the archaeological evidence for past human presence and exploitation of this area of north-west Kent. Evidence for activity within the area occurs in the period *c* 450,000 to present day.

Excavations at Tollgate have revealed Palaeolithic tools redeposited by colluvial processes at the base of a dry valley. The colluvial deposits sealed ancient soils indicative of an arctic environment (c 14,000 - 11,000 years before present).

Distinct spreads of sarsen stones were present to the east of Church Road. These have been considered as potentially the remains of a demolished Neolithic to early Bronze Age megalithic structure, but are more likely to be a natural accumulation, disturbed by medieval and later field clearance. A sub-rectangular cropmark enclosure, identified on aerial photographs to the east of Wrotham Road, is believed to be a Neolithic mortuary enclosure. It was preserved *in situ* beneath landscaping earthworks and not investigated in detail.

Evidence of a settled and cultivated landscape first appears at the end of the Bronze Age. A small scale settlement, established in the Iron Age to the west of Church Road, provides evidence of domesticated and processed crops and livestock, supplemented by foraged foods and game. Iron Age activity around Tollgate persists into the early first century AD, when a possible eastward shift in the focus of settlement and activity to the Henhurst Road area is recorded. Evidence for activity in the Roman period is dispersed along the length of the Tollgate zone, with a particular focus in the Henhurst Road area. A trackway junction including metalled surfaces and recut ditches, was established here *c*AD50 to AD70, apparently falling into disuse shortly thereafter. In the second century the area may lie on the periphery of a small settled area to the south and east of Henhurst Road. The character of Roman activity throughout the zone is agricultural, comprising field boundaries and trackways, with evidence for crop production and processing.

Archaeological evidence fades out by the mid-third century AD and no further features are recorded until the early medieval period, when new field systems and local routeways were established, suggesting renewed intensification in agricultural land-use in the 11th-14th centuries. Isolated pits at this time have produced evidence for wheat production and there is evidence that naturally occurring sarsen boulders were removed and broken up, presumably to improve fields for arable cultivation. Routeways and divisions of the agricultural landscape thereafter appear to remain stable, with little evidence for change to the modern period. Post-

medieval chalk quarries are present across the Tollgate area. A brick kiln recorded near Cobham Service Station dates to the late 17th- to late-18th centuries and is likely to have provided brick and tile to the expanding communities of Gravesend, Singlewell and Cobham.

RÉSUMÉ

Le Museum of London Archaeology Service (MoLAS) fut chargé par Union Railways (South) Limited (une filiale de London and Continental Railways) d'entreprendre des fouilles ainsi qu'une surveillance archéologique entre Wrotham Road et Scarlers Hill, dans le Kent. Ce rapport fournit un compte rendu des évidences archéologiques de la présence humaine passée et de l'exploitation du territoire du nord-ouest du Kent sur la ligne ferroviaire du Tunnel sous la Manche (CTRL) au sud de Gravesend, près de Gravesham (entre coordonnées géographiques OS NGR 564000 171000 et 567100 170000). Les preuves d'occupation de ce territoire couvrent les périodes d'environ 450000 jusqu'au présent.

Les fouilles de Tollgate ont révélé des outils paléolithiques redéposés par des colluvions à la base de la vallée sèche. Les dépôts de colluvions ont scellé des sols anciens indicatifs d'un environnement arctique (environs 14000 - 11000 ans avant le présent).

Des étendues distinctes de pierres de Sarsen étaient présentes à l'est de Church Road. Ces dernières ont été considérées comme représentant peut-être les vestiges d'une structure mégalithique démolie datée du néolithique au début de l'âge du Bronze. En fait, elles représentent probablement une accumulation d'origine naturelle, perturbée par des dégagements de terrain à l'époque médiévale ou plus tardivement. Les indices phytographiques d'une enceinte pseudo-rectangulaire, identifiés par des photographies aériennes prises à l'est de Wrotham Road, sont crus représenter une enceinte mortuaire du néolithique. Celle-ci a été préservée *in situ* dessous des ouvrages de terre paysagers et n'a pas fait l'objet de recherches détaillées.

Les traces d'un paysage occupé et cultivé apparaissent d'abord à la fin de l'âge du Bronze. Un site d'occupation de petite échelle, établi au cours de l'âge du fer à l'ouest de Church Road, fournit des preuves de traitement des récoltes et de domestication du bétail, accompagnés d'un apport de foins alimentaires et de gibiers. L'activité de l'âge du Fer aux alentours de Tollgate persiste jusqu'au Ier siècle de notre ère, à partir de quand un déplacement possible du foyer d'occupation vers l'est et d'activités vers la zone de Henhurst Road ont été enregistrés. Les traces d'activités de la période romaine sont dispersées le long de la zone de Tollgate, avec une concentration particulière aux alentours de Henhurst Road. Une croisée de chemins, qui comprenaient des surfaces pavées et des recoupements de fossés, fut établie ici vers l'an 50 ou 70 de notre ère, et tomba apparemment en désuétude peu de temps après. Au IIème siècle, cette zone se trouve peut-être à la périphérie d'un territoire occupé au sud et à l'est d'Henhurst Road. Le caractère de l'activité romaine dans cette zone est agricole et comprenait

des limites de champs et des chemins, mais également des traces de production et de traitement des récoltes.

Les preuves archéologiques semblent décroître à partir du milieu du IIIème siècle et aucune structure ne fut enregistrée à partir de cette période jusqu'au début de l'époque médiévale, ou de nouveaux systèmes agraires et des routes locales furent établis, suggérant ainsi une intensification nouvelle des activités agricoles et de l'utilisation du terrain du XIème au XIVème siècles. Des fosses isolées de cette période ont produit des évidences de production de blé et des traces furent retrouvées qui prouvent que des roches de sarsen d'origine naturelle furent prélevées et broyées, vraisemblablement pour améliorer les champs pour les cultures arables. Les chemins et les divisions du paysage agricole semblent demeurer inchangés par la suite, avec peu d'évidences de changement au cours de la période contemporaine. Des carrières de craie d'époque moderne sont présentes sur l'ensemble du territoire de Tollgate. Un four à briques, enregistré près de la station service de Cobham, fut daté de la fin du XVIIème à la fin du XVIIIème siècle et a vraisemblablement fournit des tuiles et des briques aux communautés en expansion de Gravesend, Singlewell et Cobham.

ZUSAMMENFASSUNG

Der Museum of London Archaeology Service (MoLAS) wurde von Union Railways (South) Limited (einer Tochtergesellschaft von London and Continental Railways) mit einer Untersuchung und Baustellenbeobachtung im Gebiet zwischen Wrotham Road und Scalers Hill in Kent beauftragt. Der vorliegende Bericht beschreibt die archäologischen Befunde über die einstige menschliche Präsenz und die Nutzung der Region entlang der zum Channel Tunnel Rail Link (CTRL) zählenden Bahnstrecke südlich von Gravesend, Gravesham, in Nordwest-Kent (zwischen OS NGR 564000 171000 und 567100 170000). Menschliche Aktivitäten in diesem Gebiet sind für den Zeitraum von ca. 450.000 v. Chr. bis in die Gegenwart belegt.

Ausgrabungen bei Tollgate förderten paläolithische Werkzeuge zutage, die durch kolluviale Prozesse in einer Trockentalsohle abgelagert wurden. Die Kolluvien überlagerten ältere Bodenschichten, die auf eine arktische Umgebung hindeuten (vor ca. 14.000 bis 11.000 Jahren).

Östlich der Church Road fand sich eine auffällige Verbreitung von Findlingen. Diese wurden als potenzielle Überbleibsel einer zerstörten neolithischen bis frühbronzezeitlichen Megalithanlage gedeutet, sie sind jedoch eher natürlichen Ursprungs, gestört durch mittelalterliche und spätere Urbarmachung. Eine rechteckige, durch Bewuchsunterschiede kenntliche Einhegung, die durch Luftaufnahmen östlich der Wrotham Road identifiziert wurde, wird als neolithisches Totenareal interpretiert. Sie war in situ unter hier angelegten Erdwerken konserviert und wurde keiner detaillierten Untersuchung unterzogen.

Belege für eine Siedlungs- und Kulturlandschaft tauchen zum ersten Mal gegen Ende der Bronzezeit auf. Eine kleine, in der Eisenzeit westlich der Church Road angelegte Siedlung lieferte Hinweise auf eine Domestizierung und Verarbeitung von Feldfrüchten und Viehbeständen, die durch Sammelnahrung und Jagdwild ergänzt wurden. Die eisenzeitlichen Aktivitäten rund um Tollgate hielten bis ins frühe 1. Jahrhundert n. Chr. an. Dann verlagerte sich der Siedlungs- und Aktivitätsschwerpunkt wahrscheinlich in Richtung Osten zum Gebiet an der Henhurst Road. Entlang der gesamten Tollgate-Zone fanden sich verstreute Belege für eine römerzeitliche Nutzung, mit Schwerpunkt an der Henhurst Road. Hier entstand um 50-70 n. Chr. eine offenbar nur kurze Zeit genutzte Wegkreuzung mit Schotterbelag und instand gesetzten Gräben. Im 2. Jahrhundert lag das Gebiet möglicherweise am Rand einer kleinen Siedlungszone südlich und östlich der Henhurst Road. In der Römerzeit wurde das Areal rein landwirtschaftlich genutzt. Es umfasste Feldbegrenzungen und angelegte Wege, dazu gab es Anzeichen für Pflanzenanbau und -verarbeitung.

Mit Beginn des 3. Jahrhunderts n. Chr. schwinden die archäologischen Befunde. Erst in der frühmittelalterlichen Zeit sind wieder Spuren zu entdecken, und zwar in Form neuer Feldsysteme und lokaler Routen, die auf eine erneute Intensivierung der Agrarnutzung im 11.-14. Jahrhundert hinweisen. Isolierte Gruben aus jener Zeit enthielten Hinweise auf Weizenanbau. Darüber hinaus fanden sich Belege dafür, dass natürlich vorkommende Findlinge entfernt sowie zerkleinert wurden, vermutlich um den Feldanbau zu verbessern. Die Wege und die Aufteilung der Felder unterlagen danach bis in die Neuzeit hinein offenbar keinen größeren Veränderungen. Im gesamten Tollgate-Gebiet stößt man auf nachmittelalterliche Kreidebrüche. Ein in der Nähe der Tankstelle von Cobham verzeichneter Ziegelofen aus dem späten 17. bis späten 18. Jahrhundert produzierte möglicherweise Ziegel und Kacheln für die wachsenden Gemeinden Gravesend, Singlewell und Cobham.

RESUMEN

El Servicio de Arqueología del Museo de Londres (MoLAS) fue encargado de realizar investigaciones arqueológicas y un seguimiento de obra entre Wrotham Road y Scalers Hill en Kent, para Union Railways (South) Limited (parte de London and Continental Railways Limited). Este informe presenta una descripción de la evidencia arqueológica de antigua presencia humana y la explotación del área al Noroeste de Kent, en la ruta del Channel Tunnel Rail Link (CTRL) al sur de Gravesend, Gravesham (entre las coordenadas de OS NGR 564000 171000 y 567100 170000). La evidencia de actividad en esta área ocurre entre el período circa 450,000 y el presente.

Las excavaciones en Tollgate han descubierto herramientas paleolíticas re-depositadas por procesos coluviales en la base del valle seco. Los depósitos coluviales sellan antiguos suelos, indicativos de un entorno ártico (cerca de 14.000- 11.000 años antes del presente).

Ciertas dispersiones de piedras *sarsen* aparecieron al Este de Church Road. Éstas se han considerado como los restos de una estructura megalítica Neolítica o de comienzos de la Edad del Bronce destruida, pero lo más probable es que correspondan a una acumulación natural, alterada posteriormente por el despeje del terreno en época medieval. Una marca en el arado de un recinto casi rectangular, identificada en fotografías aéreas al Este de Wrotham Road, se cree pueda ser un recinto mortuario Neolítico. Fue conservado *in situ* bajo terraplenes del paisaje y no fue investigado en detalle.

La evidencia de un paisaje cultivado aparece por primera vez al final de la Edad del Bronze. Un asentamiento de pequeña escala, establecido en la Edad del Hierro al Oeste de Church Road, proporciona evidencia de cosechas domesticadas y procesadas y ganado, complementado por alimentos recolectados y animales de caza. La actividad de la Edad del Hierro persiste hasta comienzos del siglo I d.C. cuando se registra un cambio en el foco del asentamiento y actividad hacia Henhurst Road. La evidencia de actividad en el período romano está dispersa a lo largo de la zona de Tollgate, con una concentración particular en el área de Henhurst Road. Entre el año 50 d.C. y el 70 d.C., se estableció allí un cruce de caminos incluyendo superficies empedradas y zanjas re-excavadas, aparentemente cayendo en desuso momentos después. En el siglo II d.C. el área parece yacer sobre la periferia de un pequeño área de asentamiento al Sur y Este de Henhurst Road. El carácter de la actividad romana en toda esta zona es agrícola, incluyendo límites de campiña y caminos, con evidencia de producción de cosecha y procesamiento.

La evidencia arqueológica va desapareciendo hacia mitad del siglo III d.C. y no se registran más estructuras hasta inicios de la Edad Media cuando se establecen los nuevos sistemas de campo y caminos sugiriendo una intensificación renovada en el uso del suelo agrícola en los siglos XI-XIV. Hoyos aislados han producido evidencia de producción de trigo y existen pruebas de que los cantos naturales sarsen fueran fracturados y apartados para mejorar probablemente los campos para el cultivo. A partir de entonces, los caminos y las divisiones del paisaje agrícola permanecen estables, con pequeñas evidencias de cambio en el período moderno. Las canteras de caliza post-medievales están presentes a lo largo del área de Tollgate. Un horno de ladrillos registrado cerca de la Estación de Servicio de Cobham data hasta desde finales del siglo XVII hasta finales del XVIII y es posible que proporcionara ladrillo y teja a las comunidades en expansión de Gravesend, Singlewell y Cobham.

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The investigations at Tollgate and other sites in CTRL Area 330 (Zone 4) were undertaken principally by staff from the Museum of London Archaeology Service (MoLAS). The overall management framework during the post-excavation phase was provided by the Oxford Wessex Archaeology Joint Venture (OWA). The work was supervised by an archaeological team from Rail Link Engineering (RLE), on behalf of the Employer, London and Continental Railways.

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The following specialists contributed to this report: Rebecca Devaney (flint), Grace Jones (later prehistoric pottery), Lisa Brown (Roman pottery), Lorraine Mepham (medieval pottery), Jennifer Kitch (animal bones), Ann Davis (botanical remains and charred plant samples) and Jane Corcoran (geoarchaeology). The figures were produced by Sophie Lamb. The abstract was translated by Mercedes Planas (Spanish), Gerlinde Krug (German) and Valerie Diez (French).

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1 INTRODUCTION

1.1 Project Background

The sites included within this report were identified and excavated as part of an extensive programme of archaeological investigation carried out in advance of the construction of the Channel Tunnel Rail Link (CTRL). CTRL was built by London & Continental Railways Limited (LCR) in association with Railtrack Group plc. The project was authorised by Parliament with the passage of the CTRL Act, 1996. The high-speed line runs for 109 km (68 miles) between St Pancras station in London and the Channel Tunnel and was built in two sections. Section 1 lies entirely within Kent and runs from Fawkham Junction (Gravesham) to Folkestone. The work was project managed by Rail Link Engineering (RLE).

The Museum of London Archaeology Services (MoLAS) was commissioned by Union Railways (South) Limited (URS), a subsidiary of LCR, to undertake investigations and a watching brief on construction activities between Wrotham Road and Scalers Hill, south of Gravesend, in Gravesham District, Kent (Fig. 1, Fig. 2). The area is dived between the historic parishes of Ifield and Cobham. This stretch of the route, termed Archaeological Zone 4, lies partly in between OS NGR 564000 171000 and 567100 170000 (CTRL chainage 41+000 and 44+3000) and covers a length of 3.6 km. For the purposes of this report, Zone 4 is given the principal site name, Tollgate. ***Table 2*** summaries the fieldwork events discussed in this report.

In 1993 a surface collection (field walking) survey commissioned by URL (URL 1994) identified thin scatters of struck flint, burnt flint, pottery and tile dating from the prehistoric through to the post-medieval period. This was followed by a series of evaluations undertaken by MoLAS and the Oxford Archaeological Unit (OAU) (). An area to the east of Henhurst Road (between the A2 and the CTRL works), and a probable Neolithic mortuary enclosure or long barrow at Tollgate (OAU 1995) were preserved *in situ* (buried beneath landscape earthworks).

Table 1 Earlier archaeological fieldwork events (not analysed in detail for this report)

Event name	Event code	Type	Contractor	Dates
Tollgate Cropmark	TLG 95	Evaluation	OAU	1995
South-east of Tollgate	ARC TGS 97	Evaluation	MoLAS	1997
West of Church Road, Singlewell	ARC CRS 97	Evaluation	OAU	1997
West of Scalers Hill, Cobham	ARC WSH 98	Evaluation	OAU	1998

Figure 1 Location of the Tollgate archaeological sites within the CTRL route

Figure 2 The areas of archaeological investigation at Tollgate, the location of the detailed figures and of selected features referred to in the text.

Table 2 Fieldwork events covered by this report

Event name	Event code	Type	Contractor	Dates
Tollgate	ARC TLG 98	Excavation	MoLAS	1998
West of Church Road, Singlewell	ARC CRS 98	Evaluation	MoLAS	1998
Package 330 Watching Brief	ARC 330 98 (indexed as ARC 330 98C in datasets)	Watching brief	MoLAS	December 1998 to May 2000

1.2 Geology and Topography

The site is situated in the North Kent Plain (***Figure 1***), at the edge of the North Downs. The local topography is varied: At the western end of the zone is Wrotham Road (A227), which lies in a dry valley at 41 m OD. Eastwards, as far as Henhurst Road (75 m OD) is the open flat land of Singlewell (58-68m OD). From there the ground slopes gently upwards towards Ashenbank, and the ancient woodland on the summit of Scalers Hill (114 m OD).

The solid geology underlying this zone of CTRL consists of Upper Chalk and the Thanet Beds. The surface of the Upper Chalk undulates and where the gradient is shallower yellowish brown sandy silts and gravels overlie the chalk. Periglacial striations and run-off channels indent the slopes and are filled with silty clay containing flint nodules (BGS 1998).

The topography of this zone, from west to east, comprises the eastern side of the dry valley containing Wrotham Road (A227) and the flat heathland area of Tollgate/Singlewell, to the base of Scalers Hill. Colluvial deposits of relatively recent origin have accumulated on the lower slopes of the dry valley east of Wrotham Road. Colluvium was found sealing archaeological features from the Henhurst Road eastwards towards Scalers Hill.

1.3 Archaeological and Historical Background

Palaeolithic/Mesolithic

Little evidence for palaeolithic human activity prior to the CTRL excavations. Small numbers of residual Mesolithic struck flints were found during evaluation work to the east of Tollgate.

The Neolithic period is represented by a probable long mortuary enclosure at Tollgate, recorded as a cropmark. Limited evaluation work was carried out but it was not investigated in detail as it was preserved beneath CTRL landscape earthworks. Another

cropmark enclosure at Coldharbour Road was shown to be of later Bronze Age date (Mudd 1994), although the excavation did recover a small quantity of late Neolithic/early Bronze Age pottery (Mudd 1994, 385-8). A scheduled bowl barrow is present at Ashenbank Wood within Cobham Park.

There was little evidence for Iron Age activity in the immediate area prior to the CTRL work, although to the north of the A2, a cropmark site opposite Henhurst Road includes a sub-rectangular enclosure which may have been Iron Age or Early Roman in date. The site has now been built over.

The CTRL route runs parallel to the probable line of Watling Street (latterly the A2), the main Roman road from Canterbury to London. The Tollgate zone lies within the hinterland of the Roman settlement at Springhead (Vagniacae), although it is more peripheral than the intervening Northumberland Bottom CTRL zone. Springhead lies on Watling Street, at the head of the Ebbsfleet Valley, and was occupied from the 1st to the 4th century AD, although the scale of occupation seems to have diminished from the mid-3rd century AD (Biddulph 2006). Thereafter the focus of activity may have shifted downriver to Northfleet Villa. Two Roman cemeteries have been found and excavated immediately east of Springhead (Biddulph 2006). Archaeological work in the Northumberland Bottom CTRL zone has produced evidence for intensive early Roman rural settlement and agricultural land-use in the immediate hinterland of Springhead, including a Roman ditched road with adjacent corndrier and field system, on the west side of Downs Road, and a settlement to the west of Tollgate (Askew 2006). Cobham Park Roman villa lies adjacent to the CTRL route, 1km to the east of the Tollgate zone. It developed from a farmhouse in the 1st century AD and continued to be occupied until the mid-4th century AD (Tester 1961).

There are few finds from the Anglo-Saxon period from the immediate area. A cemetery was reportedly found within Claylane Wood in 1825, to the north of the A2 (Kent SMR KE1533). The Ebbsfleet Valley may have continued as the primary focus of settlement in the area, as two 7th century cemeteries have been found in CTRL excavations at Springhead (OWA, forthcoming), and sunken-featured buildings and an early 8th century tidal watermill were discovered at Northfleet Villa, at the lower end of the valley (OWA forthcoming). It has been argued that this part of Watling Street fell into disuse as a major route during the Saxon period, due to the inundation of river crossings along the Roman road as a result of rising water levels along the Thames and its tributaries (Tatton-Brown 2001). It seems to have continued in use as a local route, but the main road from London to Dover ran further to the north via Gravesend, which developed from the 13th century as a port and `long ferry' route to London (Hiscock 1969, 229; Tatton-Brown 2001).

The Tollgate area appears to have been peripheral in the medieval settlement pattern, as this part of Watling Street follows the boundaries of the parishes of Ifield, Cobham and

Shorne. Nevertheless, medieval rural settlement evidence was widespread within the adjacent Northumberland Bottom CTRL zone, including a settlement of 11th-12th century date in the vicinity of the present Hazells Farm and a series of enclosures of similar date on the high ground to the west of Wrotham Road: Evidence comprised enclosure ditches, post-rows and a sunken-floored building with an associated oven or kiln. Scattered medieval pits were found just west of Tollgate (Askew 2006) and large chalk pits to the north of the A2 at Coldharbour Road (Mudd 1994).

During the late medieval and post-medieval periods the Tollgate area was an agricultural area on the periphery of Gravesend and Singlewell. Land-use appears to have been predominantly agricultural fields to the north of the A2, with more woodland to the south. The introduction of a toll road in the 19th century re-established this section of Watling Street as a major route.

2 AIMS

2.1 Research Objectives

The aim of this report is to present synthesised data at an interpretative level that can be assimilated into complementary studies. This synthetic report is supported by the fieldwork and research archive which is available as a web-based digital archive (ADS 2006).

In support of the CTRL Project Monograph (Booth *et a*l. 2007), the Tollgate report integrates key assemblages and stratigraphic data into a site sequence secured on key dating evidence from artefact groups and radiocarbon dates. The report includes a discursive narrative describing the sequence of activity and reasoning evidence (URS 2003, 15-16).

Assessment of the stratigraphic archive and finds assemblages for the Tollgate sites resulted in a series of specific updated research aims, (URS 2003a, 36). Specific aims were to

- establish whether the sarsen stones located east of Singlewell comprise a relict megalithic structure.
- determine the orientation of a potential Roman road at Henhurst Road, Singlewell; establishing a date for the road as a precursor to Watling Street and how the route relates to other roads found in the area.
- determine the presence/absence of a Bronze Age routeway at Henhurst Road. If present, did it have any influence on contemporary ritual and occupation activity at Northumberland Bottom, Tollgate and Cobham (CTRL zones 3, 4 and 5).

3 METHODS

The fieldwork consisted of fieldwalking, archaeological evaluation and, at Tollgate (ARC TLG 98) and Church Road (ARC CRS98), excavation. The majority of features within the zone were observed and recorded during the watching brief along the route (ARC 330 98) The methods of investigation were set out in a series of Written Schemes of Investigation, prepared by RLE, detailing the scope and methods of fieldwork and agreed with English Heritage and KCC on behalf of the local authority.

Topsoil, and where appropriate subsoil, were removed by tracked 360 machine excavators using toothless buckets. After clearance of overlying soil all exposed features were partly or wholly excavated by hand and plotted using a pen-computer or planned on pre-printed gridded permatrace in relation to the site grid. Individual contexts were recorded on pro-forma context sheets. Sections were drawn on pre-printed, gridded sheets of draughting film and the section positions accurately plotted using a total station.

A photographic record was kept of individual archaeological features and sections, appropriate groups of features and structures. Finds were bagged and retained and environmental samples, both bulk and column, were taken where necessary from features and deposits.

An assessment report conforming to standards laid out in MAP 2 and specifications produced by RLE (URS 2000) was produced by MoLAS. Post-excavation analysis and production of this report was carried out by MoLAS on behalf of Oxford Wessex Archaeology Joint Venture (OWAJV) in response to the methodology set out by the Updated Project Design for archaeological analysis and publication (URS 2003a and b). All project design documents are available in the digital archive (ADS 2006).

4 RESULTS

4.1 Phase Summary

Assessment and analysis of the site stratigraphy, finds and environmental data has revealed several phases of activity within the Tollgate zone, summarised below:

- Palaeolithic *c* 450,000 – 50,000 BP: a pointed flint biface (a type of handaxe) and a scatter of flint flakes were recorded in the evaluation South-East of Tollgate (ARC TLG 97) within solifluction deposits. A single, large possible Levallois flake was recovered from the fill of a possible prehistoric pit. The flake is clearly residual but adds to evidence for a Paleolithic presence in the vicinity of the valley.
- Late Glacial (*c* 14,000 – 9,000 BC): Late Glacial soils were recorded beneath soliflucted chalk, in the dry valley sequence from the sampling trench ARC TLG 98. The sequence comprises Late Glacial deposits of silts derived from Thanet Beds which were exposed to arctic conditions. Harsh environmental episodes deposited layers of eroded coombe rock (chalk) above the arctic soils (preserved in the shelter of the valley slopes) *c* 14,000 years BP–10,000 years BP. Holocene colluvium and modern ploughsoil capped the sequence.
- Early Neolithic - early Bronze Age (*c* 4000 – 1600 BC): A group of sarsen stones were recorded to the east of Singlewell. The stones were considered as potential remnants of a megalithic monument, of possible Neolithic or Bronze Age date. However, there is no artefactual or structural evidence to support this view and the sarsen group is more likely to be a natural accumulation, disturbed by field clearance activity in the medieval and later periods. Not far from this site, at Tollgate, to the east of Wrotham Road, is the cropmark of a probable early Neolithic mortuary enclosure or long barrow, which was preserved *in situ* beneath CTRL landscape earthworks, following limited evaluation trenching (URL 1995). Further evidence in support of a late Neolithic-early Bronze Age presence is recorded in pit 734, which contained worked flint flakes and blades.
- Mid to late Bronze Age (*c* 1600-700 BC): This period is represented by perforated clay slabs and pottery, indicative of nearby settlement, found within the fills of pit or well (537) in the eastern part of the Henhurst Road excavations.
- Early to late Iron Age (700-100 BC): Pits, postholes, hearths and stakehole structures define traces of occupation between the site of the Tollgate mortuary enclosure to the west and Church Road, Singlewell to the east. A possible east-west boundary or enclosure ditch marked the southern extent of the Iron Age occupation area. One of the pits within an otherwise early Iron Age pit group can definitely be attributed to the middle Iron Age (400-200 BC) on the basis of pottery finds and the presence of a La Tène brooch in the fill. The finds were accompanied by charcoal, charred grain and hazelnuts. Charred grain

associated with a hearth (503) had been threshed and cleaned. The archaeological evidence suggests a small and possibly seasonal Iron Age occupation site, with a nucleus of occupation beyond the limits of the excavation. Two radiocarbon dates were obtained from sooting on ceramic vessels from pit deposits (2624±35 BP (NZA-22880) which calibrates to 845-760 cal BC; and 2384±35 BP (NZA-28866) calibrating to 760-380 cal BC.

- Late Iron Age - early Romano-British (100 BC-AD 43): A group of pits, located between the Tollgate mortuary enclosure to the west and Church Road, Singlewell to the east, demonstrates occupation slightly to the south of the main area of Iron Age activity. A series of north–south and east–west aligned ditch fragments represents a reorganisation of the local landscape in the late Iron Age/early Roman period.
- Early Roman (AD 43-120): A north-south aligned trackway to the west of Henhurst Road may be a late Iron Age or early Roman feature. It would have connected with either Roman Watling Street, or an Iron Age precursor, to the north of the site. A gravel road running east from this trackway (and parallel to Watling Street, *c* 360 m to the north) was constructed in the early Roman period and recorded on both sides of Henhurst Road. Other features dated to the early Roman period were distributed across the watching brief area, indicating intensification in agricultural land-use throughout the Tollgate area.
- Middle Roman (AD 120-250): A gravelled surface (748) and pitting around the southern end of the north-south route reflect a renewed phase of activity in the valley base, to the west of Henhurst Road. Additional ditches modified the layout of the enclosures in this area. Rubbish pits containing domestic waste were dug on both sides of Henhurst Road, and a series of pits or wells was excavated on either side of the hollow way. Pottery recovered from an isolated pit near the east end of the Tollgate area suggests the presence of a middle Roman settlement nearby.
- Late Roman and Anglo-Saxon (AD 250-1000) - No evidence for late Roman or Anglo-Saxon activity was identified.
- Medieval (AD 1000-1500): Boundary/ droveway ditches were recorded on the eastern side, and parallel to Church Road. Ditches, pits and a hearth, dated by pottery finds to between *c* 1050 and 1250, were recorded in the low-lying area on the eastern side of Henhurst Road. Further medieval features, with a similiar date range, were recorded in the area of the sarsen stones to the east of Church Road, in contexts associated with burnt sarsen fragments, suggesting field clearance activity during a phase of agricultural intensification.

- Post-medieval (AD 1500-1800): A structural cut with brick masonry interpreted as a kiln for drying/firing bricks characteristic of the mid to late 18th century. Other pits and a hearth recorded in the vicinity have fills characteristic of post-medieval deposits.

4.2 Hunter Gatherers

4.2.1 Palaeolithic and Late Glacial (450,000 – 9,000 BP)

The dry valley at Tollgate is part of a more extensive north-south trending dry valley containing late Glacial deposits, which lies to the west of the Wrotham Road. This was also sampled at ARC TGW 97, about 300m west of the ARC TLG 98 profile. The ARC TLG 98 sequence as defined in a monolith sample (location Fig.2, profile Figure 3) can be subdivided into three main units.

Figure 3: Profile of monolith sample.

The silty sand to sandy silt (9) at the base of the sequence is probably derived from the Thanet Beds, which would have been more extensive in the area of the dry valley prior to the Late Glacial period, when considerable erosion took place. However, the high silt content may be derived from inputs of loess (wind blown deposits, characteristic of the harsh tundra environment of the Late Glacial). A number of characteristics in the upper part of this deposit, in particular the frequent iron nodules, manganese speckles, bleached/leached patches and white sandy laminae are characteristics of ice segregation and waterlogging in arctic soils . It is inferred that the lower part of the Tollgate sequence represents arctic soil formation in redeposited Thanet Beds during a period of periglacial climate, following the incision of the dry valley (Corcoran 2006).

A period of harsher climate and renewed erosion followed, during which the overlying coombe rock (4, 6 and 8) accumulated, probably also during seasonal thaw, when the upper layers of the soil and bedrock sludged downslope over the still frozen subsoil. The chalky nature of the coombe rock indicates that by this time chalk bedrock lay exposed at the ground surface, the Thanet Beds in the vicinity of the dry valley having already been eroded away. The fine-grained lenses (5 and 7) within the lower part of the coombe rock may represent former soil material (perhaps formed during a Late Glacial interstadial) eroded and redeposited downslope with the soliflucted chalk.

It is generally thought that the large-scale erosion that created the dry valleys of the North and South Downs occurred in the latter part of the Late Glacial period, between *c* 14000-10000 BP and in particular during the Loch Lomond Stadial (Younger Dryas), the cold stage that took place between about 11000-10000 BP, immediately prior to the Holocene

(Preece 1994). However, the Tollgate dry valley appears to have already been incised, and arctic soils developed, prior to a final cold stage that eroded chalk from the valley sides and redeposited it as coombe rock within the valley. Similar arctic soils are rarely found in this area and its survival may be a result of the more sheltered and tributary nature of the Tollgate dry valley. Although massive re-shaping of the drainage system appears to have taken place during the Late Glacial, it is possible that the Tollgate tributary valley escaped drastic re-forming at this time. Sediments with incipient arctic soils developed in them were preserved in relatively sheltered locations close to the valley side.

Other evidence for an earlier episode of valley incision, post-dating the Last Glacial Maximum (c 18000 BP) but predating the Loch Lomond Stadial, in which most of the dry valleys existing in the landscape today appear to have been formed, comes from the paleolithic hand-axe found about 400m further up the Tollgate dry valley to the south-east (at evaluation ARC TGS 97). This (redeposited) implement was found (at about 60m OD) in soliflucted sediments dipping from the north-west. No higher land exists today north-west of ARC TGS97. The area from which this soliflucted material came must subsequently have been scoured out by a later episode of valley incision.

Thus in the Tollgate area, remnants of earlier valleys carved out during episodes of ice-melt in the fluctuating climate of the Late Glacial appear to be preserved. Although in other parts of Kent and East Sussex dry valleys, such as Holywell Coombe near Folkestone, have been found to predate the Loch Lomond Stadial (Preece and Bridgland 1998), such evidence is not common. The evidence from Tollgate is of interest for better understanding the evolution of the Late Glacial landscape and has implications for both the re-colonisation of Britain by people following the height of the last cold stage and for the survival of Late Upper Palaeolithic remains within the landscape.

A single struck flint of Levallois type (***Figure 3***4) with worn and damaged edges, a residual item from the fill of a Neolithic/Bronze Age pit (734) is the only artefactual evidence from this period (Devaney 2006).

Figure 4: Tollgate: Levallois flint flake,

4.3 Early Agriculturalists

4.3.1 Early Neolithic – Early Bronze Age (4000 – 1,600 BC)

The evidence of Neolithic and Bronze activity within the Tollgate zone is sparse. A relatively small quantity of worked flint (620 pieces) was recovered across the zone, mostly from secondary contexts (Devaney 2006). Some examples are illustrated on ***Figure 3***4. An isolated pit (734) to the west of Church Road, contained an assemblage of flint flakes and blades of

Neolithic and Bronze Age types (as well as the residual Levallois flake noted at 4.2.1 above). The clearest indicator of activity within the zone during this period is a plough-levelled, probable early Neolithic mortuary enclosure or long barrow, known from aerial photographs. It lies to the east of Wrotham Road and is a Scheduled Ancient Monument. Limited trenching was carried as part of a series of evaluations in advance of the CTRL construction (URL 1995) but it was not subject to detailed investigation as it was preserved in situ beneath CTRL landscape earthworks.

The Tollgate sarsen stones

A group of *c* 40 substantial sarsen stones (Group 41015) was recorded to the east of Church Road (Fig. 5).

Figure 5: Plan of sarsens

The sarsens were distributed in three clusters within an area roughly 75 m in diameter: The southern cluster (604, 627, 629 sgp 4161) has been preserved *in situ* beneath the re-aligned Church Road. The north-western cluster (665, 666 sgp 4118) consisted of relatively smaller sarsen fragments close to a large pit. The north-eastern cluster (sgp 4127) consisted of eight stones of varying lengths and widths, the longest just over 2 m. These stones had evidently been moved and some (five in total) had been subject to burning. Others showed sharp, apparently fresh breaks, and occasional plough strikes.

The possibility that the sarsens might be elements of a Neolithic or early Bronze Age monument has been considered in the course of analysis. Sarsen groups occur in the general area, both as natural deposits and as the result of human activity (Keily 2006; Ashbee 1993). Ullyott et al suggest that sarsens 'are formed through the cementation of sands aided by deposition of silica in solution, and that their formation is dependant upon the presence of a valley or landscape depression. They may have formed as localised (seasonal pool) deposits or as duricrust sheets (both associated with groundwater or drainage-line activity) but exist now as 'silcrete fragments' displaced by periglacial and solifluction events.' (Ullyott *et al*. 2000). Man-made sarsen groups in the general area include well-documented prehistoric monuments, such as the two groups of funerary monuments known as the 'Medway Megaliths', located *c* 11 km to the south-east. However, there are also numerous documentary references to sarsens being moved to clear fields for agricultural purposes, either being broken up and used as building stone or deposited in locations where they would not obstruct ploughing (Ashbee 1993). The description of the Tollgate Sarsens as lying in 'solution hollows' seems to support their identification as a natural accumulation, although there is also clear evidence that some stones have been moved and broken up by human activity in the medieval and possibly later periods.

Among the stones was a possible large sarsen saddle quern, SF 108. It was the only potential prehistoric artefact found in association with the sarsen group. Specialist interpretation of the stone is divided. It is saddle quern shaped, but is larger than any known example and has no clear indication of a worn grinding surface (Shaffrey, R, pers. comm.). The evidence for this object being humanly modified is discussed in the Tollgate small finds report (Keily 2006).

Medieval features recorded in the vicinity of the sarsen group include a cobbled surface within a shallow feature, associated with a hearth, two postholes and burnt sarsen fragments. This evidence indicates that sarsens were broken up by setting fires beneath them, probably in the course of field clearance during a period of agricultural intensification (See 4.6.1). The associated pottery is broadly dated to the period AD 1100-1250.

4.3.2 Middle Bronze Age (1,500-1,100 BC)

Two sherds of redeposited pottery, recovered from the fill of an Early Iron Age pit (435), represent the only evidence for Middle Bronze Age activity.

4.4 Farming communities

4.4.1 Later Bronze Age (1,100 – 800 BC)

Only one feature can be attributed to the late Bronze Age within the Tollgate Zone. A large, 9.3 m x 6.6 m x 1 m deep, irregular shaped pit 537, possibly a well or clay extraction pit, contained 34 sherds of late Bronze Age pottery and fragments of four perforated ceramic slabs of uncertain function (<79>, <106>, <107> and <111>). It is not unusual to find perforated clay slabs in Late Bronze Age contexts and the type is seen as typical along the Thames Valley (Champion 1980, 237-8). The slabs are also noteworthy due to the example of using a fabric identical to accompanying pottery vessel types. This indicates that both the slabs and pottery were sourced from the same place and produced at the same time, presumably by the same potter (Keily 2006; Morris pers. comm.). The fill also included a large amount of fire debris (fine charcoal flecks, burnt gravels and fire cracked flint), which may be refuse debris from a pottery production site. It is difficult to ascribe any greater phase of activity to the Later Bronze Age on a single feature, but it is likely the pit served as a waste tip for an unknown settlement beyond the limits of the excavated area.

4.4.2 Early Iron Age to Late Iron Age (800 – 100 BC)

There are three groups of Iron Age pits at Tollgate (Fig. 6, Fig. 9):

- nine rubbish/storage pits to the south-east of Tollgate mortuary enclosure (groups 41021, 41022)
- a cluster of pits (groups 41023 and 41027 see also Figure 9) located roughly 375 m to the north-east of Church Road.
- three pits (group 41025) lying to the south of the second cluster.

The pits all share similar characteristics. All are more or less circular in shape and 1-3m in diameter (***Table 3***). The depths vary according to the degree of truncation, but are generally 0.70 m – 1.40 m. Selected pottery, briquetage and other finds from these pits are illustrated in ***Error! Reference source not found.****6,* ***Error! Reference source not found.****7,* ***Error! Reference source not found.****., Figure: 9 and Figure* 10: Figure *10.*

Figure 6 Early –Late Iron Age features to the west of Singleton Road: selected finds from pit 372 (Group 41023).

Figure 7: A cross section through pit 374 (Group 41027): selected finds from pit 374

Figure 8: Further finds from pit 374

Figure 9:The spatial relationship between the Iron Age pit groups: selected finds from pit 740 (Group 41025).

Figure 10: Figure 10 selected finds from the Early-Middle Iron Age pits groups: pottery from pits 387 (Group 41023), 679, 702, (Group 41022), 871 (Group 40121) and 1174 (Group 41025);worked antler tine <110> from pit 435 (Group 41023) and possible small saddle quern fragment <59> from pit 1172 (Group 41025).

Comparison of the pit group assemblages shows varying patterns of vessel and briquetage disposal (***Table 4***). Pottery fabrics in groups 41023 and 41027 were predominantly coarse shelly wares and flint-tempered. The assemblage mirrors the more intense area of (domestic?) activity to the north-west of Church Road. Pottery in group 41025 was dominated by flint and shell temper and flint tempered fabrics, with sandy wares more common. This group also contained all the grog-tempered briquetage. The smallest assemblage came from pit group 41022 and was distinctive in that the pottery was mostly flint and iron-tempered wares with a correspondingly smaller proportion of flint and shell-tempered wars. Only one form - the short-necked coarse ware jar R1 - was observed in all three groups.

The ceramic evidence suggests a date range of the 6th–3rd centuries BC (the predominance of shouldered jar forms with less distinctly rounded profiles indicates no occupation later than the 3rd century BC), with a possible focus on the 5th-4th centuries (Jones 2006). The majority of the pottery was locally produced and identifiable forms

comprise jars, bowls and a possible cup. The forms, along with limited evidence of use and wear, suggests 'domestic' activities were taking place. Alongside the remains of pots were those of salt containers. The salt, it is assumed, was probably produced at or near source and transported or traded to the Tollgate site. The salt was probably used for cooking and possibly hide and meat salting/curing, as the waste fragments are deposited with domestic and cooking waste in the refuse pits.

Several of the pits also contained environmental remains (***Table 3***) including small amounts of charred wood and grain including some emmer/spelt wheat (Davis 2006). The animal bone assemblage included a range of domesticated species - sheep/goat, cattle, pig and horse (equid). Burnt bone and five fragments exhibiting butchery marks (Kitch 2006) were found within the assemblages from pits 374, 414, 740, 1172 and 1174. A horncore with removal cut marks was recovered from pit 387. Fragments of red deer and roe deer bone and antler were also recovered. Pit 1174 contained six fragments of red deer and a mandible from a juvenile roe deer.

Table 3 The Iron Age pits at Tollgate

Group	Feature	Width (m)	Depth (m)	Fills	Pottery (no sherds/ wt kg)	Animal bone (sp)	Charred plant remains & charcoal	Dating and other finds
41022								
	679	1.2	0.50		69/ 0.83	Unid		699-100BC
	702	1.7	0.95			Equid, cattle		699-100BC
	704	0.60	0.34					699-100BC
	874	2.16	0.95					699-100BC
	879	3.0	na		41/ 0.40			699-100BC
41023								
	372	2.0	1.35		292/ 6.7	Cattle, Pig, sheep/goat	Weed seed	699-100BC
	387	2.10	0.70		111/ 1.62	Cattle, equid sheep/goat	Wheat, chaff, weed	699-100BC
	437	0.80	0.18		34/ 0.24			699-100BC
	414	1.5	Na			Pig, cattle, red deer equid Sheep/goat,		699-100BC
	435	1.80	Na		28/ 0.34	Sheep/goat, cattle Red deer, equid pig, worked antler		600-100BC
41025								
	740	0.95	0.30		100/ 0.98	Cattle, deer, worked antler		699-100BC Iron ring,
	1172	1.30	1.45		167/ 1.86	Sheep/goat, equid, cattle	Wheat, weed	699-100BC Stone object
	1174	1.76	1.53		407/ 4.97	Equid, deer sheep/goat,		699-300BC
41027								
	374	0.90	0.45	373	286/ 5.99	Cattle, sheep, goat, pig		400-200BC La Tène brooch, iron, stone objects

The fills from pit 374, which were otherwise similar to those from adjacent features, were notable for the presence of four small finds, including a near complete La Tène I brooch <90> (Fig. 8) of Hull's form 1C, dated to the 4th- to 3rd centuries BC (Hull and Hawkes 1987; Hattatt 1985). Because of a missing diagnostic feature (a reverted foot which would distinguish between form 1C a and b), more precise dating of the object is not possible (Keily 2006). Pit 374 also contained a possible awl <66> (not illustrated) and two sharpening tools (Fig. 8). The latter comprised a flat natural pebble <60> with an upper surface showing clear evidence of wear from smoothing/grinding (a saddle quern rider or used in processing hide?) and a small fragment of sarsen <85> used as a whetstone or smoothing stone, possibly used alongside object <60>. The pit contained three jars, one quite large (C.24: PRNs 1214, 1222 and 1223, Fig. 7), a bowl and a small amount of briquetage. A sherd of a softly shouldered jar (Form R9, Jones 2006) represents the only significant difference from this pit and the assemblage from adjacent pit 372 and supports a slightly later date for this feature.

Table 4 Summary of pottery and briquetage fabrics present in pit groups 41022, 41023, 41025 and 41027 (CT = count; WT = weight).

Group	**Total count**	**Total weight (g)**	**% of briquetage**		**% of pottery**		**% of the briquetage fabrics by weight**					**% of the pottery fabrics by weight**							
			CT	WT	CT	WT	V1	VF1	G1	VG1	FV2	Flint	Flint and iron	Flint and shell	Iron-stone	Organic and flint/shell	Quartz	Quartz and flint	Shell
41023, 41027	735	14964	22	19	78	81	66	34	0	0	0	23	<1	1	<1	2	5	2	67
41025	674	7824	54	44	46	56	17	45	22	16	0	18	0	64	0	2	6	8	2
41022	185	2129	6	7	94	93	0	0	0	0	100	9	65	25	0	0	0	0	1

Pits 1172 and 1174 both showed evidence of having stood open for some period of time. Small rodent species (field vole, wood mouse) and an amphibian (toad, in pit 1172) were present within the assemblages, and probably derive from pit fall events (though the small mammal species represented are capable of burrowing and may be intrusive), and some of the larger bones from these pits had been gnawed by rodents.

In the area immediately south of pits groups 41023 and 41027 there are numerous subsidiary features (group 41024) (Fig. 6) representing a cluster of contemporary activity – including small pits, open hearths/fire-pits, and two post-and-stake built structures arranged in a V-shaped pattern and pointing towards each other. The lack of finds and environmental evidence from the structural features precludes any definition of purpose. The size and depth of the attendant stakeholes suggest a low, temporary timber-built structure, not unlike a windbreak. An equally plausible function could be fence lines, animal pens or struts for stretching and drying hides. A SSW–NNE aligned ditch (452) provides a tentative boundary.

Although undated, the ditch fill is similar in character to fills of the features to the north and it is reasonable to suggest that it's location forms some type of barrier to the settled activity, as no similiar features exist to the south of the ditch. As a consequence of constraints placed upon the site by watching brief conditions the full length of the ditch was not observed. It is possible that the ditch may form the southern portion of a larger enclosure ditch. Fire-pit/hearth 503 represents the only other evidence for activity taking place within the possible enclosure. It was undated but lay amongst the cluster of Iron Age pits and yielded over 350 charred grains, principally emmer wheat, with an admixture of hulled barley grains (c 10%) and spelt wheat (c5%) (Davis 2006). Two hulled barley grains were also present. The very low proportion of wild seeds and chaff indicates a fully threshed and cleaned grain collection. The grain may have become charred either during the process of parching (prior to grinding) or as a result of an accidental event during food preparation. It is worth noting that the majority of burnt bone fragments from the Iron Age assemblage were retrieved from pit 414, close to the stakehole structure.

Radiocarbon dates

Two radiocarbon dates were obtained from late Bronze Age/ Iron Age pit deposits with the aims of dating the use of saltworking briquetage, and the occurrence of specific Iron Age pottery forms and vessels that occur in pits at Tollgate, for comparison with similar events elsewhere on the CTRL route. The results are discussed in detail in Allen 2006 and Morris 2006.

In pit 374, the result from sooting on PRN 1186 a plain body sherd from a form A1 vessel (fabric S1) was 2624±35 BP (NZA-22880) which calibrates to 845-760 cal BC indicating a late Bronze Age to early Iron Age date for the pottery form, and for saltworking on the site.

In pit 387 the result from sooting on PRN 1264 (plain body sherd from a vessel in fabric F2) which was assumed to be mid to Late Iron Age (500-250 cal BC) gave a result of 2384±35 BP (NZA-28866) calibrating to 760-380 cal BC. Unfortunately this result falls on the early Iron Age radiocarbon plateau giving a very large range.

Conclusions

The data for this period is principally derived from the pit groups which provide evidence for a low level of late Bronze Age and early to middle Iron Age occupation between the 8th–3rd centuries BC, with a possible focus on the 5th-4th centuries (Jones 2006). The refuse pits were concentrated within a small area, though there is no evidence to suggest a formal or deliberate attitude toward disposal. Although some of the pits may have stood open for a period, which might imply seasonal or intermittent occupation, the scale of available cereal

crops argues for an interpretation of more settled and permanent occupation in the Tollgate area. The occupation may therefore have been either seasonal or at the periphery of a small settlement located beyond the CTRL zones.

A diverse range of livestock provided meat and dairy products. Cattle may have been used for traction, and horse is represented in the assemblage in small quantities. The meat portion of the diet was supplemented by a small amount of wild game. The deer remains show that the landscape was still perhaps lightly wooded around the fringes of small plots of farmed land. A variety of cereals were cultivated - mainly a wheat mix of emmer and spelt with barley and possibly wild oat added (Davis 2006). Specialised activities can be inferred from the waste from antler working <109> (pit 740) (Fig. 9). Smoothing stones <60> and <85> may have fulfilled a variety of functions including grinding wheat, stretching and smoothing animal hides and sharpening tools.

The pottery and briquetage support the nature of domestic and low-scale self-sufficient ceramic production/use, supplemented with access to salt produced at the coast.

4.5 Towns and their Rural Landscapes I: The later pre-Roman Iron Age and Romano-British landscape

4.5.1 Later pre-Roman Iron Age (transitional period 100 BC to AD 50)

There is no evidence for Iron Age occupation after the 3rd century BC. Occupation resumes with the digging of two pits, 508 and 551, dating to 50 BC to AD 50, situated south of pit group 41023 and occupation 41024 (Fig. 6). The pits are located on either side of the conjectured Iron Age boundary ditch 452 which may indicate that it had fallen into disuse by this period. Pit 508 contained fragments of late Iron Age flint-tempered pottery alongside a few fragments of native early Roman wares (Belgic coarse sand-tempered and fine grog-tempered) (Brown 2006). The nature of the artefactual evidence is broadly similar to earlier activity in the vicinity, with the disposal of cattle, sheep/goat bones, alongside fragments of pottery comprising a variety of Belgic coarse-tempered wares, fine grog-tempered ware and later prehistoric flint-tempered ware (Brown 2006). The spread of animal bone species and locally produced pottery suggests waste derived from a rural domestic source.

Elsewhere, at Henhurst Road (Figs: 11 and 12) activity included a north-south aligned trackway (847, 961) with a metalled surface (996). It may be pre-Roman or represent an early Roman route running south from Watling Street. The trackway ran down the slope from the north. Surface run-off had severely eroded its surface and given it a ‘stream-bed’ appearance. Further south, ditch 1198 may represent a continuation of the alignment of the eastern side of

the trackway and a second linear ditch (940), perpendicular to it, may be a field boundary. Pit 865 also lay to the east of the trackway.

An undated pit (1244) and a posthole (36) may also be associated with this period but another undated ditch (1208) which was cut by 1198, must be presumed to be earlier and remains unphased.

Figure 11: Pre-Roman, Roman and medieval features in the Henhurst Road mitigation areas.

Figure 12: Detailed figure of the pre-Roman, Roman and medieval features west of Henhurst Road.

The datable features contained sherds of late Iron Age pottery (posthole 32, not illustrated), Belgic coarse grog-tempered (pit or well 865) and coarse sandy wares (ditch 940) (Brown 2006). The nature of the activity appears to be limited to seasonal occupation, as the ditch profiles show episodes of rapid silting with waterborne debris deposited throughout the fills.

4.5.2 Early Roman (AD 50 to AD 120)

Early Roman activity occurs on either side of Henhurst Road, and is focused around two lengths of metalled road, 933 to the west and 522 to the east (Fig. 11, 12), which probably form elements of the same east-west route although there is a slight change in alignment between the two sections, 522 being angled slightly to the south. Projection of the two alignments would suggest that the route changed direction *c* 45 m east of modern Henhurst Road.

Road 933 was roughly 3 m wide and surfaced with compacted gravel. It sealed the late Iron Age alluvium (1226 and 32) mentioned above and met the line of Iron Age trackway 847/961 at right angles. Due to the limitations of the watching brief and damage to the features by both wet weather and machine disturbance, the full extent of road 933 was not established. The recording was complicated by the road having been truncated at the western end of the recorded stretch (see 4.5.3), which may account for why the gravel surface appeared to fade out in this direction.

The length of the metalled surface of 933 was heavily marked by wheel ruts which were stratified within a sequence of silting and road resurfacing indicative of a period of intensive use of this road along the lower valley slope. Hollow way 522 was 6.65 m wide and 1.1 m deep. Its base was fairly flat, a maximum of 2.6 m in width and surfaced with gravel. Six sherds of pottery were recovered from the earliest deposit of road 933 and date the surface and its use from *c* AD 50 to 100. The period of use of road 933 may have been relatively brief: the gravel metalling was covered by a layer of silts and the gravels became subject to

periods of erosion, presumably due to run off from the slope from the south. The hollow way fills over the gravel surface yielded several fragments of pottery body sherds in a range of fabrics, including early Roman grog-temper and shell-temper; Belgic coarse sandy wares and a single fragment of fine orange Upchurch ware dated to AD 70-150 (Brown 2006).

There is evidence that the gravelled route ran through an organised, agricultural landscape. To the north of road 933, north-south aligned ditch 829 was set at right-angles to it and is likely to represent a contemporary field boundary. Ditch 827 ran parallel to the road and was truncated at its eastern end by ditch 829. Fragments of ditches parallel or perpendicular to the hollow way orientation are also present on both sides of 522 (Figure 11). To the south of 522, and parallel to it, lay ditch 524, dated to AD 50-100. This was cut by gently curving ditch 568, which may represent the north-western limit of an enclosure, the majority of which exists beyond the limit of the site. The pottery from the ditch fill, comprising a range of Belgic sand-, grog- and shell-tempered wares, fine orange Upchurch ware and coarse sandy grey ware, provides a terminus post quem of AD 70-130. Two undated features were present behind the ditch. Feature 569 was the circular base of a probable pit, 0.60 m in diameter, containing traces of charcoal. Deposit 571 is an ephemeral charcoal dump. Although neither feature could be dated and thus cannot be directly related to the ditch, these remain the only features indicative of activity within a conjectured enclosed area.

A sample <133> from the fill (526) of hollow way 522 provided a botanical assemblage consisting mostly of wheat chaff (Davis 2006). The chaff comprised glume bases and spikelet forks, roughly half of which were identified as spelt wheat with the remainder too fragmentary to identify. Other cereals were also present in the sample, identified from either rachis nodes (wheat and barley) or grains, including wheat, barley and oat. The appearance of the cereals in later fills of the hollow way show that processing was being carried out in the vicinity at around the time the trackway was falling into disuse.

The observations at Henhurst Road fit into a much wider pattern of dispersed early Roman activity throughout the Tollgate landscape, including field ditches adjacent to the mortuary enclosure near Wrotham Road in the west; small pits and fire-pits adjacent to the east side of Church Road and a possible dew pond (634) dating to the late 1st century AD to the east of Church Road (Fig. 5). Finds from the dew pond, which include heavily worn lava quern fragments <82>, attest to the continued use of the landscape for agriculture and crop processing.

Figure 13: Selected Roman pottery

4.5.3 Mid-Roman (AD 120 to AD 250)

The mid-Roman phase of activity within the Tollgate area continues at the focus of activity established in the late 1st century at Henhurst Road (Fig. 11). At some point after the western end of the gravel road had fallen into disuse and silt layers had built up over the metalled surface to the south-east, a series of ditches were dug in the valley base.

The gravelled early Roman east-west road (933) was cut across by a narrow north–south aligned ditch (958/1224), the fills of which contained pottery dating to AD 70–130. Further north, ditch 843/954 continued this alignment and may here represent a recut of an early Roman ditch (838), though the sequence is unclear. Across the road, a second ditch 976 ran parallel to the west of 958. Both 843 and 976 contained Black Burnished ware 2 (BB2), which postdates AD 120, in their fills. These ditches appear to represent a reinstatement of the north-south route 847/961 which now led to a rectangular patch of gravel surfacing (748 et al; sgp 4226), which may perhaps have formed an area of hard standing serving an agricultural/crop processing function (Figs 11 and 12). Several layers of silting covered the metalled surface. This activity also postdates AD 120.

An east-west aligned ditch (898) which post-dates AD 150, is the latest extant Roman feature. It cut across the north-south aligned track and may represent an attempt to form a rectilinear enclosure at the southern end of the route. Pits (1217, 1219, 1221 and 1243) alongside soil accumulation (1232), dated to AD 120-200 by the only sherd of Central Gaulish samian ware, over metalled surface 748, support the suggestion that this period of activity was relatively short lived, towards the end of the 2nd-century.

Mid-Roman activity also continues east of Henhurst Road (Fig.11). A series of deep pits was excavated to the north and south of the established hollow way, perhaps as wells. Pit or well 191 was over 2 m deep and was backfilled after an episode of collapse. The *terminus post quem* for the backfilling is *c* AD 120-300, provided by a fragment of Belgic shell-tempered ware and a single fragment of coarse grey ware (Brown 2006). Wells/pits 539 and 521 on the north side of the hollow way have similar small pottery assemblages. The evidence suggests low level domestic or agricultural activity, the small quantities of finds deriving from settlements outside the limit of excavation. Material was presumably brought to the site as waste debris and dumped in available pits.

Further evidence of mid-Roman activity is found at the eastern end of the Tollgate zone. A single isolated circular pit (161) recorded at the base of Scalers Hill (Fig. 2) produced 54 sherds (632 g) of Roman pottery including grey ware, orange wares- with forms including a straight-sided bowl in a Canterbury fabric, coarse orange sandy ware, and shell-tempered storage jars (Brown 2006). An overall date of AD 100-150 is suggested for the pit. The function of this pit is unclear; the fill suggests that it was filled with domestic waste, as a high

proportion of ash and charcoal was present. The lack of burnt bone argues against interpretation as a cremation assemblage. The pit was also relatively rich in bone waste, including a fragment of juvenile sheep scapula, a canine paw bone (first phalanx) and two bird bone fragments. The pit also accounted for the majority of fish bones (mostly marine) recorded from the site (14 of 18 fragments, see Kitch 2006). The bone assemblage is unusual and expands the range of known resources exploited in this area during the Roman period.

Early and mid-Roman conclusions

Overall the Roman landscape around Tollgate suggests fairly intensive agricultural exploitation, although unlike Northumberland Bottom to the west, no settlement sites were found within the excavated area. The paucity of pottery and dietary waste suggests that it was not close to areas of intensive settlement. The landscape was clearly reorganised during the early Roman period. The process may have begun prior to the Roman Conquest, but there is no obvious evidence for extensive late Iron Age field systems in the Tollgate zone. A north-south trackway 847/961, west of Henhurst Road, represents an early subdivision of the landscape within this period and may lead south from Watling Street. An east-west route 933/522, running east from 847/961 and parallel to Watling Street and *c* 360 m to its south, was subsequently laid out. These routes are contemporary with boundary ditches defining the establishment of field systems and appear to form part of the re-organisation of the agricultural hinterland of Springhead in the mid 1st century AD.

It is not clear from the excavated evidence whether the east-west road identified at Henhurst Road continued westwards beyond 847/961, but it is of interest to note that it follows the same alignment as the east-west trending post-medieval boundaries to the north and south of the site, as marked on the 1st edition Ordnance Survey (Fig. 2). It is unlikely to be a precursor to Watling Street as it appears to lie on a divergent path (See Fig. 2). The road is not very substantial by comparison with some excavated major Roman roads, but is similar in scale and construction to the excavated track leading south from Springhead, alongside which lay the Pepper Hill cemetery (Biddulph 2006). On the basis of the excavated evidence these routes and others like them may have provided local access between settlements, fields and cemeteries established in the hinterland of Springhead very early in the Roman period. However, at Pepper Hill there is evidence that the trackway and cemetery were laid out, or developed, with respect to pre-Roman landmarks which have left little archaeological trace (Biddulph 2006). The same may true at Henhurst Road, as a late Bronze Age pit or well (537) was found adjacent to the hollow way alongside two Roman wells (539, 521). The evidence from both Pepper Hill and Henhurst Road suggests that the hollow ways were silting up by the later Roman period, but they may have survived as local footpaths for much longer. Tracing the alignment of the Henhurst Road track in a westward direction for 600 m, to a

junction with Church Road, leads to the parish church of St, Margaret's, Ifield, hinting at some level of continuity into the post-Roman period.

Evidence of Roman activity in the Tollgate zone fades out during the first half of the 3rd century AD, with no Roman material remains dating from after *c* AD 250. Given the very large scale of excavation in the Tollgate and Northumberland Bottom CTRL zones, this is likely to be significant, as it provides evidence that the decline of Springhead was not confined to the settlement itself, but reflects a more general recession, affecting the surrounding rural hinterland as well.

4.6 The Medieval and recent landscape (AD 1000 – 1800)

4.6.1 Medieval

As with earlier periods, Medieval activity in the Tollgate zone is generally characterised by dispersed features. However two concentrations, one around Church Road (Fig. 14) and the other to the east of Henhurst Road (Fig. 11), were apparent.

On the west side of Church Road, a large irregularly shaped pit (1211), over 6m in diameter and 2 m deep (Fig.2) was dated to *c* AD 1175 to AD 1250 by fragments of North-west Kent reduced sandy ware, including a jug rim, from its fills. The size and shape of the pit suggest it may have been a chalk quarry or marl pit. East of, and roughly parallel to, Church Road, was a north–south aligned, slightly curved ditch (806) which is interpreted as part of a boundary or drove way, possibly defining the east side of a medieval precursor to Church Road. Fragments of locally produced medieval shelly and shelly-sandy wares were recovered from the ditch fill, giving an overall date of AD 1050 to AD 1250 (Mepham 2006). A large, sub-circular pit (463) was located to the south--west of the ditch and contained a similar range of early Medieval pottery fabrics.

Roughly 215 m due east of the ditch, close to the sarsen stones discussed above (4.3.1), was a rectangular patch of cobbles, laid in a shallow scoop 1148 (Fig. 5). The cobbles included fragments of scorched and fire cracked sarsen. Two small postholes, each measuring *c* 0.35 m in diameter had been inserted vertically through the flint cobbles on its west side, but no trace of the posts survived. A fired clay deposit may represent traces of a hearth, and small fragments of animal bone were recovered from the cobbled surface (Kitch 2006). Deposits sealing the cobbled surface contained fragments of a medieval North-west Kent ware dish and cooking pot, suggesting a possible date range for this activity between AD 1100 and AD 1250 (URS 2001, 52). Fragments of iron slag were also present.

These are probably the traces of an episode of field clearance, dating from some point in the 11th to 13th centuries, adding to a general picture of agricultural intensification in the

Tollgate area at around that time. Five of the sarsen stones close to the cobbled area showed evidence for burning. In the post-medieval period, recorded methods of disposing of sarsens include setting fires under the stones to create cracks and then breaking them up with hand tools (Ashbee P, 1993).

Figure 14: Pre-Roman, Roman and medieval features in the Henhurst Road mitigation areas

The features east of Henhurst Road (Fig. 11) comprise pit 165, and four east-west aligned field ditches: 195, 1046, 1135 and 1140. An isolated hearth 419 was also recorded, roughly 500 m east of Henhurst Road at Singlewell Feeder station (see Fig.2) for location of 419, 1135 and 1140). Fourteen sherds of local medieval shelly ware pottery, including two jar rim fragments, were associated with hearth together with scorched grains of rye, free-threshing wheat and barley (Davis 2006). The fills of refuse pit 163 also contained a jar rim and cooking pot fragments and a small amount of charred grains of free-threshing wheat (75% of the sample), barley and oat, fragments of hazelnut shells and weed seeds. The absence of chaff from the sample indicates that the grain had been processed elsewhere. Animal bones were also present, representing remains of sheep/goat, equid, sparrow and fish species of eel, and *gadidae*. Aside from the sparrow bone, the overall assemblage is indicative of normal domestic medieval waste from the lower end of the economic scale- in keeping with the rural nature of the landscape.

4.6.2 Post Medieval

The identified post-medieval features were confined to a brick-built kiln near Singlewell Feeder station (Fig. 2), nearby pits and fire-pit; ploughsoil deposits at Henhurst Road cut into by a shallow pit, and ditches such as 810. The brick kiln was composed of several walled flues fed by a stokehole from the south, all cut into the chalk bedrock. The brick masonry was identified as belonging to the mid- to late 18th-century according to fabric and size. Deposits within the structure show a period of frequent use, before disuse and eventual collapse, probably some time in the late 18th-to late 19th-centuries. The location of the kiln *c* 80 m south of the line of Watling Street suggests that easy access was an important consideration. The bricks were presumably used in nearby contemporary developments at Singlewell and Cobham.

No direct dating was available for the remaining post-medieval features, although the recovery of coal, slate and/or clay pipe stems indicates deposition after 1700. The presence of ditches, pits and ploughsoil horizons provides evidence for a further phase of agricultural intensification in the landscape around Tollgate in the 18th to 20th centuries, continuing until the CTRL development at the close of the 20th century. Short-lived domestic and industrial

encroachment is proven by the brick kiln and medieval domestic hearth at the Singlewell Feeder Station.

4.7 Unphased Features

Dispersed activity was recorded across the watching brief zone either as undated or isolated features. Interpretation of the features is consistent with generally agricultural land-use, comprising ditches, fire pits, pits and modern drainage and service trenches.

5 GUIDE TO THE ARCHIVE

The following tables include details of the archive components.

The site has been analysed and published as part of the Channel Tunnel Rail Link Section 1 Post-excavation Project. This Integrated Site Report is one of 20 publication level site reports available to download from the Archaeology Data Service website: **http://ads.ahds.ac.uk/catalogue/projArch/ctrl/index.cfm**. These present synthesised data from key site sequences at an interpretative level that can be assimilated into complementary studies. The ADS site also includes five schemewide specialist reports, which provide synthetic overviews of the specialist data from CTRL Section 1 in its regional context. Underpinning the site reports and overviews, is a comprehensive archive of individual specialist reports and databases, which are also available to download. The CTRL reports and data can be accessed through the 'Project Archives' section of the ADS website.

Hard copy publication of the CTRL Section 1 results comprises a single volume synthetic overview of the excavated results in their regional context, which includes a complete site gazetteer and guide to the digital archive (Booth et al 2007).

Table 5 below details all available digital data for the Tollgate group of sites. The Post-excavation assessment report is included in the digital archive, but assessment databases have only been included for categories of material which were not subsequently subject to full analysis. All reports and accompanying figures are presented as downloadable, print-ready Adobe Acrobat files (.pdf). ADS also maintain archive versions of report text (.rtf) and image pages (.tiff). Databases are available as text files (.rtf). The digitised site plan is available as an Arcview shapefile (.shp) and in drawing exchange format (.dxf).

Table 5: Digital report and archive components available to download from the Archaeology Data Service website. [http://ads.ahds.ac.uk/catalogue/projArch/ctrl]

Description	Filename root	Principal authors and organisation
Integrated site report		
Integrated site report	TLG_ISR	Bull R (MoLAS)
Integrated site report figures	TLG_ISR	Bull R (MoLAS)
Site research database		
Site database	TLG	Bull R (MoLAS)
CAD/ GIS drawings		
CAD drawing	TLG_CAD	
ESRI ArcMAP GIS project	TLG_GIS	
GIS limit of excavation shapefile	TLG_GIS	
GIS feature plan	TLG_GIS	
Specialist research reports		
Ceramics (later prehistoric)	CER_LPR_TLG	Jones GP (OWA JV)
Ceramics (Late Iron Age and Roman)	CER_ROM_TLG	Brown L (OWA JV)
Ceramics (post-Roman)	CER_MED_TLG	Mepham L (OWA JV)
Lithics	FLI_TLG	Devaney R (OWA JV)
Small finds	SFS_TLG	Keily J (MoLSS)
Faunal remains	ENV_Fauna_TLG	Kitch J (OWA JV)
Charred plant remains	ENV_Charredplants_TLG	Davis A (MoLSS)
Geoarchaeology	ENV_Geoarch_TLG	Corcoran J (MoLAS)
Radiocarbon dating	DAT_TLG	Allen MJ (OWA JV)
Specialist datasets		
Ceramics (later prehistoric)	CER_LPR_TLG	Jones GP (OWA JV)
Ceramics (Late Iron Age and Roman)	CER_ROM_TLG	Brown L (OWA JV)
Ceramics (post-Roman)	CER_MED_TLG	Mepham L (OWA JV)
Lithics	FLI_TLG	Devaney R (OWA JV)
Small finds	SFS_TLG	Keily J (MoLSS)
Faunal remains	ENV_Fauna_TLG	Kitch J (OWA JV)
Charred plant remains	ENV_Charredplants_TLG	Davis A (MoLSS)
Post-excavation assessment		
Post-excavation Assessment	TLG_PXA	MoLAS

Table 6 Artefactual and environmental archive index

Item	Site code	Number Of Items or boxes or other	No of Fragments or litres or weight
Lithics (boxes)	ARC 330 98C (Zone 4)	2 size 1	247
	ARC TLG 98	See misc.	3
	ARC CRS 98	See misc.	2
Burnt flint (boxes	ARC 330 98C (Zone 4)	2 size 1	35.96kg
	ARC TLG 98	See misc.	30g
	ARC CRS 98		
Pottery (boxes)	ARC 330 98C (Zone 4)	15 size 1	2444
	ARC CRS 98	See misc.	13
Fired clay (boxes)	ARC 330 98C (Zone 4)	1 size 1	1.42kg
	ARC TLG 98		
	ARC CRS 98	See misc.	0.25kg
Small finds	ARC 330 98C (Zone 4)	1 box size 1	20
CBM (boxes)	ARC 330 98C (Zone 4)	5 size 1	
	ARC TLG 98		
Stone (boxes)	ARC 330 98C (Zone 4)	1 size 1	
	ARC CRS 98	See misc.	0.03kg
Animal Bone (boxes)	ARC 330 98C (Zone 4)	5 size 1	790
Misc.	ARC TLG 98	1 size 1	
	ARC CRS 98	1 size 1	
Molluscs	ARC 330 98C (Zone 4)	1 size 2	97
	ARC TLG 98	See ARC 330 98 Zone 4	24
Flora	ARC 330 98C (Zone 4)	1 size 1	
Flots	ARC 330 98C (Zone 4)	1 size 1	
Soil Samples (10lit. buckets)	ARC 330 98C (Zone 4)	330	
	ARC TLG 98	29	
Soil Samples (no. of contexts)	ARC 330 98C (Zone 4)	149	
	ARC TLG 98	0	
Soil Samples (Monolith/kubiena tin)	ARC TLG 98	4	

Table 7 Fieldwork and research paper archive

Record Group	Site code	Contents
Contexts records	ARC 330 98C (Zone 4)	739
	ARC TLG 98	9
	ARC CRS 98	28
A4 plans	ARC 330 98C (Zone 4)	265
	ARC CRS 98	8
A4 sections	ARC 330 98C (Zone 4)	192
	ARC TLG 98	3
Films (monochrome) S=slide; PR=print	ARC 330 98C (Zone 4)	463pr
Films (Colour) S=slide; PR=print	ARC 330 98C (Zone 4)	S=463

Key to archive box sizes

Cardboard boxes

Size 1 = Bulk box	391mm x 238mm x 210mm	0.020m^3
Size 2 = Bulk box	391mm x 238mm x 100mm	0.009m^3
Size 3 = Bulk box	386mm x 108mm x 100mm	0.004m^3
Size 4 = Bulk box	213mm x 102mm x 80mm	0.002m^3

Plastic boxes

6	**Size 8= Medium 260mm x 184mm x 108mm**	**0.005m^3**

CATALOGUE OF ILLUSTRATED FINDS

Fig. 4: Flint objects

1. AH-1012 737 in pit 734: Levallois flake. Possible Palaeolithic levallois flake, iron stained, worn and damaged edges
2. AH-1269 998 in ditch 961: Keeled Core. Approx. 50% cortex, some cortication, good condition
3. AH-1266 867 in pit 866: End and side scraper. Damage to ventral surface on proximal right and proximal end
4. AH-1276 1230 (natural): Miscellaneous retouch. Bifacial retouch at proximal end, later damage including notch on left

Fig. 6: Selected Iron Age pottery and briquetage vessels from pit 372

Pottery

1. Shouldered jar, R1, S1; finger-impressed cabling on the top of the rim, finger impressions around the shoulder; PRN 1010, context 352, pit 372. Probably the same vessel as PRN 1014
2. Long-necked, shouldered jar, R3, F1; wiped exterior; PRN 1001, context 352, pit 372
3. Shouldered jar, R4, S1; wiped exterior; finger-impressed cabling on the top of the rim; PRN 1038, context 352, pit 372
4. Ovoid jar, R5, S1; wiped exterior; PRN 1074, context 385, pit 372

Briquetage

1. Long-necked shouldered jar, R3, V1; finger wiped and burnished exterior; finger impressed cabling on the top of the rim; PRN 1051, context 352, pit 372
2. Open form with conical profile, R61, V1; wiped exterior, burnished interior; finger impressed cabling on the top of the rim; PRN 1057, context 352, pit 372
3. Open form with conical profile, R62, V1; wiped and finger wiped exterior, possible finger impressed cabling on the top of the rim; PRN 1136, context 386, pit 372

Fig. 7: Selected finds from pit 374

Pottery

1. Long-necked shouldered jar, R3, S1; finger wiped on exterior; pitted interior; PRN 1139, context 373, pit 374
2. Shouldered jar, R4, VS1; finger-impressed cabling on the top of the rim; sooting on the upper exterior; PRN 1224, context 373, pit 374
3. Slack-shouldered jar, R9, F2; finger-wiped exterior, wiped interior; fingertip decoration around shoulder exterior; PRNs 1214, 1222 and 1223, context 373, pit 374
4. Round-shouldered bowl, R20, F2; burnished both surfaces; PRN 1193, context 373, pit 374

Metalwork
<90> (from 373) Iron La Tène I brooch

Stone implements
1. <60> (from 373) and <85> (from 373) stone implements

Fig. 9: Selected finds from pit 740

Pottery
1. Footring base, B3, VF1; burnished exterior; PRN 1253, context 741, pit 740

Metalwork
1. [811] <33> swivel hook. Iron.
2. [741] <25> a plain open iron ring
3. <66>

Worked bone
1. [741] <109> waste fragment from antler working <109>

Fig. 10: selected finds from the Early-Middle Iron Age pits groups: pottery from pits 387, 679, 702, 871 and 1174; worked antler tine <110> (pit 435) and possible small saddle quern fragment <59> (pit 1172).

Pottery

Pit 387
1. Long-necked shouldered jar, R3, F2; wiped exterior; PRN 1288, context 388, pit 387
2. Neutral form, R10, Q2; fingertip impressions around upper exterior; PRN 1262, context 389, pit 387
3. Neutral form, R10, QF1; fingertip impressions around upper exterior; PRNs 1278 and 1303, context 389, pit 387. Incorporates drawing number 31
4. See drawing 11
5. Round shouldered jar, R11, F4; wiped exterior; small amount of burnt residue on interior; PRN 1314, context 390, pit 387

Pit 679
6. Shouldered jar, R1, S1; PRN 1653, context 681, pit 679
7. Neutral form, R10, FS1; finger wiping on exterior; PRN 1629, context 691, pit 679

Pit 702
8. Shouldered bowl, R22, Q1; burnished on both surfaces; PRNs 1666 and 1667, context 693, pit 702

Pit 871
9. Round shouldered jar, R11, F2; smoothed interior; vertical slashes on exterior; PRN 1706, context 875, pit 871

Pit 1174
10. Jar with carinated shoulder, R8, FS1; a band of fingernail impressions is present in the shoulder region; PRN 1451, context 1181, pit 1174
11. Shouldered bowl with upright rim, R6, FV1; salt residue/bleaching on interior; PRN 1662, context 1177, pit 1174
12. Possible shouldered jar, ?R1, FV1; PRN 1469, context 1178, pit 1174
13. Shouldered bowl with upright rim, R6, FV1; PRN 1470, context 1178, pit 1174

Fig. 13: Selected Roman pottery from pits 161, 263, 673 and 861.

Pit 161

1. Straight-sided bowl (IVJ). Coarse orange sandy ware (fabric R6.1). Pit 161, context 160.
2. Storage jar (IIM, Monaghan type 3D1). Shell-tempered ware (fabric B6). Pit 161, context 160
3. Storage jar (IIM, Monaghan type 3D1). Shell-tempered ware (fabric B6). Pit 161, context 160

Pit 263

4. Bead-rim jar (IIA, Monaghan type 3F3.1). Shell-tempered ware (fabric B6). Probably product of Cliffe potteries. Pit 263, context 261

Pit 673

5. Necked, cordoned jar (IIN, Monaghan type 3A1). Grog-tempered ware (Fabric B2). Pit 673, context 609
6. Bead-rim jar with lid-seating (IIA16, Pollard 1988, no.12). Shell-tempered ware (fabric R69). Pit 673, context 609
7. Storage jar (IIL, Thompson 1982, type B3-8). Grog-tempered ware (B2). Pit 673, context 609
8. Bead-rim jar (IIA2, Monaghan type 3F3.1). Flint-and sand-tempered ware (fabric R102). Pit 673, context 609
9. Cordoned, everted rim jar (Monaghan type 3I5.2). Flint-and sand-tempered ware (fabric R102). Pit 673, context 609
10. Bead-rim jar with lid-seating (IIA16). Shell-tempered ware (fabric R69). Pit 673, context 674
11. Cordoned, everted rim jar (Monaghan type 3I5). Flint-and sand-tempered ware (fabric R102). Pit 673, context 674
12. Cordoned jar/bowl (Thompson type D2-4). Grog-tempered ware (fabric D2-4). Pit 673, context 674

Pit 861

13. Base of narrow-bodied jar. Grog-tempered ware (fabric B1). Pit 861, context 862
14. High bell-shaped lid with simple rim (Monaghan 12H1.1; Thompson type L2). Thompson and Monaghan cite a grog-tempered version that spans the conquest. This example is in shell-tempered ware (fabric B6). Pit 861, context 863
15. Base of pedestal urn (?). Flint-and sand-tempered ware (fabric B9.2). Pit 861, context 863
16. Large lid-seated jar or barrel, (rim broken). Flint-and sand-tempered ware (fabric R102). Pit 861, context 863

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