Channel Tunnel Rail Link

London and Continental Railways

Oxford Wessex Archaeology Joint Venture

The prehistoric, Roman and Anglo-Saxon funerary landscape at Saltwood Tunnel, Kent

by Ian Riddler and Mike Trevarthen

edited by Jacqueline Mckinley

CTRL Integrated Site Report Series

2006

LIST OF CONTENTS

LIST OF FIGURES

(See 'Section 6, Catalogue of illustrated finds' for descriptions of selected artefacts from non-grave contexts; see the 'Grave Catalogue' for descriptions of illustrated artefacts from grave contexts)

Figure 1:   Saltwood Tunnel. Site location plan

Figure 2:   Saltwood Tunnel. Site in relation to Ordnance Survey First edition of 1877 and contours plotted from Ordnance Survey 1:25000 Explorer map (1997)

Figure 3:   Saltwood Tunnel. Site plan indicating all archaeological features

Figure 4:   Saltwood Tunnel. Early prehistoric phase plan: western area

Figure 5:   Saltwood Tunnel. Early prehistoric phase plan: central area

Figure 6:   Saltwood Tunnel. Early prehistoric phase plan: eastern area

Figure 7:   Saltwood Tunnel. Neolithic pit group 46021, sections and pottery

Figure 8:   Saltwood Tunnel. Early Bronze Age barrow sections and pottery from pit 4586

Figure 9:   Saltwood Tunnel. Early Bronze Age barrow sections

Figure 10:   Saltwood Tunnel. Bronze Age grave C4507, plan

Figure 11:   Saltwood Tunnel. Bronze Age grave C4619, plan and small finds

Figure 12:   Saltwood Tunnel. Later prehistoric (LBA and IA) phase plan: western area

Figure 13:   Saltwood Tunnel. Later prehistoric (LBA and IA) phase plan: central area

Figure 14:   Saltwood Tunnel. Late prehistoric (LBA and IA) phase plan: eastern area

Figure 15:   Saltwood Tunnel. Late Bronze Age feature sections

Figure 16:   Saltwood Tunnel. Iron Age sub-square enclosure and cemetery

Figure 17:   Saltwood Tunnel. Iron Age and Romano-British feature sections

Figure 18:   Saltwood Tunnel. Iron Age grave C24, plan

Figure 19:   Saltwood Tunnel. Select Neolithic and Bronze Age flint

Figure 20:   Saltwood Tunnel. Later prehistoric pottery (1)

Figure 21:   Saltwood Tunnel. Later prehistoric pottery (2)

LIST OF PLATES

(See Section 6, the 'catalogue of illustrated finds' for extended plate captions)

LIST OF TABLES

ABSTRACT

As part of an extensive scheme of archaeological mitigation undertaken prior to construction of the Channel Tunnel Rail Link, Canterbury Archaeological Trust and Wessex Archaeology were commissioned by Rail Link Engineering Limited to carry out a programme of archaeological excavation at Saltwood Tunnel, north of Saltwood, Kent (NGR TR 615345 136940 to TR 616157 136925). A complex multi-period site was revealed, with evidence for ceremonial and funerary land use as well as for settlement and agriculture.

Activity earlier than the Bronze Age was mainly restricted to unstratified or residual flint and pottery, but a group of eight Mesolithic Horsham-type retouched points from a small pit-like feature may date to the 7th millennium BC, and three early Neolithic pits attest to activity, perhaps domestic, in the mid-late 4th millennium BC. In the early Bronze Age a barrow cemetery developed. Five barrows and a flat grave dated to the late 3rd-early 2nd millennium BC.

Limited middle Bronze Age evidence, comprising a cremation burial, a small pit and other occasional finds of Deverel-Rimbury pottery, suggest the cemetery was respected until the late 2nd millennium BC but, in the late Bronze Age, a settlement and field-system were established. Early to middle Iron Age agriculture is also attested by ditches and at least one track or droveway. No contemporary settlement remains were discovered, but an early-middle Iron Age inhumation cemetery and a square enclosure, perhaps a mortuary enclosure, were established at some time between the 8th – 4th centuries BC. A middle Iron Age inhumation grave of 2nd to 4th century BC date also lay near the western end of the site.

Early Romano-British domestic finds abounded at the western end of the excavation, mainly near a sunken trackway and in pits and field-enclosures to either side of it. The quantity and range of finds, and the presence of two small cremation cemeteries, strongly suggest a small rural settlement lay close-by. That this settlement waned after the mid-late 3rd century is inferred from a greatly reduced suite of remains, and from progressive infilling of the sunken trackway. Limited occupation, or at least occasional use of the site, is likely to have continued into the later 4th century.

Early Anglo–Saxon evidence from Saltwood Tunnel is dominated by three separate inhumation cemeteries, each located in the vicinity of a Bronze Age barrow. Seventeen graves were excavated within the eastern cemetery, 59 in the western cemetery and 141 in the central cemetery. Both the eastern and western cemeteries appear to have begun in the early 6th century. The eastern cemetery lasted only for one or two generations, whilst the western cemetery continued well into the 7th century. The central cemetery was established during the late 6th century and continued throughout the 7th century. From the early 6th century onwards there were always two cemeteries in use at the same time.

The central cemetery may have begun as a replacement for the eastern cemetery, but its plan subsequently changed with the deposition of four auspicious graves, each set in a north-south line at roughly 40m spacings. Three graves were large weapon burials and the fourth was an inhumation of female gender buried with gold and silver jewellery. The earliest of these graves, at the north of the cemetery, was probably deposited in the early years of the 7th century whilst the latest, at the south, may have been placed there around AD 625. Each burial attracted a range of satellite graves, arranged around it but not encroaching into its burial mound. Later graves spread to the south and the east, with a number of graves placed on the opposite side of the trackway 226. The latest graves within the central and western cemeteries were arranged in neat rows. Three early Anglo–Saxon grubenhäuser were also identified, all of which lay in the vicinity of the cemeteries and a little to the north of them.

Several early medieval ditches and pits towards the eastern end of the excavation mark the location of a small rural site, probably 10th or 11th century in date. Other medieval and post-medieval pottery was recovered from features and topsoil in the north-western corner of the excavation, where elements of the ancient Romano-British landscape may have been exploited as rectilinear fields, or possibly stock-pens. Remains associated with construction of the Saltwood railway tunnel in the early 1840s and relating to the presence of a military barracks in the earlier 20th century were recorded, but are not discussed in detail.

RÉSUMÉ

Canterbury Archaeological Trust et Wessex Archaeology furent chargés d'entreprendre des fouilles archéologiques à Saltwood Tunnel, au nord de Saltwood, dans le Kent (coordonnées géographiques NGR TR 615345 136940 à TR 616157 136925), dans le cadre d'un programme de recherches archéologiques de grande envergure en avance de la construction de la ligne ferroviaire du Tunnel sous la Manche (CTRL). Un site complexe s'échelonnant sur plusieurs périodes fut mis au jour, qui révéla des traces d'occupation d'un paysage cérémoniel et funéraire ainsi que d'habitats et d'agriculture.

L'activité qui précéda l'âge du Bronze était réduite essentiellement à des silex taillés et de la céramique résiduels ou hors contexte, mais un groupe de huit pointes retouchées de type Horsham d'époque mésolithique et provenant d'un fait archéologique de petite taille ressemblant à une fosse, datait peut-être du VIIème millénaire av.-J.C. Trois fosses du néolithique ancien attestent également d'une phase brève d'activité rituelle ou domestique éphémère vers le milieu ou la fin du IVème millénaire av.-J.C. Cinq fossés annulaires et une sépulture plate sans enclos furent identifiés, et des sépultures humaines associées à ces derniers furent datées par radiocarbone à la fin du IIIème ou au début du IIème millénaires av.-J.C.

Des vestiges limités de l'âge du Bronze moyen, y compris une sépulture à incinération, une petite fosse et quelques artefacts isolés de céramique de style Deverel-Rimbury, suggèrent que la nécropole fut vénérée jusqu'à la fin du IIème millénaire av.-J.C. mais, vers l'âge du Bronze récent, un site d'habitat et un système fossoyé agricole furent établis. Du début au milieu de l'âge du Fer, l'utilisation du paysage est attestée sous la forme de fossés et au moins un chemin suggère une occupation agricole. Aucuns vestiges d'habitat contemporain ne furent découverts, mais une nécropole à inhumations du début au milieu de l'âge du Fer ainsi qu'un enclos mortuaire pseudo carré furent créés à la même époque entre le VIIIème et le IVème siècles av.-J.C. Une sépulture à inhumation du milieu de l'âge du Fer, datée entre le IIème et le IVème siècles av.-J.C. était situé vers l'extrémité ouest du site.

Les mobiliers domestiques du début de l'époque romaine abondaient à l'extrémité ouest de la fouille, surtout à proximité d'un chemin en creux et dans des fosses ainsi que des enclos de champs situés des deux côtés de celle-ci. La quantité et l'éventail de mobilier, ainsi que la présence de deux petites nécropoles à incinération, suggèrent fortement l'existence d'un site d'habitat réduit à proximité. L'hypothèse que cet habitat déclina après le milieu ou la fin du IIIème siècle est supporté par l'ensemble de vestiges largement réduits et par le remplissage progressif du chemin en creux. Une occupation limitée, ou au moins une utilisation occasionnelle du site, semble avoir continuée vers la fin du IVème siècle.

L'évidence du début de l'époque anglo-saxonne à Saltwood Tunnel est dominée par trois nécropoles à inhumation distinctes, chacune située à proximité d'un tumulus de l'âge du Bronze. 17 sépultures furent fouillées dans la nécropole orientale, 59 dans la nécropole occidentale et 141 dans la nécropole centrale. Les nécropoles occidentales et orientales apparaissent toutes deux avoir commencées vers le début du VIème siècle. L'utilisation de la nécropole orientale dura seulement pendant une ou deux générations, tandis que la nécropole occidentale continua une partie du VIIème siècle. La néropole centrale fut établie vers la fin du VIème siècle et continua au cours du VIIème siècle. A partir du début du VIème siècle, seulement deux nécropoles furent utilisées en même temps.

La nécropole centrale a peut-être commencé comme remplacement pour la nécropole orientale, mais son plan spatial changea avec le dépôt de quatre tombes proéminentes, chacune disposée sur une ligne nord-sud à environs 40 m d'écart. Trois sépultures étaient des inhumations avec de larges armements et la quatrième était l'inhumation d'une femelle ensevelie avec des bijoux en or et en argent. La plus précoce de ces tombes, au nord de la nécropole, fut probablement déposée vers le début du VIIème siècle, tandis que la plus tardive, au sud, pourrait avoir été creusée vers 625 ap.-J.C. Chaque inhumation a attiré une gamme de sépultures satellites, arrangées autour de celle-ci mais sans empiéter sur son tertre central. Les sépultures plus tardives s'étalaient au sud et à l'est, avec un certain nombre situées du côté opposé du chemin 226. Les dernières sépultures des nécropoles centrale et occidentale étaient organisées en rangées ordonnées. Trois structures anglo-saxonnes précoces de type

grubenhäuser furent également identifiées, qui étaient disposées à proximité des nécropoles et un peu plus au nord de celles-ci.

Plusieurs fossés et fosses du début de l'époque médiévale situés vers l'extrémité est de la fouille marque la localisation d'un site rural de taille réduite, probablement daté des Xème ou XIème siècle. De la céramique médiévale et moderne fut également récupérée dans des faits archéologiques et le sol de labours moderne dans l'angle nord-ouest de la fouille, où des éléments du paysage romain ont peut-être été exploité par des champs rectilinéaires, ou alors des enclos à bétail.

ZUSAMMENFASSUNG

Im Rahmen des Projekts zur archäologischen Erfassung im Vorfeld des Baus der Bahnstrecke durch den Kanaltunnel (Channel Tunnel Rail Link) beauftragte Rail Link Engineering Limited den Canterbury Archaeological Trust und Wessex Archaeology mit der Durchführung archäologischer Grabungen am Saltwood-Tunnel nördlich von Saltwood in Kent (NGR TR 615345 136940 bis TR 616157 136925). Dabei wurde eine komplexe mehrperiodige Fundstelle freigelegt, die Belege für eine kultisch und für Grabzwecke genutzte Landschaft sowie Spuren von Siedlungs- und Agrartätigkeit aufwies.

Die Aktivitäten vor der Bronzezeit waren vor allem auf unstratifizierte oder als Restbestände erhaltene Feuersteine und Tonwaren beschränkt. Allerdings stammte eine Gruppe von acht mesolithischen, Horsham-ähnlich retuschierten Spitzen, die in einer kleinen grubenähnlichen Vertiefung gefunden wurden, möglicherweise aus dem 7. Jahrtausend v. Chr., dazu belegen drei frühneolithische Gruben eine kurze Phase zeremonieller oder kurzlebiger häuslicher Aktivitäten im mittleren bis späten 4. Jahrtausend v. Chr. In der frühen Bronzezeit entstand ein Grabhügelfeld. Es wurden fünf kranzförmige Ringgräben und ein flaches, uneingehegtes Grab identifiziert; die dazugehörigen menschlichen Bestattungen wurden durch Radiokarbonmessungen ins späte 3. bis frühe 2. Jahrtausend v. Chr. datiert.

Eine begrenzte Anzahl von Befunden aus der mittleren Bronzezeit, darunter eine Brandbestattung, eine kleine Grube und vereinzelte Keramikgegenstände im Deverel-Rimbury-Stil, deuten darauf hin, dass das Gräberfeld bis ins späte 2. Jahrtausend v. Chr. geachtet wurde. In der späten Bronzezeit entstanden hier dann eine Siedlung und landwirtschaftliche Felder. Die agrarische Nutzung in der frühen bis mittleren Eisenzeit ist ebenfalls durch Gräben belegt, dazu lässt mindestens ein Feld- oder Viehweg auf eine landwirtschaftliche Nutzung schließen. Es wurden keine Siedlungsreste aus dieser Zeit gefunden, allerdings wurden irgendwann zwischen dem 8. und 4. Jahrhundert v. Chr. ein früh- bis mitteleisenzeitliches Gräberfeld und eine fast quadratische Toteneinzäunung angelegt, dazu lag ein mitteleisenzeitliches Körpergrab aus dem 2. bis 4. Jahrhundert v. Chr. nicht weit vom Westrand des Grabungsareals entfernt.

Am westlichen Rand der Ausgrabungsstätte traten zahlreiche Siedlungsobjekte aus der Anfangszeit der römisch-britischen Periode zutage, vor allem dicht bei einem Hohlweg und in Gruben und eingehegten Feldern beidseitig davon. Aufgrund der Fundmenge und des Fundspektrums sowie der Präsenz von zwei kleinen Brandgräberfeldern ist davon auszugehen, dass in der Nähe eine kleine Dorfsiedlung bestand. Vermutlich verlor die Siedlung irgendwann in der zweiten Hälfte des 3. Jahrhunderts an Bedeutung, da für diese Zeit nur noch geringe Fundmengen zu verzeichnen waren und der Hohlweg zunehmend verfüllt wurde. Wahrscheinlich wurde die Stätte noch bis ins späte 4. Jahrhundert räumlich begrenzt oder zumindest gelegentlich weitergenutzt.

Unter den Befunden aus der frühen angelsächsischen Zeit am Saltwood-Tunnel ragen drei separate Körpergräberfelder hervor, die alle in der Nähe eines bronzezeitlichen Hügelgrabs angesiedelt waren. Im östlichen dieser Gräberfelder wurden 17 Gräber ausgegraben, im westlichen 59 und im mittleren 141. Sowohl das östliche wie auch das westliche Gräberfeld wurden offenbar zu Beginn des 6. Jahrhunderts angelegt. Das östliche Gräberfeld hatte nur eine oder zwei Generationen lang Bestand, während das westliche Gräberfeld bis weit ins 7. Jahrhundert hinein benutzt wurde. Das gegen Ende des 6. Jahrhunderts angelegte mittlere Gräberfeld wurde während des gesamten 7. Jahrhunderts genutzt. Seit Beginn des 6. Jahrhunderts waren immer zwei Gräberfelder gleichzeitig in Gebrauch.

Das mittlere Gräberfeld war ursprünglich womöglich als Ersatz für das östliche Gräberfeld geplant, allerdings änderte sich dies in der Folgezeit durch die Anlage von vier auffälligen Gräbern, die in einer Entfernung von jeweils etwa 40 m auf einer Nord-Süd-Achse platziert wurden. Drei davon waren große Waffengräber, im vierten befand sich eine weibliche Gestalt, die mit Gold- und Silberschmuck bestattet wurde. Das älteste dieser Gräber, im Nordteil des Gräberfelds gelegen, stammt womöglich aus den Anfangsjahren des 7. Jahrhunderts, während das jüngste wahrscheinlich um 625 n. Chr. im Südteil angelegt wurde. Zu jedem Grab entstand eine Reihe umliegender Gräber, allerdings wurden die größeren Grabhügel dabei respektiert. Spätere Gräber breiteten sich in Richtung Süden und Osten hin aus, dabei wurden mehrere Gräber jenseits von Weg 226 angesiedelt. Die jüngsten Gräber im mittleren und westlichen Gräberfeld wurden in klaren Reihen angelegt. Nicht weit nördlich der Gräberfelder wurden darüber hinaus drei frühe angelsächsische Grubenhäuser registriert.

Mehrere frühmittelalterliche Gräben und Gruben zum östlichen Rand der Ausgrabungsstätte hin markieren die Stelle einer kleinen Dorfanlage, wahrscheinlich aus dem 10. oder 11. Jahrhundert. Zudem wurden mittelalterliche und nachmittelalterliche Keramikgegenstände aus Strukturen und dem Mutterboden in der Nordwestecke des Grabungsareals geborgen, wo auf Teilen der alten römisch-britischen Landschaft offenbar geradlinig angelegte Felder oder möglicherweise Viehgehege entstanden. Funde, die mit dem Bau des Saltwood-Bahntunnels zu Beginn der 1840er Jahre oder mit der Existenz einer Militärkaserne Anfang des 20. Jahrhunderts in Verbindung standen, sind verzeichnet, werden jedoch nicht detailliert behandelt.

RESUMEN

Como parte de un extenso programa de mitigación arqueológica anterior a la construcción del Channel Tunnel Rail Link, Rail Link Engineering Limited encargó a Canterbury Archaeological Trust y Wessex Archaeology a realizar el programa de excavación arqueológica en Saltwood Tunnel, al norte de Saltwood en Kent (coordenadas nacionales de TR 615345 136940 a TR 616157 136925). Se reveló un yacimiento de complejos períodos con evidencia de uso del suelo ceremonial y funerario así como un asentamiento y agricultura.

La actividad previa a la Edad del Bronce queda reducida a sílex sin estratificar o residual y cerámica, pero un grupo de ocho puntas retocadas Mesolíticas del tipo Horsham de una estructura en forma de hoyo podrían datar del VII milenio a.C., y tres hoyos del Neolítico Inicial atestiguan una fase breve de actividad ceremonial o doméstica de mitad del IV milenio a.C. A comienzos de la Edad del Bronce se establece un cementerio de túmulos. Cinco zanjas anulares y una tumba plana sin cerco fueron identificadas y los restos humanos asociados con éstas fueron fechadas con radiocarbono de finales del III milenio y comienzos del II milenio a.C.

La limitada evidencia de un enterramiento de cremación, un hoyo pequeño y restos ocasionales de cerámica estilo Deverel-Rimbury, de mediados de la Edad del Bronce, sugiere que el cementerio fue venerado hasta finales del II milenio a.C. pero a finales de la Edad del Bronce se establecieron un asentamiento y un sistema agrícola. El uso agrícola del terreno se confirma también durante principios y mitad de la Edad del Hierro en zanjas y al menos un camino o sendero. No se descubrieron restos de asentamiento contemporáneo pero un cementerio de inhumación de inicios y mitad de la Edad del Hierro y un recinto mortuario semi-cuadrado se crearon en algún momento entre el siglo VIII y siglo IV a.C., y una fosa de inhumación con fecha entre el siglo IV y II a.C. aparece cerca del extremo oeste del yacimiento.

Los hallazgos del período Romano-Británico inicial aparecen en abundancia en el lado Oeste de la excavación principalmente cerca de un camino hundido y en hoyos y cercados agrícolas a ambos lados de éste. La cantidad y variedad de los hallazgos y la presencia de dos pequeños cementerios de cremación, sugieren un asentamiento rural pequeño en las cercanías. El que este asentamiento disminuya después de finales del siglo III d.C. se deduce de la enorme disminución de restos y de un progresivo relleno del camino hundido. A finales del siglo IV d.C., la ocupación es limitada o al menos se mantiene un uso ocasional de la zona.

La evidencia de inicios del período Anglo-Sajón en Saltwood Tunnel queda representada por tres cementerios de inhumación separados, cada uno localizado en las cercanías del túmulo de la Edad del Bronce. Se excavaron 17 tumbas en el cementerio Este, 59 en el cementerio Oeste y 141 en el cementerio central. Los cementerios Este y Oeste parecen haber comenzado a inicios del siglo VI d.C. El cementerio Este se mantuvo sólo durante una o dos generaciones, mientras que el cementerio Oeste

continuó a lo largo del siglo VII d.C. Desde comienzos del siglo VI d.C. en adelante hubo siempre dos cementerios en uso al mismo tiempo.

El cementerio central pudo haberse iniciado como sustituto del cementerio Este, pero su planta cambió posteriormente con la deposición de cuatro tumbas auspicias cada una establecida en alineación norte-sur separadas, aproximadamente, por 40 metros. Tres de éstas eran fosas grandes de armas y la cuarta era una inhumación de sexo femenino enterrada con joyas de oro y plata. La tumba más temprana, al norte del cementerio, fue emplazada probablemente a comienzos del siglo VII mientras que las más tardía, en el sur, pudo haber sido dispuesta ahí en torno al año 625 d.C. Cada tumba atrajo una variedad de tumbas satélites dispuestas a su alrededor pero sin invadir el túmulo funerario. Las tumbas posteriores se dispersaron hacia el Sur y el Este con algunas dispuestas opuestas al camino 226. Las tumbas más tardías de los cementerios central y Oeste aparecían en filas ordenadas. Se identificaron también tres casas Anglo-Sajonas (grubenhäuser) localizadas en los alrededores de los cementerios y un poco hacia el Norte de éstos.

Varias zanjas y hoyos medievales en el extremo oriental de la excavación marcan la posición de un yacimiento rural pequeño, con fechas probablemente de los siglos X y XI d.C. Cerámica medieval y post-medieval se recuperó en estructuras y en el suelo vegetal en la esquina Noroeste de la excavación, en donde elementos del paisaje romano-británico pudieron haber sido explotados por campos rectilíneos o posiblemente por recintos de ganado. Se localizaron restos asociados con la construcción del túnel del ferrocarril de Saltwood de comienzos de la década de 1840, pero éstos no son analizados en detalle.

ACKNOWLEDGEMENTS

1   INTRODUCTION

1.1   Project background

Construction of the CTRL (Section 1) required excavation of two deep, approximately parallel railway cuttings north of Saltwood village, immediately south of the M20 motorway, and directly above the London to Folkestone railway as it passes through the Saltwood tunnel between Sandling and Dolland's Moor (NGR TR 615345 136940 to TR 616157 136925, Fig. 1). Recording of the archaeological remains that would be destroyed by this work was undertaken between 1997 and 2001, as part of a wider programme of archaeological mitigation along the CTRL route.

In 1979, salvage recording during construction of the M20 motorway provided the first indication that archaeological remains survived near the Saltwood Tunnel (Willson 1985). Following an environmental assessment of the proposed CTRL route (URL 1994), Oxford Archaeological Unit (now Oxford Archaeology) undertook fieldwalking and evaluation trenching immediately south of these remains (URS 1997) and full excavation was then carried out by the Canterbury Archaeological Trust (CAT) under the RLE site code ARC SLT98. A second phase of evaluation trenching revealed early Anglo-Saxon inhumation burials immediately west of the Stone Farm bridleway, and an area around these was also fully excavated (ARC SLT98C). In 1999 Wessex Archaeology (WA) was commissioned to maintain a rolling 'strip-map-sample' excavation programme on land east of the bridleway (ARC SFB99), whilst CAT concurrently excavated the remaining ground between their previous sites, and beneath the western portion of the Saltwood tunnel bund (ARC SLT99). In the final phase of fieldwork WA recorded remains preserved in three separate areas: under the eastern tunnel-bund, within the footprint of a temporary soil storage area, and beneath the former Stone Farm bridleway (ARC SFB01).

1.2   Physical background

The Folkestone Beds, which lay beneath the site, form part of the Cretaceous Lower Greensand series (Fig. 1). In Kent, these strata dip gently from south to north, outcropping along a narrow, approximately east-west aligned band following the northern arm of the Wealden anticline, and forming the distinctive topographic bench of the Lower Greensand escarpment. Folkestone Beds typically comprise friable quartz-sands, sometimes inter-bedded with seams of pebbles or clay, or with sheets of glauconitic calcareous sandstone known colloquially as ragstone (Ordnance Survey 1990; Gallois 1992, 34, 47). Across the site the upper exposure of Folkestone Beds had weathered to unconsolidated and often highly mobile sands, although ragstone sheets outcropped in its north-west corner. Acid podsols had

developed in antiquity, although the acidity of these had been mitigated, probably by relatively recent agricultural soil improvements. (J. McKinley, pers. comm.). At the eastern end of the site a bed of fossiliferous clay-marl gave rise to heavy clay-rich soils. Here, artificial land-drainage had been undertaken in the 19th or early 20th century.

North of the M20, the natural dip-slope of the Greensand and the overlying Gault Clay form a broad, shallow and predominantly dry vale, beyond which the steep chalk scarp of the North Downs rises to Tolsford Hill *c* 1.1 km away.

West of Folkestone several deeply incised north–south aligned valleys dissect the coastal exposure of the Greensand. The Saltwood Tunnel excavations (Figs. 2 and 3) investigated an oblique *c* 0.8 km long transect across the broad, flat top of a spur (hereafter the Saltwood plateau) between two of these valleys, at Sandling to the west and Dolland's Moor to the east. Much of the site lay at *c* 95 m aOD although ground dipped locally to *c* 91.5 m aOD at its far-western end. The southern edge of the Saltwood plateau drops irregularly and sometimes precipitously southward towards Saltwood village and, beyond that, to the steep ancient cliff-lines at Hythe. A localised coombe bifurcates the southern edge of the plateau and this appears to have facilitated access from the south since prehistoric times. More recently the coombe carried a single-track road linking Saltwood village with the A20 at Stone Farm.

In the early 1840s a railway tunnel serving the London to Folkestone railway was constructed below the Saltwood plateau (see Figs. 1 and 2). Spoil from the tunnelling works was raised to the surface through a series of vertical ventilation shafts, and dumped in a discontinuous linear earthwork *c* 35 m wide at its base, surviving (until recently) to a height of up to *c* 4-5 m. Land immediately north of the site was deeply scarped during construction of the M20 motorway.

The site contained no natural water sources and no groundwater was encountered during excavation. However, springs arising at the foot of the North Downs feed a small stream (the Slay Brook) which discharges past Dolland's Moor *c* 0.4 km east of the site. It is also recorded that sand extracted during preliminary works for the railway tunnel was saturated (Simms 1860, 70, 93, 142, cited in Smart *et al* 1975, 90), and other superficial groundwater may, at times, have perched above the clay stratum at the eastern end of the site.

2   AIMS AND METHODS

This report presents an interpretative digest of the site evidence at a level which, it is hoped, can readily be integrated into complimentary studies. The synthetic text includes a narrative describing the sequence of site activity and the key data from which the development of the Saltwood Tunnel landscape has been reconstructed. Significant artefact assemblages and stratigraphic sequences are briefly discussed where appropriate (URS 2003, 15-16), but detailed specialist reports are published separately within the ADS website (ADS 2006).

The primary research aims of the excavation were set out in an Agreement for the Provision of Archaeological Services (URS 1999a), prepared by the RLE Project Manager and approved by Kent County Council on behalf of the local planning authority. The post-excavation and reporting programme was guided by an Updated Project Design (URS 2003) and carried out under the overall co-ordination of Oxford Wessex Archaeology (OWA) Joint Venture, initially in collaboration with CAT.

2.1   Fieldwork

Although largely successful in charting the archaeological development of the Saltwood plateau, the site was excavated over an extended timescale, in variable conditions, and within the context of a major civil engineering project. Difficulties inherent in identifying and interpreting archaeological remains on the loose natural sandy substrate of the Saltwood plateau were compounded by differing methodological approaches employed by CAT and WA, and by the piecemeal manner in which the site was acquired for excavation. Structural and stratigraphic sequences were not always fully recoverable, and inevitably a number of discontinuities and inconsistencies mar the site record, some of which cannot now be resolved.

Formerly acidic soil conditions had stripped the site of most human and animal bone, removing much of the critical evidence from which its changing economic basis might be reconstructed, and denying the opportunity to carry out detailed osteoarchaeological analysis.

2.2   Post-excavation analysis

For the purposes of post-excavation analysis, a hierarchy of landscape elements was generated. Parts of the CAT and WA context-numbering sequences contained duplications, and this report and its figures (unless otherwise stated) refer to individual archaeological features (or occasionally structures) by their unique post-excavation sub-group number. For the individual graves, the sub-group was the same as the original context grouping. Graves excavated by CAT are prefixed with a C and those excavated by WA by a W, in order to avoid any confusion within the two numbering systems. Groups have been defined at much

broader levels of functional and chronological interpretation, corresponding to 'phase' or 'sub-phase' entities. Context-level data and details of individual excavated interventions are not presented, but can be accessed via the site database.

Most phasing is based on the presence of significant datable artefact groups, although due consideration was given to the primary stratigraphic sequence wherever this was considered to be reliable. However, residuality and intrusion of finds was endemic across the site, and the consequent chronological mixing of artefacts reduced the dating and interpretative value of some feature artefact assemblages. This was exacerbated by the often small or negligible size of feature pottery assemblages, and by the limited extent of recovery implicit in the 'strip-map-sample' excavation policy. For example, less than five percent of deposits containing later prehistoric pottery produced more than the 25 sherds recommended to achieve a viable deposit date (PCRG 1997, 21), and context assemblages of five sherds or less were common. Many features remain intrinsically undated, and subjective judgements about the probable phase of others have been based on factors such as diagnostic morphology or functional similarity and spatial association with better-dated remains. Where such interpretations of date are important to the understanding of the site, the text makes them explicit.

2.3   Radiocarbon dating

Twenty-seven samples of charred and other organic material were submitted to the Rafter Radiocarbon Laboratory (New Zealand) for AMS dating (Table 1). Three samples failed, leaving twenty-four determinations. The full justification and policy for selection of these samples is presented in the archive Radiocarbon Dating Report (Allen *et al* 2006), but a summary is presented below.

All determinations were calibrated with the 20 year atmospheric calibration curve using OXCAL 2.10 and data from Stuiver *et al* (1998), and are expressed at the 95% (2 sigma) confidence level, with end-points rounded outwards to 10 years following the form recommended by Mook (1986).

Feature	Material	Lab no	result no	Delta C13	result BP	Cal
C6421	Human foot fragments	R-28505/1	NZA-19719	-19.96	1415±35	cal AD 560-680
C1081	Human left upper limb fragment	R-28505/2	FAILED	n/a	n/a	n/a
W1319	Human long bone	R-28505/3	NZA-19638	-20.41	1352±35	cal AD 620-780
C6406	Human Dentine	R-28505/4	FAILED	n/a	n/a	n/a
C6635	Human lower limb	R-28505/5	NZA-19639	-19.73	1446±35	cal AD 540-660
C4614	Human r femur + l radius	R-28545/1	NZA-19885	-20.24	1435±40	cal AD 540-670
C6231	Human Femur/pelvis frag	R-28505/7	NZA-19640	-19.62	1560±35	cal AD 420-600
C4619	Human lower limb	R-28505/8	NZA-19641	-21	3683±35	2200-1940 cal BC
W207	charred *Vicia faba*	R-28504	NZA-19637	-25.8	2847±35	1130-900 cal BC

Feature	Material	Lab no	result no	Delta C13	result BP	Cal
C135	Human r femur	R-28545/2	NZA-19886	-21.13	3722±45	2290-1970 cal BC
C1244	Horse r humerus	R-28547	NZA-19887	-22.53	1336±35	cal AD 640-780
3885	Human femur and other bone	R-28622/1	NZA-20445	-19.77	1474±40	cal AD 430-660
W1491	Human femur frags + pelvis frags	R-28622/2	NZA-20446	-19.9	1395±35	cal AD 560-700
W1577	Human long bone frags	R-28622/3	NZA-20447	-19.36	1596±45	cal AD 340-370
1699	32 grass bases	R-28622/4a	NZA-20597	-27.44	2402±30	760-390 BC
1726	onion couch grass tubers	R-28622/5a	NZA-20598	-25.34	2499±30	790-450 BC
C1393	Human bone frags inc mandible	R-28622/6	NZA-20448	-20.89	1455±35	cal AD 540-660
SG136	Hazelnuts	R-28622/7	NZA-20599	-24.12	4775±30	3650-3380 BC
SG175	Hazelnuts	R-28622/8	NZA-20600	-26.84	4742±30	3640-3370 BC
3602	*Maloideae* charcoal <50 yrs	R-28630	NZA-20655	-25.77	3063±30	1410-1210 BC
C1048	gaming pieces	R-28784	NZA-21511	-20.54	1701±30	cal AD 250-420
SG 10166	Emmer/spelt grain, pit 3910	R-28925/7	NZA-22595	-22.34	2746±30	980-820 BC
SG 369	Emmer/spelt grain	R-28925/8	NZA-22727	-22.5	2769±30	1150-750 BC
C24	Human lower limb	R-28937/1	NZA-22734	-20.1	2185±35	370-110 BC
SG 251	Charred residue, PRN 2474	R-28925/6	NZA-22879	-27.8	3146±35	1520-1310 BC

Table 1: Saltwood Tunnel Radiocarbon Determinations

3 DEVELOPMENT OF THE SALTWOOD TUNNEL LANDSCAPE

3.1 Phase summary

- *Late Upper Palaeolithic (c 13,000 – 8500 BC):* A deeply patinated burin made on a truncated blade may indicate a late Glacial or early post-Glacial human presence.

- *Mesolithic (c 8500 - 4000 BC)*: Eight Horsham-style points were deposited in a small pit, possibly in the 7th millennium BC. Two other oblique points and a late Mesolithic microlith all came from secondary contexts.

- *Neolithic (c 4000 – 2400 BC):* Three early Neolithic pits contained stratified finds groups and other early and middle Neolithic pottery and worked flint was residual or unstratified. Scarce fragments of possible Grooved Ware and Beaker pottery may point to limited late Neolithic and/or early Bronze Age activity.

- *Early and middle Bronze Age (c 2400 - 1100 BC):* A cemetery of five barrows surviving as ring-ditches was established. There was also a flat burial. Only one primary burial survived in the ring-ditches; a crouched adult male interred with a Food Vessel. The flat grave contained an adult female. An unurned cremation burial and a small pit containing Deverel-Rimbury pottery might suggest continuing respect for this funerary landscape during the middle Bronze Age.

- *Late Bronze Age (c 1100 - 700 BC):* Pits containing assemblages of post-Deverel-Rimbury ware indicate the existence of a settlement, and associated field boundaries in the eastern half of the site, where they had encroached across part of the barrow cemetery.

- *Early-middle Iron Age (c 700 - 100 BC):* Ditches and a flat inhumation burial were found on the western part of the site, while a large double-ditched trackway or droveway was built through the site of the late Bronze Age settlement. To the east, as many as eight inhumation burials lay near a small square enclosure. The local trackways or hollow ways that traverse the eastern and western ends of the site may have been established at this time.

- *Late Iron Age/ Romano–British (c AD43 – 410):* Trackways remained in use during the early Romano-British period (to *c* AD 250), becoming more deeply etched as a result. Pottery and other finds, along with two groups of Iron Age or, more probably, early Romano-British cremation burials from the western end of the excavation, indicate that a settlement lay nearby. Other lesser remains to the east attest lower levels of activity, probably resulting from agricultural activity. It is likely that occupation waned significantly in the later Romano-British period, but small numbers of finds and a few features point to a degree of continuity.

- *Anglo–Saxon (c AD 410 - 1000)*: Three inhumation cemeteries were concentrated on and around the three largest early Bronze Age barrows, the western cemetery including 59 graves, the central cemetery 141 and the eastern cemetery 17. The chronological sequence of burials within and between these cemeteries was complex, with parts of more than one cemetery being contemporaneous throughout this period. The central cemetery replaced the eastern cemetery in the late 6th century; the western cemetery was contemporary with the eastern cemetery and continued in use alongside the central cemetery. Intra-cemetery sub-phases were identified from the morphology and material provisioning of graves and equated with Kentish phasing systems. Two widely separated *grubenhauser* (and a third under the M20) indicate at least one phase of contemporary settlement. A small number of middle and late Anglo-Saxon pits were cut into some of the early Anglo-Saxon graves.

- *Medieval (c AD 1100 - 1500):* A poorly understood association of features near the eastern end of the excavation marks the location of a small Saxo-Norman rural settlement. Other medieval and post medieval pottery found at the western end of the excavation relates to a localised system of fields or agricultural pens.

- *Post-Medieval (AD 1500 - present):* Remains associated with construction of the railway tunnel were seen, and agricultural features included networks of land-drains. A number of structural footings, service trenches, latrine pits *etc*. attest 20th century military use as a barracks, and more recent disturbance lay beneath the former Stone Farm bridleway.

3.2   Hunter-gatherers – The Late Upper Palaeolithic and Mesolithic

c 13,000 – 4,000 uncal BC

Mike Trevarthen

3.2.1   *Late Upper Palaeolithic*

A deeply patinated burin made on a truncated blade (not illustrated) may be of Late Glacial or very early post-Glacial date (URS 2002, vol. 3, 39). This tool was a residual find in truncated barrow ring-ditch 33 (Fig. 6). It cannot have been brought into the feature by natural processes, but later human importation cannot be ruled out. It's white surface patination is different to that of other worked flint from the site, and is typical of flintwork found in chalky downland soils.

The burin may point to a local presence during the early post-Glacial recolonisation of Britain, after *c* 10,500 BC. Late Glacial/early post-Glacial finds are scarce in Kent, but have been noted from the north of the county at Oare and Springhead (Jacobi 1982, 12-13; Wymer 1982) and Riverdale, near Canterbury (Barton 1998, 162). More recently, characteristic 'long blade' assemblages have also been reported during CTRL (Section 2) works at Springhead (URN 2003) and at Underdown Lane, Herne Bay in work by Wessex Archaeology (Wright in prep.).

3.2.2   *Mesolithic*

A group of eight, hollow-based, retouched flint points was found in the highly demineralised upper fill of a pit-like feature (405; Fig. 5). The origins of the feature are not clear. Although it was comparatively well-defined, an artificial origin cannot be proven and it had become substantially infilled before the points were deposited. The distribution of the points (Fig. 5 inset), the uniformity of their manufacture, and the lack of other associated finds all indicate they were buried at the same time, perhaps in a bag, or hafted as a composite item. Several had broken tips, possibly indicative of use-damage.

The Saltwood points compare most closely with material of the 7th millennium BC Horsham industry, identified most locally in surface-scatters near Harrietsham, west of Ashford (Jacobi 1978, 20; 1981, 11-12; 1982 15; Holgate 2003, 30). The topographic setting of feature 405 accords with Reynier's observation that human groups using Horsham-type technology demonstrated a marked preference for plateau sites (Reynier 1998, 182), although the Saltwood points are rather larger than is typical for Horsham material (R. Jacobi, pers.comm., cited in Devaney 2006).

Other occasional unstratified Mesolithic finds probably attest sporadic forays onto the Saltwood plateau. Two oblique points are not closely dated, but could be of earlier Mesolithic date, and a rod-type microlith is typical of the late Mesolithic. One blade core made on a large flake (Fig. 19, no. 1) is likely to be early Neolithic, but could also be Mesolithic.

3.3   Early agriculturalists: Neolithic and early Bronze Age

c 4000 – 1500 BC

Mike Trevarthen

3.3.1   Neolithic

Neolithic worked flint and small amounts of early and middle Neolithic pottery were found in secondary or unstratified contexts. Little of the flint is diagnostic, but a broken leaf-shaped arrowhead (Fig. 19, no. 2) belongs to the earlier Neolithic and keeled and levallois cores probably date to the middle or late Neolithic. The pottery is poorly preserved and no detailed analysis could be undertaken. Fragments of possible Grooved Ware may indicate incidental late Neolithic activity.

Early Neolithic pits (Group 46021)

Three small pits lay near the eastern end of the excavation (Figs. 6 and 7). Pit 317 (the largest of the three) contained 15 sherds from a decorated early Neolithic bowl with affinities to the Whitehawk style (Fig. 7, P7). No worked flint was found in this feature (*contra* URS 2002, 65, paragraph 4.2.2) and only occasional charred remains were noted. Extensive disturbance, probably from animal burrowing, had rendered the pit unsuitable for palaeoenvironmental sampling. Some 18 m to the south-west, pit 136 contained mixed fills, both likely to represent deliberate dumps of soil. Both contained pottery, worked flint, burnt flint, small amounts of fragmentary (unidentified) burnt and unburnt animal bone, charcoal and charred plant remains, including hazelnuts. The hazelnuts provided a radiocarbon date of 3650-3380 cal BC (4775±30, NZA-20599). The worked flint (Table 2) was in fresh, or only slightly damaged condition. Debitage from all stages of the knapping process was represented. Thirty-eight fragments of coarse, burnt flint-tempered ware, derived from two vessels: a plain shouldered bowl (Fig. 7, P5) and a hemispherical bowl (Fig. 7, P6). Pit 175, which was the smallest of the pits, lay *c* 14 m east of 136 and also contained hazelnuts which yielded a comparable date of 3640-3370 cal BC (4742±30, NZA-20600). Here, black and red heat-altered sand containing charcoal and other charred plant remains had been dumped before the feature was backfilled with soil. Worked flint from 175 (Table 2) was in similarly fresh condition, and included a scraper that had been broken before burial (not illustrated). Nine sherds of pottery came from

at least two vessels; a small cordoned bowl (Fig. 7, P4) and an open vessel with a slight carination below its rim (not illustrated) and made in a vesicular fabric that might originally have been tempered with crushed shell.

| Feature | Pit 136 | Pit 175 | | Total |
Deposit	*Single fill*	*Upper fill*	*Lower fill*	
Flake	19	6	29	54
Blade	7	1	2	10
Blade-like flake	2	1	6	9
Bladelet	2		1	3
Chip	2		1	3
End and side scraper	1			1
End scraper	3		1	4
Retouched blade	2			2
Retouched flake	1			1
Serrated blades	1		2	3
Total	**40**	**8**	**42**	**90**

Table 2: Worked flint from early Neolithic pits 136 and 175

As is common with many British Neolithic sites (Moffett *et al.* 1989), the charred plant remains from the pits of Group 46021 was dominated by hazelnut (*Corylus avellana*) shell, but small amounts of charred cultivated cereal were also found. Pits 136 and 175 both produced emmer wheat (*Triticum dicoccum*), and each also yielded a single charred grain of barley (*Hordeum vulgare sl.*). An apple (*Malus sylvestris*) pip from 136 comprised the only other evidence for edible plants.

The radiocarbon determinations from pits 136 and 175 are statistically indistinguishable at the 95 percent confidence level (Ward and Wilson 1978) and probably represent a single phase of site activity. Within the CTRL scheme, the radiocarbon dates from the pits are later than the long house at White Horse Stone but earlier than the other dated features at that site, and also the pits from Little Stock Farm.

3.3.2   Early Bronze Age

Archaeologically visible settlement remains of Beaker and early Bronze Age date are particularly rare, even by comparison with those of earlier periods (Healy 1998, 41; Allen 2005, 219) and it may be that, even at this time, partially or even predominantly mobile patterns of habitation remained the norm (Woodward 2000, 51). Such scarce occupation traces have, however, been excavated at Holywell Coombe, at the foot of the North Downs just over 5 km east of the site. Here, in excess of a metre of colluvium spanned *c* 13,000 years of deposition, and encapsulated an artefact-rich horizon and other structural evidence

belonging to the period *c* 2000 – 1700 BC (Ouditt 1990, 58, Preece and Bridgland 1998). Several other possible Beaker sites were identified in the surrounding area during construction of the Channel Tunnel Terminal (*ibid*; Macpherson-Grant 1990, 60).

Beakers first appear in Britain at about 2400 BC but may have remained in use as late as *c* 1800-1700 BC (Kinnes *et al.* 1991, Needham 1996;), and their currency overlaps considerably with other early Bronze Age ceramic styles such as Food Vessels. Small amounts of Beaker pottery came from the excavations at Saltwood Tunnel but, as with the earlier Neolithic evidence, there are no certain indications that this resulted from domestic activity. Most of the Beaker pottery was small sherds that were residual, though three decorated sherds were found in the small, oval, pit 4586 (Figs4 and 8, P2-3). A well-made barbed and tanged arrowhead (Fig. 19, no. 3) from the Anglo-Saxon grave-ditch 10048 may also have been redeposited from an early Bronze Age grave or associated feature, in this case most probably associated with barrow 10055 (Fig. 5).

Early Bronze Age funerary landscape (Group 46022)

Five single phase ring-ditches were aligned from east-west along almost the full length of the excavation (Figs. 3, 4, 5 and 6) and represent round-barrows. The centres of the four westernmost monuments (W201, C10020, C10055, C10082) lay *c* 165-175 m apart, placing the group in Fleming's category of 'dispersed' linear cemetery (cited in Woodward 2000, 73), but the easternmost monument (W33) lay only *c* 78 m from its neighbour (Fig. 6). An unenclosed inhumation grave (C4507) was situated about half-way between the two westernmost ring-ditches (Fig. 10 and plate 1).

Differences in the dimensions of the ring-ditches reflect a degree of variability commonly seen, both locally, at Tutt Hill (Brady 2006a) and Beechbrook Wood (Brady 2006b), and nationally, for example at Shrewton, Wiltshire (Green and Rollo-Smith 1984) and Barrow Hills, Oxfordshire (Barclay and Halpin 1999). The two largest examples (W33 and C10082) were both *c* 42-43 m in diameter, deeply cut, and eroded to *c* 4.5 m wide at the machined site surface. The ditches W201 and C10055 encircled rather smaller barrows, *c* 27 m and *c* 29 m across respectively. These were also deep, although C10055 was the wider of the two, at almost 3 m across. Ditch C10020 (at the far western end of the site) was just over 1 m wide, and only 15 m in diameter. A Bronze Age ring-ditch of similar size was found at Tutt Hill (Brady 2006a), and even smaller examples *c* 6 m and 10 m in diameter came from Beechbrook Wood (Brady 2006b).

Only within ring ditch C10082 was any trace of a primary burial found. Grave C4619 (Fig. 11 and plate 2) was sub-rectangular and vertically sided, 0.86 m deep and aligned almost north-south. The grave contained the remains of a comparatively well preserved skeleton (*c* 45%, all skeletal areas) of an adult male (*c* 50 years +), who had been interred on the left side

with legs flexed, and furnished with a Food Vessel. The individual had suffered a break to the proximal shaft of his right fibula, although this injury had healed fully (McKinley 2006). Radiocarbon dating of a leg bone places the burial in the period 2200-1940 cal BC (3683±35 BP, NZA-19641). An incomplete but undated rectilinear arrangement of postholes or small pits immediately south and west of the grave could indicate a mortuary structure.

Grave C4507 (Fig. 10) lay *c* 78m to the west-north-west of inhumation grave C4619. It was sub-oval and aligned east-west. The burial was relatively well preserved (*c* 30%, all skeletal areas) and was of an adult, probably female, who was *c* 25-35 years old at death and was crouched on her right side. Radiocarbon dated to the period 2290-1970 cal BC (3722±45 BP, NZA-19886), the burial is contemporary with the central grave of barrow C10082, probably to within three generations.

This area produced no other securely stratified or closely datable finds, and it was not possible to establish a sequence for the barrows or burials. Complex relationships may once have existed between the monuments, perhaps dictating their position within the group, but little evidence for this survived. For example, it has been observed that the alignment of the two western barrows (C10020 and C10082) is offset from that of W33, W201 and C10055 to the east (P. Garwood, pers. comm.). This may reflect chronological sequence, but could also result from less tangible factors such as social status or ties of kinship.

All of the barrows were of single-phase construction with no evidence for re-modelling or maintenance. The ditches (Figs. 8 and 9) illustrate uninterrupted and sometimes rapidly accumulated sequences of fills. The cemetery as a whole probably became denuded over a relatively short span of time, achieving mature stability in comparatively low relief.

Towards the eastern end of the site, natural sands were inter-leaved with lenses of silt and silty clay. Southern and eastern parts of barrow W33 were constructed from such material. Here the earthworks may have eroded asymmetrically as a result.

Large sherds from a sub-biconical urn were also found in the fills of ring-ditch C10055. Calkin (1962, 40) has noted that biconical urns often occur in the contexts of secondary burials on existing barrows, and the sherds from C10055 could have eroded from a secondary internment.

A small pit (C3896) had been cut into the uppermost fill of ring-ditch C10082 at the easternmost point of its arc (Fig. 4). This contained parts of an early Bronze Age vessel in a fabric similar to that of the Food Vessel in grave C4619. There was no indication that pit C3896 was a grave, but its location and contents may point to ritual or ceremonial origins relating to the barrow. This feature additionally illustrates the rapidity with which some of the barrow-ditches may have become in-filled.

A number of other denuded or levelled barrows are recorded in the area, with examples west of Saltwood village (KSMR KE 4242), on Summerhouse Hill (KSMR KE

4234), on a chalk spur north of Peene (KSMR KE 4236), on Sugarloaf Hill (KSMR KE 5653) and at Creteway Down (KSMR KE 17611).

3.4   Farming communities: The middle-later Bronze Age and Iron Age landscape 1500 BC – AD 43

Mike Trevarthen

3.4.1   Middle Bronze Age

Firmly dated middle Bronze Age remains were restricted to two features, although sporadic finds of pottery also came from later feature-fills. The sparse distribution of this material suggests low levels of activity, possibly based on continued respect for the early Bronze Age funerary landscape.

An unurned cremation burial (grave C3602) lay *c* 75 m south of barrow 10055 (Fig. 5). The urn contained the remains of an adult (*c* 25 years+), probably a female. Associated charred plant remains, which may have been part of the pyre fuel, date it to 1410-1210 cal BC (3063±30 BP, NZA-20655). Relatively few middle Bronze Age burials have been excavated in Kent, those at Bridge being the most comprehensively published group to date (Macpherson-Grant 1980; 1992, 57). More recently, other middle Bronze Age cremation burials have also been excavated near Charing (Jones 2006b) and at Tutt Hill (Brady 2006a).

Thirty-five metres to the north of grave C3602, small sub-circular pit 251 (Fig. 5) contained eight sherds of Deverel-Rimbury coarsewares, a single sherd from a fineware Globular Urn and other less well typologically dated wares. A radiocarbon date of 1520-1310 cal BC (NZA 22879) was obtained from sooting residues on the surface of pottery sherd PRN 2474.Middle Bronze Age settlement evidence is also comparatively scarce in Kent, but a number of important sites have been excavated or published in recent years, including Coldharbour Road, Gravesend (Mudd 1994), Shrubsoles Hill, Sheppey (Coles *et al* 2003) and Kemsley Field, Sittingbourne (Mcnee 2002).

3.4.2   Late Bronze Age

The earliest substantial evidence for prehistoric settlement and agriculture on the Saltwood plateau belongs to the late Bronze Age. No buildings were seen but settlement is inferred from 17 pits (Group 46025, Fig. 13), some containing groups of Post-Deverel-Rimbury (PDR) Ware pottery (Figs. 20-21) dated to the late 2nd – early 1st millennium BC. Coarseware and fineware fabrics were found here, and the forms included bowls, jars, cups, and an unusual pedestal-based type.

Land to the east was enclosed by field-boundaries (Group 46024, Figs. 13 and 14). Whilst often shallow and intrinsically poorly dated, these were clearly of prehistoric date, and are considered likely to have been associated with the late Bronze Age settlement.

Pits

Two groups of pits (Fig. 13) hint at separate zones of occupation, perhaps associated with individual houses. The north-eastern group 46025 (pits 206, 207, 208, 211, 212, 369) extended for *c* 30 m east-west, situated close to the northern site boundary. Here, other features almost certainly extended northward into the area destroyed by the M20 motorway cutting. The second group 46026 (pits 234, 236, 243 2433, 2570, 2805, 3984, 6345, 6489, 6499 and 10166) lay *c* 60 m to the south-west (Fig. 13), and was irregularly dispersed across a rather larger area (*c* 70m by *c* 30 m). Here the pits displayed a greater variability of size and shape, with their diameters ranging from only 0.35 m up to *c* 2.8-3.0 m.

Charred beans dumped near the base of Pit 207 (north-eastern group, see below) (Fig. 13) were dated to 1130-900 cal BC (2847±35 BP, NZA 19637). These beans were associated with plain PDR wares (Fig. 20) and this date corresponds well with other plain PDR assemblages beyond Kent that have been dated *c* 1150-950 BC (Needham 1996). Decorated wares are considered to appear as an increasing component of PDR assemblages toward the end of the late Bronze Age, and the date of charred cereal remains from pit 369 (990-820 cal BC, 2769±30 BP, NZA 22727) is consistent with this. The similarly dated pit 10166 (980-820 cal BC, 2746±30 BP, NZA 22595) in the south-east group did not contain decorated PDR wares (Fig. 21).

Animal bone from Group 46025 included cattle, horse and sheep/goat. Deer antler was recorded from pit 369, but there was no direct evidence that deer were consumed. The cereal remains were dominated by chaff, but included charred grains of emmer (*Triticum dicoccum*) and spelt (*Triticum spelta)* wheats, with small amounts of barley (*Hordeum*). The upper fills of pit 369 were particularly rich in charred cereals (primarily emmer wheat but with some barley) and large quantities of crop processing waste (emmer glume bases and spikelet forks). The common occurrence of charred 'celtic' bean (*Vicia faba* var. *minor*), particularly in the dump of material from pit 207, suggests this may have been cultivated for domestic consumption. Seeds of pea (*Pisum sativum*) were also noted. Hazelnut (*Corylus avellana*) and sloe (*Prunus spinosa*) attest the use of wild foods, and fragments of flax (*Linum usitatissimum*) came from pits 207, 208, 211 and 10166.

The profiles of most of the pits, the soft, permeable nature of the underlying strata and the absence of evidence for revetting or lining, all argue against the pits being used to store crops. Instead their use as rubbish pits seems more likely.

Ditches

The ditches of Group 46024 (Figs. 13 and 14) were typically heavily truncated but may represent fields associated with the settlement (see above). Dominated by a broadly WNW-ESE alignment, those ditches nearest the centre of the excavation were *c* 24 – 29 m apart. To the east, away from the focus of settlement, the spacing became less regular. The eastern end of the complex was closed by an irregular, sinuous alignment of north-south ditches (90, 179, and 184) which demarcated the heaviest clay soil at the eastern end of the plateau (Fig. 14).

There is a substantial concentration of late Bronze Age sites in north and east Kent, and it has been suggested that at this time the Thames estuary may have formed part of a territorial 'core area' (Yates 1999; 2001). However, far less is known about the late Bronze Age of south–eastern Kent. Locally only a single late Bronze Age pit has been excavated, at Dolland's Moor, east of the site (Macpherson-Grant 1990, 60; Rady, forthcoming), and Saltwood offers the first major stratified group of late Bronze Age domestic pottery from this part of the county.

3.4.3   *Early and middle Iron Age*

Group 46026

Early Iron Age pottery was restricted to a single jar from pit 235 (R18, Fig. 22, no. 67), but rather greater amounts of material attest activity spanning the transition from the early to middle Iron Age. Detailed analysis of the pottery has defined two Iron Age ceramic sub-phases: an 'early Iron Age/early-middle Iron Age' component and a slightly later 'early/middle Iron Age-middle Iron Age' component (Jones 2006a). Unfortunately, the sparse distribution of Iron Age features, the often poor understanding of their stratigraphy, and the predominantly small, mixed finds groups they contained has prevented this distinction from being represented in site phasing. For the purposes of this report, a single early-middle Iron Age phase (*c* 700-100 BC) is presented.

No settlement remains were identified, although an early Iron Age occupation site is recorded locally at Dolland's Moor (Macpherson-Grant 1990, 60; Rady forthcoming) and the Saltwood plateau may have formed part of the agricultural hinterland of that settlement. Key elements of the Iron Age landscape seem to have paid no heed to the disposition of late Bronze Age remains, although it must be assumed that traces of this were readily visible. Two main zones of activity were identified: ditches and trackways occupied the central and western parts of the site (Figs. 12 and 13), probably serving agricultural functions whilst, to the east, the main body of evidence was for limited funerary activity (Fig. 16).

Iron Age landscape

A NNE-SSW oriented ditched trackway or droveway (226) that ran to the east of the barrow cemetery was represented by ditch 80 (to the west) and ditches 165 and 225 (to the east) (Fig. 13). The trackway was not apparent during excavation as it straddled the boundary between excavations and its component features were variously, and sometimes incompletely, exposed on several occasions. It was heavily truncated and also substantially masked by modern disturbance beneath the old Saltwood to Stone Farm road and a bridleway diversion. The eastern flanking ditch (165 and 225, see Fig. 17, section 275) formed a discontinuous boundary traversing the width of the excavation, and was broken only by a *c* 4.5 m wide causeway that may have allowed movement to and from the track to open land to the east. An east-west boundary (80) ran from the western ditch of the trackway. Most of this ditch also straddled the boundary between excavation areas and it was subject only to partial interventions. At its western end ditch 10019 turned north-west before terminating against Bronze Age ring-ditch C10082 (Fig. 12). Ditch 10018 was later and turned to the south-west.

Immediately east of barrow 10082, parallel ditches 10012 and 10014 may represent another north-south trackway (Fig. 12). Ditch 10119 was largely in filled by the time these ditches were excavated. An unusually large group of pottery (98 sherds) firmly dates ditch 10014 to the early–middle Iron Age.

At the south of trackway 226 a broad, shallow feature (132), possibly of Iron Age date and representing another eroded track or path, overlay in filled Iron Age ditch 165 (Figs. 13 and 17, section 275) before curving eastward. Toward the eastern end of the excavation, small amounts of early–middle Iron Age pottery from hollow way 34 (Fig. 14) hint at similarly early origins, although the small size (all 5g or less) and abraded condition of this material means it could be residual. The main period of use of feature 34 was probably in the Romano-British period (see below).

A number of ditches at the far western end of the excavation (Fig. 12) were recorded only in a single long machine-cut section excavated in the watching brief. At least some of these ditches predated the Romano-British development of trackway 10156, but they could not be correlated with features previously excavated to the north. Amongst these, the single section through ditch 10160 produced a second notable group of early–middle Iron Age pottery (70 sherds). It is possible that these features represent an Iron Age antecedent for trackway 10156.

Iron Age burials

To the east, overlying and immediately east of ring-ditch 33 lay a dispersed early–middle Iron Age cemetery. This was associated with a small square or rectangular ditched feature 62 (Figs. 14 and 16), possibly a mortuary enclosure or square barrow.

The south-western corner of enclosure 62 cut a shallow pit (1699), which contained charred material including grass bases which yielded a date of 760-390 cal BC (2402±30 BP, NZA 20597). The eastern arm of enclosure 62 was cut or overlain by five small, discrete patches of charred material (W1703, W1722, W1724, W1726 and W1728). Two of these (W1726 and W1728) contained small amounts of cremated human bone and a radiocarbon date from charred onion couch grass tubers in W1726 yielded a date of 790–450 cal BC (2499±30 BP, NZA 20598). Whether these features were graves or represent the placement of pyre material into the upper ditch profile could not be determined.

The radiocarbon dates are statistically indistinguishable at the ninety-five percent confidence level (Ward and Wilson 1978) and may suggest that the use of the enclosure was short lived. Although both dates lie within the radiocarbon plateau of *c* 800/750-400 cal BC, they suggest a late Bronze Age/early Iron Age date for the enclosure.

Located near the enclosure were up to eight certain or possible inhumation graves. Bone preservation within these graves was poor, but human remains were recovered from five features (W1305, W1411, W1421, W1732, W1737) (Figs. 23 – 5 and 27 – 8). Two of the graves (W1732 and W1737) probably cut enclosure 62 but the relationships could not be established conclusively. No human remains survived in 'grave-like' features W1523, W1380 and W1803 (Figs. 26 and 29) and their interpretation rests on their shape and their proximity to the certain burials.

The best-preserved remains, small fragments of long bones and skull, came from the superimposed graves W1411 and W1421 (Figs. 24 – 25). There were sherds of carinated bowls, probably of 5-4th century BC date, in both graves. An undated possible posthole that cut the northern end of grave W1411 might have supported a grave marker.

Forty metres to the west of this cemetery, the small oval pit 117 (Fig. 14) contained three sherds of early-middle Iron Age pottery but no human remains. This may have been an outlier of the Iron Age burial group, or an associated feature.

Towards the west of the excavation area an unaccompanied inhumation (C24) lay close to trackway boundary 10042 (Figs. 12 and 18). The grave contained an adult male, at least 45 years old, with his head at the west. The skeleton gave a radiocarbon date of 370–110 cal BC (2185±35 BP, NZA-27734), which falls within the middle Iron Age.

The chronological relationship between the enclosure and the burials is not well established. There are no internal features within the enclosure and the ditch did not contain any finds. In view of the proximity of the inhumation burials this might be argued to suggest a special, perhaps ritual purpose. The five small features in the eastern side of the enclosure, two of which contained small quantities of cremated human bone, are not contemporary with the building of the enclosure.

The rarity of the Iron Age elements of the Saltwood landscape should be emphasised. Cremation burials of late Bronze Age or early Iron Age date are rare in Britain (Needham 1995; Whimster 1981, 34-5, 397-8). It is, however, increasingly recognised, usually through radiocarbon dating, that inhumation burial was practised throughout the British Iron Age (Whimster 1981, 16-25; Hey *et al*. 1999) and in Kent mid-late Iron Age inhumation cemeteries have been excavated at Mill Hill, Deal.

If the enclosure was associated with mortuary rituals, it has few parallels. While enclosures of late Iron Age date are becoming better known (e.g. Hill *et al*. 1999), including examples from Brisley Farm, Ashford (Johnson 2003), Whitfield (Parfitt, Allen and Rady 1997, 30) and Great Hougham (K. Parfitt, pers. comm.), earlier ones remain rare (Whimster 1981, 121-8) and they are better known in continental Europe (Baray 1989; 2003).

3.5   Towns and their rural landscapes (I):   The later pre-Roman Iron Age and Romano-British landscapes

c. 300BC – AD 410

3.5.1   *Phasing the Late Iron Age and Roman activity*

The main focus of Roman activity (Figs. 12, 14 and 16) lay toward the western end of the site, within ARC SLT98. Here, the lack of a clearly defined, consistent stratigraphic sequence, and ambiguity regarding the extents (or even the location) of some features has precluded close or reliable chronological sub–phasing. Consequently only two sub–divisions of the Roman period are presented: an earlier Roman stage (perhaps up to the middle–latter part of the 3rd century) saw the majority of site activity, when a rural settlement almost certainly lay nearby, and a later Roman stage (from the later 3rd century to the later 4th century) during which the scale of occupation diminished markedly.

3.5.2   *Late Iron Age and Romano-British settlement*

Mike Trevarthen and Ian Riddler

At the western end of the site, activity centred on a trackway or minor local road 10156 (Fig. 12). The possible late prehistoric origins of this route are noted above, but it was probably not until the earlier Romano-British period that it became eroded by use to the broad, slightly sunken profile seen during excavation. The relationship of 10156 to the 'formal' Romano-British road system remains unknown.   Stone Street, which linked the naval station at Lympne (*Lemanis*) with the cantonal capitol at Canterbury (*Durovernum*), lay just over 2 km to the west, and another road between Lympne and Dover (*Dubris*) has been suggested south of the site (Margary 1949), but has never been located. Trackway 10156 may have been an

important local thoroughfare between the Wealden landscape and chalk downs to the north, and may particularly have facilitated seasonal movements of livestock between these zones, a practice that may go back to the Iron Age in this area.   In places, thin spreads of stone and gravel were noted on the base of the track, and this crude metalling may have prevented it becoming as deeply incised as the sunken trackway 34, *c* 0.5 km to the east.   Episodes of maintenance or re–modelling were evident, including at least one re–digging of a partially choked flanking ditch along the trackway's western edge (10157, 10158, 10162), possibly in the 2nd or early 3rd century AD.   In places, discontinuous linear arrangements of undressed ragstone fragments and blocks had been deposited along the edge of the track (Figs. 12 and 17, section 56).   These were originally interpreted as dry–stone revetments (URS 2002, 30), but nowhere were the stones seen to be set in, or against, a construction cut, and their accumulation was sometimes documented across successive ditch fills.   In places, the basal stones may have been set on an artificial stepped shelf but this was not conclusively demonstrated.   These stone alignments remain enigmatic, but may best be interpreted as sporadic attempts to define the track's edges.   The limited scope of excavation and the poorly–defined feature/deposit sequences in this area do not allow any more detailed interpretation.

At the northern exposure of 10156 (Fig. 12), a minor crossroads developed, after construction of a droveway or minor trackway at a right angle to it.   The crossroads seems to have been integral to a complex of rectilinear field-enclosures east of 10156 but may represent a relatively late stage in the development of the landscape in this area.   The trackway was marked by a single discontinuous ditch to the south (10101, 10034, 10112) and at least four successive flanking ditches (10040, 10041, 10042, 10043, 10102, 10103) along its northern edge.   Beneath these, two older curvilinear ditches (10087, 10116) of middle or late Iron Age date were also probably field or enclosure boundaries.   They may have originally provided a D-shaped enclosure, similar to that seen at Island Road, Hersden, and of late Iron Age date (Barrett 2006, 18).   This curvilinear arrangement was supplanted in the late Iron Age by a rectangular enclosure, with two ditches (10036 and 1008) extending from the trackway 10042.   A small cremation cemetery was placed within the enclosure, with most of the graves lying close to the trackway, and one of them (grave C6) cut into the earlier ditch 10087.   The cremation cemetery came into use during the 1st century, its first phase dating to *c* AD 40 – 55 (see below), and the enclosure was clearly in use by that time.   The later ditches on the western side of the enclosure (10042 and 10043) cut into the trackway 10156 (Fig. 12) and were set over the earlier ditches (10040, 10041 and 10043) in this area, suggesting that the rectangular enclosure was in use for a long period of time.   No structures could be identified within the enclosure but a number of pits were discovered, spread across the

internal area. Most of these belong to the late Romano-British period and are described below.

Rectangular enclosures of this type are common in east Kent, and several have been found in the local area (Lawson and Killingray 2004, 18). At least one example was discovered at Dolland's Moor (Bennett 1991, 13-14). A late Iron Age example from Whitfield included a single inhumation burial (Parfitt, Allen and Rady 1997, 30) whilst an enclosure at Great Hougham, to the east of Saltwood, included a number of late Iron Age cremation burials (Keith Parfitt, pers. comm.). The common situation is for rectangular enclosures of middle or late Iron Age date to continue in use into the Romano-British period, as is the case here (Parfitt 2004).

West of trackway 10156, poorly dated (but probably Romano-British) irregular rectilinear field boundaries (10022, 10030, 10044, 10092, 10099) were seen, but the full extents of some features in this area (including some potentially large pit groups) were not recorded. A sub-rectangular zone containing numerous posthole–like features was initially interpreted as a building platform, but these features could not be resolved into a recognisable building plan during post–excavation analysis. In the central part of the excavation (Fig. 13) two complexes of minor ditches may indicate that small fields or enclosures were appended to the eastern edge of the early–middle Iron Age droveway 225/6 (see above) in a sequence that may reflect that seen at the west. Further to the east (Fig. 14), NNE–SSW aligned ditches again suggest further agricultural land use, and a number of shallow pits may attest a phase of localised activity adjacent to sunken trackway 34.

The greater part of the pottery evidence belongs to the 1st and 2nd centuries AD, with reduced quantities of 3rd century and later wares. The earlier Romano-British ceramic assemblage (Fig. 30) is dominated by grog-tempered and other coarsewares, mostly probably of local, or near–local origin, while lesser amounts of regionally marketed products such as Upchurch, Patch Grove and Nene Valley wares, and small quantities of Samian, amphora and lower Rhineland wares, all attest access to wider trading networks. The ceramics suggest low-status settlement with locally-produced wares and comparatively few imports (Every 2006). A similar range of pottery came from the watching brief to the north of the site (Willson 1985, 228). Fragments of two copper alloy mirrors, the first to have been found in south-east Kent, suggest, however, that there was an element of status in the settlement (Riddler and Ager 2006).

Small amounts of ceramic roof–tile (Harrison and Mepham 2002, 27) suggest that substantial buildings once lay near the site, but no structural traces were found during excavation. Quantities of Romano-British roof tile have also been found further to the south, within Saltwood village. Only a single early Roman coin was recovered from the site, and its

worn condition suggests a long period of circulation prior to loss, perhaps as late as the mid–later third century.

3.5.3   *Late Iron Age and Romano-British burial*

Ian Riddler

Small numbers of late Iron Age and Romano-British cremation burials were scattered across the western part of the landscape. Burials were either urned or unurned, in some cases with ancillary vessels and a small quantity of other grave goods. Four features (C2210, C2215, C2233 and C3008) located a little to the north of the barrow 10082 (Fig. 12, far right) contained the remains of unaccompanied, unurned cremations. All four consisted of shallow, sub–oval cuts in which an unurned burial was made, possibly in an organic container, and the grave backfilled (McKinley 2006). A few sherds retrieved from one of this eastern burial group (C2210) provide the only dating for the group as a whole. The deposits cannot be dated more closely than the late Iron Age to early Romano-British period.

The main group consisted of eight cremations lying close to the trackway ditches 10087 and 10116 (graves C6, C12, C14, C15, C16, C19, C20 and C21). A short distance to the north–west lay an isolated grave (C337), whilst another (C22) was located further to the east, within the corner formed by two ditches of the enclosure 10036 and 10038. Each contained the remains of an urned burial, some of which included small quantities of animal bone, representing the remains of pyre goods. Most of the vessels had suffered from plough damage and only the bases remained. This made it difficult to distinguish between grave goods and pyre goods.

In the western group of urned burials the urns mostly comprised either jars of local fabrics, or Upchurch ware vessels.   One burial (C337), however, had been made within a greyware bead rimmed jar. In five cases (graves C6, C14, C15, C20 and C22) ancillary vessels were also present as grave goods and these span a wider range of both fabrics and forms (Every 2006). Five of the cremation urns also contained copper alloy brooches, most of which could be identified to type, and they consist entirely of forms common to burials of this period in east Kent. Single brooches occurred in three burials and pairs of brooches in two burials.

Small quantities of cremated animal bone were found amidst the human bone within four graves of the western group (C14, C15, C22 and C337) and one of the eastern group (C2233). An unburnt pig molar found within the upper, disturbed fill of grave C6 may possibly be a grave good but it is more likely to relate to the settlement debris that subsequently covered this area of the landscape in the late Romano-British period. In the same way, the iron punch (*ON 5*) from the area of grave C12 was found above the cremation

vessel and forms part of the evidence of metalworking that occurred in this area during the late Romano-British period, described below.

Each of the burials from both groups contained the remains of a single individual, almost all of who appear to have been adult. One adult (C19) may have been a male; another two graves (C20 and C3008) contained probable females and several others (C12, C14, C337 and C2233) possible females. As noted by McKinley (2006) the apparent preponderance of females is misleading, given that only 50% of the burials could be sexed; but the entire absence of immature individuals is perhaps surprising.

Several phases of burial can be identified for the western group, spanning the first and second centuries AD.   The phasing depends on a correlation of the dating attributed to the ceramics with that of the brooches (Fig 40).

Code	Burial	Context	ON	Material	Type
SLT98	C15	49	4	Copper Alloy	Colchester
SLT98	C15	49	71	Copper Alloy	Indeterminate Fragment
SLT98	C20	56	979	Copper Alloy	Colchester Derivative
SLT98	C14	59	72	Copper Alloy	Langton Downs
SLT98	C14	59	73 and 1700	Copper Alloy	Langton Downs
SLT98	C12	67	166 and 982	Copper Alloy	Indeterminate Fragment
SLT98	C16	85	74 and 983	Copper Alloy	Colchester

Table 3: Romano-British Brooches from Cremation Burials

Two Langton Downs brooches (*ON 72* and *73*) were recovered from the same grave (C14) (Table 3 and Fig. 33). The two brooches do not form a pair and they differ in both size and decoration. The type is largely pre–Conquest in date although a few have been found in post–Conquest deposits (Mackreth 1996, 318; Bayley and Butcher 2004, 150).   Two Colchester brooches (*ON 4* and *74*), from separate cremations (Figs. 34 – 5), both represent Kentish variants of the type. They can be compared with examples from Richborough and, more locally, from the cremation cemeteries at Cheriton and Folkestone (Bayley and Butcher 2004, 149-50 and figs 45-6; Tester and Bing 1949, fig 6.1 and 4; Bushe-Fox 1925, pl IV.10). The type was produced in Britain before the Conquest and may have continued in use (if not in manufacture) for a short period thereafter (Mackreth 1995, 959; 1996, 300; Bayley and Butcher 2004, 149). The Colchester Derivative (*ON 979*) from grave C20 (Fig. 37) includes chased decoration along the bow and has a pierced catchplate. The same characteristics can be seen on Richborough examples although the brooch is closer in design to several from Canterbury, defined by Mackreth as the 'Harlow' variant (Bayley and Butcher 2004, fig 66; Mackreth 1995, 959 and fig 403.15-18). The type belongs to the period *c.* AD 40 – 80 (Bayley and Butcher 2004, 157; Mackreth 1995, 959).

	Folkestone, Warren	Church Hougham	Saltwood	Folkestone, Wilton Road	Cheriton
Late La Tène	■	■			
Norican		■			
Colchester			■	■	■
Colchester Derivative			■	■	■
Langton Downs			■		
Hod Hill				■	
Bead Row Border					■

Table 4: Romano-British Brooches from Rural Cremation Cemeteries in South East Kent

All three brooch types are common forms for this part of Kent and this is reflected in local discoveries from cremation cemeteries at Cheriton, Church Hougham and Folkestone (Table 4). There are no early forms from Saltwood, like the late La Tène brooches found nearby at Church Hougham, Dollands Moor and Folkestone (Winbolt 1925a, 65 and fig 3a-b; other examples unpublished). Indeed, the Saltwood assemblage of brooches includes no types earlier than the 1st century AD and they can all be placed between AD 35 and 80, with the majority probably of pre–Conquest or early post–Conquest date.

The cremation burials fall into several distinct phases on the basis of associated objects. The earliest burial appears to have been made in grave C14 and included a combination of an urn/burial vessel with other vessels and two Langton Downs brooches as grave goods. The ceramics and brooches suggest a burial date of *c.* AD 40 – 55 (Fig. 40). Five burials within the same plot (C15, C16, C19, C20 and C21) can be placed in Phase 2, extending from *c.* AD 50 – 80. Grave C15 included two brooches (one a Colchester, the other indeterminate) and two ancillary vessels as grave goods. Graves C16 and C20, in contrast, included single brooches and just one ancillary vessel each, whilst C19 merely included the burial urn. It appears from this small sample that the deposition of two brooches in a burial was reduced to a single brooch within the second phase. Grave C12 may also belong with this group but the brooch from this cremation is indeterminate and the ceramic vessel is an Upchurch ware jar, datable to *c.* AD 70 – 130. Accordingly, it has been placed in Phase 3 (*c.* AD 70 – 130).

Within the first three phases the burials were confined to a small group within a single plot. The latest of the graves from this plot (grave C6) contained an Upchurch ware jar (fabric R16), as well as a Central Gaulish Samian Dr 27 cup and a truncated Canterbury kilns

flagon (Fig. 31). These place the burial in Phase 4, dating to *c.* AD 120 –150. Similar, if broader, dates can be applied to the ceramic vessels from graves C22 and C337, which lie away from the main group. There were no grave goods associated with the burials of this phase, with the exception of ceramic vessels from two graves (C6 and C22).

As noted by Anderson and Andrews (1998), unurned burials like those of the eastern group are unusual in south-east Kent, where the majority of burials of this period were placed within urned vessels. It is worth noting that unurned burials would not necessarily have been recognised and described as such during some excavations of the earlier part of the 20th century. Even in recent years, however, they have seldom been found. They are known only from Ash and East Malling (Anderson and Andrews 1998; Trevor Anderson, *pers comm*), while Cheriton also included an unurned burial set between two ceramic vessels of a local fabric (Tester and Bing 1949, 24 Group IV).

The cremation burials of the western group are of a type altogether more common in Kent, for instance at Cheriton, Folkestone (Wilton Road, the Warren and other locations), Great Hougham and Hawkinge (Tester and Bing 1949; Bushe-Fox 1925, 20; Winbolt 1925a; 1925b, 94-5 and 159-60; Linklater and Willson 2003). Burials at Folkestone Warren and Great Hougham are centred on the late Iron Age. The Saltwood group have more in common with the Cheriton cemetery, which spans a similar date range from the mid 1st to the 2nd century. Wilton Road at Folkestone was probably also in use during a similar period and the single burial at Hawkinge is likely to be of late 1st century AD date (Bushe-Fox 1925, 20; Linklater and Willson 2003, 39).

Similarities with the Cheriton cemetery extend beyond the date range. At both Saltwood and Cheriton burials were located in small groups, broadly of an oval configuration with the centre of the arrangement devoid of graves. Grave goods were restricted to brooches (of both copper alloy and iron at Cheriton) and a range of ceramic vessels, with a mixture of local, regional and imported fabrics present. Both sites provide a useful image of the typical form of early Romano-British burial for this part of Kent. In broader terms, both the quantity of burials and their layout are also typical of the situation seen in late Iron Age and early Romano-British Kent (Lawson and Killingray 2004, 16). As noted by McKinley (2006), although a considerable number of burials of this date are known from Kent, the cemeteries themselves are relatively small.

Within the western part of the landscape the unurned cremation burials were located in the vicinity of the early – middle Iron Age ditches 10012 and 10014, possibly forming part of a field system. One of the cremation burials of the western group (C22) lay within the corner of the enclosure bounded by ditches 10036 and 10038, whilst all of the remaining burials were deposited in close proximity to trackways.

3.5.4   *Later Romano-British settlement*

Mike Trevarthen

A sharp decline in pottery and other occupation evidence after the mid–3rd century suggests that local settlement waned in the later Romano-British period. Some occupation clearly continued in the western part of the landscape, but diagnostic late Roman ceramics (mainly late Oxford region products) were found in only 14 contexts, including the 'disuse' soils accumulating above trackway 10156 (Fig. 12) and truncated 'hourglass' shaped oven 10165 (Fig. 12 inset). Several pits in this area (90, 313 and 612), situated on both sides of the trackway 10165, can be placed in the late Romano-British period, and they suggest that the rectangular enclosure continued in use throughout the Romano-British period. Late objects are comparatively well represented amongst the limited suite of Romano-British small finds, but the actual number of items is small (Riddler and Ager 2006). Eleven of these were coins (all spanning the period *c* AD 330 – 380), and others, amongst which were a silver pin, copper alloy bracelets and an amphorae–shaped strap-end, are all items of adornment or dress accessories, rather than the day–to–day detritus of settlement. Dress accessories tend to dominate late Romano-British assemblages in east Kent (Bennett, Sparey Green and Riddler forthcoming). The silver pin came from the fill of the oven 638, whilst the remaining items were all found close to the junction of the trackways 10156 and 10112 (Fig. 12). A small group of objects was found in pit 90 and the nearby fill 23, situated over the Iron Age inhumation burial C24, as well as waste material indicative of an episode of non-ferrous metalworking.   The soils above the trackway 10156 provided fragments of bracelets of both copper alloy and shale, whilst an amphora-shaped strap-end came from a layer in this area. It would have formed part of a set of belt fittings of 'military' type, although such belts were also worn by civilians, and by women as well as men. Their precise significance continues to be debated (Swift 2000, 201; Riddler and Ager 2006; Bennett, Sparey Green and Riddler forthcoming).

Major centres such as Canterbury thrived into the late Romano-British period (Wacher 1978) and, more locally, a villa at East Cliff (just east of Folkestone) was occupied until *c* AD 350 (Scott 1993, 105), possibly linked with a local quernstone manufacturing industry, although this too declined in the late Romano-British period (Keller 1989). Rural sites, such as Westenhanger and Hawkinge aerodrome (Linklater and Willson 2003) have produced some evidence for 4th century occupation, but others such as Dolland's Moor contracted in the late Romano-British period (Rady, forthcoming), and the 'small town' at Westhawk Farm, Ashford, seems to have been all-but abandoned by the beginning of the 4th century (Booth and Lawrence 2000). Indeed, most rural settlements within east Kent show

little evidence for occupation beyond *c* AD 250, and Saltwood, Westenhanger and Hawkinge are all unusual in this respect.

3.6   Towns and their Rural landscapes (II): The post-Roman and Anglo–Saxon landscape

c AD 410 – c AD 1000

3.6.1   Early Anglo-Saxon settlement

Mike Trevarthen and Ian Riddler

A regularly sided rectangular, flat-based sunken-featured building (SFB) 10113 lay in apparent isolation on the northern edge of the excavation, towards its western limit (Fig. 41, inset). Opposed gable–end postholes and smaller post–settings were recorded, with four posts in the rounded corners and two paired additional posts along the edges at the centres of the long sides. A small quantity of Romano-British pottery and a single sherd of Anglo-Saxon pottery (22g) were recovered from the bipartite fills of the feature. Another sub–rectangular feature 61 lay 0.45 km to the east (Fig. 45, inset). This feature had gently sloping sides and a concave base, but no associated post-holes were found. Feature 61 contained only residual worked flint and abraded, fragmentary prehistoric and Roman pottery.

The two SFBs both belong to comparatively rare types, given that most examples found in Anglo–Saxon England are of the two–post configuration (Tipper 2004, 68-70). The first (10113) is a variant of the six-post type, as defined by West (1985, 114). It has six posts along the shorter sides and four further posts along its centre line, which recalls SFBs from West Stow (SFBs 12 and 18), albeit with a pair of additional posts (West 1985, figs 59 and 81). Six-post SFBs are concentrated in East Anglia and south–east England (West 1985, 121; Tipper 2004, 69) and several are now known from east Kent. Feature 10113 can be compared with a structure from Church Whitfield, which also appears to have included six posts (Parfitt *et al* 1997, 31), as did one of the structures at Dolland's Moor. SFB88 at Manston Road, Ramsgate had three posts at one end, but not at the other (Bennett 1991, 23; Phil Andrews, *pers comm*). Structure S10 at Canterbury is a standard six–post *grubenhaus*, thought to be of middle Anglo-Saxon date, whilst structure S30 is a six–post variant (Blockley *et al* 1995, 300-3 and 330-3). A further example is known from Ringlemere (Parfitt and Corke 2006, 27).

The second SFB at Saltwood (feature 61) revealed no traces of postholes, but can still be regarded as a structure. A number of the *grubenhäuser* from Mucking, West Heslerton and West Stow also lacked any postholes (Tipper 2004, 71-2).

Both structures lie in the vicinity of contemporary Anglo-Saxon cemeteries. Feature 10113 was situated around 70 m to the north–west of the western cemetery, whilst feature 61

lay 30 m to the east of the eastern cemetery (Figs. 41 and 45).   Both presumably formed parts of an extensive settlement area lying further to the north, some of which would have been destroyed in the construction of the M20 motorway. Where large scale excavations have taken place in recent years, it has become clear that early Anglo-Saxon settlements covered extensive tracts of land and were situated reasonably close to their cemeteries, as at Mucking and West Heslerton, for example, and more locally at Ringlemere (Hamerow 1993; Haughton and Powlesland 1999, fig 4; Parfitt and Corke 2006, 27).

A third SFB can be identified from Willson's description of a 'cut–out' discovered to the north of the CTRL excavations, under the M20, which was a 'sub–rectangular zone of burning, cut into the dark brown sandy clay deposit', measuring 3.4 x 2.1 m, a description that would fit another early Anglo–Saxon structure (Willson 1985, 226-7). Its fill contained 12 sherds of late Romano-British pottery and a quantity of daub.

Until recently there had been few discoveries of early Anglo–Saxon settlements in east Kent outside of Canterbury (Blockley *et al* 1995, 280-350; Richardson 2005, table 9). A number of discoveries have since been made in the south–east of the county at Church Whitfield, Ringlemere and *Sandtun*, as well as to the east of Saltwood at Dolland's Moor (Gardiner *et al* 2001; Rady 1990, 37-8; Parfitt and Corke 2006; Bennett 1991, 23-5). Most of the structures recovered from Dover are of Middle Anglo-Saxon date, although some go back to the earlier period (Philp 2003). There are also settlements from two locations at Ramsgate, as well as at Harrietsham and Wainscott, all as yet unpublished (Phil Andrews, John Rady and Crispin Jarman, pers. comm.).

3.6.2   *The early Anglo–Saxon cemeteries*

Ian Riddler

Three early Anglo–Saxon cemeteries were discovered, each of which lay in the vicinity of an early Bronze Age ring ditch and beside a trackway of prehistoric or Romano-British origin (Fig. 47). All three trackways may originally have joined at a point to the south of the excavated area, towards the village of Saltwood. The western and central cemeteries spread across to either side of their respective trackways, effectively emphasising the importance of those routes in the landscape. Indeed, the trackways were as important as the barrows, in terms of the location of the cemeteries (Figs. 2 and 3).

The eastern cemetery included 17 graves; the cemetery was fully excavated (Figs. 45 and 46).   One hundred and forty-one graves were recovered from the central cemetery (Figs. 43 and 44). Most of that cemetery was excavated although a few graves probably lay beyond the limits of excavation both to the north and to the south, and others may have been destroyed when services were laid within the area of the trackway. Graves were found on both sides of this trackway, those to the east representing a later extension of the burial

ground. Fifty-nine inhumation graves were found in the western cemetery, whose northern part was fully excavated (Figs. 41 and 42). Graves there certainly extended to the south, beyond the limit of excavation.

3.6.3   Cemetery phasing

The phasing of early Anglo–Saxon graves from east Kent has always attracted considerable attention and in recent years schemes have been provided by Evison, Brugmann and Richardson (Evison 1987, 136-42; Parfitt and Brugmann 1997, 94-109; Brugmann 1999; Richardson 2005, 36-41).   The phasing for the Saltwood graves is based initially on Brugmann's scheme for the Dover Buckland cemetery, which revises that of Evison (Brugmann forthcoming). That scheme is largely concerned with 5th and 6th century graves, however. The majority of the Saltwood graves belong to the later 6th and 7th centuries and with that in mind a more extensive scheme has been introduced. This has been based on Evison's work and was devised before Richardson's phasing for Kent was available, but both schemes are substantially similar.   The overall number of graves was unfortunately insufficient to permit any correspondence analysis to be carried out to strengthen the phasing (as Høilund Neilsen 1997).

Saltwood Phase 1 covers the period from *c* AD 450 – 500/510 and equates directly with Brugmann's Phase 1 and Richardson's Phase IB. No graves of this period could be identified at Saltwood but it should be recognised that not all of the cemeteries have been completely excavated, and that earlier Anglo–Saxon graves may yet be found within the landscape. The incorporation of Phase 1, despite the lack of any graves that can be attributed to it, allows the Saltwood phasing to be related more easily to the broader Kent schemes noted above.

Phase 2 covers the period from *c* AD 500/510 to 550 and is the equivalent of Brugmann's Phase 2 and Richardson's Phases II – III. Both Brugmann and Richardson have sub–divided this period on the basis of developments in brooch forms (Richardson 2005, 37-8). With comparatively few brooches from Saltwood a sub–division of the phase is not really feasible, and as a general rule phases of a wider duration have been preferred where possible, in an attempt to avoid a situation where the majority of graves stretch across several phases.

Phase 3 extends from *c* AD 550 to 590/600, reflecting Brugmann's Phase 3a and Richardson's Phases III – IV. At Saltwood it has been sub–divided into phase 3a (*c* AD 550 – 575) and phase 3b (*c* AD 575 – 600) as a consequence, in part, of the number of graves that can be assigned to these phases and the stratigraphic and spatial relationships between them. The focus of Brugmann's work has lain with the 5th and 6th century graves of East Kent, whilst Saltwood is predominantly an early Anglo–Saxon landscape of late 6th to 7th century graves. Thus the subsequent phases are related to those of Evison and Richardson.

Phase 4 extends from *c* AD 590/600 to 650 and is longer in duration than Richardson's Phase V or Evison's Phase 3, both of which extend to *c* AD 625, with subsequent phases extending to *c* AD 650. Phase 4 at Saltwood has also been sub–divided in a similar manner to phase 3, with sub-phases 4a (*c* AD 590/600 – 625) and 4b (*c* AD 625 – 650). Sub–divisions of 7th century phases can be difficult to substantiate but there is reasonable evidence for them in east Kent (Richardson 2005, 38-9). Phases 5 – 7 are directly modelled on Evison's phases 5 – 7 and Richardson's phases VII – IX and they extend from *c* AD 650 to 750. Each of the three cemeteries is considered in turn, after which they are placed within a broader landscape framework.

3.6.4   The eastern cemetery

Within the eastern part of the landscape the Bronze Age barrow (33) may have formed a focus for subsequent burial and settlement, although it had been severely disturbed by later prehistoric features. Seventeen inhumation graves in this area can be placed in the early Anglo-Saxon period (Fig. 46) although only eight of these are securely dated by their grave goods. All of the phased burials can be placed in Phases 2 – 3 and it is likely that burial was only undertaken here over a short space of time, encompassing just a few generations.

The graves occur in two rows of slightly divergent alignments at the west (plot A), with a separate pair of two graves on the other side of the barrow to the north– east (plot B). The rows of Plot A broadly follow the same general alignment, which is perpendicular to the Romano-British ditch 36 at the west and may have been influenced by the orientation of that feature. The two graves in Plot B, in contrast, follow the alignment of the trackway 34.

The graves varied from 0.88 m to 2.87 m in length and 0.4 m to 1.25 m in width (Fig 48). Allowing for the probable truncation of the upper surface, most graves appear to have been dug to a similar depth (0.04 – 0.50 m), although several were very shallow and one (W1634) was 0.72 m in depth, making it one of the deepest graves to have been excavated (Fig. 59). Most were neatly cut rectangular or sub–rectangular in plan with rounded corners and straight or rounded ends.

Bone survival was generally poor although most graves contained some human bone. One (W1423) was relatively short, with a length of less than 1 m and it probably contained a child, buried without grave goods. A short, broad grave within Plot A (W1490) contained a double burial with the two bodies lying side by side, one a juvenile and the other a juvenile or subadult (Fig. 56). The remains of an adult and an infant could be identified in grave W1810, the grave immediately to its south (Fig. 63). All other graves had contained single inhumation burials.

A number of the graves had suffered from later disturbance. Three of those in the eastern row of Plot A (W1453, W1489 and W1577) were cut by the medieval ditch 44. Grave

W1490 was cut by a middle Anglo-Saxon pit 1844, grave W1810 by pit 1808 and grave W1895 by pit 1847. Grave W1895 itself cut the adjacent grave W1898 and grave W1705 cut into the prehistoric grave W1803.

Small iron nails were recovered from graves W1577, W1634 and W1767. Those from graves W1577 and W1767 probably helped to reinforce coffins (Figs. 58 and 62). Traces of coffin stains were seen in graves W1491 and W1634, in each case situated close to the edge of the grave cut. In contrast, with grave W1705, the coffin stain lay at the centre of the grave, with at least 0.2 m of space between it and the edges of the grave cut; the grave goods lay entirely within the coffin stain (Fig. 60). A similar situation could be seen also with the inhumation grave W1577. These were the two largest graves within the cemetery and both were broader than the multiple graves (W1490 and W1810).

Layout and development of the eastern cemetery

Eight of the graves contained grave goods and these allow some of them to be phased (Figs. 49 – 51). Three radiocarbon dates were also obtained. The earliest graves consist of two inhumation burials of female gender (W1453 and W1762) with distinctive grave goods attributable to Phase 2. These lay in two different rows of Plot A. One grave (W1453)(Figs. 52 – 53 and plates 7 and 9) included pairs of square-headed and quatrefoil brooches set in a line along the body and surrounded by an extensive collection of glass and amber beads (Walton Rogers 2006). There were no grave goods in the lower part of the grave, but this had been disturbed by ditch 44. Further to the north, grave (W1762)(Fig. 61 and plates 4, 5 and 9) included a pair of Kentish small square-headed brooches, two disc brooches and a bird brooch, as well as a modest collection of amber and glass beads, worn once again in the same style (*ibid*).

One of the five graves of phase 3 (W1767) lay in plot A, immediately to the south of the Phase 2 grave (W1762) (Figs. 50 and 62). This contained the remains of a weapon burial with a sword, shield and spearhead, as well as a large knife lying alongside the sword. The sword may have been a Frankish import (Gilmour 2006). A second grave of this phase (W1705) lay within Plot B and included two spears of the same type, as well as a shield, a knife and a glass Kempston–type cone beaker (Fig. 60). The remaining Plot B grave (W1634)(Fig. 59) has been placed in Phase 3b on the basis of the presence of several keys found towards the base of the grave and the small assemblage of beads, of string group 3 (Walton Rogers *et al* 2006). The two graves of this plot may both have been cut within a short period of time during Phase 3.

Three further graves provided radiocarbon dates. Grave W1491 (Fig. 57) has been radiocarbon dated to cal AD 560 – 700 (1395±35 AD, NZA 20446) and in the context of this cemetery it can be placed within Phase 3 (*c* AD 550 – 600), as can grave W1392 at cal AD

540 – 660 (1455±35 BP (NZA-20448). Grave W1577 (Fig. 58) provided a radiocarbon date of AD 340 – 600 (1596±45 BP, NZA-20447). This provides the possibility that it might have been a late Roman grave, but it is more likely to have been early Anglo-Saxon, and to belong to phase 2 – 3.

Within Plot A, the northernmost grave (W1462) merely contained two beads and a knife, and it can only be placed in Phase 2 – 3 (Fig. 54). A second grave in this plot (W1810) contained a similar combination of a monochrome glass and an amber bead and it has also been placed in Phase 2 – 3 (Fig. 63). A further grave (W1490) contained the remains of a double burial with an iron pin situated roughly in the waist area of the presumed location of one of the bodies (Fig. 56). The human remains included a subadult of 13 – 15 years, possibly a male (skeleton A) and a juvenile or subadult of 7 – 14 years (skeleton B). The pin has a looped head and is likely to be of 6th century date, suggesting that this is a grave of Phase 2 or 3.

In summary, Anglo–Saxon burial began within the cemetery in Phase 2 with two female graves (W1453 and W1762). Both were similar burials, the deceased being adorned with amber and glass bead necklaces and with rows of brooches set between the throat and the waist; both also had grave goods centred on the upper part of the body, although the central and lower part of grave W1453 was disturbed by the medieval ditch 44. They were followed by two weapon burials (W1767 and W1705) in Phase 3, with graves extending north–eastwards at this time into a separate plot. A female (W1634) was also buried in this plot in Phase 3b. The grave contained a marked reduction in the number of beads and the grave goods were distributed at either end of the body, with the beads below the skull and the other grave goods by the legs. Similarly, one of the weapon burials (W1767) had grave goods concentrated in the upper part of the grave whilst the other (W1705) utilised the lower part of the grave as well. The lack of grave goods means that the remaining graves cannot be closely dated, with the exception of two (W1392 and W1491) that provided radiocarbon dates allowing them to be placed in Phase 3. Fifteen of the graves lie in Plot A and two in plot B. The low number of graves from this cemetery, in comparison with the central and western cemeteries, suggests that it was not used for a long period of time and all of the dating evidence available indicates that its use was focused on Phases 2 – 3b. Indeed, it may only have been in use for one or two generations. The earliest Anglo-Saxon graves from Saltwood are to be found both here and in the Western cemetery, which may have begun at the same time.

3.6.5   The western cemetery

Fifty-nine inhumation graves of early Anglo–Saxon date were excavated within the western cemetery.   The cemetery was situated 110 m to the west of the central cemetery and partially

within the mound area of the Bronze Age barrow C10082 (Figs. 41, 42 and 47). It extended beyond the circular ditch of the barrow to the south and east. The northern, western and eastern limits of the cemetery were identified; its southern limit lay beyond the area of excavation.

As elsewhere within the landscape, the early Anglo–Saxon graves lay within an area that had been used for burial from the early Bronze Age onwards. The excavated early Anglo-Saxon graves formed four principal groups (Fig. 42). Most were closely spaced at the south–eastern corner of the barrow with scattered graves surrounding them (Plot A). Close to this plot were four graves at the east, set within penannular ditches (Plot B). A third group of nine graves formed a distinct row at the west (Plot C), with two further graves lying between them and the main cluster. A fourth group of five graves (Plot D) lay to the north-east of the main group and were widely spaced (graves C3029, C3038, C3041, C3047 and C3049).

The predominant alignment of the graves was north–west to south–east, with the head at the north–west. The poor survival of human remains means, however, that it was not always possible to identify the precise layout of the body in the grave. The alignment of graves reflects that of the late Iron Age to early Romano-British trackway, which cut the southern part of the barrow ditch. A few cremation burials of that period lay a little to the north of the main burial plot A (Fig. 12). All of the graves of plot C also follow this alignment, as do those of the southern and eastern parts of plot A. Most of the graves of Plot D have a west-east alignment, which is similar to that of the trackway that lay a few metres to their east. The alignment of graves may therefore have been heavily influenced by the existing features of the area.

The graves varied from 1.20 m to 3.15 m in length and 0.52 m to 1.72 m in width (Figs. 48 and 65). Most were rectangular or sub–rectangular with rounded corners and straight or rounded ends. Natural greensand outcrops in this area and it was utilised in several graves (see below). The four graves of plot B were enclosed within penannular ditches. The spaces between the ditch terminals were aligned to the east with one exception (10017), which lay to the north.

Several of the graves (C3885, C4502 and C3866) may have contained the remains of more than one burial. In grave C4502 two bodies were laid side by side (Fig. 103). One was an adult aged 20 – 30 and the other a subadult or adult aged 15 – 20. In grave C3866 (Fig. 92) two individuals also appear to have been side by side, but the position of several vertical stone slabs suggests that each was buried in a separate coffin (Fig. 89). For grave C3885 (Figs. 93 – 4) it is possible that one body lay on top of another, to judge from the presence of grave goods of male and female gender, as well as the depth of the grave, but the skeletal remains of only one individual were recovered from the grave.

The graves of Plot A were tightly packed together and several had cut into each other (Table 5). In addition, the penannular ditches of Plot B intersected or abutted one another. Ditch 10015 around grave C6202 cut ditch 10016 of gave C6206, ditch 10017 around grave C6231 abutted ditch 10071 from grave C4650. Several of the graves cut pits, probably of prehistoric date, and others were cut by pits of Anglo-Saxon to early medieval date. A Victorian shaft for the railway tunnel had unfortunately destroyed the central part of this plot and removed some of the stratigraphic relationships.

Grave	Phase	Cut Grave	Phase
3755	2 – 3	3757	2 – 3
3751	2 – 6	3864	2 – 6
3866	2 – 6	3864	2 – 6
3944	3	3781	3
4643	2	4635	2
4643	2	4726	2
4657	3b – 6	4666	2 – 6
4645	2 – 6	4726	2
6202	4 – 5	6206	4

Table 5: Intercutting Graves in the Western Cemetery

Traces of coffins were seen in six graves. In four cases (C4597, C4657, C4699 and C4635) the coffin occupied most of the available space, whilst in two others (C4707 and C4665) it lay at one end with additional space at the foot, beyond the coffin itself.

Greensand stone outcrops were visible over the western part of the landscape and several graves made use of this stone. Three forms of the use of stone can be distinguished:

1   partial stone lining

2   full stone lining

3   foot stones

Placed stones lay to either side of the head and on one side at the foot of grave C3762, which was furnished with a copious array of grave goods (Figs. 83 – 6). Stones served also to partially surround the two bodies within grave C3866, where one of the bodies may have been deposited with the head placed at the east (Fig. 92). In the case of grave C4643 (Fig. 107) stones had been laid to either side at the points at which this grave cut two others and they may have served a practical function in distinguishing this grave from the other two, as well as in reinforcing its sides. Stones lined one side of the grave C4680 (Fig.

115) and a single stone lay in grave C6202 (Fig. 123). Single stones were recorded also in graves C4614 (Fig. 106) and C4686 but these appear to be natural occurrences.

Grave C3885 was fully lined with stones (Fig. 93). This was a large burial, significantly deeper than all of the other graves in this cemetery, and here also the use of stones may have been entirely practical, to stabilise the sides and ends of the grave. The grave goods in this burial reflect both male and female gender and there is a possibility that this was a stacked burial, with one inhumation lying above the other. It should be noted, however, that the remains of only one individual were recovered from the grave.

Four graves in Plot B were surrounded by penannular ditches (Fig. 42). All four lay on the eastern side of the cemetery and were closely packed together, so that their ditches were abutting or intercutting. All four graves were on roughly the same alignment. In three cases they were also aligned to face the opening in the penannular ditch, but this was not the case with grave C6231.

Layout and development of the western cemetery

Forty-five of the 59 burials included grave goods and broad phases of burial can be identified for them extending from the 6th to the late 7th century. As with the eastern cemetery, no graves can definitely be placed in Phase 1. Several graves contained items of late 5th to mid 6th century date (C3764 and C4655).   These could belong either to Phase 1 or Phase 2 but it is more likely that they belong to Phase 2.

A grave with a glass bell beaker (C3764) was cut by a pit containing redeposited cremation debris (3705) (Figs. 42 and 87). There was sufficient bone to suggest that this might have been a cremation burial (McKinley 2006), although this would be an unusual situation for east Kent, if not completely unknown there.   Early Anglo–Saxon cremation burials are extremely rare in east Kent, forming less than 0.5% of the sample of early Anglo-Saxon graves, with examples known only from Coombe, Folkestone, Hollingbourne, Lyminge, Westbere and Ringlemere (Smith 1908, 364; Jessup 1946; Richardson 2005, 90-2; Keith Parfitt, *pers comm*). Their rarity may a consequence, in part, of their early date, with most belonging to Kentish Phase I. Where they do occur the early examples are invariably contained within ceramic vessels, with the exception of several unurned cremation burials from Ringlemere. Cremation burials made in cauldrons rather than ceramic vessels tend to be of a later date (Ellis Davidson and Webster 1967, 11-14; Vierck 1972, 28-9). Within southern England as a whole there are only a few examples of early Anglo–Saxon unurned cremation burials lacking both grave goods and pyre goods. It is possible that this is an unurned cremation burial, but it may also be a later pit. It formed one of a sequence of five pits (3705, 3718, 3730, 3744 and 3753) that disturbed graves in this area of the cemetery and was the

only one of those pits to have contained cremated bone. Later pits also cut into graves of the eastern cemetery.

Several further graves (C3826 and C4726) also belong to Phase 2. Grave C4643 cut graves C4726 and C4635, and they have all been placed in this phase. Grave C3826 (Fig. 91) contained the remains of a weapon burial equipped with a sword, whilst grave C4643 included a button brooch, the earliest brooch of the Anglo–Saxon period to come from Saltwood (Fig. 107 and plate 3). It was worn together with a small square headed brooch (Plate 6), however, in a costume style suggesting that it was deposited late in the development of that brooch series. Two amber beads were the only objects found in grave C3755 (Fig. 80) and they allow the grave to be placed in phase 2 – 3. This burial lay immediately to the west of grave C3757 and cut into part of it. The graves of this phase were largely clustered within the central part of the cemetery.

Seven graves (C3741, C3747, C3762, C3781, C3944, C4688 and C6231) can be placed in Phase 3 (Figs. 78-9, 83-6, 89, 96-8, 117 and 125). They include several of the most auspicious graves from this cemetery, which were within the centre of the burial area, with four of them set in close proximity to each other. Three are of female gender, from their grave goods. The human remains from grave C6231 in Plot B (Fig. 125), a male subadult to adult aged 17 – 19, produced a radiocarbon date of c AD 430 – 660 (NZA-19640 1560±35) and this corresponds with the typological dating for the spearhead found in the grave. The two pieces of evidence allow this grave to be placed in Phase 3, possibly towards the end of that phase.

Several graves in close proximity to those of Phase 3 may well be of the same period, although they cannot be closely dated from their grave goods. They include grave C3824 (Fig. 90) furnished with a knife and buckle, as well as grave C4686, which contained no grave goods but lay immediately to the west of grave C4726.

Four graves (C3779, C3885, C4659 and C4665), all situated towards the periphery of plot A, can be placed within Phase 3b – 4. Three were well–equipped weapon graves (Figs. 88, 93-4 and 113). The fourth (C4659) included a copper alloy bracelet and 85 monochrome glass beads of bead string group 3, the latter allowing the grave to be placed in the same phase as the others (Fig. 112). Grave C4680 has also been placed in phase 3b from the conjunction of the dating of the knife and the spearhead found there (Fig. 115).

Within phases 1 – 3 burial was almost entirely confined to the central area (Plot A). The only exception lay with the grave within a penannular ditch (C6231), which can tentatively be set in phase 3b. It is difficult to date the later graves as precisely and a number of them can only be placed broadly in Phases 3b or 4 – 6. A few graves can be dated with slightly greater precision, however. Three (C4650, C4707 and C6206) belong to Phase 4. Two of these graves (C4650 and C6206)(Figs. 108 and 124) included type D1 spearheads,

whose occurrence in east Kent appears to be limited to the period *c* 600 – 650 (Phase 4).   The type D2 spearhead in grave C4707 (Fig. 120) has a slightly longer date range extending back into the 6th century, but it was associated with a buckle of Marzinzik type II.24, of late 6th to 7th century date. The only object to be recovered from grave C4721 (Fig. 121) was a wheel-turned Frankish pottery bottle, of a type current in the first half of the 7th century (phase 4). A vessel of similar provenance was recovered from the Cuxton Anglo-Saxon cemetery (Blinkhorn 2005).

The distribution of these graves echoes that of the other graves discussed above of phase 3b – 4a. Two of the graves (C4650 and C6206) were in Plot B and the other graves (C4707 and C4721) lay to the north of this plot, on the outskirts of the main cemetery area (Plot A). Grave C6202 (Fig. 123), the final grave of plot B, can be added to this group on the basis that its penannular ditch cuts that of grave C6206 to the south; it has been placed in phase 4 – 5. The fittings of a wooden box were discovered at the foot of grave C3951 (Fig. 100); comparable examples from elsewhere at Saltwood come from graves of phase 4 – 5 (Harris *et al* 2006).

Seven graves (C3029, C3946, C3953, C3998, C4593, C4614 and C4657) can merely be placed within phases 3 – 6. Their phasing depends in most cases on the type of knife present in the grave.   Grave C4614 (Fig. 106) included a large knife, shorter than a *seax* but appreciably longer than the domestic type seen elsewhere at Saltwood. Such knives are found exclusively in the graves of males of late 6th and 7th century date (Härke 1992, 90). Within the western cemetery, they occurred also within graves C3713, C3953, C3998 and C4665. Grave C4665 (Fig. 113) has been placed in phase 3b – 4a, whilst the other graves can only be assigned to 3b – 6. The presence of a single amber bead in grave C3713 (Fig. 76) allows it to be placed in phase 3 – 4.

Graves C3029, C4657, C4680 and C4677 all included knives of type E, a form that first occurs in the late 6th century but is more common in 7th century contexts. Grave C4680 (Fig. 115) belongs to Phase 3b, alongside grave C4677 (Fig. 114), which included an intriguing combination of two glass vessels, a millefiori mosaic bead and a knife of type E. The bead suggests that the grave belongs to phase 2 – 3a but the globular beaker and knife of type E are more redolent of phase 3b.

Knives of type D occur from the middle of the 6th century onwards and two examples were retrieved from Phase 3 graves in the western cemetery (graves C3781 and C3944) (Figs. 89 and 96-8). Two further examples came from graves on the western side of the cemetery, within Plot C (grave C3946)(Fig. 99) and the edge of Plot A (grave C4593)(Fig. 105). A large example of a type D knife came from grave C3998 (Fig. 102), another peripheral grave in the same general area. These are likely to be graves of Phase 4 – 6. They form a counterpoint to the graves of phase 4, all of which lie on the eastern side of the burial

landscape, and it is likely that both groups were contemporary and that at this period burial was largely (but not entirely) undertaken in Plots B and C, to either side of the central area.

Four graves can be placed in phases 5 – 6, the latest phases to be established for this cemetery. Three of the graves lie within Plot C. Grave C4584 (Fig. 104) contained the iron hinges of a box placed at the foot of the grave, the form of the hinges suggesting a date of *c* 650 – 700. Grave C4699 (Fig. 119 and plates 10-11) included several amethyst beads, as well as two garnet pendants in silver mounts and an intaglio, and grave C4502 (Fig. 103) can be placed in this phase on the basis of its three monochrome glass beads. The fourth grave (C4692) (Fig. 118) lies at the eastern periphery of Plot A, within a curved arc of widely spaced burials that are possibly related to Plot D, which lies to their north–west. The buckle of Marzinzik type I.5a in the grave suggests an early date in the 6th century but the bead string belongs to group 3 and the range of beads suggest that it belongs to phase 5 – 7. This is the only grave across the entire landscape for which there appears to be any sense of an early Anglo–Saxon item retained as an heirloom and accompanied by objects of an appreciably later date.

The five graves of Plot D (graves C3029, C3038, C3041, C3047 and C3049) form a small, dispersed group to the north of Plot A (Fig. 42). It is possible that this group is related to the graves further to the south–east, arranged in a curve above plot B. There were few grave goods from any of these burials, aside from a knife in grave C3029 (Fig. 72) and a key complex in grave C3041 (Fig. 74). Their general layout and paucity of grave goods recalls several of the plots of the Dover Buckland cemetery, of late 6th to 7th century date (Evison 1987, fig 98, plots C, D and G). The general lack of grave goods, the wide spacing of the graves and the peripheral location of the group all suggest a date well into the 7th century, but this cannot be substantiated with certainty.

In summary, the earliest graves of Phases 2 and 3 are almost entirely confined to Plot A, as are the succeeding graves of phase 3b – 4a (Figs. 66 – 68). This includes all of the auspicious graves within this cemetery, which belong to the latter phase (3 – 4a). From phase 3 onwards burial is extended to the west into Plot C and to the east with the graves within penannular ditches of plot B. All of the burials within the eastern plot are encompassed within phase 3b – 4 (Fig. 68). Within phases 4 – 6 there are still burials deposited within the central plot A, as well as to the west in plot C, and burial begins in plot D to the north (Fig. 69). The latest burials to be identified are located in plot C and belong to phase 5 – 6; the graves of plot D may also belong to this phase (Figs. 70-1).

3.6.6   The central cemetery

One hundred and forty-one inhumation graves of early Anglo–Saxon date were excavated to either side of the trackway 226, near to the early Bronze Age barrow C10020 (Figs 43-44).

One hundred and five of the graves lay to the west of the trackway in a long rectangular strip, approximately 110 x 40 m, extending south from the barrow. Thirty-six graves lay to the east of the trackway; the majority in the northern part of the area which, as on the western side of the trackway, witnessed a greater density of burial than the area to the south.   Both the northern and southern boundaries of the cemetery were not established with certainty. At the north, one grave (C1035) was recorded in section and was mostly beyond the limit of excavation. A small number of burials further to the north may have been removed during the construction of the M20 motorway. To the south, an isolated grave (C6047) lay 17 m beyond the others, at the head of the slope heading down into the village of Saltwood, and at the southernmost extent of excavation.   A few further graves almost certainly remain to be excavated in this area.

Most of the graves shared an east–west alignment and, where skeletal remains were preserved, the head was at the west. Several graves in the north-western part of the cemetery (C1072, C1136, C1286, C1236, C1408, C1328 and C1325) were aligned north–south, with the head at the north, except for grave C1325 (Fig. 173), where it lay at the south. Graves on the eastern side of the trackway respected its alignment and were placed in close proximity to it. A row of graves at the north was confined by two ditches (5/6 and 8/10) whilst further to the north a small group of graves (W5019, W5023, W5025 and W5186) were clustered in an arc (Fig. 44). As elsewhere within the landscape, nearby features of prehistoric and later date appear to have been influential in the orientation of graves.

Graves within the central cemetery ranged from 0.57 m to 3.80 m in length and 0.32 m to 2.44 m in width (Fig. 48). The four largest graves (C1048, C1081, C6421 and C6653) were appreciably longer, wider and deeper than the remainder, and all four were probably set either beneath burial mounds or within areas devoid of nearby burial. At least 19 penannular ditches surrounding graves were identified, as well as three ring ditches. Most of these enclosed a single grave although two enclosed two graves and one enclosed three. Most of the penannular ditches were 4 – 7 m in diameter, although that enclosing grave C1081 extended to 18 m in diameter (Figs. 44 and 140). There were no outcrops of stone in this area, except at the south, but a small number of the graves made use of the local stone (see below).

Human bone survival was poor and few graves contained more than a few fragments of skull or teeth. The bone from several graves in the southern part of the cemetery (C6101, C6516 and C6566) (Figs. 187, 197 and 201) was better preserved, with 30% of the skeleton present in two cases; 25% of the skeleton survived in the chamber grave C1081; elsewhere only 10% or less of the skeleton remained.

Where it could be determined, each of the graves contained the remains of a single inhumation, with a few exceptions. No graves containing more than one individual could be

identified to the west of the trackway, although grave C1261 (Fig. 170) was unduly wide for a single body and included two sets of keys, suggesting that two individuals might have been buried there. Most of the grave goods lay in the central part of the grave, however, which indicates that only a single individual was buried in it. To the east of the trackway, grave W3080 (Fig. 224) included the remains of one skeleton but two sets of grave goods. The skeleton was that of a subadult to adult, aged 15 – 20 and possibly male. Grave W1074 (Fig. 212) also included the remains of two individuals, one an adult aged 50 or more and the other, either a disturbed or redeposited burial of an adult aged 45 or more, possibly a female.

In general, the graves were densely packed in the northern part of the cemetery and well spaced further to the south. A few graves had cut into each other (Table 6). In a number of cases, the intercutting occurred with graves contained within the same penannular ditch, suggesting that members of the same family or kin group were being buried together.

Grave	Phase	Cut Grave	Phase
C1244	4a	1328	2 – 3
C1328	2 – 3	1408	2 – 3
C1004	3b – 4	1045	3b – 4
C1352	3b – 4	1159	3b – 4
C1191	3b – 6	1204	3b – 4
C1384	4 – 6	1236	4 – 6
C1393	4 – 6	1391	4 – 6
C2557	4 – 6	1464	4 – 6
C6155	4 – 6	6167	4 – 5
C6155	4 – 6	6171	4 – 5
C6161	4 – 5	6171	4 – 5
C6161	4 – 5	6167	4 – 5
C6673	4 – 5	6161	4 – 5
W1056	4 – 6	1238	4 – 6
W1101	5 – 6	1153	4 – 6

Table 6: Intercutting Graves in the Central Cemetery

As in the other cemeteries, the majority of graves were rectangular or sub-rectangular with near-vertical sides. A wide range of additional structural features were also present, including:

1   the use of stone in the grave;

2   penannular and ring ditches;

3   a grave structure secured by clench nails;

4   posthole markers;

4   graves with coffins, some set within chambers.

Natural stone outcropped in the southern part of the cemetery and was used in 21 graves in four different ways. Six graves included a partial lining of stones, usually with a small assemblage gathered either along one side and at the head (grave C1387)(Fig. 177) or dispersed within the grave (graves C1464, C6513, C6101, C1325 and W5186) (Figs. 173, 181, 187, 196 and 226). Three graves, all from the southern part of the cemetery, were lined more extensively with stone, set either at both ends (grave C6406)(Fig. 189) or along both sides (C6532 and C6171) (Figs. 188 and 200). The stones within grave C6101 (Fig. 187) lay above the coffin stain and the skeleton and were probably used to mark its location. They were visible during the early stages of its excavation.

The most common use of stone, however, was as a 'cushion' for the head or grave marker. This could be seen in nine graves. Within four of these (graves C1165, C2401, C2899 and W1279)(Figs. 154, 183, 186 and 218) a stone merely lay near the head (or its presumed location) or to the side of it, at the edge of the grave. In grave W1074 (Fig. 212) one of the pair of stones at the head of the grave was a re-used early Romano-British quern. Much more substantial stone slabs were laid horizontally at the head end of graves C1188, C1325 and C6524, and in grave C1188 (Fig. 155) the skull lay beside two large, flat slabs. In grave C1325 (Fig. 173) the head nestled within the curve of a stone set within the coffin itself, and in grave C6524 (Fig. 199) a large sandstone block had been hollowed at its centre to accommodate the skull. Graves C1188 and C1325 lay in the northern part of the cemetery. A contrasting arrangement was seen in graves C6644 and W1118 (Figs. 206 and 215), where the headstone was set vertically behind the skull. The most elaborate use of stone within the cemetery, however, was seen with grave C1004 (Fig. 132), which was originally lined with a series of flat slabs, three of which survived, including one along the side of the grave, one at the foot and a covering slab. Grave C6406 (Fig. 189) is reminiscent of this arrangement, where a number of upright stones survived at both ends, as well as one stone along its side.

Two of the 19 penannular ditches included double graves (with one grave cut into the other in each case) and one of the 3 ring ditches was occupied by three, intercutting graves. The ditch entrances were usually set at the east, occasionally at the north and in one case (10066) to the south. There was a tendency for the graves to be aligned with their ditch entrances, although this was not invariably the case.

Most of the graves with penannular ditches were spread in a line running parallel with the trackway 226 and roughly 110 m to the west of it (Fig. 44), within the eastern part of the main area of the cemetery. A cluster could also be identified in the north–western part of the cemetery. There was one example on the eastern side of the trackway. In general, graves with penannular ditches were peripheral to the main foci of burial within the cemetery without necessarily being the latest burials there.

Cemetery	Grave	Phase	Sex	Age Category	Gender
Penannular Ditches					
Western	C6231	3b	Male	Subadult - Adult	Male
Central	C1031	3b – 4			Male
Central	C1132	3b – 4		Adult	Male
Central	C1159	3b – 4		Subadult - Adult	Male
Central	C1352	3b – 4		Juvenile	Male
Central	C1379	3b – 4			
Central	C1325	4		Adult	Male
Central	C6406	4b		Infant - Juvenile	Mle
Central	C4899	4 – 5			
Western	C4650	4			Male
Western	C6202	4 – 5			Female
Central	C1110	4 – 5		Adult	Female
Western	C6206	4	Possible Male	Subadult - Adult	Male
Central	C1391	4 – 6		Adult	
Central	C1393	4 – 6			
Central	C1464	4 – 6			
Central	C6513	4a – 6			Male ?
Central	C6416	5 – 6		Juvenile	Female ?
Central	C6644	4 – 6	Possible Male	Juvenile	
Central	W3031	4 – 6	Possible Male	Adult	
Central	C6635	4b – 6		Adult	
Central	C6516	4b – 6		Adult	Female
Central	C6423	5 – 6			Female
Ring Ditches					
Central	C1421	4 – 6			
Central	C6155	4 – 6			
Central	C6161	4 – 5			
Central	C6673	4 – 5			Male
Central	C6171	4 – 5			

Table 7: Graves with Penannular or Ring Ditches

The graves with penannular ditches from Saltwood are summarised by phase in Table 7. The earliest examples from both the western and central cemeteries appear to have been used for the deposition of males but by the 7th century both males and females were inhumed in this way.

The distribution of the ring ditches echoes that of the penannular ditches and it may be significant that they occur at the northern and southern extremities of that distribution and they represent some of the latest burials within the cemetery.

One grave in the row on the eastern side of the trackway (W1323) included two rows of clench nails, set laterally across the grave (Fig. 222). There were no grave goods. The

skeleton was that of a juvenile, aged *c* 9 – 11 years. Clench nails have been found in a series of east Kent graves (Riddler *et al* 2006) and often, as here, there were no other objects in the grave. Although associated with boat and pseudo–boat burials, clench nails were a ubiquitous means of fastening overlapping wood together, used on coffins and biers within graves throughout the Anglo–Saxon period.

Postholes were discovered around two graves (W1114 and C6421). Two lay to the south and east of grave C1114, while a series of eight surrounded the prominent grave C6421 and probably marked the extent of its burial mound, which was not encroached by any subsequent graves, although no barrow was present there.

Traces of coffins were identified in 14 graves, although in some cases only short lengths of wood traces could be seen (graves C1132, C1188, C1267, W1319 and W5186). Within grave C1138 (Fig. 149), the coffin appears to have occupied most of the space available. In other inhumation burials, however, the coffin stain occupied only a part of the grave. For instance, in grave W1279 (Fig. 218) the stain was set at the centre of the grave, with almost 0.5 m of space at either end, and in grave W1291 (Fig. 219) it appeared to have occupied the centre of the grave, with ample space at either side, although only part of its dimensions could be ascertained. Within Koch's typology of graves from Pleidelsheim, inhumation burials set at the centre of large graves, possibly arranged as chambers, formed a relatively late burial rite (Koch 2001, 118-9).

Grave C1145 (Fig. 150) had been disturbed on the southern side by a modern trench, but the grave was largely intact. No human remains survived but the stain of a body was visible on a platform of decayed wood. A sword lay to one side on the wood with a buckle opposite and a knife further down the grave. A bucket lay in the south-west corner with a spearhead and shield beyond the wooden platform. The wooden platform is likely to have formed the base of a coffin, positioned centrally within a larger chamber, which may originally have been framed in wood, no trace of which survived. The grave has been placed in phase 3b and it was the earliest of the chamber graves in the central cemetery. The faint trace of a curving ditch to the north–east of this grave allows for the possibility that it may originally have been set within a burial mound. If so, the mound was levelled shortly afterwards, with the cutting of graves C1081 and C1163, and ring ditch 10045 (Fig. 44).

The most conspicuous grave within the cemetery, grave C1081 (Figs. 140-4 and plates 12-13), lay to the south of the early Bronze Age mound 10020, 17 m away from grave C1048 to the north. The body was buried with a sword and knife within a wooden coffin. A shield lay at the side of the grave, probably outside of the coffin but within the enclosing wooden chamber (Figs. 140 and 143). A Byzantine copper alloy bowl lay to the south in the chamber, as well as an angon, a second shield, an iron–bound wooden bucket and iron horse

harness. The grave was 3.8 m long and almost 2.5 m wide, and was set within the largest recorded penannular ditch, with an entrance at the north.

Very faint traces of a coffin were visible in the eastern part of grave C1048 (Figs. 135-8). It was set in the centre of the grave, with the deceased provided with a sword and surrounded by a suite of weapons in the accompanying chamber, as with grave C1081. These included an angon, a spear, two shields, 14 arrows and a horse harness. A Byzantine bowl lay in the northern part of the grave, on top of a set of gaming pieces possibly enclosed within a leather pouch. The grave was 3.5 m long and 1.7 m across at its widest point. An open space of 4.5 m surrounded it, into which three burials (C1136, C1216 and C1218) encroached at a later date. Grave C1048 was probably the earliest of the prominent burials, with grave C1081 following shortly afterwards and (to some extent) surpassing grave C1048 in its size and splendour. The horse burial C1244 lay to the east of grave C1048 and may be associated with it.

Eighteen metres to the south of grave C1081 and on an alignment with graves C1048 and C1081, lay grave C6421 (Figs. 192-4). This grave measured 3.2 x 1.8 m and included 5 m of open space around it, with eight postholes marking the edges of a presumed burial mound. A series of eight satellite burials surrounded the grave, four of which were of female gender, with two males (Table 8).

Grave	Sex	Gender	Age Category	Phase
C6411		Female		4a – 6
C6520		Female		4a – 6
C6648				4a – 6
C6630		Female		5 – 6
C6532		Male		4
C6516		Female	Adult	4b – 6
C6491			Infant - Juvenile	4a – 6
C6513		Male		4a – 6

Table 8: Graves surrounding Grave C6421. Age categories from human bone analysis

No traces of a coffin were seen in grave C6421. The skeletal remains lay at the centre of the grave with four iron cleats reinforcing the edges of the wooden floor, for which the planks (which did not survive) would have been aligned longitudinally. An iron–bound wooden bucket lay in the south–west corner with the fittings of a box opposite on the northern side of the grave. The upper part of the body had been elegantly dressed with a bead necklace, a composite disc brooch and several pendants of gold and silver (Plate 10).

Another 17 m beyond grave C6421 lay the fourth prominent inhumation burial made within the cemetery, grave C6653 (Figs. 207-9). The grave measured 3.25 x 1.55 m and had

included a wooden chamber (which could be seen during excavation) but no trace of a coffin. The body was either laid at the centre of the grave, or possibly towards the north, close to where the sword lay at the time of excavation. The deceased was surrounded by three shields, an angon, a spear, a wooden box, a single gaming piece and a Frankish copper alloy bowl. An iron–bound wooden bucket lay in the south–eastern corner of the grave. The chamber was reinforced by four iron staples.

On the same alignment and a further 21 m to the south lay grave C6101 (Fig. 187). This was not a prominent grave in the manner of the four described above, but it may have continued the tradition of burial on a linear north–south axial alignment, in groups surrounding specific graves spaced at 15 – 20 m intervals. The skeleton was contained within a coffin, with a number of marker stones set above it. A space of 0.2 m surrounded the coffin on all four sides. It was probably one of the latest graves to be interned within the cemetery.

Grave C1163 (Fig. 153) should also be noted as another possible chamber grave. The grave was disturbed by a 20th century trench that passed through its centre, but a sword, shield, knife and buckle remained. The grave measured 2.5 x 1.8 m and no traces of any wood were noted. The sword lay at the middle of the grave with the shield and spear on the north side.

Layout and development of the central cemetery

A small group of four graves in the northern part of the cemetery can be placed tentatively into Phase 3 (Fig. 126). The keys and beads in grave C1210 (Fig. 161) suggest that it should be placed in phase 3b (Walton Rogers *et al* 2006). The north–south oriented grave C1408 (Fig. 179) merely contained a ceramic vessel but the grave was cut by grave C1328, which was itself cut by grave C1244 (Fig. 168). Grave C1244 was a horse burial, probably associated with grave C1048 and placed in Phase 4a, on the basis of a radiocarbon date of *cal*. AD 620 – 780 (1336±35 BP, NZA19887). Accordingly, grave C1328 should be a little earlier and grave C1408 earlier still, and it probably extends back to Phase 3. Grave C1221 (Fig. 165) included a spearhead of type D3, thought to be of mid to late 6th century date (Ager *et al* 2006). To the west, the phase 3b grave C1145 lies to the south of grave C1210, with both graves situated on the edge of a set of graves of west–east orientation.

The location of graves C1145 and C1210 at the eastern end of a group of burials could indicate that this is the early focus of the cemetery but the subsequent progression of burial in this area appears to work in a different way to the western and eastern cemeteries because of the changes that occurred following the deposition of the four prominent burials.

At some point in the late 6th to mid 7th century (Phase 3b – 4b) three auspicious weapon burials were made in the cemetery, quite possibly within a few years of each other (Figs. 135-8, 140-4 and 207-9). Each of the burials included an impressive suite of weapons

including a sword, two shields, a spearhead and an angon. In addition, a set of 14 arrowheads lay in grave C1048. Aside from the weapons, iron–bound wooden buckets were found in graves C1081 and C6653, and copper alloy bowls of Mediterranean or Byzantine origin occurred in all three graves. The grave goods suggest that they were all buried within Phases 3b – 4b and although there are differences in the nature of the graves and in their contents, no obvious sequence can be discerned between them. It is likely that they were all buried within a few years of each other. The focus of burial during the early development of the cemetery lies at the north and on that basis grave C1048 is the earliest of this group, placed here in phase 3b – 4a. The comprehensive extension of the cemetery to the south with the creation, in effect, of four plots, each related to an auspicious burial, itself suggests that these burials are broadly contemporary, with graves C1081 and C6653 being deposited a short while after grave C1048. At the same time, the grave goods of grave C6421 indicate the possibility of a slightly later deposition, within phase 4 rather than phase 3b. The grave included a pendant with a pseudo–imperial Frankish gold solidus of Marseilles in the name of Maurice (AD 582 – 602), very similar to an example of no precise provenance now in the British Museum (Abdy and Williams 2006, no. 24). The composite gold brooch and presence of amethyst beads suggest a date within phase 4a – b. From the grave goods, the sequence of burial here is C1048 – C1081 – C6653 – C6421 but the layout of the cemetery strongly suggests that the sequence was actually C1048 – C1081 – C6421 – C6653. If grave C6421 is dated towards the end of phase 4a then both sequences can be reconciled, with grave C6653 deposited a little after, within phase 4b. Grave C1081 can be placed in phase 3b – 4a.

There is some evidence to suggest that the entire layout of the cemetery was decided at this point. At the south and towards the limit of excavation lay a number of graves, two of which (C6643 and C6524) follow the alignment of the four prominent graves, which is unlikely to be coincidental. There is a space of 13 m between graves C6421 and C6653, and a further 10 m to grave C6524. The pair of graves C6643 and C6524 have little of the opulence of the four prominent graves. Grave C6643 (Fig. 205) included a shield with a type 3/6 boss, which should be relatively early and would be placed in phase 3b – 4a if it occurred in the northern part of the cemetery. At the southern extremity of the cemetery, however, it may be a little later, and the grave has been placed in phase 4. It serves to emphasise that the cemetery was deliberately laid out with a series of graves on the same linear, north-south alignment within a relatively short space of time, with burial subsequently taking place either radially around the prominent graves, or to their south or east. The majority of burials were found around grave C1048 in the north but each prominent burial was followed by the deposition of a group of surrounding graves, in separate sub–sets. Interestingly, the position of grave C6643 to the south of grave C6653 recalls that of grave C6532 to the south of grave

C6421 and grave C1163 to the south of grave C1048. In each case a weapon burial lies to the south of a prominent grave, on the same linear alignment.

The deposition of the four prominent graves completely changed the layout and development of the cemetery. The small group of scattered burials of an earlier Anglo–Saxon date on the edge of the prehistoric barrow was supplanted by four prominent burials with a series of graves arranged radially around each of them. In the northern part of the cemetery a space of 4.5 m around grave C1048 was entirely devoid of burials, aside from the later encroachment of grave C1136 at the north and graves C1216 and C1218 at the south. At the edge of this space to the north–west was a curving arc of graves, two of which lay within penannular ditches (graves C1325 and C1132). Grave C1132 (Fig. 147) has been placed in phase 3b – 4 and grave C1325 (Fig. 173) in phase 4. The curve continues from grave C1132 to grave C1154 (Fig. 151) at the north, a burial with a large knife, also of phase 4. In this area, graves C1045, C1132, C1154 and C1325 contained large knives or short seaxes with virtually no other weapons present. Grave C1188 (Fig. 155), for which a knife of type E is the only grave good, should also belong to phase 4. Burials further away from grave C1048 to the north–west are later in date.

To the east of grave C1048 lay the burial of a horse (Grave C1244), unaccompanied by any grave goods. Horse harness was present within grave C1048 and in grave C1081. Within east Kent from the late 6th century onwards horses were buried separately from inhumation graves containing horse harness (Vierck 1970-1, 191). It is surprising that only one horse burial was identified, although bone survival was extremely poor within the cemetery.

To the north of grave C1244, grave C1286 (Fig. 172) had a north–south orientation similar to that of grave C1325, which lay on the other side of grave C1048. To the south of grave C1048 lay grave C1163, which forms the lower part of the ring of burials immediately surrounding this grave. Grave C1163 (Fig. 153) was another weapon burial with a sword, shield and spear, as well as two buckles, and it has been placed in phase 4. To the west, grave C1189 (Fig. 156) was another weapon burial with a shield with a boss of Group 3/6, a spearhead of type C3 and a buckle of type II.24a, allowing it to be placed in phase 3b – 4. A number of the burials in the vicinity of grave C1189 could be of a similar date. They have few grave goods and cannot be closely dated. The unfurnished grave C1191 cut another weapon grave C1204 (Fig. 160), again belonging to phase 3b – 4.

Not all of the burials made around grave C1048 were of male gender. Grave C1521 (Fig. 182) lay to the north of grave C1048 and was a grave of female gender with an annular brooch and monochrome beads. Grave C1261 (Fig. 170) included beads, an iron pin and a remarkable Italo–Byzantine buckle within what may have been a double grave of female gender (Walton Rogers *et al* 2006). Grave C1216 (Fig. 163) included over 120 glass beads,

as well as a wooden box and a ceramic vessel. Graves C1216 and C1521 can be placed in phase 3b – 4 whilst the pin in grave C1261 suggests a slightly later date, but the string of amber beads (Bead Group 1) is indicative of an early date, and accordingly it has also been placed in phase 3b – 4.

In summary, grave C1048 was placed within a burial space over 9 m in diameter and the edges of the assumed mound or flat space were cut into by a series of graves largely but not exclusively of male gender, some of which included weapons. The earliest of these burials were set to the south and east of grave C1048, whilst those to the north and west were later and included burials within penannular ditches. The early emphasis of burial around grave C1048 appears to have been largely to the south.

Grave	Sex	Gender	Age Category	Phase
C1286		Male		3b – 4a
C1521		Female	Juvenile - Adult	3b – 4
C1216		Female		3b – 4
C1259			Adult	3b – 4
C1218				3b – 4
C1189	Possible Female	Male	Adult	3b – 4
C1204	Possible Male	Male	Adult	3b – 4
C1191				3b – 4
C1261		Female		3b – 4
C1352		Male	Juvenile	3b – 4
C1244	Horse Burial			4a
C1325		Male	Adult	4
C1132		Male	Adult	4
C1154		Male	Subadult - Adult	4
C1163		Male		4
C1195		Male	Infant	4

Table 9: Graves surrounding Grave C1048

Beyond the graves to the north–west of grave C1048 lay a further series either cut into the ring ditch, or extending to the west and north of it (graves C1004, C1031, C1045, C1110, C1165 and C1188). These are largely later graves, suggesting that burial radiated out from that focus. Some belong to phase 4, whilst the amethyst beads in grave C1110 (Fig. 146) strongly suggest that it dates to Phase 4 – 5 and is one of the later graves in the northern part of the cemetery (Walton Rogers *et al* 2006). The same situation can be seen on the north–eastern side, with grave C1138 (Fig. 149) attributable to Phase 4 – 5 from the glass and amethyst beads found there, and grave C1267 (Fig. 171) belonging to Phase 4 on the basis of the spearhead of type D1. To the west, graves C1214 and C1195 (Figs. 158 and 162) can also be placed in phase 4. Beyond all of these graves lie further examples, almost all of which

have no grave goods at all, and they probably represent the latest phase of burial in this cemetery.

The extensive penannular ditch surrounding grave C1081 was fringed by 11 graves (C2816, C1391, C1393, C2899, C1439, C2401, C2869, C2429, C2437, C2457 and C2442), most of which lay to the east and formed a part of the long row of graves with penannular ditches aligned parallel with the trackway 226. In addition, a largely obliterated grave lay to the south–west of grave C2899 and was represented merely by the butt ends of a penannular ditch. There were no further graves within the penannular ditch or burial mound of grave C1081. Four of the graves to the east were enclosed by or associated with penannular ditches. The ditch of graves C1391 and C1393 cut into ditch 10045. It is difficult to phase these graves with precision, given that few have any grave goods. Grave C2816 (Fig. 184) included a spearhead of type D1, as well as a knife and a ceramic vessel, and it can be placed in phase 4. Grave C2899 (Fig. 186) has been placed in phase 4 – 5, and an iron pin and ten glass beads came from grave C2401 (Fig. 183), allowing it to be placed in phase 4b – 6. The presence of penannular ditches around several of these graves is indicative of a Phase 3b – 5 date; the graves have been allocated to Phase 4 – 5 here. All of them appear to be later than grave C1081, the lack of grave goods recalling the situation at the periphery of the cemetery to the north, as well as across the trackway. In general, burials furnished with grave goods lie closer to the prominent graves.

Grave	Sex	Gender	Age Category	Phase
C2816		Male	Infant - Juvenile	4
C2899				4 – 5
C2401		Female	Juvenile	4b – 6
C1391			Adult	4 – 6
C1393				4 – 6
C1439				4 – 6
C2869			Adult	4 – 6
C2429				4 – 6
C2437				4 – 6
C2442				4 – 6
C2457				4 – 6

Table 10: Graves surrounding Grave C1081

An obvious circle of graves surrounded the prominent grave C6421. It consisted of graves C6516, C6532, C6630, C6648, C6520, C6411, C6513 and C6491. Grave C6416 was situated to the east of grave C6513 and it can also be placed in this group. The graves encircle the edge of the presumed mound for grave C6421, except for the north side, whilst retaining a consistent orientation and an even spacing of 4 – 5 m from the central grave.

As with the graves surrounding grave C1081, most of these also contained few items. Phase 4 grave C6532 (Fig. 200) was furnished with a small spearhead of type F3, as well as a knife and a ceramic vessel. The chatelaine from grave C6630 (Fig. 202) belongs to phase 5 at the earliest. Grave C6416 (Fig. 191 and plate 11) included a late antique intaglio mounted as a pendant, as well as a knife, and the objects belong to phase 5 or 6. Graves C6516, C6513 and C6416, all situated to the east of grave C6421, were enclosed within penannular ditches. There is little spread of burial beyond the central grave here, and the graves are well spaced and do not intersect. Most – but not all – are of female gender (Table 8). Radiocarbon determinations for graves C6421 and C6516 produced similar and statistically indistinguishable results, of *cal.* AD 540 – 660 and 560 – 680 (C6516, 1446±35 BP, NZA-19639 and C6421, 1415±35 BP, NZA-19719), placing them in phase 4a.

Seven graves (C6423, C6406, C6429, C6635, C6599, C6640 and C6566) were located to the south and east of grave C6653; no graves were identified to the west. Few of these graves included any objects beyond a knife although a spearhead of type C1 came from grave C6406 (Fig. 189) and a copper alloy pin was found below the skull in grave C6423 (Fig. 195). Graves C6423, C6406 and C6635 were enclosed by penannular ditches. A remnant of another penannular ditch lay to the south–west of grave C6653, but no grave was identified in this area. As with graves C1048 and C1081 (but not with grave C6421) the graves closest to the central burial tended to include grave goods and those further away did not. Grave C6635 (Fig. 203) provided a radiocarbon determination of cal. AD 620 – 780 (1352±35 BP, NZA-19638), which equates well with its phasing (Table 11).

Grave	Sex	Gender	Age Category	Phase
C6406		Male	Infant - Juvenile	4b
C6423		Female		5 – 6
C6566	Possible Male		Juvenile	4b – 6
C6640		Male	Adult	4b – 6
C6635			Adult	4b – 6
C6599				4b – 6
C6429				4b – 6

Table 11: Graves surrounding Grave C6653

A little to the south of grave C6643, grave C6524 (Fig. 199) included amethyst beads, allowing it to be placed in Phase 5 – 6. Grave C6101 (Fig. 187) belongs to the same phase. A complex of intercutting graves to the south east, at the southern limit of excavation, included few with any grave goods, although a large knife came from grave C6673 (Fig. 210), one of the latest graves of the stratigraphic sequence, which has been placed in phase 4 – 5.

The emphasis on a rectangular cemetery arrangement aligned with the trackway 226 extends to the groups of graves located to its east. Six separate groups of burials can be identified, most of which encompass a small number of graves. Only a few graves included any objects and they cannot be closely dated; the entire assemblage of graves can be placed within phases 3 – 6 but the sequence of burial here is difficult to discern.

The northernmost group consists of five graves, four of which form a curving alignment (W5025, W5023, W5019, W5186 and W5015). Only one grave (W5186) included any objects, a knife and an iron buckle, and these cannot be dated with any precision (Fig. 226). A little to the south a distinctive row of graves recalls the arrangement seen within the western cemetery, and to the west of it lie scattered graves that form a second, dispersed row. The main row consists of 12 graves with a thirteenth example (W3031) set within a penannular ditch below it (Fig. 44). It was the only grave on the east side of the trackway to be set within a penannular ditch. Seven of the graves of this row included objects but few of these can be precisely dated. The presence of a large knife in grave W1319 (Fig. 220) places it broadly in phase 4 – 6, and the presence of a double–tongued buckle of type II.24b in grave W1101 (Fig. 213) suggests a later date for that grave, of phase 5 – 6. These graves were situated at either end of the row, which as a whole can be placed in Phase 4 – 6. By analogy with the western cemetery, burial with this arrangement may not have begun before phase 3b, and probably not before phase 4, and may have continued well into phases 4 and 5.

Two unfurnished intercutting graves W1056 and W1238 form the southern end of a widely spaced group that follows the alignment of the trackway and the row of graves to the east. Grave goods were present in four of the six graves although two merely contained a knife, and a further grave W1074 (Fig. 212) included a knife and buckle. The assemblage of beads and silver wire with a copper alloy pin from grave W1279 (Fig. 218) allows it to be placed in phase 5 – 6.

To the east of this row lies a second row of 12 graves, seven of which included grave goods, although these consist largely of knives and small quantities of beads. The latter suggest that there should be an early, Phase 2 –3 dating for two graves (W1112 and W1122), as noted by Hirst (in Walton Rogers *et al* 2006). Equally, however, the presence of a double–tongued buckle in the nearby grave W1101 is indicative of a date in phase 5 – 6. Moreover, the graves are arranged in a row, in the manner of those in the western cemetery and within this landscape this burial arrangement seems to belong to phases 4 – 6 and to represent one of the latest forms of grave layout within the Anglo–Saxon landscape. The single polychrome bead in grave W1124 (Fig. 217) allows that grave to be placed in phase 3b – 4.

All of these graves lie directly to the east of the upper part of the central cemetery and it is likely that they were cut after the prominent graves were laid out. An analogy of cemetery organisation can be drawn with the western cemetery, where graves in penannular

ditches were set well away from those in rows.   Here the two sets of row graves were set at some distance from the graves in penannular ditches on the other side of the trackway, although one grave of that type lies just to the south of both rows. Only one weapon grave (W1319) lies amidst this assemblage and it merely contained a large knife (Fig. 220). The row of graves (Plot C) in the western cemetery also lacked weapons, with the exception of one grave with a large knife. Equally, however, graves of both male and female gender were present within the rows to the east of the trackway (Table 12).

Grave	Sex	Gender	Age Category	Phase
W5015				4 – 6
W5019				4 – 6
W5186		Male	Adult	4 – 6
W5023				4 – 6
W5025				4 – 6
W5233				4 – 6
W1071			Infant	4 – 6
W1122		Female	Infant - Juvenile	4 – 6
W1124	Possible Male	Female	Adult	3b – 4
W1120				4 – 6
W1118			Infant - Juvenile	4 – 6
W1116				4 – 6
W1323			Juvenile	4 – 6
W1112		Female		4 – 6
W1114				4 – 6
W1101		Male		5 – 6
W1153				4 – 6
W1319	Possible Male	Male	Adult	4 – 6
W3031	Possible Male			5 – 6
W1056	Possible Male		Adult	4 – 6
W1074		Male	Adult	4 – 6
W1074	Possible Female		Adult	4 – 6
W1238				4 – 6
W1321	Probable Male		Adult	4 – 6
W1291	Possible Female	Male	Adult	4 – 6
W1279		Female		5 – 6
W3005				4 – 6
W3007				4 – 6
W3009				4 – 6
W5374				4 – 6
W5379				4 – 6
W5361				4 – 6

Grave	Sex	Gender	Age Category	Phase
W3080	Possible Male		Subadult - Adult	5 – 6
W3080		Female		5 – 6
W3083		Female	Juvenile	5 – 6
W3086				4 – 6
W3612				4 – 6
W6639				4 - 6

Table 12: Graves to the east of the trackway 226

To the south–west, three closely spaced graves (W3005, W3007 and W3009) were all unfurnished. All three were cut by the ditch 91. A further group of three graves (W5374, W5379 and W5361) located almost opposite to grave W6653 but on the other side of the trackway are also unfurnished.

Finally, a small group of five graves (W3080, W3083, W3086, W3612 and W6639) lay to the east of the southernmost graves on the opposite side of the trackway. Two of the graves were furnished with grave goods. Grave W3080 (Fig. 224) included two monochrome beads as well as silver necklace wire with one of the burials in this double grave; a single Roman melon bead lay near the skull of the other burial. Beads mounted on wire are thought to belong to the second half of the 7th century (phases 5 – 6). Four monochrome glass beads were found in the adjoining grave W3083 (Fig. 225), and this probably belongs to the same phase.

3.6.7   The burial rite

The distribution of grave lengths for each cemetery is shown in Figure 48. The central cemetery has a statistically normal distribution with the majority of graves between 1.5 and 2.8 m in length, a similar figure to that established by Richardson (2005, 124) for early Anglo–Saxon inhumation graves in Kent. The smaller sample from the western cemetery has two peaks, at 1.8 and 2.5 m. The first figure coincides with the normal distribution, whilst the larger figure is a little unusual, and is echoed also in the distribution of the central cemetery. If the graves of the western cemetery are arranged by phase and length (Fig. 65) it becomes clear that those of phase 3b – 6 are on average longer than those of phases 2 and 3. Accordingly, the second peak for the western cemetery represents the development of grave size over time, between the 6th and 7th centuries.

Eight graves are longer than 3 m and six of those graves come from the central cemetery. They include the four auspicious graves (C1048, C1081, C6421 and C6653), as well as graves C1138 and C1159 from the central cemetery and graves C3885 and C6231 from the western cemetery. Most of these are weapon burials, but they do include two graves

of female gender from the central cemetery. Richardson's study recorded just a handful of graves over 3 m in length from the whole of Kent (Richardson 2005, chart 13) and the group from Saltwood practically doubles that number.

Grave sizes may have increased over time, as did their spacing, a point made by Parfitt (Parfitt and Anderson forthcoming). This is most apparent within the western cemetery, where the graves of phases 2 and 3 are concentrated in the central plot A, with some graves intercutting and most set in close proximity to each other (Fig. 42). In contrast, the graves of plot D to the north are some distance from each other and most have a marked east–west alignment, two characteristics of 7th century graves. There is possibly an echo of the same arrangement in the nearby cemeteries at Lyminge and Folkestone, Dover Hill (Richardson 2005, figs 22 and 24).

The spacing of graves within the central cemetery was conditioned by the placement of the four auspicious graves (see above), with the majority of the graves set in the northern part of landscape and later graves extending to the south and east, on the other side of the trackway. This cemetery arrangement is, as yet, unmatched elsewhere in Kent.

All three cemeteries include sets of graves arranged in rows. Most of the graves of the eastern cemetery are set in two offset lines, albeit with some variation in grave orientation (Fig. 46). Within the western and central cemeteries (east of the trackway) there are two distinct rows of graves (Figs 42 and 44), both of which are likely to be relatively late in date. Similar rows can be seen at Bekesbourne II, Broadstairs III and Ozengell (Richardson 2005, figs 14, 16 and 27).

The range of coffins, containers for the burial and structural features of the grave has been outlined above for each cemetery and they are examined here in a broader perspective. Traces of coffin stains could be seen within three of the graves of the eastern cemetery, six of the western cemetery and fourteen of the central cemetery, including all four auspicious graves, providing a total of 10.7% of the early Anglo–Saxon graves. Small quantities of wood survived from graves C1048 and C1081 and in all other cases the coffins were visible as discolourations of the soil, sometimes quite pronounced. The survival of organic remains was poor and the overall figure for the number of coffins should be regarded as a minimum.

The earliest grave with traces of a coffin is C4635 (Phase 2) in the western cemetery. Three graves with coffins, all from the eastern cemetery, belong to phase 3 and three further graves, two from the western cemetery, are of phase 3b – 4 or 3b – 5, alongside the four auspicious graves within the central cemetery. Most of remaining graves belong to phase 4 – 6 and were largely located in the central cemetery. Coffins were used for both male and female burials, including one multiple grave (C1004), with very few coffin traces from the graves of infants or juveniles. This contrasts with Richardson's survey, where coffins were used for men, women and children in equal measure (Richardson 2005, 131). Richardson has

argued that coffins became more common in Kent after *c* 650, but this is not apparent at Saltwood (Richardson 2005, 132).

Ten graves from the western cemetery and 21 from the central cemetery were furnished with local greensand stone, which outcropped in both areas of the landscape.   The stone was used in a number of ways, as indicated in Table 13.   In several cases (graves C1325, C6231, C6513 and W5186) the stones were thought to be natural and not deliberately placed.   Graves with a partial lining of stone (C3762, C4643, C4680) all lay towards the eastern side of the western cemetery, with the stones lining one or both long sides of the grave, and consisting in each case of irregular, sub–rectangular greensand blocks.   The same situation can be seen with grave C1387 in the central cemetery.   With central cemetery grave C1464 the stones were set at the head and foot but were not marking stones, given that the grave lay under a mound, within a penannular ditch.   The greensand blocks of grave C6101 all lay above the coffin stain and served either as markers for that grave, or possibly as the remnants of a stone lid.   The former suggestion is the more likely and is paralleled by a grave from Dover Buckland, which included large flints set along either side of the body, forming markers for the grave (Evison 1987, 17-18).

The only grave to include a complete stone lining (C3885) lay in the western cemetery (Fig. 93).   The stone lining may have been a pragmatic solution to the problem of cutting a deep grave within a loose sand environment, as suggested elsewhere (Lucy 2000, 101; McKinley 2003, 34).   It may also have signified the importance of this grave, which is contemporary with the four auspicious graves of the central cemetery.

The nine graves with stones in the region of the head all come from the central cemetery and belong to the 7th century.   Females are predominant by gender within this category.   Three forms of stone can be identified at the head.   The first consists of single stones that occur at the head end of the grave, usually beyond the skull, and these may be of natural origin (graves C1165, C2401 and W1279).   More convincing headstones come in two forms, either as slabs set horizontally at the head end, so that they act as pillow stones (graves C1188, C1325 and C6524) or shaped slabs set vertically beyond the head (W1118 and C6644).   In addition, a multiple grave from the central cemetery (W1074) included a re–used Romano-British greensand quern fragment as a pillow stone (Fig. 212).

Headstones belong with Hogarth's class IIIa structural features (Hogarth 1973, 115), a class that is not common in Kent, if reasonably well–represented in different forms at Saltwood, so that it may now need to be sub–divided in wider analyses.   Other examples include Ozengell grave 229, where sandstone slabs lay in the upper fill, and several graves from Cop Street, Ash (Richardson 2005, 120).   Two Saltwood graves (C1004 and C3866) (Figs. 92 and 132) included upright, shaped greensand slabs, which lined part of the grave in each case.   In grave C3866 the slabs, as excavated, were offset at the eastern end, suggesting

that they enclosed a longer and a shorter body, with one skeleton (C3929) possibly positioned with the head at the east, rather than the west.   This is a notable feature of twinned graves, both in England and on the Continent (Lüdemann 1994, 432-3).

Stones at the foot of the grave are confined in each case to irregular greensand blocks and only in one case (grave C3824)(Fig. 90) is there evidence for a shaped foot stone. A grave from the central cemetery (C6406)(Fig. 189) included greensand blocks at the head and foot, with one block also along the side. The Saltwood cemeteries differ from those elsewhere in east Kent for the geology of the sub–soil, which consists of sand and stone, rather than chalk, and this is likely to have had a major effect on the choice of stone structural features.

Use of Stone	Cemetery	Grave	Phasing	Sex	Age Category	Gender
Partial Grave Lining						
	Western	C4643	2			Female
	Western	C3762	3		Adult	Female
	Western	C6231	3b	Male	Subadult - Adult	Male
	Western	C4680	3b		Subadult - Adult	Male
	Central	C1387	3b – 4			Female
	Central	C1325	4		Adult	Male
	Central	C1464	4 – 6			
	Central	W5186	4 – 6		Adult	Male ?
	Central	C6513	4a – 6			
	Central	C6101	5 – 6	Male ?	Adult	
Complete Grave Lining						
	Western	C3885	3b – 4a	Male	Adult	Male
Stone at head of grave						
	Central	C1165	4 – 6			Female
	Central	W1279	5 – 6			Female
	Central	C2401	4b – 6		Juvenile	Female
	Central	W1074	4 – 6		Adult	Male ?
	Central	C1188	4	Female ?	Adult	Female
	Central	C1325	4		Adult	Male
	Central	C6524	5 – 6		Adult	Female
	Central	C6644	4 – 6	Male ?	Juvenile	
	Central	W1118	4 – 6		Infant - Juvenile	
Stones at foot of Grave						
	Western	C3826	2		Adult	Male
	Western	C3824	3 – 6	Female ?	Adult	Male
	Western	C4597	4		Juvenile - Adult	
	Western	C6202	4 – 5			Female
	Central	C2899	4 – 5			

Use of Stone	Cemetery	Grave	Phasing	Sex	Age Category	Gender
Head and Foot Stones						
	Central	C6406	4b		Infant - Juvenile	Male
Cist-like Grave						
	Central	C1004	3b – 4	Female	Adult	
		C1004	3b – 4		Adult	
	Western	C3866				

Table 13: The Use of Stone in the early Anglo-Saxon Graves

Penannular ditches surrounded a total of 23 graves with most graves lying singly within the ditches, although pairs of graves occurred within the same ditch in two cases in the central cemetery (graves C1159 and C1352, and C1391 and C1393). The majority were found in the central cemetery, although a group of four formed plot B within the western cemetery (Fig. 42). There were no penannular ditches within the eastern cemetery.

Penannular ditches can be seen also within east Kent cemeteries at Broadstairs III, Cuxton, Dover Buckland, Finglesham, Ozengell and Polhill (Härke 1992, abbn 50 and 57; Richardson 2005, figs 16, 20, 21, and 27; Mackinder 2005). At Polhill the peripheral position of the graves with penannular ditches suggested that they were the latest burials of the cemetery and this was substantiated by a consideration of some of the grave goods (Philp 1973, 168; Hawkes 1973, 200). Hogarth has also argued that penannular ditches are a feature of the later 7th century, again in part because of their peripheral location within cemeteries, and this was suggested also for the Cuxton cemetery (Hogarth 1973, 118-9; Mackinder 2005). However, earlier examples going back to the later 6th century have subsequently been found elsewhere in England and two gullies redolent of penannular ditches (if semi–circular in form) were excavated at Dover Buckland, within an area of 6th century graves (Hills *et al* 1984, 12-3 and 94-5; Lucy 2000, 98-100; Parfitt and Anderson forthcoming). Some of the graves at Chatham Lines excavated by Douglas in the 18th century include ditches indicating the presence of barrows of 6th century date (Richardson 2005, 116).

The Saltwood examples of graves with penannular ditches within both the western and central cemeteries all lie in peripheral locations, but that does not necessarily mean that they are from the latest burials within these cemeteries. Their phasing is summarised in table 7 below and those from the both cemeteries are likely to be of late 6th to mid 7th century date, with a few graves extending into the second half of the 7th century. Thus, although they form a part of the later development of each cemetery, they are not simply the latest burials. A similar situation prevails elsewhere in Kent. The examples from Polhill belong to the 7th century but do not appear to be the latest graves in that cemetery, and graves with penannular

ditches are entirely missing from the late cemeteries of Eccles, Holborough and Mount Pleasant (Evison 1956, fig 3; Shaw 1994, fig 1; Riddler and Kerep forthcoming).

Whilst penannular ditches can be traced back to phase 3b, ring ditches are only seen in association with graves of 7th century date (phase 4 – 6). In general, there are more penannular ditches in 7th century cemeteries than in those of an earlier date, confirming the general trend for Kent (Richardson 2005, 115-6). At Saltwood five graves were enclosed within three ring ditches, with three intercutting graves within one of them. All three ring ditches came from the central cemetery, in association with 7th century graves that cannot be closely dated. As with the penannular ditches, they lay within peripheral locations and possibly they represent a later form of burial ritual.

Five of the graves of the central cemetery were enclosed within wood-lined chambers and a sixth grave (C1163) may also have contained a chamber. Each grave conforms with Martin's definition of chamber graves of Morken type, being at least 1.0 – 1.2 m in width (0.90 m in the case of grave C1145) and with a clear distinction between the burial and the accompanying chamber (Martin 1976, 13-24; Reiß 1994, 30). The Saltwood examples vary in width from 0.90 – 2.44 m, with four examples between 1.5 and 1.85 m. Two different arrangements can be seen at Saltwood, with the deceased lying either at the north of the grave (C1145 and C1163), or set at its centre, a feature of the auspicious graves (C1048, C1081, C6421 and C6653). Wood remains from the chambers were scarce. They survived only in contact with copper alloy bowls (graves C1048 and C1081), or were seen in the initial stages of excavation (C1048). Most of the base of the coffin remained in the exceptional case of grave C1145.

Morken type chamber graves are reasonably common on the Continent, occurring in Frankish territories in particular from the middle of the 6th century onwards (Martin 1976, 22-5; Reiß 1994, 31). Comparatively few have been found in England, although there are a number of examples from Kent and most of the graves described by Richardson as 'large barrows' were probably chamber graves (Richardson 2005, table 33). Anglo–Saxon examples largely belong to the late 6th and early 7th centuries.

The poor survival of skeletal remains is a distinct disadvantage in describing the multiple burials and suggestions made here can only be very tentative. In some cases the presence of such burials is indicated merely by the size of the grave or the disposition of grave goods and the skeletal remains are largely or entirely absent. There can be no certainty about the original burial in these situations. The number of multiple graves identified may be a little low, given these problems, but it is clear that they are not a common phenomenon. Nine possible multiple burials have been identified within the overall sample of 216 early Anglo–Saxon graves (4.2%), a figure that compares very well with Richardson's 4.2% for

Kent as a whole (Richardson 2005, 93; Stoodley 1999, table 15).   Figures for Merovingian cemeteries in Belgium vary from 3% to 10% (Lüdemann 1994, 502).

With five graves (C1004, C4502, W1490, W1810 and W1074) there was some skeletal evidence for the presence of two individuals, if not for their precise disposition in the grave, and not all of these graves were certainly multiples. Thus in grave W1074 (Fig. 212), for example, two skulls were recovered, but one was redeposited and lay above the other in the grave fill. With grave W3080 (Fig. 224) a single individual was identified but the arrangement of the grave goods, alongside the size of the grave (and its width, in particular) revealed the former presence of a second internment. In a further case (grave C1261) no human remains were recovered at all, and it is only the size of the grave and the arrangement of the grave goods that allows it to be described tentatively as a multiple (Fig. 170). Similarly, grave C3885 (Fig. 93) may possibly have been a stacked grave, but the evidence for this consists merely of objects of male and female gender in the same grave, and there may be other explanations for that situation. The skeletal remains from grave C3866 (Fig. 92) were unfortunately mixed with those of a nearby grave on site, but the remarkable layout of vertical stone slabs in this grave, alongside the original grave plan, allow it to be interpreted as a multiple grave.

All but one of the graves can be described as 'twinned', with the two bodies lying side by side. Where it has been possible to assess the age of the deceased, the two individuals within each twinned grave usually differ, one being younger than the other, although pairs of adults were buried in two graves of the central cemetery. It has proved difficult to analyse either the sex or the gender of the deceased, the poor survival of the human remains being accompanied by few grave goods, and this hampers any broader discussion of the nature of these burials. It is not possible, for example, to distinguish between twinned graves deposited as a single event, and later inserted graves (as Lüdemann 1994, 432-40). It can at least be noted that where one burial was furnished with grave goods, then the second twinned burial was also furnished. One of the burials from the western cemetery is not phased and the remainder are evenly spread from phase 2 – 3 to 5 – 6, as might be expected. Merovingian multiple graves are more common in the 7th century (Lüdemann 1994, 512) but Stoodley has noted that they are evenly spread over time in early Anglo–Saxon England (Stoodley 1999, 54 and fig 40). The predominance of twinned burials at Saltwood can be contrasted with the number of double stacked burials at Dover Buckland (Parfitt and Anderson forthcoming) but the difference between the two sites may simply be a matter of topography. Saltwood is a relatively flat plateau site, whilst Dover Buckland is a steep chalk hillside and the stacking of graves might have been preferred there for that very reason.

Cemetery	Grave	Phase	Sex	Age Range	Gender	Type of Grave
Eastern	W1490	2 – 3	Male ?	13 – 15		Twinned
	W1490			7 – 14		
Eastern	W1810	2 – 3		18 – 25	Female	Twinned
	W1810			0.5 – 6		
Western	C3866	2 – 6				Twinned
	C3866					
Western	C3885	3b – 4a	Male	25 – 35	Male	Doubled Stacked
	C3885				Female	
Central	C1004	3b – 4	Female	18 – 25		Twinned
	C1004			25 – 40		
Central	C1261	3b – 4				Twinned
	C1261					
Central	W1074	4 – 6		>50	Male ?	Twinned
	W1074		Female ?	>45		
Central	W3080	5 – 6	Male ?	15 – 20		Twinned
	W3080					
Western	C4502	5 – 6		20 – 30		Twinned
	C4502		Male ?	15 – 20		

Table 14: Multiple Graves

3.6.8   Weapon combinations

Forty-three graves included weapons (Figs. 228 – 230). Within the eastern cemetery, two of the 17 graves contained weapons (11.8%), whilst 26 of 140 graves contained them in the central cemetery (18.6%) and 15 of 59 graves in the western cemetery (25.4%). The most common situation was the deposition of a single spear (Table 15). Graves with spears represent 37.2% of the sample, a figure that compares reasonably well with that of 40% from Dover Buckland and Cuxton, and 46.4% and 46.5% from two earlier studies of Kent as a whole (Härke 1989, fig 4.4; Richardson 2005, table 50; Blackmore 2005). They formed the most common type of grave with a weapon at Mill Hill as well (Parfitt and Brugmann 1997, 90; Mackinder 2005). The Saltwood graves include no skeletal remains identified as males and just two possible males; most are unsexed and five contained no human remains at all. The slightly surprising element in the Saltwood sample is the quantity of immature individuals present, with one infant grave (C1214), two infants - juveniles (C2816 and C6406), one juvenile (C1352), and two subadults (C6231 and C1159). Only three of the graves were those of adults. Spear graves tend in general to be limited to adults but both infants and juveniles were represented at Dover Buckland and elsewhere in Kent (Riddler and Kerep forthcoming; Richardson 2005, 139 and table 52). The smallest spearheads at

Saltwood were discovered in the graves of the infants or infants/juveniles, suggesting that there is some correlation between age at death and spear size. Infants were generally not buried with weapons elsewhere in Anglo-Saxon England (Härke 1992, 190-5 and abb 38).

Seaxes were recovered from four graves, including two graves where the seax forms the only weapon and one grave where a short seax was accompanied by a spear of type G2. In addition, a short seax occurred in a sword combination grave, which is described below. All three graves with this weapon in the central cemetery were those of adults, one a possible male. They are likely to be 7th century graves (possibly second half of the century) but they cannot be closely dated. Identical seax graves were found at Dover Buckland, where they also occurred in small numbers and they reflect the combinations recorded by Geake (1997, 75). Large knife graves echo those of short seaxes. Large knives were the only weapons in four graves (C1045, C3953, C3998 and C4614) and occurred with spears in three others. The other example (grave C4665) accompanied a sword but no other weapons. Large knives occurred in both the western and central cemeteries. They did not occur in combination with shields and only one short seax was found in a grave that included a shield, as well as other weapons (grave W1767). In general, they were usually the only weapon in the grave, or were accompanied by a spear. As with the seaxes, the large knives were found in the graves of male or possibly male adults, where biological sex could be determined. This supports Härke's contention that the large knife is a symbol of male adult status (Härke 1992, 162). The large knives do not appear in graves before phase 3b and it is likely that the majority were of 7th century date.

Shield and spear graves formed the second most common combination at Saltwood, although there were only six examples (13.6%). One grave came from the eastern cemetery, one from the western cemetery and four from the central cemetery (C1031, C1189, C1286, C6643, C4680 and W1705). The combination is confined to graves of phases 3 – 4, with most in phase 3b – 4. Only three graves retained any skeletal remains with one subadult or adult and two adults, one of which was possibly a female, whilst another was possibly a male. Shield combinations are comparatively rare in Kent and Sussex, in contrast to the rest of England (Härke 1992, tab 9 and abb 16; Dickinson and Härke 1992, 70; Richardson 2005, 138). Sword and seax combinations are more common in Kent, balancing this deficiency. Richardson identified 90 graves from Kent with this combination of weapons, forming 17.1% of his sample and again reflecting the situation at Saltwood reasonably well.

The 11 swords from Saltwood include several of Continental origin, including the example from grave C1081 (Fig. 141). The most elaborate sword is the ring-sword found in grave C3944 in the western cemetery (Fig. 97), whilst the others varied in the quality of their manufacture, as noted by Gilmour (2006). The swords occur in seven different weapon combinations (Table 15). The sword, shield and spear grouping was the most common sword

combination in Richardson's sample (Richardson 2005, table 50). Where the age could be ascertained, all of the graves with sword combinations were those of adults. The earliest grave (C3826) (Fig. 91) belongs to Phase 2 and includes a sword without any other weapons. Two of the graves with swords, shields and spears (C3944 and C1145) (Figs. 97 and 150) belong to phase 3 whilst a further six graves, encompassing a variety of combinations, have been placed in phase 3b – 4a. The most impressive sword combination graves are undoubtedly those from the auspicious graves C1048, C1081 and C6653, where the sword is accompanied by at least two shields, a spear and an angon, with a set of arrows also in grave C1048. These combinations are so rare in Kent that they are not mentioned by Richardson (2005, 138-41). The latest sword combination graves can be identified as the auspicious grave C6653 (Fig. 208) and the grave C1163 (Fig. 153) in the central cemetery, which included a sword, shield and spear, an enduring sword combination.

Cemetery:	Western	Central	Eastern	Total	Percentage
Spears					
Spear only	5	11		19	37.2
Shields					
Shield and Spear	1	4	1	6	13.6
Swords					
Sword	1			1	2.3
Sword and Spear	1			1	2.3
Sword and Large Knife	1			1	2.3
Sword, Shield and Spear	2	2		4	9.1
Sword, Shield, Spear and Seax			1	1	2.3
Sword, Shield, Spear and Angon		2		2	4.6
Sword, Shield, Spear, Angon and Arrows		1		1	2.3
Seaxes					
Seax only		2		2	4.6
Seax and Spear		1		1	2.3
Large Knives					
Large Knife only	3	1		4	9.1
Large Knife and Spear	1	2		3	6.9

Table 15: Weapon Combinations

A consideration of the temporal variation in weaponry (Table 16) shows that the 6th century phases are dominated by spears, occurring both alone and with shields and swords, and that the majority belong to phase 3b – 4, where they show considerable variety. Thereafter they are heavily restricted in type, the latest phases including spears without any further weapons, and possibly also encompassing large knives.

	Phase:	2	3	3b - 4	4	4 -5	3b –6
Spears							
	Spear only		2	4	5	4	
Shields							
	Shield and Spear		2	4			
Swords							
	Sword	1					
	Sword and Spear			1			
	Sword and Large Knife			1			
	Sword, Shield and Spear		2	1	1		
	Sword, Shield, Spear and Seax		1				
	Sword, Shield, Spear and Angon			1	1		
	Sword, Shield, Spear, Angon and Arrows			1			
Seaxes							
	Seax only			1			
	Seax and Spear			1			
Large Knives							
	Large Knife only			1			3
	Large Knife and Spear			1			2

Table 16: Weapons by Phase

3.6.9 *Dress Accessories, Vessels and Imported Objects*

Fifteen brooches came from 7 graves in the three cemeteries, with most of them from two graves in the eastern cemetery (W1453 and W1762) and one (C3747) in the western cemetery (Walton Rogers *et al* 2006). Some brooches were made on the Continent whilst others were produced in Kent workshops influenced by Merovingian and southern Scandinavian designs. The earliest forms are a button brooch probably made in Kent and a radiate brooch of Frankish origin, both of which may have been buried as heirlooms (Plate 3). Western cemetery grave C3747 and Eastern cemetery graves W1453 and W1762 included pairs of square headed brooches, and there was a single brooch of this type from Western

cemetery grave C4643 (Plates 4 – 8). The silver brooches from grave C3747 are almost identical to those from Dover Buckland, Finglesham and Herpes in France, whilst the single brooch from grave C4643 is a late type with a more westerly distribution in Kent, suggesting the presence of several distinct jewellery workshops. In contrast, the brooches from W1453 belong to a group distributed across southern Scandinavia, Germany, Belgium and France, for which several workshops have been postulated, located both on the Continent and in Kent. A pair of silver quatrefoil brooches from the same grave were almost certainly produced on the Continent (Plate 9). Two keystone garnet disc brooches, from graves C3747 and C3762, are typical east Kent products of the second half of the sixth century (Plate 9g). The most impressive brooch, however, is undoubtedly the plated gold disc brooch from grave C6421 in the central cemetery, with garnets and blue glass enclosed in gold cloisonné cells (Plate 10). Graves C6421 and C4699 also included gold, glass and gemstone pendants, amongst which are cabochon garnets and amethysts. A gold coin pendant from grave C6421 is a gold solidus minted at Marseilles in the name of the emperor Maurice (AD 582-602), whilst the glass intaglio from grave C4699 is of late fifth to early sixth century date and probably depicts the Virgin Mary (Plates 10 and 11).

858 beads came from 36 graves in the three cemeteries (Hirst in Walton Rogers *et al* 2006). Amber beads predominated in the eastern cemetery (78%), while in the western cemetery the numbers of amber and glass beads were fairly even, and monochrome glass beads formed 90% of the sample from the central cemetery. Just 25 polychrome glass beads were found, largely in graves of late 6th to early 7th century date in the central cemetery. Strings of over 40 beads were entirely confined to the graves of adults and with just two exceptions (graves C1210 and C1521) the graves of infants, juveniles or sub-adults contained a maximum of 11 beads. Two of the graves of the eastern cemetery (W1453 and W1762) included substantial strings of amber beads, alongside two graves of the western cemetery (C3747 and C3762) and one (C111261) from the central cemetery. Four substantial glass bead strings consisting predominantly of small blue green drawn segmented beads and small yellow globular beads occurred in graves of the late sixth to early seventh century (central cemetery graves C1138, C1216, C1521 and western cemetery grave C4659). Three bead strings from the central cemetery with smaller numbers of monochrome red glass beads (C1110, C1210 and C6524) are broadly contemporary, whilst later graves of the seventh century in both the western and central cemeteries contained only small numbers of beads.

A number of objects found in the Saltwood cemeteries were imported from the Continent. Others show Continental influence, although it is not clear whether they were made in southern England or northern Europe. Several of the brooches are Merovingian and the Byzantine copper alloy bowls – whatever their origin – arrived in Kent along well-established trade routes from the Mediterranean. The third copper alloy bowl, from grave

C6653, is thought to be a Frankish or Italo-Byzantine product. The ceramic bottle from grave C4721 is Merovingian, whilst the remarkable buckle from grave C1261 is Italo-Byzantine (Harris *et al* 2006). The glass bell beaker from grave C3764 may have been made in the Meuse valley and the palm cup from grave C4677 is probably a product of the Rhineland. The globular glass beaker from the same grave is probably also of Continental origin. A chatelaine from grave C6630 in the central cemetery is more typical of the Continent than Anglo-Saxon England and the crystal ball from grave C3762 is certainly an import. At least two of the swords are thought to be Frankish and the three angons are heavily influenced by weapon forms from the same area, although they may have been made in England. Even some of the smaller and less conspicuous iron objects may betray Continental influence, as with the object interpreted as a fiche à belière from central cemetery grave C1267 or the small, square buckle from grave W1767 in the eastern cemetery. Continental influence can be seen in some of the earliest graves of the eastern cemetery and continues throughout the entire period of Anglo-Saxon burial, the amethyst beads and glass intaglios representing some of its latest manifestations. Within the Saltwood cemeteries conspicuous wealth is closely aligned with the presence of imported objects.

It would be unwise to speculate too much about the ethnic origins of the deceased when bone survival was so poor and no scientific analyses could be carried out. Moreover, the only skeleton from Dover Buckland to be identified as a possible foreigner was buried without any grave goods (Keith Parfitt, pers comm.). It should be noted, however, that the chamber grave C1081 includes a number of objects of Continental origin, as well as a burial rite (a chamber grave within a massive penannular ditch) that is not obviously Anglo-Saxon.

3.6.10 *Early Anglo–Saxon cemeteries in south-east Kent*

Although there have been numerous discoveries of early Anglo–Saxon cemeteries in Kent, comparatively few of these have come from the south–east corner of the county, in the vicinity of Saltwood. Smith discussed cemeteries at Folkestone, Lympne, Lyminge and Stowting at the turn of the last century (Smith 1908, 364-8), and these same areas have remained a focus for early Anglo–Saxon cemeteries ever since (Fig. 231). Saltwood represents the first significant addition to this list in almost a century.

Richardson has re–evaluated the graves from Folkestone Hill and has updated the details of the three other cemeteries of this area, one of which is now thought to be of doubtful authenticity (Richardson 1994; 2005, II, 35-7 and 211-5). Just two possible graves of early Anglo–Saxon date are known from Cherry Hill Garden near Folkestone, but one of these appears to have been a secondary internment within a prehistoric barrow (Richardson 2005, II, 36). Around 40 graves are known from Dover Hill at Folkestone, from a cemetery

thought to date from the second half of the 6th century to the middle of the 7th century (Richardson 2005, II, 36-7). At least one cemetery is known from Lympne, where an unknown number of graves were discovered around 1828 (Smith 1908, 364; Richardson 2005, II, 49). An infant burial from nearby at *Sandtun* is of uncertain date, although possibly middle or late Anglo-Saxon (Gardiner *et al* 2001, 178-9).

Subsequent to Smith's review, part of a cemetery at Lyminge was excavated by Warhurst at a location separate to the cemetery identified in the 19th century (Warhurst 1955, fig 2). Further excavations at the same site by Warhurst remain unpublished, and recent work by the Dover Archaeological Group has subsequently extended the known limits of this cemetery (Richardson 2005, II, 48 and 259-64). This recent work has further developed the understanding of the cemetery, which was also reviewed by Evison (1987, 162-4), and uncovered the burial of a horse (Richardson 2005, II, 48).

A number of parallels can be drawn between early Anglo–Saxon burial at Lyminge and Saltwood. There is a predilection at Lyminge towards burial in rows, with the central area of burial closely packed, with some intercutting graves, and a wider spacing for burials dispersed from this core. The arrangement recalls the western cemetery at Saltwood in particular and the main set of graves there in plot A are likely to be contemporary with Lyminge (Warhurst 1955, fig 1; Evison 1987, fig 32b). The unaccompanied horse burial from Lyminge is also a significant find in the light of the discoveries from the central cemetery at Saltwood.

Two cemeteries have been identified at Lyminge and there may possibly have been three originally, although the third consists merely of a single brooch, recovered as a stray find, which is not an entirely reliable indicator of a cemetery (Richardson 1995, II, 49). The two known cemeteries are approximately 800 m apart, which does not appear to be as closely spaced as at Saltwood, but only a fraction of each cemetery has been excavated and their limits have yet to be fully established. A brief review of grave goods from Lyminge cemetery I suggests that it was contemporary with Lyminge II, and largely of 6th century date.

Only one cemetery is known at Stowting, which is essentially of 6th century date, extending into the early 7th century (Brent 1867; Richardson 2005, II, 75-6 and 351-5). As at Lymnpe, the discoveries were almost entirely made during the 19th century.

If there were certainly two cemeteries at Lyminge, then there appear to have been at least three at Eastry, and possibly as many as six, although two are known only from metal detected finds and have not been verified by excavation (Hawkes 1979; Richardson 2005 II, 30-2 and 209). Hawkes described and identified four of the cemeteries, mostly set 600 – 800 m from each other, although Eastry I and II were much closer (Hawkes 1979, 94-5 and fig 4.7).

The Saltwood excavations provided a rare opportunity to view three discrete early Anglo–Saxon cemeteries within a burial landscape. Moreover, with a phasing sequence in place for each of the cemeteries, it is possible to view the development of each one over time, something that has not previously been possible in early Anglo-Saxon archaeology. Both the western and the eastern cemeteries appear to have begun at around the same time, in the earlier part of the 6th century. There are no graves of 5th century date and very few objects of that date occur within the 6th century graves. It is possible that earlier graves remain to be discovered in the unexcavated southern portion of the western cemetery. The closely spaced nature of plot A within that cemetery recalls the arrangement at Lyminge II and suggests that it is a core part of the cemetery, but at Lyminge II the discovery of earlier graves has occurred a short distance away from a similar core area (Richardson 2005, II, 48). Equally, it is possible that the western cemetery began at roughly the same time as the eastern cemetery and that there were not graves of Phase 1 within this landscape. Graves further to the south, beyond the area of excavation, are perhaps more likely to be of a later, 7th to 8th century date. It is also noticeable that throughout the period of burial there were always two cemeteries in use at Saltwood.

The western and eastern cemeteries, set approximately 400 m apart, co–existed during the course of the 6th century, although the eastern cemetery may only have lasted for a generation or so. The western cemetery continued in use and as burial in the eastern cemetery ceased, the central cemetery was established. It may have been planned initially as a direct replacement for the eastern cemetery. At its inception, the central cemetery appears to have been a simple successor, continuing the tradition of burial beside a prehistoric monument and to the side of a trackway probably of late prehistoric origins. However, the plan of this cemetery changed dramatically in the late 6th to early 7th century with the placement of four auspicious burials in a linear arrangement at 15 - 20 m spacings. The two burials at the north (C1048 and C1081) may have been buried a few years in advance of the second pair (C6421 and C6653) set further to the south. Each of these burials was subsequently surrounded by satellite graves, with the majority of graves laid out in the northern part of the cemetery.

Burial continued throughout this period within the western cemetery, moving from the central plot A to the east, west and north, into separate burial zones, each a sub–set of the whole. Late 6th and early 7th century graves from both the western and central cemetery are well–spaced, in comparison with those of an earlier date. A further change in the burial arrangement comes around the middle of the 7th century with the instigation of burial rows in both cemeteries, plot C in the western cemetery forming a counterpoint to burial to the east of the trackway in the central cemetery.

The latest phase of burial at Saltwood is represented by graves placed into phases 5 – 7, which were found both in the central and western cemeteries. Within the male graves,

weapon burial with spears, shields and swords appears to have ceased *c* AD 650, but burial with a large knife or short seax may have continued into the later 7th century. A number of the graves with the simple combination of a knife and a buckle may also be of this date. With the graves of female gender, the deposition of brooches ceases and the quantity of jewellery declines rapidly, but the beads in particular show a continuation of burial well into the 7th century. Some of the indicators of late burial in east Kent are missing at Saltwood, including graves with *sceatta* coinage, buckles with integral openwork plates, group 7 shield bosses and some forms of glass vessel, amongst items noted by Geake (Geake 1997, 124-5 and table 6.1; Marzinzik 2003, 53; Evison 2000, 78-84). Most of these tend to be rare and exotic items, however, whilst other items like shears, wooden boxes and certain types of beads, are present (Lucy 2000, 135; Brugmann 2004).

Each of the three cemeteries lay close to a prehistoric round barrow, the most common form of prehistoric monument to be re–used in the early Anglo–Saxon period (Williams 1997, 6 and fig 11; Lucy 2000, 126-8). However, later prehistoric changes to the landscape may have meant that these barrows were no longer visible. Associations with trackways were also important and the central and eastern cemeteries lay in close proximity to them, whilst the western cemetery was spread across an earlier routeway. Trackways have generally been considered merely as boundaries for cemeteries (Lucy 2000, 128) but the evidence from the central cemetery, in particular, highlights their significance as passageways leading to burial sites, which could spread to either side of them. The trackways extended to the north of the excavated area, into the presumed location of the contemporary settlement, and linked the two elements together, assuming that they were still in use at this time.

During the 19th century the area north of Saltwood tunnel comprised a number of fields, the largest of which seems to have been White Post field, within which most of the excavations took place. It is likely that the field systems of the 19th century were largely unchanged from the later medieval period, although the paucity of maps and documents for this area means that this cannot be proved conclusively (Sweetinburgh 2002). At the same time, a number of the field names had changed during that period. According to the tithe map the excavated area lay to the north–east of Hayne barn. This barn may be that referred to by Wallenberg who noted that Heane Wood, Barn was probably close to the meeting place of the Heane Hundred (Wallenberg 1934, 457). The Saltwood trackways converge towards the south of the site but the land descends from the plateau at that point and a meeting place there is perhaps unlikely. The meeting place was normally located centrally within the hundred, at a prominent point where inhabitants would have routinely encountered each other (Lawson and Killingray 2004, 30). Within the landscape, the junction of the trackways 10156 and 10112 would have provided one possibility and a location to the north of the excavations, in

the area of the Anglo-Saxon settlement, is another alternative. Here again, the trackways may have been significant, as routes to the meeting place.

Throughout their duration, at least two cemeteries were in operation at Saltwood, suggesting that they served two communities, one at the western part of the landscape (western cemetery) and the other at the east (eastern cemetery, subsequently the central cemetery).

3.7 The early medieval landscape

c 650 - c 1300 AD

Ian Riddler and Mike Trevarthen

Following the end of early Anglo–Saxon burial within the three cemeteries, there is no evidence for any later burial in the landscape, and comparatively little evidence for subsequent settlement. The landscape reverted to agricultural use, with several pits of Middle Anglo-Saxon, late Anglo-Saxon and early medieval date, and settlement traces of the 11th to 12th centuries.

Middle Anglo-Saxon occupation at Saltwood consists merely of a few pits scattered across the landscape, if largely at the western end, with several also cutting into graves of the eastern cemetery. Twenty sherds of Middle Anglo-Saxon pottery were recovered, mostly from the western side of the site, and generally in small numbers from a dispersed set of features (Fig. 41). Most of the sherds are of 7th to 8th century date. In addition, a knife (*ON345*) from pit 1844, which cut a grave in the eastern cemetery, has inlaid copper alloy wire on both sides (Fig. 232). On one side two parallel bands are formed from two distinct copper alloys, one a copper colour and the other a lighter yellow. The yellow band overlies the copper band and forms a sinuous pattern across both strips. On the other side there are no less than five bands, four set adjacent to each other just below the back of the blade, with the fifth band curving along the centre of the knife and extending into the tang, as do several of the other strips. All five inlaid patterns again utilise two copper alloys, each in a different pattern.

Anglo–Saxon knives with inlaid copper alloy strips mostly occur in the middle and late Anglo-Saxon periods. Non–ferrous inlay is present on a *seax* from grave 3 at Northolt Manor of late 7th or early 8th century date (Evison 1961, 227-30) but more precise parallels for the Saltwood knife come from settlement contexts of 8th century and later date. A type E knife with inlay of both copper alloy and silver from Abbots Worthy was compared with several inlaid examples from *Hamwic,* and a further example has come from *Lundenwic* (Davies 1991, 42-3 and fig 33.10; Whytehead *et al* 1989, fig 42.237). One of the knives from Dolland's Moor is inlaid with a single strip of copper alloy in a two-coloured herringbone pattern, as with this example; it is of middle or late Anglo-Saxon date (Riddler 2001).

The apparent disregard for earlier graves and the cutting of pits into them recalls the situation within the production and trading sites of the middle Anglo-Saxon period, including *Hamwic*, Ipswich and *Lundenwic* (Morton 1992, 48-55; Malcolm *et al* 2003, 17-32). Middle Anglo-Saxon settlement can be found close to Saltwood at *Sandtun* to the west and at Dolland's Moor to the east, and both of those sites extended into the late Anglo-Saxon period (Gardiner *et al* 2001; Bennett 1991, 23-5). The recent discovery of ceramic moulds for precious metalworking at the Bayle, Folkestone, suggests the presence of an early monastery in the vicinity (Keith Parfitt, pers. comm.). In general, however, middle Anglo-Saxon sites remain scarce in Kent, particularly in rural locations (Naylor 2004, 85-8). The population living at the excavated landscape in the early Anglo-Saxon period moved during the course of the late 7th to early 8th century, possibly south into the village of Saltwood itself.

Eight sherds of late Anglo-Saxon pottery were thinly scattered across contexts at the eastern end of the excavation. They were accompanied by an angled back knife (*ON 621*) from the western side of the landscape, which can be placed in Ottaway's type A2, a common knife form of the 9th to 12th centuries (Ottaway 1992, 561). It has three parallel grooves on one side, but without any inlay, and a blade just 65mm in length. Short knife blades are fairly common at this period (Ottaway 1992, 564) and five of the six contemporary knives from Dolland's Moor included grooves on one or both sides; three of them are type A2 knives (Riddler 2001). A fragmentary bun–shaped loomweight rescued from work on the M20 at Saltwood is also of late Anglo-Saxon date (Willson 1985, fig 2.30).

A small number of ditches (44, 50, 54, 150, 152, 153, 154 and outlying feature 66) and pits (47, 48, 75, 112, 156, 198 203, and probably also unphased pits 204 and 205) were confined to a relatively restricted area near the eastern end of the site, overlying and immediately south of barrow 33, partially cutting in to the early Anglo-Saxon cemetery (Figs. 45 and 233). No clear pattern could be determined from the remains although the ditches are reminiscent of the wall trenches used in structures of this period, which have been found at Monkton on Thanet and Northfleet (both excavations currently unpublished). The arrangement of pits to the north of the ditches 152 and 153 recalls the situation with Monkton Building IV and in both cases they appear to represent latrine pits set close to structures and arranged to the north of them. No certain building plans could be reconstructed from the sparse physical remains at Saltwood, however. A limited suite of pottery (Fig. 234, nos. 1, 2 and 8) indicates a probable 11th to 12th century date. The fabrics are largely Canterbury types, with little reliance on Ashford wares, in contrast to the situation further to the west at Mersham and Westenhanger. This suggests that the Saltwood ceramics are earlier in date, and prior to the development of the Ashford kilns in the late 12th century. Relatively large groups of animal and fish bone, as well as the presence of deposits of mussel shell (particularly in ditch 66) suggest standard rural habitation with agricultural activity. The

assemblage of animal bone is dominated by sheep/goat and cattle, but seven pig bones and a single horse bone were also found. Fish remains were mainly from cod, most from a single fish deposited in pit 47, conger eel, ling, whiting, mackerel, gurnard and flatfish (*Pleuronectidae* - plaice, flounder or dab) were also found, and a vertebra may be from a three-bearded rockling. The presence of cod on an inland site of this date accords well with recent theories of the development of fishing practices in northern Europe, under which both cod and herring became more common from the early 11th century onwards (Barrett *et al* 2004).

At the western end of the excavation, primarily in the northwestern corner, a diffuse spread of medieval and post–medieval pottery was noted from topsoil and in a number of features (Figs. 43, 60 and 234, nos. 3 – 7). Most of this pottery is of early medieval date, as with the settlement traces further to the east, with few sherds of later medieval date. The relatively high proportion of dishes in the assemblage (Fig. 234, nos. 3 – 4) suggests activities related to dairying. The nature of activity here remains unclear, but some form of settlement is indicated. A small rectangular enclosure is defined by the ditches 10133, 10109, 10090 and 10091, with medieval settlement traces set within the area to the north, alongside the junction of the two routeways.

3.8   The later medieval and recent landscape

AD 1300-1945

Mike Trevarthen

Post-medieval agricultural landuse is attested by a widespread homogenous subsoil, probably a result of long-term deep-ploughing.

The Saltwood tunnel lies *c* 20 m below ground level and was built in the early 1840s to service the London–Folkestone railway. A series of vertical brick–lined shafts spaced along the tunnel served as ventilation during construction and facilitated removal of excavated spoil to the surface (see Fig. 2). These shafts were subsequently sealed and capped.

The 20th century saw use of the site as a barracks during the First World War (1914-18), and as a camp for marshalling of troops during the Second World War (1939-45). Service trenches, some structural footings and a number of large latrine pits immediately west of the former bridleway probably relate to the 1914-18 phase of military use. Some of these cut into early Anglo–Saxon graves, but most managed to miss them.

Post–medieval layers were observed (but not recorded) in a broad, shallow hollow–way following, very approximately, the course of the north–east to south–west aligned Romano-British trackway. This route is indicated on the 1st (and later) edition Ordnance Survey map

of 1877 as a bridleway, and south of the excavation area its alignment is still maintained as a private lane.

3.9   Unphased features

A number of archaeological features from the Saltwood excavations could not be attributed a date or phase (see Fig. 3). Although it is not intended to discuss these at length, the large group of unphased features immediately east of the former bridleway warrant comment.   Here an area of sometimes insubstantial and poorly defined features was interpreted during excavation as a complex of post-holes. Numerous irregular trends and alignments may speculatively be reconstructed here, with suggestions of fence–lines, *etc*., but no coherent or convincing structural traces have been identified. Some of these features may relate to Bronze Age settlement and agriculture, but at least one minor post–alignment post– dated the upper 'disuse' fills of early-middle Iron Age ditch 80. Others are almost certainly of more recent origin, or may be naturally formed by animal burrowing and root-intrusion. Many of the features remained unexcavated.

4   LANDSCAPE THEMES

Although many phases of landuse have been identified on the Saltwood plateau, it is not necessarily possible to conclude that this represents continuity of occupation, or that earlier landscapes were necessarily maintained by later generations. Revealed instead are a number of abrupt discontinuities of landuse. Some of these are chronological whilst others mark significant re-ordering of the landscape.   The later 2nd millennium BC, for example, witnessed a transition from early and middle Bronze Age funerary use to secular late Bronze Age agriculture and settlement. A similar situation was also seen at Tutt Hill near Ashford (Brady 2006a). There is no overwhelming evidence from east Kent to suggest problems of population pressure in early 1st millennium BC, and it may simply be the case that social attitudes to established monumental landscapes changed at this time, as elsewhere in Britain.

The late Bronze Age landscape was, in turn, over–written by evidence for early – middle Iron Age agriculture, with an imprint of trackways and enclosures that has shaped the area to the present day, and the late Iron Age to early Romano-British period saw the growth of a rural settlement, probably on a minor local routeway. In the Anglo–Saxon period the site reverted again to funerary use, albeit with a settlement to the north, largely beyond the limit of excavation. During the remainder of the Anglo–Saxon period there was little activity across the landscape, although there may have been settlement at its western extremity.   The presence of middle Anglo-Saxon occupation is important in local terms, lying as it does

between a small port at *Sandtun* to the west, and further rural settlement at Dolland's Moor to the east.

The early medieval evidence from the site is not easily interpreted, but suggests that, by the time of the Norman Conquest, the Anglo-Saxon cemeteries were forgotten, or irrelevant (a position they had already attained in the middle Anglo-Saxon period), and that the plateau had, at least in part, reverted to agricultural use.

Some aspects of landuse did, however, exert a repeated influence on the organisation of later landscapes and, perhaps most notably, the early Bronze Age barrow cemetery. The earthworks of at least three barrows (33, 10052 and 10082) may have influenced the alignment of the Iron Age and Romano-British trackways, if they remained visible into the Anglo–Saxon period and beyond. The placing of 6th to 7th century burials, some of high status, in direct association with three of the barrows conforms to a nationally observed tradition (Williams 1997). The large penannular ring-ditch 10045 around grave C1081 (Figs 46 and 71) seems to have been appended to an existing barrow ditch, and it is perhaps significant that at least two of the cemeteries lay at the intersections of the barrows with Iron Age or Romano-British tracks. One of these (crossing ring–ditch 10082) was perpetuated into the modern era, and was recorded as a bridleway on the early edition Ordnance Survey mapping (see Fig 2). No Romano-British or Anglo-Saxon routeway was apparent in the area of the central cemetery, although this area had been extensively disturbed; the alignment of the bridleway passed through it, and burials lay to either side. It is suggested here that the bridleway was visible as a feature in the early Anglo-Saxon period, and was still used as a routeway. The central cemetery was sited at the head of a small coombe (see physical background, above), which has probably facilitated north–south movement over the Greensand escarpment since at least the late prehistoric period. In the Anglo–Saxon period, this route may have formed part of an important link between the manor of Saltwood (immediately to the south) and the royal manor of Lyminge to the north. Burial on and around barrow mounds at a prominent topographic point on such an axis may have carried significant prestige, and it may be no coincidence that the most lavishly furnished Anglo-Saxon burials were established parallel to this route.

5   GUIDE TO THE ARCHIVE

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/

These present synthesised data from key site sequences at an interpretative level that can readily be assimilated into complementary studies. The ADS site also includes six 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 archive (Booth et al 2007).

Table 17 below details all available digital reports and data for the Saltwood Tunnel 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 archivally stable versions of report image pages (.tiff). Report texts and databases are also available as text files (.rtf and .csv respectively). The digitised site plan is available as an Arcview shapefile (.shp) and in drawing exchange format (.dxf).

Table 17: Digital archive contents

Description	Filename root	Principal authors and organisation
Integrated site report		
Integrated site report	SLT_ISR	Riddler I and Trevarthen M (OWA JV and CAT)
Integrated site report figures	SLT_ISR	Riddler I and Trevarthen M (OWA JV and CAT)
Grave catalogue	SLT_ISR_cat	Riddler I and Trevarthen M (OWA JV and CAT)
Site research database		
Site database	SLT	Riddler I and Trevarthen M (OWA JV and CAT)
CAD/ GIS drawings		
CAD drawing	SLT_CAD	
ESRI ArcMAP GIS project	SLT_GIS	
GIS limit of excavation shapefile	SLT_GIS	

Description	Filename root	Principal authors and organisation
GIS feature plan	SLT_GIS	
Specialist research reports		
Ceramics (early prehistoric)	Ceramics (early prehistoric)	Ceramics (early prehistoric)
Ceramics (later prehistoric)	Ceramics (later prehistoric)	Ceramics (later prehistoric)
Ceramics (late Iron Age and Roman)	Ceramics (late Iron Age and Roman)	Ceramics (late Iron Age and Roman)
Ceramics (post-Roman)	Ceramics (post-Roman)	Ceramics (post-Roman)
Ceramics (post-Roman)	Ceramics (post-Roman)	Ceramics (post-Roman)
Lithics	Lithics	Lithics
Roman small finds	Roman small finds	Roman small finds
Anglo-Saxon textiles and costume	Anglo-Saxon textiles and costume	Anglo-Saxon textiles and costume
Anglo-Saxon dress accessories	Anglo-Saxon dress accessories	Anglo-Saxon dress accessories
Anglo-Saxon personal equipment and structural ironwork	Anglo-Saxon personal equipment and structural ironwork	Anglo-Saxon personal equipment and structural ironwork
Anglo-Saxon textile manufacturing implements	Anglo-Saxon textile manufacturing implements	Anglo-Saxon textile manufacturing implements
Anglo-Saxon vessels	Anglo-Saxon vessels	Anglo-Saxon vessels
Anglo-Saxon weapons	Anglo-Saxon weapons	Anglo-Saxon weapons
Faunal remains	Faunal remains	Faunal remains
Charred plant remains	Charred plant remains	Charred plant remains
Molluscs	Molluscs	Molluscs
Wood charcoal	Wood charcoal	Wood charcoal
Human remains	Human remains	Human remains
Radiocarbon dating	Radiocarbon dating	Radiocarbon dating
Specialist datasets		
Ceramics (early prehistoric)	CER_EPR_SLT	Edwards E (OWA JV)
Ceramics (later prehistoric)	CER_LPR_SLT	Jones GP (OWA JV)
Ceramics (late Iron Age and Roman)	CER_ROM_SLT	Every R
Ceramics (post-Roman)	CER_SAX_SLT	Blinkhorn P (Freelance)
Lithics	FLI_SLT	Devaney R (OWA JV)
Small finds	SFS_SLT	Riddler I (Freelance), Ager B (British Museum), Diez V (OWA JV), Spain S (Freelance) and Walton Rogers P (Textile Research, York)
Faunal remains	ENV_Fauna_SLT	Worley F (OWA JV) and Nicholson R (OWA JV)
Wood charcoal	ENV_Charcoal_SLT	Alldritt D
Human remains	HUM_SLT	McKinley J (OWA JV)
Post-excavation assessment		
Post-excavation Assessment	SLT_PXA	OWA JV and CAT

Table 18: Paper, artefact and environmental archive contents

Item	Number of Items/ Boxes	Quantity
North of Saltwood Tunnel (ARC SLT98) archive components		
Contexts records	945	-
Plans	83	-
Sections	194	-
Small finds	Boxed individually	146 items
Films (monochrome)	18	-
Films (colour)	17	-
Pottery	2 x Size 1	777 fragments
Fired clay/ daub	3 x Size 1	886 fragments
CBM	1 x Size 1	38 fragments
Worked Flint	3 x Size 1	189 fragments
Burnt flint	-	-
Stone	2 x Size 2	76 fragments
Shell	-	-
Metalwork	-	-
Glass	-	-
Slag	2 x Size 1	1,121g
Human Bone	2 x Size 1	49 contexts 2.395kg
Animal Bone	3 x Size 2	10.054kg
Soil Samples	-	2,550 litres
Soil Samples (Kubiena tins etc.)	-	-
North of Saltwood Tunnel (ARC SLT98C) archive components		
Contexts records	1556	-
Plans	174	-
Sections	379	-
Small finds	Boxed individually	598 items
Films (monochrome)	52	-
Films (colour)	52	-
Pottery	2 x Size 2	2,635 fragments
Fired clay/ daub	1 x Size 1	16 fragments
CBM	1 x Size 2	50 fragments
Worked Flint	1 x Size 1	406 fragments
Metalwork	1 x Size 1 3 x Size 2 1 x Size 3	662 items
Human Bone	3 x Size 2 1 x Size 3	19 contexts 2.3g
Animal Bone	-	-
Soil Samples	-	2,001 litres
Soil Samples (Kubiena tins etc.)	-	-
North of Saltwood Tunnel (ARC SLT99) archive components		
Contexts records	1099	-
Plans	182	-
Sections	200	-
Small finds	Boxed individually	337 items
Films (monochrome)	31	-
Films (colour)	34	-
Pottery	2 x Size 2	1,112 fragments

Item	Number of Items/ Boxes	Quantity
CBM	1 x Size 3	7 fragments
Worked Flint	1 x Size 3	123 fragments
Burnt flint	-	-
Stone	-	-
Shell	-	-
Metalwork	1 x Size 1 3 x Size 2 1 x Size 3	105 items
Human Bone	4 x Size 3	53 contexts 2.422kg
Animal Bone	-	-
Soil Samples	-	410 litres
Soil Samples (Kubiena tins etc.)	-	-
Stone Farm Bridleway (ARC SFB99) archive components		
Contexts records	1887	-
A1 plans and sections	45	-
A3 plans and sections	142	-
A4 plans and sections	253	-
Small finds	366 items	-
Films (monochrome)	78	-
Films (colour)	79	-
Pottery	2⅓ x Size 4	1,236 fragments
Fired clay	⅓ x Size 4	61 frgaments
CBM	⅓ x Size 4	26 fragments
Worked Flint	2 x Size 4	861 fragments
Burnt flint	⅓ x Size 4	234 fragments
Stone	⅔ x Size 4	5 fragments
Shell	-	-
Metalwork	See Table 9	90 items
Glass	1 x Size 5	102 fragments
Slag	1 x Size 5	2 fragments
Human Bone	2 x Size 4	1,919 fragments
Animal Bone	-	1,907 fragments
Soil Samples	391	5,972 litres
Soil Samples (Kubiena tins etc.)	4	-
Residues	2 x Size 4 1 x Size 6	171 samples

The total number and capacity of all finds boxes for Fieldwork Events associated with this assessment report held at Canterbury Archaeological Trust (CAT), Wessex Archaeology (WA) and the City of Lincoln Conservation Laboratory (CLCL) is as follows;

Table 19: Quantification of finds by box volume

Size	Description	Capacity	No.	Total Volume
1	CAT: Large	0.0570 m³	13	0.7410 m³
2	CAT: Museum Box	0.0303 m³	20	0.6060 m³
3	CAT: Half Museum Box	0.0131 m³	8	0.1048 m³
4	WA: Large Cardboard	0.0290 m³	10	0.2900 m³
5	WA: Large plastic ('Stewart')	0.0075 m³	2	0.0150 m³
6	WA: Medium/ Large plastic ('Stewart')	0.0065 m³	1	0.0065 m³
-	CLCL: Ferrous objects (CAT)	-	215	3.0000 m³
-	CLCL: Ferrous objects (WA)	-	16	0.2000 m³
-	CLCL: Non-ferrous objects (CAT)	-	36	0.5000 m³
-	CLCL: Non-ferrous objects (WA)	-	3	0.0200 m³
-	CLCL: Inorganic objects (CAT)	-	38	0.2000 m³
-	CLCL: Organic objects (CAT)	-	8	0.1000 m³
		Totals	**370**	**5.7833 m³**

6   BIBLIOGRAPHY

Abdy, R and Williams, G, 2006 A Catalogue of Hoards and Single Finds from the British Isles c AD 410-675, in B Cook and G Williams, *Coinage and History in the North Sea World, c AD 500-1250. Essays in Honour of Marion Archibald*, Leiden, 1-42

ADS, 2006 CTRL digital archive, Archaeology Data Service, http://ads.ahds.ac.uk/catalogue/projArch/ctrl

Ager, B, Cameron, E, Riddler, I D, and Spain, S, 2006 Early Anglo-Saxon weaponry from Saltwood Tunnel, *CTRL specialist report series*, in ADS 2006

Alldritt, D, 2006 Wood charcoal from Saltwood Tunnel, Kent, in Giorgi and Stafford 2006

Allen, M J 2006 Paleoenvironmental Molluscs from Saltwood Tunnel, Kent, *CTRL scheme-wide specialist report series*, in ADS 2006

Allen M J, Riddler, I D, Trevarthen, M, Diack, M, and Bevan-Athfield, N, 2006 Radiocarbon dates from Saltwood Tunnel, Kent, in M J Allen, Radiocarbon dates from Section 1 of the Channel Tunnel Rail Link, Kent, *CTRL scheme-wide specialist report series*, in ADS 2006

Anderson, T, and Andrews, J, 1998 The Human Remains, in A Hicks, Excavations at Each End, Ash, 1992, *Archaeologia Cantiana* **118**, 119-30

Baray, L., 'Les enclos du Second Age du fer du Nord Sénonais', in Buchsenschutz, O. and Olivier, L., (eds), *Les Viereckshanzen et les enceintes quadrilatérales en l'Europe celtique*, Paris, Errance, Actes du 9ème colloque du l'AFEAF, Châteaudun, 1985, 123-36.

Baray, L. (2003). *Practiques funéraires et sociétés de l'âge du Fer dans le Bassin parisien (fin du VIIe s. - troisième quart du IIe s. avant J.-C.)*. Paris: 56e supplément à Gallia.

Barclay, A, and Halpin, C, 1999 *Excavations at Barrow Hills, Radley, Oxfordshire. Volume I. The Neolithic and Bronze Age Monument Complex*, Thames Valley Landscapes Volume **11**, Oxford, Oxford Archaeological Unit and Oxford University Committee for Archaeology

Barrett, D, 2006 Island Road, Hersden, in Bennett 2006, 17-20

Barrett, J, H, Locker, A, M, and Roberts, C, M, 2004 'Dark Age Economics' revisited: the English Fish Bone Evidence AD 600 – 1600, *Antiquity* **78**, 618-36

Barton, R N E, 1998 Long blade technology and the question of British Late Pleistocene /Early Holocene lithic assemblages, in Ashton, N, Healy, F, and Pettit, P, 1998 *Stone Age Archaeology: Essays in Honour of John Wymer*, Oxbow Monograph **102**, Lithic Studies Society Occasional Paper **6**, Oxford, 158-64

Bayley, J, and Butcher, S., 2004 *Roman Brooches in Britain. A Technological and Typological Study based on the Richborough Collection,* Reports of the Research Committee of the Society of Antiquaries of London **68**, London

Bayliss, A, Groves, C, Gerry McCormack, F, Bronk Ramsay, C, Baillie, M G L, Brown, D, Cook, G T, and Switsur, R V, 2004 Dating, in P Clarke, *The Dover Bronze Age Boat,* English Heritage Archaeological Reports, Swindon, 251-5

Bennett, P, 1990 *Canterbury's Archaeology 1988 – 1989,* Canterbury Archaeological Trust, Canterbury

Bennett, P, 1991 *From Ice Age to Tunnel,* Folkestone

Bennett, P, 1992 *Canterbury's Archaeology 1991-2*, Canterbury Archaeological Trust, Canterbury

Bennett, P, 1993 *Canterbury's Archaeology 1992-3*, Canterbury Archaeological Trust, Canterbury

Bennett, P, 2006 *Canterbury's Archaeology 2004-2005*, Canterbury Archaeological Trust, Canterbury

Bennett, P, Sparey Green, C and Riddler, I D., forthcoming *The Roman Water Mills at Ickham, Kent,* Canterbury Archaeological Trust Occasional Papers, Canterbury

Blackmore, L, 2005 The small finds from Cuxton (ARC CXT98) Kent, *CTRL specialist report series*, in ADS 2006

Blinkhorn, P, 2005 The Pottery from Cuxton (ARC CXT98) Kent, *CTRL specialist report series*, in ADS 2006

Blockley, K, Blockley, M, Blockley, P, Frere, S S, and Stow S, 1995 *Excavations in the Marlowe Car Park and Surrounding Areas*, The Archaeology of Canterbury V, Canterbury

Booth, P, and Lawrence, S, 2000 Ashford: Westhawk Farm, *Current Archaeology,* **168***,* 478-481

Booth, P (ed) 2006 Ceramics from Section 1 of the Channel Tunnel Rail Link, Kent, *CTRL scheme-wide specialist report series*, in ADS 2006

Booth, P, Champion, T, Glass, H, Garwood P, Munby, J and Reynolds, A 2007 *On Track: The Archaeology of the Channel Tunnel Rail Link in Kent*, Oxford Wessex Archaeology Joint Venture, Oxford

Brady, K, 2006a The prehistoric landscape at Tutt Hill, Westwell, Kent, *CTRL integrated site report series*, in ADS 2006

Brady, K, 2006b The prehistoric and Roman landscape at Beechbrook Wood, Westwell, Kent, *CTRL integrated site report series*, in ADS 2006

Brent, J, 1867 An account of researches in an Anglo-Saxon cemetery at Stowting in Kent, *Archaeologia* **41**, 409-20

Brugmann, B, 1999 The Role of Continental Artefact-types in sixth-century Kentish Chronology, in Hines, Høilund Nielsen and Siegmund 1999, 37-64

Brugmann, B, 2004 *Glass Beads from Early Anglo-Saxon Graves. A Study of the Provenance and Chronology of Glass Beads from Early Anglo-Saxon Graves, Based on Visual Examination*, Oxford

Brugmann, B, forthcoming The Brooches, and Dover Buckland Cemetery Chronology, in Parfitt and Andrews forthcoming

Burgess, C, 1980 *The Age of Stonehenge*, London

Bushe-Fox, J P, 1925 *Excavation of the Late-Celtic Urn-field at Swarling, Kent,* Reports of the Research Committee of the Society of Antiquaries of London **5**, London

Calkin, B J, 1962 The Bournemouth area in the Middle and late Bronze Age, with the 'Deverel-Rimbury' problem reconsidered, *Archaeological Journal* **119,** 1-65

Clarke, D L, 1970 *Beaker Pottery of Great Britain and Ireland*, Cambridge

Coles, S, Hammond, S, Pine, J, Preston, S and Taylor, S, 2003 *Bronze Age, Roman and Saxon Sites on Shrubsoles Hill, Sheppey and at Wises Lane, Borden, Kent*, Thames Valley Archaeological Services Monograph 4, London

Cotton, J, and Field, D, 2004 *Towards a New Stone Age: Aspects of the Neolithic in South-east England*, CBA Research Report **137**, London

Davies, S M, 1991 The Finds, in Fasham and Whinney 1991, 40-6

Devaney, R, 2006 Saltwood Tunnel, in Harding, P (ed) 2006 Prehistoric worked flint from Section 1 of the Channel Tunnel Rail Link, Kent, *CTRL scheme-wide specialist report series*, in ADS 2006

Dickinson, T, and Härke, H, 1992 Early Anglo-Saxon Shields, *Archaeologia* **110**, 1-94

Edmonds, M, 1999 *Ancestral Geographies of the Neolithic: Landscape, Monuments and Memory*, London

Edwards, E, 2006 Early prehistoric pottery from Saltwood Tunnel in Booth, P (ed) 2006, ADS 2006

Ellis Davidson, H. R, and Webster, L. E, 1967 The Anglo-Saxon Burial at Coombe (Woodnesborough), Kent, *Med Archaeol* **11**, 1-41

Every, R, 2006 Late Iron Age and Romano-British pottery from Saltwood Tunnel in Booth, P (ed), ADS 2006

Evison, V. I, 1956 An Anglo-Saxon Cemetery at Holborough, Kent, *Archaeologia Cantiana* **70**, 84-141

Evison, V. I, 1961 The Saxon Objects, in J Hurst, The Kitchen Area of Northolt Manor, Middlesex, *Med Archaeol* **5**, 226-30

Evison, V. I, 1987 *Dover: Buckland Anglo-Saxon Cemetery*, HBMC Archaeological Report **3**, London

Evison, V. I, 2000 Glass vessels in England AD 400–1100, in J Price, *Glass in Britain and Ireland AD 350-1100,* British Museum Occasional Paper **127**, London, 47-98

Fasham, P J, and Whinney, R J B, 1991 *Archaeology and the M3*, Hampshire Field Club Monograph **7**, Stroud

Gallois, R W, 1992 *British Regional Geology: The Wealden District* (fourth edition), British Geological Survey, London, HMSO.

Gardiner, M, Cross, R, Macpherson-Grant, N, and Riddler, I. D, 2001 Continental Trade and Non-Urban Ports in Mid-Anglo-Saxon England: Excavations at *Sandtun*, West Hythe, Kent, *Archaeological Journal* **158**, 161-290

Garrow, D, Lucy, S and Gibson, D, 2005 *Excavations at Kilverstone, Norfolk: An Episodic Landscape History*, EAA 113, Gressenhall

Geake, H, 1997 *The Use of Grave-Goods in Conversion-Period England, c 600 – c 850,* BAR, Brit Ser **261**, Oxford

Gilmour, B, 2006 Metallurgical analyses on Early Anglo-Saxon grave goods from Saltwood Tunnel, *CTRL specialist report series, in ADS 2006*

Giorgi, J and Stafford, E (eds) 2006 Palaeoenvironmental evidence from Section 1 of the Channel Tunnel Rail Link, Kent, *CTRL scheme-wide specialist report series*, in ADS 2006

Green, C, and Rollo-Smith, S, 1984 The excavation of eighteen round barrows near Shrewton, Wiltshire, *Proceedings of the Prehistoric Society* **50**, 255-318

Hamerow, H, 1993 *Excavations at Mucking. Volume 2: the Anglo-Saxon Settlement*, English Heritage Archaeological Report **21**, London

Haseloff, G, 1981 *Die germanische Tierornamentik der Völkerwanderungszeit: Studien zu Salin's Stil I,* Berlin

Härke, H, 1989 Knives in early Saxon burials: blade length and age at death, *Med Archaeol* **33**, 144-8

Härke, H, 1992 *Angelsächsische Waffengräber des 5. bis 7. Jahrhunderts*, Zeitschrift für Archäologie des Mittelalters, Beiheft **6**, Cologne

Harris, A, Blinkhorn, P, Evison, V I, and Riddler, I D, 2006 Early Anglo-Saxon vessels and containers from Saltwood Tunnel, *CTRL specialist report series*, in ADS 2006

Harrison, L, and Mepham, L, 2002 Assessment of ceramic building material, in *Channel Tunnel Rail Link: Saltwood Tunnel Post-Excavation Assessment Report, Vol 3 of 3: Specialist Appendices,* URS, unpublished client report, infoworks reference 004-EZR-SWESS-00054-AA, 27-9

Haughton, C, and Powlesland, D, 1999 *West Heslerton. The Anglian Cemetery,* Landscape Research Centre Archaeological Monograph Series **1**, Yedingham

Hawkes, S C, 1973 The Dating and Social Significance of the Burials in the Polhill Cemetery, in Philp 1973, 186-201

Hawkes, S C, 1979 Eastry in Anglo-Saxon Kent: its importance, and a newly-found grave, *Anglo-Saxon Studies in Archaeology and History* **1**, Oxford, 81-113

Healy, F, 1998 The Early Bronze Age settlement gap, in Woodward and Gardiner 1998, 41-2

Hey, G., Bayliss, A. and Boyle, A., 1999, 'Iron Age inhumation burials at Yarnton, Oxfordshire', *Antiquity* 73, 551-62.

Hill, J.D., Evans, C, and Alexander, M., 1999, 'The Hinxton rings – a Late Iron Age cemetery at Cambridgeshire, with a reconsideration of the northern Aylesford Swarling Culture', *Proceedings of the Prehistoric Society* 65, 243-73.

Hills, C, Penn, K, and Rickett, R, 1984 *The Anglo-Saxon Cemetery at Spong Hill, North Elmham. Part 3. Catalogue of Inhumations*, EAA 21, Gressenhall

Hogarth, A C, 1973 Structural Features in Anglo-Saxon Graves, *Archaeological Journal* **130**, 104-19

Høilund Nielsen, K, 1997 The Schism of Anglo-Saxon Chronology, in C K Jensen and K Høilund Nielsen, *Burial and Society. The Chronological and Social Analysis of Archaeological Burial Data,* Aarhus, 71-99

Holgate, R, 2003 Late Glacial and post-Glacial hunter-gatherers in Sussex, in D Rudling, *The Archaeology of Sussex to AD 2000*, Kings Lynn, 29-38

Hutcheson, A, 1992 Interpretation of the formation process of one context on the North Downs in Kent, in K Steane, J Mann, and H Palmer-Brown, *Interpretation of Stratigraphy: A Review of the Art: Proceedings of a Conference held on Thursday 18th June 1992 at City of Lincoln Archaeology Unit, The Lawn, Lincoln,* CLAU Archaeological Report **31**, Lincoln, 23-6

Jacobi, R M, 1978 The Mesolithic of Sussex, in P L Drewett, P L, *Archaeology in Sussex to AD 1500*, CBA Res Rep 29, London, 15-22

Jacobi, R M, 1981 The last hunters in Hampshire, in S J Shennan and R T Shadla-Hall, *The Archaeology of Hampshire: from the Palaeolithic to the industrial revolution*, Hampshire Field Club and Archaeological Society, Monograph 1, Winchester, 10-25

Jacobi, R M, 1982 Later hunters in Kent: Tasmania and the earliest Neolithic, in Leach 1982, 12-24

Jessup, F W, 1946 An Anglo-Saxon Cemetery at Westbere, Kent, *Antiq J* **26**, 11-21

Jones, G, 2006 Later prehistoric pottery from Saltwood Tunnel in Booth, P (ed) 2006, ADS 2006

Keller, P T, 1989 Quern production at Folkestone, south-east Kent: An interim note, *Britannia* **20**, 193-200

Kinnes, I, Gibson, A, Ambers, J, Bowman, S, Leese, M, and Boast, R, 1991 Radiocarbon Dating and the British Beakers: the British Museum Programme, *Scottish Archaeological Review* **8**, 35-68

Koch, A, 1998 *Bügelfibeln der Merowingerzeit im Westlichen Frankenreich*, Römisch-Germanischen Zentralmuseums, Mainz

Koch, U, 2001 *Das alammanisch-fränkische Gräberfeld bei Pleidelsheim*, Forschungen und Berichte zur Vor- und Frühgeschichte in Baden-Württemberg **60**, Stuttgart

Lawson, T, and Killingray, D, 2004 *An Historical Atlas of Kent*, Kent Archaeological Society, Chichester

Leach, P E, 1982 *Archaeology in Kent to AD 1500, CBA Res Rep* **48***, London*

Leigh, D, 1980 The Square-headed Brooches of Sixth Century Kent, PhD thesis, University of Cardiff

Linklater, A, and Willson, J, 2003 Hawkinge County Primary School, in J Elder and P Bennett, *Canterbury's Archaeology 26, 2001- 2002,* Canterbury Archaeological Trust, Canterbury, 39-40

Lucy, S, 2000 *The Anglo-Saxon Way of Death,* Stroud

Lüdemann, H, 1994 Mehrfachbelegte Gräber im frühen Mittelalter. Ein Beitrag zum Problem der Doppelbestattungen, *Fundberichte aus Baden-Württemberg* **19/1**, 421-590

Mackinder, T, 2005 The Anglo-Saxon Cemetery at Cuxton, Kent, *CTRL integrated site report series*, in ADS 2006

Mackreth, D., 1995 The Pre-Roman and Roman Brooches, in Blockley *et al* 1995, 955-82

Mackreth, D, 1996 Brooches, in R P J Jackson and T W Potter, *Excavations at Stonea, Cambridgeshire 1980-85,* London, 296-326

MacPherson Grant, N, 1980 Archaeological work along the A2: part 1: the late Bronze and early Iron Age, *Archaeologia Cantiana* **96**, 133-183

Macpherson-Grant, N, 1990 Pottery from 1987-1989 Excavations, in Bennett 1990, 60-3

Macpherson-Grant, N, 1992 A review of late Bronze Age pottery from east Kent, in Bennett 1992, 55-63

Margary, I D, 1949 Notes on the probable course of the Roman road from Lympne to Dover, *Archaeologia Cantiana* **62**, 87-90

Martin, M, 1976 *Das fränkische Gräberfeld von Basel-Bernerring,*Basle

Marzinzik, S, 2003 *Early Anglo-Saxon Belt Buckles (late 5th to early 8th centuries A.D.). Their classification and context*, BAR Brit Ser **357**, Oxford

McKinley, J I, 2003 The Early Saxon cemetery at Park Lane, Croydon, *Surrey Archaeol Collect* **90**, 1-116

McKinley, J I, The human remains from Saltwood Tunnel, Kent, in McKinley, J I (ed) 2006 Human Remains from Section 1 of the Channel Tunnel Rail Link, Kent, *CTRL Scheme-wide specialist report series*, in ADS 2006

Malcolm, G, Bowsher, D, and Cowie, R, 2003 *Middle Saxon London. Excavations at the Royal Opera House 1989-99*, MoLAS Monograph **15**, London

Mepham, L, 2006 Medieval pottery from Saltwood Tunnel in Booth, P (ed) ADS 2006

Moffett, L, Robinson, M A, and Straker, V, 1989 Cereals, fruits and nuts: charred plant remains from Neolithic sites in England and Wales and the Neolithic economy, in A Milles, D Williams and N Gardner, *The Beginnings of Agriculture*, BAR Int Ser **496**, Oxford, 243-61

Mook, W G, 1986 Business meeting: recommendations/resolutions adopted by the twelfth International Radiocarbon Conference, *Radiocarbon* **28**, 799

Morton, A, D, 1992 *Excavations at Hamwic: Volume 1*, CBA Res Rep **84**, London

Naylor, J, 2004 *An Archaeology of Trade in Middle Saxon England*, BAR Brit Ser **376**, Oxford

Needham, S, 1996 Chronology and periodisation in the British Bronze Age, *Acta Archaeologica* **67**, 121-140

Needham, S., 1995, 'A bowl from Maidcross, Suffolk; burials with pottery in the post-Deverel-Rimbury period', in Kinnes, I. and Varndell, G., (eds), '*Unbaked urns of rudely Shape.' Essays on British and Irish pottery for Ian Longworth*, Oxford, Oxbow Monograph 55, 159-71.

Ordnance Survey 1990 1:50,000 series *Geological Survey of Great Britain (England and Wales), Sheets 305 and 306 – Folkestone and Dover A*

Oswald, A, Dyer, C and Barber, M, 2001 *The Creation of Monuments: Neolithic Causewayed Enclosures in the British Isles*, London

Ottaway, P, 1992 *Anglo-Scandinavian Ironwork from Coppergate,* The Archaeology of York. The Small Finds 17/6, London

Ouditt, S, 1990 Holywell Coombe, in Bennett 1990, 5558-9

Parfitt, K, 2004 The Iron Age c. 700 BC – AD 43, in Lawson and Killingray 2004, 16

Parfitt, K., 1995, *Iron Age Burials from Mill Hill, Deal*, London, British Museum.

Parfitt, K, Allen, T, and Rady, J, 1997 Whitfield-Eastry by-pass, in P Bennett, *Canterbury's Archaeology 1995-1996,* Canterbury Archaeological Trust, Canterbury, 28-33

Parfitt, K, and Anderson, T, forthcoming *The Anglo-Saxon Cemetery at Dover Buckland. The 1994 Excavations,* London

Parfitt, K, and Brugmann, B, 1997 *The Anglo-Saxon Cemetery on Mill Hill, Deal, Kent*, Society for Medieval Archaeology Monograph **14**, London

Parfitt, K, and Corke, B, 2006 Ringlemere Farm, Woodnesborough, in Bennett 2006, 26-7

PCRG, 1997 *The Study of Later Prehistoric Pottery: General Policies and Guidelines for Analysis and Publication*, reprint, Oxford , Prehistoric Ceramics Research Group, Occasional Papers **1** and **2**

Perkins, D R J, 2004 Oval barrows on Thanet, in Cotton and Field 2004, 76-81

Philp, B, 1973 *Excavations in West Kent, 1960-1970*, Kent Archaeology Research Reports **2**, Dover

Philp, B, 2003 *The Discovery and Excavation of Anglo-Saxon Dover,* Kent Monograph Series **9**, Dover

Pitt-Rivers, A, 1882 Excavations at Caesar's Camp near Folkestone, *Archaeologia* **47**, 429-65

Pollard, J and Reynolds, A, 2002 *Avebury. The Biography of a Landscape*, Stroud

Preece, R C, and Bridgland, D R, 1998 *Late Quaternary Environmental Change in North-west Europe: Excavations at Holywell Coombe, South-east England*, London

Rady, J, 1990 Channel Tunnel Excavations, in Bennett 1990, 36-42

Rady, J, forthcoming *The Channel Tunnel Excavations*, Canterbury Archaeological Trust Occasional Papers, Canterbury

Reiß, R, 1994 *Der merowingerzeitliche Reihengräberfriedhof von Westheim (Kreis Weißenburg-Genzenhausen)*, Forschungen zur frühmittelalterlichen Landesgeschichte im südwestlichen Mittelfranken **10**, Nürnberg

Reynier, M J, 1998 Early Mesolithic settlement in England and Wales: Some preliminary observations, in Ashton, Healy and Pettit 1998, 174-84

Richardson, A, 1994 The Anglo-Saxon cemetery at Dover Hill, Folkestone, Unpublished BA dissertation, University of Wales at Cardiff

Richardson, A, 2005 *The Anglo-Saxon Cemeteries of Kent,* BAR, Brit Ser **391**, Oxford

Riddler, I D, 2001 The Small Finds from the Channel Tunnel (CT 1987-8), Publication Text for the Canterbury Archaeological Trust, Canterbury

Riddler, I D, and Ager, B, 2006 Romano-British Small Finds from Saltwood Tunnel, Kent *CTRL specialist report series*, in ADS 2006

Riddler, I D, Cameron, E, and Marzinzik, S, 2006 Early Anglo-Saxon Personal Equipment and Structural Ironwork from Saltwood Tunnel, *CTRL specialist report series*, in ADS 2006

Riddler, I D, McKinley, J I and Skittrell, S, 2006, Inhumation and cremation grave catalogues for Saltwood Tunnel, Kent, *CTRL specialist report series*, in ADS 2006

Riddler, I D, and Kerep, A, forthcoming *The Mount Pleasant Anglo-Saxon Cemetery, Isle of Thanet, Kent,* Kent County Council Monograph Series, Maidstone

Scott, E, 1993, *A Gazetteer of Roman Villas in Britain*, Leicester Archaeology Monographs **1**, Leicester University Archaeological Research Centre School of Archaeological Studies, Leicester

Shaw, R, 1994 The Anglo-Saxon Cemetery at Eccles: a Preliminary Report, *Archaeologia Cantiana* **112**, 165-88

Smart, J G O, Bisson, G and Worssam, B C, 1975 *Geology of the Country around Canterbury and Folkestone: (Combined Memoir in Explanation of One Inch Geological sheets 289, 305 and 306, New Series)*, Natural Environment Research Council, Institute of Geological Sciences, Memoirs of the Geological Survey of Great Britain (England and Wales), 2nd (amended) imprint, originally published 1966, London, HMSO.

Smith, R A, 1908 Anglo-Saxon Remains, *The Victoria History of the County of Kent I,* London, 339-87

Stevens, C, 2006 Charred plant remains from Saltwood Tunnel, Kent, in Giorgi, J and Stafford, E (eds), ADS 2006

Stoodley, N, 1999 *The Spindle and the Spear. A Critical Enquiry into the Construction and Meaning of Gender in the Early Anglo-Saxon Burial Rite*, BAR, Brit Ser **288**, Oxford

Stuiver M, Reimer P J, Bard, E, Beck, J W, Burr, G S, Hughen, K A, Kromer, B, McCormac, G, van der Plicht, J, and Spurk, M, 1998 INTCAL98 Radiocarbon Age Calibration, 24000-0 cal BP *Radiocarbon* **40**(3) 1041-1083

Stupperich, R, 1986 *Antiken der Sammlung W W VIII Gemmen,* Boreas: Münstersche Beiträge zu Archäologie **9**, Münster

Sweetinburgh, S, 2002 Assessment of Documentary Research, in *Channel Tunnel Rail Link: Saltwood Tunnel Post-Excavation Assessment Report, Vol 3 of 3: Specialist Appendices,* URS, unpublished client report, infoworks reference 004-EZR-SWESS-00054-AA, 159-62

Swift, E, 2000 *Regionality in Dress Accessories in the Late Roman West,* Monographies Instrumentum 11, Montagnac

Tester, P J, and Bing, H F, 1949 A First Century Urn Field at Cheriton, near Folkestone, *Archaeologia Cantiana* **71**, 21-36

Tipper, J, 2004 *The Grubenhaus in Anglo-Saxon England. An analysis and interpretation of the evidence from a most distinctive building type*, Yedingham

URL, 1994 CTRL: Assessment of historic and cultural effects, final report, unpubl. report prepared by OAU for Union Railways Limited, Vols 1-4, CTRL Environmental Statement, in ADS 2006

URS, 1997 *Archaeological Evaluation Report, ARC SLT97,* Oxford Archaeological Unit, unpublished client report

URS, 2002 Saltwood Tunnel, Folkestone, Kent (ARC SLT98, ARC SLT98C, ARC SLT99, ARC SFB99): Detailed archaeological works assessment report, unpubl. report prepared by CAT and WA for Union Railways (South) Limited, in ADS 2006

Vierck, H, 1970-1 Pferdegraber im Angelsachsischen England, *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* **20-21**, 189-98

Vierck, H, 1972 Redwalds Asche. Zum Grabbauch in Sutton Hoo, Suffolk, *Offa* **29**, 20-49

Wacher, J, 1978 *The Towns of Roman Britain*, London

Wallenberg, J, 1934 *The Place-Names of Kent*, Uppsala

Walton Rogers, P, 2006 Early Anglo-Saxon Costume from Saltwood Tunnel, CTRL specialist report series, in ADS 2006

Walton Rogers, P, in press *Cloth and Clothing in Early Anglo-Saxon England, AD450-700*, CBA Res Rep, York

Walton Rogers, P, Henig, M, Hirst, S, and Marzinzik, S, 2006 Early Anglo-Saxon Dress Accessories from Saltwood Tunnel, CTRL specialist report series, in ADS 2006

Walton Rogers, P, and Riddler, I,D, 2006   Early Anglo-Saxon textile equipment from Saltwood Tunnel, Kent, CTRL specialist report series, in ADS 2006

Ward, G K and Wilson, SR, 1978 Procedures for comparing and combining radiocarbon age determinations: a critique, *Archaeometry* **20**, 19–31

Warhurst, A, 1955 The Jutish Cemetery at Lyminge, *Archaeologia Cantiana* **69**, 1-40

Wessex Archaeology, 1999 Archaeological Observations in Dover, Folkestone and Deal: 1993-1998: Final Report, unpublished client report, reference WA36166.02

West, S E, 1985 West Stow. The Anglo-Saxon Village, EAA **24**, Gressenhall

Whimster, R.P., 1981, Burial Practices in Iron Age Britain: a discussion and gazetteer of the evidence c. 700 BC - AD 43, Oxford, British Archaeological Reports, British Series 90.

Whytehead, R L, Cowie, R, and Blackmore, L, 1989 Excavations at the Peabody site, Chandos Place, and the National Gallery, *Transactions of the London and Middlesex Archaeological Society* **40**, 35-176

Williams, H, 1997 Ancient landscapes and the dead: The re-use of prehistoric and Roman monuments as early Anglo-Saxon burial sites, *Med Archaeol* **41**, 1-32

Willson, J, 1985 A New Archaeological Site at Saltwood, *Kent Archaeological Review* **80**, 226-35

Winbolt, S E, 1925A Pre-Roman Finds at Folkestone, *Antiq J* **5**, 63-7

Winbolt, S E, 1925B *Roman Folkestone,* London

Woodward, A, 2000 *British Barrows: A Matter of Life and Death*, Stroud

Woodward, A, and Gardiner, J, 1998 *Wessex Before Words: Some New Directions for Prehistoric Wessex*, Council for British Archaeology (Wessex) and the Forum for Archaeology in Wessex, Wessex Archaeology, Salisbury

Worley, F, and Nicholson, R, 2006 Faunal remains from Saltwood Tunnel, Kent, in Giorgi, J and Stafford, E (eds), ADS 2006

Wymer, J J, 1982 The Palaeolithic period in Kent, in Leach 1982, 8-11

Yates, D T, 1999 Bronze Age field systems in the Thames valley, *Oxford Journal of Archaeology* **18(2**), 157-170

Yates, D T, 2001 Bronze Age agricultural intensification in the Thames Valley and estuary, in J Brück, *Bronze Age Landscapes, Tradition and Transformation,* Oxford, 65-82

Young, C J, 1977 *The Roman Pottery Industry of the Oxford Region*, BAR Brit Ser 43, Oxford

7 CATALOGUE OF ILLUSTRATED FINDS

The artefacts identified below are a selection from prehistoric graves and prehistoric and Roman non-grave contexts. Artefacts from Roman and Anglo-Saxon grave contexts are identified in the grave catalogue.

Figure 4: Saltwood Tunnel, early prehistoric phase plan, western area, inset detail Grave C4619

1. ON 4067: 4618, grave 4619. One Food Vessel in five fragments (1318 g), a basic bipartite vase (Burgess 1980, 88). Fabric: G3. Firing: exterior; red-brown, core: black, interior; red-brown. Decoration: rim bevel; short diagonal lines of impressed whipped cord, upper half of vessel above cordoned shoulder; horizontal bands of incised zigzags forming floating lozenges. Surface treatment: exterior; smoothed, interior; smoothed?. Thickness: 7.5 mm. Rim Diameter: 134 mm. Base diameter: 85 mm. Rim width: 19 mm. Height: 175 mm. Badly slumped vessel with cracks running from rim to base; these have suffered shrinkage from middle to base and will not refit.

Figure 5: Saltwood Tunnel, early prehistoric phase plan, central area, inset detail of microliths from pit 405

1. 6678, pit 405, Horsham point. Moderate cortication, continuous direct retouch on both edges, forms point at proximal end, old distal break, early Mesolithic.

2. 6678, pit 405, Horsham point. Moderate cortication, continuous direct retouch on the right and distal left, forms a point at the distal end, bulb is still present, early Mesolithic.

3. 6678, pit 405, Horsham point. Moderate cortication, continuous direct retouch on both edges, forms a point at the distal end, early Mesolithic

4. 6678, pit 405, Horsham point. Heavy cortication, continuous direct retouch on both edges, forms a point at the distal end, proximal break, pointed tip broken, early Mesolithic.

5. 6678, pit 405, Horsham point. Moderate cortication, continuous direct retouch on both edges, forms a point at the distal end, early Mesolithic.

6. 6678, pit 405, Horsham point. Moderate cortication, continuous direct retouch on both edges, forms point at distal end, damaged tip, early Mesolithic.

7. 6678, pit 405, Horsham point. Moderate cortication, continuous direct retouch on both edges, forms point at proximal end, damaged tip, early Mesolithic.

8. 6678, pit 405, Horsham point. Moderate cortication, continuous direct retouch on 1 edge and discontinuous on the other, old proximal and distal breaks, early Mesolithic.

Figure 7: Saltwood Tunnel, Neolithic pit sections and pottery

P4. Pit 175, Context 3299. Three refitting sherds (21 g) from the upper body of a small early Neolithic bowl (rim diameter 180 mm, 10 % remaining). Form: Simple square rim, rounded, neutral bowl with no shoulder and a horizontal cordon placed half way down the profile. Fabric: VA1. Firing: external; grey-brown, core; grey, internal; grey-brown. Voids indicate leeched calcareous material. Surface Treatment: Smoothed both internally and externally. Thickness: 6 mm.

P5. Pit 136, context 3493. Three refitting (11 g) sherds from an early Neolithic carinated bowl. Fabric: F3. Thickness: 5 mm. Firing: external; grey-brown, core; black, internal; grey-brown.

P6. Pit 136, context 3494 and 3372. Eight sherds (114 g) representing both the refitting upper half of an open, uncarinated early Neolithic bowl and its' base. Form: slightly externally thickened, simple rim and rounded body. Fabric: F1.b Firing: exterior, brown-grey, core; grey, interior; brown-grey. (Rim Diameter: 132 mm. 30 % remaining.)

P7. Pit 317, context 6064. One (7 g) shoulder sherd from a decorated, carinated early Neolithic bowl. Fabric: F2.b. Firing: exterior, brown-grey, core; grey, interior; brown-grey. Decoration: The decoration (incised lines) is situated above the shoulder, although three fingernail impressions are present just below the shoulder. These may not be part of a decorative scheme.

Figure 8: Saltwood Tunnel, early Bronze Age barrow sections and pottery

P2. Pit 4586. context 4585, One rim and shoulder sherd (99 g). Form: An FN style Beaker (Clarke 1970), with a narrow neck and wide belly. Cordoned below the rim. Fabric: GA3. Firing: exterior; red-brown, interior; black, interior; red-brown. Decoration: Finger Nail rusticated. Surface Treatment: exterior; Smoothed, interior; Smoothed. Thickness: 11 mm. Rim Diameter; exterior; 300 mm, interior; 220 mm.

P3. Contexts 1037 and 1103 from barrow 10055. One rim from a sub-Biconical Urn (20 sherds, 455 g). Form: A simple upright rim, body sherds suggest a weak outline with no sharp shoulder. Fabric: G1. Firing: exterior; black to yellow-brown, interior; black, interior; brown-black. Decoration: None. Surface Treatment: exterior; Smoothed, interior; Smoothed. Thickness: 17 mm.

Figure 11: Saltwood Tunnel, Bronze Age grave C4619, plan and small finds

P1. ON 4067, context 4618, grave 4619. One Food Vessel in five fragments (1318 g), a basic bipartite vase (Burgess 1980, 88). Fabric: G3. Firing: exterior; red-brown, core: black, interior; red-brown. Decoration: rim bevel; short diagonal lines of impressed whipped cord, upper half of vessel above cordoned shoulder; horizontal bands of incised zigzags forming floating lozenges. Surface treatment: exterior; smoothed, interior; smoothed?. Thickness: 7.5 mm. Rim Diameter: 134 mm. Base diameter: 85 mm. Rim width: 19 mm. Height: 175 mm. Badly slumped vessel with cracks running from rim to base; these have suffered shrinkage from middle to base and will not refit.

Figure 19: Saltwood Tunnel, Selected Neolithic and Bronze Age flint:

9. Early Neolithic blade core.

10 Early Neolithic leaf-shaped arrowhead.

11 Early Bronze Age barbed and tanged arrowhead.

12. Undated backed knife.

13. Probable Bronze Age denticulate.

Figure 20: Saltwood Tunnel. Later prehistoric pottery (1):

1. Necked bowl; R23; G5; burnished both surfaces; pit 5049, sub-group 206.

2. Necked bowl; R23; G5; pit 5049, sub-group 206.

3. Bipartite bowl; R22; Q9; burnished both surfaces; pit 5049, sub-group 206.

4. Probable lid; L1; F4; pit 5049, sub-group 206.

5. Coarseware hemispherical bowl; R25; G15; pit 5049, sub-group 206.

8. Pedestal base; B5; FG2; pit 5049, sub-group 206.

10. Shouldered jar; R24; F18; wiped exterior surface, traces of slurry treatment in some areas; traces of   soot in shoulder region; pit 5235, sub-group 207.

11. Necked bowl; R8; Q6; burnished both surfaces; pit 5235, sub-group 207.

12. Shouldered jar; R3; F17; pit 5029, sub-group 208.

13. Necked bowl; R8; F4; burnished both surfaces; pit 5029, sub-group 208.

14. Bevelled rim vessel; R15; F2; pit 5029, sub-group 208.

16. Decorated sherd; F3; burnished both surfaces; two parallel incised lines on exterior; pit 5029, sub-group 208.

17. Decorated sherd; GF2; five parallel incised lines on exterior; pit 5029, sub-group 208.

18. Coarseware hemispherical bowl; R25; GF2; pit 5146, sub-group 211.

19. Coarseware hemispherical bowl; R25; FQ2; burnishing on rim top and interior; sooted exterior; pit 5146, sub-group 211.

20. Decorated sherd; F5; burnished exterior with five tooled parallel lines; pit 5146, sub-group 211.

29. Round-bodied bowl; R31; GQ4; wiped exterior; small traces of smoothing on interior; pit 6658, sub-group 369.

30. Bipartite bowl; R22; F4; burnished exterior; pit 6658, sub-group 369.

31. Shouldered jar; R3; F4; possible finger-impressed cabling on the rim top; pit 6658, sub-group 369.

32. Shouldered jar; R30; F24; wiped both surfaces; finger-impressed cabling on top of rim, fingertip impressions around shoulder; traces of soot on exterior and burnt residue on interior; pit 6658, sub-group 369.

33. Probable shouldered jar; R38; F2; wiped both surfaces; finger-impressed cabling on the top of the rim; sooted exterior; pit 6658, sub-group 369.

34. Decorated sherd; F2; wiped both surfaces; fingertip impressions around shoulder; sooted exterior; pit 6658, sub-group 369.

Figure 21: Saltwood Tunnel. Later prehistoric pottery (2):

35. Necked globular bowl; R4; GF2; wiped both surfaces; sooted exterior; pit 3900, sub-group 311

36. Convex jar; R5; F8; wiped both surfaces; finger-wiped exterior; finger-impressed cabling on the top of the rim; pit 3900, sub-group 311.

37. Shouldered jar; R3; G6; possible finger-impressed cabling on the rim top; sooted exterior; pit 3900, sub-group 311.

38. Probable shouldered jar; R38; F3; wiped both surfaces; fingertip impressions on the top of the rim; pit 3910, sub-group 311.

39. Necked jar; R9; G9; burnished both surfaces; pit 3912, sub-group 311.

40. Ovoid jar; R11; F7; pit 3910, sub-group 311.

41. Shouldered jar; R3; Q2; pit 3910, sub-group 311.

43. Shouldered jar; R3; wiped both surfaces; finger-impressed cabling on top of rim; sooted exterior; pit 5341, sub-group 236.

44. Straight-sided vessel; R26; GF6; small amount of soot under exterior rim lip; pit 5341, sub-group 236.

45. Hooked-rim jar; R10; F17; pit 5341, sub-group 236.

46. Decorated sherds; FV1; finger-impressed cabling around the shoulder; pit 5341, sub-group 236.

47. Probable necked bowl; R36; smoothed both surfaces; pit 6499, sub-group 602.

48. Necked bowl; R23; G5; smoothed both surfaces; pit 6499, sub-group 602.

49. Bipartite bowl; R22; F24; wiped exterior surface; pit 6499, sub-group 602.

50. Pinched base; B2; pit 6499, sub-group 602.

51. Round-shouldered bowl; R37; GF9; burnished on exterior and upper interior; three incised parallel lines around the shoulder; sooted exterior; sub-group 612.

52. Coarseware hemispherical bowl; R25; G5; wiped both surfaces; sooted exterior; sub-group 612.

53. Decorated sherds; F24; fingertip impressions around the shoulder; traces of burnt residue on internal surface and soot on external surface; sub-group 612.

68. Straight-walled neutral vessel; R19; GF8; combed exterior; fingernail impressions on top of rim; burnt residue on interior; pit 5366, sub-group 251.

69. Straight-walled neutral vessel; R19; F16; traces of external soot and internal burnt residue; ditch 1303, sub-group 63.

72. Globular urn/jar; R28; F23; two incised, parallel horizontal lines on exterior; pit 5366, sub-group 251.

81. Decorated sherd; F3; smoothed both surfaces; incised chevron design and three incised horizontal lines; ditch 1303, sub-group 63.

Figure 22: Saltwood Tunnel. Later prehistoric pottery (3):

26. Squared-rim jar; R13; G11; traces of burnish on exterior and upper interior; wiped interior; sooted exterior; ditch 3098.

27. Barrel-shaped jar; R14; QI1; rustication on lower exterior; ditch 3098.

28. Pedestal base; B3; Q5; burnished on base exterior; ditch 3098.

67. Flared rim jar; R18; GF7; sooted exterior; pit 5346, sub-group 235.

73. Plain base; B1; patches of burnish on exterior surface; pit 5049, sub-group 206.

Figure 30: Saltwood Tunnel. Roman pottery from cremation burials

See grave catalogue.

Figure 31: Saltwood Tunnel. Selected Roman pottery

1. Fabric B2. Bead rim jar with impressed decoration. The vessel is burnished overall on both interior and exterior. The girth area is covered with closely spaced simple circular impressions *c* 6 mm across made with a flat ended 'stamp'. There is a post firing perforation in the neck. Context 351, pit 924.

2. Fabric B2. Large open bowl with simple expanded rim. Context 34, ditch 71.

3. Fabric B2. Plain bowl rim (straight-sided), layer 3701

4. Fabric B5. Plain open bowl, layer 2500

5. Fabric B8. Bead rim jar, context 643 , pit 644

6. Fabric B8. Jar with combed decoration, context 122, cut 814

7. Fabric B8. Cordoned jar, context 4591, pit 4509

8. Fabric B8. Jar with handle scar and plug on shoulder, context 818, ditch 819

9. Fabric B9.1. Pedestal base, context 805, ditch 774

10. Fabric R1. Narrow mouthed necked jar, context 635, ditch 634

11. Fabric R16. Beaker, context 704, ditch 835

12. Fabric R29. Straight sided dish, context 611 (profile), pit 612

13. Fabric LR26. Short everted rim jar, context 284, pit 285

14. Fabric LR17. Argonne bowl with lines of roller stamped decoration, each produced with a simple stamp with three rows of square impressions. Context 637, cut 638

15. Fabric R99. Mortarium, context 238, cut 922

16. Fabric LR22. Mortarium, context 238, cut 922

17. Fabric LR23. Mortarium, Young (1977) type WC4, layer 621

Figure 234: Saltwood Tunnel. Early Medieval Ceramics:

1. Jar rim, fabric LS2/EM2, eastern settlement

2. Jar rim, fabric LS2/EM2, eastern settlement

3. Dish profile, fabric EM1, western settlement

4. Dish profile, fabric EM1,western settlement

5. Jar rim, fabric EM33, western settlement

6. Jar rim, fabric EM1,western settlement

7. Jar rim, fabric EM1,western settlement

8. Jar rim, ?Normandy gritty ware, eastern settlement

Figure 242:   Saltwood Tunnel. The construction of the textiles:

(a) Tabby,

(b) tabby repp,

(c) plain 2/2 twill,

(d) 2/2 diamond twill,

(e) the pattern repeat of the diamond twill on *ON 1139* from Central cemetery grave C1188,

(f) the pattern repeat of the diamond twill on *ON 2661* from Central cemetery grave C6673,

(g) the border on twill on *ON1091-3* from Central cemetery grave C1145.

Figure 243:   Saltwood Tunnel. The Merovingian four-brooch costume:

reconstructed as a sleeveless 'Frankish coat' over a dress with a long front opening (from Walton Rogers in press). In Saltwood Eastern grave 1453 the top two brooches were a pair of quatrefoils and the bottom two a pair of small *Jutlandisch* brooches, and in Eastern grave 1762 there was a Kentish bird brooch at the top above a continental silver disc brooch, combined with a pair of Kentish square-headed brooches below. Drawing by Anthony Barton, copyright The Anglo-Saxon Laboratory.

Figure 244:   Saltwood Tunnel. Early Anglo-Saxon Ceramics:

1. Grave C3998. Fabric 2. Full profile of jar. Dark grey fabric with brown outer surface, calcareous inclusions entirely leached out, giving 'corky' texture.

2. Grave C2816. Fabric 1. Complete jar. Uniform black fabric.

3. Grave C1197. Fabric 3. Highly fragmented jar. Grey-brown fabric with orange-brown and black surfaces. Vertical burnishing strokes on upper body.

4. Context 4551, Fabric 1. Jar rim. Black fabric with orange-brown outer surface.

5. Context 805, Fabric 4. Jar rim. Uniform dark grey fabric, well-burnished outer surface.

6. Context 805, Fabric 6. Jar rim. Uniform grey fabric with black, well-burnished outer surface.

7. Context 284, Fabric 8. Jar rim. Uniform black fabric, well-burnished outer surface.

8. Context 3146, Fabric 4. Bossed and incised bodysherd. Uniform black fabric with smoothed outer surface.

9. Context 3063, Fabric 6. Incised bodysherd. Dark grey fabric with smoothed black outer surface.

10. Context 243, Fabric 12. Jar rim. Uniform dark grey fabric.

11. Context 608, Fabric 12. Bowl rim. Uniform dark grey fabric, patch of sooting on inner surface.

12. Grave C4721. Fabric 10. Near-complete Merovingian bottle. Uniform grey fabric, burnished surfaces with lines of roller-stamping around waist.

13. Grave C3762. Fabric 1. Sharply carinated jar with vertical bosses and incised lines, double incised cordon at base of neck. Reddish-brown fabric with black surfaces. Outer surface smooth and burnished, rim worn in antiquity.

14. Grave C1214. Fabric 6. Small globular jar. Black fabric, lower outer surface dark orange brown. Outer surface smooth with horizontal burnishing strokes.

15. Grave C1352. Fabric 1. Small jar. Mottled dark reddish-brown and black, unburnished surfaces. Ring of sooting around base, but pad not sooted, suggesting vessel was set in a fire at some point.

16. Grave C6532. Fabric 1. Near complete bowl, lacking base.

Plate 1:   Bronze Age grave 4507

Plate 2:   Bronze Age grave 4619, showing inhumation and associated Food Vessel

Plate 3:   (a) worn button brooch (*ON 2167*) from Western cemetery grave 4643; (b) broken radiate-headed brooch (*ON 2007*) from Western cemetery grave 3762

Plate 4:   Pair of square-headed brooches from Western cemetery grave 3747. Left *ON1977*, pure silver, partially gilded; centre *ON 1978*, base silver, partially gilded and black patination; right, X-ray of *ON1978*.

The beast-man motif: (a) on the headplate of a square-headed brooch from Saltwood *ON 1977* from Western cemetery grave 3747; (b) on a brooch from Dover Buckland G417, sf1021c; (c) on a sword mount from France (after Leigh 1980, fig.23), image reversed for comparison; (d) on a square-headed brooch from Bifrons G63; (e) on a brooch fragment from Hardenberg, Lolland, Denmark (after Haseloff 1981, 121, fig.72/4), image reversed for comparison; (f) on a Kentish keystone garnet disc brooch from Saltwood *ON 2053* from Western cemetery grave 3762

The crouching animal motif (g) at the bow-foot junction of brooch *ON 1978* and (h) in the same position on a square-headed brooch from Dover Buckland (1994) sf 1021c from Grave 417; compared with a motif on a round-headed relief brooch (i) from Skjervum, Sogn & Fjordane, Norway (after Leigh 1980, fig.21), and (j) the long-necked bird on the bow-foot junction of brooch *ON 296* from Eastern cemetery grave 1762

Plate 5:   A pair of square-headed brooches from Eastern cemetery grave 1762, (a) *ON 296* and (b) *ON 302*. Åberg Type 132, made from gilded debased silver

Plate 6:   (a) The single square-headed brooch from Western cemetery grave 4643, ON 2133: Åberg Type 133 in gilded silver. (b) The segmented motif of the headplate compared with (i) and (ii) the motifs on similar brooches from Chessell Down, Isle of Wight (after Leigh 1980, fig. 23). (c) The segmented motif of the footplate compared with(i) and (ii) similar brooches from Chessell Down (after Leigh 1980, fig.22) and (iii) a beastman from Vrena Sweden (after Haseloff 1981, fig.72, image reversed for comparison)

Plate 7:   The pair of *Jutlandisch* Group C brooches from Eastern cemetery grave 1453, left *ON 43* and right *ON 78*.

Plate 8:   (a) The typical shape of a Continental oval-footed bow brooch, based on an example from Harmignies, Belgium (Koch 1998, II, Plate 40/7); (b) Saltwood brooch *ON 43* (c) the foot terminal of *ON 78*; compared with *Jutlandisch* Group C brooches from (d) Cop Street, near Goldstone, Ash, Kent (previously Richborough), and (e) Tranum Klit, Denmark (after Haseloff 1981, fig.28 and plate 14/2). All to scale

Plate 9:   Brooches from Eastern cemetery grave 1762 (a) and (c) compared with those from Dover Buckland (1994) grave 419 (b) and (d). (a) Bird brooch *ON 32*, (b) bird brooch DB sf 1000, (c) disc brooch *ON 301*and (d) disc brooch DB sf 1001. The pair of quatrefoil brooches from Eastern cemetery grave 1453, left *ON 105* (e) and right *ON 119* (f); (g) the Kentish keystone garnet disc brooch of Avent Class 1.1 from Western grave 3747 (*ON 1987*). All to scale.

Plate 10:   Gold plated disc brooch (a), set with garnets and blue glass and gold-wire filigree, from Central cemetery grave 6421 (*ON 2413*). Pendants from necklaces: (b) flat-cut pear-shaped garnet on gold foil in silver setting (*ON 2430.1)* (left), and (c) flat-cut drop-shaped garnet on gold foil in a gold setting (*ON 2411*) (right), both from Central cemetery grave 6421; (d) front and back of the coin pendant (*ON 2412*) from the same grave; (e) domed garnet in silver setting (*ON 2177*) from Western cemetery grave 4699. All to scale.

Plate 11:   Intaglio pendants: (a) yellow-brown glass intaglio with remains of a silver frame from Western cemetery grave 4699 (*ON 2174*); (b) blue glass intaglio set upside down in a silver-alloy mount from Central cemetery grave 6416 (*ON 2518*). Orant figure on intaglio (*ON 2174*) compared with (c) St Procopius in an impression from a haematite stone with the name of the saint on the reverse, 30 mm long (British Museum); (d) Virgin Mary on a garnet, 17 mm long, from a private collection (Beazley archive website); (e) Virgin Mary flanked by two crosses in an impression from a gemstone intaglio, 12 mm long (after Stupperich 1986 plate 41/6).

Plate 12:   Byzantine Bowl (*ON 1090*) from Central Cemetery grave C1081

Plate 13:   Detail of repair of bowl ON 1090.

Plate 14:   Flat gold strip, 0.8-1.2 mm wide (*ON 1966*) from Western cemetery grave C3741.