



Tyttel's Halh: The Anglo-Saxon Cemetery at Tittleshall, Norfolk

Network Archaeology

East Anglian Archaeology 150

EAST ANGLIAN ARCHAEOLOGY

This volume is dedicated to

Kenneth Penn

in appreciation of his work on the archaeology of Norfolk
and his generosity in sharing

Tyttel's *Halh*: the Anglo-Saxon Cemetery at Tittleshall, Norfolk

The Archaeology of the Bacton to King's Lynn Gas Pipeline, Volume 2

by Penelope Walton Rogers

with contributions from
Steve Allen, Sue Anderson, Kate Brayne,
Birte Brugmann, Derek Cater, Philip Clogg,
Sharon Clough, Rowena Gale, Jennifer Jones,
Adrian Marsden, Richard Moore, Kenneth Penn
and Tom Wilson

and illustrations by
Anthony Barton, Charlotte Bentley and
Jacqueline Churchill

East Anglian Archaeology
Report No.150, 2013

Network Archaeology

EAST ANGLIAN ARCHAEOLOGY
REPORT NO. 150

Published by
Network Archaeology Ltd
15 Beaumont Fee
Lincoln LN1 1UH

in conjunction with
ALGAO East
<http://www.algao.org.uk/cttees/Regions>

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Adrian Tindall, Archaeological Consultant
Jess Tipper, Archaeological Service Manager, Suffolk County Council

Set in Times Roman by Jenny Glazebrook using Corel Ventura TM
Printed by Henry Ling Limited, The Dorset Press

© Penelope Walton Rogers and contributing authors
ISBN 978 0 9572288 1 8

This volume was published with the aid of funding from National Grid

East Anglian Archaeology was established in 1975 by the Scole Committee for Archaeology in East Anglia. The scope of the series expanded to include all six eastern counties and responsibility for publication passed in 2002 to the Association of Local Government Archaeological Officers, East of England (ALGAO East).

For details of *East Anglian Archaeology*, see last page

Cover illustrations:

(Front) Brooches from Graves 13, 15, 16, 14 (Photograph: Chris Casswell)
(Back) Reconstruction of the appearance of the young girls from Graves 3 and 14
(Drawing: Anthony Barton)

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Contributors

Steve Allen
York Archaeological Trust
(mineral-preserved wood)

Sue Anderson
CFA Archaeology
(pottery)

Anthony Barton
Antheads
(costume illustrations)

Charlotte Bentley
Formerly Network Archaeology
(artefact illustrations)

Kate Brayne
Rudyard Consultancy
(human remains)

Birte Brugmann
Independent
(beads)

Ian Cartwright

University of Oxford
(photographs)

Chris Casswell

Network Archaeology
(photographs)

Derek Cater

Formerly Network Archaeology, now Cater Archaeology
(excavation manager and contributing author)

Jacqueline Churchill

Network Archaeology
(illustrations)

Philip Clogg

Durham University
(metallurgy)

Sharon Clough

Rudyard Consultancy
(human remains)

Rowena Gale

Independent
(Charcoal)

Jennifer Jones

Durham University
(metallurgy)

Adrian Marsden

Norwich Castle Museum
(coins)

Richard Moore

Network Archaeology
(project co-ordinator)

Kenneth Penn

Formerly NAU Archaeology
(contributing author)

Penelope Walton Rogers

The Anglo-Saxon Laboratory, York
(lead author and editor)

Tom Wilson

Formerly Network Archaeology, now Stonebow Heritage
(assessment manager and contributing author)

Acknowledgements

Penelope Walton Rogers (The Anglo-Saxon Laboratory) would like to express her thanks to Richard Moore and staff at Network Archaeology for their kind support during the preparation of this volume. Especial thanks also go to Kenneth Penn (formerly Norfolk Archaeological Unit) for his contributions and for generously providing information on published and unpublished sites in Norfolk. Helen Geake (University of Cambridge) gave helpful advice on the original excavation report, as a result of which the volume was reconstituted in its present form.

The author is also indebted to the following for providing feedback on their specialist subjects: James

Rackham (Environmental Archaeology Consultancy) on landscape, soils and agriculture; Gordon Cook (SUERC) and Peter Marshall (English Heritage) on radiocarbon dating; Thomas Pickles (University of York) on place names; Sue Anderson (CFA Archaeology) on the pottery from the excavation; Sam Lucy (University of Cambridge) on the Spong Hill pottery; and Mary Chester-Kadwell (University of Cambridge) for plots of relevant sites and features in the area. Finally, the text has benefited from discussion of the evidence with staff and students at The Anglo-Saxon Laboratory, especially Tom Srahan and Isabella von Holstein.

Summary

The Early Anglo-Saxon cemetery at Tittleshall was discovered during archaeological work in advance of the construction of a pipeline from Bacton to King's Lynn. It lay immediately to the south of the modern village of Tittleshall, on the eastern side of a Bronze Age barrow. A series of pits containing Early Anglo-Saxon pottery 50 metres to the east probably represents the edge of a settlement contemporary with the cemetery.

Altogether 24 grave-cuts were recorded and the remains of two cremation burials were found between the inhumation plot and the pits to the east. One grave-cut appears to have silted up, unused; two graves contained secondary burials; and one small pit held only a skull,

which gives a total, including the cremations, of 28 individuals. The northern end of the inhumation plot was not excavated, although it is unlikely that it extended much beyond the edge of the excavation. The two cremations were heavily plough-damaged and it is probable that further examples have been lost in the same area.

The cemetery was founded in the 5th century, almost certainly before AD 480, and was in use throughout the 6th and early 7th century. One male burial may belong to the later 7th century. The bodies were those of men, women and children and the cemetery has been interpreted as the burial plot of a small farming household.

The range of artefacts in the graves indicates that the people who lived here were well provided with material goods. Three children's burials are of especial interest and include a young boy buried in fine linen with the remains of a sword scabbard. It is argued that this family was a sword-bearing lineage and that they had local prominence, although they were probably not of the higher rank represented by some of the inhumations at Spong Hill (North Elmham).

It has been argued throughout that Tittleshall stood on the western boundary of a territory which covered the river system of central and east Norfolk and north-east Suffolk. Many of the artefacts relate the Tittleshall cemetery to this

zone, although there is also strong evidence for contacts with regions to the south and west. The borderland position is illustrated by an unusual brooch in one of the children's graves, which combines elements of brooches from two different areas.

A study of local landholding patterns suggests that the local land unit was originally small, but that it later expanded to form the modern civil parish through the absorption of neighbouring manors. It is probable that the cemetery ceased to be used when occupation moved north and east to the twin settlements of the Middle Anglo-Saxon period. These eventually combined and developed into the modern village of Tittleshall.

Résumé

Le cimetière du début de la période anglo-saxonne situé à Tittleshall fut découvert pendant les travaux archéologiques qui ont précédé la construction du gazoduc de Bacton à King's Lynn. Ce cimetière se trouvait juste au sud du village moderne de Tittleshall, à l'est d'un tumulus de l'âge du bronze. Une succession de fosses contenant de la poterie de la première période anglo-saxonne et située à 50m à l'est représente probablement l'extrémité d'une implantation de la même époque que le cimetière.

En tout 24 emplacements de tombes creusées dans le sol ont été enregistrés et les restes de deux tombes à crémation ont été découverts entre le lieu de l'inhumation et les fosses à l'est. L'une des tombes semblait ensablée et inutilisée; deux autres tombes contenaient des tombes secondaires et une petite fosse renfermait un seul crâne. Avec les crémations, nous atteignons ainsi le nombre de 28 tombes individuelles. L'extrémité nord du lieu de l'inhumation n'a pas été fouillée, il est toutefois peu probable qu'il se soit étendu bien au-delà de la limite de la zone fouillée. Les deux crémations ont été sérieusement endommagées par le labourage et d'autres ont probablement été perdues dans la même zone.

Le cimetière a été créé au 5ème siècle de notre ère, très certainement avant l'an 480 et il fut utilisé pendant tout le 6ème siècle et jusqu'au début du 7ème siècle. Le cimetière contenait la tombe d'un homme qui date peut-être de la fin du 7ème siècle. Les corps trouvés étaient ceux d'hommes, de femmes et d'enfants et il semble que le cimetière était destiné à l'inhumation d'une petite famille d'agriculteurs.

L'ensemble des artefacts contenus dans les tombes indique que les personnes qui vivaient dans ces lieux possédaient un grand nombre de biens matériels. Les

tombes de trois enfants sont particulièrement intéressantes; elles contiennent le corps d'un jeune garçon qui a été enseveli dans un tissu de lin fin avec les restes du fourreau d'une épée. L'idée a été avancée que cette famille était d'une lignée portant l'épée et qu'elle avait une importance locale. Toutefois, elle n'appartenait sans doute pas au rang supérieur qui est représenté par plusieurs des inhumations de Spong Hill (North Elmham).

Une autre hypothèse a également été constamment défendue : Tittleshall se serait trouvé à la limite ouest d'un territoire qui couvrait le système fluvial situé au centre et à l'est du Norfolk et au nord-est du Suffolk. Un grand nombre d'artefacts relie le cimetière de Tittleshall à cette zone, bien que l'on dispose également de preuves solides indiquant des contacts avec des régions situées au sud et à l'ouest. Cette position frontalière est illustrée par la présence dans l'une des tombes des enfants d'une broche inhabituelle qui combine des éléments de broches appartenant à deux régions différentes.

Une étude des modes locaux d'occupation des sols suggère que l'unité foncière locale était de petite taille mais qu'elle prit de l'ampleur par la suite jusqu'à devenir la paroisse civile moderne via l'intégration des manoirs voisins. Il est probable que le cimetière a cessé d'être utilisé quand l'occupation s'est déplacée vers le nord et l'est jusqu'aux implantations jumelles de la période anglo-saxonne moyenne. Ces différentes composantes finirent par se combiner pour former le village moderne de Tittleshall.

(Traduction: Didier Don)

Zusammenfassung

Das frühangelsächsische Gräberfeld von Tittleshall wurde bei archäologischen Arbeiten im Vorfeld des Baus einer von Bacton nach King's Lynn verlaufenden Pipeline entdeckt. Das Gräberfeld liegt unmittelbar südlich des Ortes Tittleshall an der Ostseite eines bronzezeitlichen Grabhügels. Es wird angenommen, dass eine 50 Meter weiter östlich gelegene Reihe von Gruben, die frühangelsächsische Tonware enthielten, den Rand einer Siedlung bildete, die in dieselbe Zeit fällt wie das Gräberfeld.

Insgesamt wurden 24 Grabgruben verzeichnet. Daneben fanden sich Reste von zwei Leichenbränden zwischen den Erdgräbern und den Gruben im Osten. Eine Grabgrube versandete offenbar ungenutzt, zwei Grabstätten enthielten Sekundärbestattungen, und eine kleine Grube wies lediglich einen Schädel auf, so dass die Funde einschließlich der Leichenbrände insgesamt 28 Personen zuzuordnen waren. Das Nordende des Gräberfelds wurde nicht ausgegraben, allerdings ist unwahrscheinlich, dass es weit über den Rand der Ausgrabung hinausreichte. Die beiden Leichenbrände waren durch Pflugarbeiten stark zerstört. Es ist davon auszugehen, dass aus demselben Grund noch weitere Befunde in diesem Gebiet verloren gingen.

Das Gräberfeld wurde im 5. Jahrhundert angelegt, und zwar höchstwahrscheinlich vor 480 n. Chr. Es wurde das gesamte 6. Jahrhundert hindurch und zu Beginn des 7. Jahrhunderts genutzt. Ein Männergrab geht womöglich auf die Spätzeit des 7. Jahrhunderts zurück. In den Gräbern fanden sich Männer, Frauen und Kinder. Das Gräberfeld wurde als Begräbnisstätte eines landwirtschaftlichen Kleinhaushalts gedeutet.

Das Spektrum der Grabbeigaben deutet darauf hin, dass die hier lebenden Menschen materiell gut versorgt waren. Drei Kindergräber sind von besonderem Interesse. In einem fanden sich Reste einer Schwertscheide bei einem Jungen, der in ein feines Leinengewand gehüllt war. Es wird angenommen, dass der Junge aus einer lokal bedeutsamen Familie von Schwerträgern stammte, die jedoch vermutlich nicht den höheren Rängen angehörte wie die Menschen, die in einigen Erdgräbern bei Spong Hill (North Elmham) gefunden wurden.

Bislang wurde Tittleshall als Westrand eines Gebiets gesehen, das das Flusssystem von Mittel- und Ost-Norfolk und des nordöstlichen Suffolk umfasste. Viele der Artefakte aus dem Gräberfeld von Tittleshall belegen die Verbindung mit diesem Gebiet, es existieren jedoch auch klare Hinweise auf Kontakte mit den Regionen im Süden und im Westen. Diese Grenzlage wird durch eine ungewöhnliche Gewandspange in einem der Kindergräber illustriert, die Merkmale aus zwei verschiedenen Gebieten aufweist.

Eine Untersuchung der örtlichen Grundbesitzverhältnisse lässt vermuten, dass das Landstück zunächst klein war und sich später durch den Einschluss benachbarter Landgüter zu der heutigen Zivilgemeinde entwickelte. Die Nutzung des Gräberfelds kam wahrscheinlich zum Erliegen, als sich die Bevölkerung nach Nordosten in zwei mittelangelsächsische Siedlungen verlagerte. Diese wurden letztlich vereint und entwickelten sich zum heutigen Tittleshall.

(Übersetzung: Gerlinde Krug)



Figure 1.1 The topography of East Anglia, showing the coastline and drainage of the Fenland as it was in the Anglo-Saxon period (after Scull 1993, 68, fig. 1), with linear earthworks (taken from Wade-Martins 1974).
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Chapter 1. Introduction

I. An unexpected site

Tittleshall village, in the parish of Tittleshall-cum-Godwick, Launditch Hundred, stands in the dry rolling uplands of west-central Norfolk. The discovery of an Anglo-Saxon cemetery in this location, immediately to the south of the present-day village, was entirely unexpected. The site was thought to lie outside the main settlement zones of the Early Anglo-Saxon period and, in contrast with the evidence for other periods, very little Early Anglo-Saxon data had been recorded for the parish in the Norfolk Historic Environment Record. When Network Archaeology began their excavation in 2003 (HER 37622), in advance of the construction of the Transco (now National Grid) pipeline from Bacton to King's Lynn, they were intending to focus on the prehistoric barrow and ring ditch indicated by cropmarks and fieldwalking. What they found, alongside the barrow, was a small Anglo-Saxon cemetery made up of 24 inhumation grave-cuts and two cremation burials, together with other features likely to belong to the same period.

The full significance of the Anglo-Saxon phase of the site only emerged during post-excavation analysis. Due to the difficulties of distinguishing between the Iron Age and 5th-century pottery of this area, it took some time to confirm that the excavation had indeed clipped the edge of a settlement contemporary with the burials, and that a shrine may have co-existed with the cemetery. At the same time, as research of the artefacts from the graves progressed, it became clear that the people buried here represented a community who had both local relationships and connections further afield. In view of its apparently marginal location, the importance of this relatively small site had to be re-assessed.

When it came to publication, it was therefore decided to group the prehistoric evidence with similar material from other sites along the pipeline (Wilson *et al.* 2012) and to give the Anglo-Saxon features their own volume. In Chapter 2, the excavators will place the Anglo-Saxon evidence within the context of the full excavation, but the rest of the study will be dedicated to unravelling the history of the people who buried their dead at Tittleshall in the 5th to 7th centuries.

II. Landscape and history

The site stands on the eastern side of the free-draining uplands of north-west Norfolk, at their interface with the clay plateau of the centre and south-east of the county (Williamson 1993, 11–13; 2005). It is also on a major watershed (Fig. 1.1). To the east lies the great river system which drains central and eastern Norfolk, and to the west are the rivers which flow from the uplands into the Fens and The Wash. The sources of the two systems interleave, and the headwaters of the east-flowing Wensum are less than 2km to the north and east of the site, while the stream that is the origin of the west-flowing Nar runs directly past

the excavation. The site therefore lies on a natural divide in the landscape.

The uplands represent no great physical barrier to travel or transport, although they were probably wooded in the Anglo-Saxon period (Williamson 1993, 18–19; Wade-Martins 1980, 12). They are flanked, however, by parallel lines of earthworks, their defensive ditches facing each other, which suggest that there were times when they formed a boundary between territories (Wade-Martins 1974; Chester-Kadwell 2009, 58). The northernmost of the eastern line of earthworks, the Launditch (Fig. 1.1), is most likely to have been constructed in the Iron Age (Ashwin and Flitcroft 1999), and a theory has been put forward that this eastern series marked the border between the main Iceni tribe and lesser groups who followed Iceni leadership (Williamson 1993, 32–4). Be that as it may, the early earthworks would still have been standing in the Anglo-Saxon period and some of the western series are probably post-Roman in origin, as were similar earthworks in Cambridgeshire (Williamson 1993, 69–70; Malim *et al.* 1997; Chester-Kadwell 2009, 58). Anglo-Saxon Tittleshall stood between the two opposing lines of earthworks, just outside the northern end of the Launditch.

III. Before the Anglo-Saxons

Whatever the tribal divisions of the Iron Age, under Roman rule the whole of Norfolk and northern Suffolk became a single unit, the *civitas Icenorum*, which was administered from a new town, Venta Icenorum, close to present-day Norwich. Other small towns were soon established and a network of roads (Fig. 1.2). There were Romano-British settlements in the vicinity of Tittleshall, of which the largest was probably the small town or large village at Kempstone, 5km to the south (see Chapter 2). A north-to-south road from Toftrees to Kempstone passed less than 2km to the west of the excavation and it is probable that an east-to-west route came through Tittleshall on its way to the Fens (Wade-Martins 1980, 55; Ashwin and Davison 2005, 27, 29). A limited number of finds indicate some form of activity close to the site in the Roman period, although its scale is unclear and there is no firm evidence for continuity from the Roman to the Early Anglo-Saxon period.

On the far side of the Toftrees-Kempstone road was the Peddars Way (the two converge further to the south) and beyond that a road which some regard as the northern extension of the Icknield Way (Fig. 1.2). As a military road, the Peddars Way is likely to have fallen into disrepair in the Anglo-Saxon period, but it follows the north-to-south chalk escarpment which marks the western edge of the uplands and must have remained a visible feature to guide travellers along the corridor between the earthworks into Suffolk. The Icknield Way will have led into Cambridgeshire and thence westwards to the Thames valley and beyond.

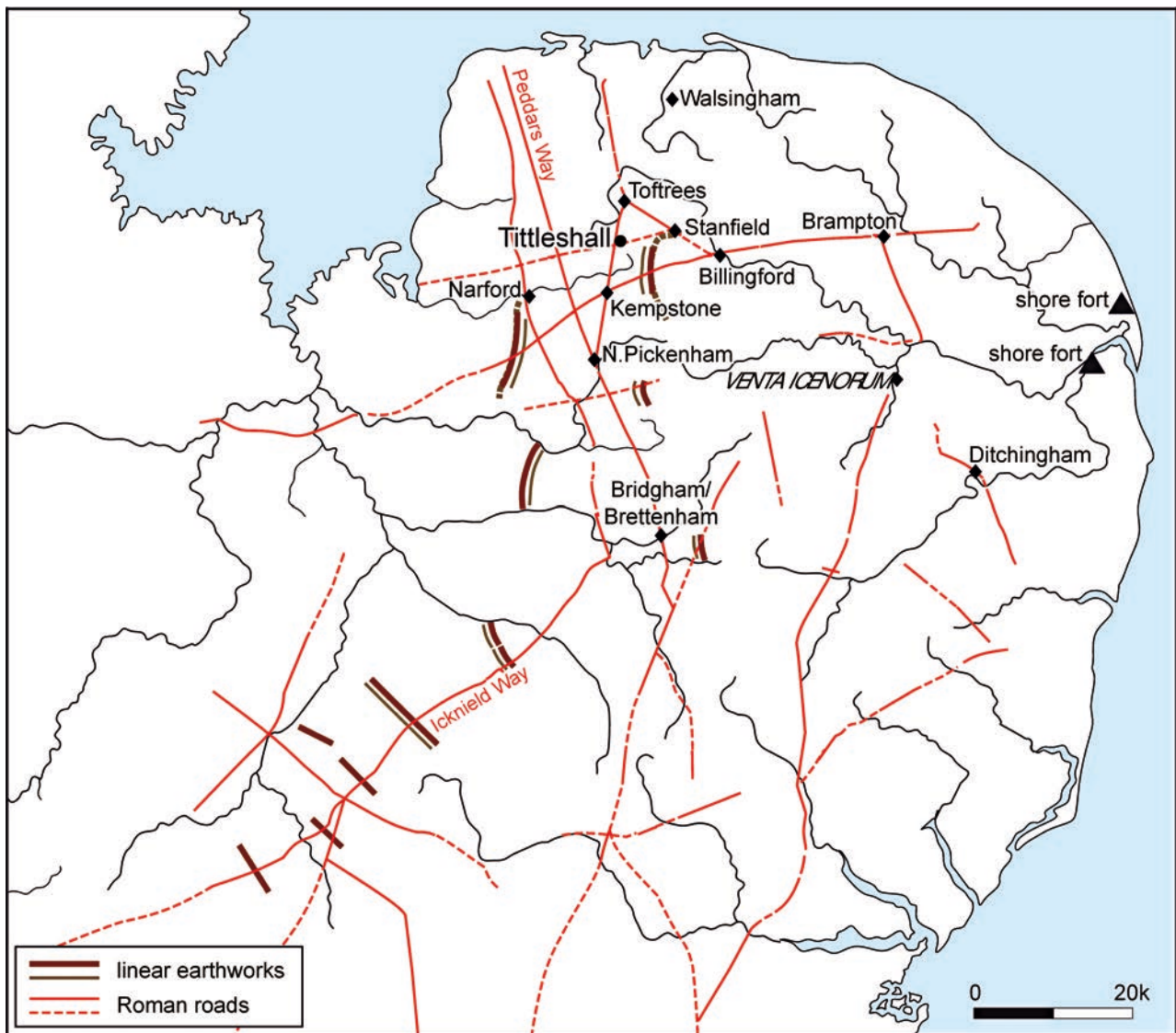


Figure 1.2 Map of East Anglia, showing Roman roads and towns (after Myres and Green 1973, map 3, with additional material from Ashwin and Davison 2005, 27 and 29). The Anglo-Saxon Laboratory

IV. Early Anglo-Saxon Norfolk

In the later Roman period, the whole region, along with much of the western empire, was suffering economic recession and the *civitas* is believed to have been subjected to raiding from overseas (although the extent of the attacks is sometimes questioned: Davies 2009, 225–7). Towns were eventually abandoned, but the number of cemeteries established in their vicinity suggests that they continued to exert some pull over the local population (Williamson 1993, 67–9; Chester-Kadwell 2009, 159) and the area around Venta Icenorum is thought to have retained some relics of administrative authority (Myres and Green 1973, 12–14; Scull 1992, 8–14). Particularly large cremation cemeteries were established in the 5th century, and one of these is situated at Spong Hill just 9km to the east of Tittleshall (Hills 1977; Hills and Penn 1981; Hills *et al.* 1987; 1994; Hills and Lucy 2013) (Fig. 1.3). Others have been located at Kettlestone (Penshorpe) and Great Walsingham to the north and between Castle Acre and West Acre to the south (Meaney 1964, 172–3, 177, 184).

During this phase, the people of Norfolk acquired all the attributes of Anglo-Saxon culture in terms of metalwork, burial practice and settlement layout. The extent to which this resulted from the arrival of immigrants from the Continent rather than the spread of a new culture within the native British population has been debated (Scull 1992, 7–8; 1993, 70–2; 1995, 73–9; Hills 1993; 2003, 105–7; Crabtree 1990, 106–8), but the theory of small bands of immigrants operating among, and eventually integrated with, the Romano-British population seems to fit the available evidence.

The population of this period was dispersed in farmsteads, hamlets and small villages (themselves often clusters of farmsteads) and in Norfolk occupation was concentrated in two main zones (Scull 1992, 15; 1993, 75). One was on the central-eastern river system, where major excavated sites include cemeteries at Spong Hill (sources previously cited for the cremation burials; Hills *et al.* 1984 for the inhumations), Bergh Apton (Green and Rogerson 1978), Morning Thorpe (Green *et al.* 1987), Caistor-by-Norwich (Myres and Green 1973) and Harford Farm in Caistor St Edmund parish (Penn 2000). The

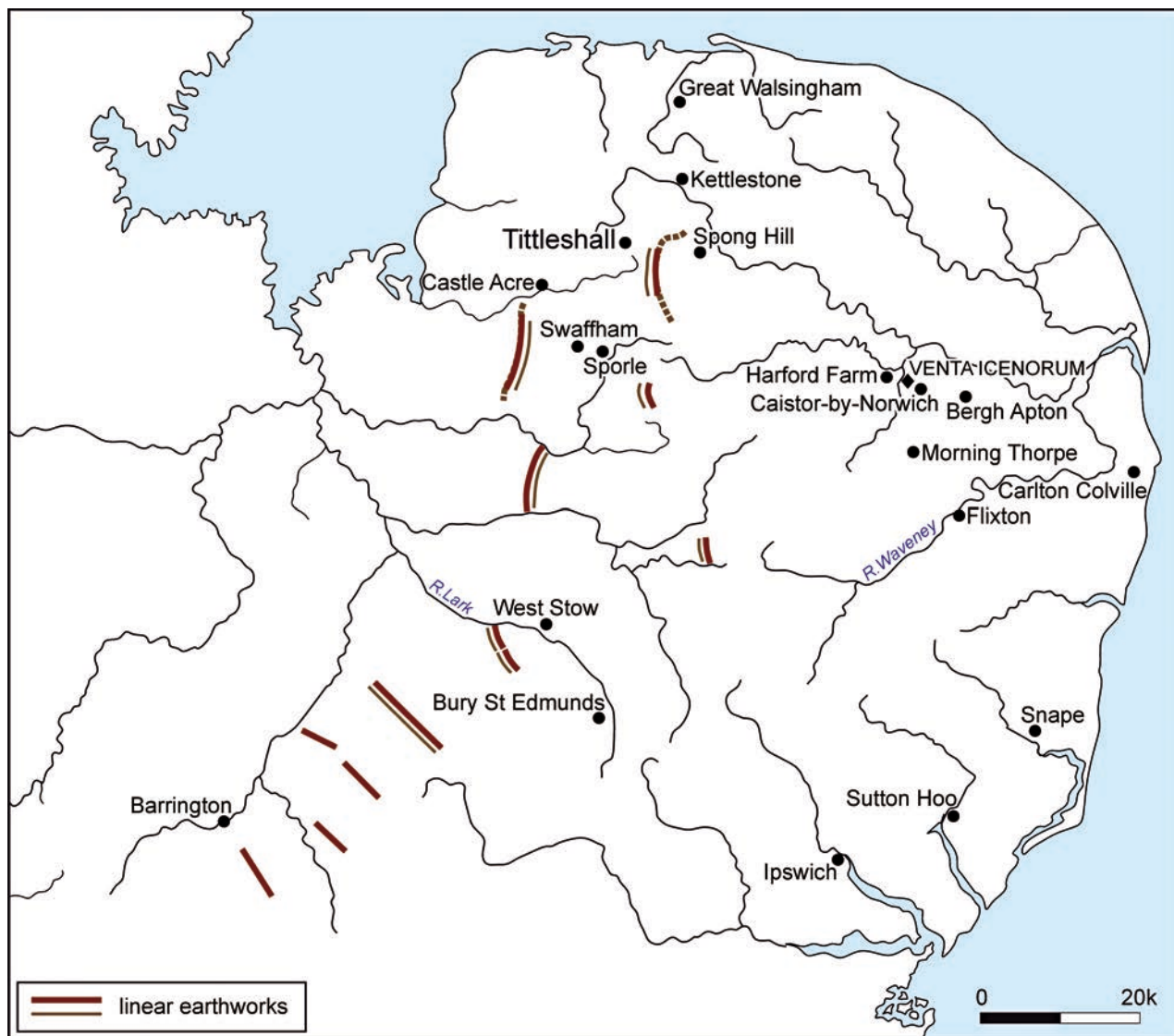


Figure 1.3 Map of East Anglia showing the major Early Anglo-Saxon excavations and other sites mentioned in the text. The Anglo-Saxon Laboratory

settlements and cemeteries at Flixton (Boulter and Walton Rogers 2012) and Carlton Colville (Lucy *et al.* 2009) in northern Suffolk can be associated with this group. The second zone was on the western side of the uplands, where it formed the northern arm of the great arc of sites that circuits the Fens. The province of the Wissa is thought to have been located here, bounded by the Bichamditch and Fossditch earthworks (Rogerson *et al.* 1997, 17–18). Where the uplands drop down towards the south, the fen-edge sites extend eastwards along valleys of rivers such as the Lark, where the village and cemetery of West Stow, across the county border in Suffolk, is situated (West 1985).

To some extent, the areas of occupation mirrored the rural settlement pattern of the Roman period, but towns and their commercial networks had now fallen away and there was some contraction of settled areas into river valleys (Williamson 1993, 51, 61). The uplands between the two main settlement zones were not entirely empty, however. One of the large cremation cemeteries was uncovered in 19th-century excavations on the boundary between the parishes of West Acre and Castle Acre

(Meaney 1964, 172–3) and there was an inhumation cemetery at Swaffham (Hills and Wade-Martins 1976) and another at Sporle (Meaney 1964, 181–2; Ashley and Penn 2012). Fieldwalking and metal-detecting have indicated the presence of a small number of burial, occupation and ‘activity’ sites (Norfolk HER; Chester-Kadwell 2009, 93, fig. 7.1), although the occasional single object from the site of a Roman settlement (Kempstone HER 4079, for example) may represent little more than a visiting Anglo-Saxon searching the ruins for re-usable materials. As will be described in Chapter 8, local place names also shed some light on the nature of the early occupation of this area.

To summarise, Tittleshall was located on the western edge of one occupation zone, but faced towards the other, and it stood in a corridor with access to Suffolk, Cambridgeshire and the Midlands. Although it lay outside the main settlement zones identified by archaeology, the area between the earthworks in which it was situated was clearly not uninhabited.

V. Communities within communities: ‘nested identities’

The people who lived at Anglo-Saxon Tittleshall belonged in a cultural, social and political landscape, which would be just as significant to them as the physical environment. These complex issues have been explored by others with a variety of approaches (Richards 1987; Scull 1992, 1993, 1995; Ravn 2003; Penn and Bruggmann 2007; Chester-Kadwell 2009) and they will be addressed, where relevant, later in this volume. For now, some simple statements can be made about the forms of community which can be mapped geographically.

First of all, in terms of artefacts, the site belongs in the ‘Anglian’ cultural group, defined by the types of metal sleeve clasps and small-long, cruciform and annular brooches which are found in the eastern counties of northern England, the east Midlands, Norfolk and northern Suffolk. This broad region is now conveniently termed the ‘North Sea Province’ and has been shown to have had a long-lasting identity, which extended beyond the span of individual artefact-types (Williamson 2008, 130–8).

Within this larger framework other entities existed. It has recently been suggested that the sites on the river system of central and eastern Norfolk and northern Suffolk formed part of a single territory in the 5th and 6th centuries (Walton Rogers 2012a). The cemeteries in this area share certain bead types, Romano-British textile techniques and the occasional practice of reversed female burial, and it was argued that this represented the contracted relics of the Roman *civitas* and the Iron Age territory of the Iceni that had preceded it. If some form of administration survived in the area of Venta Icenorum, its power may not have stretched to the full extent of the river system and the ‘territory’ should perhaps be seen as a group of people held together by shared traditions and practices (Walton Rogers 2012a, 110). At a time when occupation was concentrated along the valleys of rivers and streams, communities were probably evolving to the shape of the river systems, through local marriages and small-scale exchange networks. Tittleshall stands on the western edge of this proposed territory.

The sparse written sources have provided names for certain groups of people. Eleven relatively small ‘tribes’ were recorded in the Fenland district when the Tribal Hidage was written down in the later 7th century (Davies and Vierck 1974; Courtney 1981; Dumville 1989), and it is likely that there were originally other similar groups in existence. The Wissa mentioned above, for example, appear in the 8th-century *Vita Sancti Guthlaci*, but were absent from the Tribal Hidage, possibly because they were already paying tribute as part of the province of the East Angles (Courtney 1981, 96–7). There is as yet no means of identifying the footprint of these named groups archaeologically, although the Wissa are thought to have been associated with the River Wissey and other tribes have been related to modern Fenland place names (Courtney 1981, 94–8; Williamson 1993, 56).

The next size down in terms of archaeologically detectable communities is represented by the large 5th-century cremation cemeteries. At Spong Hill, for example, 2,284 cremated individuals have been counted (and there were originally probably more than 2,700), which must indicate a burial community of 446–768

people at any one time (McKinley 1994, 66–71). It is not possible to know whether this derives from an entirely local population, or the people from an ethnic or religious group from a wider area. However, it has been argued, from the likely population density of the period, that the numbers must represent, at the most constrained estimate, the people living within 9–16km of the site (McKinley 1994, 70–1). If so, Tittleshall will have been within its catchment area. This means that if there was already a family farm on the site in the first half of the 5th century, its occupants may well have been taking their cremated dead to Spong Hill for interment, before they established their own burial plot closer to home.

Still smaller units can be seen in the archaeological record. In settlements of the period, each post-built structure with ancillary sunken-featured buildings is generally regarded as representing an individual farmstead, probably the focus of a family farm. Each settlement might contain one such farmstead, or two or three. The evidence from the inhumation cemeteries indicates that these small agrarian communities had local and regional contacts, but for the most part they had to rely on their own skills and resources. Artefact-types such as the annular brooches with beaked profile found at Flixton (Boulter and Walton Rogers 2012, 98–9) and the intricately patterned tablet-woven bands from Morning Thorpe (Crowfoot 1987, 172–3; Walton Rogers 2007, 92–3), are limited to very small areas, or even to individual settlements. It will be shown in the following pages that the Tittleshall burial plot is likely to represent the dead from one such farmstead.

These communities of different sizes could in theory represent a social structure in which the individual would be part of a family (the household or farm unit), nested successively within a clan, within a tribe, within a folk group, in a loose approximation of the social organisation seen amongst Germanic peoples of the Continent (Ravn 2003, 7–8; note that these terms are sometimes used differently in other systems). The full complexity of societies on the Continent would not have had time to develop in England, but some of the basic elements may well have transferred (Scull 1993, 71) and they are likely to have found a natural home in the relict British tribal system. In addition, a society organised as a network of small agriculture-based units, must have offered a successful strategy for survival in a country dealing with economic recession and political fragmentation. There may have been other identities, such as religious or ethnic affiliation, which intersected these simple nested relationships as well (Chester-Kadwell 2009, 155–7). Indeed, the informality of such a structure would provide the kind of environment in which some families, or branches of families, could rise above others — a process of peer competition which, it has been hypothesised, led eventually to leadership dynasties and the 7th-century kingships (Scull 1992).

VI. The origins of villages

The 7th and 8th centuries saw a major shift in the location and function of many settlements. Peter Wade-Martins, in his study of the villages of Launditch Hundred, demonstrated that, of the fourteen he had researched in detail, most could be traced back to the Middle and Late Anglo-Saxon periods, but that their origins before that

were ‘enigmatic’ (Wade-Martins 1980). The village of Tittleshall and its immediate neighbour, the deserted medieval village of Sutton, both produced small amounts of Middle Anglo-Saxon pottery, which suggested foundation at that time, but no evidence for the Early period could be located (Wade-Martins 1980, 53–8). The site described in this volume now provides a likely precursor.

VII. The Tittleshall report

The material described above provides the argument for in-depth studies of sites such as Tittleshall. The practice of clothed and furnished inhumation has left behind evidence which allows the social structure of individual communities to be reconstructed, while the close chronology provided by the grave goods demonstrates how such communities changed with time (Penn and Brugmann 2007). It is by collating evidence for individual sites in this way and relating it to the settlements, and to the distribution of sites in the landscape, that we shall eventually arrive at a clearer picture of how Norfolk evolved, from a collapsing Roman *civitas* to the northern half of a 7th-century kingdom. For the Launditch Hundred in which Tittleshall stands, there is the added benefit that the site offers evidence for where and how the later village began.

The aim of this publication, therefore, is to investigate the community which buried its dead at Tittleshall, to describe as far as possible its social structure, to show how it responded to changing circumstances during the period of its existence and to outline its local and regional connections. It is hoped that this will also demonstrate that even small-scale excavations of marginal sites can produce a useful perspective on the broader landscape of Early Anglo-Saxon archaeology.

VIII. A note on terms

Within this volume, Early Anglo-Saxon has been used for the early 5th to the mid- to late 7th century, Middle Anglo-Saxon for the later 7th to mid-9th century and Late Anglo-Saxon for the mid-9th century to the Norman Conquest. ‘Anglian’ and ‘Saxon’, the two main cultural groups of the Early period, are written in quotation marks, in order to distinguish them from their Continental counterparts.

Land areas have been presented in acres throughout, as this facilitates correlation between medieval documents such as Domesday Book, post-medieval parish records and 20th-century archaeological surveys. For those who wish to make the conversion, one acre approximates to 0.4 hectares or 4047 square metres.

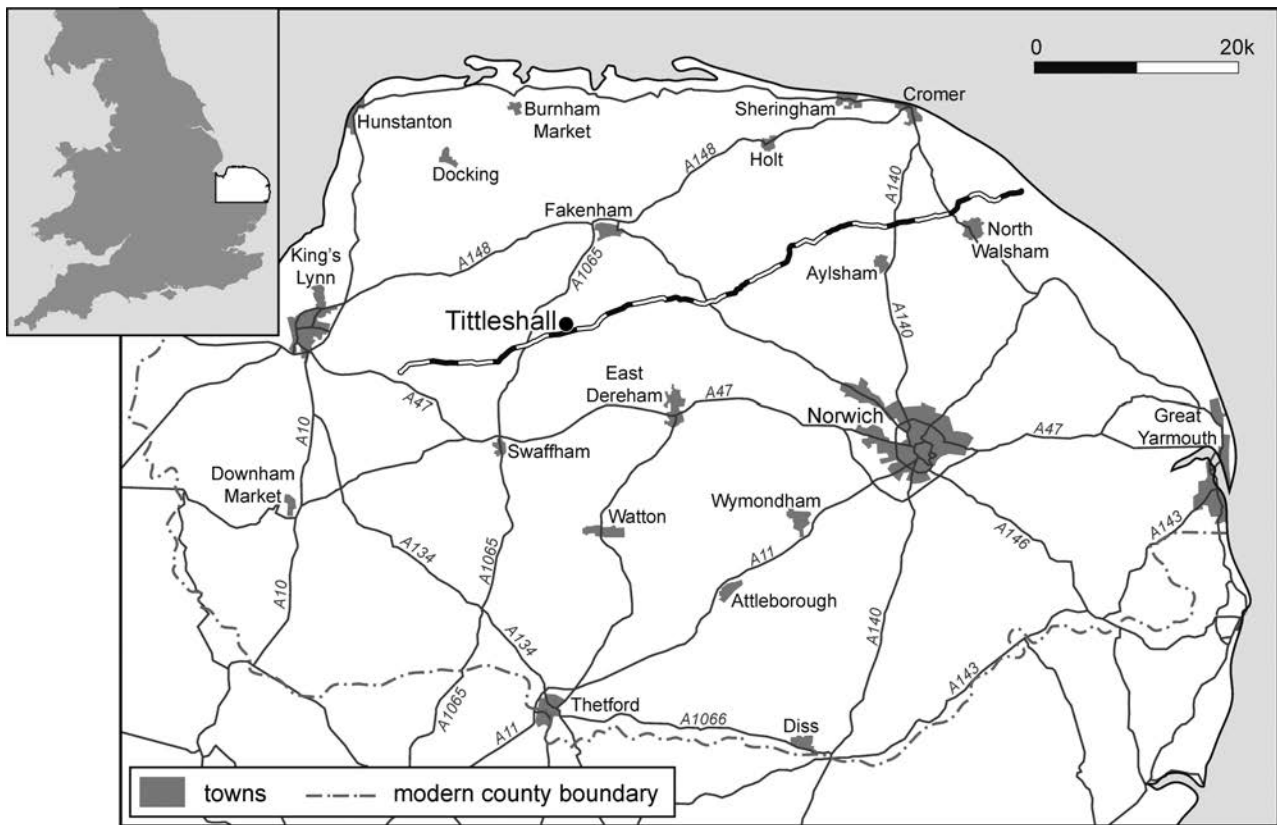


Figure 2.1 Location of the Bacton to King's Lynn pipeline, in relation to towns and main roads of Norfolk

Chapter 2. The excavation

by Derek Cater, Tom Wilson and Penelope Walton Rogers

I. Summary

Excavations to the south of Tittleshall village revealed the remains of an Anglo-Saxon cemetery on the edge of a Bronze Age barrow. The barrow was constructed in at least two phases: a segmented ditch from the first phase was buried beneath a mound, surrounded by a larger uninterrupted ditch. The barrow, and perhaps the outer ditch, would still have been visible in the Early Anglo-Saxon period, when it provided a focus for the cemetery. Twenty-four inhumation grave-cuts were excavated, producing significant artefact assemblages, and two cremation burials were also found nearby.

II. The pipeline

The 68km-long Bacton to King's Lynn pipeline (Fig. 2.1) was constructed in 2003 by Transco, now part of National Grid, to enhance the supply of natural gas from Bacton terminal to the National Transmission System. During the planning and construction of the pipeline, a staged programme of archaeological works was implemented by Network Archaeology on behalf of National Grid and Murphy Pipelines, the main works contractor. Fuller details of this work, and the results of the excavations on seventeen sites, are given in the companion volume (Wilson *et al.* 2012). This volume concentrates wholly on the Anglo-Saxon cemetery that was unexpectedly uncovered in Tittleshall parish.

III. The site

Tittleshall lies at the edge of the dissected Boulder Clay plateau of central and south-east Norfolk. It is in an upland area, on what is, broadly speaking, free-draining chalky till incorporating sands and gravels (Lowestoft Formation), with open chalk countryside 7km to the west. The soil types are more specifically free-draining sandy soil on the west (soil association Newport 4, Red Lodge sub-group) and more fertile loamy soil on the east (soil association Beccles 1, Ragdale sub-group: Soil Survey 1983, Sheet 4).

The site (HER 37617), 700m south of the centre of the present village of Tittleshall (NGR 589400 320380), was in the western half of the large field in the angle of Back Street and Mileham Road (Figs 2.2–3). It is on the south-west-facing slopes of the upper reaches of the very shallow valley of the River Nar, the river at this point being no more than a roadside ditch channelled along the eastern side of Mileham Road. The watershed between the Nar and the headwaters of the Wensum lies just over a kilometre to the north, and the watershed with the Black Water, a tributary stream flowing into the Wensum between Worthing and Billingford, is a similar distance to the east.

Most of the archaeological remains at this site lay within a 150m-long section of the 27m-wide stripped area

of the pipeline easement, which at this point ran from west-south-west to east-north-east (Fig. 2.3–4). The site lay on the westerly portion of a plateau and the upper and middle reaches of an adjoining gentle, south-west-facing valley slope. Following removal of topsoil and colluvium, the top of the archaeological deposits ranged from 63.5m OD at the eastern end of the excavation area to 61.0m OD at the western end. It is likely that modern deep ploughing has altered the natural topography. This has resulted in the movement of soil down the slope, leading to the accumulation of colluvium where the gradient of the slope levels out.

IV. Pre-excavation work

A desk-based assessment (Holgate 2002) provided details of the extensive prehistoric ritual landscape, stretching for nearly five kilometres from Weasenham Heath to Tittleshall. The Weasenham Barrow Group includes eleven scheduled monuments (HER 3654 to 3662), including the 30m-wide Great Barrow (HER 3658), recorded in 1935 as being ditched, with inner and outer banks as well as a seven foot (2.15m) high mound with a central depression. Of the other barrows in this group, one (HER 3659) was excavated by the Department of the Environment in 1972 and was found to be 25m in diameter, though the mound was completely ploughed out. There was no ditch. A pit near the centre contained multiple cremations, together with a fragmentary Collared Urn. Another mound (HER 3660), 30m diameter and 1m high, contained a cremation and 350 sherds of beaker pottery. Neolithic flints, including a leaf-shaped arrowhead (HER 11451), have been found at the location of a 20m-diameter barrow which no longer survives as an earthwork feature (HER 3662).

A group of thirteen barrows or probable barrows on Litcham Heath include two sets of three ring ditches (HER 4071 and 36137) and four more barrows recorded as mounds a short distance to the north (HER 3701, 3702, 11592, 3688) (Fig. 2.5). An outlying disc barrow further to the north-east was a designated Scheduled Monument, but is now ploughed out and has been de-scheduled (HER 3696). Closer to the Tittleshall site, a possible barrow (HER 12069) stands next to the Wellingham Road. Cropmarks of two more barrows, accompanied by nearby flint scatters, have been found in fields outside Tittleshall (HER 13835 and 17065).

The desk-based assessment also drew attention to a third ring ditch visible in cropmarks (HER 17062). At the time that the desk-based assessment was carried out, the proposed route of the pipeline ran 150m to the south of this cropmark. The route was subsequently modified, for engineering reasons, so that the southern half of the cropmark then fell within the pipeline working width, and it was this feature that the excavation of the Tittleshall site was designed to investigate.

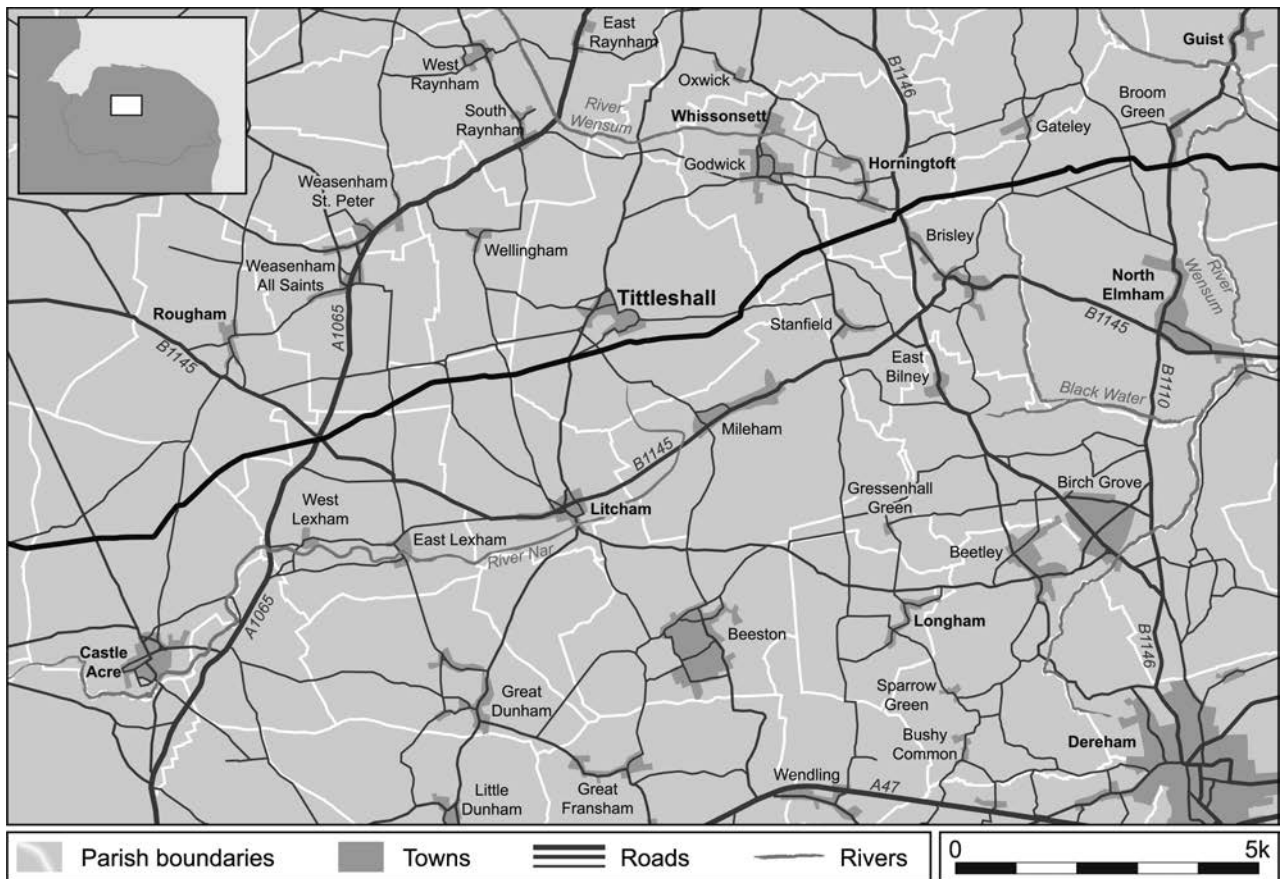


Figure 2.2 The parish of Tittleshall and its surrounding district

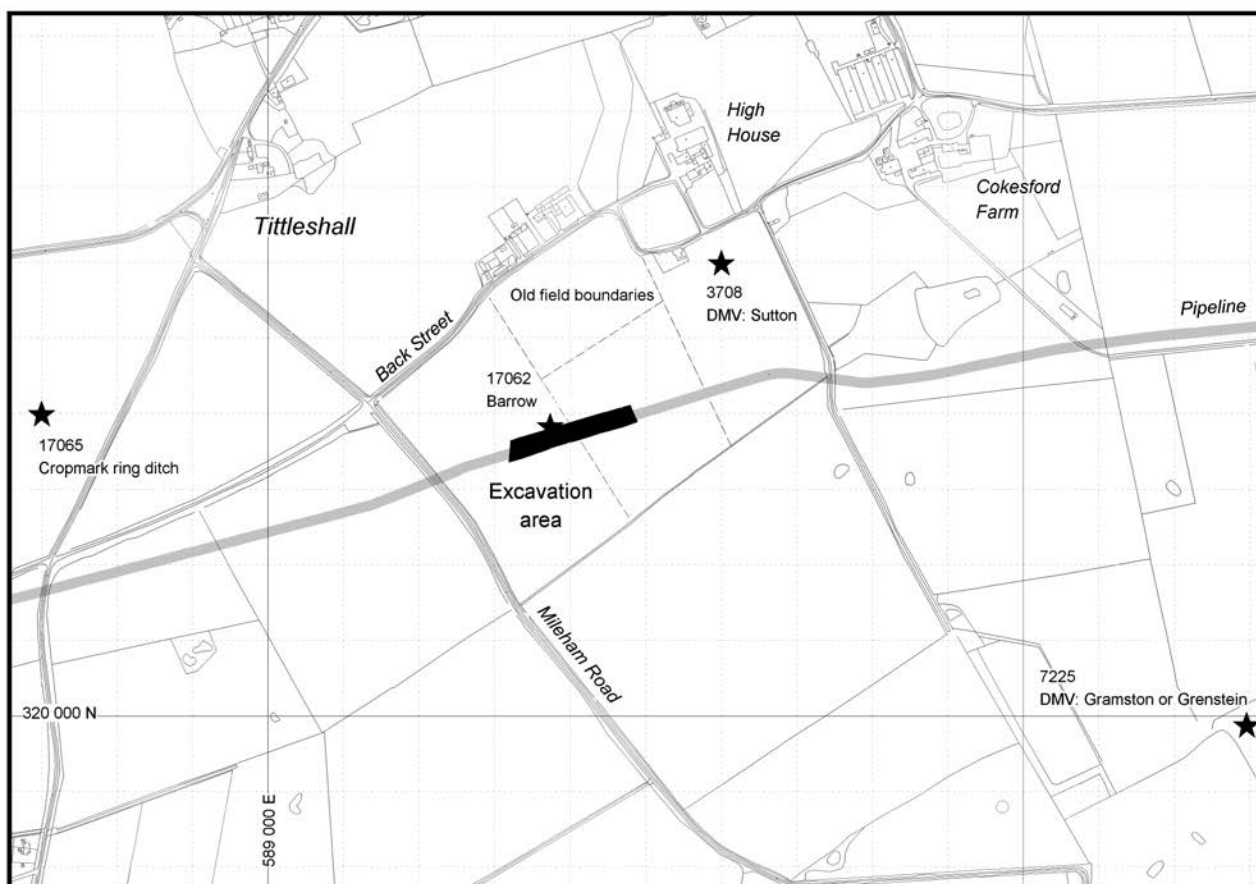
In the early 1970s, fieldwalking had been carried out in this area: finds included a Neolithic flint axe (HER 17062). This fieldwalking had also covered other nearby fields, producing Neolithic struck flints including an arrowhead and some scrapers (HER 16935); a Neolithic arrowhead and scraper (HER 17064); two hammerstones (HER 17063 and 17061); a plano-convex slug knife (HER 11450) and other flint implements from both the Mesolithic and Neolithic periods (HER 17065, 17066, 17068 and 17069).

The original desk-based assessment has been extended here to include fresh Roman and Anglo-Saxon evidence, now available in the on-line Norfolk Heritage Environment Record, and some relevant material from the Domesday Book. The largest Roman settlement in the area was at Kempstone, 5km to the south of Tittleshall, where a small town or large village with evidence for metalworking has been identified by fieldwalking (HER 4079) (Fig. 1.2). Other indications of Roman occupation include a concentration of pottery, thought to represent a small settlement, close to Mileham village (HER 34349), buildings, pottery and coins at Raynham (HER 2363, 2372, 3686, 3717 and 40247), and the site of another settlement at Stanfield (HER 30600) (Fig. 2.2). A Roman road from Stanfield probably passed through Tittleshall (Wade-Martins 1974, 27–8; Gurney 2005, 29), and two Roman potsherds have been recovered from the area immediately to the east of the excavation (HER 3709). On some recent maps this road continues westwards, all the way to The Wash (Gurney 2005, 29; Penn and Brugmann 2007, fig. 9.1). A more certain Roman road, between

Toftrees and North Pickenham (HER 3697), passes less than 2km to the west of the site.

There was no archaeological evidence for Early Anglo-Saxon occupation in the immediate vicinity of the Tittleshall site, although 5th-century settlement in the general area, as described in Chapter 1, is indicated by the large cremation cemeteries at Spong Hill, 9km to the east, and West Acre/Castle Acre, 12km to the south-west. Individual finds of Early Anglo-Saxon date in the area include some high-status objects: a hanging bowl at Wellingham (HER 3713) and a silver sword pommel at Mileham (HER 42716); there are single artefacts on Roman sites at Whissonsett (HER 50124) and Kempstone (HER 4079). Most Anglo-Saxon evidence in this area, however, dates to the Middle and Late periods.

Place names indicate the extent of Anglo-Saxon occupation. Villages with names containing the suffix ‘-ham’ are common in the area: examples include Raynham, Dunham, Litcham, Dereham, Fransham, Weasenham, Rougham, Lexham, Mileham and Elmham. Cox (1977) argued that names ending in *-hām* belong to the ‘pagan’ period, which would imply division of the landscape into separate small ‘land units’ at an early date. Also common locally are place names such as Bittering and Elsing, which include a ‘group’ or ‘clan’ name and which are thought to belong to an early period (Mills 1991). The name ‘Titeshala’ is first recorded in Domesday Book, in common with most other East Anglian place names, and was ‘the *halh* or nook belonging to Tyttla or Tyttel (Mills 1991, 331). Tyttla/Tyttel is best known as the name of the father of King Rædwald, widely postulated as the occupant of the Sutton Hoo ship burial, which



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Figure 2.3 Location of excavation. Scale 1:10,000

demonstrates that the name was current in the 6th century (Kirby 1991, fig. 6). Local place names will be discussed further in Chapter 8.

The detailed entries in the Norfolk Little Domesday show that the vill of 'Titeshala' was divided into two manors, one valued at 70 shillings and the other at 30 shillings (University of Hull website, March 2012). Living on the two manors in 1086 were a *socman* (a free tenant farmer), eight *villani* (villagers/villeins), 21 *bordarii* (smallholders/bordars/cottagers) and two slaves, which represents approximately the same number of households as in the time of King Edward and a relatively populous vill. The record shows, in total, arable land for

seven-and-a half plough-teams, 16 acres of meadow, enough woodland for 140 pigs, while the livestock was counted as 19 pigs, 80 sheep and 73 goats. There was also a fishery (fish weir), a mill (watermill), four beehives, and a church which stood on six acres of its own land. The size of the more valuable manor was stated to be nine furlongs long by half-a-league wide, which, given a terrestrial league of twelve furlongs and a furlong of 220 yards, approximates to 540 acres. The size of the other manor was not recorded, possibly because by 1086 it had come under the jurisdiction of the king's manor of Mileham and paid customary dues there.

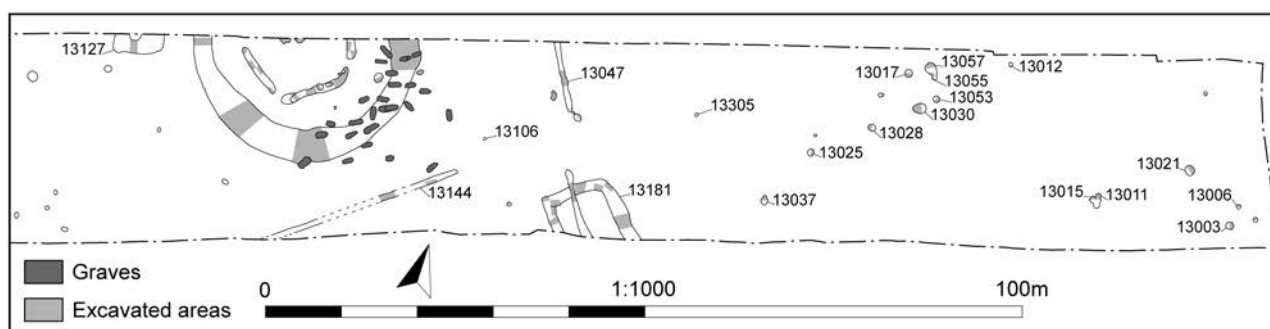
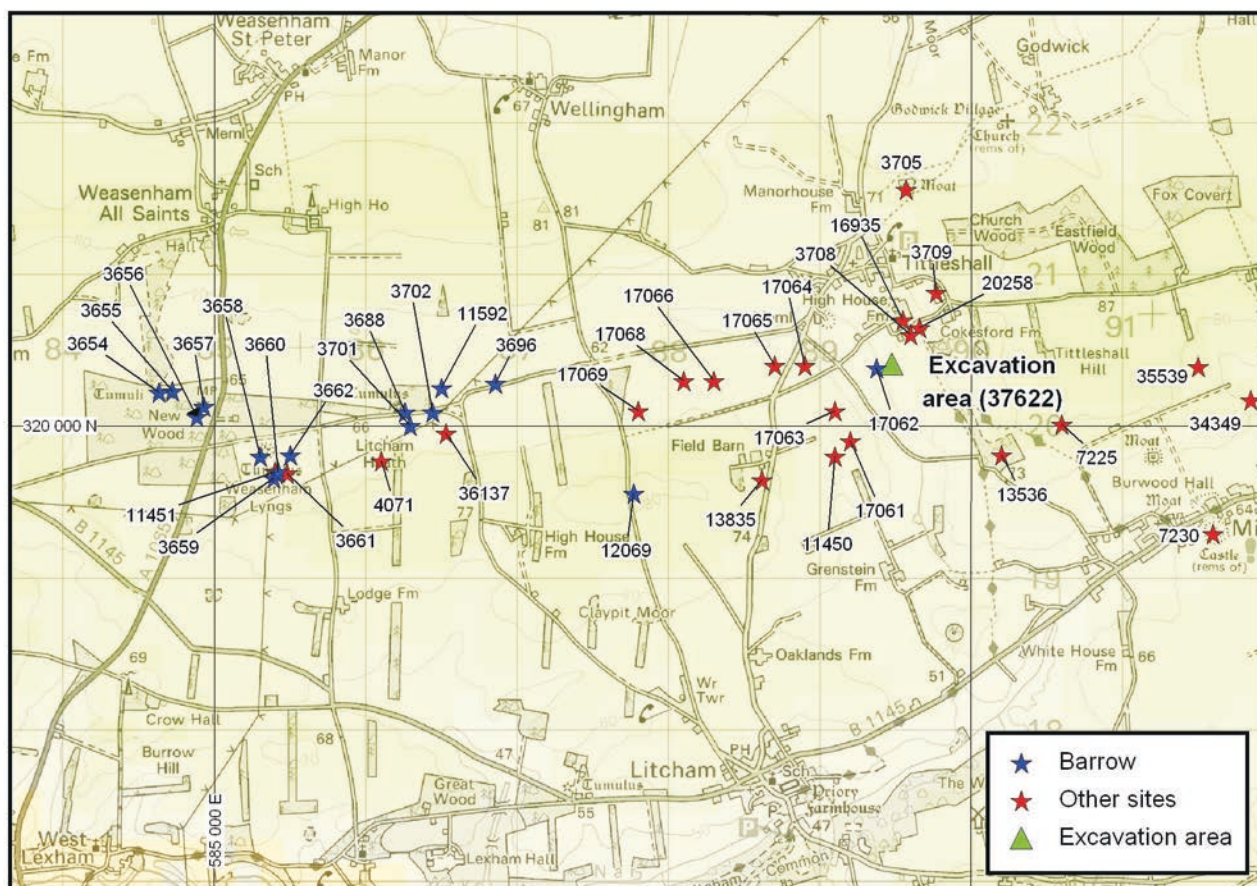


Figure 2.4 The 150-metre long stretch of the pipeline easement, showing major excavated features. Scale 1:1000



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Figure 2.5 Sites in the vicinity of Tittleshall mentioned in the text, with their Norfolk Historic Environment Record (HER) numbers. Ordnance survey 1:50,000. Colour added to emphasise topography

The local medieval landscape was dominated by Mileham Castle (HER 7230), a Norman construction that stands on a hill 2.5km south-east of the site at NGR 591600 319300. Closer to the site are two deserted medieval villages. What remains of the larger of the two, Greynston (Gramston or Grenstein), covers a roughly triangular area extending over several modern fields. Sixteen tofts are visible as cropmarks, one of which was excavated in 1965. Finds from this excavation and from fieldwalking the adjacent fields include Middle Anglo-Saxon Ipswich ware, but otherwise indicate occupation in the 13th century, with final abandonment of the village as late as the 16th century. A scatter of Late Anglo-Saxon Thetford ware to the north led the excavator, Peter Wade-Martins (1980, 93–161), to suggest that the village had migrated southwards, which would imply that it was closer to Tittleshall when it was first founded in the Late Anglo-Saxon period. The cropmarks also depict two converging trackways from the north-east and south-east, and another trackway (HER 35539) is visible running from Greynston to an existing track that runs to Cokesford Farm.

The other deserted medieval village, Sutton (HER 3708), is closer to the Tittleshall site, occupying the north part of the same field and the fields immediately to the east (Wade-Martins 1980). The area with the densest concentration of cropmarks, just 100m north of the present excavation, has perceptible height variations and a

raised bank about 0.4m high and 2 to 3m wide. Ipswich and Thetford ware pottery sherds have been recovered from the surface, suggesting that the village existed by the 9th century, if not before. Cokesford Cottage (HER 20258), which lies within this area of the deserted village, is an 18th-century building but stands on the site of a house marked on a map from 1590. Archaeological deposits including medieval pottery were found during building works in 1988, so there appears to have been continuity of settlement at this site for over a thousand years. The Tittleshall site itself lies in an area of former medieval strip fields (Wade-Martins 1980, fig. 28).

The desk-based assessment recommended that ‘field surveys should aim to clarify the extent, character and significance of the Bronze Age funerary landscape within the proposed working width with further recommendations made on the basis of the survey results’ (Holgate 2002).

V. Fieldwalking and geophysical survey

Fieldwalking of the field containing the site produced a single sherd of late 12th- to 14th-century pottery and nine worked flints: one scraper, one preform axe head, two blades and four flakes. The metal-detecting survey found a 14th-century penny, a 17th-century trade token, part of a medieval or later copper-alloy vessel, a post-medieval rumbler bell, and a post-medieval or modern teaspoon.

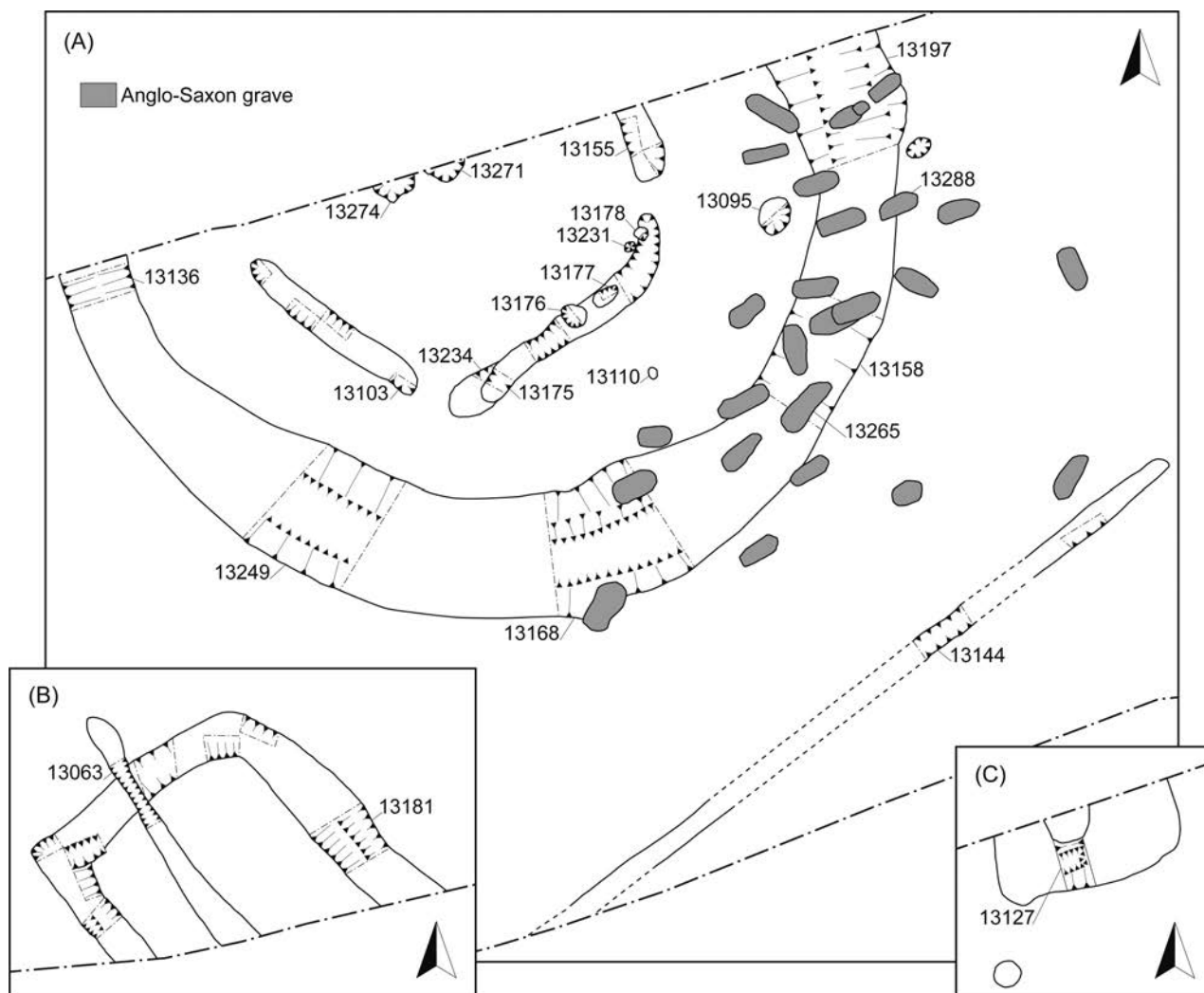


Figure 2.6 Plan of (A) the ring ditches and the Early Anglo-Saxon cemetery, (B) the small ditched enclosure to the south-east of the cemetery and (C) a second, possible, ditched enclosure to the west of the ring ditch. Scale 1:250

None of these finds gave any indication of significant Bronze Age or Anglo-Saxon remains. A number of anomalies were, however, identified by geophysical survey, including the crop-marked ring ditch, which showed as a curvilinear anomaly. Other linear and pit-like anomalies to the west also suggested the presence of significant archaeological remains. A field boundary depicted on the second edition 6-inch Ordnance Survey map of 1907 showed up clearly. In contrast to the relatively high density of features identified by the gradiometer survey, the magnetic susceptibility levels were low throughout the field.

VI. Excavation

It was clear from the results of the field survey that there was a high potential for the survival of important archaeological sub-surface features at this site, including a possible Bronze Age barrow. At this stage, though, there was no indication of any significant Anglo-Saxon remains. A combination of the tightness of the construction schedule, engineering constraints, including the closeness of the village and presence of several woodland belts, and the desire to avoid the deserted medieval villages, meant that re-routing of the pipeline to

avoid the ring ditch was not considered to be practical. The decision was therefore made to proceed to full area excavation.

An area of the pipeline easement encompassing the geophysical anomalies was stripped of topsoil under careful archaeological supervision, in advance of the construction topsoil strip. This revealed the ring ditch and associated features as well as the Anglo-Saxon cemetery (Fig. 2.6). Beyond this area of excavation, a 2m-wide trench was also excavated along the pipeline centreline, extending 275m to the north-east of the ring ditch, to determine the limits of the site. This exercise located an earlier Neolithic pit 190m away from the barrow, the only feature of that date to be found on the site, but otherwise located only a series of nine furrows, generally on a north-west to south-east orientation.

VII. Results of the excavation: prehistoric and Roman

This section summarises the results of the excavations other than the graves themselves, which are described in Chapter 3. For details of the early phases of human activity, including the Bronze Age barrow, the companion volume (Wilson *et al.* 2012) can be consulted.

Natural deposits

The natural substrate varied in bands running approximately north to south across the site. The westernmost 40m lay on greyish-brown silt containing frequent angular flints. Further east, this was superseded by an 80m-wide belt of brown silty sand with a higher proportion of flints and occasional patches of silvery sand. The next 105m lay on an orange band of silt with some flint, while the easternmost 100m was on stone-free brown silty sand.

Earlier Neolithic activity

A pit located 190m to the east of the cemetery contained an assemblage of pottery dated to the first half of the Neolithic period. In addition, an assemblage of 288 struck flints, probably all residual in later contexts, indicated that activity was taking place within the area of the cemetery at an earlier period than the dated features suggest.

Later Neolithic and earlier Bronze Age barrow

A segmental ring ditch, the southern half of which lay within the site boundaries, represented an early phase of the barrow. Three segments, separated by narrow causeways, were visible. These ditch segments appear to have filled in quite quickly. No conclusive dating evidence was recovered from them. Three pits were cut into the southern ditch segment; a fourth pit appeared similar and is likely to have been contemporary with the other three pits. A posthole containing flint packing, immediately within the inner ring ditch, could also belong to the same phase.

Subsequently, the larger ring ditch was dug, roughly concentric around the segmented ditch. The digging of this ditch probably resulted in a central mound, burying the earlier segmental ring. The four interventions excavated through the larger ditch indicated that it had infilled from the inner side, probably by weathering and collapse of the sides of the central mound; this mound collapse is thought to have occurred in or after the Iron Age, as small quantities of Iron Age pottery were found in the excavated slots.

Two intercutting pits were located near the common centre of the ring ditches. The position of these pits suggests that they may originally have contained burials, although no inhumed or cremated bone was recovered from either. This is perhaps unsurprising as the acidic ground conditions were not conducive to bone survival. Neither pit produced any datable artefacts.

Iron Age activity

Although it is highly likely that an earthwork still existed during the Anglo-Saxon period, it is probable that the outer barrow ditch was gradually backfilling with soil from the slumped mound during the Iron Age. In this period, there appears to have been a centre of activity around 70m to the east of the barrow, where two small pits produced, in total, ten Iron Age pottery sherds. Among the residual and unstratified pottery assemblage from the site, a further forty-two sherds can be confidently ascribed to the Iron Age and twelve others tentatively so (Percival in Wilson *et al.* 2012).

Roman activity

A Roman finger ring (SF 70452) and a fragment of Late Iron Age or Roman brooch (SF 70548) were recovered

from a broad horizon of friable soil, between 0.3m and 0.5m thick, which had formed over and around the barrow ditches, probably as a result of the slumping and levelling of the central mound. The stratigraphic record suggests that both of these artefacts were deposited before the graves began to be cut into the slumped mound. A second brooch (object 23/2, SF 70488), this time certainly of Roman origin, was found at the edge of the foot end of Grave 23 and is assumed to be a re-deposited artefact. While Roman garment accessories are on rare occasions found deliberately placed in Anglo-Saxon graves (Hills *et al.* 1984, 36; White 1988), there is no reason to suppose that this was the case in any of the three instances listed here. They belong in a separate category from the pierced Roman coins in Graves 3 and 15, which represent the relatively common re-use of coins in Anglo-Saxon necklaces.

The copper-alloy bow brooch, SF 70548, has the simple construction of the Colchester-type brooches (Hull Type 90) which were first made in Britain before the Roman occupation, but which are mostly dated to the middle years of the 1st century AD (Bayley and Butcher 2004, 148–150, 233). The T-shaped copper-alloy bow brooch, SF 70488 (object 23/2 in the inventory), has an incised chevron pattern on the bow. This, together with the absence of a stud or button, places it in Hull's Type 130, which belongs to the initial stage of British production of Roman-style brooches in the second half of the 1st century AD (Bayley and Butcher 2004, 158–9, 235). The form of the finger ring is typical of 2nd- to 3rd-century examples, with the band widening considerably at the shoulders to form a prominent, flat bezel and an oval setting, presumed to be originally filled with enamel or inset with a stone (Marsden and Penn in Wilson *et al.* 2012).

VIII. Results of the excavation: the Early Anglo-Saxon period

The cemetery

Twenty-four inhumation grave-cuts were clustered over the eastern half of the outer barrow ring ditch, more than half of them cut directly into the upper fills of the ditch and all but two within three metres of the edge of the ditch (Fig. 2.4). Overall, the area containing the graves extended for 20m east to west and 18m southwards from the edge-of-site baulk. The remains of two cremation burials were recovered from the area to the east of the inhumation plot, their upper levels removed by ploughing. The graves were firmly dated to the Early Anglo-Saxon period by the artefacts within them, but the dating of other features contemporary with the cemetery relied heavily on the pottery. Most of the pottery described below came from graves (inhumations and cremations) and the sherds from the topsoil and post-medieval layers in the area of the cemetery are also likely to have originated in burials. The 88 sherds from the pits to the east of the cemetery, however, appear to form a different group and include fabrics that are earlier than those recorded in the cemetery. Three abraded sherds from the small ditched enclosure to the south-east of the cemetery, 131/12, probably belong with this early group.

| <i>Description</i> | <i>Fabric</i> | <i>No</i> | <i>% No</i> | <i>Wt/g</i> | <i>% Wt</i> | <i>eve</i> |
|-----------------------|---------------|------------|-------------|-------------|-------------|-------------|
| Grass tempered | ESO1 | 135 | 18.9 | 785 | 12.7 | 0.11 |
| Grass and sand | ESO2 | 112 | 15.7 | 1739 | 28.1 | 2.40 |
| Coarse quartz | ESCQ | 1 | 0.1 | 4 | 0.1 | |
| Fine sandy | ESFS | 49 | 6.9 | 735 | 11.9 | 0.27 |
| Sparse shelly | ESSS | 6 | 0.8 | 41 | 0.7 | |
| Fine sand and mica | ESSM | 17 | 2.4 | 108 | 1.7 | 0.04 |
| Coarse shelly | ESCS | 16 | 2.2 | 128 | 2.1 | |
| Granitic | ESCF | 59 | 8.3 | 110 | 1.8 | |
| Granitic and organic | ESOM | 23 | 3.2 | 172 | 2.8 | |
| Coarse angular quartz | ESQZ | 30 | 4.2 | 225 | 3.6 | 0.03 |
| Medium sandy | ESMS | 237 | 33.2 | 1872 | 30.2 | 0.60 |
| Fine flint | ESFF | 18 | 2.5 | 222 | 3.6 | 0.22 |
| Fine abundant quartz | ESFQ | 11 | 1.5 | 54 | 0.9 | |
| Total | | 714 | | 6195 | | 3.67 |

Note: 'eve' = estimated vessel equivalent

Table 2.1 Pottery quantification by fabric

Early Anglo-Saxon pottery

by Sue Anderson

Introduction

A total of 714 sherds of pottery weighing 6195g were collected from twenty-eight contexts (Table 2.1). Quantification was carried out using sherd count, weight and estimated vessel equivalent (eve). The minimum number of vessels (MNV) within each context was also recorded, but cross-fitting was not attempted unless particularly distinctive vessels were observed in more than one context. A full quantification by fabric, context and feature is available in the archive.

Early Anglo-Saxon pottery fabrics

Fabric codes were assigned from the Suffolk post-Roman fabric series, which includes Norfolk, Essex, Cambridgeshire and Midlands fabrics, as well as imported wares. Form terminology follows Myres (1977) and Hamerow (1993). Thirteen generic fabric groups were distinguished on the basis of major inclusions (Table 2.2). However, it should be noted that, as with all handmade pottery, fabrics were extremely variable even within

single vessels and categorisation was often difficult. Background scatters of flint, grog, white mica and other less common inclusions, such as felspar and ferrous pieces, were present in many of the fabrics. All Saxon wares were handmade, and colours varied throughout from black through grey, buff and brown to red, often within single vessels. General fabric descriptions are listed below.

Many sites in East Anglia and the Midlands have produced similar fabric groups, although they occur in different proportions. This assemblage did not include any 'sandstone/sand conglomerate' or limestone-tempered fabrics, which are relatively common further to the north and west, both having been present at Spong Hill (Brisbane 1984).

Fine to coarse quartz-tempered pottery is generally the most common fabric group at sites in East Anglia, although in the later Early Anglo-Saxon period these appear to have been replaced to some extent by grass-tempered pottery. Organic-tempering is thought to be a late Early Anglo-Saxon development in Essex (Hamerow 1993, 31), Suffolk (K. Wade, pers. comm.) and Northampton (Denham 1985). A decrease in calcareous

| <i>Code</i> | <i>Description</i> |
|-------------|---|
| ESO1 | Organic. Heavily grass tempered with few other inclusions. |
| ESO2 | Organic and sand. Grass tempered but containing a much greater proportion of sand than ESO1. |
| ESCQ | Coarse quartz. Coarse quartz tempering; generally moderate or abundant large grains of sub-rounded quartz in a finer sandy matrix, often poorly sorted. |
| ESFS | Fine sand. Fine sand tempering with few other inclusions. |
| ESSS | Early Saxon sparse shelly. Sparse to moderate fine shell and sand tempering, shell sometimes leached out. |
| ESSM | Fine sand and mica. Sand and abundant white mica, generally very fine. |
| ESCS | Coarse shelly. Coarse shell tempering with few other inclusions. |
| ESCF | 'Charnwood Forest' granitic. Moderate to common granitic inclusions (felspar, gold mica). |
| ESOM | Organic, sand and gold mica. Granitic tempering with organic inclusions. |
| ESQZ | Coarse angular quartz. Common to abundant white quartz/chert. |
| ESMS | Medium sandy. Medium sand tempering with few other inclusions, sand grains generally well-sorted. |
| ESFF | Fine flint. Unburnt fine flint/chert inclusions. |
| ESFQ | Fine abundant quartz. Abundant fine to medium uncoloured quartz with few other inclusions. |

Table 2.2 Early Anglo-Saxon pottery fabric descriptions

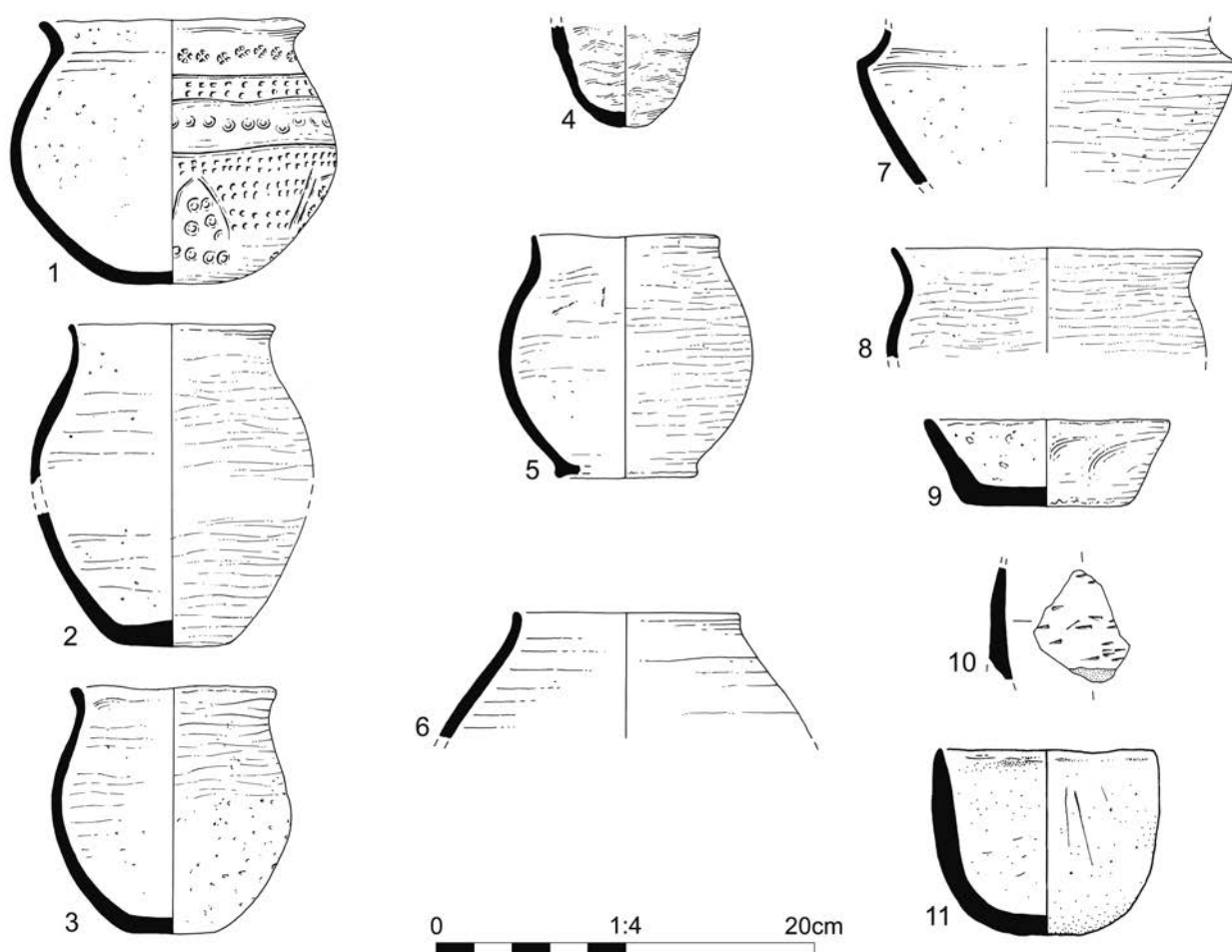


Figure 2.7 A selection of Anglo-Saxon pottery from the excavation (graves and other contexts)

1. ESO2 sub-biconical jar. Partially oxidised brown externally, outer surface worn at carination. Upper half decorated with lines of stamps, lower half has chevrons containing stamps, but very faintly impressed. Grave 11, object 10 (SF 70497)
2. ESFS sub-biconical jar with short vertical rim. Black, burnished around carination with some sooting. Also contains occasional burnt-out organics and flint. Grave 16 object 5 (SF 70478)
3. ESO2 baggy jar with short everted rim. Sooted, cracked and spalled in use. Grey-brown surfaces. Grave 18, object 1 (SF 70475)
4. ESO2 thumb pot. Red-brown externally and dark grey internally, poorly made, rim underfired. Contains occasional flint. Grave 5, object 1 (SF 70529)
5. ESO2 baggy jar with vertical rim and footring base. Grey-black surfaces, smoothed externally. Layer 13033, SF 70547
6. ESMS ?sub-biconical jar, very short vertical rim. Fully oxidised orange, smoothed. Ring ditch fill 13254
7. ESQZ carinated bowl, high shoulder, probable short vertical rim. Contains some calcareous inclusions. Pit fill 13024
8. ESFS ?jar with slightly everted rim, slightly shouldered. Micaceous, dark brown. Pit fill 13058
9. ESFF bowl made from broken larger vessel, 'rim' rubbed smooth, flat base. Brown-red. Pit 13021
10. ESMS decorated body sherds with stab marks. Brown. Pit fill 13058
11. ESMS straight-sided bowl. Black to reddish-brown. Layer 13033, SF 70463

wares was noted at Mucking after the 6th century. However, in the Midlands, shelly wares appear to have increased in the later period and were eventually superseded by Maxey-type wares in the late 7th century.

Fabrics and forms

Vessels recovered from the cemetery and associated contexts were all typical of the Early Anglo-Saxon period. They were made from fine or medium sandy fabrics with some organic inclusions and occasional coarse pieces of flint, quartz or ferrous fragments. Organic inclusions formed the second largest group, suggesting continuation into the 7th century.

The other handmade vessels showed no similarity to the cemetery group, and the range of fabrics was limited to

sandy and flint-tempered wares. The sand-tempered vessels in this group are all hard and well-fired, many having smoothed surfaces and containing background scatters of local inclusion types; they would not be out of place in most Early Anglo-Saxon assemblages. The flint or chert in the flint-tempered vessels was unburnt, and in that respect would be unusual in a prehistoric context, but some of the forms appear closer to Iron Age than Early Anglo-Saxon types. One example is the flint-tempered carinated bowl from pit fill 13024 (pit 13025) (Fig. 2.7:7), the carination being at the shoulder rather than the waist. It is likely that these represent an Early Anglo-Saxon domestic group which pre-dates the pottery from the cemetery. The difficulties of distinguishing Early Anglo-Saxon from Iron Age fabrics are well known in East

Anglia and flint/chert is an unusual choice of Anglo-Saxon temper in this region, while the forms (see below) could belong to either period. On balance, however, these are well-fired, hard fabrics which fit better with the Early Anglo-Saxon pottery from the site.

Only thirteen vessels were identifiable to form. A possible biconical vessel with an everted squared rim was found in 13056 (fill of small pit 13055) and 13031 (upper fill of pit 13030) and has been dated to the 5th century. There were two sub-biconical jars (Figs 2.7:1–2; Graves 11A and 16), one of which was decorated with incised lines and stamps, and another vessel with a short rim (Fig. 2.7:6; 13254) which may have been this shape; these probably belonged to the 6th century. Five baggy vessels, including a small thumb-pot and a straight-sided bowl, were associated with the cemetery (Figs 2.7:3–5 and 11). On this evidence, Graves 5 and 18 and cremation burial C1 are likely to be later 6th- or 7th-century in date.

A carinated bowl from fill 13024 (pit 13025) was tempered with coarse angular quartz/chert and allocated to the 5th century (Fig. 2.7:7). A body sherd from a tall sub-biconical vessel was also found in fill 13024 (pit 13025). A slightly shouldered jar with everted rim came from fill 13058 (pit 13057 lower) (Fig. 2.7:8). A flaring-sided bowl from fill 13020 (pit 13021) had been made from the base of a broken large vessel, the broken edge having been rubbed to form a rounded rim (Fig. 2.7:9). A body sherd from fill 13031 (upper, pit 13030) was part of a globular vessel with an offset shoulder, possibly tapering down to a footring base. Three upright plain rims from vessels of uncertain form were also present, and there was a complete base from cremation burial C2. Where measurable, rims varied in diameter from 60mm (the thumb-pot) to 200mm, but most were in the range 100–150mm. Bases were generally flat or flat-rounded, but one footring base was present.

Only one vessel, from Grave 11A, was highly decorated. Three sherds showed partial decoration in the form of a deep curving groove which may have delineated a boss: they were from fills 13016 (pit 13017), 13031 (upper, pit 13030) and 13032 (lower, pit 13030). This type of decoration can be paralleled in the 5th century (*cf* Myres 1977 Group II, fig. 181 no. 2086), although it was not a common Anglo-Saxon decorative technique. Other decoration included a sherd with deep horizontal corrugations from 13058 (lower pit 13057), two sherds with possible stab rustication (13058) (Fig. 2.7:10), a possible vertical boss (13058), three sherds with shallow incised horizontal lines (13058 and 13059, upper and lower fills of pit 13057), one with finger nail impressions (fill 13056, pit 13055, adjacent to pit 13057), and a small sherd with S-stamps and incised lines (topsoil 13000). Many sherds showed signs of smoothing, burnishing or grass-wiping during manufacture, but some had been heavily worn on the outer surface during use. Only eleven were sooted. All vessels associated with the inhumations showed signs of having been used prior to interment; those with the cremation burials did not.

Features in the area of the cemetery

There were a number of small pits in the area of the cemetery, although their function and date was unclear. Pit 13095, within the line of the outer barrow ditch, was sub-circular and just 0.18m deep. The only dating evidence from it was two, probably residual, abraded

sherds of Iron Age pottery and a residual flint bladelet. A smaller pit, 13087, just outside the barrow ditch, yielded no dating evidence. Pit 13200, to the south-east of the graves, contained a single amber bead (SF 70526). Pit 13110 was oval, 0.38m across its long axis but only 0.06mm deep. Its very dark fill contained oak charcoal (*Quercus* sp.: R. Gale in Cater 2004), and two tiny fragments of bone, of unknown origin, were recovered by sieving. The pit lay close to some of the graves containing oak charcoal, and its contents are thought to represent residue from a graveside feast (see Chapter 3).

Line of pits east of the cemetery

Ten pits and postholes arranged in a broad band, 50m east of the barrow ditch, extended from pit 13037 in the south-west to pit 13012 in the north-east (Fig. 2.4). Their linear alignment suggests that they respected a boundary that is no longer visible, or that they themselves were part of a boundary. Six of the pits were dated to the Early Anglo-Saxon phase. They ranged in size from 0.59m to 1.90m across and 0.15m to 0.56m deep, but all had similar proportions; as all were steep-sided, this regularity is unlikely to have been produced by plough-damage. Pit 13057, one of the largest in the group, contained sixty-nine Early Anglo-Saxon pottery sherds from ten or more vessels, few of which showed significant levels of abrasion, together with a large, abraded lump of hearth bottom slag (677g), from iron smelting, or possibly smithing (J. Cowgill in Cater 2004). By contrast, the similarly sized pit 13030 produced just four sherds. Pit 13025 contained eight sherds, possibly all from a single vessel, while pits 13017 and 13012 produced thirty-four and five sherds respectively. Pit 13055 contained eighteen sherds and the remains of a pair of copper-alloy tweezers (SF 70450) together with a small intrusive medieval coarseware sherd. One pit in this group, 13028, contained a rim sherd confidently dated to the Iron Age (Percival in Wilson *et al.* 2012), which may raise questions concerning the date of the features in this group that did not produce any finds.

Cluster of pits east of the cemetery

Twenty metres further east, there was a second cluster of pits (Fig. 2.4). Pit 13021 contained 23 sherds, including a fine flint-tempered flaring-sided bowl, made from the base of a larger vessel and nine sherds of coarse shelly ware, all probably dated to the Early Anglo-Saxon period. Pit 13015 was cut by pit 13011 and both contained redeposited hearth material, but no pottery. Of the others, pit 13003 contained three sherds of probable Early Anglo-Saxon pottery and an abraded sherd of Late Anglo-Saxon Thetford ware, or possibly medieval coarseware, while pit 13006 contained a Beaker potsherd.

Small ditched enclosure

A rectilinear ditched enclosure on a north-west to south-east orientation, to the south-east of the ring ditch, bounded a space 7m wide by at least 7.4m long (Fig. 2.6B). Its presumed southern side lay beyond the edge of excavation, but no gaps were visible that might indicate an entrance point. The ditch was of two-phase construction, the eastern side definitely having been recut at least once. On the eastern side, much of the primary cut, 13181, had been destroyed by its later recut, but its fairly steep eastern side and part of its flattish base survived. It would have

been in excess of 0.60m wide and at least 0.24m deep. The recut on that eastern side was twice as large, being 1.45m wide at the machined surface and 0.50m deep, and had fairly steeply-sloping sides and a concave base. Its dark brown silty sand fill contained four small sherds (weighing just 6 grams in total) of residual Bronze Age pottery.

The western and northern sides of the enclosure were probably also recut, although only single cuts were recorded during excavation. In the excavated section through the eastern arm, the base of the ditch was stepped, suggesting a shallower outer and deeper inner cut. The inner cut would have been at least 0.21m deep and approximately 0.80m wide at the machined surface. In the northern arm, the outer third of the fill containing far fewer flint inclusions than the remainder on the inner side, again suggesting that the inner side of the ditch was a recut, unrecognised at the time of excavation. However, two linked sondages excavated across the north-eastern corner of the enclosure showed no significant variation in the profile of the cut or the nature of its fill, so it is likely that the latest cut had entirely removed any earlier ditch at this point.

Three possible Early Anglo-Saxon sherds, in two different fabrics, were recovered from the inside edge of the ditch in an L-shaped sondage excavated through the north-western angle, and two sherds of Iron Age pottery were retrieved from the inside edge.

Possible second small ditched enclosure

The southern side and part of a northern return of what might have been a similar enclosure, *13127*, was revealed immediately to the west of the outer ring ditch (Fig. 2.6C). A slot excavated across the southern arm showed it to be 1.65m wide and between 0.44m and 0.46m deep along most of its length. A cut feature, possibly a posthole, lay partially within the excavated slot at its eastern end and was apparently cut into the base of the ditch to a depth of 0.24m. The sides of this posthole were almost vertical and it had a flattish base. No evidence of a post-pipe or post packing was observed. The ditch was filled by brown silty sand, which contained occasional large flint gravel but no datable artefacts.

IX. Results of the excavation: later Anglo-Saxon to medieval presence

No features could be dated to these phases but a small amount of pottery was found indicating that limited activity was taking place on or not far from the site in the centuries between the abandonment of the cemetery and the appearance of the post-medieval enclosure. It is likely that the site was used for agriculture at this time.

Later Anglo-Saxon and medieval pottery

by Sue Anderson

Two sherds of Ipswich ware, one gritty and one smooth, were collected from topsoil. Two sherds of possible Thetford-type ware were also found. One was from pit *13003*, but was in association with Early Anglo-Saxon sherds and could simply be an over-fired pot of the same phase. The other Ipswich ware sherd, together with a tiny sherd of possible St Neots ware, was from topsoil. Eight sherds of medieval pottery were also recovered from the topsoil, and one heavily abraded base sherd was intrusive into the upper fill of Grave 1. These medieval sherds included a bowl rim in Grimston-type coarseware and a simple everted acute jar rim (SEV2) rim in local medieval unglazed ware (LMU).

X. Post-medieval agriculture

Subsoil

Beneath the topsoil, a brown silty sand subsoil overlay the archaeological deposits. Over much of the site, this was around 0.10m deep, but in the vicinity of the burial mound increased to between 0.30m and 0.50m. This material appeared, in part, to be colluvial in origin, but it primarily consisted of a plough-disturbed mixture of glacial drift and the truncated upper levels of the archaeological deposits. Near to the ring ditch it will have also incorporated the ploughed-out material from the barrow mound. Among the artefacts recovered from this layer were the Roman objects described above, fragments of sleeve clasps (SF 70527), copper-alloy tweezers (SF 70450) and three beads. The subsoil also contained the remains of an iron-bound tub (SF 70545–6). Since most of these finds are likely to have originated in the graves, they will be discussed in Chapter 4.

Post-medieval field system

Several ditches and tree pits defined part of a post-medieval field system that crossed the cemetery area. Principal among these were ditches *13047* and *13063* which correspond to the position of the field boundary marked on the first and second edition Ordnance Survey maps of 1889 and 1907, and ditch *13144* running at right angles. This boundary aligns with the western boundary of Model Farm, on the north side of Back Street. The name of this farm suggests that it originated in the era of the agricultural improvements of the 18th and 19th centuries and these ditches may well be contemporary with it.

Eighty sherds of post-Roman date were recovered from contexts assigned to this period, including the bulk of the post-Anglo-Saxon pottery in the site assemblage. A substantially complete single jar (Fig. 2.7:11, SF 70463) was found in the subsoil, but most of this group consisted of small, abraded sherds

Chapter 3. Situation, layout and ritual practice

I. Situation

As described in Chapter 2, the cemetery stands on land which slopes gently to the south-west, down to the stream that is the source of the River Nar. The stream flows in a south-easterly direction as it passes the site, but it soon turns south and then west, before continuing on its route into the Fens. There are likely to have been water meadows on its southern bend, woodland and heath in the vicinity and chalk grassland further to the west (Land Information System on-line resource; Williamson 1993, 7–19; 2005; Chester-Kadwell 2009, 46–52). The site itself straddles different soil types (see Chapter 2) and two different agricultural zones, the ‘good sands’ to the west and the claylands, dissected by river valleys, to the east (Wilson *et al.* 2012, fig. 2; Williamson 1993, 7–19). For a small agricultural community, this would represent a location with a range of natural resources, including land suitable for root crops and cereals, pasturage and grazing, together with a supply of fresh water and access to heath and woodland. Although the site is relatively high, at 63 metres above sea-level, in other respects this is a typical location for Early Anglo-Saxon cemeteries and settlements in Norfolk: on dry, gently sloping land close to a watercourse, with a southerly-facing aspect and access to a variety of habitats (Chester-Kadwell 2009, 95–127).

The inhumations were arranged around the southern and eastern edge of the Bronze Age barrow. The ditch surrounding it had probably silted up by this time, but the barrow itself, 30 metres in diameter, is likely to have remained visible (Wilson *et al.* 2012, 35–40). The barrow stood alone, but there were two others 600 metres away, one to the west and the other to the south-west, the first in a similar position, low down on the valley side (K. Penn pers. comm.). One national survey has shown that between a third and a half of Early Anglo-Saxon cemeteries identified by excavation were associated with earlier monuments, especially round barrows (Williams 1997, 4–6) and further examples have probably been lost: a similar small cemetery around a barrow at Oxborough, for example, had been ploughed flat with very little evidence left behind (Penn 1998). A statistical study of metal-detected finds in Norfolk, has also demonstrated a correlation between Early Anglo-Saxon sites and prehistoric earthworks which cannot be explained as the people of the different periods coincidentally choosing the same settlement locale (Chester-Kadwell 2009, 127–131). A study of cemeteries in Kent has shown additionally that visibility from rivers and roads was a significant issue (Brookes 2007). In the case of the Tittleshall cemetery, the barrow was adjacent to the Roman road from Stanfield and could almost certainly be seen from the Toftrees–Kempstone–North Pickenham road (Mary Chester-Kadwell pers. comm.).

At a practical level, the barrow would guide travellers to the settlement. At the same time, burying the dead in a prehistoric barrow may have had a number of purposes, not just to commemorate the dead with a visible

monument. The alignment of the Anglo-Saxon dead with the people who had previously occupied the area may have helped with claims to ownership of the surrounding land (Williams 1997, 26).

II. Cemetery size and layout

The inhumations were arranged around the south-east quadrant of the barrow, mostly in or near its outer ditch (Fig. 2.6). The northern end of the plot was not excavated, but no artefacts were recovered from that area by metal-detecting or field-walking and the 24 grave-cuts probably come close to the original total. Two cremation burials were recovered from the area to the east of the inhumations, but both of these had suffered serious plough-damage and it is likely that other cremations have been lost in this area.

The westernmost cut, Grave 1, contained no evidence for a body or grave goods and the slumped soil at the bottom, together with the layering of the fill, suggested that it had been allowed to silt up, unused, before the topmost level was back-filled. Two graves included secondary burials and the two cremated bodies and the skull in 21B take the total number of individuals to 28. This is a relatively small plot, even allowing for missing cremation burials.

III. Burial practice

(Table 3.1)

Most of the grave-cuts had an alignment approximating to the west-to-east orientation which was usual in East Anglia in the 5th and 6th centuries (Penn and Brugmann 2007, 84–6). A single grave aligned north–south, Grave 10, is a late grave which has been inserted between two earlier ones and two graves aligned north-west to south-east, Graves 18 and 19, also proved to be relatively late and probably cut to fit into the available space. This respect for the position of earlier graves suggests that they had visible grave-markers, although no postholes or slots were observed. It is more difficult to explain why the unused grave, Grave 1, and a burial in open ground on the eastern edge of the plot, Grave 15, should be arranged south-west to north-east, or why Grave 24, also on the eastern side, should be aligned approximately north-west to south-east. However, Grave 15 pre-dates the graves with west-to-east alignment and it is not impossible that Graves 1 and 24 derive from the same early phase (Chapter 6).

The grave-cuts were irregular in shape and most had probably been dug, *ad hoc*, to fit the size of the body. The graves of adults were 1.40 to 2.29m long, most being in the region of 1.60 to 1.75m, which is quite cramped in comparison with the graves at Spong Hill and other sites of the period (Penn and Brugmann 2007, 76–7). One of the children’s graves, however, Grave 19, at 1.68 by 0.73m was comparatively large for a six- or seven-year-old. This

| Grave | Shape of grave | Length x Width x Depth | Alignment | Age | Orientation of body | Notes |
|--------|-----------------------------------|--------------------------|-----------|-------|--|---------------------|
| G1 | Sub-rectangular, rounded ends | 1.88 x 1.04 x 0.39m | NE-SW | | - | Unused grave |
| G2 | Sub-rectangular, rounded E end | 1.62 x 0.84 x 0.35m | W-E | adult | head to W | |
| G3 | Sub-rectangular, rounded E end | 1.20 x 0.71 x 0.08m | W-E | child | head to W | |
| G4 | Tapering, wider at rounded E end | 1.52 x 0.75 x 0.27m | WSW-ENE | adult | head to WSW; probably on side, legs flexed | Bier/hide/blanket |
| G5 | Tapering, wider at rounded SW end | 1.76 x 0.76 x 0.10m | SW-NE | child | - | |
| G6 | Irregular outline | 1.92 x 0.69 x 0.11m | W-E | adult | head to W; extended supine | Disturbed grave |
| G7 | Rounded rectangular | 1.40 x 0.74 x 0.13m | SW-NE | adult | head to SW; supine, arm across chest | |
| G8 | Irregular oval | 1.60 x 0.67 x 0.20m | WSW-ENE | adult | head to SW; tightly flexed | Hide or textile |
| G9 | Elongated oval | 2.29 x 0.88 x 0.41m | SW-NE | adult | head to SW; supine, extended | |
| G10 | Irregular rounded rectangular | 1.75 x 0.81 x 0.20m | N-S | adult | head to N; legs flexed | |
| G11A | Elongated oval | <2.73 x 0.90 x 0.40m | W-E | adult | head to W | |
| G11B | Rounded rectangular | 1.77 x 0.79 x 0.18m | W-E | adult | head to W; supine, lower legs crossed | |
| G12 | Sub-rectangular | 1.62 x 0.70 x 0.17m | W-E | adult | head to W; on right side; legs flexed | |
| G13 | Rectangular, rounded E end | 1.58 x 0.52 x 0.20m | WSW-ENE | adult | head to W; on left side; legs flexed | |
| G14 | Short oval | 1.15 x 0.76 x 0.23m | WSW-ENE | child | head to W. | |
| G15 | Irregular | 1.74 x 0.72 x 0.26m | SW-NE | adult | head to SW | |
| G16A/B | Irregular | 1.70 x 0.87 x 0.11m | E-W | adult | A unknown; B probably flexed | Charcoal under body |
| G17 | Irregular bean-shaped | 1.59 x 0.76 x 0.18m | W-E | adult | head to W; on left side; legs flexed | |
| G18 | Rounded ends | 2.08 x 0.74 x 0.10m | NW-SE | ? | - | |
| G19 | Rectangular with rounded NW end | 1.68 x 0.73 x 0.20m | NW-SE | child | head to NW | |
| G20 | Irregular | 1.62 x 0.70 x 0.29m | SW-NE | adult | head to SW | |
| G21A | Oval | >1.55 x 0.63 x 0.04–0.20 | WSW-ENE | adult | head to W; probably supine | |
| G21B | Small circular pit | 0.75 x 0.63 x 0.11m | - | adult | upside-down skull, not from G21A | |
| G22 | Irregular sub-rectangular | 1.39 x 0.64 x 0.10m | WSW-ENE | ? | head to W | |
| G23 | Rounded rectangular | 1.60 x 0.72 x 0.13m | WSW-ENE | adult | head possibly to W | Grave disturbed |
| G24 | Irregular oval | 1.55 x 0.74 x 0.20m | NW-SE | ? | head to NW | |

Table 3.1 Summary of grave shapes, dimensions and orientations

burial had an unusual number of metal artefacts for a child and it is possible that the extra space was filled with other, more perishable, grave goods.

There were no coffins or chamber burials, but in Grave 4 there was an organic stain covering the floor of the grave, which may indicate a bier, or more probably a hide or thick blanket under the body, as was the case at Snape, Suffolk (G36, G37, G43: Filmer-Sankey and Pestell 2001). In Grave 8 there was an oval stain around a tightly flexed body, which might have resulted from the body being wrapped in a hide or blanket. There was also a layer of organic material under the body, or bodies, in Grave 16, although this proved to include charcoal (discussed further, below).

The preservation of the human remains was often poor and in some instances individual bones could be identified only from soil stains (these stains were not always recorded on the grave plans, but the written descriptions of the excavators have been reproduced in the grave inventory). It was obvious that bodies could be supine and extended, or laid on the left or right side with legs flexed, although there was not enough evidence to establish if there was any pattern in relation to age or sex (Härke 1997, 128; Penn and Brugmann 2007, 85). In Grave 8 the body of an elderly person, possibly female, was so tightly flexed as to be called crouched. This is a comparatively rare practice in this period, but there are at least three examples among the inhumations of adult women at Spong Hill, G19, G44, G47 and perhaps also G42 (Hills *et al.* 1984, 1, and grave inventory), and there is a crouched adult male in Swaffham G4 (Hills and Wade-Martins 1976, 14, 36). In Grave 11B, a possible male burial, the legs had been crossed at the ankles, another relatively unusual feature, though previously recorded in a late male burial at Flixton (G53: Boulter and Walton Rogers 2012).

Where the orientation of the body could not be determined from the bones, it could often be identified from the layout of the garment accessories. In most cases the body had been placed in the grave with the head to the west, or near-west, and the head was to the north in Grave 10. In Grave 11A, the woman's neck and shoulders appeared to be resting on a cluster of flint cobbles, their purpose unclear.

In some instances, a second burial had been placed in an earlier grave. This was most clear in Grave 11, where a long, deep grave-cut proved to include a conventional female burial (A) at its lowest level and a shorter cut with a probable male skeleton (B) at an upper level. The stratigraphy of the grave indicated that the first grave had been filled before the second cut was made. Similarly, there were two grave-cuts visible in Grave 16, although in this instance the second female-gender burial (B) had almost obliterated the earlier one (A). A penannular brooch recovered from the lowermost level and some disarticulated bones were attributed to burial A and the rest, at first, to B. After review of the dating of the artefacts, however, it was decided to move brooch 16/2 from B to A (see Chapter 6). The insertion of second burials into earlier ones is a recognised phenomenon (Stoodley 2002) and, based on Continental parallels, it has been interpreted as representing individuals buried in the graves of previously deceased family members (Penn and Brugmann 2007, 77, 82, 87; Boulter and Walton Rogers 2012, 89).

The evidence from Grave 21 is more enigmatic. Here there was a conventional female burial laid out with head to the west, the grave being cut at the foot end by a circular pit containing an up-ended skull. The skull was of uncertain sex, but from an individual somewhat older than the woman in the primary burial. The area had been ploughed and it is possible that the skull had been dragged from Grave 22, which lay at the east end of Grave 21, although that would not explain the circular pit in which it was found. There was a late Roman post-mortem ritual which involved decapitation, although in most cases the head would stay with the body (Booth *et al.* 2010, 42–4, 479–81). There is evidence for the continuation of this practice into the Anglo-Saxon period (O'Brien 1999, 101; Lucy 2000, 75–7), but Grave 21 may have more in common with a woman's burial at Flixton, G17, where a well-preserved male skull appeared to have been placed carefully at the woman's side (Boulter and Walton Rogers 2012, 89).

IV. Cremation burials

by Kenneth Penn

There were two Early Anglo-Saxon cremation burials at Tittleshall, both situated a little outside the main burial area. Cremation 2 lay 10m east of the main group of inhumations and contained cremated bone in the remains of a pot, and a second accessory vessel. Whilst most inhumation cemeteries contain a few cremation burials, these are generally unlike the cremation burials found in large early cremation cemeteries like Spong Hill, with their distinctive range of grave goods, and represent a different practice. At Morning Thorpe, for example, there was a scatter of cremation burials, but unaccompanied, as at Tittleshall.

V. Other rituals

Fragments of charcoal were recorded in eight graves. In Grave 16 they were in a layer beneath the body; in Graves 5, 9, 11A and perhaps 18 they were close to the head; and in Graves 10, 11B, 18 and 19 they were in the grave fill. The species identified were blackthorn (*Prunus spinosa*), hazel (*Corylus avellana*), ash (*Fraxinus excelsior*), oak (*Quercus* sp.) and maple (*Acer* sp.), often in combination in the same grave, and these suggest that the firewood was collected in open woodland (Gale in Cater 2004). Oak was the most common and was represented by sapwood, roundwood, heartwood and, in Grave 17, possible acorns. Some charcoal had already been recorded in Neolithic and Bronze Age levels, but those remains were heavily comminuted and occurred mainly in the inner ring ditch and in the south-west section of the outer ring ditch (Wilson *et al.* 2012). The charcoal in the Anglo-Saxon graves therefore appears to be a primary deposit. Further dense remains of oak charcoal were recovered from a shallow oval scrape in the ground, 13110, which lay close to the graves.

A graveside feast is believed to have formed part of the burial ritual at this date (Lee 2007, 87–103) and at Flixton there was a fire pit a few metres outside the cemetery, and charcoal and sooted pottery in the grave fills (Boulter and Walton Rogers 2012, 94). At Tittleshall, pots were recovered from the fills of Graves 11 and 16, although in

both cases they came from graves disturbed by secondary burials and may represent objects originally placed alongside the body, as the pots were in Graves 5, 11A and 18. The charcoal in the eight graves, however, could have come from feasting and, if so, its presence in a layer in the bottom of Grave 16 implies that this body was still above ground while the feast was taking place.

Aside from the charcoal, there was no evidence for plants strewn over the body. Ferns, grasses and other plants have sometimes been identified from mineral-preserved remains on the upper surfaces of metalwork in other East Anglian cemeteries (Boulter and Walton Rogers 2012, 92–3), but at this site only textiles were recorded in that position.

VI. Other ritual features

The difficulty of dating the ditched rectilinear feature immediately to the south-east of the cemetery has been described in Chapter 2, although three abraded sherds in the ditch-fill may put one phase of its use in the 5th century. It was orientated north-west to south-east and its outer dimensions were 10m by at least 9m (the south-eastern end was not excavated). There were no detectable archaeological features inside the enclosure.

Square enclosures of different sizes, marked out by ditches or lines of postholes, occur in Britain and Gaul and are dated from the late 1st century BC to the 7th century AD (Blair 1995). They can enclose graves, posts, cairns or empty space, and a recurring relationship between square enclosures, prehistoric ritual monuments and Anglo-Saxon graves has been observed (Blair 1995, 7). In Norfolk, square ditched enclosures have been recorded at Spong Hill (Hills *et al.* 1984, 3–5, 11–12; Rickett 1995, 41–3), Morning Thorpe (Green *et al.* 1987, I, figs 5–6) and Harford Farm (Penn 2000, fig. 3). Their external dimensions range from 2.8 by 2.6m at Morning Thorpe to 17 by 17m in one example at Harford Farm, although most of the enclosures from the latter site were closer to 12 by 12m (measurements taken from published site plans). They were aligned square to the points of the compass, unlike the Tittleshall example. The Spong Hill enclosure can be dated with confidence to the Early Anglo-Saxon period, possibly the 5th century, as it cuts one set of burials and is cut by others, and the Morning Thorpe example also appears to be an integral part of the 5th- to 6th-century cemetery. The Harford Farm enclosures are undated, but their alignment suggests that they are part of the same ritual landscape as the two Anglo-Saxon burial grounds (Blair 1995, 5–7; Penn 2000, 4).

The Norfolk enclosures appear to be one discrete group, since none of them incorporates the central grave seen in the small ditched enclosures of southern England, nor do they have the central posthole of some of the fenced examples found outside Norfolk (Blair 1995). It is

possible that there is a further example of an ‘empty’ ditched enclosure at Garton, East Yorkshire, although this is a complex multi-period site with features of different phases superimposed (Blair 1995, 9–10). All these square enclosures ultimately have their origin in Late Iron Age and ‘Romano-Celtic’ prototypes, but they seem to have developed different regional characteristics. The Tittleshall enclosure appears to represent a standard local type, though without the usual alignment.

The second, smaller rectilinear feature, externally 6m by greater than 2.5m, to the west of the ring ditch yielded no evidence for date, but it incorporated a substantial posthole which might, for example, represent a marker post that would be visible from the Roman road. Two long ditches running in straight lines to the south and east of the ring ditch, however, seem to be related to the post-medieval field system (Chapter 2). The burial of a large dog close to the eastern ditch was considered by the excavators to be relatively modern, from its shallow burial and absence of disturbance.

VII. The edge of the settlement

A line of small pits 60 to 70m to the east of the cemetery has been interpreted as the edge of a settlement. As described in Chapter 2, six of the pits contained Early Anglo-Saxon pottery, including two jars and two bowls probably dated to the 5th century, together with a pair of copper-alloy tweezers and debris from iron-working. Further to the east of this line, two contiguous pits contained remains of a hearth (insecurely dated), and still further east another pit produced a bowl cut down from a larger vessel and other potsherds almost certainly dated to the Early Anglo-Saxon period. The function of the small pits is unknown, but some may be postholes, perhaps for boundary markers since settlements of this period tended to be unfenced (Reynolds 2003, 103, 130).

Early Anglo-Saxon cemeteries and settlements are rarely found together in one excavation, probably because there was often a greater distance between them than seen here. There are some exceptions: at Spong Hill the settlement and cemetery abutted on each other (Rickett 1995, 41, fig. 60), and at Mucking, Essex, their edges overlapped (Hamerow 1993, 89), but at West Stow they were approximately 300 metres apart and the two burial grounds at Flixton were 500–600 metres from the area of occupation (Boulter and Walton Rogers 2012, 87). Despite the distance, both of the Flixton cemeteries would be in clear view across a shallow valley and both would have had a Bronze Age barrow for a backdrop. This may explain the arrangement of the Tittleshall graves around the south and east side of the barrow: if the settlement did lie to the east, the cemetery would be in plain sight of the people who lived there.

Chapter 4. The artefact assemblages

by Penelope Walton Rogers with contributions from
Birte Bruggmann and Kenneth Penn

I. Introduction

Most, if not all, of the people inhumed in the Tittleshall plot will have been placed in the grave fully clothed, with personal accessories arranged on and around the body. As the burial environment and the weather took their toll on the organic materials, clothing, blankets, hides, leather and wood will have decayed, leaving behind metalwork, ceramics, glass and amber as the most easily recordable evidence. Traces of the original organic grave goods are, however, still preserved in the corrosion crust on the metal artefacts.

Of the 25 inhumations (discounting the skull in 21B), 19 contained artefacts and there were no finds other than pots in the two cremation burials. Numbers ranged from single items, such as a jar in Grave 18, a brooch in Grave 14 and a fragment of a knife in Grave 4, to twelve items of metalwork, a pottery vessel and over two hundred beads in Grave 11A. A small number of artefacts likely to be contemporary with the cemetery, but recovered from the topsoil, or from other parts of the site, have also been included in the study. The aim of this chapter is to describe the artefacts in terms of their type, date and likely place of origin. For this purpose, the objects have been grouped according to function, as garment fasteners (brooches, clasps, pins and buckles), decorative accessories (beads and pendants), clothing and covers (textiles and an animal pelt), utensils carried on the body (knives, tweezers and latch-lifters), weaponry (a shield, a spear and part of a sword scabbard) and containers (an iron-bound bucket and ceramic vessels, including the two cremation pots). Wood, leather and horn will be discussed in relation to the objects with which they were associated, sheaths with knives, straps with buckles and so on.

The dates for the artefacts have been taken from two sources, first, the date-ranges ascribed to individual artefact groups in their respective type-series and, second, the phasing system recently developed for Early Anglo-Saxon inhumations in East Anglia by Penn and Bruggmann (2007, 42–75). The latter system, termed here ‘East Anglian Chronology’, or EAC, has separate phases for female (FA1, FA2, FB) and male (MA1, MA2, MB) assemblages, until Phase C when the two converge. The simple type-groups developed for the EAC system will be italicised below. The phasing developed by John Hines for great square-headed brooches (Hines 1997, 198–204, 223–279) has been used where relevant and is referred to here as GSqH phases 1–3.

Objects from graves are identified by the grave number, followed by the number allocated in the grave inventory, in the format 00/00. Artefacts recovered from contexts other than graves are referred to by their original on-site five-digit find number, SF 00000.

II. Garment fasteners

Brooches

Brooches can be regarded as an indicator of female gender where the sex of the body cannot be determined (Stoodley 1999, 34, 39, 42). At Tittleshall they were all found towards the head end of the grave, either on, or in close proximity to, the shoulders or upper chest. The textile evidence demonstrates that they were used to fasten clothing and their function will be discussed further in Chapter 7.

Cruciform brooches

(Fig. 4.1)

Two of the three cruciform brooches, 15/3 and 21A/2, come from well-known type-groups. The third, 16/2, is a unique form and, although it has the three knobs that distinguish cruciform brooches, it also has some of the characteristics of the small-long brooch series.

Brooch 15/3 belongs to Mortimer Type B2(L), identified by the heart-shaped nose on the animal head, simple half-round knobs, no side lappets and a length of 117mm (Mortimer 1990, I, 61–5). The casting of the side knobs in one with the brooch is a common feature of the B2 group and notches on the head-plate are not unusual. These brooches often have stamped decoration based on circles and semi-circles, but in this instance a poorly defined ring-and-dot pattern on one side of the head-plate panel seems to form part of the casting, which implies that the mould has been made directly from another brooch.

B2 brooches, both small (S) and large (L) are widespread in East Anglia, the Midlands and northern England. Within the EAC system, they were subsumed in the large *X1* category, which was best represented in Phase FA1, with some continuation into Phase FA2a (Penn and Bruggmann 2007, 58). A review of B2 brooches at other sites has shown that this dating applies elsewhere (Walton Rogers 2012b, 97), and the presence of A1 beads in Grave 15 confirms a place in Phase FA1 for brooch 15/3.

Brooch 21A/2 is an especially large brooch, 137mm long, and belongs to Mortimer Type C2, identified by an expanded foot with comma-shaped nostrils and a fan-shaped nose (Mortimer 1990, I, 73–4). The flaring wings, separately cast side knobs, and the relief-decorated extension on the top knob are commonly found in the C2 group. C2 cruciform brooches are an East Anglian type and only a small number have been found outside Norfolk, Suffolk and Cambridgeshire. There are particularly close parallels for the Tittleshall brooch at Morning Thorpe G370 (Green *et al.* 1987, I, 144, II, 332), Brooke, Norfolk (Kennett 1976, 97–8), and Exning, Suffolk (Åberg 1926, 187). The punched decoration, in the form of a segmented Y, is one of the less common stamps and it is mostly found on cruciform brooches from Cambridgeshire and Suffolk (Mortimer 1990, I, 282), although variants also appear on B7b sleeve clasps from Morning Thorpe G173 (Green *et*

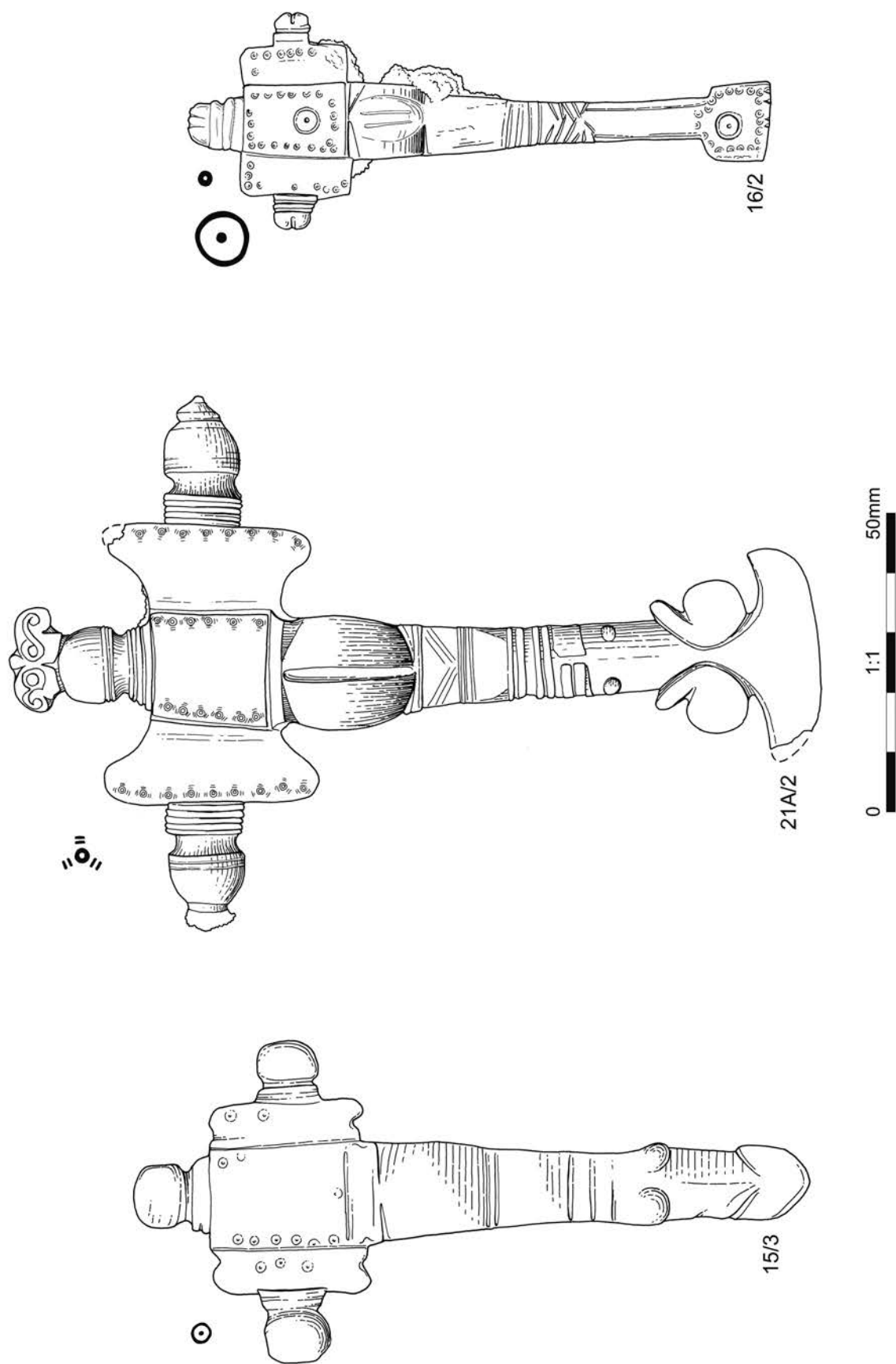


Figure 4.1 Cruciform brooches from Graves 15, 21A and 16. For side and back views, see the grave inventory in Chapter 9

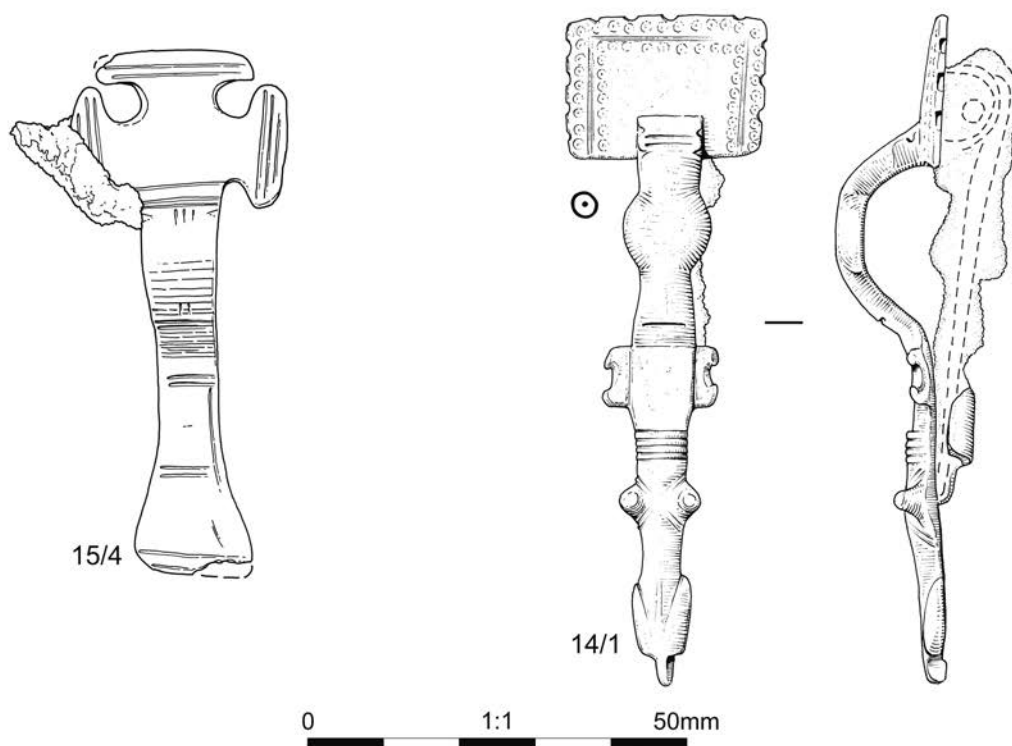


Figure 4.2 Small-long brooch from Grave 15 and hybrid brooch from Grave 14. For other views, see the grave inventory in Chapter 9

al. 1987, I, 83, II, 256) and a strap end from Spong Hill G16 (Hills *et al.* 1984, 65, 123), as well as a great square-headed brooch of Group XVII (GSqH phase 3, *c.* 530–570) from Little Eriswell G27 (Hines 1997, 133, 201, 218–9).

C2 cruciform brooches were also classified as *X1* in the EAC analysis, which would place them in Phases FA1–FA2a (Penn and Brugmann 2007, 58). On the other hand, they have been found relatively infrequently with datable objects, and one brooch from outside East Anglia, from Sewerby G35, East Yorkshire, was buried with artefacts typical of Phase FA2b, namely B7b sleeve clasps, Brugmann A2b beads and a scutiform pendant (Hirst 1985, 35; Brugmann 2004, table 11), although the repair indicates that the brooch may have been old at the time of burial. Y-shaped stamps continued to appear on relatively late artefacts, including B7b clasps and a great square-headed brooch (as described above). It is possible, therefore, that C2 brooches had a broad period of use, from the later 5th to the mid-6th century, as originally proposed by Mortimer (1990, I, 177). At Tittleshall, however, the B12 sleeve clasps and A2 beads in Grave 21A suggest a date in Phase FA2a, which accords with the EAC analysis.

The smaller brooch, 16/2, is difficult to classify. It has a panelled head-plate, unusual segmented knobs with a double collar, which are cast in one with the brooch, and a particularly long foot, ending in an almost square, flat snout with stamped decoration. The absence of lappets and the small size, less than 100mm long, suggest the short sub-groups within Mortimer Class B, although the elaborated knobs would be unusual in this category. The broad flat snout is not found in any of the standard cruciform brooch types, but the over-all appearance of the brooch calls to mind the long-stemmed variants of the

small-long brooch series, such as those from Edix Hill G19A (Malim and Hines 1998, 53, 110) and West Heslerton G84, North Yorkshire (Haughton and Powlesland 1999, 133). Perhaps the closest correspondence is with those small-long brooches with a cruciform head and flat spatulate or triangular foot, which have been re-classified by Hines as cruciform Type Bb (Malim and Hines 1998, 200). Type Bb has been placed in Phase FA1–FA2a (Penn and Brugmann 2007, 24, 58, fig. 5.21).

Small-long brooch (Fig. 4.2)

Brooch 15/4 is a small-long brooch with 'cross-potent' head and triangular foot. Brooches of this kind are found throughout the Midlands, from the Avon Valley to the middle reaches of the Ouse and NW Suffolk (Leeds 1945, 14–16; West 1998, 299). They were not included in the EAC analysis, but Leeds, writing in 1945, argued that they were an early form, because of their similarity to their Continental forebears (Leeds *ibid.*). The association of 15/4 with A1 beads, a small applied saucer brooch, 15/5, and a B2 cruciform brooch, 15/3, would support an early date, in Phase FA1.

Hybrid brooch from Grave 14 (Figs 4.2–4)

Brooch 14/1, from a child's grave, is a particularly curious item, which combines the head of a small-long brooch with the foot of a cruciform brooch. The uninterrupted line of the stamped border decoration indicates that no cast knobs were ever attached to the head, a fact confirmed by examination of the edges of the head-plate. Since there is no evidence in the X-ray for a physical join, it must be assumed that fragments of two broken brooches were used to make the mould (discussed further in Chapter 7). A



Figure 4.3 Hybrid brooch from Grave 14.
Photo Richard Moore, Network Archaeology

smoothed-over area on the bow, at the point where a roundel often occurs in larger brooches, almost certainly marks the point where the mould was tidied up in order to mask the join.

The top half of the brooch has a square head, with a panel outlined by cast grooves and remains of stamped ornament. Small-long brooches of this type are found in many parts of East Anglia, although the main focus of their distribution is in north-west Suffolk and western Norfolk (Fig. 4.4). The lower part of the brooch is taken from a B2 cruciform brooch with joined nostrils, protruding eyes and a small protuberance on the nose. As already described, B2 is a widespread category, but stalk-like eyes and a protuberance on the nose are particularly common in East Anglia, in Class B and D cruciform brooches. Those with the closest resemblance to the Tittleshall foot, with a narrow muzzle, diagonally crossed incised lines and a silhouette which is shaped around especially prominent eyes, are found to the east, at Bergh Apton (G6/B: Green and Rogerson 1978, 52), Bunwell, on a tributary of the Yare (PAS NMS-142297) and Wickham Skeith, close to a tributary of the Waveney (PAS SF-6BE160). It is possible that a very early cruciform brooch with a less stylised foot, from Carlton Colville, close to the estuary of the Wensum-Yare-Waveney river system, represents a precursor of the type (PAS SF-AFA802). Finally, the small, outward-facing crescent-shaped lappets on the catch-plate of the Tittleshall brooch are unknown in the cruciform series, and have only a modest correspondence with the curving lappets of Cambridgeshire small-long brooches (Leeds 1945, fig. 5a, 5e, 10f, 15e): these were probably added by the mould-maker.

Hybrids are not unusual at the interface between regional groups. Examples composed of a complete small-long brooch with an additional horse-head

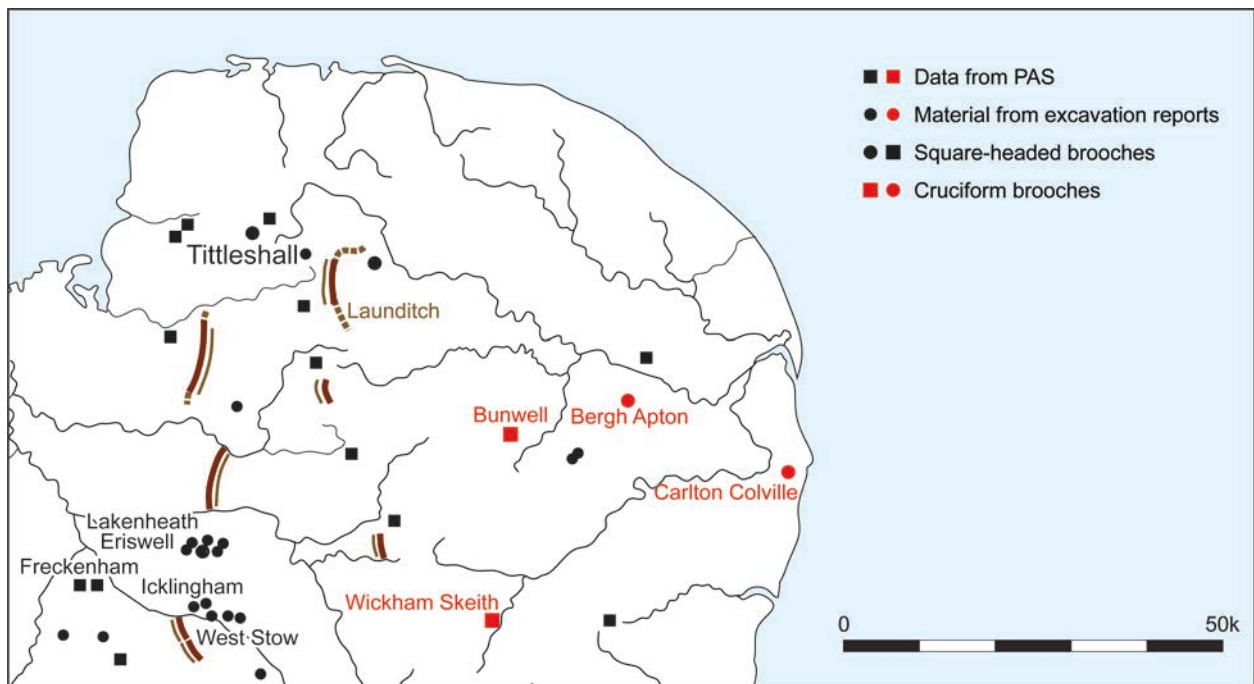


Figure 4.4 Distribution of small-long brooches with plain or panelled square head-plates. Head-plates which are perforated, notched, 'eared' or horned have been omitted. Squares indicate data from PAS; circles material from excavation reports. Black indicates square-headed brooches; red the cruciform brooches mentioned in the text. Data from Portable Antiquities Scheme website 1 August 2011; Lethbridge 1931; Leeds 1945, 32–6, fig. 19, 21; Green and Rogerson 1978; Hills *et al.* 1984; Green *et al.* 1987; Penn 1998; West 1998, 299–301; Penn and Andrews 2000

extension on the foot have been identified in two sites on the opposite side of the uplands from Tittleshall, at Congham (PAS NMS-37B335) and Hillington (PAS NMS123), with a third at Mildenhall Holywell Row G69 to the south (Lethbridge 1931, 24, 34). A pair of equal-armed brooches that have terminals taken from the trefoil-headed small-long brooch series, were excavated at Thetford Brunel Way (Penn and Andrews 2000, 421, 428), not far from a cluster of sites with more typical equal-armed brooches (Chester-Kadwell 2009, 154–6). In general terms, hybrids are to be expected where different brooch-making traditions overlap. In the specific case of Tittleshall, however, the brooch came from a child's grave, which raises the possibility that it was intended to symbolise a union between two people of different backgrounds.

Square-headed small-long brooches with lappets (EAC *sm3*) and B2 cruciform brooches (EAC *X1*) occur in Phases FA1 and FA2a (Penn and Brugmann 2007, 58), but children's graves often include heirlooms and the ZS twill (see Chapter 9 for key to textile terms) in the same grave would fit more comfortably in Phase FA2b.

Hybrid square-headed brooch from Grave 13
(Figs 4.5–7)

A large gilded brooch, 13/2, decorated in relief with panels of zoomorphic ornament, was found near the shoulders in Grave 13. This is another hybrid brooch, although in this instance it derives from the meeting of two design strands, rather than two individual brooches, and it is part of a recognised type-group, Leeds C3. Its design combines the head and bow of a great square-headed brooch with a foot taken from the florid cruciform series. It has a rectangular head, shallow bow, a catch-plate which is square, and a foot which is fan-shaped with a rectangular extension on the end. The curled ends of the foot-plate mirror the animal heads springing from below the bow. The small raised zone on the crown of the bow and two raised discs on the head-plate derive from the ornament on earlier square-headed brooches (*cf* Haseloff 1981, plates 14, 32, 95). There are three panels of Style I zoomorphic ornament, on the head, the catch-plate and the foot, and stamped decoration around the brooch edges. The body of the brooch is leaded gunmetal with a high level of tin (13 per cent), and there is mercury gilding in the recessed areas of the design (Chapter 9 section IV).

In E.T. Leeds' original corpus of great square-headed brooches, this hybrid type was classified as the C3 'East Midland Group', (Leeds 1949, 82–88, plates 132–143). Such brooches lack the lozenge-shaped foot of the classic square-headed brooch, but the animal ornament on the head-plate and the animals springing from below the bow are standard features which occur in the great square-headed series, the parallel Kentish square-headed series and the Scandinavian relief brooches from which they both derive (Leigh 1980, Haseloff 1981, Hines 1997). The square catch-plate and fan-shaped foot of brooch 13/2, on the other hand, come from the florid cruciform series, where they emerge from the foot with an animal head with fan-shaped nose. They appear in Class Z cruciform brooches, are most common in Type Z3, which is distributed across the Midlands, and a variant without the panels of Style I ornament occurs in the more northerly Type Z4a (Mortimer 1990, 102–6).

The Tittleshall brooch can therefore be dated by reference to both the square-headed and the cruciform chronologies. Some of the Leeds C3 hybrid brooches were included in Hines' re-classification of great square-headed brooches as Group XXI (Hines 1997, 153–6). Brooch 13/2 is technically not a member of Group XXI, because it lacks the diagnostic details of the head, but it must be a close relative, since it shares a square catch-plate and triangular foot with the Group XXI brooches from Kempston (Beds), Holdenby 4 (Northants), Little Wilbraham (Cambs) and Haslingfield (Cambs), and related brooches from Rothwell (Northants) and Ipswich (Suffolk), while the rectangular extension on the foot terminal is present on at least four of these (Hines 1997, plates 79–80, 99–100). Group XXI brooches were placed in the latest of the great square-headed brooch phases, GSqH phase 3, c. 530–570 (Hines 1997, 199–204, 231). Similarly, florid cruciform brooches of Type Z3 and Z4 have been dated to 'around the middle of the 6th century' (Mortimer 1990, I, 177). Finally, a florid cruciform brooch from Bergh Apton G18, which was also related to Group XXI, has been placed in EAC Phase FB, that is, after 530/50, on the basis of associated grave goods



Figure 4.5 The large gilded copper-alloy hybrid brooch, Leeds type C3, from Grave 13
Photo, Chris Casswell, Network Archaeology

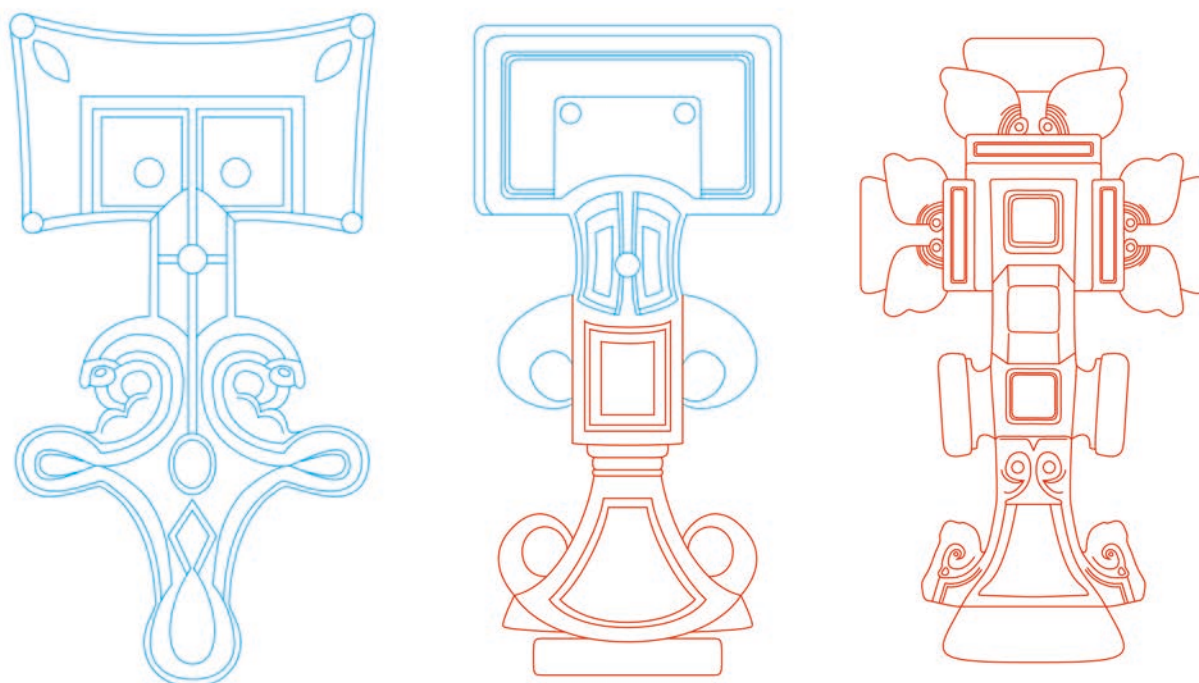


Figure 4.6 Brooch 13/2 (centre) is a hybrid of two major brooch types, the great square-headed (left) and the florid cruciform brooch with fan-shaped foot (right). The great square-headed brooch (Group I) is from Alveston Manor G5, Warwickshire (after Hines 1997 plate 1b). The florid cruciform brooch (Mortimer Z3) comes from Bergh Apton G18, Norfolk (after Green and Rogerson 1978, 60, fig. 75).
Not to scale. The lengths of the brooches from left to right are: 178mm, 128mm and 165mm

(Penn and Brugmann 2007, 43, table 5.1, fig. 5.25). The Tittleshall brooch can therefore be dated with some degree of confidence to the period *c.* 530–570.

It has been argued that some of Leeds Class C, especially the Type C2 brooches found in northern England, were not hybrids, but evolved directly out of the florid cruciform series (Sherlock and Welch 1992, 38; Hines 1997, 14). This cannot be the case with the Tittleshall Type C3 brooch, however, which has obvious connections with the square-headed series through its zoomorphic motifs. The four beast-men in the head-plate can be found in Scandinavian and Kentish square-headed brooches (Haseloff 1981, 111–131; Leigh 1980, I, 311–7, II, fig. 19) and a version of the motif appears in some of the great square-headed brooch series, although it is barely recognisable as such (Hines 1997, 48, 52). The motif in the square panel on the catch-plate is present in the head-plate inner panel of several Group XVII great square-headed brooches, also attributed to GSqH phase 3, from Market Overton II (Leicestershire), Londesborough (Humberside), Kenninghall (Norfolk), Ipswich (Suffolk) and an unknown site in Suffolk, and it has been identified with the ‘backward-facing animal’ motif of Scandinavian metalwork (Hines 1997, 134, 136–40, 155, plate 37). The foot-plate panel contains a contorted animal, with head facing upwards, back haunch and leg in the bottom left and the front leg on the right. There is a variant of this motif on the head-plate of a *jütländisch* brooch from Gilton G48, Kent (Salin 1935, 326), a more distant relative on a *jütländisch* brooch from Bifrons G41, Kent (Haseloff 1981, 47), and another on an impressed foil from Rimestad, Rogaland, Norway (Leigh 1980, I, 322, II, fig. 25). The animal heads springing from below the bow can be compared with other examples of great square-headed

brooches, including an unclassified example from Ipswich (Hines 1997, plates 51, 53–5, 99c). Finally, there is a disc on the bow on two great square-headed brooches and raised circles on the bow in many more (Hines 1997, plates 13, 17, 31–40, 45–9, 58).

This is an important brooch because it stands at the point at which the ‘Saxon’ great square-headed brooches, having begun to move north and into East Anglia in GSqH phase 2, were exchanging influences with ‘Anglian’ metalwork in GSqH phase 3 (Hines 1997, 198–204). The hybrid Leeds C3 variants result from a union of the great square-headed brooch with the cruciform series, before it moved on northwards, and continued in new forms: these must have influenced the Leeds C2 cruciform brooches, even if they were not part of their direct ancestry. The immediate influences on the Tittleshall C3 brooch appear to come from the Midlands. As already described, the nearest equivalents in the Group XXI great square-headed brooches and the Leeds C3 brooches occur there, and it might also be argued that there are elements of the design in the Cambridgeshire small-long brooches with downward curving lappets and a crescentic foot with upturned ends (Leeds 1945, figs 5, 16, 22). It would be rash, however, to suggest a place of manufacture when so little is known of the organisation of Early Anglo-Saxon metalworking.

The gilding and cast Style I ornament mark out the Tittleshall brooch as a prestige brooch, even if it is not comparable with the larger and more refined brooches of the great square-headed series. The cloak it fastened was made of an Anglo-Saxon form of cashmere and was combined with a fine fur collar or cape, which will have added to the impression of luxury.

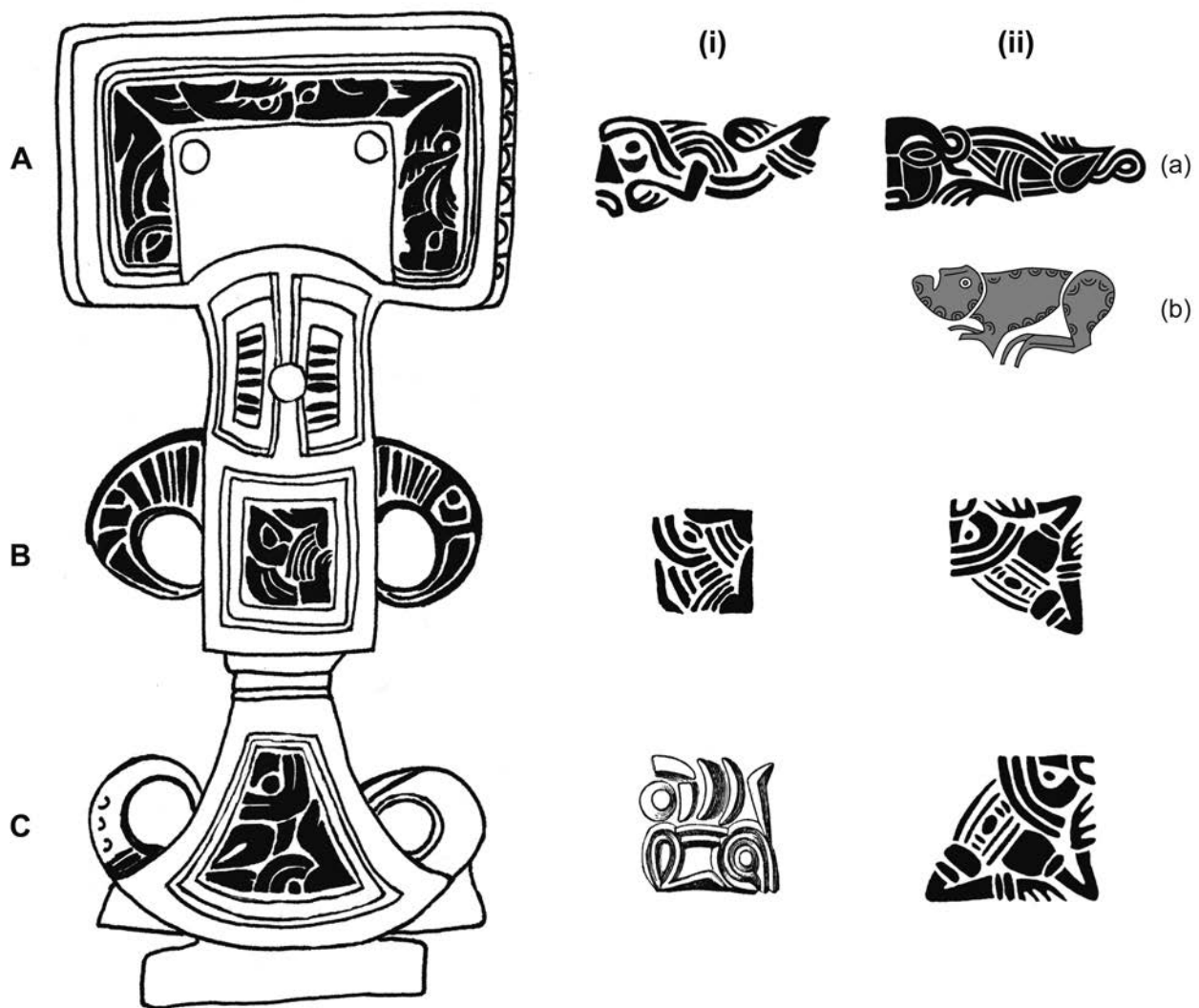


Figure 4.7 The Style I ornament of brooch 13/2 and comparable motifs. A, the head-plate second panel, B the catch-plate panel and C the foot-plate panel. Column (i) represents motifs from square-headed brooches found in England and column (ii) motifs from Scandinavian metalwork

Sources of the images:

A(i): the head-plate second panel of a Kentish square-headed brooch from Bifrons G63, Kent (after Haseloff 1981, 123, fig. 74:7);

A(ii)(a): harness fitting from Vrena, Sweden (after Haseloff 1981, 121, fig. 72:5);

A(ii)(b): a bow brooch, 'Hol-fund', Norway (after Haseloff 1981, 121, fig. 72:3);

B(i): the head-plate inner panel of a Group XVII great square-headed brooch from Market Overton II, Leicestershire (after Hines 1997, plate 67b and fig. 66e);

B(ii): an embossed foil from Rimestad, Rogaland, Norway (after Leigh 1980, fig. 24f)

C(i): the head-plate inner panel of a jütländisch square-headed brooch from Gilton G48, Kent (after Salin 1935, 326, fig. 704); C(ii): as B(ii) rotated through ninety degrees

Narrow-banded annular brooches

(Fig. 4.8)

Nine narrow-banded annular brooches were recovered from five graves, as a matching pair in Graves 13 and probably 21A; a non-matching pair in Grave 11A; as a single brooch partnered with a wide-banded annular brooch in Grave 3 and as a singleton without a partner, in Grave 16B. There was also a surface find of an annular brooch, SF 70451. Four brooches were cast from copper alloy, 13/3, 13/4, 3/1 and 16B/3; three were cut from copper-alloy sheet, 11A/4–5 and SF 70451; and two were fragmentary and made of iron, 21A/3 and 21A/7.

Decoration was minimal and consisted of transverse grooves on the upper face on 3/1, 13/3, 13/4, 16B/3 and SF 70451, stamped rings on 3/1, solid squares on 11A/4 and penannular shapes on 13/3 and 13/4. The pin was attached through a circular perforation in 13/3, 13/4, 3/1, 11A/5 and SF 70451, and in two others it was looped over a rebated area in the band, the rebate being on the outer edge of 11A/4 and on the inner edge of 16B/3. Most brooches had iron pins, but 3/1, from a child's burial, had a leather or rawhide thong instead of a pin.

Annular brooches are a signature brooch of the 'Anglian' culture. They were worn from Phase FA2a to FB

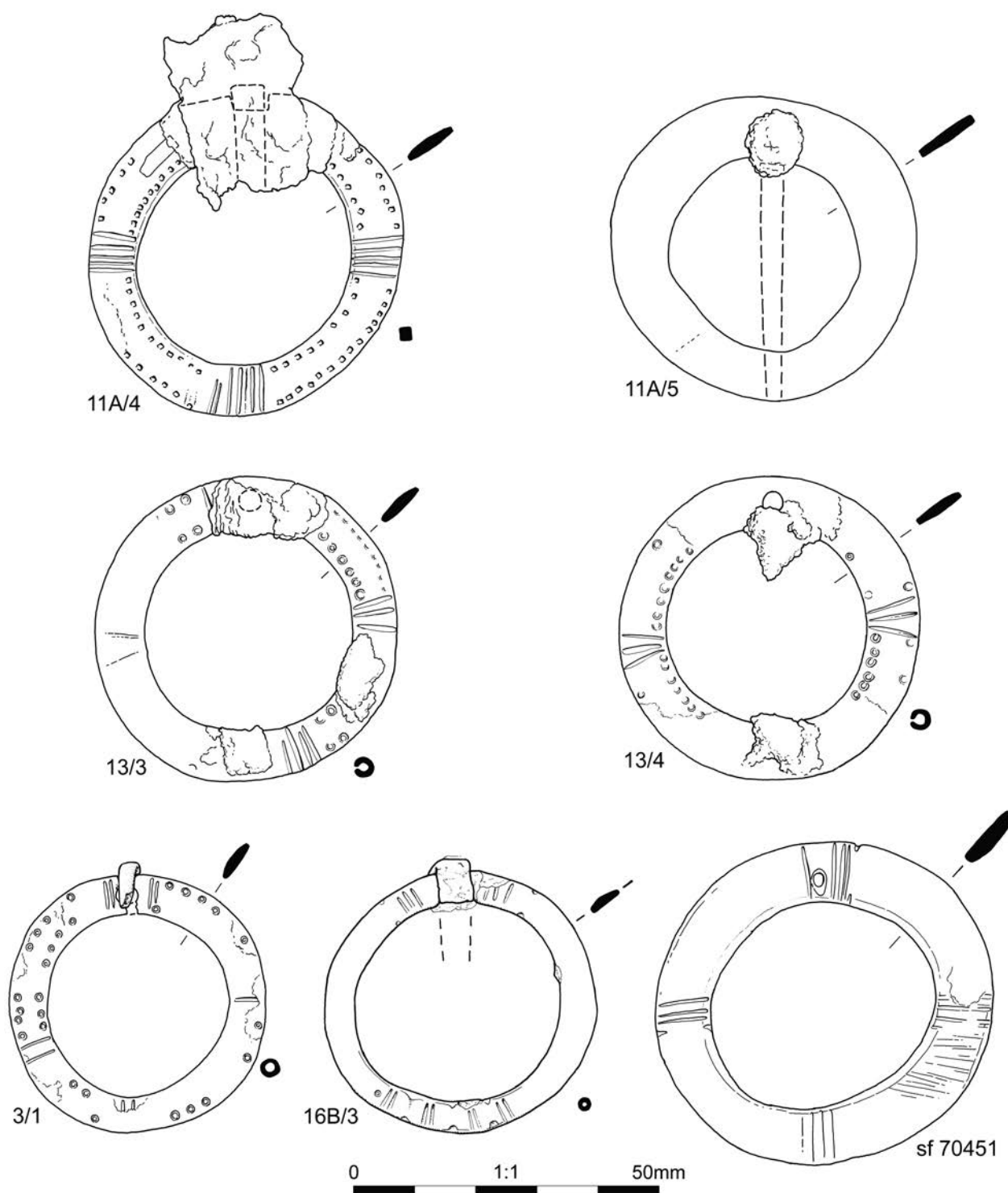


Figure 4.8 Narrow-banded copper-alloy brooches from Graves 3, 11A (two), 13 (two) and 16B, with surface find SF 70451

and even Phase C, but as pairs they were limited to Phases FA2 and FB1. Those with a circular perforation for the pin attachment, classified as *ARound* in the EAC analysis, proved to be most common in Phase FA2b, although they were also present in FA2a and FB1 (Penn and Brugmann 2007, 25, 58, fig. 5.24).

Broad-banded annular brooch (Fig. 4.9)

A single example of a broad-banded annular brooch, 3/2, belongs to Ager's Type E1 (previously Leeds E), which lacks the slot and pin-stop of the related 'quoit' brooches (Ager 1985). It was ornamented with stamped semi-circles, but it was worn and chipped and probably quite old when buried. Like the narrow-banded brooch with which it had been partnered, its pin had been replaced with a stiff piece of leather or rawhide, either a thong tie or an

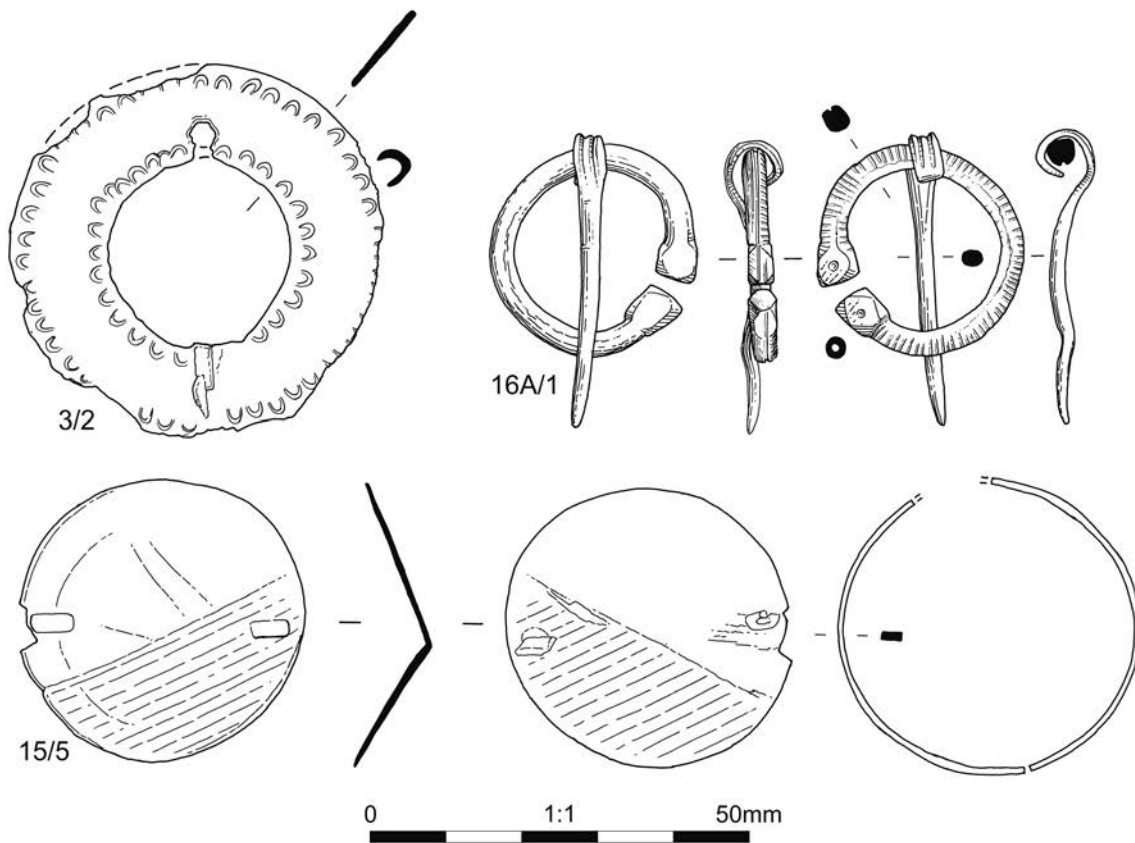


Figure 4.9 Non-local brooches made of copper alloy: a broad-banded annular brooch from Grave 3, a penannular brooch from Grave 16A and the remains of an applied saucer brooch from Grave 15

imitation pin. This was the burial of a six- or seven-year-old child and it is probable that the pins had been removed for safety during life.

Broad-banded annular brooches have a band width greater than 25 per cent of the diameter of the brooch (Dickinson 1976, 143). They are mostly found in the 'Saxon' region, south of a line from the Stour to the Avon (Ager 1985, 16) and they are extremely rare in Norfolk. They are a 5th- and 6th-century brooch type and no chronological sequence has as yet been observed, although the presence of an *ARound* annular brooch in the grave suggests that this particular example was deposited in the 6th century.

Penannular brooch

The small penannular brooch, 16A/1, has the ribbed ring, faceted terminals and a single impressed dot in both terminals, which identify it as Dickinson Type G1.5 (Fig. 4.9). The diameter, 27mm, and the length of the pin, 39mm, are typical of this type group (Dickinson 1982, 48–9, 62). Class G penannular brooches are believed to have originated in western Britain, almost certainly Somerset and the Lower Severn basin, but a small number, Types G1.5–G1.8, have already appeared in Early Anglo-Saxon graves (Dickinson 1982, 51). They represent a different branch of the penannular brooch series from those found in graves of Phases FA1 and FA2 at Morning Thorpe, which are mostly Roman or sub-Roman (Mackreth 1987; Penn and Bruggmann 2007, 25). Its alien nature may explain why the pin has been mounted back-to-front, so that the smooth back will have faced upwards when worn.

Applied saucer brooch

A bent and scratched base-plate from an applied saucer brooch, and a fragment of its rim, 15/5.2, were recovered from the topsoil close to Grave 15 (Fig. 4.9). They proved to fit with the rest of the rim, 15/5.1, which was still in its original position at the neck of the woman in the grave. The gold repoussé foil that is usually attached to the front of the brooch is missing, but the manner in which the pin catch and pin support have been slotted into the base-plate is typical of applied saucer brooches.

Applied saucer brooches are most commonly found in the upper valleys of the rivers flowing into the Wash (Dickinson 1976, 32–117; Evison 1978). They are a rarity in East Anglia, except for a cluster of them in the same general area as Tittleshall, at Swaffham in an inhumation, G16 (Hills and Wade-Martins 1976, 7, 19, 24), and at Spong Hill in cremations 34, 1490, 1665 (Hills 1977, 24, 37, 58, 65, 197), 2867 and, a pair, in 3178 (Hills *et al.* 1994, 83, 107, 206). Their relatives, cast saucer brooches, also a rarity in this region (Dickinson 2010), are represented by a matching pair in Spong Hill cremation 2376 (Hills *et al.* 1987, 41, 172). The applied brooches are usually dated by the repoussé ornament, which is here absent, but there is also a general trend for the brooch diameter to increase with time, from 28–48mm in the early brooches to 48–66mm in the later ones. The Tittleshall brooch, at 38.5mm diameter, is therefore likely to be early. This accords with the evidence of the A1 beads, the early small-long brooch and the B2 cruciform brooch, which indicate a date in Phase FA1 for this burial.

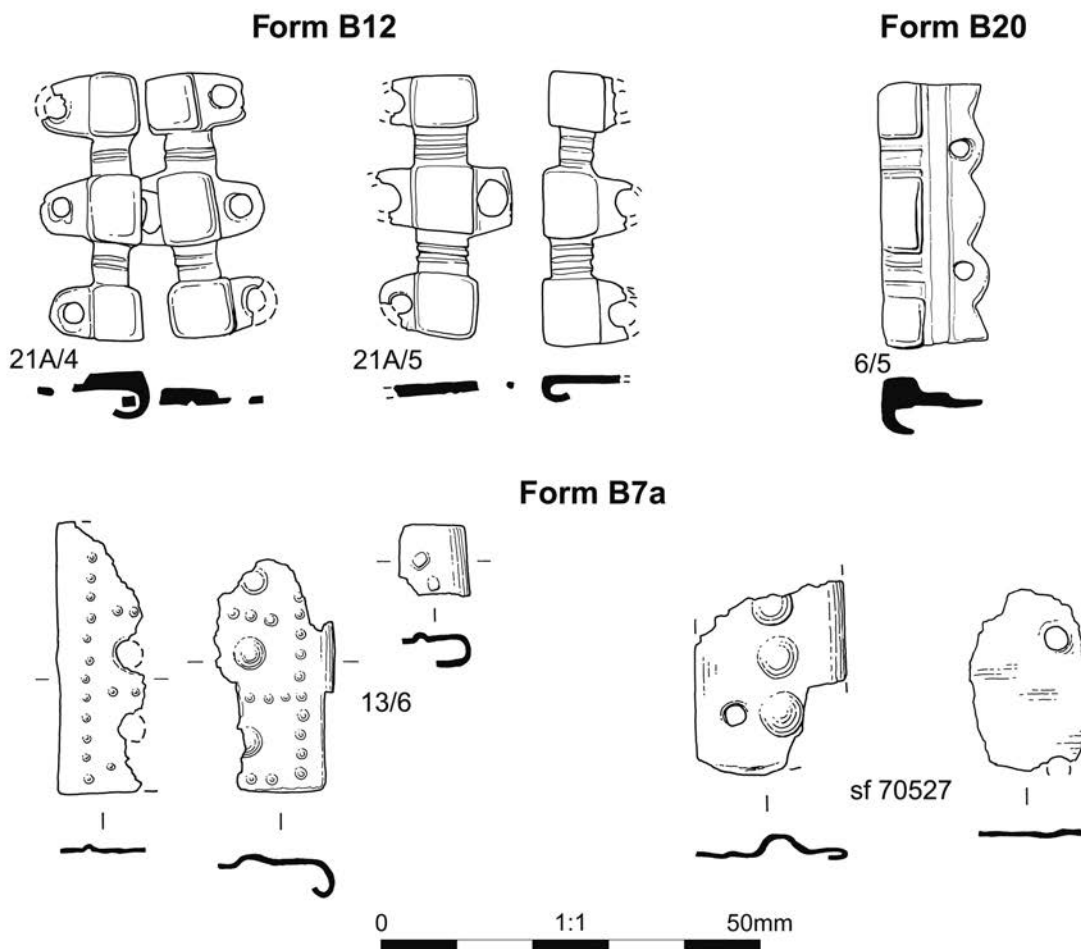


Figure 4.10 Copper-alloy sleeve clasps of Forms B12, B20 and B7a from Graves 6, 13 and 21A, with surface find, SF 70527

Roman brooch

The copper-alloy brooch, 23/2, recovered from the foot of Grave 23, is a T-shaped bow brooch dated to the second half of the 1st century AD (Chapter 2). Roman trinkets are not unusual in Anglo-Saxon graves and some brooches were even re-used as functioning clasps for clothing (e.g. West Heslerton G12, Haughton and Powlesland 1999, I, 19–20). In Grave 23, however, the brooch was found in an unusual position at the edge of the grave and has been interpreted as a residual artefact. Another, somewhat earlier, bow brooch, SF 70548, was recovered from the general area of the cemetery, although not from a grave (see Chapter 2).

Sleeve clasps

Figs 4.10–11

Remains of copper-alloy sleeve clasps (or ‘wrist clasps’), were recovered from Graves 6, 11A, 13, 20 and 21A. The two pairs in Grave 21A were probably disturbed when burial 21B was inserted, but in the other graves the clasps were found in the likely position of the wrists, where they will have been used to fasten the sleeve cuff. The two cast pairs, 21A/4–5, and a single cast hook piece, 6/5, have been preserved intact, but the others, made of thin sheet metal, are mostly fragmented. There were two matching pairs in Graves 11A, 20 and 21A, and, although only one pair was found in Grave 13, another pair of the same type (SF 70527) from the outer ring ditch, though not identical

in design, may represent the other half of the set. The two pairs from Grave 6, on the other hand, appear to have been made from the recycled parts of three different sets, and a detached bar, 6/8, from the earth above Grave 6, probably belongs with them. It is therefore concluded that there were originally two pairs of clasps in all five burials and that these were matching, or near-matching, sets in all except Grave 6.

Four different types are present. The cast pair, 21A/4–5, are examples of Hines Form B12 ‘straight bar’ type, which is essentially a metal bar with three attachment lugs (Hines 1993, 46–9), while the single cast hook piece, 6/5, with a shaped rear edge, is Form B20 (Hines 1993, 64–5). A high concentration of tin, detected by surface analysis of 6/5, may represent tinning on the front and back (Chapter 9 part IV). The sheet-metal clasps include the two most common types, B7 and B13a. Form B7 is defined by rectangular plates with simple, mostly repoussé, ornament (Hines 1993, 39–43), and two sub-sets have recently been identified, *B7a*, an early form with large bosses, and *B7b*, a later one with small dots (Penn and Brugmann 2007, 29, 58, figs 5.22 and 5.24). The pair from G13 and the pair from the ring ditch, SF 70527, are both Form *B7a*. Form B13a clasps are identified by a metal bar soldered to the rectangular base-plate (Hines 1993, 49–50). In Grave 6, the plates have stamped decoration and there are three detached bars, one faceted (6/2) and two with incised lines (6/6 and

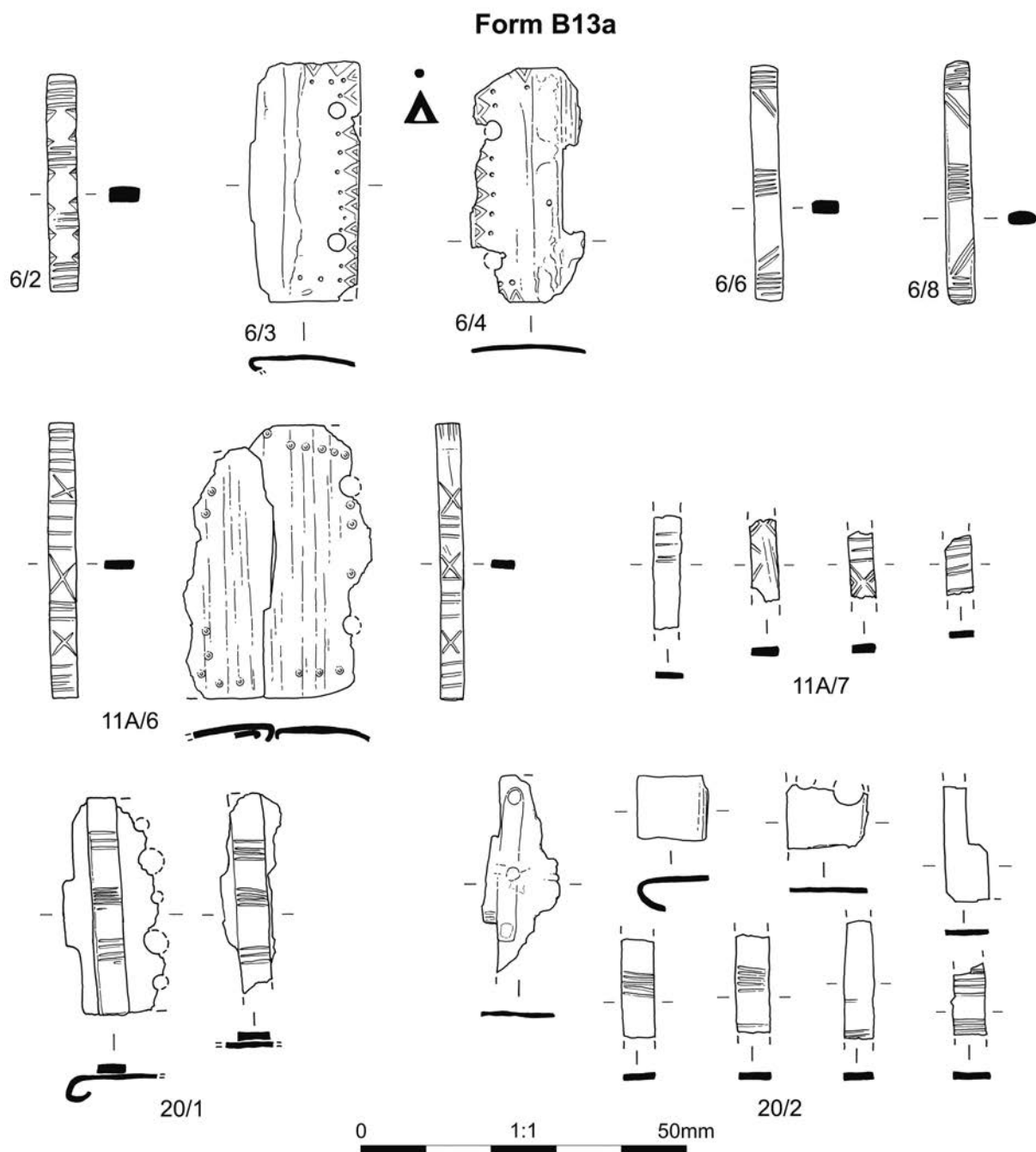


Figure 4.11 Copper-alloy sleeve clasps of Form B13a from Graves 6, 11A and 20

6/8). Two sets, 11A/ 6–7 and 20/1–2, have plain plates and bars with incised ornament.

Metal cuff-fasteners were introduced into Britain in the later 5th century, probably by immigrants from Scandinavia, and out of this emerged the Anglo-Saxon series of sleeve clasps (Hines 1984, 35–109). The cast B12 clasps occur relatively early, mostly in Phase FA1, although some were still being buried in Phase FA2a (Penn and Bruggmann 2007, 28–9, 58, fig. 5.21). The sheet-metal *B7a* clasps belong to Phase FA2a; and B13a to Phases FA2a–b. Form B20 clasps were not included in the EAC analysis, but they seem to have emerged in the 5th century and continued into the 6th (Hines 1993, 65). The single B20 hook-piece from Grave 6 appears to have been

an old piece re-used and its association with B13a clasps suggests deposition in Phase FA2.

Pins

(Fig. 4.12)

There is only one pin from a burial with female-gender accessories, a copper-alloy example of Ross Type VIII, 11A/3. At 162mm, it has a typical length for a Migration Period pin (pins were much shorter from the late 6th century onwards), and it has a copper-alloy wire ring threaded through the head, where metal spangles are likely to have been attached (Ross 1991, 167–75). Pins with spangles, or wire rings presumed to be for spangles, are not especially common, but they occur in small

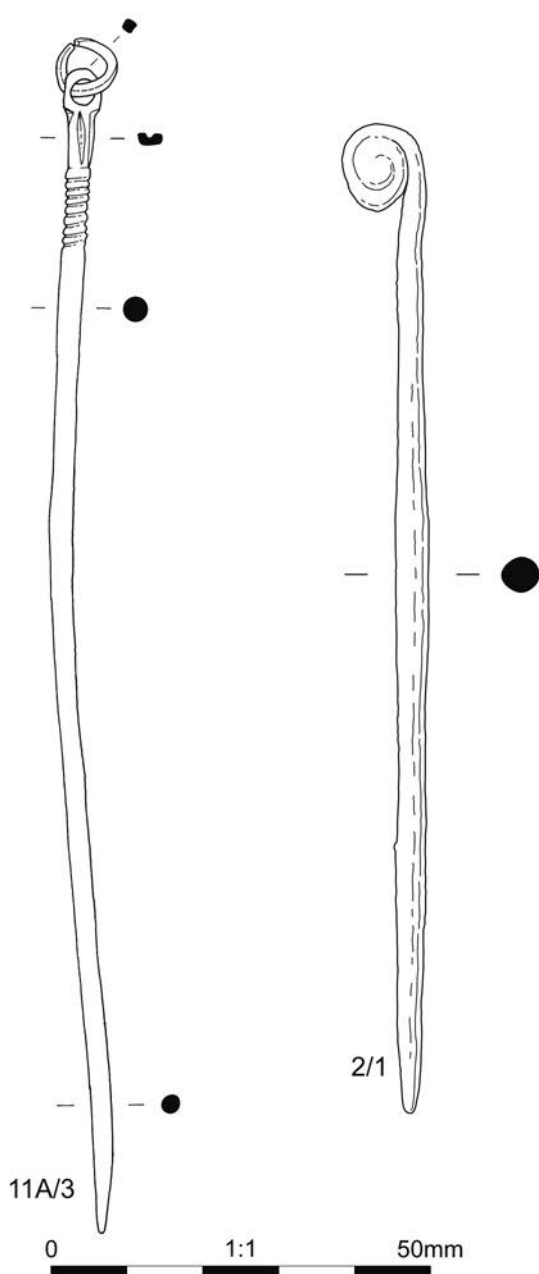


Figure 4.12 Copper-alloy pin from Grave 11A and iron pin from Grave 2

numbers throughout the North, Midlands and East Anglia. Ross (1991, 385) places them between the mid-5th century and 560/80, and Phase FA2 is suggested by an example from Wakerley G82, Northants, associated with annular brooches and A2 beads (Adams and Jackson 1989, 136–7, 149; Brugmann 2004, 55). Grave 11A has been dated by the B13a sleeve clasps, *Around* annular brooch and scutiform pendant to Phase FA2b.

The second pin, 2/1, is made of iron and was found by the head in a burial with male-gender accessories. It has a thick shank and a coiled or scrolled head, and is an example of Ross Type XII/i, in which the coil curls forward from the shank, without the preliminary backwards bend of Type XII/ii (Ross 1991, 178–181). These sturdy pins are mostly found in East Anglia and Kent. Ross suggests that they appear in the early 6th

century in East Anglia (Ross 1991, 181), while those from male graves at Dover Buckland have been dated to the mid-6th (G50) and mid-7th century (G96a and G96b) (Evison 1987, 82, 175, 299, 316–7). There was little dating evidence from Grave 2, apart from the 6th-century buckle, 2/2.

Pins are, on the whole, rare in male graves, although coil-headed iron pins represent one of the few types to cross the gender divide. This may be because they sometimes had a use beside that of a garment fastener. Similar iron pins in male and female burials in the recently excavated Dover Buckland cemetery were so frequently found alongside the knife that it was concluded that their function was related to the use of the knife, perhaps as an eating utensil (Walton Rogers 2012c, 180–2) and those from the earlier Dover Buckland excavation were thought to represent a fastener for a spear-wrapper (Evison 1987, 82). At Morning Thorpe, however, the Type XII pins were found in a position where use as a garment fastener would seem likely. In G140 and G249, both graves with female accessories, the pin was crossways on the chest; in G398 and G409, both with male accessories, one was above the left shoulder, as at Tittleshall, and the other crossways below the neck; in G414, a burial without any identifiable gender, the pin was crossways in the region of the neck (Green *et al.* 1987, I, 74, 103, 155, 158–9; II, 246, 280, 354, 357, 359). Their thick girth implies that they were used to fasten a coarse fabric and their position in the grave would suggest a cloak or shawl.

Buckles

(Fig. 4.13)

A single buckle was found in the region of the waist in five graves. Two were in burials with male accessories, Graves 2 and 12, two with female accessories, Graves 11A and 20, and one was with a child aged six or seven, Grave 19. Of the two from male graves, one, 12/4, belongs to Marzinzik Type II.19a, which has an iron D-shaped loop and a rectangular iron belt plate (Marzinzik 2003, 46) and the other, 2/2, is Type II.20, which is similar but has two large flat disc-shaped rivet heads in a contrasting metal (*ibid.*, 47). The two in female burials are a copper-alloy kidney-shaped buckle, Type I.7c, 20/3 (*ibid.*, 27); and a buckle with an iron loop, fragmentary copper-alloy plate and remains of a round-headed rivet, probably another example of Type II.20, 11A/8 (*ibid.*, 47). The copper-alloy buckle in the child's grave, 19/2, is an unusual example of Type II.24a, which is defined by a narrow oblong loop and small rectangular plate and which often has a row of rivets along the rear edge of the plate (*ibid.*, 51). In this instance, the plate has been cast in one with the loop, making the piece rigid, and the leather strap has been attached by means of a separate bar riveted to the belt plate: this is the first time that this construction has been recorded (S.Marzinzik pers.comm.).

These are mostly common types which have a widespread distribution, although I.7c has been recorded most frequently in East Anglia (Marzinzik 2003, 27). Type II.20, with disc-shaped rivet heads, is a 6th-century type (*ibid.*, 47), and the small buckle, Type II.24a, is a 'type fossil' for the late 6th and 7th centuries (*ibid.*, 51), but the other three buckles offer little help with date.

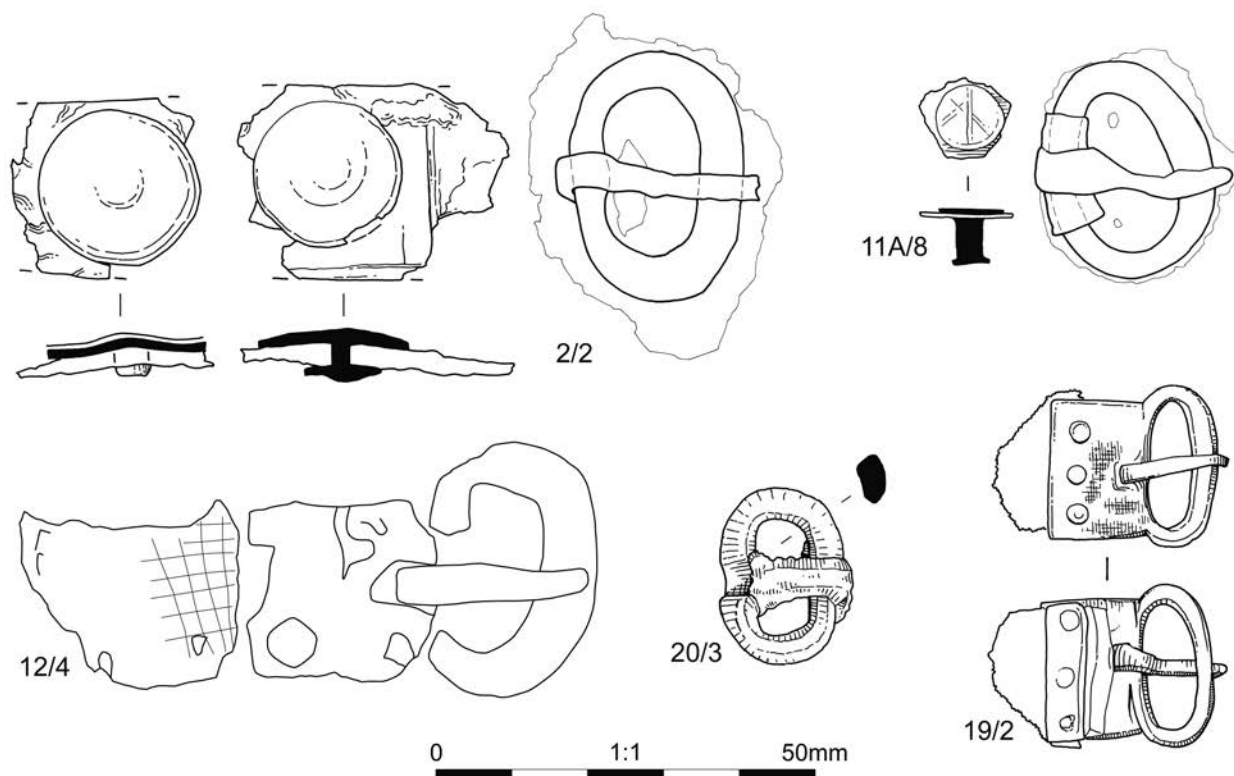


Figure 4.13 Buckles from Graves 2, 12, 11A, 20 and 19

III. Decorative accessories

Beads

by Birte Brugmann (text contributed May 2005)
(Figs 4.14–4.17)

The Tittleshall excavations produced over 388 beads, found in seven inhumations: Graves 6, 10, 11A/B, 13, 15, 17 and 21A, a pit (13200) and in the machined subsoil (13003). All were burials of adults, and all except Graves 10 and 17 contained female-gender artefacts. More than half of the beads were found in a single grave: Grave 11A produced at least 210 beads, and two (or three) beads from 11B are thought to have been disturbed from 11A. 58 per cent of the beads are made of amber (225 beads), 41 per cent of glass (159 beads), 1 per cent of rock crystal (4 beads) and a single bead has silver sheet on a probable amber core (Grave 17).

Glass beads

Seven of the Tittleshall graves produced a total of 159 glass beads, numbers in a single grave ranging from one bead in Grave 21A to 77 beads in Grave 15. Nineteen beads (11 per cent) are decorated with applied trails and/or dots; all others are monochrome and made of translucent or opaque glass.

Almost half of the glass beads (48 per cent) are covered by a typology developed for a chronological framework of glass beads from Anglo-Saxon inhumation graves (Brugmann 2004). The purpose of the study of a national sample of glass beads, including the Norfolk cemeteries at Spong Hill (Hills *et al.* 1984), Morning Thorpe (Green *et al.* 1987) and Bergh Apton (Green and Rogerson 1978), was to develop a selective typology based on attributes indicating related manufacture, and to

use these types for a chronological study. If possible, types were defined to match existing type definitions of glass beads dated by contexts from Continental graves, because these types can link Anglo-Saxon and Continental chronological frameworks. This approach led to a patchwork of type definitions based on manufacturing techniques and further defined by shape, size, colour or decorative pattern, largely depending on existing typologies from various sources. A systematic typology covering glass beads from Anglo-Saxon graves in general would have been beyond the scope of the project.

Table 4.1 provides a type series for the Tittleshall beads which follows the selection and definition of attributes as they were used for the typology in Brugmann (2004) and for the beads from the 1997 excavations at Dover Buckland, Kent (Brugmann 2012), and from Blacknall Field, Wiltshire (Brugmann 2010), with one exception. A differentiation between ‘globular’ and ‘barrel-shaped’ beads is not made, to avoid inconsistencies. Beads are described as globular that could be argued to have a ‘barrel-shaped’ longitudinal cross section due to a large perforation. ‘Barrel-shaped’ beads with perforated sides marvered flat are described as ‘globular, perforated sides marvered flat’.

Glass beads from Grave 15, Group A1

Forty-three of the 159 glass beads (27 per cent) are ‘Blue’ beads (Table 4.1/1) wound from translucent blue glass. ‘Blue’ beads are not datable as such, but large numbers, such as the 34 beads in Grave 15, are common in Glass Bead Group A1, the earliest of the groups defined on the basis of a national sample (Brugmann 2004) and dated roughly to the second half of the 5th and the first half of the 6th century. In East Anglian graves, large numbers of

'Blue' beads are often associated with 'Traffic Light' beads (Table 4.1/20), named after the combination of translucent green, opaque red and opaque yellow glass, usually green and yellow twisted or streaked trails applied to a body wound from red glass. The main distribution of 'Traffic Light' beads in East Anglia and the North (Brugmann 2004, fig. 109) suggests that this glass bead type was made in Norfolk. Grave 15 did not produce any 'Traffic Light' beads but two beads of this type were found in Grave 6, in combination with an opaque red bead.

The 'Blue' beads in Grave 15 were associated with three short beads with translucent green 'wide' crossing trails (that is, crossing three times; Table 4.1/33), and dots, a type which is not defined in Brugmann (2004), but which has attributes common in bead type associations of Group A1 in Anglian England (but rarer in the Saxon West), and is in shape and mostly also in colour combination different from the later imported type 'Koch 20', with wide crossing trails and dots (Brugmann 2004). The only other bichrome beads in Grave 15 are a white bead with red dots (Table 4.1/36) and a blue 'Mottled' bead with irregularly applied red and white dots (Table 4.1/13), a common bead type across early medieval Anglo-Saxon and Merovingian Europe and generally found with beads of Group A.

All other glass beads from this grave are beads wound from monochrome opaque glass, red (Table 4.1/30), green (Table 4.1/26), yellow (Table 4.1/32), or white (Table 4.1/31) and seven beads made of dark glass that appears black (Table 4.1/24–25). These beads are mostly globular, or less carefully shaped and therefore not symmetrical, and a few of them have a ribbed cross section. Short to medium monochrome opaque beads are a common feature of Bead Group A1, adding to the typical character of the bead assemblage in Grave 15. A cylindrical bead so carefully made of translucent green glass that it is not obvious whether it was wound or drawn (Table 4.1/18), is probably of Roman manufacture and an heirloom in this context.

Glass beads from Graves 11, 13 and 21A, Group A2

Three graves, Graves 11A, 13 and 21A, produced bead assemblages with attributes of Glass Bead Group A2, which was introduced in the late 5th century and went out of fashion in the second half of the 6th century. Typical of this phase are so-called 'gold-in-glass' beads ('Segmented Constricted', Table 4.1/2), made of layers of drawn glass and constricted at the perforated sides. The name 'gold-in-glass' refers to the golden (or silver) hue to well-preserved beads and to the inclusion of gold in some but not all beads of this type (see Hirst 1985, 77 *et seq.*). Beads of this type were already in use in late Roman times, and it seems possible that some survived in particular in the Saxon West until a revived import made the type common in the 6th century. Particularly small beads, with a wider range of colours, made of drawn glass and constricted at the perforated sides, were also in use in late Roman times and seem to have survived in small numbers. A blue bead from Grave 11A (Table 4.1/21) may be such a late Roman type. In the Anglian East and North, 'gold-in-glass' beads are, however, less common than in the Saxon West and seem to have been introduced to Anglian bead fashion only at a time that also saw the production of a related bead type: drawn and constricted at the perforated sides, but cylindrical and made of blue glass ('Constricted Cylindrical', Table 4.1/3). A variant of these

beads are cylindrical beads with or without a blue layer slightly constricted, but not enough to form globular segments ('Constricted Cylindrical beaded', Table 4.1/4).

Most of the 'Constricted' Segmented or Cylindrical beads were found in Grave 11. The 212–214 glass, amber and rock crystal beads in this grave were retrieved in four main groups (11A/6.1, 6.3, 6.4, 6.5) and further beads were recovered from soil samples 71468 (11A/6.2) and 71467 (11A/B/6.6). Groups 11A/6.1, 6.2, 6.3 and 6.4 included 'Constricted' beads and were probably all part of the same bead assemblage. The drawn 'Constricted' beads were associated with wound monochrome opaque beads (green, red, yellow and white) and a few 'Blue' beads but also with a number of wound translucent beads (blue-green, green and a small blue 'Miniglob' found in large numbers at Blacknall Field, Wiltshire: Table 4.1/22, 23, 27; Brugmann 2004; 2010). A 'Blue' bead, found along with five amber beads within a 100mm² area at the extreme head end of the grave (11A/6.5), has perforated sides marvered flat, a rare attribute among 'Blue' beads from Anglo-Saxon contexts (Brugmann 2004), but also found with two 'Blue' beads from 11A/6.1.

The four polychrome beads from Grave 11A include a translucent blue-green bead with a small piece of opaque white and blue-green twisted trail marvered into the surface (Table 4.1/38), and an opaque yellow bead with an applied spiral trail of red glass (Table 4.1/35). Fragments of green glass found with two amber beads (11/6.6) may be burnt fragments of a translucent green glass bead. Of particular interest are two small beads with a main distribution in Norfolk, an opaque yellow cylindrical bead with an irregularly applied opaque red trail (Table 4.1/15) and a short white bead with one concave perforated side and an irregularly applied translucent blue trail (Table 4.1/14). These types have been found in association with beads of Group A2 at Morning Thorpe, Bergh Apton and Spong Hill. The only two beads in the national sample found outside Norfolk are from RAF Lakenheath, Eriswell, Suffolk (Brugmann 2004, fig. 141). The finds of two such beads at a further Norfolk site support the evidence for two bead types mainly distributed and probably also made in Norfolk at a time when the Anglian production of 'Traffic Light' beads had ceased.

The three beads from Grave 21A, include a 'Constricted' cylindrical bead that is of the same make as 'Constricted Segmented' beads and may originally have had a blue layer. The 28 beads from Grave 13 include ten 'Constricted Segmented' beads combined with a single polychrome bead, white with a translucent meandering trail and red dots (Table 4.1/34). The 'Constricted' beads in the assemblages from Graves 13 and Grave 21A suggest they are of the same Phase A2 as the beads from Grave 11A.

Glass beads from Grave 10, Group B1

Grave 10 produced a glass bead assemblage which includes a white and a yellow 'Cylindrical Pentagonal' bead with perforated sides marvered flat (Table 4.1/5), probably imported from the Continent in the second half of the 6th or early 7th century as part of a new bead fashion that made use of opaque wound beads, mostly white, yellow and red in colour (Bead Group B1). Most of the presumed imports have been found in Kent and East Anglia (Brugmann 2004, fig. 67). The 'Cylindrical Pentagonal' beads from Grave 10 were associated with a

translucent yellow ribbed 'Melon' bead (Table 4.1/11), probably also imported from or via the Continent, but as part of a trade that moved fewer beads across the Channel and distributed them more evenly around Anglo-Saxon England (Brugmann 2004, fig. 78). These three were associated with three globular glass beads, an opaque yellow bead, an opaque red bead and a white bead with an irregularly applied opaque red trail (Table 4.1/37).

Glass beads from Grave 17, Group B2

The glass bead group last in the chronological sequence found at Tittleshall comes from Grave 17. It includes a red 'Cylindrical Round' bead (Table 4.1/6) related in manufacture to the 'Cylindrical Pentagonal' beads in Grave 10, and small red beads with white narrow crossing trails and white beads with translucent blue narrow crossing trails ('Koch 34'; Table 4.1/9), which were probably imported as part of the same, though partly later Continental production as the 'Cylindrical' beads. Three beads with variations of these patterns (Table 4.1/10–10a) are probably of related manufacture. An opaque red bead with opaque white circumferential trails close to the perforation and five dots on the equator is a rare find in Anglo-Saxon England and may be of the same manufacture as a type with the same colour combination and decorative pattern found in the South of Germany (Table 4.1/8; Koch 1997 pl. 7, type 16.7).

The wound 'Segmented Globular' bead (Table 4.1/19) made of two opaque yellow segments was probably also imported from the continent as part of the same production and trade as the 'Cylindrical Pentagonal' and 'Koch 34' beads (Brugmann 2004). The 'Koch 34' beads and the 'Segmented Globular' bead are types defining Bead Group B2, a later development of Group B1 dated in the later 6th and the first half of the 7th century. These beads are associated with two 'Doughnut' beads (Table 4.1/7), an Anglo-Saxon type made of a piece of translucent glass pierced from one side. Doughnut beads were introduced towards the end of the bead fashion represented by Group B and are mainly characteristic for glass bead assemblages worn from about the mid-7th century onwards (Bead Group C; Brugmann 2004).

Of particular interest is a large ribbed 'melon' bead from Grave 17, which seems to imitate a 'Roman Melon' bead (Table 4.1/17; Brugmann 2004), a common type of large opaque light blue, green or turquoise faience bead frequently found in small numbers in Anglo-Saxon bead assemblages and often very worn. The greenish-blue ('petrol') semi-translucent glass apparently used for the imitation of such a 'Roman Melon' bead is found with beads in the Anglo-Saxon Bead Groups B2 and C, such as a globular bead (Table 4.1/28) from Grave 17.

Glass beads from other contexts

Two of the three glass beads found in the subsoil (I3033), a 'Koch 34' type and an 'Orange' bead made of opaque orange glass (Table 4.1/16; Brugmann 2004, Bead Groups B2 and C) were probably also imported from the Continent. Most 'Orange' beads were found in Kent and East Anglia (Brugmann 2004, fig. 68). The translucent yellow short bead (Table 4.1/12) also found in the subsoil may be a variant of the 'Melon' bead from Grave 10 (see above) and also be part of a Group B assemblage. In this case all three beads may be derived from Grave 17, or represent a destroyed grave of the same Bead Phase B2.

Amber beads

The 225 amber beads from the site add up to c. 86 grams (including soil in some of the perforations). The 166 or more amber beads from Grave 11A account for 66g, the remaining weight being shared by six or seven graves with groups of two to 27 beads (and the single bead from the pit). Most of the beads show signs of wear at the perforated sides, suggesting that they were strung in a way that allowed the beads to rub against each other.

The beads fall into five main types:

- Carefully shaped 'spindle-shaped' beads, often very worn and considered to be of a 5th- and early 6th-century date (see Parfitt and Anderson 2012);
- Carefully shaped 'globular' beads with a round longitudinal and an (almost) round cross section;
- 'Rounded' beads with a rounded show-side but an irregular cross section;
- Medium to long 'faceted' beads without any regular longitudinal section, and
- Short beads, either with an 'irregular' shape such as 'wedge-shaped' or regularly shaped such as short cylinders.

A detailed analysis of the amber beads from the 1997 excavations at Dover, Buckland, Kent, suggests that different types of amber beads were used in combination with Glass Bead Groups A2 and B (Brugmann 2012). It was possible to demonstrate a tendency for the small drawn glass beads of Group A2 to be associated with small rounded amber beads and the more substantial glass beads of Group B with larger faceted amber beads. The same tendency can be observed in the material from Tittleshall. The group of 166 amber beads from Grave 11A, associated with glass beads from Group A2, comprises 114 rounded, eight (almost) globular, 34 faceted and four spindle-shaped beads, with an average weight of 0.4g. The 17 amber beads from Grave 13 include ten rounded, four faceted and a large short, irregular bead with an average weight of 0.2g. The four beads from Grave 10 associated with glass beads of Group B1 are all faceted and have an average weight of 0.8g, as have the two faceted and two rounded amber beads associated with glass beads of Group B2 from Grave 17.

The glass beads of Group A1 in Grave 15 are associated with eleven spindle-shaped, eleven globular or rounded beads and five short amber beads. The spindle-shaped beads support an early date for the glass bead assemblage and the relatively high number of short beads support the observation made at Blacknall Field, Wiltshire, that beads of Group A1 tend to be associated with relatively high numbers of short amber beads, often 'wedge-shaped' (Brugmann 2010). This applies also to the association of the glass beads of Group A1 with two short amber beads in Grave 6.

Bead numbers and the weight of amber bead assemblages should not be taken as a straightforward indicator of wealth. This is suggested by the change in bead fashion associated with Glass Bead Groups A2 and B. Furthermore, small numbers of amber beads often include carefully shaped ones, suggesting a primarily amuletic character of such assemblages (see Meaney 1981).



Figure 4.14 Beads from Grave 13 (1–5), Grave 6 (6–9) and Grave 11 (10–26, continued in Fig. 4.15).
Photo, Ian Cartwright, University of Oxford



Figure 4.15 Beads from Grave 11 (27–53, continued from Fig. 4.14) and Grave 21A (54–55, continued in Fig. 4.16).
Photo, Ian Cartwright, University of Oxford

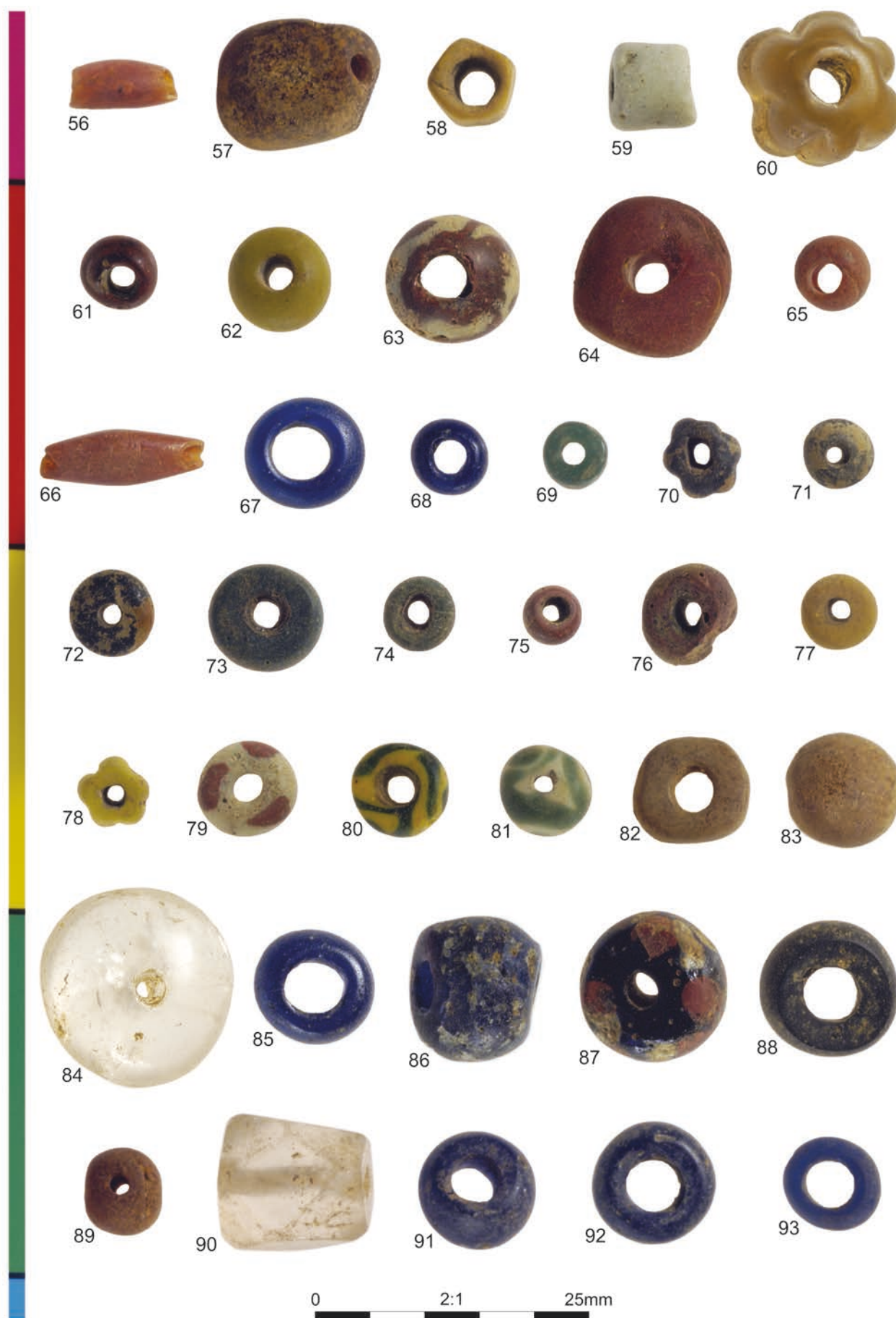


Figure 4.16 Beads from Grave 21A (56, continued from Fig. 4.15), Grave 10 (57–63) and Grave 15 (64–93, continued in Fig. 4.17). Photo, Ian Cartwright, University of Oxford

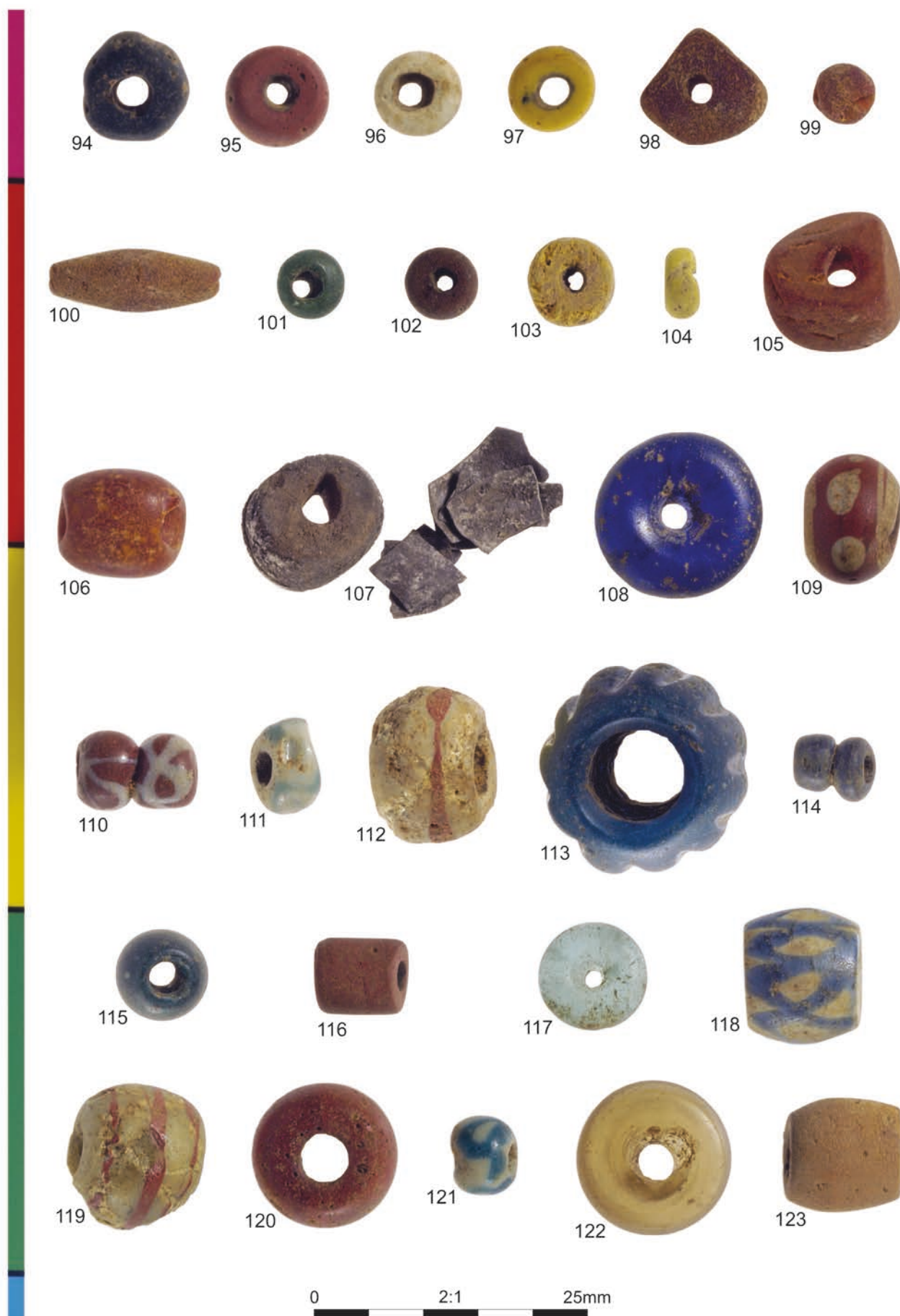


Figure 4.17 Beads from Grave 15 (94–104, continued from Fig. 4.16), Grave 17 (105–120) and subsoil (121–123).
Photo, Ian Cartwright, University of Oxford

| type no | type name | no of beads | no of segments | diameter of perforation | diameter of body | length of body | proportion | bead making technology used for body | shape | translucency | body colour | technique used for decoration | motif |
|--|----------------------------------|-------------|----------------|-------------------------|------------------|----------------|----------------------|---|---|--------------|--------------------|-------------------------------|---|
| A. bead types defined in Brugmann (2004) and related types | | | | | | | | | | | | | |
| 1 | Blue | 43 | 1 | 2.0–6.0 | 7–17 | 3–8 | very short to medium | wound | annular or globular | translucent | blue | none | none |
| 1a | Blue? | 2 | 1 | 4.0–4.5 | 13 | 11 | medium | wound, perforated sides marvered flat | asymmetrical globular | translucent | blue | none? | shattered surface or white inclusions |
| 2 | Constricted Segmented | 14 | 1–3 | 4–5 | 4–5 | 3–12 | | drawn layers, perforated sides constricted | globular | | light | none | none |
| 3 | Constricted Cylindrical | 2 | 1 | 3–4 | 3–4 | 12–13 | very long | drawn, perforated sides constricted | cylindrical | blue | blue | none | none |
| 4 | Constricted Cylindrical, beaded | 2 | 1 | 4 | 4 | 9–22 | very long | drawn layers, perforated sides constricted | cylindrical, beaded | | light | none | none |
| 5 | Cylindrical Pentagonal | 2 | 1 | 3.0–4.0 | 7–8 | 7–9 | medium | wound, perforated sides marvered flat | cylindrical, pentagonal cross section | opaque | white or yellow | none | none |
| 6 | Cylindrical Round | 1 | 1 | 2.5–3.5 | 7 | 8 | medium | wound, perforated sides marvered flat | cylindrical, round cross section | opaque | red | none | none |
| 7 | Doughnut | 2 | 1 | 1.5–2.0 | 9–14 | 3–5 | (very) short | pierced | asymmetrical | translucent | blue-green or blue | none | none |
| 8 | Koch 16.7 | 1 | 1 | 3.5–4.0 | 12 | 8 | short | wound, perforated sides not marvered flat | globular | opaque | red | applied | opaque white circumferential trail close to perforation and five dots on equator |
| 9 | Koch 34 (White Red & Blue White) | 3 | 1–2 | 2.5–6.0 | 7–12 | 5–11 | | wound | globular | opaque | white or red | applied | narrow crossing trails (opaque white on red or translucent (green-)blue on white) |
| 10 | Koch34 var | 1 | 1 | 3.0 | 8 | 5 | short | wound | globular | opaque | white | applied | translucent green-blue wavy trail |
| 10a | Koch 34 var? | 2 | 1 | 3.5–5.5 | 12–13 | 9–10 | short - medium | wound, perforated sides can be marvered flat | globular | opaque | white | applied | one to three opaque red circumferential trail(s) on translucent blue narrow crossing trails |
| 11 | Melon | 1 | 1 | 3.5–4.0 | 13 | 11 | medium | wound, traces of winding on one perforated side | asymmetrical globular, 6 ribbed cross section | translucent | yellow | none | none |
| 12 | Melon ?variant | 1 | 1 | 3.0–4.0 | 13 | 7 | short | wound, traces of winding on one perforated side | globular | translucent | yellow | none | none |
| 13 | Mottled | 1 | 1 | 3.0 | 13 | 8 | short | wound, perforated sides marvered flat | globular | translucent | blue | applied | irregular dots, red on white |

| type no | type name | no of beads | no of segments | diameter of perforation | diameter of body | length of body | proportion | bead making technology used | shape | translucency | body colour | technique used for decoration | finish |
|----------------------------|----------------------------|-------------|----------------|-------------------------|------------------|----------------|----------------|--|---|------------------|--------------------------|-------------------------------|--|
| 14 | Norfolk Blue White | 1 | 1 | 2.0–3.0 | 8 | 4 | short | wound, one perforated side concave, perforation on other sharp | globular | opaque | white | applied | translucent irregular blue-green trail |
| 15 | Norfolk Yellow Red | 1 | 1 | 2.0–4.0 | 6 | 13 | very long | wound, perforated sides not marvered flat | cylindrical | opaque | yellow | applied | opaque red irregular trail |
| 16 | Orange | 1 | 1 | 4.0–5.0 | 10 | 10 | medium | wound, perforated sides marvered flat | globular ('barrel-shaped') | opaque | orange | none | none |
| 17 | Roman Melon imitation | 1 | 1 | 9–11 | 19 | 15 | medium | wound, concave around perforation | globular, 11 ribbed cross-section | semi-translucent | greenish blue ('petrol') | none | none |
| 18 | Roman var | 1 | 1 | 2.0 | 6 | 3 | short | wound?, perforated sides flat (cut or marvered?) | cylindrical | translucent | green | none | none |
| 19 | Segmented Globular | 1 | 2 | 2.0 | 6 | 7 | long | wound | globular | semi-translucent | greenish blue ('petrol') | none | none |
| 20 | Traffic Light | 2 | 1 | 2.0–4.5 | 12–13 | 9–11 | short - medium | wound, perforated sides not marvered flat | globular | opaque | yellow or red | applied | translucent green and opaque yellow or red |
| B. other bead types | | | | | | | | | | | | | |
| drawn monochrome | | | | | | | | | | | | | |
| 21 | blue Constricted Segmented | 1 | 1 | | 5 | 4 | | drawn, constricted perforated sides | globular | translucent | blue | none | none |
| wound monochrome | | | | | | | | | | | | | |
| 22 | blue-green cylindrical | 2 | 1 | 2.0–4.0 | 12–14 | 8–9 | short | wound, perforated sides marvered flat | cylindrical, round or ribbed cross section | translucent | blue-green | none | none |
| 23 | blue-green globular | 2 | 1 | 2.5 | 7 | 6 | medium | wound | globular | translucent | blue-green | none | none |
| 24 | dark annular | 2 | 1 | 4.5–6.0 | 12 | 5–6 | short | Wound, perforated sides concave | annular | | dark | none | none |
| 25 | dark other | 7 | 1 | 1.5–3.5 | 6–10 | 3–8 | short-medium | wound | globular or asymmetrical, round or ribbed cross section | | dark | none | none |
| 26 | green opaque | 11 | 1 | 1.0–4.0 | 6–10 | 3–9 | short-medium | wound | globular or asymmetrical, round or 4 ribbed cross section | opaque | green | none | none |

| type no | type name | no of beads | no of segments | diameter of perforation | diameter of body | length of body | proportion | bead making technology used for body | shape | translucency | body colour | technique used for decoration | motif |
|-------------------------|--------------------------------|-------------|----------------|-------------------------|------------------|----------------|---------------------|--------------------------------------|--|------------------|--------------------------|-------------------------------|--|
| 27 | green translucent | 2 | 1 | 3.0-4.0 | 8 | 8 | medium | wound | Cylindrical, 4 ribbed cross section; other shapes | translucent | green | none | none |
| 28 | greenish-blue semi-translucent | 1 | 1 | 2.5-3.0 | 8 | 7 | medium | wound | globular | semi-translucent | greenish-blue ('petrol') | none | none |
| 29 | Mini Glob | 1 | 1 | 1.5-2.0 | 5 | 5 | medium | wound, edge of perforation sharpish | globular, slightly pear shaped | translucent | blue | none | none |
| 30 | red opaque | 21 | 1 | 1.0-5.0 | 5-13 | 3-8 | very short - medium | wound | globular, asymmetrical | opaque | red | none | none |
| 31 | white opaque | 4 | 1 | 2.0-3.0 | 6-8 | 3-4 | short | wound | globular | opaque | white | none | none |
| 32 | yellow opaque | 8 | 1 | 1.0-4.0 | 6-9 | 4-7 | short - medium | wound | globular, cylindrical or asymmetrical, round or ribbed cross-section | opaque | yellow | none | none |
| wound polychrome | | | | | | | | | | | | | |
| 33 | wide crossing trails | 3 | 1 | 1.0-3.5 | 8 | 3-5 | short | wound | globular | opaque | white or yellow | applied | translucent green wide crossing trails and three dots |
| 34 | meander | 1 | 1 | 2.5-5.0 | 14 | 11 | medium | wound | globular | opaque | white | applied | white and translucent blue streaked wavy trail (meander) and three opaque red dots |
| 35 | spiral | 1 | 1 | 2.5-3.5 | 7 | 6 | medium | wound | globular | opaque | yellow | applied | red spiral trail |
| 36 | dots | 1 | 1 | 2.0-3.0 | 9 | 3 | very short | wound | globular | opaque | white | applied | three opaque red dots |
| 37 | Irregular trail | 1 | 1 | 4.0-5.0 | 11 | 8 | short | wound | globular | opaque | white | applied | opaque red irregular trail |
| 38 | twisted trail | 1 | 1 | 1.5-3.0 | 7 | 7 | medium | wound | cylindrical | translucent | blue-green | applied | small piece of translucent blue-green and opaque white twisted trail |

Bold script marks glass bead types defined in Bruggmann (2004). *Italic* script marks type definitions summarising beads with particular attributes but not necessarily of related manufacture

Table 4.1 Glass bead typology relevant to the beads from Tittleshall cemetery covering all sufficiently-preserved glass beads

Rock crystal beads

(Fig. 4.15 no. 41)

Grave 15 produced a pair of polyhedral rock crystal beads and a single short globular rock crystal bead with a worn ridge on the equator. The short globular rock crystal bead from Grave 11A is also worn at the equator. The four beads cover the three most common shapes of rock crystal beads known from Anglo-Saxon graves (see Meaney 1981, 77 *et seq.*; Huggett 1988, 70). Globular beads with or without a ridge usually occur singly in bead assemblages, polyhedral beads occasionally in pairs (see, for example, Blacknall Field Grave 31; Brugmann 2010). The wear on all four beads is also a common feature of such beads, which cannot be explained by wear on a string together with other beads. It therefore seems that these beads had some previous or additional use which put more strain on them.

Silver bead

(Fig. 4.17 no. 107)

Beads covered with, or made of, silver sheet are known from Bead Group B2 but are more common in Group C. Silver beads usually are shaped in the form of bells set against each other to form a globular bead with a ridge, or two almond-shaped halves (see, for example Geake 1997, fig. 4.6) which probably had a core of some perishable material. A 'barrel-shaped' core sheeted with silver, as in Grave 17, is an unusual type. The worn perforation of the core suggests that the bead was not made for burial. The silver sheeting of this bead (0.3g) is more substantial than that of some bell- or almond-shaped beads, indicating that this bead is not simply a second-rate imitation of a conventional silver sheet bead. It may, however, be a local product.

Summary

Dating the Tittleshall graves solely on the basis of the beads could be misleading. The association of beads and brooches, however, support the argument for a chronological sequence of the graves to some extent. An early date for the association of Glass Bead Group A1 and the assemblage of amber beads including spindle-shaped and short beads from Grave 15 is supported by the early brooches in this grave (Walton Rogers, above). Grave 21A with a glass bead of Group A2 also produced a cruciform brooch of a type which continued in use later than the one from Grave 15. The annular brooches in Graves 11A and 13, a mainly 6th-century type, match the general date suggested by the beads of Group A2. The beads of Group B are not associated with brooches, which is not surprising as the combination of beads with brooches becomes rare after the mid-6th century.

The seven graves at Tittleshall with beads fall into four of the six Anglo-Saxon bead groups defined on the basis of a national sample of 32,000 beads:

| | | |
|----------|-----------------|-----------------------|
| Group A1 | (AD c. 450–530) | Graves 6 and 15 |
| Group A2 | (AD c. 480–570) | Grave 11A, 13 and 21A |
| Group B1 | (AD c. 550–600) | Grave 10 |
| Group B2 | (AD c. 580–650) | Grave 17 |

The glass beads from this site display some regional characteristics. They include bead types of Group A, which were probably made in Anglian England, or specifically Norfolk, and bead types of Group B which were probably imported, in particular into Kent and East Anglia, from or via the Continent. This suggests that the

community burying at Tittleshall was supplied by the same regional manufacture and trade as the communities burying at the well-known Norfolk sites at Spong Hill, Morning Thorpe and Bergh Apton. The silver-sheeted bead from Tittleshall may indicate a local initiative in bead making inspired by some standardised types of silver beads found at other sites.

Metal pendants, including pierced coins

by Penelope Walton Rogers

(Fig. 4.18)

A single metal pendant was found in the region of the neck or upper chest in four graves. The scutiform pendant in Grave 11A and the pierced Roman coins in Graves 3 and 15 are familiar artefacts from other cemeteries, but the elliptical pendant from Grave 13 is unusual, and it will be argued that it is likely to be a local Norfolk product.

A silver scutiform pendant with a central boss and stamped ornament, 11A/2, was found with over 200 beads in the lower of the two burials in Grave 11. It can be compared with other examples from Norfolk, recorded at Bergh Apton G21 (Green and Rogerson 1978, 21, 62) and Morning Thorpe G80 (copper-alloy), G322, G359, G369 and G375 (Green *et al.* 1987, I 58, 139, 143, 146; II 223, 304, 324, 330, 337). Two of these, Bergh Apton G21/C and Morning Thorpe G369/H, have stamped ornament encircling the boss and around the outer edge, but the segmented Y stamp used around the boss of the Tittleshall pendant is not present in any. A similar stamp was used on cruciform brooch 21A/2 and, as already noted, the segmented Y is most commonly found on metalwork from Cambridgeshire and Suffolk, and less frequently Norfolk.

Whether the resemblance of these pendants to a Germanic shield is just a fortuitous combination of standard design elements (Geake 1997, 38–9), or an attempt to draw protective influences to the wearer (Meaney 1981, 159–162), is debatable, but they are generally regarded as a discrete artefact-type, to be distinguished from other disc-shaped pendants. Scutiform pendants probably came to Britain from southern Scandinavia, became widespread in the eastern 'Anglian' region in the first half of the 6th century before eventually reaching Kent (Hines 1984, 221–235), and they continued in use into the 7th century (Geake 1997, 38). The other Norfolk graves in which they occur have been attributed to Phases FA2b and FB (Penn and Brugmann 2007, 26, 58).

The small elliptical, or leaf-shaped, copper-alloy object, 13/5, which was found below the beads on the upper chest in Grave 13, almost certainly represents a pendant from which the suspension loop has been lost. Its ornament consists of small circular perforations arranged in a cross. Two similar objects have been found in Norfolk, one from an undated grave at Spong Hill G33 (Hills *et al.* 1984, 82–4, 135), a few kilometres from Tittleshall, and another from a grave of EAC Phase FA2, Morning Thorpe G303 (Green *et al.* 1987, I, 119, II, 297). The Spong Hill example was damaged but found with beads at the probable head end of the grave. The Morning Thorpe piece still had an intact looped end, but was separated from the beads, at the right of the head. These are the only examples located so far, but a slightly larger diamond-shaped pendant, with a repoussé human face surrounded by dots, recovered by metal-detecting at Thornham Magna in the northern part of Suffolk (metal-detected find, SMR TMM007: information courtesy of Suffolk

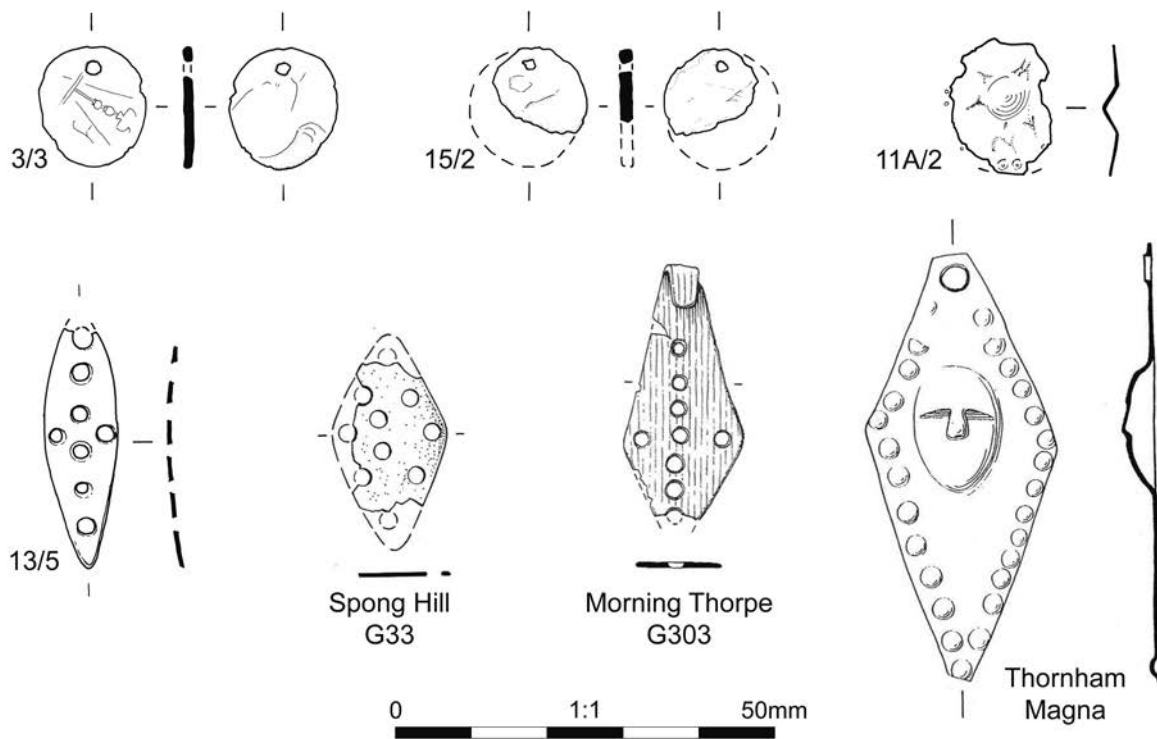


Figure 4.18 Metal pendants: pierced copper-alloy coins from Graves 3 and 15, a silver scutiform pendant from Grave 11A and a perforated copper-alloy pendant from Grave 13, compared with copper-alloy pendants from Spong Hill, Morning Thorpe and Thornham Magna. Spong Hill image (after Hills *et al.* 1984, fig. 88) and Morning Thorpe image (after Green *et al.* 1987, II fig. 394) courtesy of Norfolk Historic Environment Service; Thornham Magna image courtesy of Suffolk County Council Archaeological Service

Archaeological Service), probably belongs in the same general category. On the evidence collected so far, these pendants appear to be limited to the northern half of East Anglia. Their position in the grave suggests that they could be suspended separately from the bead-strings, which might imply that they were a form of talisman.

A pierced copper-alloy coin, 3/3, was found with annular brooches close to the teeth in Grave 3, and another, 15/2, occurred with quantities of beads on the upper chest in Grave 15. Both are AE3-size coins and have a single piercing placed 1mm from the coin edge. On coin 3/3 the perforation is positioned by the chin of the bust on the obverse and to one side of the figures on the reverse, so that neither image will have hung upright (on the more heavily corroded coin, 15/2, the orientation of the images is unclear). Coin 3/3 was minted AD 335–341, but 15/2 can be only loosely dated to c. 260–378 (information provided by Adrian Marsden).

Pierced Roman coins are often recorded at the neck or waist in Anglo-Saxon female-gender graves of the 5th and 6th centuries (Green *et al.* 1987, I, 54–57, II, 220; Evison 1987, 49; Timby 1996, 56–7; Archibald *et al.* 1997, 215), and the practice of making coins into pendants continued into the 7th century, when metal suspension loops replaced the perforation (Geake 1997, 38, 268). The coins used are often late, but they are rarely of an issue that was current at the end of Roman rule, which argues that they represent objects collected from graves and derelict sites, rather than the heirlooms of a family trying to celebrate its Romano-British roots (for example, Archibald *et al.* 1997, 215). They were worn by Germanic women in other parts of Europe and may have been regarded as amulets as well as ornaments (Meaney 1981, 220).

IV. Clothing and covers

Textiles

(Fig. 4.19)

Remains of textiles and threads or cords were recorded on metalwork from twelve inhumations. Altogether 39 different textiles were itemised and full technical details of weave, spin and thread-count could be collected in 26 (Table 4.2). The fibres were examined by optical (transmitted-light) microscopy and successfully identified in 16 examples. These remains mostly represent the dead's clothing, preserved at the point where it has been clasped by brooches, stitched to cuff-fasteners, held in place by belt-buckles, or where it has fallen against other metal artefacts in the grave. Their role in costume will be described in Chapter 7 and tables of the textiles and their relationship to the garment fasteners appear in the grave inventory, Chapter 9.

The textiles represent a typical collection of the early part of the Early Anglo-Saxon period. They are dominated by ZZ 2/2 twills (Fig. 4.19; see Chapter 9 for key to textile terms) in which the fibre, where it can be identified, is mostly wool. Wool twill with ZS spin became increasingly important during the course of the 6th century (Walton Rogers 2007, 104–6) and was a particularly late arrival in Norfolk (Walton Rogers 2012b): there is only one example of this fabric type at this site, from Grave 14. Among the ZZ twills, one well-preserved piece, clasped by the square-headed brooch in Grave 13 is of especial interest. It has the fine undercoat, 10–20 microns diameter, and the medium fibres of 40–45 microns with medullas (central channels) found in the

undercoat of goat (Wildman 1954, 119–123; Ryder 1987, 4–5, 7–9), and the presence of pigmented (black) and non-pigmented (white) fibres will have given the fabric the appearance of a natural grey. Similar fabrics have been recorded in female burials in Warwickshire, at Wasperton G43 (Walton Rogers 2009), and Bidford-on-Avon G13 (Walton Rogers 1996), the latter possibly wool but the former almost certainly goat fibre, in both cases clasped by a great square-headed brooch. Another great square-headed brooch from a female burial at Barrow Clump, Wiltshire, clasped a fine-fibred, though poorly preserved textile (Walton Rogers 2008). The fine underwool of goat is often termed ‘cashmere’ and it seems likely that these represent the luxury cloak fabrics of the period.

The four ZZ tabby weaves include tabby repp, in which the fabric has a solid, slightly ribbed appearance. These are particularly common in 6th-century graves, where they are most often found on the backs of buckles on the bodies of men and women (Walton Rogers 2007, 67–8). The linen repp in Grave 3 is therefore in an unusual position, by the neck of a child, and in association with a leather thong. The repp (fibre not identified) in Grave 10 at the neck of an adult body accompanied by female accessories is also oddly placed, although in this instance it may represent the border of another fabric, perhaps the head-veil. The plain ZZ tabby weaves include a heavy dress fabric (fibre not identified) in Grave 11A, but the example in linen from a child’s burial, Grave 19, is particularly fine, at 30 x 24 threads per cm, and was found in a late grave, possibly dated to the 7th century, when linen tabby had become the most common fabric for burial clothing (Walton Rogers 2007, 107).

Among the other textiles there is a single example of linen ZZ 2/2 chevron or diamond twill from Grave 13. This kind of fabric was used on a small scale for clothing and bed-linen throughout the 5th to 7th centuries (Walton Rogers 2007, 70–2, 105) and in this burial it was probably the fabric of a woman’s dress. There is also a lightweight net-like fabric of uncertain weave (but probably tabby) made from black-dyed wool, from Grave 21A. Although poorly preserved, its general appearance is typical of the *Schleiergewebe*, ‘veil weave’ textiles, which represent the arrival of colours in the Anglo-Saxon head veils in the first half of the 6th century (Walton Rogers 2007, 68–9, 157–8, 161–2): in this instance it was found with artefacts dated to Phase FA2a. There are also two examples of 2/1 twill, from Graves 6 and 11A, with a possible third from Grave

13. 2/1 twills are found concentrated in certain regions, of which Norfolk is one, in the 5th and 6th centuries (Walton Rogers 2007, 72–3, 110, 230–2), and in the Tittleshall graves they are associated with artefacts of Phase FA2. The weave is thought to have been woven on the two-beam vertical loom (as distinct from the more usual warp-weighted loom of the Anglo-Saxon settlements) and to represent the survival of Romano-British skills.

The narrow woven bands known as tablet weaves were present in five graves. Two were plain corded cuffs attached to sleeve clasps, in Graves 6 and 13, worked with tablets threaded left and right alternately in standard fashion (Fig. 4.19); two were probably selvages (that is, woven as an integral part of the cloth), and formed the upper border of the ‘peplos’ (see Chapter 7) in Graves 11A and 15; and one was a patterned band stitched to the edge of a heavy wool cloak in Grave 21A. This last could only be viewed from the back, its front face being against the back of the cruciform brooch that fastened the cloak, but it was clear from the irregular arrangement of the warp threads, that it carried some form of pattern (not illustrated). Patterned tablet weaves were a particular speciality of the Anglo-Saxons and were usually displayed on sleeve cuffs and borders of outer garments such as cloaks, where they would have maximum impact (Walton Rogers 2007, 89–97).

Yarns had also been used for stitching, stringing beads and as a fringe. The edge of the tablet-woven band in Grave 21A overlapped the edge of the wool twill identified

| Textile type | Linen | Wool | Fibre not id. | Total |
|---------------|----------|-----------|---------------|-----------|
| ZZ tabby | 1 | 0 | 1 | 2 |
| ZZ tabby repp | 1 | 0 | 1 | 2 |
| ZZ 2/2 twill | 1 | 8* | 5 | 14 |
| ZS 2/2 twill | 0 | 1 | 0 | 1 |
| ZZ 2/1 twill | 1 | 0 | 1 | 2 |
| tablet weaves | 1 | 2 | 2 | 5 |
| Total | 5 | 11 | 10 | 26 |

* One is probably goat fibre

Table 4.2 Textiles from 12 graves in the Tittleshall cemetery

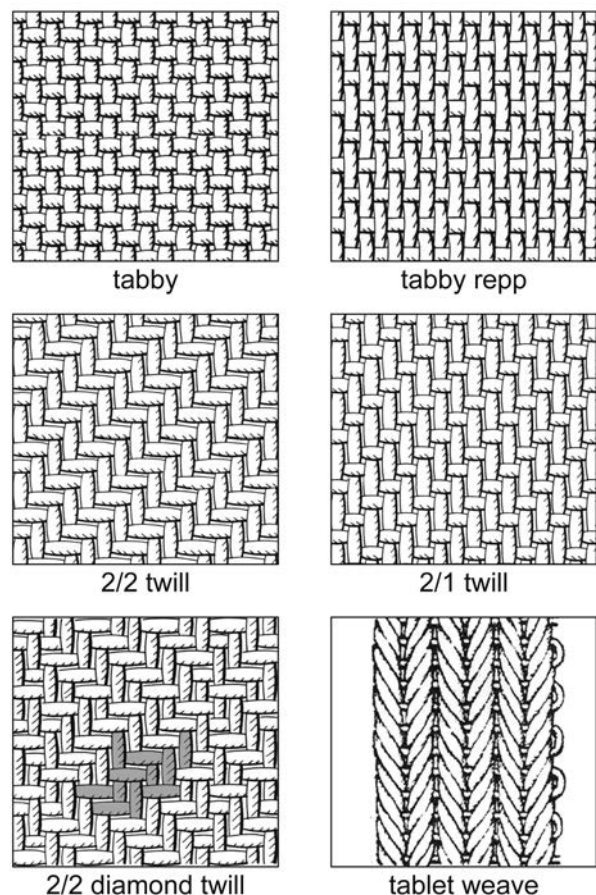


Figure 4.19 The weave structures mentioned in the text. The grey threads in the diagram of 2/2 diamond twill represent the preserved area of the twill textile from Grave 13

as a cloak fabric and it had been sewn in place with irregularly arranged stitches worked with 2-ply yarn used double. A bundle of fine linen Z-spun yarns, loosely twisted together on an annular brooch in Grave 11A possibly represent the cord of a bead-string as it passed over the brooch (there were over 200 beads in the neck-shoulder-chest area in this burial). Another bundle of yarns on the back of the applied brooch in Grave 15 may have had the same purpose (there were 107 beads in the burial). Finally, the long fine Z-spun yarns loosely straggling across a sleeve clasp at the right waist in Grave 6, have the appearance of a fringe, and may be interpreted as the edge of a long veil or shawl.

Animal fibre

In Grave 12, the head rested against the shield, and the imprint of long curling locks of fibre preserved in the corrosion on the metal boss are likely to represent the man's hair. On one face of the pendant in Grave 13, there were imprints of a much shorter, finer fibre, arranged in small tufts, and intact fur fibres were preserved in association with the nearby textile on the hybrid square-headed brooch. These fibres were fine with a ladder medulla and they resembled the kind of fur found in small mammals such as squirrel, stoat, weasel, rabbit, hare and fox (Appleyard 1978, 60, 98–101, 119–121). Both pieces of evidence came from the upper chest and they can be interpreted as a fur trim on the cloak, or a fur cape worn on top of it. Shoulder capes made from animal skins and fastened with a buckle have been interpreted from the remains of pelt associated with buckles on the chest in women's burials (Walton Rogers 2007, 172–6), and it is possible that the evidence in Grave 13 represents a cape without a buckle.

V. Utensils carried on the body

by Kenneth Penn

Some implements seem to have been commonly carried on the body, either attached to the belt or hung round the neck. In some of the Tittleshall graves, the position of the artefact indicates that they were not on the body at the time of burial, but these burials mostly prove to be late (see Chapter 6) and appear to reflect a change in burial practice.

Knives

(Fig. 4.20)

Iron knives were found in 14 graves, two in Graves 12 and 19, and one each in Graves 2, 4–7, 10, 11A, 13, 16, 17, 21A and 23. They were buried with two adult males, seven adult females, two children (one with male-gender accessories) and three adults whose sex and gender were unknown. Knives 4/1 and 19/3 appear to have been incomplete at the time of burial, but the others are whole, except for the organic element of the handle, which has decayed. There are traces of horn handles on the tangs of 10/4, 11A/9.1 and 13/8, and remains of leather or skin sheaths on the blades of the same three knives. The blades of 19/4, 21A/6, and perhaps also 16/4, have a sinuous cutting edge, which suggests long-term use. Most knives were found, point down or horizontal, in the region of the waist, and were probably suspended from, or tucked into, the belt. In Graves 4, 5, 7, 12 and 17, however, the knives were placed in other positions, most notably above the

head in Graves 5 and 7 and behind the left shoulder in Grave 12.

The knives have been classified using Drinkall's system (Drinkall and Foreman 1998, 279–283, following Härke 1989, 147), which combines six blade shapes, A–F (equivalent to types 1–6 in Evison 1987, 113), with three blade-length categories, 1–3 (defined in Härke 1989, 144). Eight of the 16 knives are form A, which has a curved back and curved cutting edge, and most of these are type A1, which has blade lengths of less than 100mm, although the blade length of 119mm in 12/5 places it in A2. Knives 7/1 and 10/4 are examples of D1, which has a curved back and straight cutting edge, and 19/4 and 23/1 are on the borderline between D1 and E1, E1 having an angled back and a straight cutting edge. Knives 12/6 and 21A/6 and incomplete knives 4/1 and 19/3 were difficult to categorise, although 12/6 and 21A/6 fall into size category 1.

Knives do not form neatly datable groups, although some shapes and sizes were more common at certain times. They were not included in the correspondence analyses in Penn and Brugmann, although the tendency towards longer blades in later periods and the relatively late appearance of blades with a straight cutting edge (Drinkall shapes D and E) was noted (Penn and Brugmann 2007, 34). In the absence of a formal chronology for knives, those from datable graves at Castledyke, Lincolnshire (Drinkall and Foreman 1998, 281–2), Dover Buckland, Kent (Evison 1987, 113–6), Alton, Hampshire (Evison 1988, 23–4), and Harford Farm, Caistor St Edmund, Norfolk (Penn 2000, 55–7), can be taken as a guide. At these sites, shape A knives were found in graves of all phases, but D and E were most common in 7th-century graves, with a few as early as the 6th century. There is nothing to contradict this evidence at Tittleshall, where D/E knives were found with B1 beads in Grave 10, with a late 6th- or 7th-century buckle in Grave 19, and with no other artefacts in Graves 7 and 23: in these two last, the straight cutting edge of the knives is the only indication of date for the burial. Finally, the largest knife, 12/5, was found in a grave with an early shield boss but a late radiocarbon date. Knife size has a complex relationship with age and gender, as well as date, and will be discussed further in Chapters 6 and 7.

Latch-lifters

Fragmentary remains of iron latch-lifters were recovered from the region of the hip in two graves, 11A and 15, both the burials of adult women. In Grave 11A, the latch-lifter had a curved hook and was found with two rings, one of which may have been used for suspension; and in Grave 15 one fragment with a hooked end was found with a bar with a looped end for suspension and other bars which may represent remains of other latch-lifters or keys (for illustrations see inventory, Chapter 9). Such objects occur in 6th-century burials and can be found attached to a chatelaine at a later date (Geake 1997, 57–8). Examples have been found with burials of possible early 7th-century date at Hadleigh Road, Ipswich (Ozanne 1963), but in other East Anglian graves they have been placed in Phase FA2 (Penn and Brugmann 2007, 30), which accords with evidence for Grave 11A. Grave 15 is earlier still and includes beads and brooches confidently dated to Phase FA1.

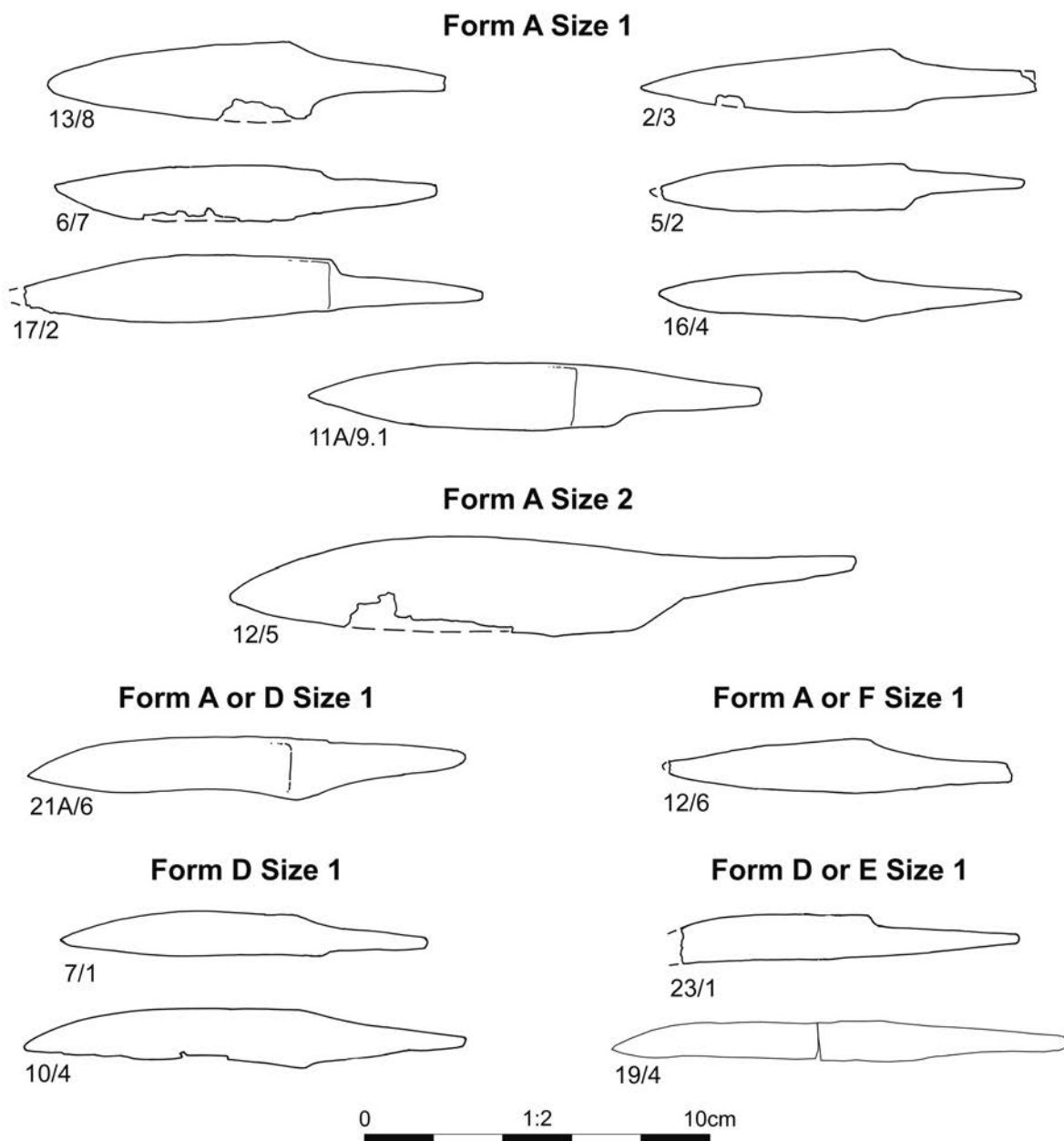


Figure 4.20 Knife types: forms and sizes. All knives have been illustrated with blade tip to left and the cutting edge pointing down

Tweezers

Two pairs of tweezers were found in Grave 12, one in Grave 10, and a fourth pair was recovered from pit 13055, to the east of the cemetery (for illustrations see inventory, Chapter 9). In Grave 12 the iron tweezers, 12/2, were on the upper body and the copper-alloy pair, 12/3, to the left of the left shoulder, in a grave with male accessories. In Grave 10, an incomplete pair of iron tweezers, 10/3, formed part of a cluster of broken metalwork which lay with the knife in the region of the right hip in a female-gender burial. The tweezers from pit 13055, SF 70450, are of copper alloy. All these tweezers are plain, with arms that flare slightly towards the tip.

Tweezers are common objects in cremation cemeteries, where they are generally regarded as toilet implements. Besides being found in cremations (such as those at Spong Hill), they were recorded in 15 inhumations (13 with copper-alloy tweezers and two iron)

at Morning Thorpe and there was a single copper-alloy pair from Spong Hill G27 (Penn and Brugmann 2007, 36). In these cemeteries, as elsewhere, tweezers showed a slight bias towards male graves (Hirst 1985, 89; Stoodley 1999, 31, 33; Penn and Brugmann 2007, 36). At Tittleshall, the tweezers were buried with a female (G10) only after they had lost their capacity to function. There is no typology or conventional dating for these objects, and, since there is no means of distinguishing Roman examples (Eckardt and Crummy 2008) from Anglo-Saxon ones, the tweezers from the pit can be only tentatively ascribed to the Early Anglo-Saxon period, on the basis of the associated ceramics.

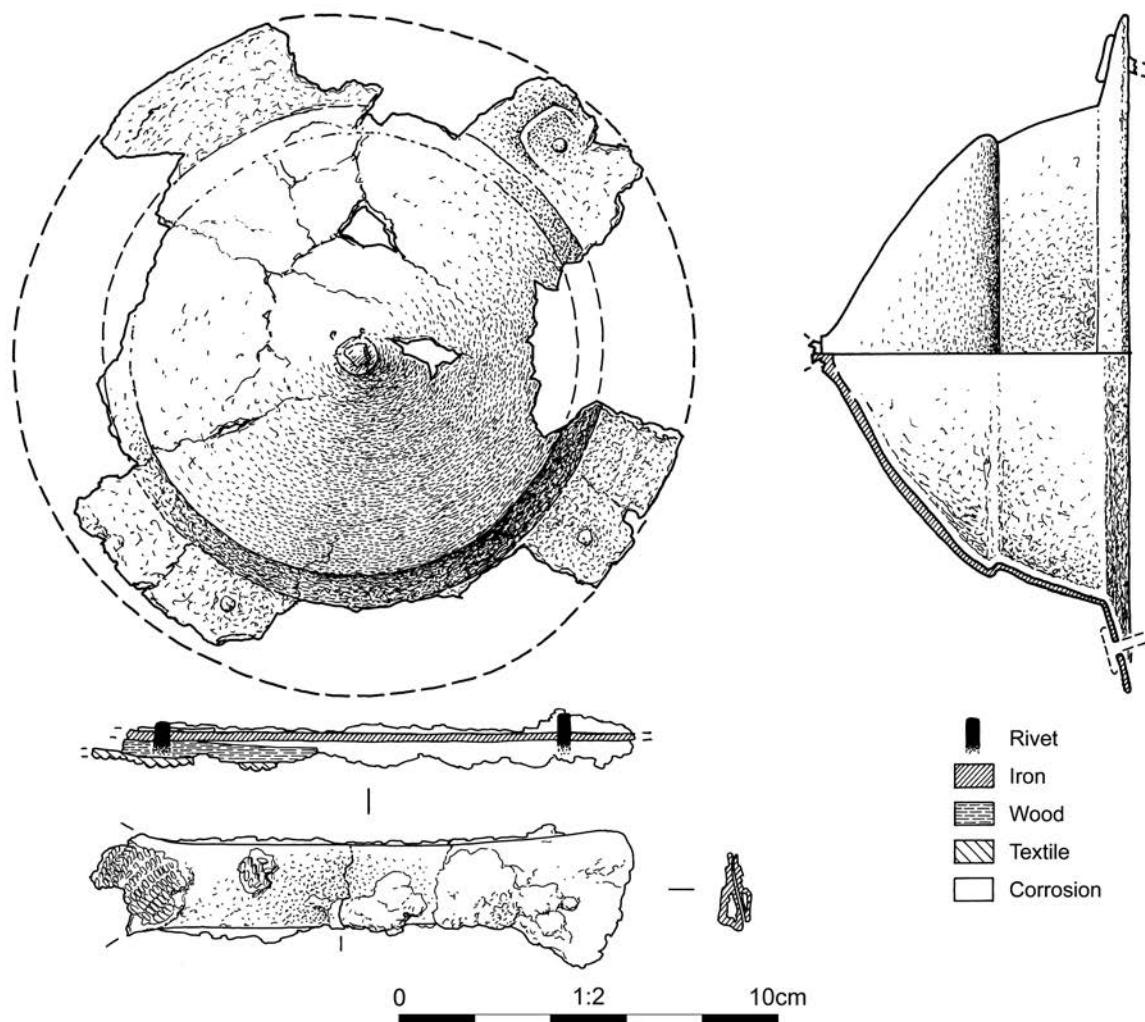


Figure 4.21 Iron shield boss and grip from Grave 12. Note the sloping walls and overhanging carination

VI. Weaponry

by Kenneth Penn and Penelope Walton Rogers

A spear from Grave 2 and a shield from Grave 12 were both buried with adults over the age of 55 years, but part of a sword scabbard, from Grave 19, came from the burial of a child aged six or seven.

Shield

(Fig. 4.21)

The shield is represented by a heavily corroded iron boss and grip, 12/1, with remains of the shield boards and the wooden element of the handle on one face of the grip. The apex and most of the flange rivets are absent and there is no evidence for studs or board mounts, nor any trace of skin covers. The boss is a member of Dickinson and Härke's Group 3, identified by its height, the convex cone and the slight overhang at the carination (Dickinson and Härke 1992, 14–17). The grip has the parallel sides and flaring ends of Härke Type Ia1, which is often associated with Group 3 bosses (Dickinson and Härke 1992, 15, 24–6). Group 3 bosses were in use from the early 6th to the early 7th century and they are the predominant type in East Anglia (Dickinson and Härke 1992, 14–17, 23). In the modified system for classifying East Anglian shield bosses devised by Karen Høilund Nielsen, the boss can

also be categorised as *COS*, defined by a convex cone, overhanging carination, sloping wall and an exacting list of dimensions and ratios (Penn and Brugmann 2007, 19, 22–3, table 4.2). The ascription of *COS* bosses to Phase MA2, AD c. 510–560/70, is based on parallels on the Continent and correspondence analysis of finds from four East Anglian cemeteries (*ibid.*). It is often difficult to relate the male and female chronologies for this period, but there is a Group 3/*COS* boss from a double, male-female, burial at Haddenham, Cambridgeshire, G3-4, where the woman's brooch is a square-headed small-long brooch with lappets, *EAC sm3* (most common in *EAC* Phase FA2a), and the whole burial has been dated to the first half of the 6th century (Robinson and Duhig 1992, 8–9, 14–21, 27).

The Tittleshall boss is therefore likely to come from Phase MA2, a dating which is clearly at odds with the radiocarbon date of cal. AD 650–780 derived from the skeleton (discussed further in Chapter 6).

Spear

(Fig. 4.22)

The iron spearhead, 2/4.1–2, has been broken in two, probably by plough-damage. It is a long narrow leaf-shaped form, and it has remains of an ash shaft in the cleft socket. It belongs to Swanton's Series C, which is

comparatively rare in Norfolk, but the continuum in size and shape in leaf-shaped spearheads makes it difficult to categorise it further. It might be described as a narrow variant of C2 or a long-socketed version of C3 (Swanton 1973, 51–9; 1974, 8–11). C2 was in use throughout the Early Anglo-Saxon period and C3 from the 6th century onwards. In terms of the recent re-assessment of East Anglian spearheads, the Tittleshall example would be defined as ‘lanceolate long 1’ (*LaLo1*), based on the analysis of dimensions and angles devised by Høilund Nielsen (Penn and Brugmann 2007, 17–22, table 4.1). Lanceolate spearheads were ascribed to EAC Phases MA1–MA2, and *LaLo1* was tentatively placed early in the sequence, although the small number of the examples was noted (Penn and Brugmann 2007, 20). The associated artefacts in Grave 2, especially the buckle of Marzinzik Type II.20, suggest a 6th-century date for the deposition of this particular spearhead. The possibility that this was a spear-shaped weaving batten was considered, but the sharp tip and thick cross-section suggest otherwise.

Sword scabbard

(Fig. 4.23)

The records made when 19/1 was first excavated show that it had the typical boat-shaped profile and dimensions (60mm across) of a mouth-band from a sword scabbard. It is now fragmentary, but it appears to have been made from two strips of copper-alloy sheet, ornamented with repoussé dots. There were no other metal scabbard fittings present — and certainly no sword — but there were organic remains, including both leather/skin and wood, associated with the metal. The whole complex has been interpreted as the upper part of a sword scabbard.

The mouth-band belongs to a group of smooth examples which are dated to the 6th century and possibly limited to the first half of the century (Cameron 2000, 42). They lack the ridges of other 6th-century mouth-bands and the cast ornament of 5th-century examples, while metal mouth-bands as a whole seem to have become rare by the 7th century (Cameron 2000, 41–3). A sword from a 6th-century adult burial at Mucking II G766, Essex, has a scabbard with a two-piece mouth-band, which incorporates a strip with similar ornament to that of 19/1, combined with a ridged gold-on-leather strip (Hirst and Clark 2009, 126–7, 711, 716). The Tittleshall scabbard was probably quite old by the time it was buried, as the buckle from the same grave, 19/2, has been dated to the late 6th or 7th century.

VII. Containers

Iron-bound bucket

by Kenneth Penn and Penelope Walton Rogers
(Fig. 4.24)

The topsoil produced the fragmentary remains of an iron-bound wooden vessel (SF 70545 and SF 70546), almost certainly from a ploughed-out burial. These represent a bucket of about 300mm in diameter, with a folded-over rim, one surviving rim clip, a kite-shaped handle mount and remains of the hooked end of the bucket handle. There are also fragments of the bands or hoops that will have bound the staves together, with traces of mineralised wood on the back. They include wide pieces with a flat cross-section, which are likely to represent the top or bottom hoops; and D-section pieces from

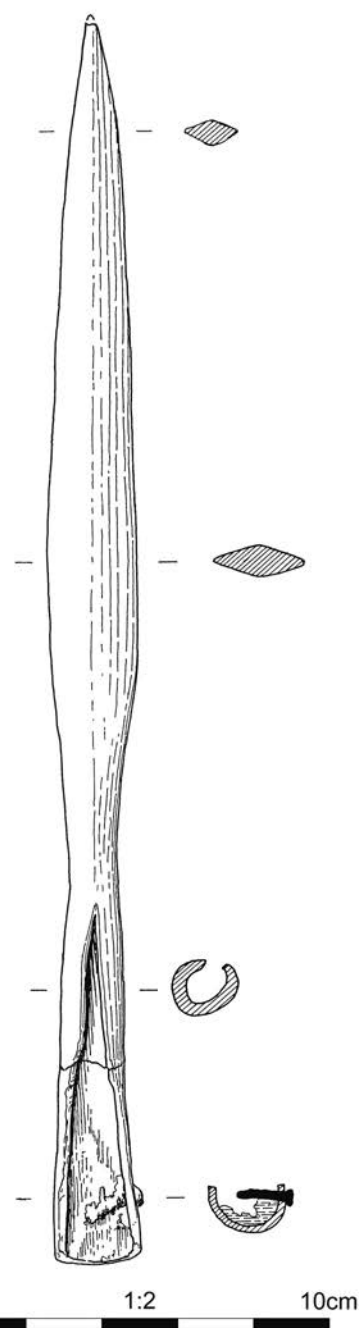


Figure 4.22 The iron spearhead with long leaf-shaped blade from Grave 2

intermediate hoops, some of which are arranged in pairs. The remains of the iron handle identify the find as a bucket, since tubs, which are often larger than buckets, have a pair of suspension rings (Cook 2004, 30).

There are iron-bound buckets and tubs from at least twelve graves in Norfolk and Suffolk, most of which have been ascribed to Phases MB and C (Cook 2004; Penn 2011, 6, 79). Iron-bound vessels are on the whole later and more commonly associated with men than copper-alloy-bound ones (Penn and Brugmann 2007, 38), although there is a close parallel for the Tittleshall bucket in the grave of a woman at Barrington, Cambridgeshire, G18B (Malim and Hines 1998, 52, 106, G18B). This example was approximately 270mm diameter at the base and had paired iron hoops as well as kite-shaped handle mounts.

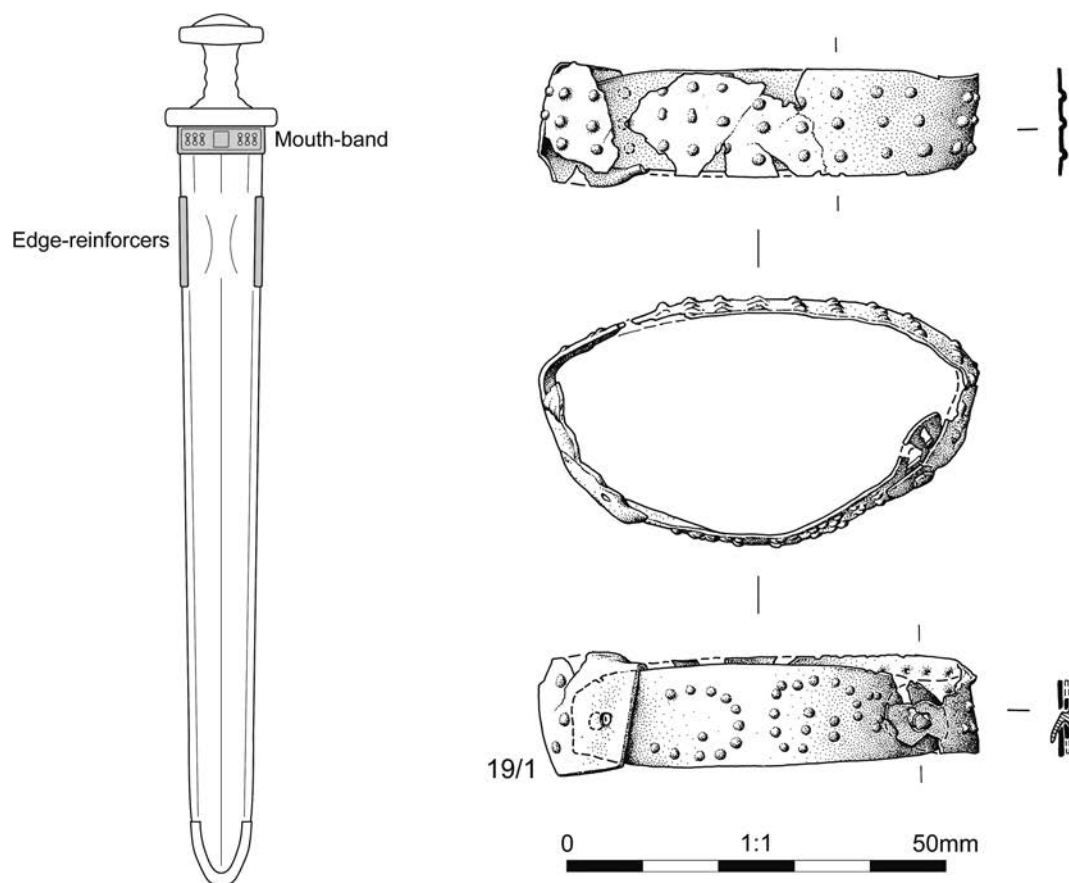


Figure 4.23 Copper-alloy mouth-band from Grave 19 and a diagram of the principal components of an Anglo-Saxon sword scabbard (after Cameron 2000, 163, fig. 4b)

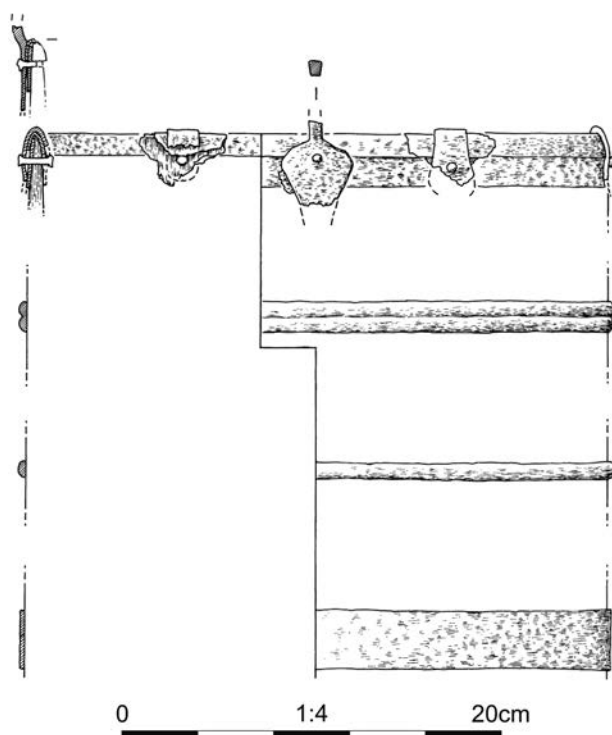


Figure 4.24 A reconstruction of the bucket, based on iron fittings recovered from the topsoil (SF 70545-6) and Grave 12 (12/7)

The burial was originally dated between the late 6th century and the mid-7th century (Malim and Hines 1998, 282-3), and the bucket has been assigned to Phase C AD 650-850 (Cook 2004). The largest buckets and tubs, over 300mm diameter at the top, mostly occur in burials dated to the late 6th and 7th centuries (Geake 1997, 91; Cook 2004, nos 11-13, 142, 231, 235, 310).

The exact function of tubs and buckets is uncertain, although a connection between the larger ones and feasting is sometimes posited, and the frequent association of later ones with high-status objects points to their likely social significance (Geake 1997, 90-1). It is impossible to be sure in which grave the Tittleshall bucket originated, but the particularly well-furnished male burial, Grave 12, yielded fragments of iron, 12/7, which are likely to represent more of the bucket binding. The difficulty of dating this burial will be described in Chapter 6.

Pottery vessels

by Penelope Walton Rogers

The pottery from the site as a whole has been described by Sue Anderson in Chapter 2, but the evidence relevant to the cemetery can be reviewed here. A ceramic vessel had been placed in each of three inhumations: by the head in Graves 5 and 11A, and possibly also in Grave 18 where no human remains were preserved. All three were ESO2 fabrics, a sub-biconical jar ornamented with stamps and chevrons in Grave 11A, a baggy jar in Grave 18 and a thumb pot in the child's burial, Grave 5. It is possible that a fragmentary ESCF vessel in the fill of Grave 11A (11/13) had been disturbed from its original position when Grave

11B was inserted, and the same may be true of the whole sub-biconical ESFS vessel from the fill of Grave 16 (16/5). The latter has sooting on the outside and burnt-out organics and flint internally, and the possibility that it and other pots in grave fills represent the remains of a graveside feast must also be considered (Lee 2007, 87–91). Further, near-intact pots, an ESMS jar from the ring ditch, 13254, and an ES02 baggy jar (SF 70547) and an ESMS straight-sided bowl (SF 70463) from the topsoil, 13033, could have come from feasting, or they could have been ploughed out from graves.

The two cremation pits had suffered severe plough damage and only the lower parts of the pots remained in place. The containers for the ashes were made of ESO1 fabric in Cremation 1 and ESOM in Cremation 2, and a

second pot in Cremation 1, an ESO1 baggy vessel, has been interpreted as an accessory vessel. Anderson has noted that ‘all vessels associated with the inhumations showed signs of having been used prior to interment; those with the cremation burials did not’ (Chapter 2). It seems likely that those placed close to the corpse’s mouth in inhumations had a connection with the provision of food and were domestic vessels, while the containers for ashes can be interpreted as specially made funerary wares (Penn and Brugmann 2007, 38, 40).

Some of the pottery in the pits to the east of the cemetery has been dated to the 5th century, which accords with the evidence of the artefacts in Graves 6 and 15 for a 5th-century presence at the site. No pots were placed in graves, however, before the 6th century

Chapter 5. The human remains

by Sharon Clough and Kate Brayne

I. Introduction

The skeletal assemblage consists of at least 24 inhumation burials and two cremations. The skeletons were all in a poor condition, with some only represented by teeth; others were extremely fragmented, and in many cases the periosteum had been lost. The condition of the soil is illustrated by the poor preservation of a post-medieval dog burial in pit 13074, demonstrating that the soils on site are not conducive to the survival of bone (Chapter 2). This general poor state of preservation has restricted the amount of osteological and palaeopathological information available from the assemblage.

II. Determination of sex

The sex of individual skeletons was assigned according to morphological criteria: in particular by assessing features of the pelvis and skull. A firm sex was assigned where both morphological characteristics and measurements were diagnostic. If morphological and metric characteristics were ambiguous, a tentative assignment was given. In some cases, insufficient sexually dimorphic features were preserved to assign a firm sex to an individual. No attempt was made to assign sex to juveniles (Bass 1987, 19).

The results appear to show a predominance of female skeletons, although the fragmentary nature of the material must be considered (Fig. 5.1). For 63 per cent of the skeletons it was not possible to assign a sex (although four of these were juveniles). Therefore, to say that this part of the cemetery was dominated by female skeletons is to disregard the majority of the collection.

III. Estimation of age at death

A variety of criteria were employed to assign age-at-death to individuals, using a combination of factors where possible, to minimise inaccuracy. As a general rule, the younger an individual was at death, the more possible it is to assign a precise age. The accuracy of adult age estimation depends largely on the completeness and extent of preservation of the individual skeleton. The dentition is often the best preserved feature. Lovejoy's Attritional Ageing Scheme was utilised, which assesses the attrition of the entire dental arcade, enabling the most accurate age estimate. The extent of cranial suture fusion has been used as a means of ageing adults (Meindl and Lovejoy 1985), but the technique has been criticised on account of the considerable variation between individuals. However, owing to the poor preservation of this assemblage cranial suture fusion has been recorded where apparent and used as a means of indicating age. An age estimate was assigned to each individual but for some individuals there was a limited availability of age-related features, and these estimates must be regarded as approximate.

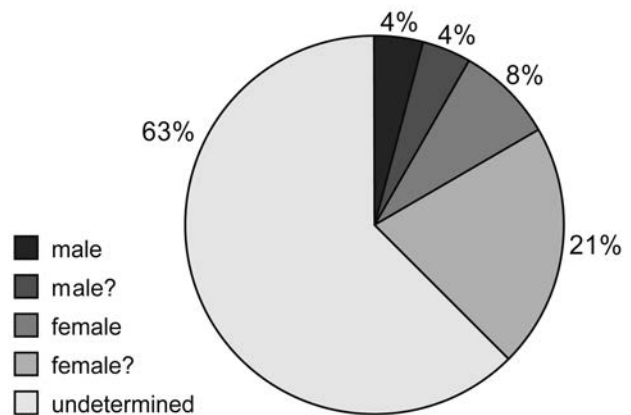


Figure 5.1 Sex distribution in 24 individuals from the Tittleshall cemetery

Results

Figure 5.2 shows the number of individuals in each age category. It was not possible to assign an accurate age to seven of the adult skeletons, and this must be taken into consideration when interpreting the results. There is a noticeable absence of individuals in the neonate and infant categories. This may either be due to the total destruction of fragile bones in the poor burial environment or because infants were buried elsewhere.

In many cases the adult skeletons were aged using one technique only, mainly tooth wear, which does not ensure accurate assignment of age. Therefore it is only possible to

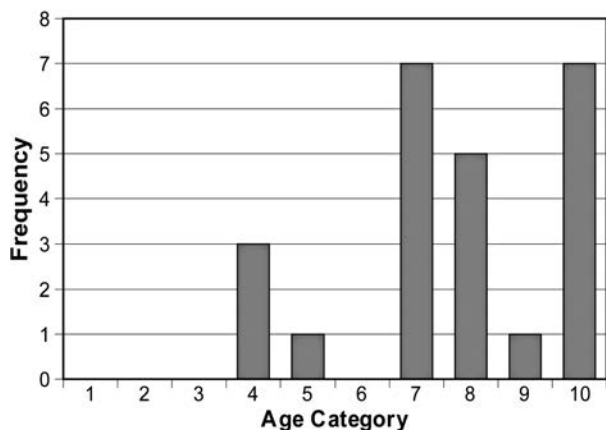


Figure 5.2 Estimation of age at death in 24 individuals from the Tittleshall cemetery. The age categories on the bottom axis of the graph are as follows:

- 1 Foetus: 9–40 weeks in utero; 2 Neonate, 0–1 month;
- 3 Infant, 1 month – 1 year; 4 Juvenile: epiphyses unfused;
- 5 Sub-adult: permanent dentition incomplete/some epiphyses fused;
- 6 Young adult, 17–25 years; 7 Middle adult, 26–45 years;
- 8 Mature adult, 46+ years; 9 Senile adult, probably 60+ years;
- 10 Indeterminate adult: epiphyses fully fused, but insufficient material for accurate ageing

say that there is a representation of each of the age groups except young adults, neonates and infants, with the majority of the skeletons being adult in nature.

IV. Estimation of stature

The living stature of individuals can be estimated by taking measurements of the maximum length of the long bones, then applying these to the formulae calculated by Trotter and Gleser (1952). However, there were no stature estimates made from these individuals, as none of the bones were complete enough.

V. Pathology

One skeleton displayed a fracture: Skeleton 13264, Grave 9, a 35 to 40-year-old probable female. It was an oblique fracture to the left clavicle, mid-shaft (Fig. 5.3). It showed evidence for slight misalignment, and a small sinus on the underside of the bone indicates that the lesion was infected (osteomyelitis). This evidence for osteomyelitis may suggest that this individual suffered continual pain, and the left shoulder may have been inflamed. It was not possible to ascertain whether there was limb shortening, because the bone was damaged and the right clavicle was absent.



Figure 5.3 Detail of fractured clavicle from skeleton 13264, Grave 9. Photo, Chris Casswell, Network Archaeology

VI. Dental pathology

There is one case of periodontal disease, in Skeleton 13167, Grave 2, which had the right lower molar region affected. This skeleton is a female of over 55 years of age, consistent with the age-related nature of this disease. Periodontal disease is one of the most common dental diseases in both modern and archaeological populations, and a major cause of tooth loss in individuals aged over 40 (Roberts and Manchester 1995).

VII. Cremations

Analysis of the cremations aimed to determine age and sex of the individual, but also to look at the processes that contributed to the cremation and final interment. The human remains, 13307, in Cremation 1 (289g) represented an adult skeleton of unknown sex. There was

no observable pathology and few identifiable bones. The remains, 13304, in Cremation 2 were of low weight (54g) and very fragmented: as such it was not possible to determine the age or sex of the cremation. There was no selective process in the collection of bone post-cremation. The bone from both cremations was completely white, indicating that it had entirely oxidised and must have been heated to a temperature of 645–1200°C.

VIII. Conclusion

With a small skeletal assemblage of this nature it is unfeasible to draw firm conclusions about the general demography or health status of the population that was buried in the cemetery. However, it is possible to make certain tentative inferences from this particular skeletal sample.

The demographic data obtained from this sample indicates an uneven proportion of adult males and females (8 per cent and 29 per cent of the total adult population respectively) among the sexed burials. This might suggest sex selection in this area of the graveyard. However, as mentioned previously, 63 per cent of burials remain unsexed, so that the appearance of gender segregation may be illusory. All age categories are represented in the assemblage except neonates, infants and young adults. There are a large number of skeletons that cannot be aged more accurately than 'adult', while, given the aggressive burial environment, the absence of neonate and infant bones cannot be taken to indicate the absence of burials. Therefore, any patterns ascertained may be regarded as from an incomplete sample.

There was only one example of pathology: a fractured clavicle. There was little evidence of dental disorder, with just one case of periodontal disease. This lack of pathology could be an artefact of the fractured and poorly preserved nature of the skeletal assemblage, however.

One cremated individual was an adult of undetermined sex, and the other was of indeterminate age or sex. The cremations show evidence of good pyre technology. No active selection of particular skeletal parts for inclusion in the urn was identified.

IX. Sex *versus* gender

by Penelope Walton Rogers

Within this publication, 'sex' has been used for biological identity and 'gender' for the role a person adopts in society (Hays-Gilpin and Whitley 1998). Where Anglo-Saxon cemeteries are concerned, the identification of sex is usually derived from the skeleton, and gender from those artefacts which have proved to be consistently associated with one particular sex (Stoodley 1999). In two of the burials in this cemetery, there appeared to be a contradiction between sex and gender. In Grave 6 a middle adult male had been buried with beads and sleeve clasps in the traditional positions for female attire and in Grave 2 a tentatively identified female was found with a spear. While there have been some rare examples of men buried in female clothing at other sites (for example, Cook and Dacre 1985, 25–6, 67), as Clough and Brayne have noted, the sex identifications for the Tittleshall group were based on extremely fragmentary remains and Grave 6 is not secure evidence for transvestism.

Chapter 6. Chronology

I. Introduction

The dating of the individual burials and the time-span of the cemetery was addressed with the following strategy. The datable artefacts were grouped by grave and each grave then allocated to one of the artefact phase groups defined by Penn and Brugmann (2007, 42–75), a system termed here ‘East Anglian Chronology’, or EAC. The problem of secondary burials dug into old grave-cuts was next considered and radiocarbon dates were then incorporated into the study. This has allowed the development of the cemetery over the 150–200 years of its use to be outlined. Cemeteries which demonstrate continuous use from the 5th to the 7th century have previously been rare in this region and one of the Tittleshall graves has provided a link between early and late burials at other sites. The full regional sequence for women’s graves has therefore been examined by correspondence analysis, which in turn helps to place the Tittleshall chronology in its northern East Anglian context.

II. Dating the burials from the artefacts

(Table 6.1)

In order to date the burials, the grave assemblages have been divided into adult female (FA1, FA2, FB) and adult male (MA1, MA2, MB) sequences, after the EAC system. These two sequences become synchronised in Phase C. Children have been treated separately, because there are particular problems associated with the dating of their burials.

Adult females

The earliest adult burial with female accessories is Grave 15, where there are beads of Brugmann’s Group A1, a Mortimer B2 cruciform brooch (EAC *XI*), a cross-potent small-long brooch and a small applied saucer brooch. These are consistently early and the burial can be confidently placed in the 5th century, EAC Phase FA1 (AD c. 450–480). The latest female burial to be dated from artefacts is Grave 17. The necklace in this grave included Group B2 beads (AD c. 580–650), in combination with two doughnut beads from Group C (AD c. 650 and later) (Brugmann 2004, 41, 58, 70, 75–6). An ‘Orange’ bead from the cemetery topsoil supports the evidence for continuation into the 7th century. A further burial, Grave 10, which had Group B1 beads (c. 550–600) and a late form of knife, Drinkall D1, has been placed in Phase FB (530/50–650).

Between these early and late graves lie six burials ascribed to EAC Phase FA2 (c. 480–530/50), Graves 6, 11A, 13, 16, 20 and 21A. Two of them have a combination of Phase FA1 and FA2 artefacts and have therefore been placed in Phase FA2a: Grave 6 has a string of early beads (Group A1) combined with sleeve clasps of a type (EAC *wcBar*) more usually seen in Phase FA2 and a single clasp (Hines B20) dated to the 5th or early 6th century, while

Grave 21A has two pairs of early sleeve clasps (Hines B12) and a Mortimer C2 cruciform brooch, but Group A2 beads.

Grave 11A probably belongs in Phase FA2b. Some of its artefacts, such as the beads of Group A2, the annular brooches and the sleeve clasps of Hines Type B13a (EAC *wcBar*), occur throughout Phase FA2, and the buckle (Marzinzik II.20) and the sub-biconical jar are only broadly dated to the 6th century, while the pin type (Ross VIII) seems to have had a long period of use up to AD 560/80. The circular perforation in one of the annular brooches (EAC *ARound*), however, is most common in Phase FA2b, and scutiform pendants occur in Phase FA2b and Phase FB.

In Grave 13 there were again A2 beads and annular brooches with a circular perforation, but in this instance they were associated with a hybrid (Z4) brooch dated to c. 530–570, and the burial is likely to belong in either FA2b or FB1. It is assumed that the fragmentary, and probably repaired, sleeve clasps (Hines B7a, EAC *wcB7a*), more usually attributed to Phase FA2a, were already quite old at the time of burial. This woman was aged 40–50 years when she died and she had probably accumulated her costume accessories over several decades.

Grave 20 cannot be dated more closely than Phase FA2, and Grave 16 may include two burials, although neither is likely to be later than Phase FA2 (see below).

Male

Only two adult burials, Grave 2 and Grave 12, produced male-gender artefacts. Grave 2 can be attributed to the 6th century, on the basis of the buckle of Marzinzik Type II.20 and the pin of Ross Type XII/i. There is also a spearhead, but, as described in Chapter 4, leaf-shaped spearheads had a long period of use and the tentative ascription of this particular form, *LaLo1*, to an early phase in the EAC chronology, was based on a small number of examples. Grave 2 has therefore been broadly categorised as EAC Phase MA1b–MA2.

Grave 12 proved to be a conundrum. Dickinson and Härke give the date range for Group 3 shield bosses as the early 6th to the early 7th century, but the EAC system identifies the boss as a *COS* type and places it more precisely in Phase MA2 (AD c. 510–560/70). On the other hand, the shield was already old and fragmentary by the time that it was placed in the grave. The two knives give no definitive dating evidence, but longer blades, such as 12/5, are most common in 7th-century male graves (Härke 1989, 145; Riddler in Boulter and Walton Rogers 2012, 181–3). The buckle and tweezers were not closely datable, but it is likely that the iron-bound bucket from the topsoil came from this burial, which would indicate EAC Phase MB (AD c. 560/70–640/50) or C (AD c. 650–850). Since the man was over 55 years old when he died, on the artefact evidence this might have been interpreted as a Phase MB burial that incorporated a shield acquired in the man’s youth. The radiocarbon date, however, did not support this (see below).

| Grave | Sex/ Gender | Age | Datable artefacts | Phase/date from artefacts | Radiocarbon date | Comment | Finalised phase/date |
|-------|----------------|-----------------|--|---|---------------------|--|---|
| 1 | - | - | Early Anglo-Saxon ceramics in fill | - | - | Unused grave | |
| 2 | ?F/M | 55+ yrs | pin Ross XII/I buckle Marzinzik II.20 spearhead Swanton C, EAC <i>LaLoI</i> | 6th century, probably MA1b-MA2 | - | | 6th century, probably MA1b-MA2 |
| 3 | -/F | 6-7 yrs | annular brooch EAC <i>Around</i> w-b annular brooch Ager E1 | Phase FA2 (c 480-530/50), probably FA2b (c 510-530/50) | - | | Phase FA2 (c 480-530/50), probably FA2b (c 510-530/50) |
| 4 | - | mature adult | - | - | - | | - |
| 5 | - | 12 yrs | thumb pot ESO2 | later 6th or 7th century: Phase B or C | - | | later 6th or 7th century: Phase B or C |
| 6 | M/F | mid adult | beads Brugmann A1 sleeve clasps B13a, EAC <i>wcBar</i> sleeve clasps B20 | Phase FA2a (c 480-510) | - | | Phase FA2a (c 480-510) |
| 7 | - | adult | knife Drinkall D1 | prob 7th century, Phase B or C | - | | prob 7th century, Phase B or C |
| 8 | ?F/- | 60+ yrs | - | - | - | | - |
| 9 | ?F/- | 35-40 yrs | - | - | - | | - |
| 10 | -/F | adult | beads Brugmann B1 knife Drinkall D1 | Phase FB (530/50-650) | - | | Phase FB (530/50-650) |
| 11A | ?F/F | 40-50 yrs | beads Brugmann A2 pin Ross V/III annular brooch EAC <i>Around</i> sleeve clasps Hines B13a, EAC <i>wcBar</i> buckle Marzinzik II.20 sub-biconical jar ESO2 scutiform pendant | Phase FA2b (c 510-530/50) | - | | Phase FA2b (c 510-530/50) |
| 11B | ?M/- | 30-40 yrs | - | - | - | | - |
| 12 | -/M | 55+ yrs | shield boss D & H Group 3, EAC <i>COS</i> knife Drinkall A2 knife Drinkall A1 or F1 | Phase MB (c 560/70-640/50) or C (650-850) | cal. AD 650-780 | The 6th-century shield (MA2), must be an heirloom. | Phase C (650-850) |
| 13 | F/F | 30-40 yrs | beads Brugmann A2 hybrid square-headed brooch annular brooch EAC <i>Around</i> sleeve clasps Hines B7, EAC <i>B7a</i> | Phase FA2b to FB1 (c 510-560/70) | cal. AD 390-550 | The sleeve clasps are earlier than the other artefacts | Phase FA2b to FB1 (c 510-560/70) |
| 14 | -/F | 7-8 yrs | hybrid small-long brooch ZS twill | Phase FA2 (c 480-530/50) probably FA2b (c 510-530/50) | - | | Phase FA2 (c 480-530/50) probably FA2b (c 510-530/50) |

| <i>Grave</i> | <i>Sex/ Gender</i> | <i>Age</i> | <i>Datable artefacts</i> | <i>Phase/date from artefacts</i> | <i>Radiocarbon date</i> | <i>Comment</i> | <i>Finalised phase/date</i> |
|--------------|------------------------|------------|--|--|-----------------------------|--|---|
| 15 | F/F | 30-35 | beads Brugmann A1 cruciform brooch Mortimer B2, EAC <i>XI</i> small-long brooch cross-potent applied saucer brooch | Phase FA1 (c 450-480) | cal. AD 400-570 | | Phase FA1 (c 450-480) |
| 16A/B | -/F | adult | penannular brooch Dickinson G1.5 cruciform brooch Hines Bb, EAC <i>XI</i> annular brooch sub-biconical jar ESFS | A: Phase FA1(450- 480) followed by Phase FA2 (c 480-530/50) | cal. AD 540-660 | Two burials, the earlier represented by the penannular and cruciform brooches and the later by the annular brooch and the pot. | A: Phase FA1 (c 450-480) B: Phase FA2b/FB1 (c 510-650) |
| 17 | -/F | adult | beads Brugmann B2 and C | Phase FB2 (560/80-650), or early Phase C | cal. AD 420-610 | | Phase FB2 (560/80-650) |
| 18 | -/- | - | baggy jar ESO2 | later 6th or 7th century? Phase B or C | - | | Phase FB2 (560/80-650), or early Phase C |
| 19 | -/M | 6-7 yrs | scabbard mouth band buckle Marzinik II.24a knife Drinkall D1 or E1 | Phase MB (560/70-640/50) | - | Scabbard mouth band was probably old when buried with the child. | Phase MB (560/70-640/50) |
| 20 | -/F | adult | sleeve clasps Hines B13a, EAC <i>wcBar</i> buckle Marzinik I.7c | Phase FA2 (480-530/50) | - | | Phase FA2 (480-530/50) |
| 21A | -/F | 30-40 yrs | beads Brugmann A2 cruciform brooch Mortimer C2, EAC <i>XI</i> sleeve clasps Hines B12, EAC <i>wcB12</i> | Phase FA2a (c 480-510) | | | Phase FA2a (c 480-510) |
| 21B | -/- | old adult | - | - | - | | - |
| 22 | -/- | - | - | - | - | | - |
| 23 | ?F/- | 30-40 yrs | knife Drinkall D1 or E1 | Phase B or C | cal. AD 540-660 | RB bow brooch at end of grave, probably residual | Probably Phase FB/MB |
| 24 | -/- | - | - | - | - | | - |
| C1 | -/- | adult | baggy vessel ESO1 | later 6th or 7th century, Phase B or C | - | | later 6th or 7th century, Phase B or C |
| C2 | -/- | - | vessel base ESOM | 6th C Phase A2/B | cal. AD 410-600 | | 6th C/Phase A2/B |

Table 6.1 Summary of the dating evidence for the Tittleshall burials

Children

The graves of children rarely yield datable artefacts, and when they do they often prove to include objects from an earlier generation (Walton Rogers 2007, 217). The phasing of children's graves therefore has to be approached with special care, and in many cases the artefact dates can be regarded only as a *terminus post quem*. In the Tittleshall burial plot, there were four graves of children with datable artefacts, Graves 3, 5, 14 and 19.

The annular brooch from Grave 3 is most likely to belong to Phase FA2, probably FA2b, and the wide-banded annular brooch does not conflict with that date. The hybrid small-long brooch in Grave 14 derives from elements which belong in Phases FA1 and FA2a, but ZS twill became increasingly common during the course of the 6th century and the burial has therefore been placed in Phase FA2, probably FA2b. The small thumb pot in Grave 5 is dated to the later 6th or 7th century and the grave has been placed in Phase B or C.

The child of six or seven years in Grave 19 had been buried with the top half of a sword scabbard dated to the first half of the 6th century, but the buckle, Marzinzik II.24a, and the knife, Drinkall D1 or E1, are both securely dated to the late 6th or 7th century. The scabbard has been regarded as an heirloom and the burial placed in Phase MB.

Other burials

Where the sex/gender was uncertain, some burials could be dated from pots and knives. The pottery vessel in Cremation 2 is a 6th-century fabric and has been allocated to Phase FA2/FB or MA2/MB. The baggy vessels in Grave 18 and Cremation 1 date them to the late 6th or 7th centuries, Phase FB/MB or C. The late knife in Grave 23 places it in Phase B or C. There remain seven burials in which there were no surviving artefacts to provide dates, Graves 4, 8, 9, 11B, 21B, 22, 24, although Graves 11B and 21B were secondary burials which can both be given a *terminus post quem* by the primary burial in the same grave-cut.

III. Stacked burials

The only graves that cut each other were those where a second burial had been inserted into an earlier grave. In Graves 11 and 21 the second burial (B) takes its earliest possible date from the primary burial, Phase FA2b in the case of Grave 11A and FA2a for Grave 21A. Grave 16 was more difficult to interpret. There were two cuts visible, but the second had almost obliterated the first. The dark layer at the base of the grave included charcoal, thought to be evidence for a graveside feast, and a penannular brooch.

The second burial, which appeared to include a cruciform brooch of Type Bb (EAC *Xform1*), usually attributed to Phase FA1, in combination with an annular brooch and a 6th-century jar, was originally placed in Phase FA2. If however, the cruciform brooch is regarded as originating in the first burial, this could be re-interpreted as a Phase FA1 grave disturbed by the later insertion of a Phase FA2 burial.

IV. Radiocarbon dates

Samples of human bone from six inhumations, Graves 12, 13, 15, 16, 17 and 23 were selected for radiocarbon dating, along with some of the charred bone from Cremation 2. The selection was intended to act as a cross-check on the artefact dates and to cover early, middle and late burials. The graves without artefacts could not be included in the selection because they had not produced enough well preserved bone. Thanks are due to Gordon Cook, SUERC, and Peter Marshall, English Heritage, for their advice on this section.

The seven samples were processed and measured by Accelerator Mass Spectrometry at the Scottish Universities Environmental Research Centre (SUERC) in East Kilbride in 2005, using methods described in Xu *et al.* (2004). This laboratory maintains a continual programme of quality assurance procedures and participates in international inter-comparisons, which indicate no laboratory offset. The results were calibrated in 2009, using the calibration curve of Reimer *et al.* (2004) and the computer program OxCal v4.0.5 (Bronk Ramsey 1995; 1998; 2001; 2009). The calibrated date ranges cited in Table 6.2 are those for 95 per cent confidence, with the end points rounded outwards to 10 years. They have been calculated according to the maximum intercept method (Stuiver and Reimer 1986) and the dates illustrated in Figure 6.1 are derived from the probability method (Stuiver and Reimer 1993). The radiocarbon results are quoted in accordance with the international standard known as the Trondheim convention (Stuiver and Kra 1986) and they are conventional radiocarbon ages (Stuiver and Polach 1977).

The four radiocarbon results from Graves 13, 15, 23 and Cremation 2 were in accord with the dates provided by the artefacts, including the pottery. The result for Grave 16 suggests that the secondary burial placed in Phase FA2 should be moved to Phase FB1, which is not inconsistent with the dating of the annular brooch and the pot: this in turn bolsters the argument for an earlier burial in the same grave, represented by the penannular and cruciform brooches. The date-range for Grave 17 suggests that this borderline FB2/C burial should be shifted back to FB2.

The result for Grave 12 was more surprising, as the date of AD 650–780 at 95 per cent confidence would put

| Laboratory No. | Source of sample | Radiocarbon date | $\delta^{13}C$ | Calibrated date range (2 σ confidence level) |
|-----------------------|------------------|------------------|----------------|--|
| SUERC-5769 (GU-12845) | Grave 12 | 1320 \pm 35 BP | -20.1 ‰ | cal AD 650-780 |
| SUERC-5768 (GU-12844) | Grave 13 | 1595 \pm 35 BP | -20.0 ‰ | cal AD 390-550 |
| SUERC-5772 (GU-12848) | Grave 15 | 1585 \pm 35 BP | -19.6 ‰ | cal AD 400-570 |
| SUERC-5770 (GU-12846) | Grave 16 | 1470 \pm 35 BP | -20.0 ‰ | cal AD 540-660 |
| SUERC-5963 (GU-12849) | Grave 17 | 1535 \pm 35 BP | -20.9 ‰ | cal AD 420-610 |
| SUERC-5771 (GU-12847) | Grave 23 | 1460 \pm 35 BP | -20.6 ‰ | cal AD 540-660 |
| SUERC-5773 (GU-12850) | Cremation 2 | 1555 \pm 35 BP | -27.2 ‰ | cal AD 410-600 |

Table 6.2 The radiocarbon results from human bone samples (SUERC)

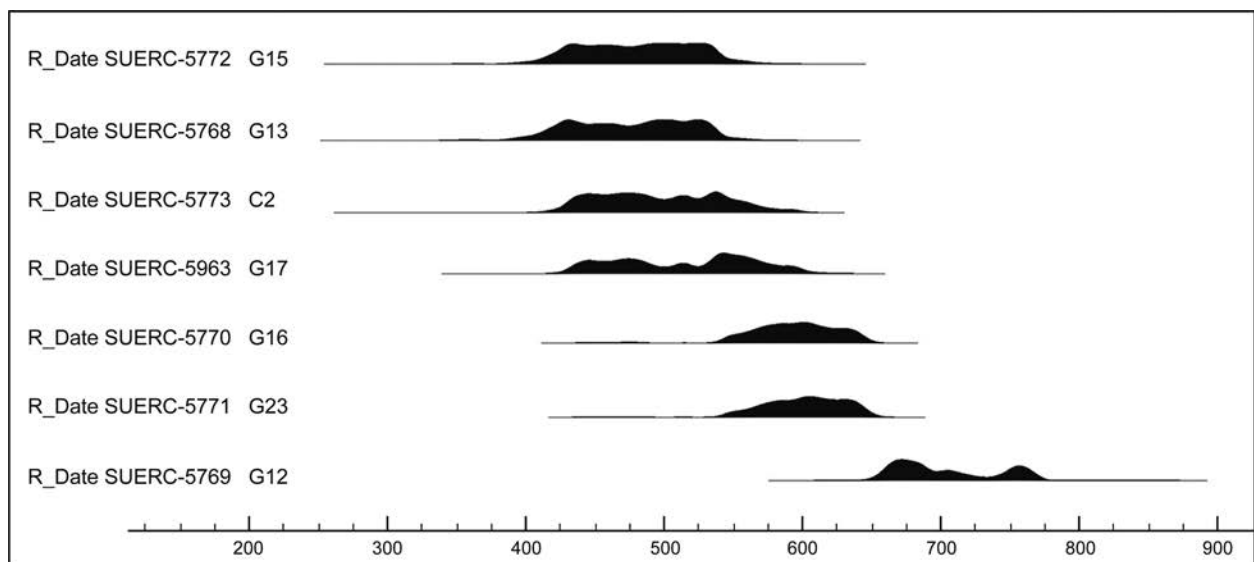


Figure 6.1 Probability distributions of dates from Tittleshall samples. Each distribution represents the relative probability that an event occurred at a particular time. These distributions are the result of simple radiocarbon calibration (Stuiver and Reimer 1993)

the burial squarely in Phase C. While not inconsistent with the likely date of the bucket or the knives, this is substantially later than the date given to the shield boss. There was no reason to think that the sample had come from intrusive material since it had been taken from one of the long bones and the layout of the skeleton did not indicate any disturbance of the body. The skull had rested on the edge of the shield boss, where the man's mineralised hair was recorded in the iron corrosion products. If the radiocarbon date is correct, then this is the Phase C burial of a man who went to the grave with a shield from his father's or grandfather's generation.

V. Development of the cemetery (Fig. 6.2)

The cemetery was clearly founded in the 5th century, some time before AD c. 480, and was in use throughout the 6th and early 7th century. Its end date, however, is unclear. The latest female burial, Grave 17, was originally placed in the mid-7th century (Phase FB2/C), but the radiocarbon date has moved this back into the earlier part of the century. Several other graves were also late, although none could be confidently attributed to Phase C on the basis of the artefacts. If the radiocarbon date for Grave 12 is reliable, however, it would confirm the continued use of the cemetery into Phase C.

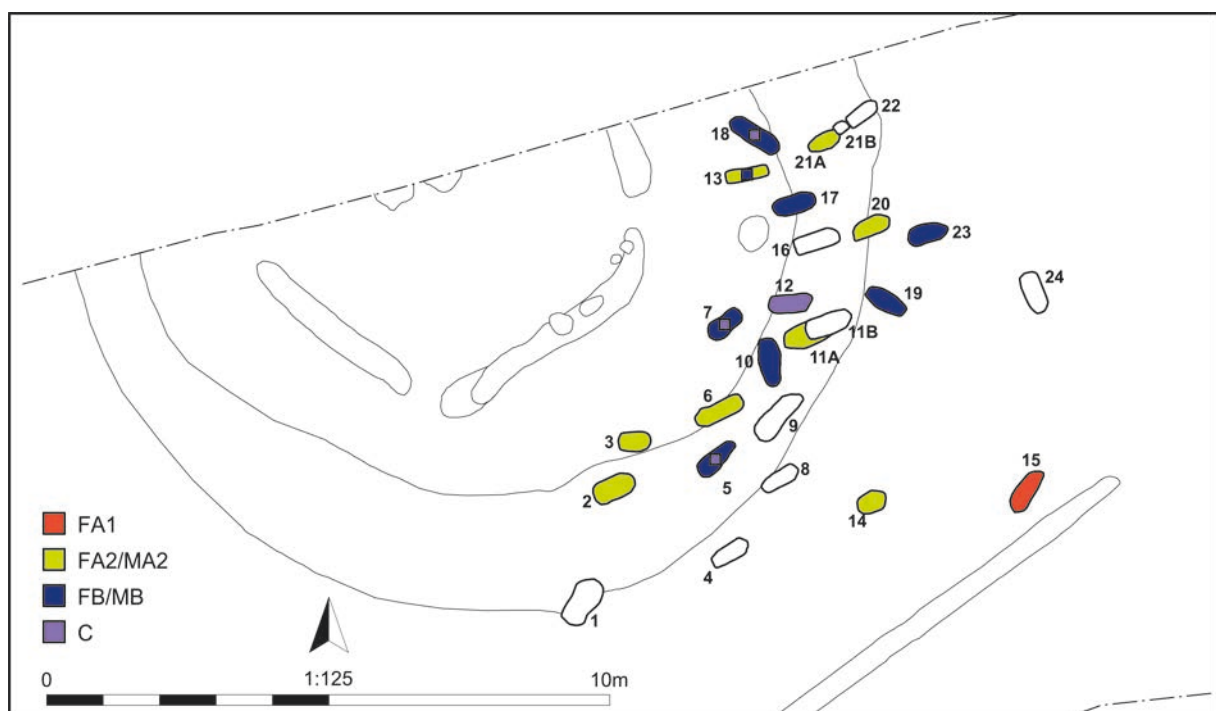


Figure 6.2 A simplified scheme of the development of the cemetery through time. For details of individual burials, see Table 6.1

The earliest burial, Grave 15 in Phase FA1, lay a short distance to the east of the barrow (Fig. 6.2). In Phase FA2/MA2, the inhumations shifted closer to the barrow, where they maintained an approximate west-to-east (or south-west to north-east) alignment. In Phase FB/MB further graves were added, some probably on the lowermost slope of the mound itself, but by this time graves were being cut with a variety of orientations, most probably so that they could be squeezed between earlier graves. Since there was plenty of room for further graves at the edges of the plot, it seems likely that propinquity to pre-deceased family members was a factor in the choice of grave location.

The two cremation burials, from Phase A2/B and Phase B/C, lay between the inhumation plot and the settlement. If burial on the mound was perceived as a matter of status, then the position of the cremations may indicate that these people were of a different rank from the others.

VI. Correspondence analysis

The women's burials were the most closely datable and, in order to place them in their regional context, they were compared with burials in the cemeteries in the region to the east, by means of correspondence analysis (using *New-KVARK* CA-PCA program by Torsten Madsen and Karen Høilund Nielsen). This procedure takes a systematic approach to those artefact types which regularly occur together in the same graves and links them into a sequence which provides a relative chronology. Each analysis produces a pair of plots, one for the artefact-types and the other for the graves, together with a table of the original data sorted into order (Fig. 6.3a–b; Table 6.3).

The sequence illustrated in Figure 6.3a–b is based on 88 graves at Tittleshall (Tit), Spong Hill (SpH), Morning Thorpe (MTh), Bergh Apton (BAp), Flixton (Flx), Harford Farm (HfF) and Carlton Colville (CCol). It uses data derived from the grave inventories for each site, specialist artefact surveys by Mortimer (1990), Marzinzik (2003), Brugmann (2004) and Walton Rogers (2007), and phase information from the EAC study (Penn and Brugmann 2007, 42–58). Over sixty analyses were carried out in order to elucidate different aspects of the chronology, but the example illustrated here was produced by condensing the beads into their Brugmann groups and expanding the detail of the other artefacts, using their traditional type-series definitions (Fig. 6.3a). The EAC phases ascribed to each grave have been colour-coded in the plot of the graves (Fig. 6.3b), which illustrates how the burials still run in the same phase sequence (with a small number of exceptions described below), from the earliest on the right to the latest on the left. This confirms the EAC sequence and shows that the Tittleshall women were keeping pace with their sisters on the Yare-Wensum-Waveney river system, from Phase FA1 to the borderline between FB2 and C.

The second purpose of the analysis was to demonstrate the link between Phases FB and C. Some compromises had to be made in order to achieve this. The Norfolk-type beads which dominate Phase FA2 assemblages and the 'constricted segmented' beads of Phases FA1 and FA2 had to be removed, because their frequency caused excessive bunching. This bunching was already present in the EAC analyses (Penn and Brugmann 2007, figs 5.3–5.6), but became exaggerated when the Phase C material was added. Test runs with and without these bead groups,

however, showed that their removal only affected the shape and clarity of the plot, not the overall sequence. This process meant that some graves, dated only by beads, had to be removed from the analysis, but, again, their removal had little impact on the sequence.

The link between Phase B and C was provided by the Group C doughnut beads in Tittleshall Grave 17, the late appearance of four Group A2b mosaic beads in Harford Farm (HfF33) and the presence of ZS 2/2 twill and knives with straight cutting edges (Drinkall D and E) in other graves of Phase FB and C. The link between Phases FA2 and B, however, remains a weak area. Phase FB represents a period in which many metal garment fasteners were in the process of disappearing from female costume, but the accessories typical of Phase C, such as bullae, silver-wire necklaces, chatelaines, amethyst beads and thread-boxes (Geake 1997) had not yet arrived. The beads of Phase FB (bead Groups A2b and B both belong in this phase) are often the only date-diagnostic artefacts in the grave and the lack of other linkages causes gaps and fraying in the parabola.

As far as Tittleshall is concerned, the sequence of graves is continuous except for a gap between Grave 11A and Grave 10. This can be partially explained by the poor linkages between Phase FA2b and Phase FB, but it is interesting to note that the young girls in Graves 3 and 14 (not included in the correspondence analysis), if they had lived to be adults, might well have been buried in Phase FB1 and would thus have filled the gap. All the indications are that this cemetery was in continuous use throughout its history.

Finally, the sequence of the metal artefacts was checked against both the EAC evidence and the dating provided by conventional type series. All artefact types were observed to be in their expected sequences, except for the florid cruciform brooches of Type Z1b and affiliated brooches (Mortimer 1990, I, 71–5, 96–7). As a class, cruciform brooches occurred in Phases FA1–FA2b, as predicted by the EAC system, but the four Type Z1b brooches, from SpH02, SpH57, MTh16 and MTh353, appeared unusually early in the sequence (Fig. 6.3a–b). There were annular brooches of types not used in the analysis in SpH02, and Group A2 beads in SpH57, which pushes these graves into Phase FA2, but there were also objects present that are typical of Phase FA1, namely A1 beads in SpH2, MTh16 and MTh353 and cruciform brooches of Mortimer type B2 in MTh353. While some burials with Z1b brooches are correctly placed in Phase FA2a, their frequent association with artefacts of Phase FA1 suggests that they had an earlier beginning.

The florid cruciform brooch (Z) should perhaps not be seen as a late development out of earlier forms, but rather as a series that runs parallel to the plainer brooches. In terms of costume, florid brooches were used as fasteners for cloaks (Walton Rogers 2007, 218, 167–71) and it can be argued that they are best understood as part of a sequence of women's prestige display brooches, which runs from large ornate equal-arm brooches, through florid cruciform brooches, then great square-headed brooches, and eventually, in the 7th century, culminates in large garnet-set disc brooches. The significance for Tittleshall is that the hybrid brooch with Style I ornament in Grave 13 is an example of one of these ornate cloak-fasteners. The social status it is likely to represent will be considered in the next chapter.

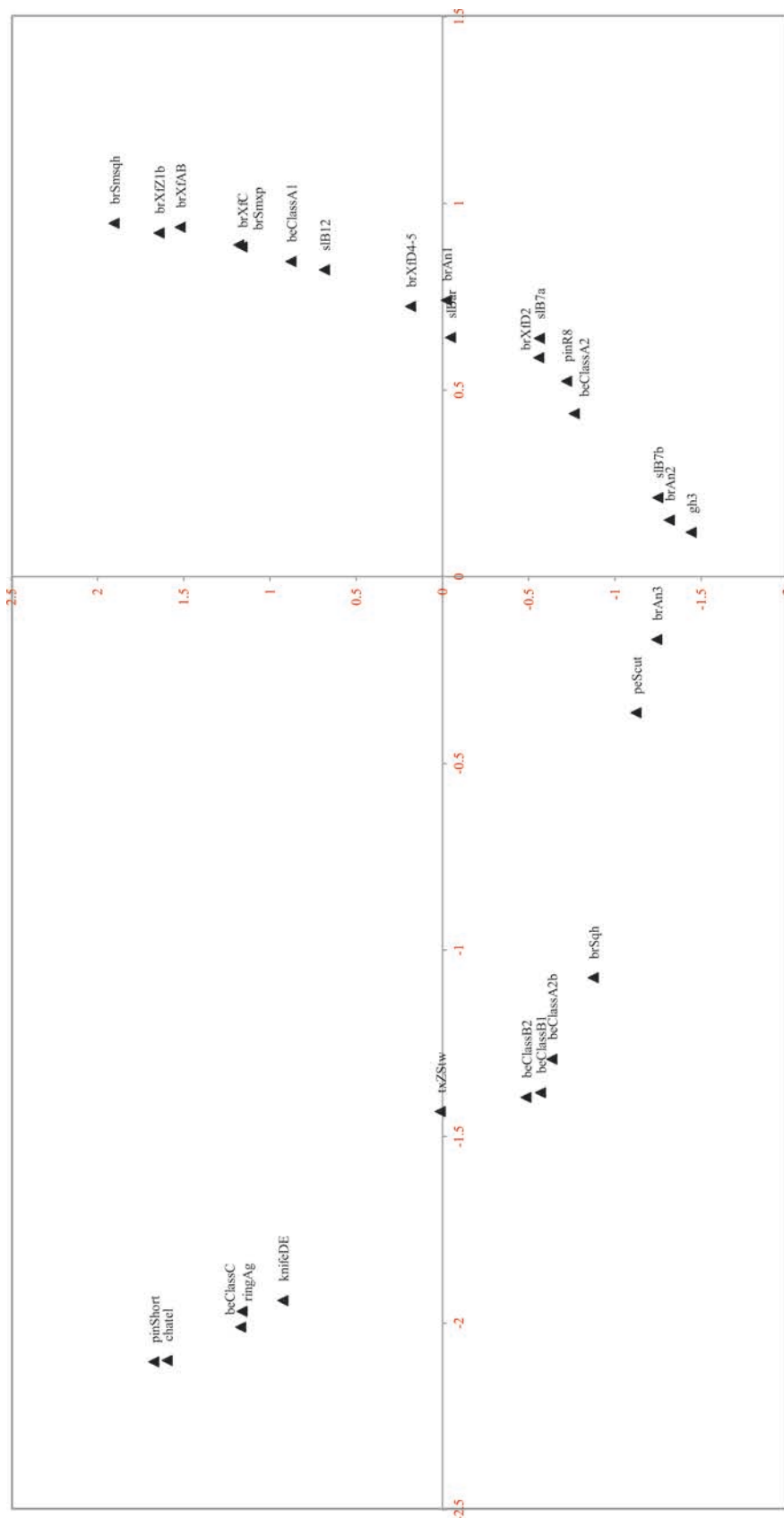


Figure 6.3a Artefacts from seven of the Tittleshall burials compared with artefacts from women's burials in cemeteries on the Wensum-Yare-Waveney river system by Correspondence Analysis, arranged from the earliest on the right to the latest on the left. KVARK variables plotted on 1 and 2 principal axes

Beads (be): with their Brugmann classes (A1, etc),

Brooches (br): cruciform brooches (brXf) with their Mortimer types; small-long brooches, either square-headed (brSmsq) or cross-potent/cross-patee (brSmsp); great square-headed brooches (brSqb),

Annular brooches (brAn): brAn1 slot perforation; brAn2 circular perforation; brAn3 cast brooches with beaded or bead-and-reel moulding,

Sleeve clasps (sl): Hines Form B12 (slB12); Form B13a-b (slBar); Penn and Brugmann B7a (slB7a) or B7b (slB7b),

Pins: long pins with metal spangles (pinR8); pins <80mm long (pinShort),

Girdle hangers (gh3): Penn and Brugmann 2007, 30,

Scutiform pendants (peScut),

Textile (tx): textile woven in 2/2 twill with Z x S spin (txZStw),

Chatelaines (chateI): a cluster of metal tools attached to a chain or linked metal rods,

Silver-wire rings (ringAg),

Knives with a straight cutting edge (knifeDE)

Chapter 7. Reconstructing the people

I. Introduction

The people buried in the Tittleshall cemetery have proved to be men, women and children of different ages, interred over a period of 150–200 years, from the 5th to the 7th century. Altogether 28 individuals have been identified, although some allowance has to be made for missing burials, particularly cremations. The even chronological distribution of the women's graves suggests continuous use of the cemetery. The question to be considered next is: who were the people who buried their dead in this small plot and what was their relationship with the outside world? The aim of this chapter is to reconstruct the appearance, customs and social status of the people buried here, using national and regional studies for comparison.

II. Background

Some aspects of life at Tittleshall can be reconstructed from established knowledge of the period. In the 5th and early 6th centuries, the population was dispersed in semi-independent, self-supporting farmsteads, or groups of farmsteads (West 1985; Hamerow 1993; 2002, 94; 2011, 121, 124; Härke 1997, 140–1), which are likely to have been linked to each other by kinship ties and small-scale local exchange networks. Each household may have owed allegiance to a larger group such as a clan or a tribe (Chapter 1) and there were probably local leaders who emerged from time to time, but there is no evidence for a social or political hierarchy comparable with that of the 7th century (Scull 1992, 19–22; 1993, 75–7). While the individual communities were, broadly speaking, of similar status to each other, studies of the cemeteries have shown that within each household there were obvious distinctions related to gender, age and social role (Scull 1993, 72–3; Härke 1997, 146–7). A senior male and female can often be identified; gender is indicated in clothing and accessories; and separate age thresholds can be observed for both men and women (Härke 1997; Stoodley 1999; Penn and Brugmann 2007; Walton Rogers 2007).

These matters changed with time. In cemeteries of the late 6th and 7th centuries, some groups appear to have pulled away from others as social distinctions were emphasised, and burial plots often shifted to new locations (Penn 2000; Scull 2009; Boulter and Walton Rogers 2012). By the 7th century, settlements were changing their character, as a distinction began to emerge between centres of administration, centres for craft and trade, and the rural settlements that serviced them (see Chapter 8). Women outside the royal dynasties appear to have slipped down the social scale and the stages of their life cycle are less clearly differentiated in the burial record (Stoodley 1999, 119–125; Walton Rogers 2007, 240–1).

The Tittleshall community, despite its small size, was remarkably long-lasting and remained on the same spot while others were re-locating. It is therefore important to investigate to what extent the people who lived here shared

the transitions seen in other communities, and whether their location in the borderlands affected their prosperity.

III. A single small household

The age-range and gender make-up of the Tittleshall burials is that to be expected if a single household was burying its dead in a family plot over several generations (Härke 1997, 138–41; Stoodley 1999, 126, 131). The way in which some bodies have been inserted into earlier graves, while others have been squeezed into spaces between them, adds to the impression of a familial relationship between the dead. Given the agrarian nature of the economy, and the position of the site in the landscape, it seems reasonable to describe the members of this household as the occupants of a farmstead.

A household of the 5th or 6th century is likely to have been made up of a nuclear family and its dependants, including servants or slaves, and the number in any one household has been estimated as nine to twelve (Härke 1997, 140) or ten to fifteen (Penn and Brugmann 2007, 94). If these figures are correct, by reversing the formula for calculating the living population from the dead (Boddington 1987, 184), and allowing for a mean age at death of twenty (Scull 2009, 422), one may conclude that a single household would be likely to produce 45 to 75 bodies per century. Life expectancy at birth would require a considerable upwards adjustment in order to make these figures tally with the evidence from Tittleshall. Even if the late male burial, Grave 12, is omitted, the time-span of the plot cannot have been less than 130 years and it is highly unlikely that the total number of individuals buried was ever more than 40. While population estimates are, of their nature, imprecise, the figures argue that, unless there was some other unrecorded method of disposal of the dead, this particular household must have been smaller than average. Of course, it may not have been the only farmstead in the settlement: there could have been a separate burial ground for a second group, as there was at Flixton. On the other hand, a small size of household would explain some of the unusual characteristics of the cemetery to be described in this chapter.

IV. The burial rite

The funeral party chose one of two rites. Either the corpse was placed directly into an earth-fast grave, the body fully clothed, with material goods arranged around it, in ground close to the barrow; or it was cremated and the ashes placed in a pot, which was then buried in the space between the inhumations and the settlement. A funeral wake was held at the graveside, in at least one case while the body was still above-ground.

It has been argued (Chapter 1) that if the Tittleshall farmstead existed before the burial plot was established, bodies may well have been cremated and the ashes taken to Spong Hill for burial. The Spong Hill cremation

cemetery was in use for most of the 5th century and included groupings which were suggestive of different family plots (Hills 2011). Inhumation was begun there during a late phase of the cremations, at about the same time as the burial ground at Tittleshall was being established. The excavation uncovered 57 graves spread over 80–100 years, from Phases FA1 to FA2b for females and from MA1 to the first part of MA2 for males (Hills *et al.* 1984; Hills 2011; Ravn 2003, 99–130; Penn and Brugmann 2007, 42–71, 99). The inhumation cemetery at Morning Thorpe was also begun in Phase FA1 and the presence of Phase FA1 artefacts at Sporle (Ashley and Penn 2012) may indicate a similar foundation date. Other inhumation cemeteries such as Bergh Apton and Flixton followed shortly afterwards.

The appearance of inhumation cemeteries in the second half of the 5th century has been interpreted as groups or lineages trying to differentiate themselves from others (Scull 1993, 76). Certainly, the establishment of a single-household burial plot close to the farmstead and away from the larger cremation grounds looks to be an assertion of individual family identity. The fact that it coincides with a change in burial ritual implies that there was also some underlying change in ideology. Whatever that was (Chapter 8), it did not lead to the exclusion of the earlier rite, and cremation was still being practised by some people at Tittleshall in the later 6th or 7th century (Cremation 1). The position of the two cremations at a distance from the barrow might indicate a lack of social status, or a lack of relationship to the main lineage, although the incomplete survival of cremation burials, both here and at contemporary sites such as Morning Thorpe (Green *et al.* 1987, I, 161–2), makes this a difficult matter to investigate.

Digging the grave

The cramped nature of the burials is particularly noticeable. Even the adult male with weaponry in Grave 12, who would usually be buried supine and extended (Härke 1997, 128), was turned on his side, flexed and fitted into a grave 1.62 metres long. The elderly person in Grave 8 was so tightly folded as to qualify as ‘crouched’. The average grave lengths were 1.62 metres for adult males and 1.70 metres for adult females, which is substantially smaller than the phase-by-phase averages

quoted for men, 1.84–2.54 metres, and for women, 1.74–2.39 metres, at Spong Hill, Morning Thorpe and Bergh Apton (Penn and Brugmann 2007, 77). The Tittleshall graves also appear to be commensurately shallow, although depth has been recorded in relation to natural and the amount of topsoil at the time is unknown. There were no coffins or chamber graves at this site.

The only other site with similarly small graves was Flixton II in its earliest phase, although even here there were coffins and a least one small chamber grave (Boulter and Walton Rogers 2012, 89–92). At Flixton, the earliest group was judged to be particularly poor in terms of material wealth. This is not true of Tittleshall, where people were well-provided with metalwork and other accessories throughout the life-span of the cemetery. A credible explanation would be that there was not enough spare time or man-power to dig graves or build coffins in a household of the small size posited for Tittleshall.

V. The wealth of the community

One method for comparing the wealth of different burial communities is to count the number of artefact types per grave (NAT scores). At Tittleshall, the average of 2.8 is typical of sites that include late graves and is comparable with 2.8 for Morning Thorpe (Penn and Brugmann 2007, 90) and 2.7 for Flixton I and II combined (Boulter and Walton Rogers 2012). The score for Spong Hill was 3.7, but that site lacked the low-scoring late graves included at Tittleshall (Penn and Brugmann 2007, 90). If the graves of Phases FA1–FA2 and MA1–MA2 at Tittleshall are considered on their own, the score rises to well above 4.0, although this calculation will omit undated graves which potentially belong to those phases.

Another method that can be applied to women’s burials is to consider the nature of the central cloak or shawl fastener (usually the third brooch in burials of Phases FA1 and FA2) and to count the numbers of beads. As Table 7.1 shows, when allowance is made for the different quantities of graves at each site, Tittleshall has parity with the other cemeteries of Phases FA1–2 and only Flixton II falls below the standard. It is more difficult to judge wealth in burials of Phase FB, when the fashion was for smaller necklaces and fewer metal garment-fasteners,

| <i>Site No. of graves*</i> | <i>Display brooch</i> | <i>Other central brooch</i> | <i>Long pin</i> | <i>40–99 beads</i> | <i>>99 beads</i> |
|--------------------------------|---|--|---|--|----------------------|
| Tittleshall 24 graves | G13 | <i>G15</i> , G21A | G11A | — | G11A, <i>G15</i> |
| Spong Hill 58 graves | G2, <i>G18</i> , G24, G57 | G22, G38, G39, G45, G46, G58 | G37 | <i>G22</i> , G24, <i>G26</i> , G38, G39 | <i>G5</i> |
| Flixton II 62 graves | — | — | G3, G11, G20B | <i>G51</i> | — |
| Bergh Apton 63 graves | <i>G7</i> , <i>G18</i> | G6 | G42, G65 | <i>G7</i> , G29, G35, G65 | G34 |
| Morning Thorpe 365 graves | G16, <i>G214</i> , <i>G288</i> , <i>G353</i> , G359, <i>G371</i> | <i>G30</i> , G80, <i>G90</i> , <i>G91</i> , G96, G129, G133, <i>G153</i> , G160, G208, G209, G253, G358, <i>G370</i> , G396, G397 | ?G18, G50, G86, G108, G140, G148, ?G221, G249, G316, G334, G369, G378, G387, G407 | G16, <i>G90</i> , G108G, G108N/O, G253, <i>G309</i> , <i>G322</i> , G337, <i>G342</i> , <i>G353</i> , G360, G362, G393, <i>G400</i> , G407 | <i>G30</i> , G358P-V |

*For ease of counting, the number of grave cuts has been used, rather than the number of individuals

Table 7.1 Valuable female-gender accessories from five Early Anglo-Saxon inhumation cemeteries in central-east Norfolk and northern Suffolk. *Italics* indicate graves of Phase FA1 and underlining graves of Phase FB

but the silver-covered bead and Continental imports in the bead-strings from Graves 10 and 17 indicate that the women at Tittleshall were not falling behind their contemporaries.

VI. Reconstructing the women

Ten burials of adults had female-gender accessories, Graves 15 (FA1), 16A (?FA1), 6 (FA2a), 21A (FA2a), 20 (FA2), 11A (FA2b), 13 (FA2b), 16B (FB1), 10 (FB), 17 (FB2). Two children buried with brooches will be discussed separately, below. The status of women can be most easily addressed through their clothing, which can be deduced from the arrangement on the body of the metal garment fasteners, and the textiles adhering to them. Even where the skeleton is no longer present, it is often possible to reconstruct the costume, and the attitude of the body, from the position of garment accessories in the grave.

The main features of Early Anglo-Saxon costume are already well established (Owen-Crocker 2004, 35–127; Walton Rogers 2007, 139–228). Most teenagers and adult women up until c. 560/80 wore a long-sleeved dress, over which there was a ‘peplos’, a tubular garment clasped by brooches on the shoulders. Most women over the age of 16 seem to have had their heads covered with a head-veil or shawl, and a cloak was often worn on top of other garments. The peplos was discarded during the early part of Phase FB and the full-length dress, probably still sleeved, became the main garment. Cloaks with prominent display brooches were retained for a time, but were eventually replaced with a more voluminous veil, anchored by a short pin and ribbon ties.

Phase FA1

The earliest costume comes from Grave 15, the burial of a 30- to 35-year-old from Phase FA1. This woman wore a peplos of wool twill, fastened by a small-long brooch on one shoulder and almost certainly by the applied saucer brooch on the other side: the simple tablet-woven selvedge of the cloth forms the upper border of the garment. Inside the peplos, the dress was made from a finer fabric, but there were no metal sleeve clasps, since this grave pre-dates their arrival (Hines 1984, 101–2). On top, there was a cloak of heavy wool twill, fastened by the crossways cruciform brooch on the left chest. Small cruciform brooches were sometimes used as peplos-fasteners, but this one represents an early example of a large, B2(L), brooch on a cloak, and it can be regarded as a fore-runner of the weighty and elaborate cruciform cloak-fasteners which were starting to emerge at this time. The keys or latch-lifters in the region of the left hip were sandwiched between the cloak and the peplos, and the 107 beads, which included a substantial amount of amber and rock crystal, together with a pierced Roman coin, were arranged in at least two necklaces.

Within the context of the 5th century, this is a well-dressed woman, with her cloak, cloak fastener and substantial necklaces. No evidence for a head veil could be detected on any of the brooches, but this may be an effect of the fickle nature of the preservation process, and the costume is otherwise a standard one. The brooches, however, are a curious mix of a ‘Saxon’ applied brooch, an ‘Anglian’ cruciform brooch, and a small-long brooch of a type seen more commonly in north-west Suffolk, Cambridgeshire and areas to the west. The third (central)

fastener in women’s costume was most commonly acquired in late teens or adulthood and may be an indication of marriageable status, or of marriage itself (Walton Rogers 2007, 177–80, 242–4), while the keys/latch-lifters are likely to represent someone with control over the household economy (Meaney 1981, 178–81; Fell 1984, 59–60).

It is probable that Grave 16A, a disturbed primary burial, belongs to the same phase. If the brooches in this grave have been correctly divided between the two burials (Chapter 6), then here, too, there was a form of cruciform brooch combined with an exotic object, in this instance a penannular brooch from the far side of the country. The textiles on the small cruciform brooch, 16/2, lay in four layers, representing a linen inner garment, a fine wool gown (probably the sleeved dress), two folds of a heavier wool twill garment (probably the peplos) clasped by the brooch, and a linen veil over the brooch. Other costume accessories may have been lost from this burial when Grave 16B was inserted.

Phase FA2

In Phase FA2, several variants of the standard costume of the period were worn. In Graves 6 and 20 there were sleeve clasps in the region of the wrists, indicating the long-sleeved dress. In Grave 6 the clasps were non-matching but the cuffs they fastened were linen tablet-woven bands, and a fine fringe running across the front of the clasps, where the wrist lay on the upper chest, was thought to represent the edge of a veil. The clasps from Grave 20 were matching, but no textiles survived in this grave. However, there were no brooches on the shoulders for the peplos in either of these graves. In the Upper Thames Valley and cemeteries to the south, women mostly wore the peplos-style garment during their fertile years and there are some women in northern, Midlands and East Anglian cemeteries who appear to follow the same pattern (Walton Rogers 2007, 178–9). The two Tittleshall burials, however, gave little evidence on this score, since the age of the body in Grave 20 is unknown and that in Grave 6 had been recorded as a man (Chapter 5).

In Grave 21A the wool twill peplos had been fastened with two iron annular brooches. Iron annular brooches are comparatively rare, but in at least four instances they have been found on bodies interpreted as men dressed as women (Walton Rogers 2007, 198–9). In this case, however, although the age of the body was determined as 30–40 years, the sex could not be identified. On top of the peplos there was a heavy wool cloak, which had a patterned tablet weave stitched to its edge and was clasped by a large cruciform brooch. The inner dress was represented only by sleeve clasps, but there was evidence for part of a black, net-like veil or scarf caught into the back of the brooch. This is likely to have been a specialist product and probably not made locally (Walton Rogers 2007, 68–9).

In Grave 11A a woman of 40 to 50 years had been buried in a peplos made of linen 2/1 twill, which was clasped on the shoulders by a non-matching pair of annular brooches and held by a buckled belt at the waist. The earliest styles of peplos were wool and often heavier than the dress beneath, but there is gathering evidence that the garment became more lightweight and came to be made of linen, before it was discarded altogether in Phase FB1 (Walton Rogers 1998, 276; Boulter and Walton

Rogers 2012). This fits the dating of this grave on the basis of the artefacts to Phase FA2b. The other textiles have been interpreted as an inner dress of medium-weight tabby, a cloak or shawl of wool twill reaching to the hip, and a linen veil with a front edge bordered by a tablet weave. It was not clear whether the spangle-headed pin fastened the veil or the cloak/shawl. The costume was finished off with large strings of glass and amber beads, a single bead of rock crystal and a silver scutiform pendant. Keys or latch-lifters were probably in a textile wrapper or bag at the hip.

The head-veil and the pin are both objects which, again, mark the threshold which is thought to represent the age of marriage (Walton Rogers 2007, 178–9, 242–4) and the keys or latch-lifters are likely to indicate house-keeper status (see above). A decorated pot had been placed by the head and some small iron rivets which are probably the remains of a hair-comb, add to the picture of a woman with a degree of wealth, and therefore status. The pot is of particular interest as it appears to employ the same forms of symbolism as cremation urns (Richards 1987; 1992). It is a small wide-mouthed jar ornamented with an incised chevron and a standing arch, and stamps of Richards types A5, E1 and J14 (equivalent to Briscoe stamps A2b, C1ai and A4d, respectively: Briscoe 1981). Pots of this size and shape were typically used for infants (Richards 1987, 134–6, 200–1); incised standing arches and chevrons and solid square stamps (stamp E1) were correlated with females; stamps with concentric circles (stamp A5) with females and children; and stamps with crosses (such as stamp J14) with children (Richards 1987, 184, 186, 200–1). Multiple stamp dies tend to be found on urns containing high-status artefacts and were particularly associated with crystal beads (Richards 1987, 187, 197, 199), of which there is a globular example from this grave. Combs correlated with several features, including solid stamps such as E1 and incised standing arches (Richards 1987, 184, 199).

The pot therefore matches the status and gender of the woman in the grave, but not her age, since, if it were a cremation vessel, it would fit more naturally with a child. In addition, it has been argued that the cremation urns would be placed in the ground, so that the mourners, viewing the pot from above, would see a ring of ornament, comparable with the decoration on annular brooches (Richards 1992, 145–6). In the case of the pot from Grave 11A, a double ring of impressed squares would be visible from above, and this is exactly the form of the stamped

ornament that appears on one of the two annular brooches from the grave (11A/4) (the other being undecorated). The brooch also has transverse grooves, which, had they appeared on the pot, would have been represented by vertical incised lines (*cf* Richards 1992, 146, fig. 27) — but vertical lines were rare on children's pots (Richards 1987, 200–1). The most obvious conclusion is that this pot was made for the woman when she was a child. It suggests a long period of use for what could potentially have been her cremation urn, but it is a sturdily made pot. It has signs of wear on the carination but no sooting to suggest that it was ever used for cooking and there were certainly no cremated remains inside. Other stamped pots have been recovered from inhumations at Spong Hill and Morning Thorpe from Phases FA and MA and they provide a link with the late phase of cremation urns at Spong Hill (Penn and Bruggmann 2007, 40). The pot in Grave 11A is therefore an important relic from the period when people were changing from cremation to inhumation as their preferred ritual.

Towards the end of Phase FA2b, there was a single burial, Grave 13, in which the woman was dressed in some of the best clothing of the period (Fig. 7.2). She had a grey cloak made of the Anglo-Saxon equivalent of cashmere, fastened with a large gilded brooch with elaborate cast ornament. The cloak had either a fur trim or a fur cape. Her peplos was a fine wool fabric clasped by a matching pair of annular brooches, and the inner dress was almost certainly a fine linen chevron or diamond twill with tablet-woven sleeve cuffs. Her veil appears to have been linen twill, probably 2/1, with a tabby-weave border, and she had a string of 28 beads and a small metal pendant. At her hip she carried a knife and pouch. The paired annular brooches and sleeve clasps are typical of 'Anglian' costume in general, and the 2/1 twill and the pendant can be associated with the cemeteries of northern East Anglia. This is therefore a local costume ensemble, although in the prestige brooch fastening the cloak it is possible to see the influence of the originally 'Saxon' great square-headed brooch on the native 'Anglian' cruciform brooch series.

Later burials

In Grave 16B, a single full-size annular brooch clasped a particularly heavy fabric in the region of the neck. This burial belongs to a phase, FB1, when the peplos with its pairs of shoulder-brooches was falling out of use. Annular brooches were by this time being used singly, most commonly as small brooches fastening a neck opening on a dress or chemise, although the larger ones were sometimes used to fasten a cloak (Walton Rogers 2007, 170). The latter function seems to be likely in this instance.

By the late 6th century, fashions were changing and fewer garment accessories were worn by women, so that costume is sometimes difficult to interpret. In Grave 10 there was a well-spaced line of ten beads, which curved from the region of the left shoulder to the right thigh. It is likely that the beads were originally stitched to a garment, such as a shawl, as was thought to be the case with a similar line of beads in Dover Buckland G60 (Evison 1987, 68–9; Walton Rogers 2007, 177, 194–5). The Dover burial was dated to *c.* 575–625, which is consistent with the allocation of Grave 10 to Phase FB (530/50–650). There was a cluster of objects beside the body, which may have been placed in the grave in a bag, and a fragment of



Figure 7.1 The decorated pot in Grave 11A (11A/10) when first discovered. Photo, Network Archaeology



Figure 7.2 A reconstruction of the appearance of the woman from Grave 13, Phase FA2b, with and without her cloak and veil. The fine animal pelt at the neck has been reconstructed as a shoulder cape, although equally it might have been a collar on the cloak. Drawing: Anthony Barton

fine tabby repp from the region of the neck has been interpreted as the border of a head veil (Chapter 4). This textile-type is rarely found anywhere other than the waist in 6th-century women's burials and it has been suggested that it represents a linen cummerbund (Walton Rogers 2007, 220).

The 19 B2 beads in Grave 17, of which most were at the neck, indicate Phase FB2, but there was nothing to signal the style of clothing worn in this burial. A long-sleeved wool tunic or coat with a full veil or *pallium* has been suggested as the most likely costume for this period (Walton Rogers 2007, 180–9).

Female status

The changes in costume described above are mirrored in other sites of central and eastern Norfolk. Drawing on the data in the published catalogues for the inhumations at Spong Hill, Morning Thorpe and Bergh Apton and the phasing for these sites provided by Penn and Brugmann (2007, 42–75), together with material from a number of smaller sites and fresh data from Flixton in northern Suffolk, the following comments can be made. The peplos was fastened on the shoulders with pairs of small-long and small cruciform brooches in Phase FA1, followed by pairs of annular brooches in Phase FA2. Approximately half of these burials include either a pin or a brooch as a cloak or shawl fastener. Large, elaborate cloak fasteners such as the florid cruciform and great square-headed brooches, together with cruciform class D, which can be regarded as a plain variant, occur in roughly a third of these. Some of the display brooches continued to be worn in Phase FB, after the peplos had disappeared (in Morning Thorpe

G214 and G288, for example). Their place was eventually taken in Phase C by gold disc brooches with garnet and filigree settings, although by this time they were limited to a much smaller social class (Penn 2000, 45–9; Scull 2009, 88–91).

Within individual households of Phases FA1 and FA2, a small degree of ranking can be observed. The woman in Tittleshall Grave 13 must be regarded as having some form of seniority, as must the person in G24 at Spong Hill, a burial which included, as well as a pair of annular brooches and a great square-headed brooch, girdle-hangers, a weaving batten (a sign that the woman was in charge of the textile crafts), a moderately fine diamond twill and a copper-alloy bowl. Alongside women such as these, there are burials with less significant central brooches and pins, and a further group with a pair of peplos brooches, with or without sleeve clasps. These distinctions are most clearly perceived in Phase FA2, when there was a peak in the burial of metalwork in women's graves (Penn and Brugmann 2007, 90), but it is likely that there were similarly prominent women in households of Phase FA1 (Spong Hill G2 would be an example). The social distancing does not appear to be great, however, and the senior women do not have the elevated rank seen in 7th-century barrow burials. They can probably be best characterised as well-to-do farm-wives, in charge of the distaff side of the household and attended by their children, kinswomen and servants.

The kinship system of this period has been described as 'most likely bilateral with a weak patrilineal bias' (Härke 1997, 137) and men and women of equivalent rank have been recorded in approximately equal numbers in other cemeteries (Evison 1987, 146–50; Welch 1992, 81–2). For Flixton II it was proposed that there were dual male and female cores which provided twin foci for later graves (Boulter and Walton Rogers 2012). It can be argued that Grave 15 at Tittleshall represents a female founder grave of Phase FA1, which might have acquired satellite graves if the burials had not moved further towards the barrow in Phase FA2. It was followed in later phases by further well-furnished burials, Graves 21A (FA2a) and 11A (FA2b) and, the most significant burial, Grave 13 (FA2b). The women in Graves 6 and 20 did not have as many garment fasteners as the other women. These may represent servants, or the absence of peplos brooches may mean that they were women who had discarded the peplos after the menopause (Walton Rogers 2007, 242).

As already noted, Tittleshall occupied a borderland position in the landscape. Much of the material evidence from the site has parallels in the cemeteries to the east and the 'Norfolk-type' beads (Grave 11A), the 2/1 twill textiles (Graves 2, 11A and possibly 13) and the elliptical metal pendant (Grave 13) are distinctive of this region. In Phases FA1–FA2, however, there is also evidence for external contacts in the applied saucer brooch (Grave 15), the penannular brooch (Grave 16A) and further artefacts from children's graves (see below). The same can be said of other sites in the area, such as Swaffham and Spong Hill, where different forms of saucer brooch have been recorded (Chapter 4), although there does not appear to be any comparable evidence from sites to the east, such as Morning Thorpe or Bergh Apton (the penannular brooches from Morning Thorpe belong to a different category). It is possible that Tittleshall and other sites in the area had access to an exchange network that followed

the old Roman roads into Suffolk and Cambridgeshire. On the other hand, this was a society where women were expected to move to the man's home on marriage (Scull 1993, 73; Härke 1997, 137; Hines 2002, 91–4). If the cloak-fastening brooch really was acquired on marriage, burials such as Grave 15, where the peplos brooches are alien and the cloak-brooch is not, may represent a woman from a different territory, in this instance somewhere in the Midlands, who has married into the local community.

The textile crafts

The women of this period were directors of the textile crafts and will have been responsible for clothing the whole household (Walton Rogers 2007, 45–7). The textiles at Tittleshall include some high quality pieces, such as the linen in the boy's burial, Grave 19, which is the finest recorded so far from a Norfolk cemetery, at 30 x 24 threads per cm. The next closest, at 28 x 18 per cm, comes from nearby Swaffham G1 (Crowfoot 1976). The cloak in Grave 13, made from the Anglo-Saxon equivalent of cashmere, would also be a valuable fabric. Boniface, in the 8th century, referred to the use of goat underwool, *caprina lanugo*, in combination with silk in a chasuble (Rau 1968, 192, letter 63) and its lightweight warmth is well-known to wearers of the modern pashmina. The raw material would have to be combed from the winter coat of goat, which is likely to have been a time-consuming process and possibly a specialist craft (Ryder 1987). The veil-weave from Grave 21A is more certainly a specialist product. This distinctive fabric-type has been found in a number of early medieval sites in north-west Europe, although the centre(s) for its manufacture are not yet known (Walton Rogers 2007, 68–9). Other examples have been recorded from Yorkshire and Kent, but none previously from East Anglia. This site clearly had access to top-quality textiles, some likely to have been made locally and others from outside the area.

VII. Reconstructing the men

Only two adult male burials, Grave 2 and Grave 12, could be identified with confidence, but it will be argued that others can be inferred from circumstantial evidence. The significant burial of a child with male accessories, Grave 19, will be discussed along with other children, below.

There were no surviving artefacts in Grave 24 and the bones were too poorly preserved to allow the sex to be determined, and yet this is a likely candidate for a founder male grave. It stands in a similar relationship to the barrow and the settlement as Grave 15, the earliest female grave, and, like Grave 15, it lies parallel to the ring ditch rather than on the west-east alignment of the second phase of burial (Fig. 6.2). Female gender is easily identified from beads and brooches, but the identification of male gender generally comes from weaponry, and weaponed burials were not common until Phase MA2 (Penn and Brugmann 2007, 93, 97).

The first weaponed burial is Grave 2, from Phase MA1b/MA2. This body was laid out with a buckle with decorative rivets at the waist, a knife to the left of the buckle, possibly tucked inside the belt, a coil-headed pin by the left shoulder and a spear on the right — although the spearhead has been broken and disturbed from its original position. Spears were often placed at an angle in the grave, the butt on the grave floor by the body's feet and the shaft

pointing diagonally upwards, so that the spearhead was the highest object in the grave and the first to be displaced by ploughing. Spears were the symbol of free male status (Swanton 1973, 2–4) and were the only weapon present in 60 per cent of the graves ascribed to Phase MA2 (Penn and Brugmann 2007, 93).

The presence of weapons in a grave does not necessarily mean that the individual was a warrior, since some were clearly too old, too young or too disabled to fight (Härke 1992, 153). The practice has been attributed instead to men who were claiming Continental Germanic descent (Härke 1992, 155). On the other hand, the emergence of weaponed burial in England almost certainly coincided with a phase of competition between lineages (Scull 1993, 75–6; 1999, 20–2). It can be argued that this was a time when the competitive warrior spirit was being evoked in men, and that the Germanic habit of bearing arms in all manner of social situations (Sidonius: *Epistolae* iv.20, Luetjohann (ed.), 1887) simply provided a natural model for its expression.

The standard male clothing of this period was a knee-length long-sleeved tunic over trousers, and the belt, when worn, could fasten either garment. There was sometimes a cloak on top, but, unlike women's cloaks, within burials it rarely had any form of metal fastener. In Grave 2, the garment fastened by the belt was a medium-weight 2/1 twill and outside this there was another similar fabric, and above that a heavy wool textile of cloak or blanket quality. The pin at the left neck lay between the two upper fabrics, but did not necessarily pierce either. The large rectangular male cloak would probably double up as a blanket and the pin could have been placed in the grave close to the position it would have had as a fastener. Pins of this sort may have descended from the *spina*, 'spike', that Tacitus, writing in the 1st century, said Germanic men used to fasten their cloaks (*Germania* para 16, Mattingley and Handford 1970, 115; Walton Rogers 2007, 206–8).

The man over 55 years old in Grave 12, from Phase C, had been placed in the grave on his left side with his head resting on the remains of an old shield. There was a buckle at the upper waist, two knives lay at his back and he had two pairs of tweezers, one of iron close to the shoulder, perhaps suspended from the neck, and the other of copper alloy next to the knives. One of the knives, 12/5, is the long-bladed form (size category 2) which became especially common in the 7th and early 8th centuries and was mostly limited to adult male burials (Härke 1989). The buckle seems too high for a trouser-belt and the medium-fine twill on the back of a buckle has therefore been interpreted as a tunic. A heavier twill on the front of the buckle, with an inwards facing seam that runs vertically down the body, is possibly from an outer tunic, since the Germanic male cloak was usually seamless, or it could represent the front flap of the 'warrior jacket' (Walton Rogers 2007, 207–16). No spear was recorded in this grave, but the bucket recovered from the topsoil is thought to have originated in here (see Chapter 4), and if a bucket could be dragged out of the grave during ploughing, a spearhead might also have been lost. This burial does not compare with the high-status barrow burials of the estuaries in south-east Suffolk, but, even without a spear, it should be regarded as a well-furnished grave and one that probably represents a head of household.

In Phases MB and C, weapons became increasingly concentrated in a smaller proportion of burials, which is taken to indicate a widening social gap (Härke 1997, 145–6; Penn and Bruggmann 2007, 94). Graves 7 and 23 both contained a late form of knife but no weaponry. Grave 23 was tentatively identified as female, but only on the evidence of some poorly preserved fragments of skull, and identification as male is statistically more likely, since knives have an increased association with men in later phases (Stoodley 1999, 35, 37; see also Scull 2009, 279). Three other adult burials, Graves 8, 9 and 11B, have no gender- or date-indicating artefacts, although, as has been pointed out in relation to Spong Hill and Bergh Apton, if they were male, they would go some way to restoring the male-female balance in the cemetery (Penn and Bruggmann 2007, 89).

Men and metalworking

Such evidence as exists suggests that metalworking was a male craft (Hinton 2000, 111–2) and, if that is correct, metal products in the graves can be regarded as an expression of their skills and social networks. Prestige cloak brooches such as the example from G13 were probably made by travelling smiths (Hines 1997, 221–2), and there is a case to be made for impermanent regional workshops for some standardised artefact types, but many of the simpler objects are likely to have been made as they were needed in the local settlement. At Tittleshall, some poorly dated evidence for iron-working (either smelting or smithing) was recovered from the pits to the east, and, if it is contemporary with the cemetery, it belongs to a period when ferrous and non-ferrous crafts were not generally kept apart (Cowgill 2009; Walton Rogers in prep).

The unusual feature of this site is the limited evidence for repairs. Apart from some old objects, probably playthings, in children's graves, and the shield in the late male grave, Grave 12, metal objects appear to have been whole when buried and only sleeve clasps from Graves 13 and 20 have been repaired (and that very neatly). This contrasts with Flixton II in its earliest phase, where the quality of metalworking was poor, repairs frequent, and fragments of objects such as pins were still being used even when they could barely function (Boulter and Walton Rogers 2012). Some unique examples of metalwork at Tittleshall raise the possibility that there were people with metal-casting skills in this area.

Fragments of clay moulds for casting have been discovered in settlements at Carlton Colville (Cowgill 2009, 259–264) and Mucking (Webster 1993, 62–4). The lead models for Early Anglo-Saxon brooches that have been recovered from several sites in East Anglia imply that in some instances a re-usable model was pressed into the clay for the front part of the mould, before detail was added with a sharp tool (Mortimer 1994; Leahy 2003). Different methods could be used to construct the rest of the mould (Mortimer 1990, I, 204–215), but, once cast, the brooch would be given extra decoration in the form of stamped ornament. In the case of brooch 14/1, two fragments of real brooches seem to have been pressed into the clay, so that the stamped ornament has been preserved in the casting, but without the sharpness of the original. The join on the bow was tidied up, either by shaping the wet clay or, if a wax model was produced as an intermediate stage, by shaping the wax (Leigh 1980, 169–170). The indistinct stamps on cruciform brooch

15/3 suggest that it, too, was made from an original brooch rather than a brooch model.

There is another seemingly unique object, the small buckle from Grave 19, where the belt plate has been cast in one with the buckle loop and the strap attached by means of a riveted bar. The brooch from Grave 3 is also an unusual type. On this basis, it can be suggested that there were at Tittleshall people with basic metal-casting skills, who liked to experiment and make objects for their children. Graves 3, 14 and 19 were all children's graves, two from Phase FA2, probably FA2b, and the third from a generation or so later, in MB. If there was indeed a tradition of metal-casting in this family — and the skills are likely to have been passed down from father to son — then this would explain the condition of the metalwork, which appears to have been mostly very good at the time of burial.

VIII. Reconstructing the children

(Figs 7.3–4)

Four children could be identified from their teeth and bones, in Graves 3, 5, 14 and 19. This was probably close to the original number of child burials, as there were only three inhumations and one cremation where the age of the body could not be determined and each of the inhumation grave-cuts was large enough for an adult. It probably does not represent the complete number of child deaths, however, since babies and toddlers are often absent from cemeteries of this period (Crawford 1993, 84–5; Lucy 1994, 26–7) and, while aggressive soil conditions may be partly responsible, it seems likely that their bodies were accorded a different funerary rite.

Young children are rarely accompanied by significant dress fasteners (Stoodley 1999, 117), although the child at Holywell Row G11, Mildenhall, Suffolk, buried with the accessories of a princess, is a notable exception (Lethbridge 1931, 4–9); and a child of two to five years buried with adult peplos brooches and a pin in West Heslerton G100, N.Yorks (Haughton and Powlesland 1999, II, 161–3) is another. Girls mostly acquired the peplos brooches between ten and twelve and then the pin or the cloak brooch in the late teens (Härke 1997, 128–9; Stoodley 1999, 117–8; Walton Rogers 2007, 178–9). At Tittleshall, however, the two graves from Phase FA2 (probably FA2b), G3 and G14, contained young children equipped with elements of adult female clothing (Fig. 7.3).

In Grave 3 a child aged six or seven had been buried with two old annular brooches, one an 'Anglian' narrow-banded brooch and the other a worn and chipped 'Saxon' broad-banded type, both in the region of the neck, as would be expected for an adult peplos. The pins had been removed from these brooches and replaced with leather or rawhide thongs, which fastened the brooch to a garment of fine linen with a repp border, worn over a wool dress. A pierced coin was suspended at the neck. It is possible to argue that this was a young girl who had been allowed to wear a mock-up of adult dress, using old brooches made safe by the removal of the pins.

In Grave 14 the child of seven or eight wore the unusual hybrid brooch, 14/1, at the neck, where it fastened a typical cloak fabric, a thick wool ZS twill. No other artefacts or textiles were present. As described in Chapter 4, this brooch represents a hybrid of two brooches from different regions, the head from the area to the south-west

and the foot from the south-east. Since the metalworker is likely to have been a man, and brooches were usually worn by adult women, it is tempting to suggest that this was a child of a mixed marriage. Alternatively, the brooch may have been a one-off small version of the large hybrid brooch of the same phase, 13/2, especially made for the child. In either case, it represents the melding together of two different cultural strands.

The grave-cut of Grave 19 (Phase MB) was a large grave for a 6- or 7-year-old, considering the small size of the graves for adults at this site (Fig. 7.4). It is possible that the extra space was filled with perishable goods, such as food, blankets and furs. The boy was equipped with the top part of a sword scabbard, the unusual small buckle and two knives, while the garment fastened by the belt was the particularly fine linen described above. At a time when most adults had only one knife (Stoodley 1999, 30–3) and two were almost unknown in children's burials (Härke 1989, 149), this is a well-equipped grave. The scabbard has especial significance, as it implies that the family at some stage owned a sword to go in it.

Swords are extremely rare in burials: there were single examples from G40 at Spong Hill, G218 at Morning Thorpe and G19 at Bergh Apton. They tend to be associated with numerous grave goods (Penn and Bruggmann 2007, 23, 90) and, reviewed nationally, they were most commonly buried with adult males of strong physique (Härke 1992, 156–9). The Spong Hill sword was thought to be an heirloom two or three generations old, based on the dating of the scabbard mouth-band (Scull 1992, 18–19), and the mouth-band in the Tittleshall grave was also from an earlier phase. The sword has been defined as a weapon of the elite (Härke 1997, 145–6) and it is probable that it was passed down through a single descent group (Härke 1992, 155) before it entered the

burial record. Within Germanic culture, the scabbard and the sword were rarely separated (Ellis Davidson 1962, 96, 186–8). This scabbard may have been a child's plaything, but its significance is considerable.

The child in Grave 5 was a 12-year-old buried with a thumb pot and a knife. The burial belongs to Phase B or C and is statistically likely to have been a boy, since, amongst children, knives were most commonly associated with male accessories (Härke 1997, 133). He will have been contemporary with, or later than, the younger child with the sword scabbard in Grave 19, but the contrast in their grave goods is obvious. It is likely that, even amongst children, social distinctions were emerging.

The unusual number of well-furnished children's graves is in part a reflection of the amount of disposable wealth the household could command, but it may also relate to the small size of the family. While the death of any child would be a tragedy, it would carry extra implications for parents who, at a practical level, were running a farm without the help of a large household. If it is correct to see them as members of a sword-bearing lineage, they must also have been concerned for the continuation of their blood-line.

IX. Summary

This site has been identified as the burial plot of a single small household, who probably lived in a farmstead to the east of the site. The small and irregularly shaped grave-cuts are thought to result from a lack of manpower to dig graves, and the especial care devoted to the child



Figure 7.3 Reconstruction of the appearance of the young girls from Grave 3 (left) and Grave 14 (right), both Phase FA2. Drawing: Anthony Barton



Figure 7.4 Reconstruction of the appearance of the boy from Grave 19. Drawing: Anthony Barton

burials has been interpreted as further evidence of the particular problems faced by a small family concerned for the survival of their lineage. The size of the household, however, did not have a negative impact on their wealth. From the gold-ornamented saucer brooch of the earliest

grave to the silver and imported beads of the latest, this group consistently demonstrated that, while they were not overtly wealthy, they were comfortably supplied with good quality material goods

Chapter 8. Tyttel's *halh*: the site in context

I. Introduction

Each Anglo-Saxon cemetery is unique, with its own cast of characters. In the case of Tittleshall, the children have proved to be of especial interest, as has the woman dressed in cashmere and fur with her prestige cloak-brooch, and the man of senior years buried with his head resting on the battered remains of a shield from an earlier generation. Every grave holds a back-story waiting to be told. For the next stage, however, it is necessary to draw back from the individuals and to consider what the research of this site has added to our knowledge of the region. What does this small household, perched between territories in the uplands of Norfolk, have to contribute to the broader picture?

Central to the theme of this chapter is the concept that the people buried in this plot must have been, like most of their contemporaries, gaining their living from the land, and that the location of the farm within the landscape will have had an impact on how they lived. During investigation of this matter, a large number of Early Anglo-Saxon place names were identified in the surrounding district, and the patterns they form have been tentatively related to early land units. Land and landholding is therefore a recurring issue within this chapter.

II. The family farm

Although the farmstead has not been excavated, it almost certainly lay beyond the line of pits to the east of the cemetery. Little in the way of environmental evidence has survived (Rackham 2004), but the general character of the farm can be reconstructed from the range of habitats in the area. Tittleshall is technically in the Breckland administrative district, but it lies outside the 'brecklands' zone of poor sandy soils (Williamson 1993, 11–12), in an area where a variety of soil-types lend themselves to root crops, cereals, water meadows and grazing land. The species of wood identified in the charcoal from the graves, primarily oak, with hazel, ash, maple and blackthorn (sloe), suggest mixed woodland suitable for the pannage of pigs, trapping of game, and the collection of wild berries and nuts; and there was probably also fishing to be had in the Nar stream. The entry for *Titeshala* in the 11th-century Little Domesday confirms this picture (Chapter 2). Here are itemised the plough-teams necessary for arable crops, the acreage of meadow-land, the woodland — enough for pannage of 140 pigs — and livestock, including sheep, goats, pigs and cattle. The balance of arable land to pasturage may have changed with time and the Domesday mill and fishery were probably late additions, but the beehives may well have had antecedents in the earlier period, and the mixed character of the agriculture is likely to have remained the same.

Hand-crafts would form an essential part of farm life. The textiles identified in the cemetery will have been spun

and woven by the women, as they were in every settlement of the period (Walton Rogers 2007, 9–47), and it seems likely that cast metalwork was being produced at this particular site (Chapter 7). It can also be assumed that wood-working, basket-making, brewing, curing of animal pelts and bone- and antler-working were practised, using raw materials provided by the farm and the surrounding land.

From the farmstead the burial plot, with the barrow behind it, would have been in clear view, as would the shrine if it was still in use. Cemeteries such as these, especially those associated with earlier monuments, are thought to have provided a fixed sacred space and a reference point for the living: they would link the people in the farm to their ancestors and to the spiritual aspects of their relationship with the land (Hamerow 1993, 89–90).

III. The founding of the cemetery (Phase FA1)

The cemetery is an early example of the new inhumation plots which were being established in Norfolk in the second half of the 5th century and which represent a step away from the larger communal cremation grounds. Two theories have been put forward to explain this process. Christopher Scull has suggested that an expanding population would lead to groups splitting away from an original core lineage and settling in new sites nearby (Scull 1993, 78–9), which would mean that the cemetery would have been started immediately after the first death in the new farmstead. Mads Ravn, however, sees the inhumation plots as representing individual families who were rising socially above the others and expressing their status through new burial rituals (Ravn 2003, 128–9): this would suggest that only the burial plots were new, not the settlements they served.

While it is conceivable that the Tittleshall family was an offshoot from, for example, the farmstead at Spong Hill, the evidence has perhaps a marginally better fit with Ravn's theory. The household seems to have been affluent from the start and, to judge from the date of the scabbard, it was already a sword-bearing lineage by the first half of the 6th century. Such evidence as exists indicates that swords were limited to the most powerful families (Ravn 2003, 128; see also Chapter 7) and, if so, it is unlikely that this particular cemetery represents the cadet branch of a main lineage. Only excavation of the settlement, however, can show how long the farmstead was in existence before the burial plot began.

The assertion of family identity and the ambition to rise above others is probably only part of the story. Landholding is likely to have been passed down through individual descent groups (Scull 1993, 78; 2009, 425) and the commemoration of ancestors through a visible cemetery, especially one associated with an earlier barrow, must have helped to legitimise the rights of the living to farm the land (Williams 1997, 26). The change to inhumation could also be regarded as a metaphor for greater engagement with the land, since cremation gives

the body to the elements of fire and air, but placing the corpse in the ground returns it to the element of earth. Viewed in this light, the cremations buried in the space between the barrow and the settlement might be interpreted as representing those people in the household who had no claims to land (and whose number is probably under-represented due to plough damage).

It is, then, significant that the decorated pot in inhumation Grave 11A from Phase FA2b carries the same forms of ornament as cremation urns in earlier cemeteries. The decoration on individual urns has proved to be related to the age, sex and social identity of the dead (Richards 1987, 195–207), and it is even possible that the stamped ornament is heraldic, indicating line of descent (Arnold 1983, 27; Richards 1987, 197). The decoration on the Grave 11A pot matches the gender and status of the woman in the grave, though not her age, and one of the stamped motifs is carried through into one of her brooches (Chapter 7). This implies that the same vocabulary of symbols was shared by the inhuming and cremating groups. If these are genuinely kin-group stamps, then the more common use of plain pots to hold cremations during the course of the 6th century and the appearance of stamped pots in inhumations of Phases MA2 and FA2 (Penn and Brugmann 2007, 40) implies that those families who had previously advertised their status and lineage on cremation urns formed a significant element amongst those who were now choosing inhumation as their preferred rite.

It can be argued, therefore, that this whole phase of transition, which included separation from the communal cemeteries, the establishment of new burial plots close to barrows and within sight of the homestead, and the change to inhumation as the main burial practice, is all part of a process which would successfully align individual lineages with a particular parcel of land. This transition took place during the course of the second half of the 5th century and the Tittleshall household was already participating in the change in the third quarter of the century.

IV. The territorial boundary

As described in Chapter 1, the site lies on a natural break in the landscape and it has been argued throughout that this corresponds with a long-term territorial boundary, represented by the Launditch. In the Early Anglo-Saxon period, the sites on the river system to the east of the Launditch appear to have had a degree of unity, represented by shared Norfolk-type beads, Romano-British textile techniques and the occasional practice of reversed female burial (Walton Rogers 2012a, 114). To the south-west of this zone lies the Lark Valley, which can be differentiated from other areas by the ratios of brooch-types and burial practices, and by the products of the Illington/Lackford potter (Fisher 1995, 159–161). The distribution of square-headed small-long brooches (Fig. 4.4) and silver-sheet bracelets (Scull 2009, 102–3, 125) in western Norfolk and Suffolk, together with evidence for trepanning (trephination) in 6th-century graves at Oxborough and in the Fen-edge sites (Penn 1991; 1998, 25–6), all demonstrate a divide in artefacts and customs between the central-east Norfolk group and its neighbours.

A study of place names provides additional evidence. Names with endings derived from *-hām* ('homestead' or 'village'), *-ingas* ('people of') and the compound *-ingahām* are regarded as having been acquired in the Early Anglo-Saxon period (Dodgson 1966; Cox 1973). None of these names is exclusive to any particular area, but a plot of their distribution shows a degree of patterning (Fig. 8.1). The *-hām* names have a close association with Roman roads, and in Norfolk their greatest density is in the west and south, with further examples around the coast and along Margary road 38 (Cox 1973, 36–41, 72–3). The *-ingas* names most commonly occur in a north-south band through central Norfolk, with further examples to the east of this line (Dodgson 1966). The *-ingahām* names have their greatest concentration on the river system of central and east Norfolk and northern Suffolk (Cox 1973, 72). The *-hām* names have been attributed to the 5th century, and the *-ingas* and *-ingahām* names to the 6th (Cox 1973; Gelling 2011, 997), but Wade-Martins (1980, 83) could see no reason why the two names should not be contemporary with each other in this part of Norfolk. Certainly, the matter is ripe for review in the light of modern landscape studies and the datable material from the Portable Antiquities Scheme. Leaving aside the issue of date, the plot shows that the different zones of Norfolk indicated by the archaeology have a broad correlation with the distribution of place names. This suggests that there were different traditions for naming settlements within the two zones.

The plot of the *-ingas* names is of particular interest. The people known by these names are likely to have been in existence for some time before their group names became attached to place names (Cox 1973, 48; Cameron 1996, 67, 71) and Margaret Gelling has argued that the people names tended to crystallise into place names along tribal borders, where the differences between groups would have been accentuated (Gelling 1992, 54). In this she may have been thinking of larger *-ingas* groups such as the *Stoppingas* of Warwickshire and the *Hrothingas* of Essex (Bassett 1989, 18–23), but the theory can also be applied to the smaller *-ingas* groups of Norfolk, which appear to be constituent parts of larger territories.

To investigate the matter more closely, a box 25 x 25km was drawn around Tittleshall and the different name forms plotted (Fig. 8.1). Only those names which incorporated an OE personal name were included, as these are regarded as having the most secure association with the Early Anglo-Saxon period (Gelling 1992, 55). Those which combined *-ingas* or *-inga-* with an OE personal name (as identified in Ekwall 1960; Mills 1991; Cameron 1996, 71–2; Darby and Versey 1975) proved to lie in a band to the east of the site. They are Briningham (Domesday Book spelling *Bruningaham*), Great Snoring (DB *Snaringa*), Little Snoring (DB *Esnaringa*), Whissonsett (DB *Witcingkeseta*), Bittering (DB *Britringa*), Kirtling (DB *Kertlinga*), Elsing (DB *Helsinga*) and Wendling (DB *Wenlinga*). Scarning, Worthing and Billingford are more dubious candidates and Horningtoft can be dismissed because it incorporates a Scandinavian element and no personal name. The only example in the west is Massingham (DB *Masincham*/*Masingheham*) which, like Briningham, is really a compound *-ingahām* name (Wellingham is similarly formed, but does not include a personal name). The band of *-ingas* names to the east of Tittleshall can therefore be interpreted as further evidence

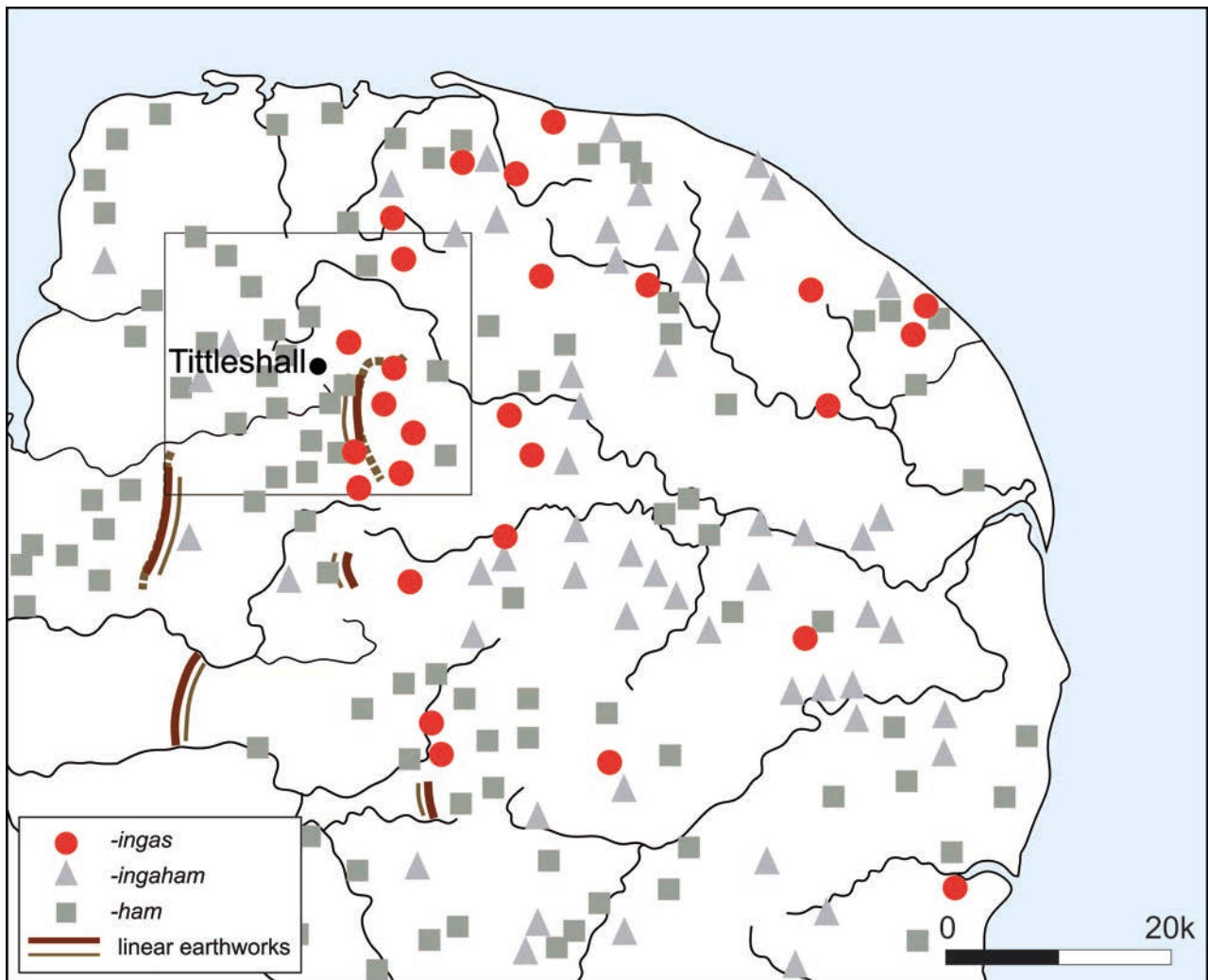


Figure 8.1 The distribution of place names likely to have their origins in the Early Anglo-Saxon period. The plots have been derived from Cox 1973, but only those *-hām*, *-ingas* and *-ingahām* names which are combined with an OE personal name have been selected. New material has been added inside the box

for a north-south territorial border. Their line can be extended north-east to Field Dalling (DB *Dallinga*) and south-east to Swathing near Cranworth (DB *Suatinga*).

The frequent inclusion of personal names in place names of this period may well be a reflection of the social structure of the time. Following the withdrawal of Roman imperial rule and the limited survival of local administrative systems, society is thought to have become focused on family units, kin groups and local leaders (Scull 1992, 6, 15–16; 1993, 75–7). The personal names that survive in place names are most likely to represent petty leaders, whether real or mythical, who came to be regarded as the founders of local lineages.

V. Life in the borderlands

A location on the boundary does not seem to have left the household at Tittleshall marginalised or excluded from the good things of life. Even in the 5th century, when gold was in limited supply in the North Sea Province, the sites in this district were acquiring gold-ornamented saucer brooches from the Midlands, and in later phases some of the finest linens in the county were recorded at Tittleshall and Swaffham. Throughout the lifetime of the cemetery

there were well-furnished burials for women and, more unusually, children with metal accessories.

Most of the material evidence, including metalwork, beads and textile-types, aligns this site with the territory to the east (Chapter 4). The saucer (Grave 15), wide-banded annular (Grave 3) and penannular (Grave 16A) brooches and the veil weave (Grave 21A), however, indicate a different range of external contacts in the 5th and early 6th centuries. It has been argued that the brooches are likely to have come from the south and south-west, along the corridor between the earthworks. This is the route of the Icknield and Peddars Way, the same roads along which *-hām* names seem to have spread. It has also been suggested that a new wife may sometimes have travelled the same path and that the child's hybrid brooch (Grave 14) implies a conscious recognition that the people here lived between two worlds.

VI. Competing lineages (Phases FA2 and MA2)

The phase in which individual families separated from the communal whole (as expressed in the establishment of new inhumation plots) marked the start of, or led to, a phase of competition between them. In Scull's model for

this period, it was this rivalry between peers which caused some lineages to rise above others and eventually to form long-lasting dynasties of leaders (Scull 1993, 75–7; 1999, 20–2). It was argued in Chapter 7 that this phase of competition activated a warrior mentality in men, which found expression in the bearing of arms in the Germanic fashion. At Tittleshall, there is an example in Phase MA1b/MA2 of a man with a spear, Grave 2, although it is curious that there are no spear-and-shield burials from Phase MA2. The next equivalent to a weaponed burial is that of the child in Grave 19, Phase MB.

How often free men of this period actually had to fight is unknown, though several skirmishes and the occasional pitched battle were recorded in the Anglo-Saxon Chronicle and in the writings of Bede. Power struggles can be enacted in different ways, however. The location of Tittleshall, with control over the source-water of the River Nar, may have given this family leverage over those who lived downstream. A peak in the number of female-gender accessories in graves of Phase FA2, both here and elsewhere (Penn and Brugmann 2007, 89–94), suggests that women were also joining in the competition. The women in Grave 11A (Phase FA2b) and Grave 13 (FA2b–FB1) were particularly well-provided with clothing and accessories of different kinds, which demonstrates not only that they were wealthy enough to own them in life, but also that their kin could afford to bury them.

In agrarian societies such as these, the numbers of artefacts are likely to reflect not only wealth but social status (Scull 1993, 69–70). In these terms, the women buried in Graves 11A and 13 must be regarded as having some local seniority. They are outclassed, however, by a coffined burial at Spong Hill, G24, which included, as well as a gilt square-headed brooch and a pair of annular brooches, a weaving batten, girdle-hangers, strap ends and a copper-alloy bowl (Hills *et al.* 1984, 72–3, 127–9). This burial has been attributed to Phase FA2b (Penn and Brugmann 2007, 44, 58) and from Phase MA2 at the same site there was a male burial in a chamber grave within a ring ditch, Grave 40, incorporating a sword in its scabbard, a shield, spear and bucket (Hills *et al.* 1984, 91–4, 142–3; Penn and Brugmann 2007, 45–7). This kind of social differentiation is likely to have accompanied the development of local chiefdoms (Scull 1993, 69–70). Leaders are thought to have been establishing local hegemonies at this time, although theirs were probably transient structures and there is no evidence that the cemetery at Spong Hill, or the household it served, lasted beyond Phase FA2/MA2 (Penn and Brugmann 2007, 69, 71). Tittleshall, on the other hand, continued and, it would appear, continued to thrive.

VII. Changing power structures (Phases FB and MB: mid-6th to mid-7th)

There are signs of the emergence of a more permanent political hierarchy in the later 6th and early 7th century in East Anglia. Large princely barrow burials appeared, first within the flat cemetery at Snape and then as a separate elite burial ground at Sutton Hoo. This process coincided with the historically recorded rise of the Wuffing dynasty, who became rulers of the Province of the East Angles. The Wuffings most probably had their power-base in southern Suffolk (Yorke 1990, 72–97), and their rule is likely to have been an hegemony over the different groups of

people in Norfolk (Scull 1992, 6–7, 15). If that is so, then local hierarchies are likely to have survived under Wuffing rulership (Scull 1993, 76). The family with a male retinue buried in a new part of the Flixton II burial plot may represent one such (Boulter and Walton Rogers 2012, 195) and other richly furnished burials of this phase possible indicate more (Scull 1993, 76–7). The increasing disparity between burials, in grave construction and in the provision of grave goods, indicates a widening social gap, which may have coincided with the establishment of a more permanent aristocratic class.

The people at Tittleshall were not in the topmost echelon of society, but the burial of the young child in Grave 19 seems to express similar concerns over rank and descent. As described in Chapter 7, the child — assumed to be a boy — was buried in a large grave for this site. His clothing was made from unusually fine linen and was fastened with a belt with a unique small buckle. He had two knives at a time when even adults usually had only one and, more importantly, he was buried with part of a sword scabbard. As already explained, this is likely to indicate that he belonged to a sword-bearing line. These are the elements to be expected if this was the young heir to a local lineage.

Other burials from this phase include two women, Grave 10 and Grave 17, and an adult of unknown sex/gender in Grave 23. They belong to a phase when regional variation in costume is no longer visible in the archaeological record, and the production of local Norfolk-type beads had disappeared. There was no overt display of wealth at Tittleshall in this phase, but the string of beads incorporating Continental imports and a silver-covered bead in Grave 17 (Phase FB2) demonstrate that this woman was still well provided with material goods.

VIII. The final phase (Phase C, mid-7th century onwards)

The difficulties of characterising the end of the cemetery have been described in Chapter 6. Grave 17 has been confidently dated to the first half of the 7th century (late Phase FB2) and represents the last of a continuous sequence of female burials. Other burials, such as Graves 5, 7, 18 and Cremation 1, can be only loosely dated by the artefacts to Phase FB/MB or C. If the radiocarbon date for Grave 12 is accepted, however, then the cemetery was still in use in the later 7th or even the 8th century. This is not impossible, since there are examples of 5th- and 6th-century cemeteries that continued into the late 7th century, at Castledyke, Lincolnshire, and Lechlade, Gloucestershire, and also examples of individual late clothed and furnished burials, such as Ipswich Boss Hall G93, in plots of an earlier date (Scull 2009, 122–3, 126–7). The survival of these pagan customs does not necessarily indicate pagan beliefs. The introduction of Christianity to East Anglia was a phased process which included a false start with the baptism of Rædwald, a main missionary phase in the 630s and consolidation in the following decades (Hoggett 2010, 13–16, 28–35), but it did not cause an immediate change in burial practice. It is possible that shrouded burial only manifested itself under the later influence of the Irish Church (O'Brien 1999, 52–3, 186).

The man in Grave 12 was over 55 years old when he died. His equipment included a shield from an earlier generation, several personal accessories and probably

originally a bucket. During the 7th century, the ritual of burial with weapons was falling out of use, although it survived longest amongst the older age group (Stoodley 1999, 114, 118). By this time, younger men probably had other interests: land charters could now be written down and literacy, or access to literate clerics, would be more useful than martial skills when it came to protecting the family interests. Nor was there any need to express authority through burial monuments, now that the building of minster churches could be used to assert identity. This was the phase at which burial close to churches was beginning, although it was probably difficult at first to persuade lay people to give up their ancestral burial grounds (O'Brien 1999, 53) and for some the process may have been experienced as the rupture of a sacred link with the land (Hamerow 1993, 89). For reasons such as these, a man of relatively advanced years may well have requested burial in the family plot, with the customs and practices of his youth.

IX. Continuity at Tittleshall

The social and political changes of the 6th and early 7th centuries eventually led to a re-organisation of settlements. The earlier pattern of broadly equal communities gave way to a hierarchy of place, where royal residences and centres of administration became differentiated from centres for craft and trade, while some settlements began to concentrate on the production of food and goods to supply others (Härke 1997, 146–8; Scull 2002, 308–12; Reynolds 2003, 130–1; Newman 2005, 483; Carver 2005, 498; Hamerow 2011, 122–3). At the same time, the close relationship of kings with the Christian church helped to maintain the political hierarchy, while it also fostered church-building. As far as cemeteries are concerned, there was a phase during which some new burial grounds came briefly into use, at Harford Farm (Caistor St Edmund), Thornham and Coddensham (Hoggett 2010, 122–130), but, for the most part, in the second half of the 7th century, there was a move away from hillside locations and into the settlements themselves (Hoggett 2010, 130–8). This eventually became formalised as churchyard burial.

The re-structuring of the settlement pattern meant that in many districts Early Anglo-Saxon cemeteries were left behind in marginal areas, close to what were to become parish boundaries. At Tittleshall, however, it is likely that the settlement simply shifted slightly northwards, to the sites of the twin villages established in the Middle Anglo-Saxon period on the north and south sides of the Roman road (Fig. 8.2). The present church of St Mary in Tittleshall village was built in the 13th to 15th centuries, but it is thought to be the immediate successor to the church with six acres of its own land mentioned in Little Domesday (Chapter 2). Fieldwalking in its vicinity revealed a spread of Middle Anglo-Saxon Ipswich ware as well as later Thetford ware (Wade-Martins 1980; Hoggett 2010, 150–1), which suggests an early foundation, possibly immediately after the burial plot described in these pages had come to an end. Ipswich and Thetford wares were also found at Sutton, in a wide east-west spread along Back Lane. At the time of Domesday, the manor of Sutton (DB *Suttuna*, 'south settlement') covered 300 acres (half-a-league by five furlongs), and it was valued at 80 shillings. This was a valuable manor, and yet it seems to have been the

lesser partner of the two. It was Tittleshall which had the church and watermill, and later a weekly market, while Sutton did not grow much after the 9th century, was in decline in the 12th and 13th centuries, and by the 14th century was no longer regarded as a separate entity from Tittleshall (Wade-Martins 1980, 53–8).

In this instance, therefore, the site of the Early Anglo-Saxon cemetery and the farmstead it served remained in the centre of the later parish. At Swaffham, also, there is an Anglo-Saxon cemetery in the modern village, at the centre of the parish of the same name (Hills and Wade-Martins 1976). Cases such as these suggest long-term stability in landholding patterns and administration in this particular part of Norfolk.

X. Landholding

It is possible that relics of early landholding patterns have survived in the names and shapes of the modern civil parishes in this district (Fig. 8.3). Several of the *-hām*, *-ingas*, and *-ingahām* place names described above are both village and parish names and it is noticeable that many of them share the same primary name, differentiated by affixes. This suggests that they were originally single units. They are Snoring (Great and Little), Barsham (North, East and West), Rudham (East and West), Raynham (East, West and South), Massingham (Great and Little), Weasenham (All Saints and St Peter, also known as Upper and Lower), Lexham (East and West), Dunham (Great and Little), Fransham (Great and Little) and Pickenham (North and South). Seven of these ten have an OE personal name, *Snear*, *Bār*, *Rudda*, *Regna*, *Maessa*, *Weosa* and *Pīca*, as the first element (Mills 1991). It can be argued that in the Early Anglo-Saxon period these were the names of the settlements, and by extension the landholdings, of small groups of people who commonly took their names from the founders of their individual lines.

The division into the smaller units represented by names with affixes had in several cases occurred by the time of the Norman Conquest. All the place names listed above appear in Little Domesday, where some, such as Raynham and South Raynham, Barsham and North Barsham, and the two Snorings, were already identified as separate vills. Others were listed under their primary name, but survey work in the Weasenhams, for example, has shown that they were already two distinct entities and one at least (All Saints) could be traced back to the Middle Anglo-Saxon period (Wade-Martins 1980, 13, 59–70). It is tempting to see evidence for a still larger land unit in the cartwheel-shaped layout of the parishes with early name forms to the west of Tittleshall, namely the Massinghams, Rudhams, Raynhams and Weasenhams, together with Harpley and Rougham, their villages arranged in a circle equidistant from the hub. The early names might indicate relics of a clan territory, perhaps a westerly counterpart to the catchment area of the 5th-century Spong Hill cremation cemetery. If so, however, the cartwheel area and the likely catchment area for Spong Hill were both eventually intersected by the boundary of the hundred. The hundred was an administrative unit, between the parish and the county, in existence by the mid-10th century (Anderson 1934, xvi). The Domesday Launditch Hundred stretched from the Weasenhams to Swanton Morley and took its name from the earthwork at its centre, which is likely to have been an assembly point (Anderson

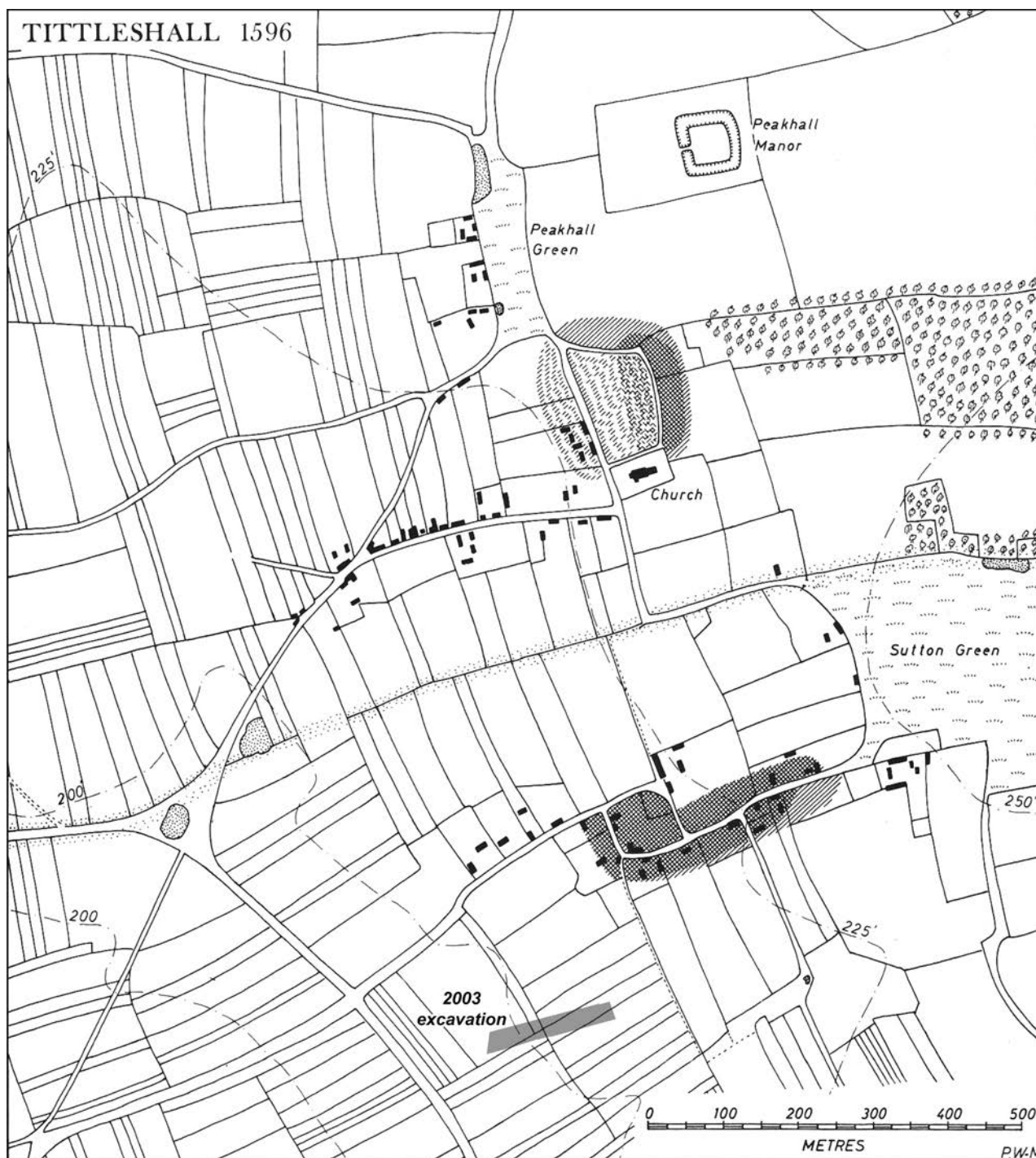


Figure 8.2 Wade-Martins' map of Tittleshall in 1596 (Wade-Martins 1980, fig. 28) with the area of the 2003 excavation marked. The map is based on a manuscript map held at Holkham Hall, to which has been added the east-west Roman road and the spread of Middle and Late Anglo-Saxon pottery. Note the two settlement areas, originally Tittleshall in the north and Sutton in the south, which, by the 16th century, had been combined under one name

1934, xxxiii–xl, 73). When the assembly, and the hundred it served, first came into existence, is unknown, although it is possible that it had its origins in the social and political changes of the Middle Anglo-Saxon period.

If the parishes with early name forms can be taken to relate to early land units, then their size is of interest. When those parishes which have OE personal names and endings in *-hām* are grouped by their primary name, their total areas prove to range from 3,300 to 6,200 acres (using figures provided in White 1845). The large and undivided parish of Swaffham, 'settlement of the Suebi [Swabians]'

probably belongs in the same category, with an area of 6,200 acres. Those parishes with *-ingas* names to the east of Tittleshall are smaller, from 1,328 (Whissonsett) and 1,331 (Wendling) to 3,200 acres (the two Snorings combined), which suggests a denser settlement pattern and possibly reflects a different agricultural zone. Tittleshall was probably originally one of the small ones. By 1845, the civil parish covered 3,020 acres (White 1845, 326), but this was only after the lands of three deserted villages, Sutton, Greynston and Godwick, had been added (Wade-Martins 1980, 13–15).

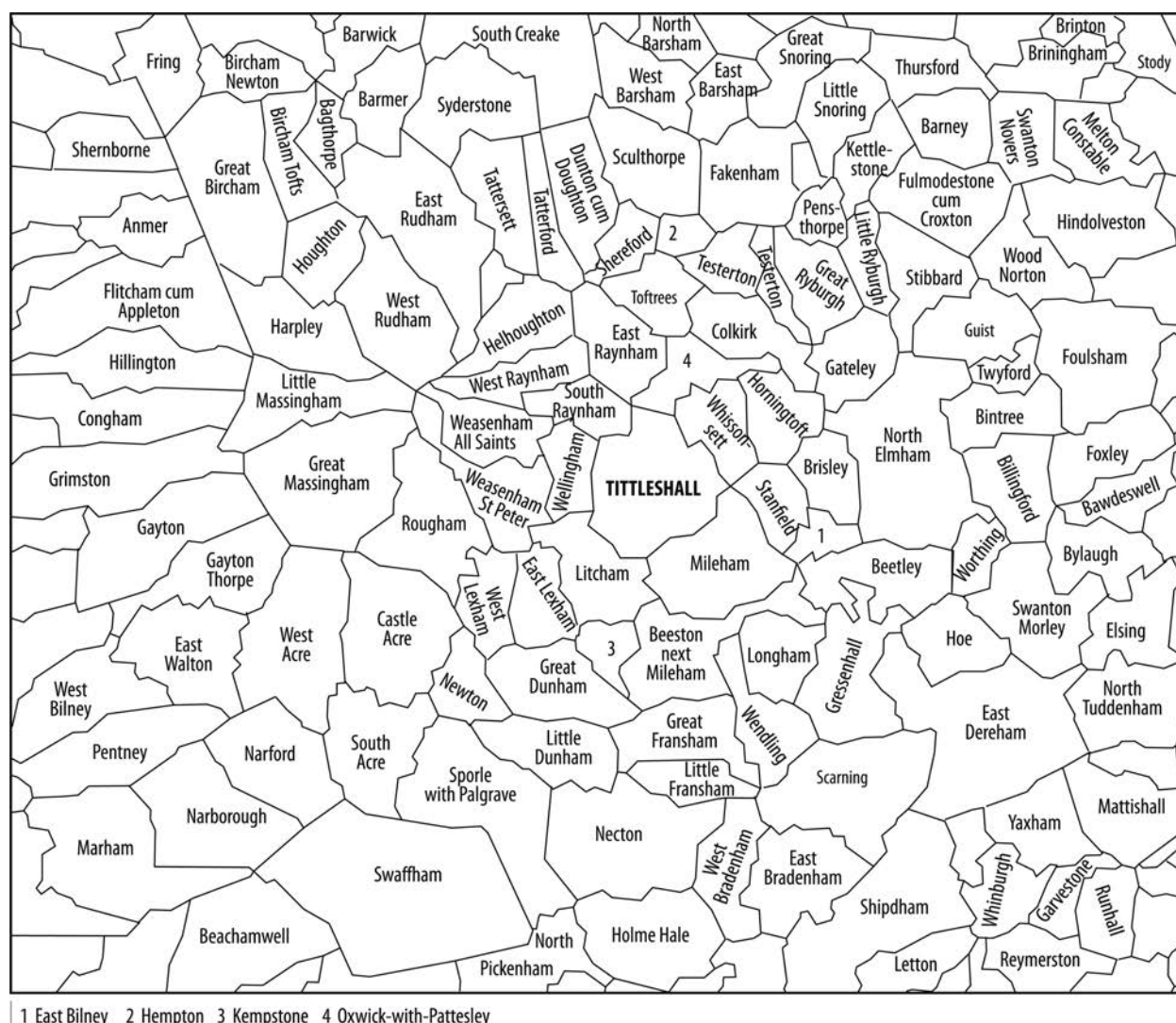


Figure 8.3 The civil parishes around Tittleshall, c. 1923 (after Ashwin and Davison 2005)

To summarise, like other settlements in the district, Tittleshall seems to have split into two for the Middle and Late Anglo-Saxon periods, but the south settlement, Sutton, was unusually close to its partner and was re-absorbed as it began to fail. Unlike many land units to the north, south and west, which appear to have started large and then divided, the Tittleshall land unit probably began small and only later expanded to form the civil parish that exists today.

XI. Tyttel's *halh*

The name of the modern village and parish, Tittleshall, has two elements, both of which are likely to have had their origin in the Early Anglo-Saxon period (Mills 1991, 331; Gelling and Cole 2000, 128). The first part, Tyttel, is a personal name, of which the only known holder is Tytil (also spelled Tytla or Tytlla), the son of Wuffa and father of Rædwald, of the Wuffing dynasty (Yorke 1990, 61). There is no reason to relate this site to the historical Tytil, since the Wuffings probably had their base in southern Suffolk, but it demonstrates that the name was current in the late 6th century. It is more likely that the Norfolk Tyttel

was a local leader, comparable with those whose names are recorded in other early place names.

The second element, *halh*, appears in North Frisian, Low German and Danish dialects as well as Old English (Stiles 1997, 330). In the Continental dialects, the word is used for either a small low-lying island or 'land lying seaward of a dyke'. In Old English its core meaning seems to be something that deviates from a flat plane, which can be viewed from above, below, inside or outside (Stiles 1997, 334–5). Thus, it can be used for both an island in a marsh and a hollow in higher ground; it can be part of a building jutting outwards, or a recess or nook; and it can have the abstract sense of something hidden, or the administrative meaning of a piece of land projecting out from a larger unit (Stiles 1997; Gelling and Cole 2000, 123–33). At Tittleshall, the only topographical feature which would fit the term is the angular bend in the Nar stream, which flows first east, then south, then west. On the other hand, if the place's relationship to the Launditch boundary was regarded as its most important feature, then the Continental meaning of land beyond a dyke might have been applicable. Alternatively, it may have been a reference to a fragment of land that jugged out from the main tribal territory.

Whatever the true origin of the name, it seems an appropriate term for the landholding of a family who appear to have stepped away from the main group and established their own niche in the landscape.

XII. Conclusion

All the indications are that this was the burial plot of a small local lineage, who lived and farmed in the area in the 5th to 7th centuries. It has been argued that their lands stood on the outer edge of their clan and tribal group. While there may have been some other similarly small lineages in the district, such as the people of Whissonsett

to the north-east, for the most part they were probably surrounded by groups with larger land-holdings. Neither their location nor their size, however, seems to have counted against them. They were amongst the first to assert their identity by establishing their own family inhumation plot and, affluent from the start, they appear to have maintained a good standard of living throughout the life-span of the cemetery. As a household, they passed through all the transitions seen in other sites in East Anglia, but they were remarkable for their successful longevity. Even when it came to the final transition, it is most likely that they simply shifted from this site to new ground a short distance away, to become founders of the village of Tittleshall that is still there today.

Chapter 9. The Inventory

Compiled by Penelope Walton Rogers, with additional material from Sue Anderson (pottery), Birte Bruggmann (beads), Sharon Clough and Kate Brayne (human remains), Rowena Gale (charcoal), Adrian Marsden (coins) and Kenneth Penn (knives, latch-lifters and tweezers). Mineral-preserved wood in the spearhead from Grave 2 was identified by Steve Allen, York Archaeological Trust. EDXRF analysis of two copper-alloy artefacts was by Jennifer Jones and Philip Clogg, Durham University.

Type series cited

beads: Bruggmann 2004
 buckles: Marzinzik 2003
 cruciform brooches: Mortimer 1990
 shield fittings: Dickinson and Härke 1992
 knives: Drinkall in Drinkall and Foreman 1998
 penannular brooch: Dickinson 1982
 pins: Ross 1991
 sleeve clasps: Hines 1993
 spearhead: Swanton 1973
 wide-banded annular brooch: Ager 1985
 EAC (East Anglian Chronology) types: Penn and Bruggmann 2007

Key for costume and textile tables

'Thread-counts' are the numbers of threads per cm
 Z and S indicate the lie of the fibres in a yarn, when the yarn is held vertically: Z = / and S = \
 Z2S indicates a two-ply yarn or cord, twisted in the S direction from two Z-spun yarns
 For weave structures see Figure 4.19.

The clothing has been described as if the person were alive and standing upright.

'Left' and 'right' indicate the body's left and right.

'Above' and 'below', mean worn higher or lower on the body.

'Inside' and 'outside' mean as worn, 'inside' being closer to the body.

'In the region of' indicates likely position where osteological evidence is absent.

The terms for living body parts — head, neck, breast, arm, waist, hip — replace strict osteological terms, except where they may cause ambiguity.

I. The inhumations

Grave 1

Figs 9.1–2

Cut 13129, fills 13130–1 and 13141; no human remains

Dimensions: length 1.88m; width 1.04m; depth 0.39m

Orientation: 33°/213° (NE–SW)

Grave shape: sub-rectangular with rounded ends

Container for body: none recognised

Sex and age: no bones or teeth, but grave-cut is adult size

Gender of finds: none

Body position: no evidence

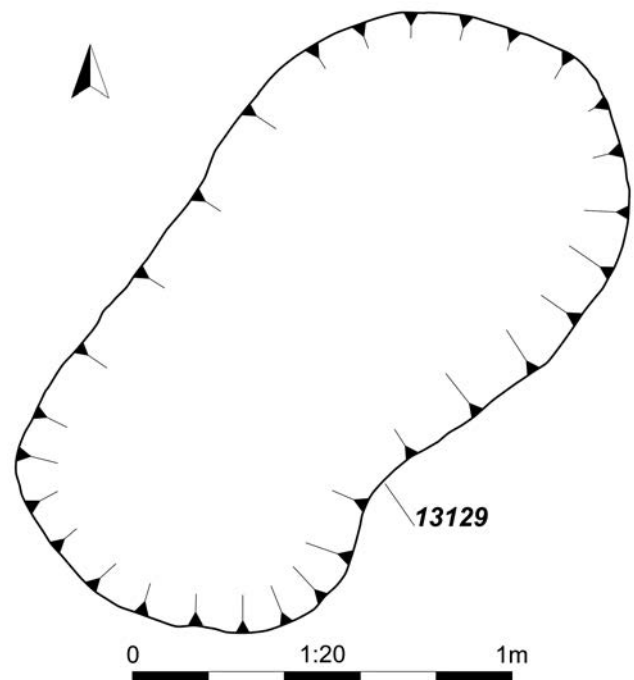
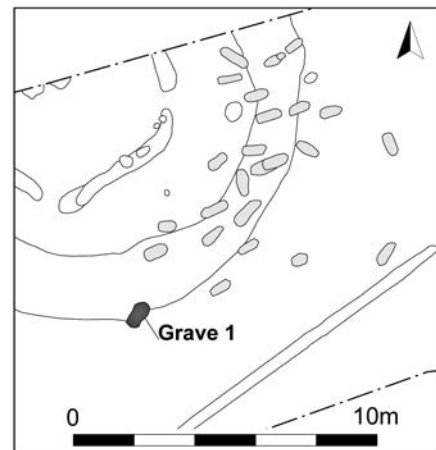


Figure 9.1 Grave 1 cut 13129: plan

The grave had been dug across the outer edge of the outer ring ditch, 13215, in the southern part of its circuit. There were no bones or artefacts present, but the cut was identified as a grave from its shape and orientation. It had near-vertical sides and a flat base.

There were three layers in the fill, from the bottom up, brown silty sand 13141, brown silty sand, 13131, and mixed pale, mid- and dark brown silty sand 13130. There were potsherds (1) in the upper two fills. This may have been an empty grave that had silted up.

Grave goods:

- 1 Six sherds of Early Saxon medium sandy ware (ESMS) and three of Early Saxon grass- and sand-tempered wares (and one intrusive medieval coarseware base sherd, MCW1).



Grave 2

Figs 9.3–4

Cut 13166, fill 13159, human remains 13167

Dimensions: length 1.62m; width 0.84m; depth 0.35m

Orientation: 249° (WSW–ENE)

Grave shape: sub-rectangular with rounded eastern end

Container for body: none recognised

Sex and age: ?female, 55+ years (age category 8)

Gender of finds: ?male

Body position: head to west, posture not clear

The grave had been cut into the outer ring ditch, 13215, in the southern part of its circuit. The cut had vertical sides and a flat base, and the fill was brown sand, 13159.

Human remains, 13167, were represented by fragments of skull (left temporal bone), mandible and teeth at the west end of the grave. They were tentatively identified as female from the mastoid process.

[illegible]

Table 9.1 Grave 2 Dental inventory (/ = socket; Ø = lost ante-mortem)

An iron pin (1) lay to the left of the skull, pointing towards the feet. There was a buckle (2) in the region of the body's waist, and a knife (3) to its left, pointing diagonally across the grave. Two fragments of a spearhead were recovered from the right side of the body, but appeared to have been disturbed. The blade (4.1) lay next to the presumed position of the thighs, pointing towards the foot end of the grave, but the socket (4.2) lay more conventionally in the region of the shoulder, pointing to the head end.

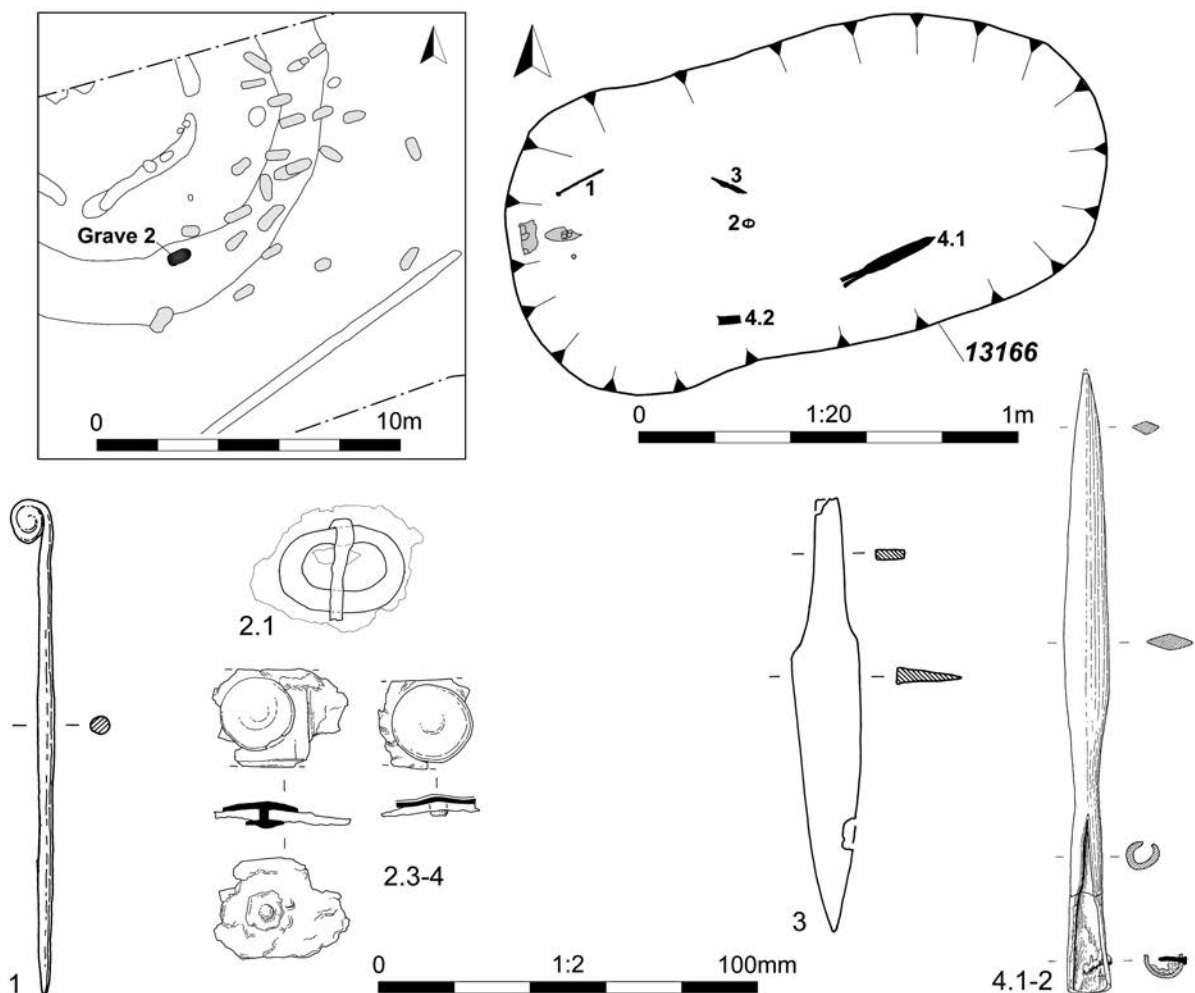


Figure 9.3 Grave 2 cut 13166: plan and associated aretfacts

| <i>Fibre</i> | <i>Weave</i> | <i>Thread-Count/Spin</i> | <i>Position of Textile</i> | <i>Interpretation</i> |
|--------------|--------------|--------------------------|--|--|
| wool | 2/2 twill | 9/Z x 7/Z | On head of pin (1) at left shoulder, and on front of buckle and belt fittings (2) at waist | Two layers of wool twill, outermost heavy, other medium-weight, with pin sandwiched between the two: possibly blankets. Belt lay inside/below these. |
| ?wool | ?twill | 14/Z x 12/Z | Between heavy wool twill and leather/skin on buckle fittings (2); and on pin (1), on opposite face to heavy twill. | 2/1 twill represents garment fastened by belt. |
| ?wool | 2/1 twill | 12-14/Z x 8/Z | On belt plate (2) at waist. | |

Table 9.2 Textiles from Grave 2

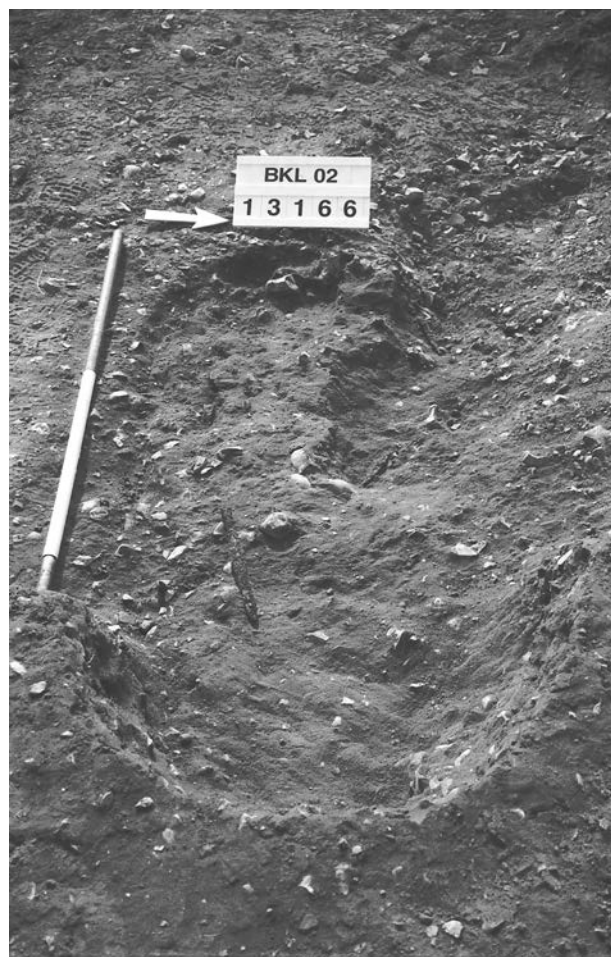


Figure 9.4 Grave 2 cut 13166, looking west from the foot of the grave. Spearhead 2/4 can be seen at the centre left of the grave

Grave goods:

- 1 Iron coil-headed **pin**. Type: Ross XII/i ('curled-headed'). L.130mm, coil D.11mm, shank D.5mm. **Textile** remains on head. SF 70521.
- 2 Iron **buckle** with D-shaped loop (2.1) and fragmentary, possibly rectangular, iron plate (2.2, not illustrated). Two copper-alloy disc-shaped rivet heads (2.3–4) in association probably come from the belt plate: one has a white-metal plate (probably a high-tin bronze) and the other has solder where a plate was probably applied. Type: Marzinzik II.20. W. across loop 33mm, L. along loop 27mm; plate >24mm x >26mm; D. rivet heads 20mm. Mineral-preserved **leather/skin** strap pierced by tongue; **textile** remains on front and second in association. SF 70522.
- 3 Iron **knife**, complete, except for minor damage at end of tang and along cutting edge. Tang, square-ended, curving into slight steps at shoulder and choil. Back and cutting edge curve into point. L.115mm, blade 77 x 17mm. Type Drinkall A1. SF 70520.

- 4 Iron **spearhead** in two fragments, blade (4.1) and socket (4.2). Leaf-shaped blade with lentoid cross-section and broadly cleft socket with remains of wooden shaft, identified as ash, *Fraxinus excelsior* L. L.315mm, blade L.215mm. Type Swanton series C; EAC *lanceolate long 1*. SF 70518 and SF 70519.

Grave 3

Figs 9.5–6

Cut 13051, fill 13045, human remains 13301

Dimensions: length 1.20m; width 0.71m; depth 0.08m

Orientation: 256° (W–E)

Grave shape: sub-rectangular with rounded eastern end

Container for body: none recognised

Sex and age: child of 6–7 years (age category 4), sex undetermined

Gender of finds: female

Body position: head to west, posture not known

The grave lay immediately inside the inner edge of the outer ring ditch, 13215, in the southern part of its circuit. The grave-cut was poorly defined and had been plough-damaged. The fill was mid-to dark brown sand, 13045.

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | - | - | - | - | - | U | U | - | - | - | - | - | - | - | - |
| - | U | U | E | - | C | B | - | - | - | U | U | U | U | U | U |

Table 9.3 Grave 3 Dental inventory (U = present but unerupted)

Some teeth and staining in the earth, 13301, probably from the skull, were recorded at the west end of the grave.

Two non-matching annular brooches (1) and (2) were found close to the teeth, together with a pierced coin (3) and a detached fragment of textile (4).

Grave goods:

- 1 Cast copper-alloy **narrow-banded annular brooch** with flat-elliptical section and circular perforation for pin attachment, 3mm diameter. Decoration consists of two pairs of cast grooves on either side of perforation and a third pair on the opposite side of brooch; a row of stamped rings around outer edge; and occasional stamps the same at inner edge. Pin absent, but leather thong, 2mm wide, wrapped around outer edge and passed through perforation. Type: EAC *ARound*. D.42mm, band W.6–7mm, Th.2mm. SF 70466.
- 2 Flat copper-alloy **wide-banded annular brooch**, damaged in antiquity, with broken circular perforation, 3mm diameter. Decoration consists of a row of inward facing semicircles around outer and inner edges. Pin absent, but there are two passes of leather thong across band, where pin tip would have been. Type: Ager E1. D.48mm, band W.13mm, Th.1mm. SF 70467.
- 3 Pierced copper-alloy Roman **coin**: House of Constantine (a son of Constantine I), AE3, 335–341.
Obverse: [...] Laureate and cuirassed bust, right.
Reverse: [GLORIA EXERCITVS] Two soldiers standing either side of standard.
Late Roman Bronze Coinage I. Uncertain mint; reverse and obverse on same alignment. Diameter c.16mm, weight 1.24g. Pierced approximately 1mm from the edge of the flan, by neck of bust. SF 70468.
- 4 **Textile** fragments and **leather** thong. Largest fragments 12 x 9mm and 16 x 6mm. SF 72002.

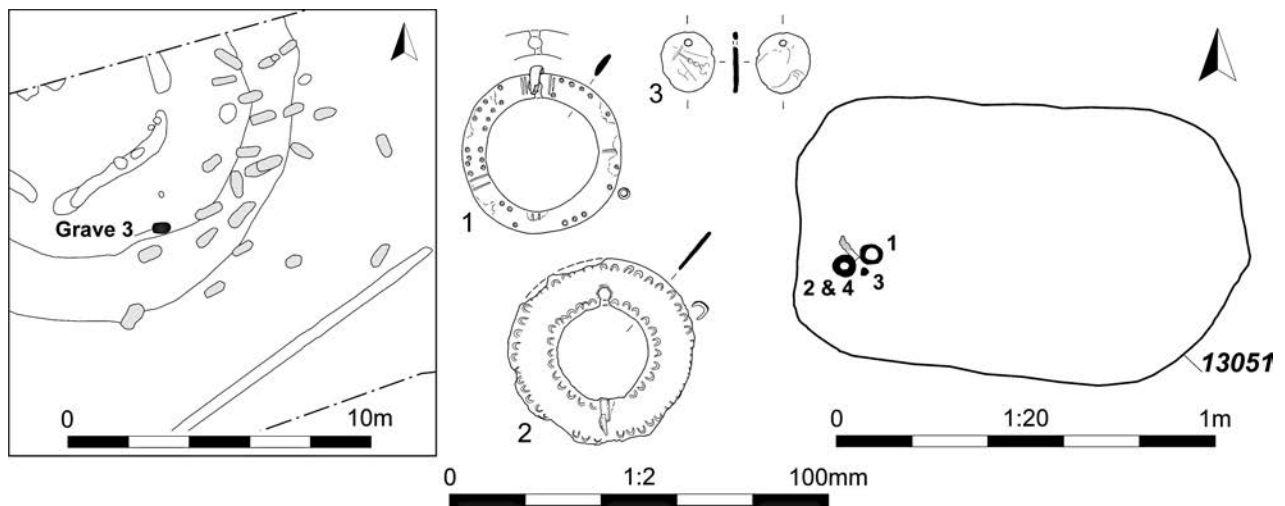


Figure 9.5 Grave 3 cut 13051: plan and associated artefacts

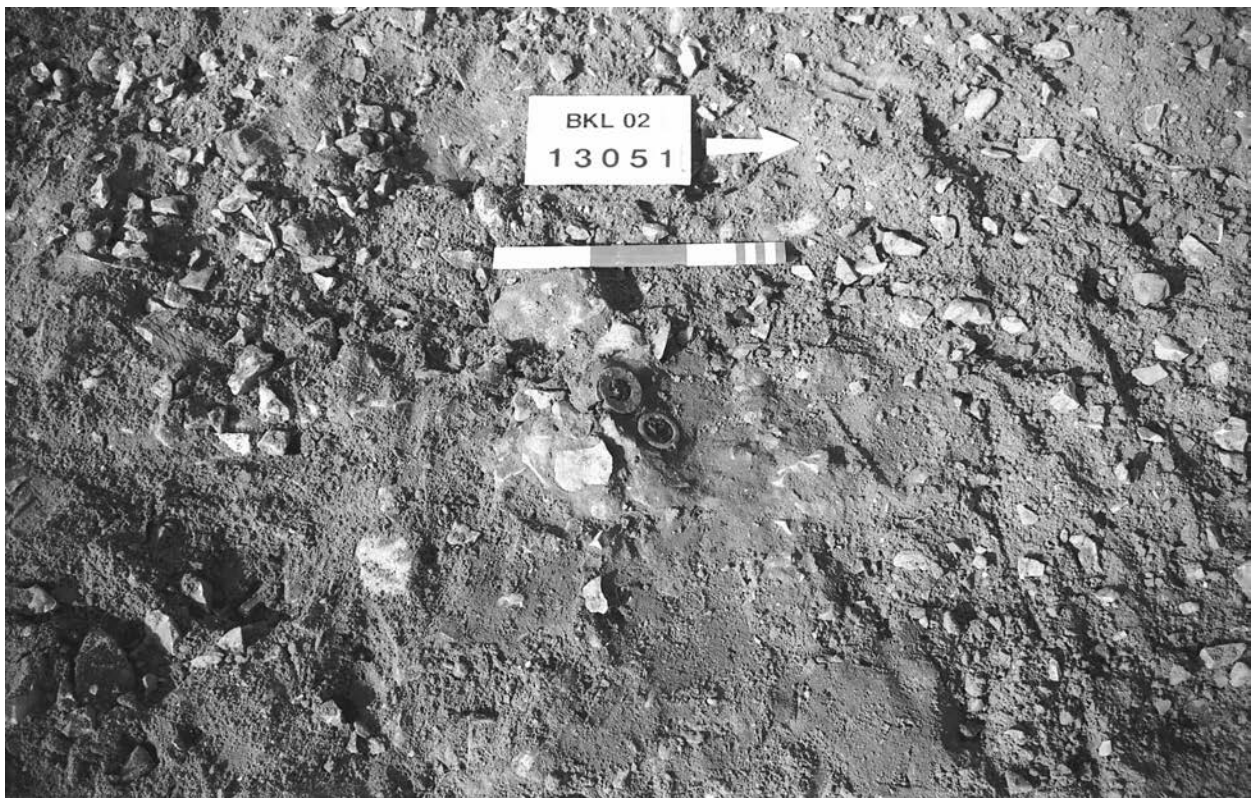


Figure 9.6 The western end of Grave 3 cut 13051, looking west, showing annular brooches 3/1 and 3/2 *in situ*

| Fibre | Weave | Thread-Count/Spin | Position of Textile | Interpretation |
|-------|-----------|-------------------|--|--|
| wool | 2/2 twill | 9/Z x 7/Z | On head of pin (1) at left shoulder, and on front of buckle and belt fittings (2) at waist | Two layers of wool twill, outermost heavy, other medium-weight, with pin sandwiched between the two: possibly blankets. Belt lay inside/below these. 2/1 twill represents garment fastened by belt. |
| ?wool | ?twill | 14/Z x 12/Z | Between heavy wool twill and leather/skin on buckle fittings (2); and on pin (1), on opposite face to heavy twill. | |
| ?wool | 2/1 twill | 12-14/Z x 8/Z | On belt plate (2) at waist. | |

Table 9.4 Textiles from Grave 3

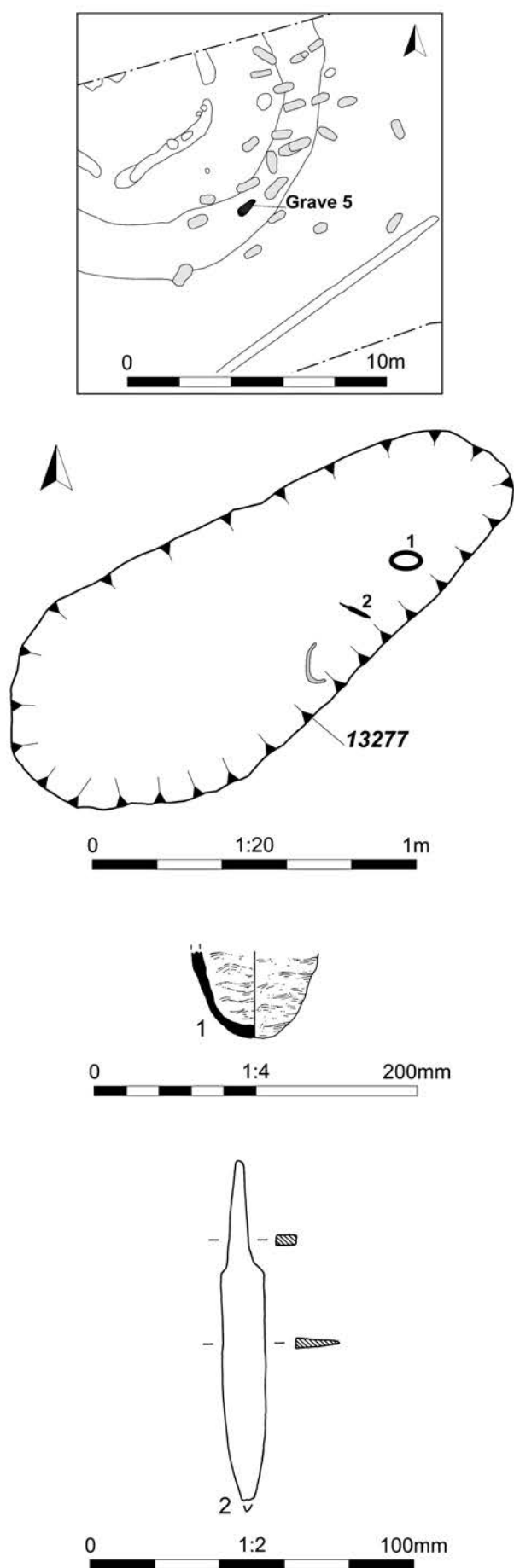


Figure 9.9 Grave 5 cut 13277: plan and associated artefacts



Figure 9.10 Grave 5 cut 13277, looking south-west. The remains of the skull, 13279, can be seen near the centre of the grave

- 2 Iron knife, complete except for missing point. Tang expands into shoulder and choil. Back and cutting edge taper to point. L.111mm; blade 75mm x 13mm. Type: Drinkall A1. SF 70530.

Grave 6

Figs 9.11–12

Cut 13119, fill 13118, human remains 13120

Dimensions: length 1.92m; width 0.69m; depth 0.11m

Orientation: 243° (WSW–ENE)

Grave shape: irregular outline

Container for body: none recognised

Sex and age: male, middle adult (age category 7)

Gender of finds: female

Body position: extended supine, head to west

The grave had been cut into the inner edge of the outer ring ditch, 13215, in the south-eastern part of its circuit. It was a shallow and irregular cut, which had been extensively plough-damaged. The fill was brown silty sand, 13118.

Fragmentary remains of the skull (temporal and occipital bones), left ilium, left femur and left calcaneus (foot bone), 13120, were recorded by the osteologist, and the outline of the right leg and arm was also noted during excavation. Staining in the soil was associated with the skull, arm and upper legs. The sex of the body was identified from the mastoid process, nuchal crest and suprasternal crest.

Five beads (1) were recovered from the neck area and one pair of sleeve clasps (2–4) from the upper right chest. The hook-plate from a sleeve clasp (5) and a detached bar from another (6) were found by the right upper thigh. A knife (7) lay beside the body at the left waist. A bar from a sleeve clasp (8 = US/1) which matches (6) was found in earth removed from directly above this grave.

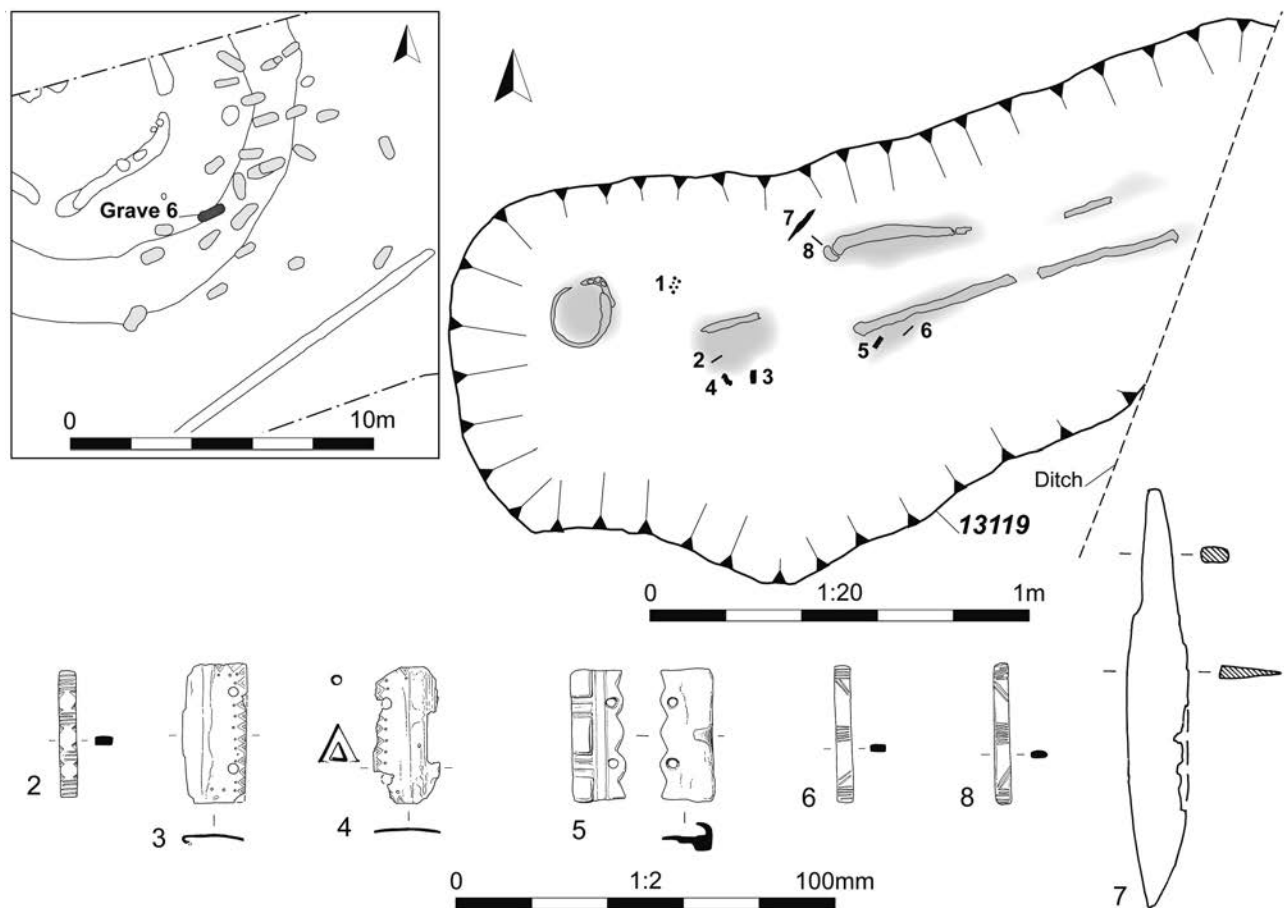


Figure 9.11 Grave 6 cut 13119: plan and associated artefacts

Grave goods:

- 1 Five **beads** recovered by sieving the upper torso/neck area of inhumation after the grave had been recorded. Brugmann Group A1. SF 70502.
 - amber** 2 **beads**, total weight 1.5g, perforation worn:
 - 1 very short, cylindrical; diam. 11–15mm (Fig. 4.14/6)
 - 1 short, fragment
 - glass** 3 **beads**
 - Type *Traffic Light*
 - 1 medium, globular; diam. 11–15mm (Fig. 4.14/7)
 - 1 short, globular; diam. 11–15mm (Fig. 4.14/8)
 - other glass beads:
 - Red opaque 1 short, globular; diam. 11–15mm (Fig. 4.14/9)
- 2–4 Fragments of a single pair of copper-alloy **sleeve clasps** made from sheet metal, with only one cast bar attachment. The bar (2) is faceted (chip carved); and both plates (3–4) have a row of stamped ornament along the rear edge: the punchmark is a double inverted V, capped with a small circle. The hook-plate (3) has two circular perforations, 2.5mm diameter, for attachment to the cuff. **Textile** on back and front. Type: Hines B13a, EAC *wcBar*. W. (across cuff) 35mm, L. 16mm. SFs 70491–3.
- 5 Complete cast hook-plate from a **sleeve clasp** with shaped rear edge. Two circular perforations, 2mm diameter, for attachment to the cuff. Narrow hook, 4.5mm wide. **Textile** on back. Type: Hines B20.

W.(across cuff) 34mm, L.36mm. Surface analysis by EDXRF showed the metal to be a leaded gunmetal (see 9.IV, below). High levels of tin may represent tinning on front and back. SF 70494.

- 6 Cast copper-alloy bar from a **sleeve clasp**. Ornamented with incised transverse lines. Type: B13a. 36 x 4mm. SF 70495.
- 7 Iron **knife**, complete except for damage to cutting edge. Tang with straight back forms step with blade, the underside expands into cutting edge. Back and cutting edge taper to point. L.>110mm, blade 70mm x 15mm. Type: Drinkall A1. SF 70490.
- 8 Cast copper-alloy bar from a **sleeve clasp**, similar to item 6. Ornamented with three groups of transverse grooves and two pairs of diagonal lines between the three. Type: Hines B13a. 36 x 4mm. SF 70482. From machined earth above grave.

Grave 7

Figs 9.13–14

Cut 13070, fill 13069, human remains 13073

Dimensions: length 1.40m; width 0.74m; depth 0.13m

Orientation: 234° (between WSW–ENE and SW–NE)

Grave shape: rounded rectangular

Container for body: none recognised

Sex and age: adult (age category 10), sex undetermined

Gender of finds: not clear

Body position: arm across chest, legs extended

| Fibre | Weave | Thread-Count/Spin | Position of Textile | Interpretation |
|------------|---------|----------------------------|--|--|
| flax/hemp | tablet | wa12 cords/Z x we ?/S2Z | Remains of cuff on back of clasps (2-3) below right shoulder, probably on left wrist. | Long-sleeved gown with linen cuffs. Fringed head-veil or scarf. |
| flax | threads | Z2S, 0.8mm | Probable remains of cuff caught in hook of clasps (5) at right thigh, probably from right wrist. | |
| not ident. | threads | Z-spun, 0.5 mm diam | On front of clasp (2) below right shoulder, probably a fringe | |

Table 9.6 Textiles from Grave 6



Figure 9.12 Grave 6 cut 13119, looking south. The skull of skeleton 13120 is to the right

The grave lay inside the inner edge of the outer ring ditch, 13215, in the south-eastern part of its circuit. The grave wall was concave and the base uneven. The fill was brown sand, 13069, and the upper levels were severely plough-damaged.

Human remains, 13073, were represented by fragmentary remains of one humerus, the left tibia, and the left talus and calcaneus (foot), although the humerus did not survive lifting.

A knife (1) lay crossways in the grave at the SW end, probably originally above the head.

Grave goods:

- 1 Iron **knife**, complete. Medium tang, curving into shoulder and slight choil. Curved back, with straight cutting edge. L.105mm, blade 75mm x 12mm. Type: Drinkall D1. SF 70474.

Grave 8

Figs 9.15–16

Cut 13250, fill 13251, human remains 13252

Dimensions: 1.60m; width 0.67m; depth 0.20m

Orientation: 239° (WSW–ENE)

Grave shape: irregular oval

Container for body: dark oval stain may represent a hide or textile container

Sex and age: ?female, 60+ (age category 9)

Gender of finds: none

Body position: head to SW, on right side, legs tightly flexed (crouched)

The grave lay immediately outside the outer edge of the outer ring ditch, 13215, in the south-eastern part of its circuit. The fill, 13251, was dark brown sand and there was a darker oval shape around the human remains.

Human remains, 13252, were represented by fragments of skull (left and right parietal bones), left femur and tibia. There were no grave goods.

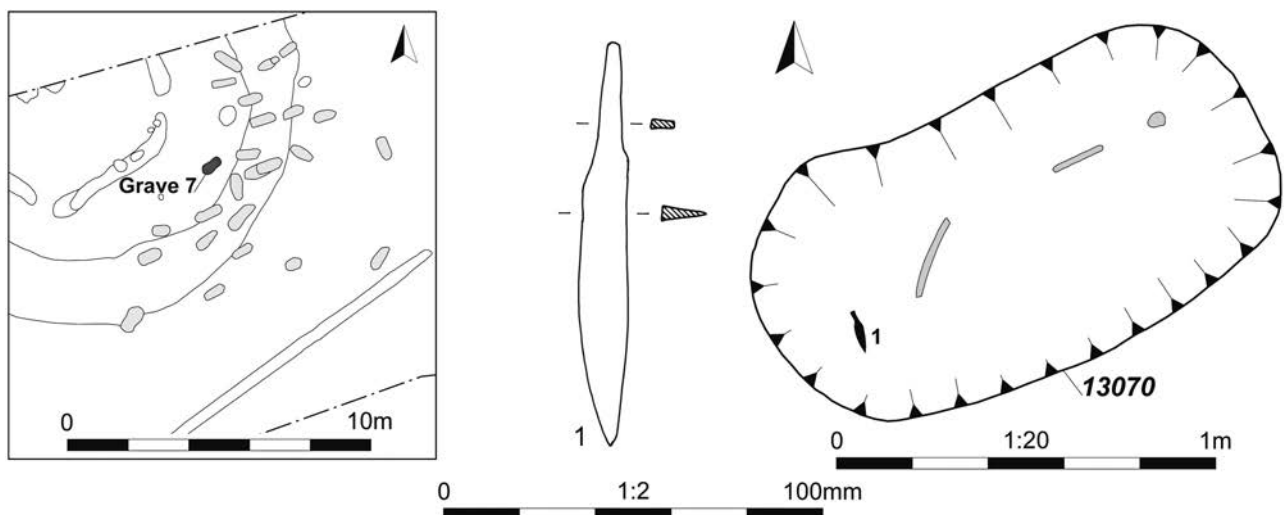


Figure 9.13 Grave 7 cut 13070: plan and associated artefact



Figure 9.14 Grave 7 cut 13070, looking north-east from the head of the grave. Iron knife, 7/1, can be seen at the near end of the grave

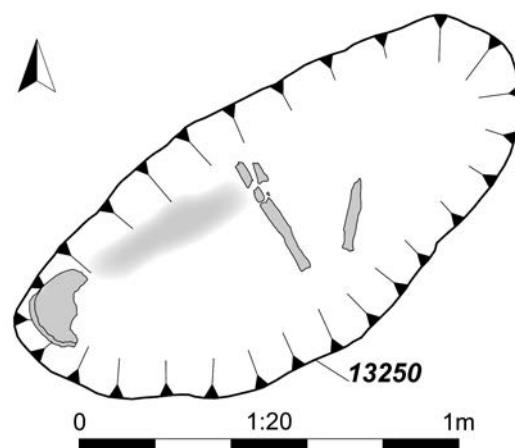
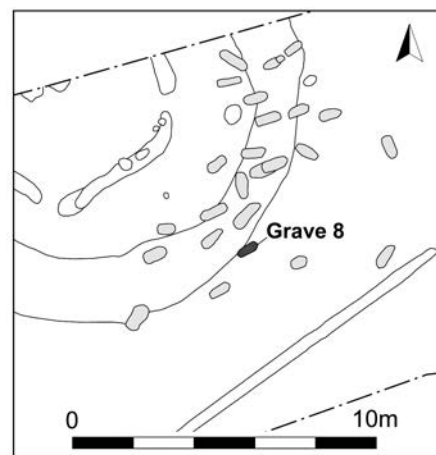


Figure 9.15 Grave 8 cut 13250: plan

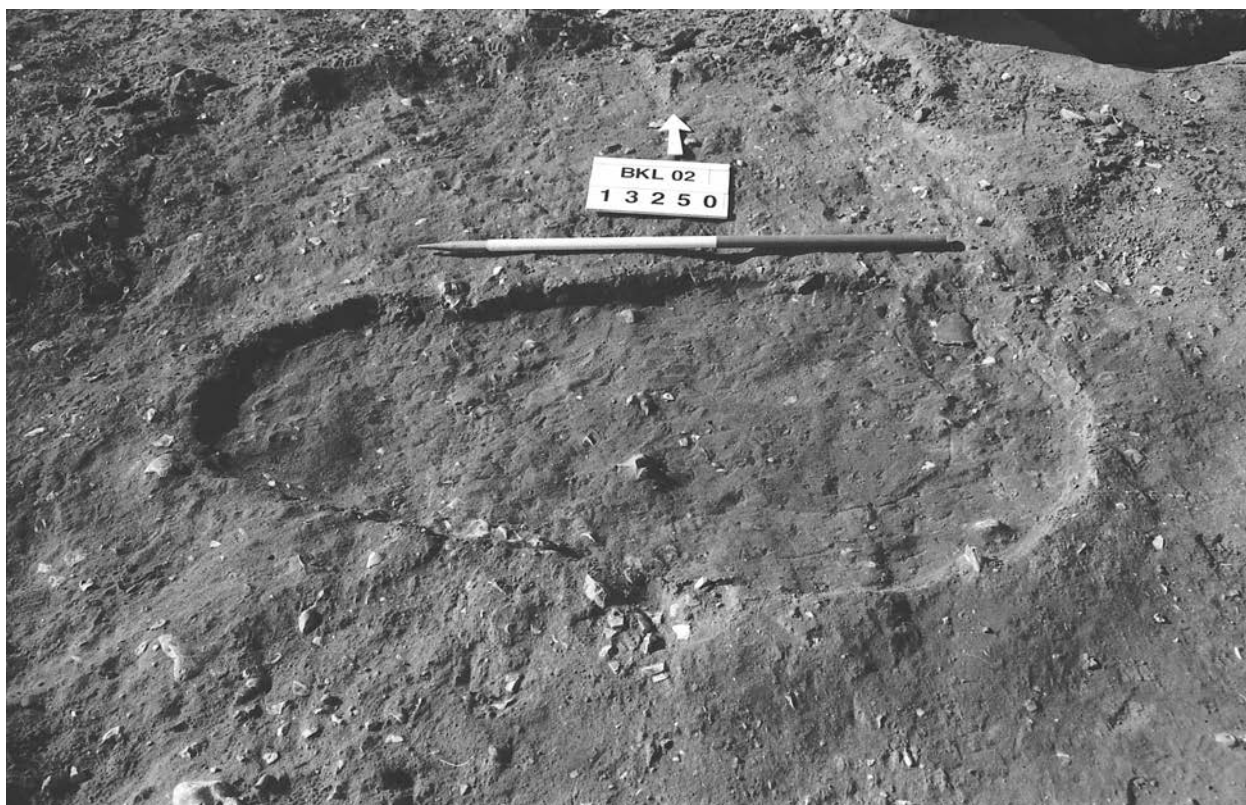


Figure 9.16 Grave 8 13250, looking north

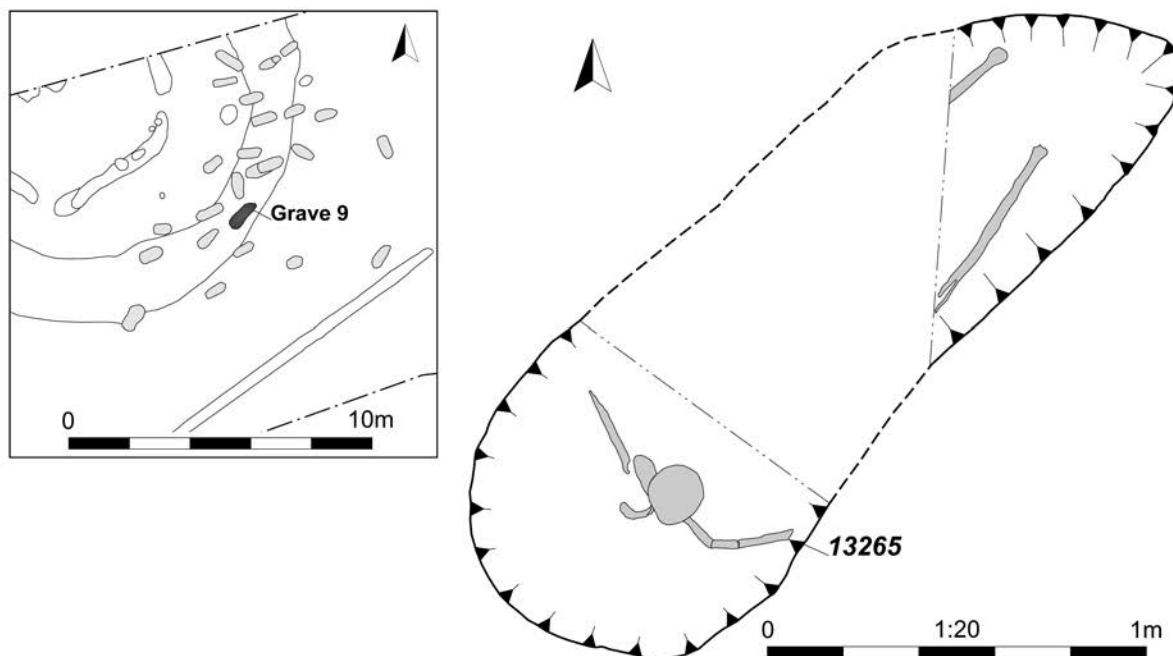


Figure 9.17 Grave 9 cut 13265: plan

Grave 9

Figs 9.17–18

Cut 13265, fill 13263, human remains 13264

Dimensions: 2.29m; width 0.88m; depth 0.41m

Orientation: 220° (SW–NE)

Grave shape: elongated oval

Container for body: none recognised

Sex and age: ?female, 35–40 years (age category 7)

Gender of finds: none

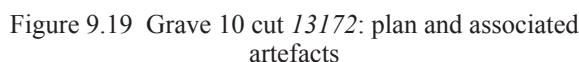
Body position: supine, extended, head to SW

The grave lay entirely in the outer ring ditch, 13215, in the south-eastern part of its circuit and was aligned with the ditch sides. The middle section of the grave had been recently disturbed, possibly by ploughing: the skull was face-down and positioned below the shoulders. The outline was poorly defined, the grave sides were near-vertical and the base flat. The fill was brown silty sand, 13263.

Sample 71484 from the SW (head) of the grave contained charcoal derived from hazel (*Corylus avellana*) and ash (*Fraxinus excelsior*); sample 71486 from the area of the left shoulder contained fragments of charcoal from hazel, heartwood of oak (*Quercus* sp.) and (iii) roundwood of blackthorn (*Prunus spinosa*).



Figure 9.18 North-eastern (foot) end of Grave 9 cut 13265, looking south-east

Table 9.7 Grave 9 dental inventory

There were no grave goods.

Grave 10

Body position: head to north, legs flexed

Ten beads (1) were found in a curving line from the neck to the waist. Some copper-alloy fittings (2) were found with a pair of iron tweezers (3) and a knife (4) to the right of the upper body. A detached fragment of textile (5) was recovered from the region of the upper torso.

Grave goods:

- 1 **10 beads**, Brugmann Group B1. SF 70523.0-9
amber **4 beads**, total weight 3.2g; worn perforations and perforated sides:
 2 medium, faceted; diam. 6-10mm (no. 2; 6)
 1 medium, faceted; diam. 11-15mm (no. 10)
 1 medium, rounded; diam. 11-15mm (no. 7) (Fig. 4.16/57)
glass **6 beads**
 type *Cylindrical Pentagonal*:
 2 medium, cylindrical, pentagonal cross-section, perforated sides marvered flat; diam. 6-10mm; one bead yellow, one white (no. 4; 8). (Fig. 4.16/58-59)
 type *Melon*: 1 medium, asymmetrical globular, 6-ribbed cross section; diam. 11-15mm; yellow (no. 9) (Fig. 4.16/60)
 other glass beads:
 red opaque 1 short, globular; diam. 6-10mm (no. 1) (Fig. 4.16/61)
 yellow opaque 1 short, globular; diam. 6-10mm (no. 3) (Fig. 4.16/62)
 irregular trail 1 short, globular; diam. 11-15mm (no. 5) (Fig. 4.16/63)
- 2 Three fragments of copper-alloy sheet-metal **fittings** or **sleeve clasp**. One has a circular perforation, 2.2mm diameter. 16 x 9mm, 7 x 7mm and 7 x 7mm. SF 70525.
- 3 Incomplete pair of iron **tweezers**, in three fragments. L.60mm, maximum width of arms **9mm**, diameter of loop 9mm. SF 70524.2
- 4 Iron **knife**, complete except for damage to cutting edge. Pointed tang, curving back of blade and cutting edge. Back curves to point, cutting edge straight. Remains of horn handle on tang and skin-product sheath on blade. L.125mm, blade 82mm x 14mm. Type: Drinkall D1. SF 70524.1.
- 5 **Textile**, detached (not illustrated). SF 72006.

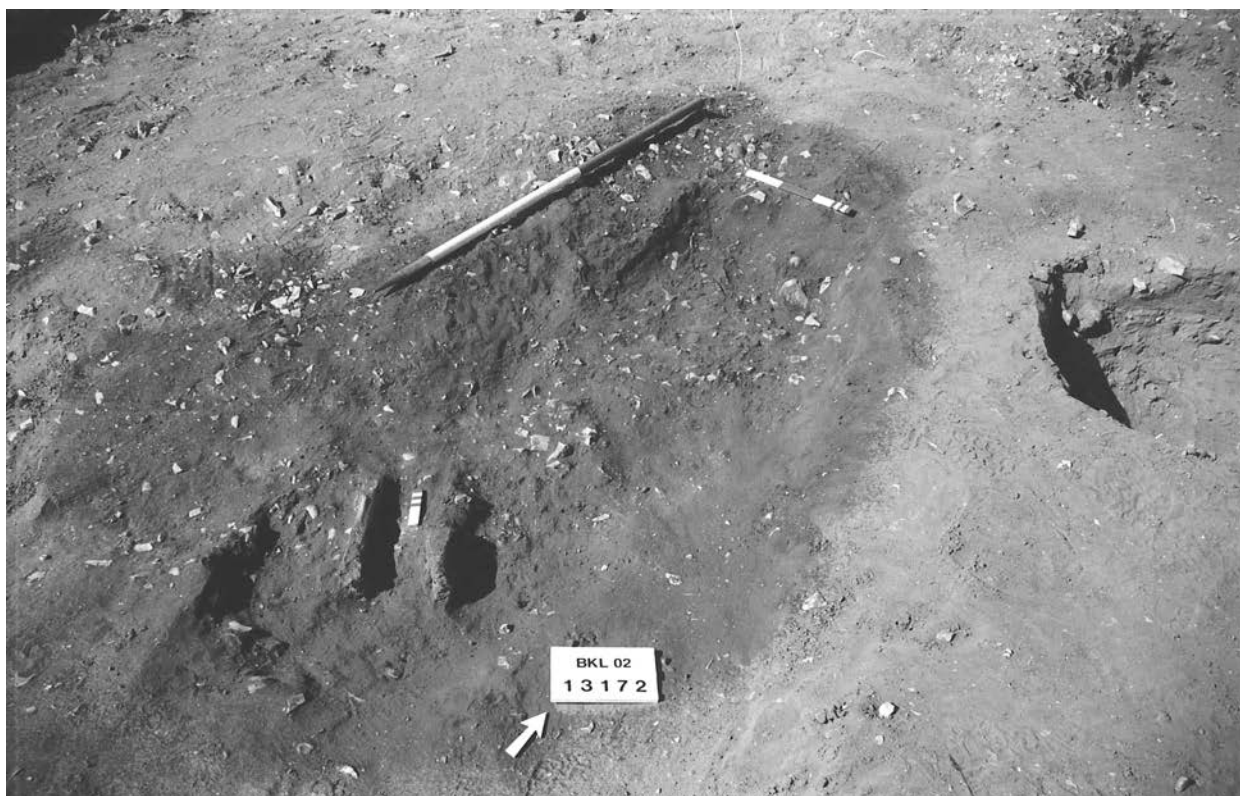


Figure 9.20 Grave 10 cut 13172, looking north-north-west

| Fibre | Weave | Thread-Count/Spin | Position of Textile | Interpretation |
|------------|------------|-------------------|--|----------------|
| not ident. | tabby repp | 20/Z x 14-16/Z | Detached fragment from area of waist (5) | |

Table 9.8 Textile from Grave 10

Graves 11A and 11B

Figs 9.21–23; see also Fig. 7.1

Cuts 13125 and 13311, fills 13124 and 13312, human remains 13133 and 13126

Dimensions: grave-cut 13125 (11A and 11B together) : length 2.73m; width 0.90m; depth 0.40m. Secondary cut 13311 (11B): length 1.77m; width 0.79m; depth 0.18m

Orientation: 11A 244°; 11B 248° (both WSW–ENE)

Grave shape: first cut (A) elongated oval; second cut (B) rounded rectangular

Container for body: none recognised

Sex and age: 11A ?female, 40–50 years (age category 8); 11B ?male, 30–40 years (age category 7)

Gender of finds: 11A female; 11B no finds

Body position: both bodies had their heads to the west, and the lower legs of 11B were crossed

The grave lay across the outer ring ditch, 13215, in the south-eastern part of its circuit. The elongated cut, 13125, proved to contain two overlapping graves. The first was 11A. The second was 11B (cut 13311), which cut into the eastern two-thirds of 11A and extended it to the east. The fill, 13124, of cut 13125 was brown silty sand; and the fill, 13312, of cut 13311 was mid-dark brown silty sand. A cluster of five flint cobbles lay beneath the jaw, in the area of the neck/shoulders of body A, and there was a dark brown silty sand stain, possibly organic, immediately to the east, in the area of the body's chest. Further organic remains were noted in a rectangle beside the legs of body B.

Samples were taken from fill 13124, around the head of body A, sample 71468, and from the area of the decorated jar (10), sample 71471. They yielded fragments of charcoal derived from oak (*Quercus* sp.), ash (*Fraxinus excelsior*), blackthorn (*Prunus spinosa*) and hazel roundwood (*Corylus avellana*). A sample was also taken from fill 13312, from the stained area beside the legs (B), 71467. This yielded fragments of charcoal from maple (*Acer* sp.) and oak (*Quercus* sp.). There was a

relatively high concentration of charcoal (more than ten fragments per sample) in this grave.

The lowermost body, A, was represented by a fragmentary mandible, 13133. It was tentatively identified as female from the ramus.

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 6 | - | - |
| 8 | 7 | 6 | 5 | 4 | 3 | - | - | - | - | - | - | - | - | - | - | - |

Table 9.9 Grave 11 Body A dental inventory

The uppermost body, B, was represented by a fragmentary skull (occipital, left parietal, left and right temporal bones, and mandible), 13126. It was identified as probably male from the mastoid process and nuchal crest.

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | - | - | - | 4 | 3 | - | - | - | - | - | - | - | - | - | - | - |
| 8 | 7 | 6 | - | 4 | 3 | - | - | - | - | - | - | - | - | - | - | - |

Table 9.10 Grave 11 Body B Dental inventory

Left and right tibias and left and right calcanei (foot bones), 13132, at an upper level of the eastern end of the grave almost certainly belong to body B.

Most of the artefacts could be confidently associated with the lower body, A, because they lay to the west of cut B or below it. In **Grave 11A**, 212 beads were recovered in six separate groups (1.1–1.6) over the area of the chest and neck and above the head. A scutiform pendant (2) was associated with the beads. There was a crossways pin (3) immediately below (to the east) of the jaw and a pair of annular brooches (4 and 5) to the right (south) of the jaw. A pair of sleeve clasps (6) lay in the region of

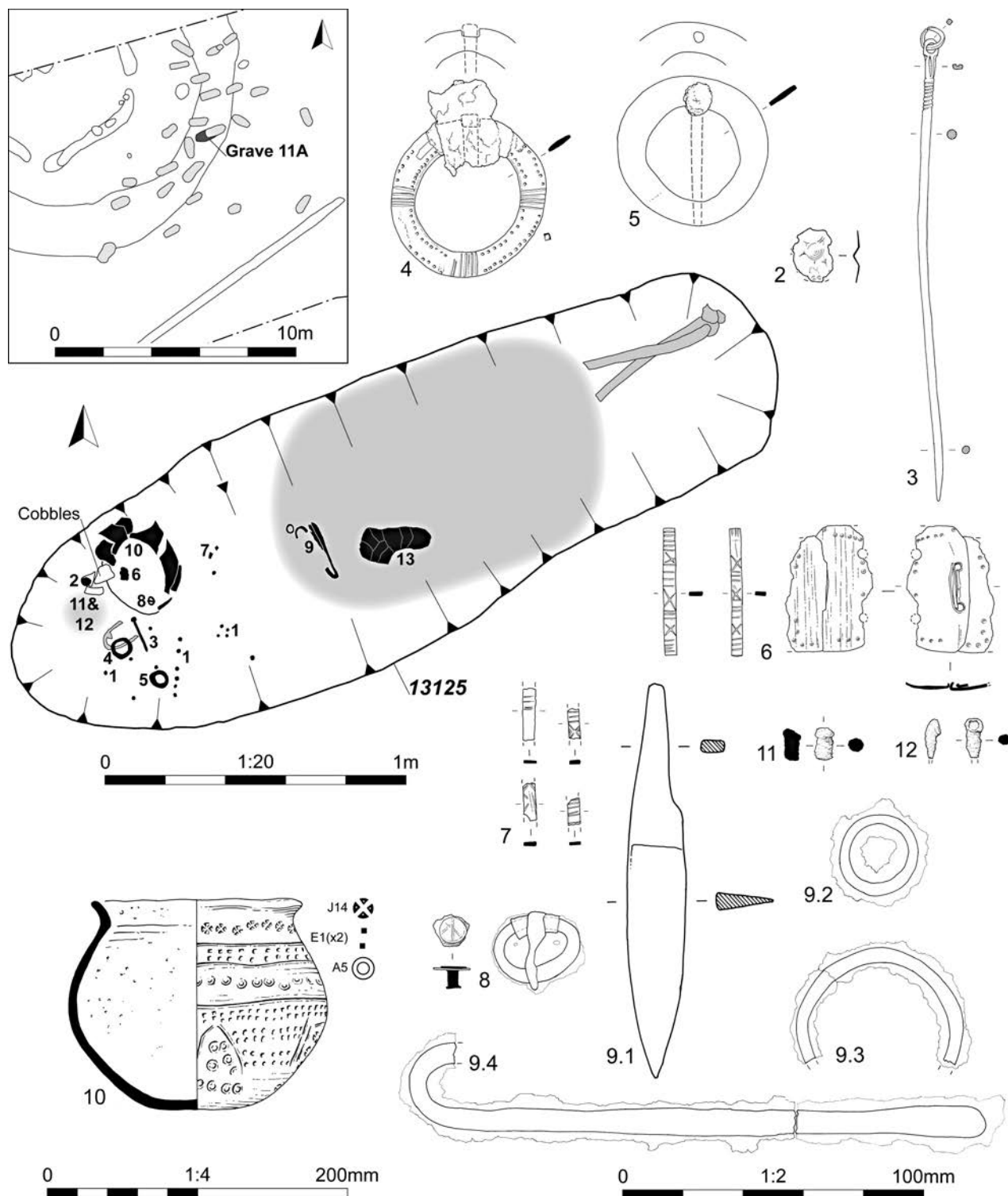


Figure 9.21 Grave 11A cut 13125: plan and associated artefacts. The classification of the pottery stamps follows Richards 1987. In the Briscoe (1981) system, Richards' stamp A5 equates to A2b, E1 to C1ai and J14 to A4d

the left chest, remains of a second pair (7) at the estimated position of the left waist. There was a buckle (8) in the region of the lower chest and a cluster of iron objects (9) in the area approximating to the hips or thighs. A decorated ceramic jar (10), in fragments, was recovered from the area to the left (north) of the jaw. Two small iron rivets (11) and (12) were recovered from soil samples taken from the area of the head. A fragmentary ceramic vessel (13) came from the grave fill.

Grave goods:

- 1 Total of 212 (+ 2 uncertain) beads, Brugmann Group A2. SFs 70498, 70513, 70515, 70528, and samples 71467 and 71468; total weight of the 168 amber beads: 68g.
- 1.1 63 beads concentrated around neck area of skeleton 13133 in association with brooches and pin, SF 70498:
 - amber 50 beads, total weight 27.3g, all show signs of wear
 - 1 short, irregular; diam. 16–20mm
 - 1 short, irregular; diam. 29mm (Fig. 4.14/10)
 - 1 medium, cylindrical; diam. 16–20mm
 - 13 medium, faceted; diam. 6–10mm



Figure 9.22 Grave 11A (13125), cut by Grave 11B (13311), looking west, with pottery vessel, 11/10 *in situ* near the head of skeleton 13133

- 2 medium, faceted; diam. 11–15mm (Fig. 4.14/11)
- 1 medium, globular; diam. 6–10mm (Fig. 4.14/12)
- 1 medium, rounded; diam. 3–5mm
- 22 medium, rounded; diam. 6–10mm
- 2 medium, rounded; diam. 11–15mm
- 2 medium, rounded (almost globular); diam. 6–10mm
- 1 medium, rounded (almost globular); diam. 11–15mm (Fig. 4.14/13)
- 1 medium, rounded, incomplete but functional; diam. 6–10mm
- 1 long, faceted; diam. 6–10mm
- 1 fragment; diam. 6–10mm
- glass** **13 beads**
- type *Blue* 1 short, annular, perforated sides marvered flat; diam. 11–15mm
- 2 very short, annular, perforated sides marvered flat; diam. 11–15mm (Fig. 4.14/14)
- type *Constricted Cylindrical* 1 very long, cylindrical; diam. 3–5mm (Fig. 4.14/15)
- type *Constricted Cylindrical beaded* 1 very long, cylindrical, beaded; diam. 3–5mm (Fig. 4.14/16)
- type *Norfolk YellowRed* 1 very long, cylindrical, perforated sides not marvered flat; diam. 6–10mm (Fig. 4.14/17)
- other glass beads:
- green opaque 2 medium, asymmetrical, 4-ribbed cross section; diam. 6–10mm (Fig. 4.14/18)
- 1 short, irregular; diam. 6–10mm (Fig. 4.14/19)
- green translucent 1 medium, cylindrical, 4-ribbed cross section; diam. 6–10mm
- red opaque 1 short, globular, sharp edges to perforation; diam. 6–10mm (Fig. 4.14/20)
- yellow opaque 1 medium, globular; diam. 6–10mm (Fig. 4.14/21)

spiral 1 medium, globular, sharp edges to perforation; diam. 6–10mm (Fig. 4.14/22)

1.2 55 beads (+1 uncertain) from the head area, sample 71468:

- amber** **47 beads**, total weight 7.6g; beads show signs of wear
- 6 medium, faceted; diam. 6–10mm
- 13 medium, rounded; diam. 3–5mm
- 21 medium, rounded; diam. 6–10mm
- 1 medium, rounded; diam. 11–15mm (Fig. 4.14/23)
- 1 long, faceted; diam. 3–5mm (Fig. 4.14/24)
- 1 very long, spindle-shaped; diam. 3–5mm
- 1 very long, spindle-shaped; diam. 6–10mm (Fig. 4.14/25)
- 1 bead fragment, no measurements
- 1 bead fragment; diam. 3–5mm
- 1 bead fragments of one bead or more
- glass** **8 beads**
- type *Blue* 1 short, annular; diam. 6–10mm (Fig. 4.14/26)
- type *Constricted Segmented* 2 medium, globular, 1 segment; diam. 3–5mm
- 1 very long, globular, 2 segments; diam. 3–5mm
- 1 very long, globular, 3 segments; diam. 3–5mm (Fig. 4.15/27)

other glass beads:

- green translucent fragments of probably not more than one bead
- red opaque 1 short, globular; diam. 6–10mm (Fig. 4.15/28)
- white opaque 1 short, globular, sharp edges to perforation; diam. 6–10mm (Fig. 4.15/29)

glass bead? fragment of translucent glass

1.3 25 beads from lower fill near base of cut 13125 in right shoulder area; SF 70513:

- amber** **21 beads**, total weight 8g; worn mostly at perforated sides
- 2 medium, faceted; diam. 6–10mm
- 1 medium, faceted; 16–20mm (Fig. 4.15/30)
- 1 medium, faceted (reused fragment?); diam. 6–10mm
- 1 medium, rounded; diam. 3–5mm (Fig. 4.15/31)
- 13 medium, rounded; diam. 6–10mm
- 2 medium, rounded; diam. 11–15mm
- 1 medium, rounded (almost globular); diam. 6–10mm
- glass** **4 beads**
- type *Blue* 1 short, annular; diam. 6–10mm (Fig. 4.15/32)
- type *Constricted Cylindrical* 1 very long, cylindrical; diam. 3–5mm (Fig. 4.15/33)
- type *MiniGlob* 1 medium, globular (pear-shaped); diam. 3–5mm (Fig. 4.15/34)

other glass beads:

- yellow opaque 1 medium, cylindrical, 4-ribbed cross section, perforated sides not marvered flat; diam. 6–10mm (Fig. 4.15/35)

1.4 61 beads from chest and neck area of skeleton; SF 70515:

- amber** **43 beads**, total weight 22g; worn perforations and perforated sides
- 1 very short, irregular; diam. 21mm (Fig. 4.15/36)
- 1 short, cylindrical; diam. 16–20mm (Fig. 4.15/37)
- 1 short, irregular; diam. 11–15mm
- 2 short, irregular; diam. 16–20mm
- 4 medium, faceted; diam. 6–10mm
- 1 medium, faceted; diam. 11–15mm
- 1 medium, faceted; diam. 16–20mm (Fig. 4.15/38)
- 1 medium, globular; diam. 6–10mm
- 27 medium, rounded; diam. 6–10mm
- 1 medium, rounded (almost globular); diam. 6–10mm
- 1 medium, rounded (almost globular); diam. 11–15mm (Fig. 4.15/39)
- 1 long, faceted; diam. 6–10mm
- 1 long, spindle-shaped diam. 6–10mm (Fig. 4.15/40)

rock crystal **1 bead**

- 1 short, globular; diam. 21mm (Fig. 4.15/41)
- glass** **17 beads**
- type *Blue* 1 short, annular, 6–10mm (Fig. 4.15/42)
- 1 short, annular, perforated sides marvered flat; diam. 11–15mm (Fig. 4.15/43)
- 1 short, globular, perforated sides marvered flat; diam. 11–15mm
- type *blue Constricted Segmented* 1 medium, globular; diam. 3–5mm (Fig. 4.15/44)
- type *Constricted Cylindrical beaded*

| <i>Fibre</i> | <i>Weave</i> | <i>Thread-Count/Spin</i> | <i>Position of Textile</i> | <i>Interpretation</i> |
|--------------------------|--------------------------|---------------------------|---|---|
| flax/hemp (prob flax) | 2/1 twill | 18/Z x 14-16/Z | Folds clasped by both annular brooches in region of shoulders, and on ?back of buckle (8) at upper waist. | Peplos of linen 2/1 twill clasped by annular brooches on the shoulders and probably belted. |
| flax/hemp | ? | 12-14/Z x 12-14/Z | On front of annular brooch (4), possibly bordered by tablet weave. | The linen fabric with tablet-woven border on the front of one annular brooch probably represents the head veil. Inner dress of medium-weight tabby. |
| not ident. | tablet, ?twill-effect | Z x ? | Running across band of annular brooch (4), next to pin, under the 12-14 x 12-14 linen textile. | Cloak or shawl of wool twill runs over front of clasp on chest and girdle group at hip. |
| wool | 2/2 twill | 11/Z x 10/Z | On front of pin of annular brooch (5). | Some of the numerous beads were probably strung on the thick bundle of yarns associated with annular brooch on right shoulder. |
| not ident. | tabby | 12/Z x 12/Z | On back of annular brooch (5) | |
| flax/hemp | yarns | fine Zs, each 0.4 mm D | A bundle of ten or more yarns on back of annular brooch (5) beneath pin tip. | |
| ?wool | 2/2 twill | 14/Z x 14/Z | In crumpled folds on all faces of ring/collar in girdle group at waist (9). | |
| not ident. | 2/2 twill | 9/Z x 8/Z | In association with girdle group at waist and on front of clasp (6) left chest. | |

Table 9.11 Textiles from Grave 11

- 1 very long, cylindrical, beaded; diam. 3–5mm (Fig. 4.15/45)
type *Norfolk Blue/White*
1 short, globular; diam. 6–10mm (Fig. 4.15/46)
other glass beads:
blue-green cylindrical 1 short, cylindrical, 7-ribbed cross section, perforated sides marvered flat; diam. 11–15mm (Fig. 4.15/47); 1 short, cylindrical, perforated sides marvered flat; diam. 11–15mm (Fig. 4.15/48)
blue-green globular 1 globular, fragmented; 1 medium, globular; diam. 6–10mm (Fig. 4.15/49)
green opaque 1 medium, cylindrical, 4-ribbed cross section; diam. 6–10mm (Fig. 4.15/53)
red opaque 1 medium, asymmetrical; diam. 6–10mm (Fig. 4.15/51); 1 medium, globular, sharp edges to perforation; diam. 6–10mm; 2 short, globular; diam. 6–10mm; 1 short, globular (irregular); diam. 6–10mm (Fig. 4.15/52)
twisted trail 1 medium, cylindrical, perforated sides not marvered flat; diam. 6–10mm (Fig. 4.15/50)
- 1.5 6 beads** found scattered within area 100 x 100mm at extreme head end of grave-cut; SF 70528:
amber 5 beads, total weight 1.4g; in particular perforated sides worn
3 medium, rounded; diam. 6–10mm
1 medium, rounded; diam. 11–15mm
1 medium, very worn spindle-shaped?; diam. 6–10mm
glass 1 bead
type *Blue* 1 short, globular, perforated sides marvered flat; diam. 16–20mm
- 1.6 2 (+ 1 uncertain) beads** from soil samples Grave 11B:
glass 1 bead? sample 71467
green ?translucent, in three fragments, ?burnt
amber 2 beads, total weight 1.5g, slightly worn perforated sides; 71472
1 medium, faceted; diam. 6–10mm
1 medium, faceted; diam. 11–15mm
- 2** Fragmentary silver **scutiform pendant** with an impressed boss. There is stamped ornament in the form of six or seven segmented Ys around the boss and close ring-and-dot around the edge. D.20mm. SF 70499 (not illustrated)
- 3** Copper-alloy **pin** with perforated head and copper-alloy wire ring, 8mm diameter, linked through perforation. Beneath the perforation there is a hollow-backed zone and beneath that a moulded spiral. Type: Ross VIII. L.162mm; D.3mm (shank) and 5.5mm (across perforated head). SF 70501.
- 4** Copper-alloy **annular brooch** cut from sheet metal. Ornament consists of four zones of 5–6 transverse grooves and a row of stamped solid squares around the inner and outer edges. There is a single indentation in the outside edge for the pin attachment. Part of the iron pin, 3.5mm diameter, is still in position. A slot has been partially cut, first from one side, then the other, but does not entirely penetrate the band. D.52mm, band W. 9mm, Th.1.5mm. **Textile** remains at pin hinge. SF 70505.
- 5** Copper-alloy **annular brooch** irregularly made, cut from sheet metal. No ornament. Circular perforation for pin attachment, 4mm diameter. Type: EAC *ARound*. D.49–51mm, band W. 9–11mm, Th. 2mm. Extensive **textile** remains on front and back. SF 70506.
- 6** A single pair of copper-alloy sheet-metal **sleeve clasps**, both with damaged rear edges. Detached flat bars, 4mm wide, carry incised ornament: four zones of transverse lines separated by three diagonal crosses. Slot and hook intact. Type: Hines B13a. W. (across cuff) 41mm, L.>1.8mm. Imprint of **textile** on back. SF 70516.

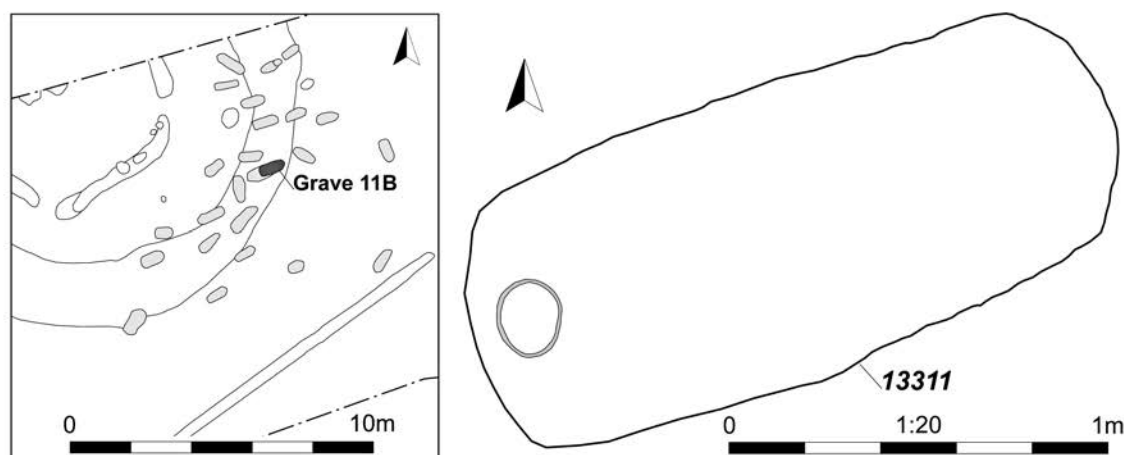


Figure 9.23 Grave 11B cut 13311: plan

- 7 Fragmentary cast copper-alloy bars, probably from a pair of B13a **sleeve clasps**. Corroded but possibly decorated with incised transverse lines. Small fragments of plate also present. Largest fragment of strip 17 x 4mm. SF 70496.
- 8 **Buckle** with D-shaped iron loop and remains of a copper-alloy plate; iron tongue in place. A round-headed rivet with traces of thin copper-alloy plate beneath both heads, packaged with clasps 70516, almost certainly belongs with this buckle. D. largest rivet head 9mm; D. shank 4mm. Type: probably Marzinzik II.20. Loop W. 31mm (axis-bar 18mm), L.25mm. Remains of leather/skin strap on back, and **textile** on front at edge. SF 70517.
- 9 **Iron girdle group, comprising knife, two rings and latch-lifter** SF 70512.
- 9.1 **Iron knife**, complete. Tang expands and continues into the back of the blade, the underside of the tang expands into a small step at the choil. Back and cutting edge taper to tip. Remains of horn handle on tang and skin-product sheath on blade. L.135mm; blade 85mm x 18mm. Type: Drinkall A1. SF 70512.1.
- 9.2 **Iron ring**, 30mm diameter. SF 70512.2
- 9.3 **Iron ring**, fragment, c.55mm diameter. SF 70512.3
- 9.4 **Iron latch-lifter** in three fragments; curved hook. L.>160mm. SF 70512.4–6
- 10 **Sub-biconical jar** in Early Saxon grass- and sand-tempered ware (ESO2). Partially oxidised brown externally, outer surface worn at carination. Upper half decorated with lines of stamps, lower half has

chevrons containing stamps, but very faintly impressed. SF 70497. Fig. 7.1.

11 **Iron rivet**, from ?comb, length 10mm. SF 72007.

12 **Iron rivet**. Length 13mm, from soil block. SF 72008.

13 Fragmentary **vessel** in Early Saxon granitic-tempered ware. SF 70514. Fill 13124.

Grave 12

Figs 9.24–25

Cut 13046, fill 13045, human remains 13044

Dimensions: length 1.62m; width 0.70m; depth 0.17m

Orientation: 261° (between W–E and WSW–ENE)

Grave shape: sub-rectangular

Container for body: none recognised

Sex and age: 55+ years (age category 8–9), sex undetermined

Gender of finds: male

Body position: on right side, head to west, legs flexed

The grave lay in the outer ring ditch, 13215, and the head end cut into the ditch's inner edge. It had vertical sides and a flat base, and the upper level was plough-damaged. The fill was a mid- to dark brown sand, 13045.

Fragmentary remains of skull (occipital, right temporal, palatine and lacrimal bones, left and right maxilla, mandible and teeth) right scapula, femur and tibia, 13044, were preserved for osteological analysis, and evidence for a vertebra, humerus and the pelvis were recorded in the field. Very heavy attrition was noted on the teeth.

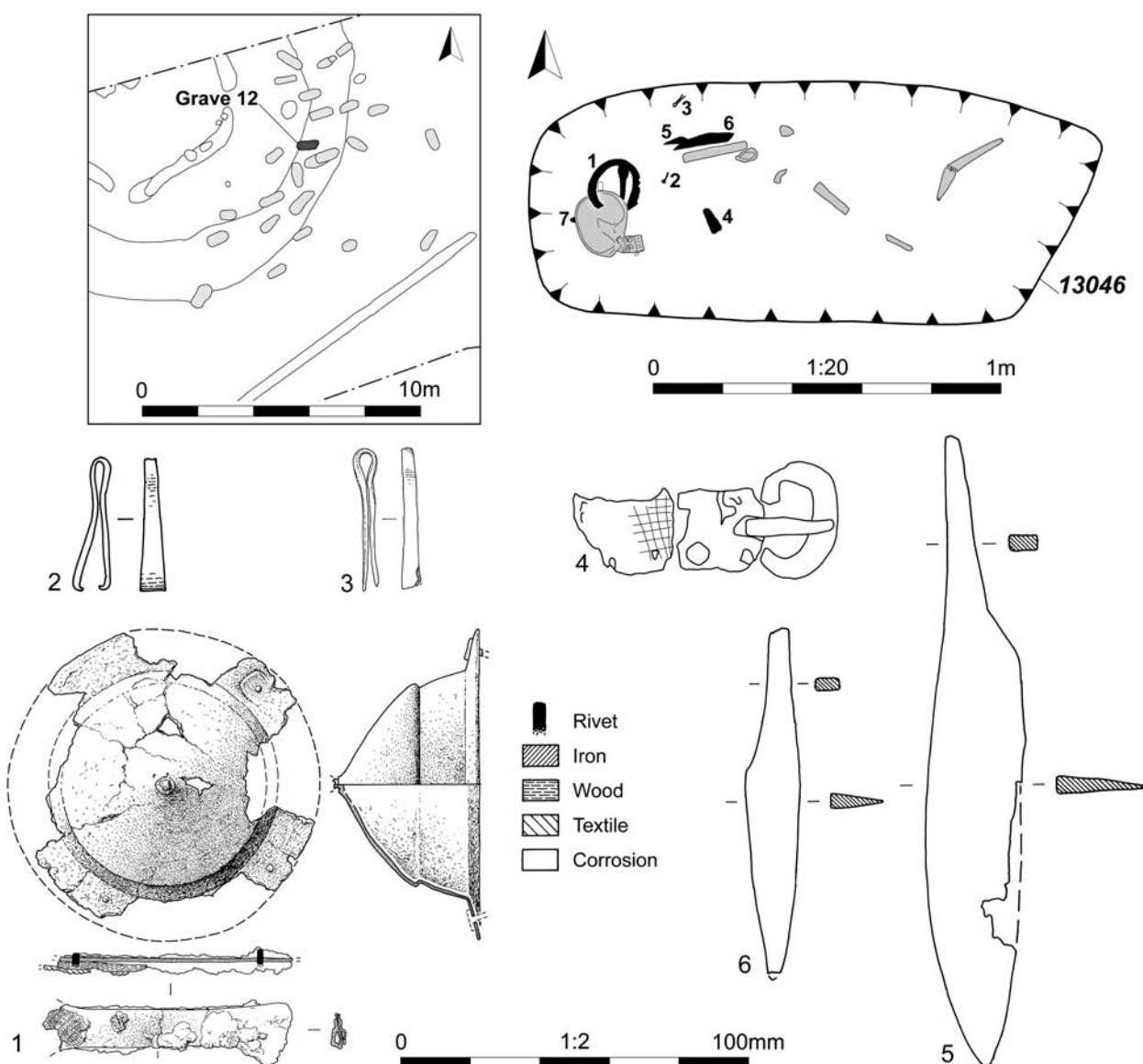


Figure 9.24 Grave 12 cut 13046: plan and associated artefacts

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | 7 | 6 | 5 | / | / | - | - | - | - | - | - | 6 | 7 | - | |
| - | - | - | - | - | - | - | - | - | - | / | / | 5 | 6 | 7 | - |

Table 9.12 Grave 12 dental inventory

A shield boss and grip (1) lay under the head and two knives, one large (5) and one small (6), had been placed alongside the body, point up. There was an iron buckle (4) in the region of the lower chest or upper waist. Two pairs of tweezers were present, one of iron (2) at the shoulder and the other of copper alloy (3) at the edge of the grave. Further fragments of iron (7) were recovered from soil sifting and two potsherds (8) were recovered from the grave fill.

Grave goods:

- 1 Iron **shield boss**, fragmentary, apex missing; low convex cone, overhanging carination and sloping wall. Type: Dickinson and Härke Group 3; EAC COS. SF 70461. **Textile** on back. D.170mm, H. 82mm.
Iron **shield grip**, parallel sides, flaring at ends. Type: Dickinson and Härke Ia1. L. c.140mm, W.20mm.
- 2 Iron **tweezers**, with straight-sided, slightly flaring arms and a shallow loop. Length 38mm. SF 70471.

- 3 Copper-alloy **tweezers**, with straight-sided, slightly flaring arms; tips possibly missing. SF 70460.
- 4.1 Iron **bar**, length 28mm. Encased in remains of **textile**. SF 70472.1.
- 4.2 Iron **buckle** with D-shaped loop and rectangular iron plate; iron tongue. Type: Marzinzik II.19a. Loop W. 35mm, L. 24mm; plate W. 20mm, L.>25mm. Remains of **textile** with seam on front and a finer **textile** on back. SF 70472.2.
- 5 Iron **knife**, complete, except for damaged cutting edge. Medium-sized tang, which continues into back but flares into the base of the choil. Broad blade, with sloping back and curved cutting edge. Type: Drinkall A2. L.180mm, blade 125mm x 22mm. SF 70473.1.
- 6 Iron **knife**, complete, except for missing point. Broad tang, curving into the shoulder and running into the cutting edge. Blade and cutting edge curved towards the point. L.105mm, blade 63mm x 15mm. Type: Drinkall A1 or F1. SF 70473.2.
- 7 Two fragments of iron fittings from soil block, including possible **rivet** (SF 72009.1 and 72009.2).
- 8 One sandy (ESMS) and one granitic (ESCF) **potsherd**. Fill, 13045.

A sample of human bone, 13044, produced a radiocarbon determination of cal AD 650–780 (1320 ± 35 BP; SUERC-5769; GU-12845).

| <i>Fibre</i> | <i>Weave</i> | <i>Thread-Count/Spin</i> | <i>Position of Textile</i> | <i>Interpretation</i> |
|--------------|-----------------------------|--------------------------|--|---|
| not ident. | 2/2 twill | 16/Z x 10/Z | On front of buckle (4) at right upper waist. Vertical seam with raw edges inwards. | Inner tunic of medium-fine twill fastened with belt. |
| not ident. | 2/2 twill | 14-16/Z x 14/Z | On back of buckle (4). Finer than twill on front. | Outer tunic or jacket with vertical seam worn over belted garment. |
| hair | human hair (or animal pelt) | long staple | Long curling strands on wall and carination of shield boss (1) | The shield boss touched the back of the head: the long curling strands are probably the man's hair. |

Table 9.13 Textiles from Grave 12

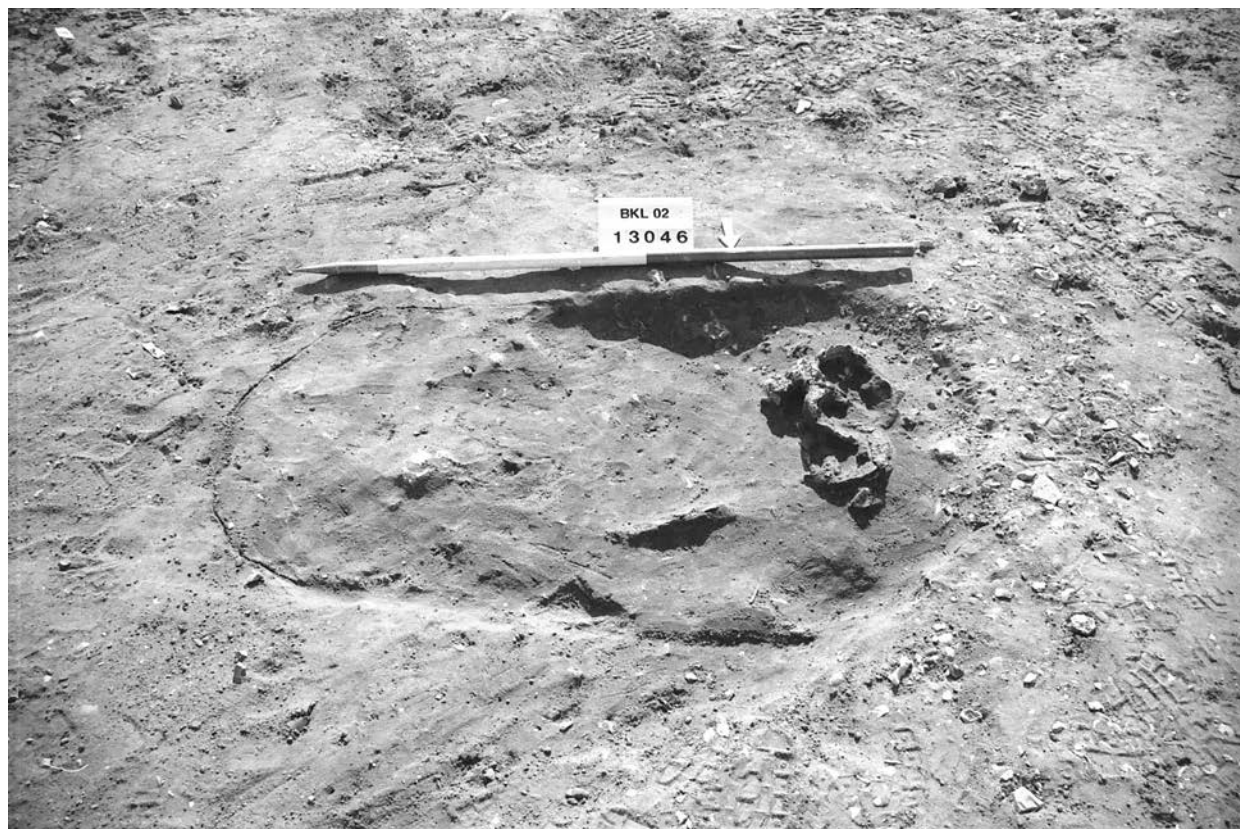


Figure 9.25 Grave 12, looking south. The skull, 13044 is towards the right; two iron knives (12/5 and 12/6) can be seen on the near side of the grave

Grave 13

Figs 9.26–27

Cut 13039, fill 13040, human remains 13041

Dimensions: length 1.58m; width 0.52m; depth 0.20m

Orientation: 251° (WSW–ENE)

Grave shape: rectangular

Container for body: none recognised

Sex and age: female, 30–40 years (age category 7)

Gender of finds: female

Body position: on left side, legs flexed, head to west.

The grave lay inside the outer ring ditch, 13215, in the eastern part of its circuit. The base was irregular and higher at the western (head) end. The fill was reddish-brown silty sand, 13040, and the upper level had been plough-damaged.

Human remains, 13041, included fragments of skull (occipital and left temporal bones, right maxilla and mandible), right clavicle, humerus, radius, ulna, left and right ilium, left and right femur, vertebrae (1st–7th cervical, 1st and 9th thoracic, 4th and 5th lumbar and 1st sacral) and bones of right hand (scaphoid, lunate, hamate and trapezium). Identified as female from sciatic notch, mastoid process, mental protuberance and ramus. Teeth have medium attrition and slight calculus.

Beads (1) were recovered from the neck area, above a cluster of artefacts, a square-headed brooch (2), a matching pair of annular brooches (3) and (4) and a pendant (5). Fragments of sleeve clasps (6),

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | - | - | - | - | - | - | - | - | - | - | - | 4 | 5 | 6 | 7 | 8 |
| 8 | Ø | 6 | 5 | 4 | 3 | 2 | 1 | 1 | 2 | 3 | 4 | 5 | 6 | - | - | - |

Table 9.14 Grave 13 dental inventory

representing at least one, possibly two, pairs, were recorded in association with the right hand bones in front of the waist. Metal fittings (7), probably from a pouch, and a knife (8) lay below the right hip. A fragment of textile (9) was recovered from a soil sample, 71450, taken from under the skull. The fill contained potsherds (10).

Grave goods:

1 28+ beads, Brugmann Group A2. SF 70456.

amber

17+ beads, total weight 2.9g; all beads show signs of wear

1 short, irregular; diam. 11–15mm (Fig. 4.14/1)

1 medium, faceted; diam. 3–5mm

3 medium, faceted; diam. 6–10mm (Fig. 4.14/2)

1 medium, incomplete but functional, old break; diam. 6–10mm

2 medium, rounded; diam. 3–5mm

8 medium, rounded; diam. 6–10mm (Fig. 4.14/3)

fragments probably from two beads

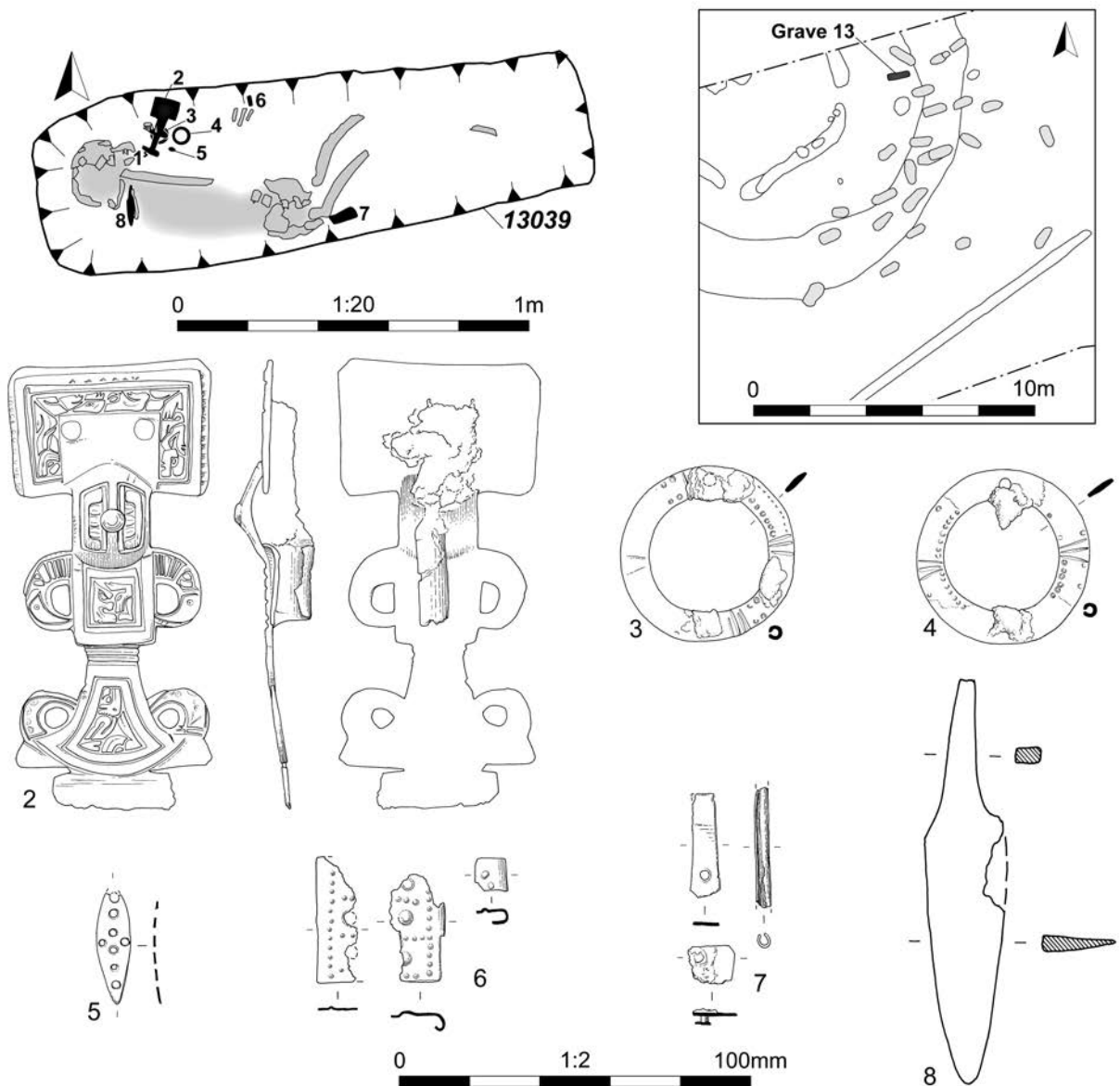


Figure 9.26 Grave 13 cut 13039: plan and associated artefacts

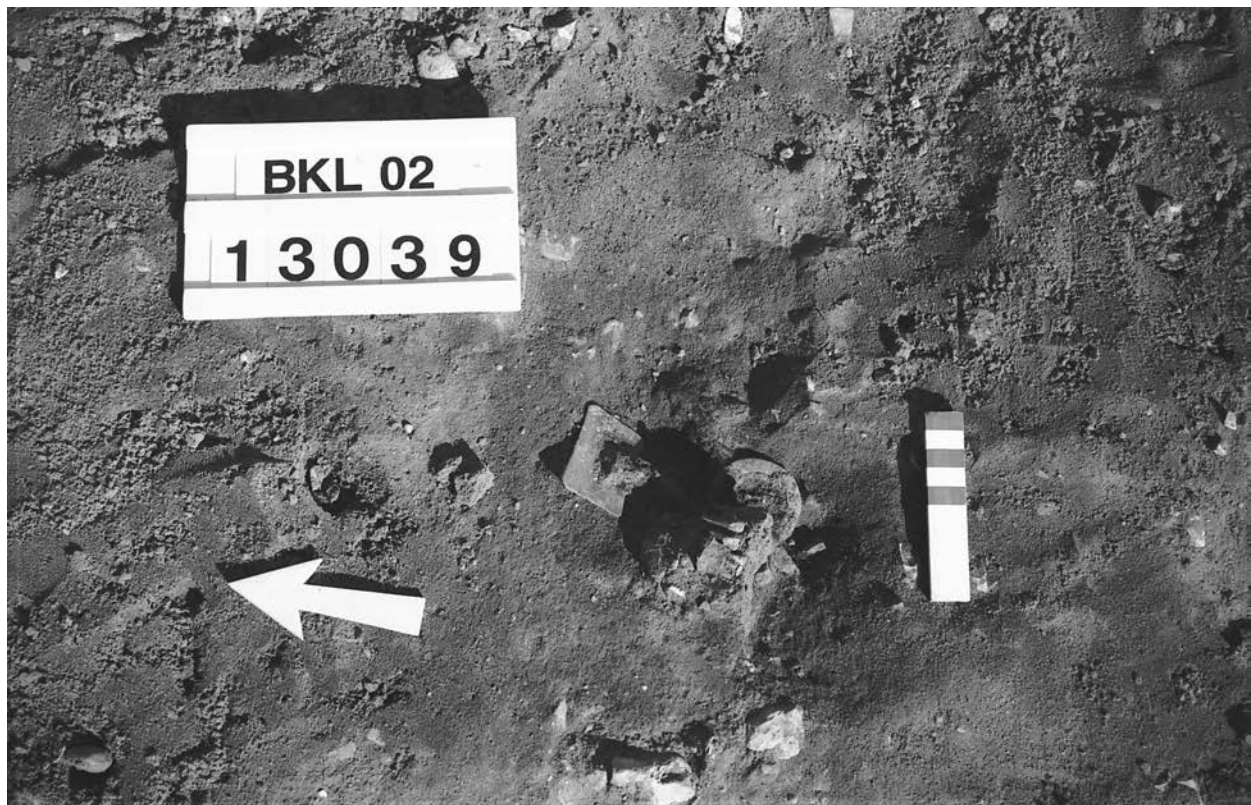


Figure 9.27 The western end of Grave 13 cut 13039, looking east towards the foot of the grave, showing brooch 13/2 *in situ* and the stain indicating the position of the body

glass 11 beads

type *Constricted Segmented*

6 with 1 segment, medium, globular; diam. 3–5mm

3 with 2 segments, very long, globular; diam. 3–5mm

1 with 3 segments, very long, globular; diam. 3–5mm (Fig. 4.14/4)

other glass beads:

meander 1 medium, globular; diam. 11–15mm (Fig. 4.14/5)

- 2 Gilt copper-alloy **square-headed brooch** of hybrid type. *Head-plate*: rectangular; plain central panel encloses two raised discs; second panel filled with cast Style I ornament representing four beast-men; frame has plain raised band surrounded by outer frame with stamped decoration of semicircles and bars. *Bow*: shallow with central lengthways ridge separating two panels of six billets; raised disc on crown of bow. *Catch-plate*: square panel enclosing cast Style

I ornament, probably representing a backward-facing animal; rising from catch-plate, animal heads with long beak-like snouts. *Foot*: triangular or fan-shaped, with ends curving upwards; stamped double semicircles on curved ends; panel of cast Style I ornament interrupted by corrosion; plain rectangular extension on fan.

Surface moderately worn, especially on crown of bow and edges; gilding where investigated is intact but limited to recessed areas of the design (Jennifer Jones pers. comm.). On back, two-lug pin-support, cast with brooch; iron pin still present; pin catch cast in one with brooch, turned to left (viewed from back with head upright). Mineral-preserved **textile** in patches on front and on back, pierced by pin and over pin support. Surface analysis by EDXRF (see 9.IV, below) revealed the metal to be leaded gunmetal with a high level of tin, mercury-gilded on the front.

L. brooch 128mm; W. across head 60mm; W. across foot terminal 54mm; L. pin catch 22mm. SF 70453.

| <i>Fibre</i> | <i>Weave</i> | <i>Thread-Count/Spin</i> | <i>Position of Textile</i> | <i>Interpretation</i> |
|---------------------|---------------|--------------------------|--|---|
| probably goat, grey | 2/2 twill | 14/Z x 12-14/Z | Clasped in two overlapping layers by square-headed brooch (2) at front chest and looping on to front. Possibly also on knife (8) at hip. | A cloak of fine grey goat-fibre, clasped by the great square-headed brooch on the chest. The fine animal fur may be a trim, or a short cape worn over the cloak. |
| flax/hemp | 2/2 chev/diam | 16/Z x 14-16/Z | Inside goat-fibre garment on back and front of square-headed brooch (1) | Underneath the cloak, a fine wool peplos was fastened by the pair of annular brooches. |
| flax/hemp | ? | Z x Z | On front of square-headed brooch (1) | The linen textile on the front of the annular brooches (thought to be a 2/1 twill with a tabby-woven border) probably represents the front edge of the head veil. |
| fine fur | pelt | small mammal | On front of square-headed brooch (2) and on front of pendant (5) on chest | The linen diamond twill inside the cloak is possibly the fabric of the inner dress. |
| wool | ? | fine, Z x ? | Clasped by annular brooches (3 and 4) on chest | The cuffs of the dress are tablet-woven and fastened with metal clasps. |
| ?flax/hemp | ? | 16/Z x 16/Z | On front of annular brooch (4) | |
| flax | ?2/1 | 10/Z x 9/Z | On front of annular brooch (3); with a probable tabby-woven border running diagonally across annular brooch (4). | |
| not ident. | repp or twill | fine, Z x ? | On front of sleeve clasp (6) at waist. Possibly same as clasped by annular brooches (3 and 4) | |
| not ident. | tablet, ZSZS | 14-16 cords x 14-16 weft | On back of sleeve clasp at waist (6) | |
| flax/hemp | ? | fine, Z x Z | Detached textile in vicinity of head (9) | |

Table 9.15 Textiles from Grave 13

- 1 short, globular; diam. 6–10mm
 1 short, globular, perforated sides marvered flat; diam. 6–10mm (Fig. 4.16/76)
 4 short, globular, sharp edges to perforation; diam. 6–10mm
- yellow opaque 1 short, globular; diam. 6–10mm (Fig. 4.16/77)
 1 short, globular, 5-ribbed cross section, perforated sides marvered flat; diam. 6–10mm (Fig. 4.16/78)
- dots 1 very short, globular, sharp edges to perforation; diam. 6–10mm (Fig. 4.16/79)
- wide crossing trails 1 short, globular, perforated sides marvered flat; diam. 6–10mm (Fig. 4.16/80)
 2 short, globular, sharp edges to perforation; diam. 6–10mm (Fig. 4.16/81)
- 1.2 10 beads** in line SE of head, found in a symmetrical order. SF 70533
- amber** 2 beads, total weight 0.8g; one bead definitely worn
 1 short, irregular; diam. 6–10mm (Fig. 4.16/82)
 1 medium, rounded; diam. 6–10mm (Fig. 4.16/83)
- rock crystal** 1 bead
 1 short, globular with ridge; diam. 16–20mm (Fig. 4.16/84)
- glass** 7 beads
 type *Blue* 1 short, annular; diam. 6–10mm (Fig. 4.16/85)
 1 short, globular; diam. 6–10mm
 type *Blue?* 2 medium, asymmetrical globular, perforated sides marvered flat ('barrel-shaped'), shattered surface or inclusions; diam. 11–15mm (Fig. 4.16/86)
- type *Mottled* 1 short, globular (irregular), perforated sides marvered flat; diam. 11–15mm (Fig. 4.16/87)
- other glass beads:
 dark annular 2 short, annular; diam. 11–15mm (Fig. 4.16/88)
- 1.3 18 beads** in a line along chest front, symmetrical arrangement. SF 70537
- amber** 1 bead, weight 0.2g; slightly worn
 1 medium, rounded (almost globular); diam. 6–10mm (Fig. 4.16/89)
- rock crystal** 2 beads
 2 medium, polyhedral; diam. 11–15mm (Fig. 4.16/90)
- glass** 15 beads
 type *Blue* 1 medium, globular; diam. 6–10mm (Fig. 4.16/91)
 4 short, annular; diam. 6–10mm (Fig. 4.16/92)
 1 short, globular; diam. 6–10mm
 1 very short, annular; diam. 6–10mm (Fig. 4.16/93)
- other glass beads:
 dark 1 medium, asymmetrical, 6-ribbed cross section; diam. 6–10mm (Fig. 4.17/94)
 red opaque 1 short, asymmetrical; diam. 6–10mm
 1 short, globular; diam. 6–10mm
 1 short, globular, perforated sides marvered flat; diam. 6–10mm (Fig. 4.17/95)
- white opaque 3 short, globular; diam. 6–10mm (Fig. 17/96)
 yellow opaque 1 short, cylindrical, perforated sides marvered flat; diam. 6–10mm (Fig. 4.17/97)

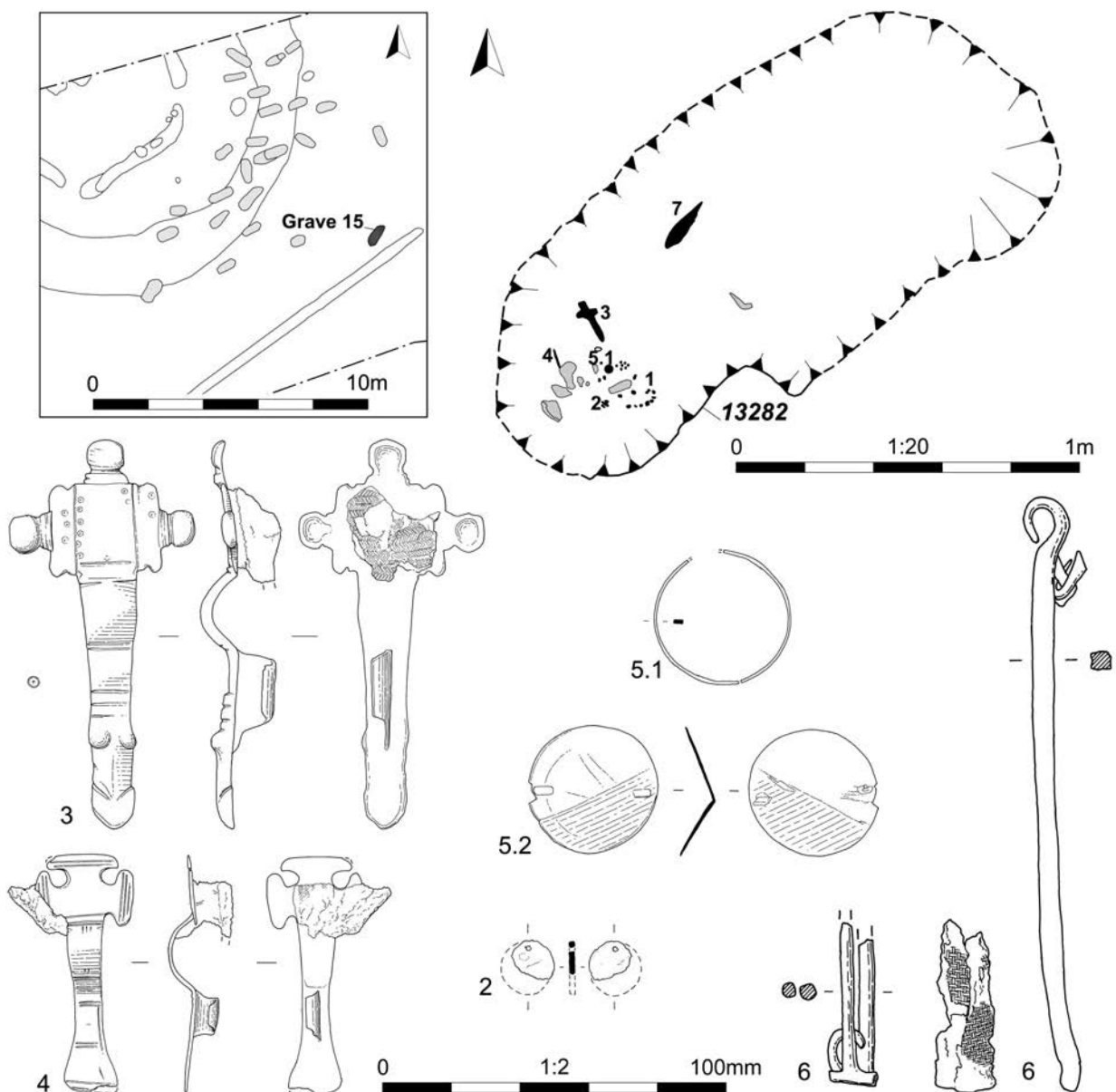


Figure 9.30 Grave 15 cut 13282: plan and associated artefacts

A penannular brooch (1) was found in the dark layer at the base, 13104, but the other finds and the bones came from the level above. A small cruciform brooch (2) and an annular brooch (3) lay next to each other at the west end of the grave, close to the clavicle. There was a knife (4) further east, in the area of the chest, and a near-complete pot (5) was positioned on top of the penannular brooch, in the region of the body's left shoulder. Four potsherds (6) were recovered from the grave fill. Objects 1 and 2 have been interpreted as relating to body A and objects 3, 4 and 5 to body B.

Grave goods:

- 1 Cast copper-alloy **penannular brooch** with continuously ribbed upper surface and faceted terminals, each with a single impressed dot. Groove around outward-facing edge. Pin head has three lengthways ribs and is wrapped around the brooch band; pin tip protrudes beyond brooch; shank has hump where passes under band. Pin lies on smooth face, which must have been the upper face when worn. Type: Dickinson G1.5. D.27mm, band D.3mm; pin L.39mm. SF 70480.
- 2 Small copper-alloy **cruciform brooch**. Knobs cast in one with brooch; head square with trapezoid central panel; no lappets; animal head highly simplified and represented by triangular eyes with chevron eyebrows, elongated nose and flat spade-shaped snout (no nostrils). The top knob has three lobes, the side knobs two, and all knobs have a double collar. Stamped ornament includes a single bull's eye (large ring-and-dot) on the central panel and the snout, and outward-facing double semicircles down the sides of the panel and around the edges of the snout. The bow has a central raised band flanked by two lower ones and the foot has an incised line on either side from bow to snout. The pin support has two cast lugs; the cast pin catch is curled to the left; and the iron pin is seated between the two support lugs. Type: unique, but closest to Hines Bb. L.99.5mm, W.32mm (including side knobs: W.25mm without); bow height 10mm; pin catch L.10mm. Four different **textiles**, one pierced by pin. SF 70484.



Figure 9.33 Grave 16 cut 13077, looking west towards the head of the grave, showing pottery vessel 16/5 and long bones of 13096

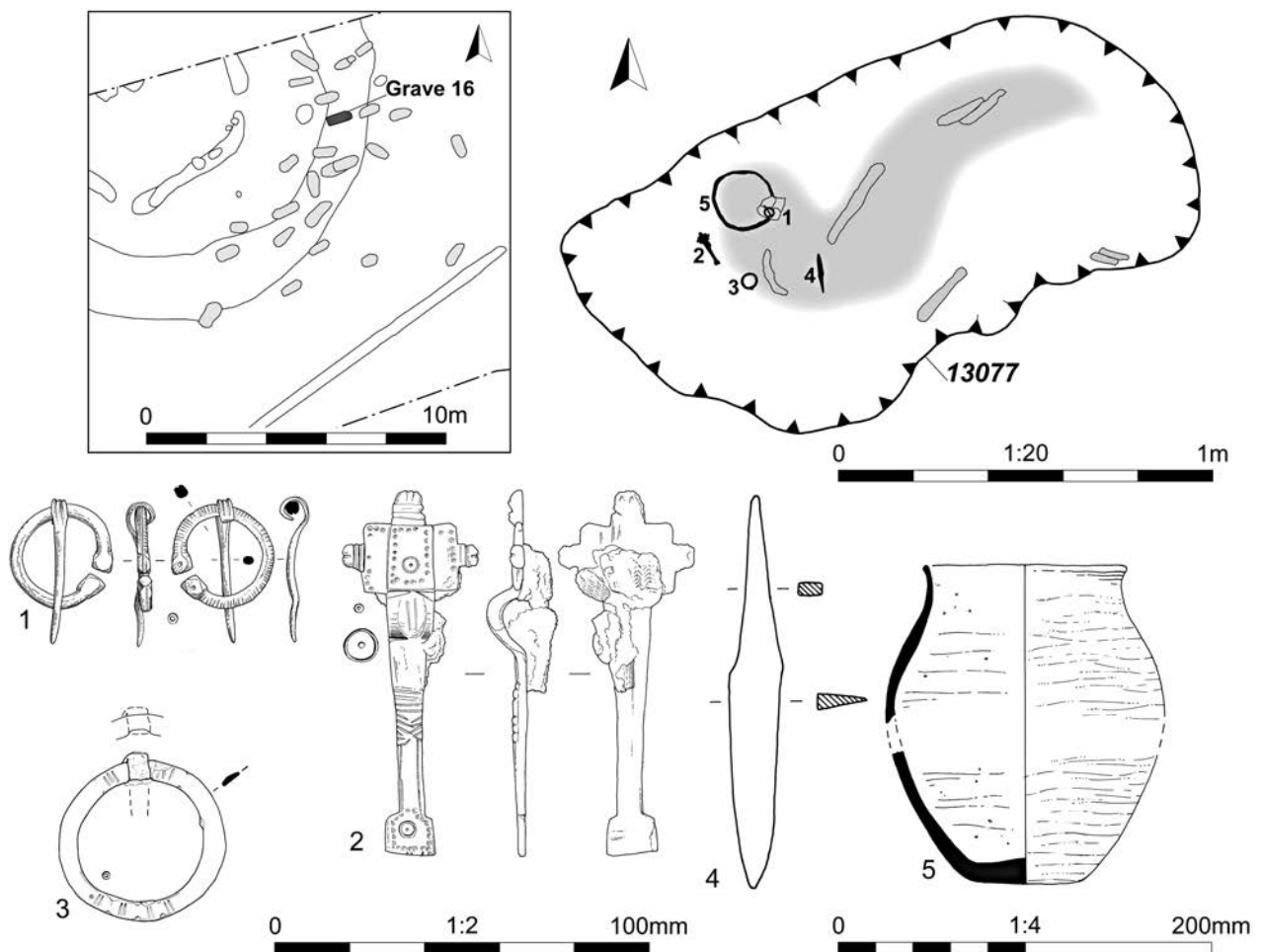


Figure 9.32 Grave 16 cut 13077: plan and associated artefacts

| <i>Fibre</i> | <i>Weave</i> | <i>Thread-Count/Spin</i> | <i>Position of Textile</i> | <i>Interpretation</i> |
|------------------|--------------|--------------------------|--|--|
| Grave 16A | | | | |
| wool | 2/2 twill | 14/Z x 12/Z | Two folds pierced by small cruciform brooch (2). | An inner garment of linen; a fine wool gown over that; and a medium-weight wool garment fastened by the small cruciform brooch on top. Probably a linen veil over everything else. |
| wool | ?twill | 18/Z x 18/Z | On back of small cruciform brooch (2), but not necessarily pierced by it | |
| flax/hemp | ? | ? | On back of cruciform brooch (2), inside wool garments | |
| ?flax/hemp | ? | very fine | On front of cruciform brooch (2) | |
| Grave 16B | | | | |
| not ident. | 2/2 twill | 12/Z x 10/? | Pierced by annular brooch (3). | Either a single-brooch peplos or, more probably, a cloak fastened by an annular brooch. |

Table 9.21 Textiles from Grave 16 A and B

- 3 Cast copper-alloy **annular brooch** with narrow band with flat-elliptical section. Single rebate on inside edge for pin attachment. Three pairs of transverse grooves on band near pin tip and another pair next to pin hinge. Remains of iron pin wrapped around rebated area. D.44mm, band W.5mm, Th.2.5mm. **Textile** pierced by pin. SF 70485.
- 4 Iron **knife**, complete. Pointed tang, expanding to a slight shoulder. Sloping back and cutting edge. L.105mm, blade 60mm x 12mm. Type: Drinkall A1. SF 70487.
- 5 Near-complete sub-biconical **ceramic jar** in Early Saxon fine sand ware (ESFS), with short vertical rim. Black, burnished around carination with some sooting. Fabric also contains occasional burnt-out organics and flint. SF 70478.
- 6 **Potsherds**, two of Early Saxon fine flint ware (ESFF), one of Early Saxon coarse shelly (ESCS) and one of Early Saxon medium sandy (ESMS) wares. Fill, 13093.

A sample of human bone from 13096 produced a radiocarbon determination of cal AD 540–660 (1470 ± 35 BP; SUERC-5770; GU-12846).

Grave 17

Figs 9.34–35

Cut 13284, fill 13285, human remains 13286

Dimensions: length 1.59m; width 0.76m; depth 0.18m

Orientation: 257° (between W–E and WSW–ENE)

Grave shape: bean-shaped

Container for body: none recognised

Sex and age: adult (age category 10), sex undetermined

Gender of finds: female

Body position: head to west, body on left side, legs flexed

The grave cut across the inside edge of the outer ring ditch, 13215, in the eastern part of its circuit. The cut had steep sides and a flat base and there had been some plough damage. The fill, 13285, was orange-brown sand. A sample of the fill, 71490, contained charcoal derived from hazel (*Corylus avellana*), heartwood and roundwood of oak (*Quercus* sp.), and some possible carbonised acorns.

The human remains, 13286, were represented by fragments of skull (frontal and left temporal bones), and staining that marked out the shape of the body.

Beads were recovered mostly from the neck area (1.1), although a few more were found in the region of the hip/waist (1.2 and 1.3). There was an iron knife (2) pointing diagonally upwards in front of the thighs.

Grave goods:

- 1 **19 beads**, Brugmann Group B2. SF 70539, 70540 and sample 71489; 4 amber, total weight 2.2g

- 1.1 **13 beads** east of cranium, neck area. SF 70539.

amber **3 beads**, worn

1 medium, faceted; diam. 11–15mm (Fig. 4.17/105)

1 medium, rounded; diam. 11–15mm

1 medium, rounded (almost globular); diam. 6–10mm (Fig. 4.17/106)

silver and ?amber **1 bead**

1 silver sheeting (0.3g) on barrel-shaped ?amber core (1.0g) with worn drop-shaped perforation, slightly asymmetrical; diam. 11–15mm (Fig. 4.17/107)

glass **9 beads**

type *Blue?* fragments of a bead

type *Doughnut* 1 short, asymmetrical; diam. 11–15mm (Fig. 4.17/108)

type *Koch 16.7* 1 short, globular; diam. 11–15mm (Fig. 4.17/109)

type *Koch 34 WhiteRed*

1 long, globular; diam. 6–10mm (Fig. 4.17/110)

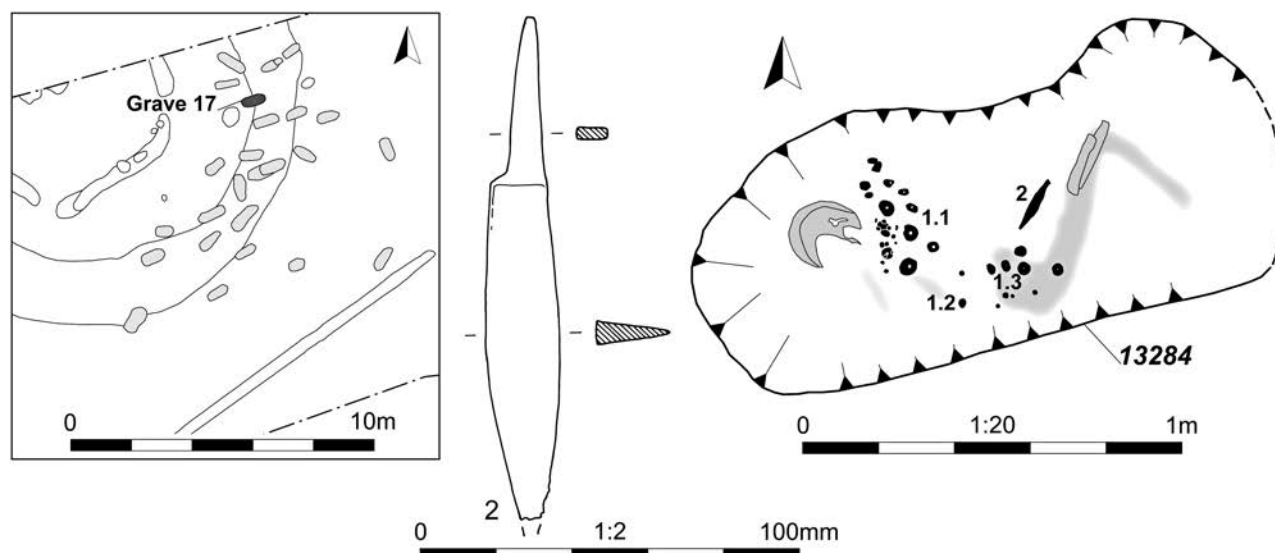


Figure 9.34 Grave 17 cut 13284: plan and associated artefacts

type *Koch 34 variant*

1 short, globular; diam. 6–10mm (Fig. 4.17/111))

type *Koch 34 variant?*

1 short, globular; diam. 11–15mm (Fig. 4.17/112)

type *Roman Melon imitation*

1 medium, globular, 11-ribbed cross-section; diam. 16–20mm (Fig. 4.17/113)

type *Segmented Globular*

1 with 2 segments, medium, globular; diam. 6–10mm (Fig. 4.17/114)

other glass beads:

greenish-blue translucent

1 medium, globular; diam. 6–10mm (Fig. 4.17/115)

1.2 1 bead from 'mid-body' area. Sample 71489

amber 1 bead, worn

1 medium, faceted; diam. 11–15mm

1.3 5 beads from pelvic region. SF 70540

glass 5 beads

type *Cylindrical Round*

1 medium, cylindrical, perforated sides marvered flat; diam. 6–10mm (Fig. 4.17/116)

type *Doughnut* 1 very short, asymmetrical; diam. 6–10mm (Fig. 4.17/117)

type *Koch 34 BlueWhite*

1 medium, globular, perforated sides marvered flat ('barrel-shaped'); diam. 11–15mm (Fig. 4.17/118)

type *Koch 34 variant?*

1 medium, globular; diam. 11–15mm (Fig. 4.17/119)

other glass bead:

red opaque 1 short, globular, perforated sides marvered flat; diam. 11–15mm (Fig. 4.17/120)

2 Iron knife, complete except for tip. Tang pointed, expanding into step at shoulder and running into cutting edge. Curved back and cutting edge. L.135mm, blade 95mm x 18mm. Type: Drinkall A1. SF 70541. (Fig. 34.4)

A sample of human bone from 13286 produced a radiocarbon determination of cal AD 420–610 (1535 ± 35 BP; SUERC-5963; GU=12849).



Figure 9.35 Grave 17 cut 13284, looking west from the foot of the grave

Grave 18

Figs 9.36–37

Cut 13067, fill 13076

Dimensions: length 2.08m; width 0.74m; depth c.0.10m

Orientation: 120°/300° (between NW–SE and WNW–ESE)

Grave shape: elongated, rounded ends

Container for body: none recognised

Sex and age: no human remains

Gender of finds: not clear

Body position: not known

The grave lay inside the inner edge of the outer ring ditch, 13215, in the eastern part of its circuit, clipping the ditch edge at the grave's SE end. The grave sides were sloping but the base was difficult to perceive. The fill was dark orange sand, 13076, with a dark organic stain under the pot and another at the NW end of the grave. A sample of the stained area at

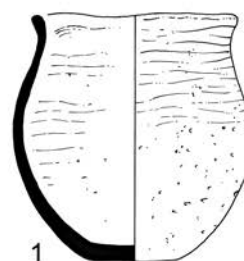
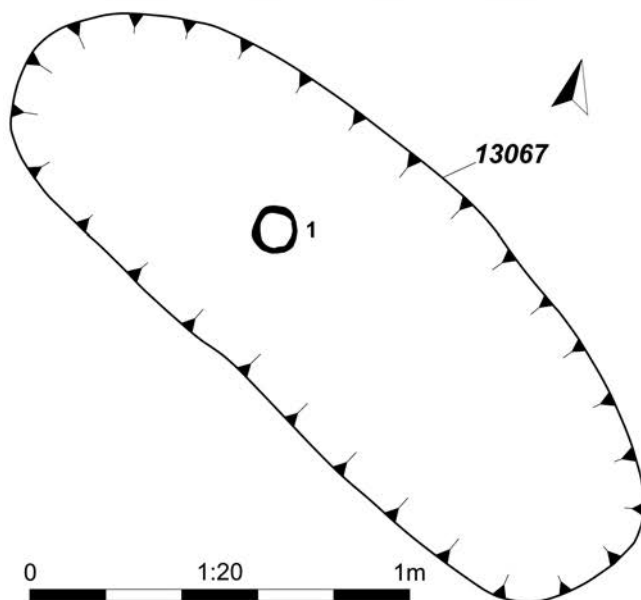
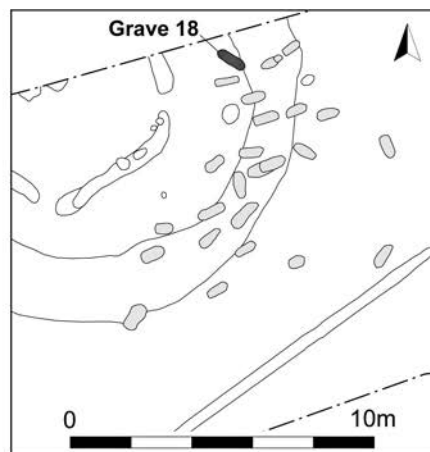


Figure 9.36 Grave 18 cut 13067: plan and associated artefact



Figure 9.37 Pottery vessel 18/1 *in situ* in Grave 18 cut 13067

the NW end, 71454, yielded charcoal derived from the narrow roundwood of blackthorn (*Prunus spinosa*). Another sample from fill 13076 (not numbered and position not recorded), contained heartwood, sapwood and roundwood of oak (*Quercus* sp.)

There were no human remains. The only artefact was a pot (1) in the centre of the grave.

Grave goods:

- 1 **Baggy jar** in Early Saxon grass- and sand-tempered ware (ESO2), with short everted rim. Sooted, cracked and spalled in use. Grey-brown surfaces. SF 70475.

Grave 19

Figs 9.38–39

Cut 13085, fill 13083, human remains 13084

Dimensions: length 1.68m; width 0.73m; depth 0.20m

Orientation: 299° (between NW–SE and WNW–ESE)

Grave shape: rectangular with one rounded end

Container for body: none recognised

Sex and age: child of 6–7 years (age category 4), sex undetermined

Gender of finds: male

Body position: head to NW

The grave lay immediately outside the outer ring ditch, 13215, in the eastern part of its circuit, its NW end touching the ditch edge. The grave sides were gently sloping, the base uneven, and the upper level had been plough-damaged. The fill was a pale orange-brown sand, 13083. Two samples of the fill, 71455 and one not numbered, were both found to contain charcoal derived from heartwood, sapwood and roundwood of oak (*Quercus* sp.).

The only human remains were three fragmentary teeth, 13084, of a 6- to 7-year-old child, of indeterminate sex. These indicate that the head

was placed to the north-west. A dark brown silty sand stain was recorded toward the north-western end of the grave, surrounding a cluster of artefacts. These were a mouth-band from a sword scabbard (1), a small buckle (2), two knives (3) and (4).

Grave goods:

- 1 Copper-alloy **scabbard mouth-band** made from sheet metal and ornamented with repoussé dots. Now fragmentary, but appears to have been made from two strips, both tapering from centre. Two empty rivet holes indicate where joined and a fine copper-alloy rivet is present in a third rivet hole. W. of mouth-band (across scabbard) c 60mm; W. of strip at widest 14mm. Mineralised remains of **leather/skin** and **wood** in association. SF 70476.1.
- 2 Small copper-alloy **buckle** with narrow oval loop and copper-alloy tongue. The square plate is cast with the loop and there is a separate bar at the rear edge of the plate on the reverse. A row of three rivets fastens the plate to the bar. Type: Marzinzik II.24a. W. across loop 19mm, W. across plate 16mm, L.20mm. Remains of **leather strap** riveted between bar and plate. Fine **textile** on front and back. SF 70476.2.
- 3 Iron **knife**, point and much of tang missing. Root of tang forms a step with shoulder and choil. L.>70mm, blade >55mm x 10mm. Type: not clear. SF 70476.3.
- 4 Iron **knife**, complete. Long tang, expanding into back and cutting edge with little shoulder. Cutting edge straight, back angled close to the point. L.130mm, blade c.85mm x 10mm. Type: Drinkall D1 or E1. SF 70476.4.
- 5 **Textile** fragment recorded during excavation, now lost.

| Fibre | Weave | Thread-Count/Spin | Position of Textile | Interpretation |
|-----------|-------|-------------------|--------------------------------------|---|
| flax/hemp | tabby | 30/Z x 24/Z | On back of buckle in region of waist | Tunic or trousers of fine linen, fastened by belt |

Table 9.22 Textiles from Grave 19

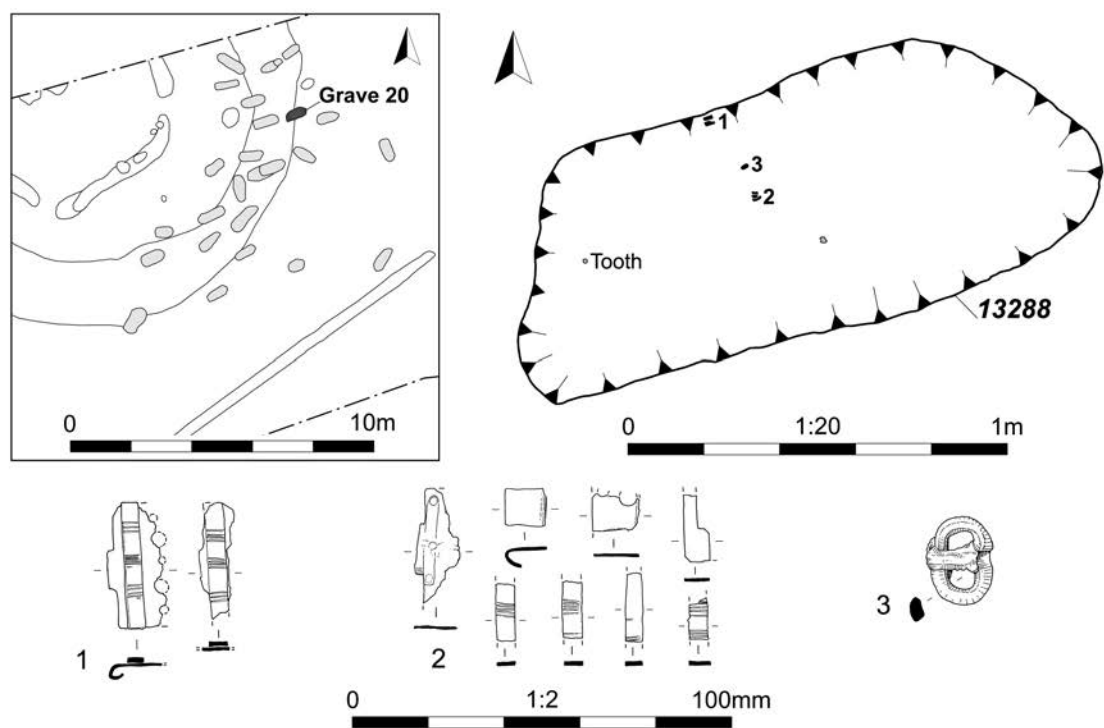


Figure 9.40 Grave 20 cut 13288: plan and associated artefacts



Figure 9.41 Grave 20 cut 13288, looking south

organic material, probably leather, and another fragment of leather was found separately (SF 72004). SF 70544.

4 Three sherds of Early Saxon medium sandy ware (ESMS). Fill, 13292.



Figure 9.43 Grave 21A cut 13135, looking west towards the head of the grave, with cut 21B (cut 13082) in the foreground. The large cruciform brooch, 21A/2, can be seen at the right-hand edge of the grave

The artefacts were all recovered from Grave 21A. Three beads (1) were found close to a large cruciform brooch (2), which was foot-up on the body's left, below shoulder level. Fragments of two iron annular brooches (3) and (7) lay on the opposite side of the body and two pairs of sleeve clasps (4 and 5) were in the region of the hips. A knife (6) lay point-down at the extreme left of the body. The body appears to have been a tight fit in the grave-cut.

Grave goods:

- 1 **3 beads** of Brugmann Group A2 (SF 70503/70504); the long glass bead was inserted through the amber bead.
 - amber** **2 beads**, weight 1.0g; perforation very worn
 - 1 short, irregular; diam. 16–20mm (Fig. 4.15/54)
 - 1 very long, spindle-shaped; diam. 3–5mm (Fig. 4.16/56)

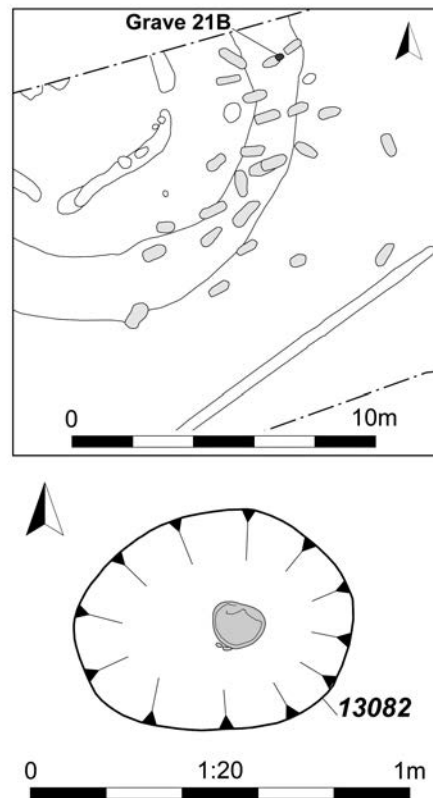


Figure 9.44 Grave/pit 21B cut 13082, containing fragmentary skull, 13081

glass 1 bead

type *Constricted ?Cylindrical* 1 very long, cylindrical; diam. 3–5mm (Fig. 4.15/55)

- 2 Copper-alloy **cruciform brooch** with flared wings, a high bow and no lappets; the animal-head foot has pellet eyes, large comma nostrils and a nose fan. The wings have stamped segmented Y-shaped decoration along the outer edges. The half-round top knob has been cast with the brooch and has a type of elaborated extension sometimes regarded as anthropomorphic. The separately cast half-round side knobs, now detached, are hollow and have a slot to fit on the brooch wings. They were originally fixed to the brooch by means of an iron bar, round in section, 2mm diameter, which runs across the back of the brooch head, through the pin support and through both knobs. The pin support is a single lug, cast with the brooch; the pin catch is cast with the brooch and is curled to the left (viewed from the back with the head uppermost); and the pin itself is absent. Type: Mortimer C2. L.137mm, W. (without side knobs) 48mm; bow height c. 15mm. **Textile**, including edge of garment, on back at pin hinge. SF 70500.
- 3 Fragments of an iron **annular brooch** with remains of iron pin. D.c 50mm; band W.c 4mm. Textile remains on front and back. SF 70507 and part of SF 70508.

| Fibre | Weave | Thread-Count/Spin | Position of Textile | Interpretation |
|------------------------|---------------------|--------------------------|--|---|
| wool | 2/2 twill | 8-9/Z x 9/Z | On back of cruciform brooch (2) to left of upper body, and on its pin: probably clasped by brooch. Selvage runs across the line of the pin. Also on front of annular brooch (3) at right shoulder. | Veil of black <i>Schleiergewebe</i> . Cloak of heavy wool twill, bordered with a patterned wool tablet weave and clasped by the large cruciform brooch. |
| wool | tablet, patterned | 10 cords/ Z2S x 8/? weft | Stitched to selvage on wool twill on back of cruciform brooch (2). | Peplos probably of medium-weight twill. |
| not ident. | sewing thread | Pairs of Z2S, 0.9 mm D. | Irregular stitching with thread used double, joining tablet band to wool twill on cruciform brooch (2). | Long-sleeved inner dress represented by sleeve clasps, but no surviving textile. |
| wool, prob. dyed black | tabby, 'veil weave' | ? x ? | Traces of fine open weave between tablet band and back of cruciform brooch (2). | |
| not ident. | 2/2 twill | 14/Z x 12/Z | On back of annular brooch (3) at right shoulder | |

Table 9.25 Textiles from Grave 21A

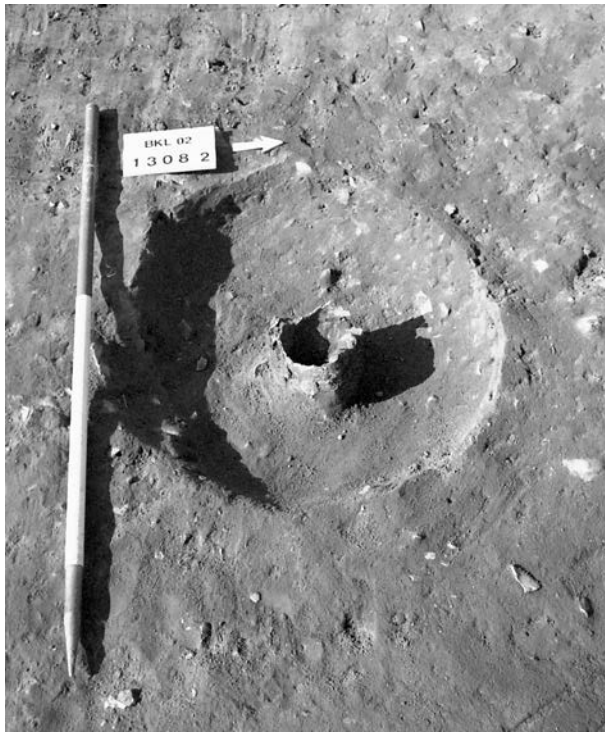


Figure 9.45 Grave/pit 21B cut 13082, containing fragmentary skull, 13081

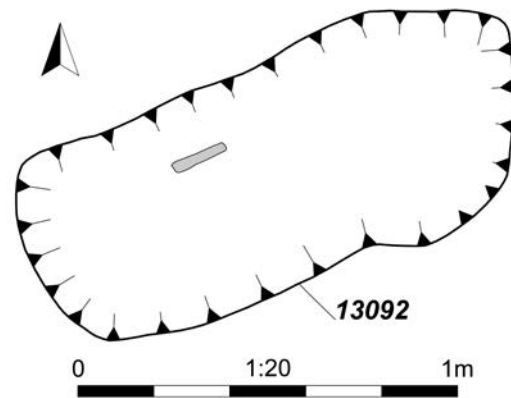
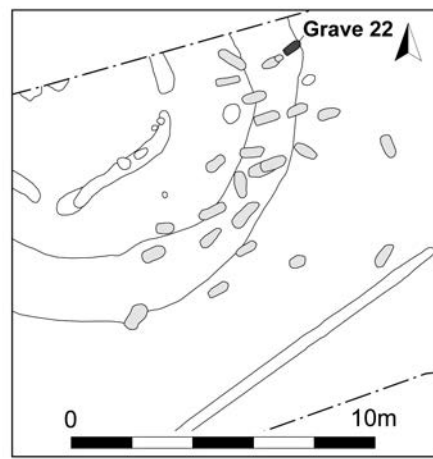


Figure 9.46 Grave 22 cut 13092: plan

- 4 Pair of cast copper-alloy **sleeve clasps**. Both halves are made up of a bar with three squares from which emerge three attachment loops, 2.7mm diameter; the bars between the squares are ribbed. On the back of the catch-piece there is a long groove. Type: Hines B12, EAC wcB12. Both halves: W. (across cuff) 35mm, L. 13mm. SF 70510.
- 5 Pair of cast copper-alloy **sleeve clasps**, matching (4) in all respects. Black organic remains in association, but no textile. SF 70511.
- 6 Iron **knife**, encased in remains of textile. Broad tang, continuous with back, expanding into the choil. Back curves sharply to point, cutting edge sinuous, possibly through wear. X-ray shows junction between blade and tang. L. 130mm, blade 85mm x 15mm. Type: Drinkall A1 or D1. SF 70509.
- 7 Fragments of a second iron **annular brooch**. Largest fragment 25 x 15mm. SF 70508.

Grave 22

Figs 9.46–47

Cut 13092, fill 13090, human remains 13091

Dimensions: length 1.39m; width 0.64m; depth 0.10m

Orientation: 231° (between SW–NE and WSW–ENE)

Grave shape: sub-rectangular

Container for body: none visible

Sex and age: undetermined

Gender of finds: not clear

Body position: probably extended, head to W

The grave lay across the outer ring ditch, 13215, in the eastern part of its circuit. It was on the same alignment as Grave 21 and its western end touched it. The base of the grave was uneven, the fill, 13090, was reddish brown and sandy and the upper level was plough-damaged. The position of one long bone, 13091, probably part of the right leg, was noted during the excavation but it did not survive for osteological analysis.

Grave 23

Figs 9.48–49

Cut 13101, fill 13100, human remains 13099

Dimensions: length 1.60m; width 0.72m; depth 0.13m

Orientation: 70°/250° (WSW–ENE)

Grave shape: rounded rectangular

Container for body: none recognised

Sex and age: ?female, 30–40 years (age category 7)

Gender of finds: not clear

Body position: head possibly to west: grave disturbed

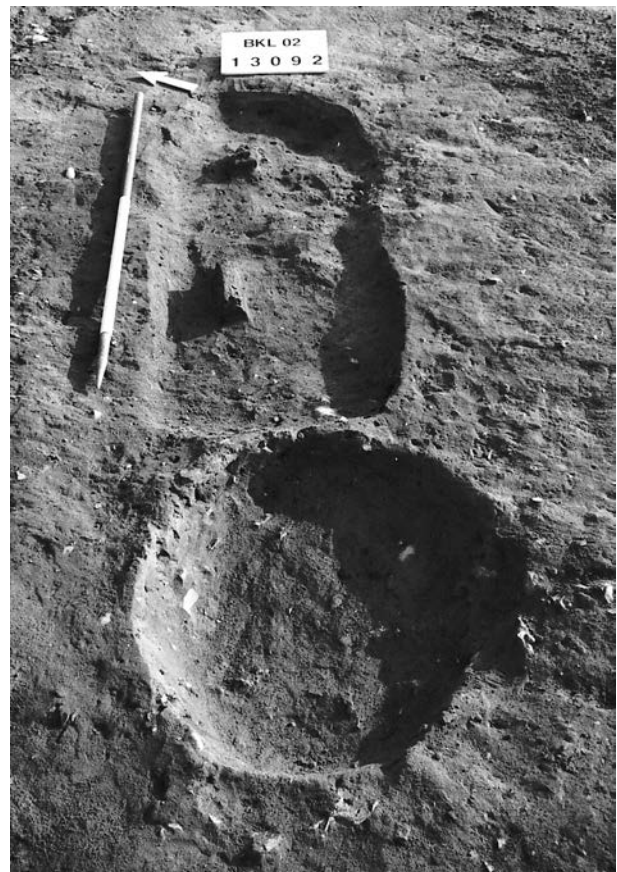


Figure 9.47 Grave 22 cut 13092, looking east from the head of the grave. Cut 21B (13082) appears in the foreground

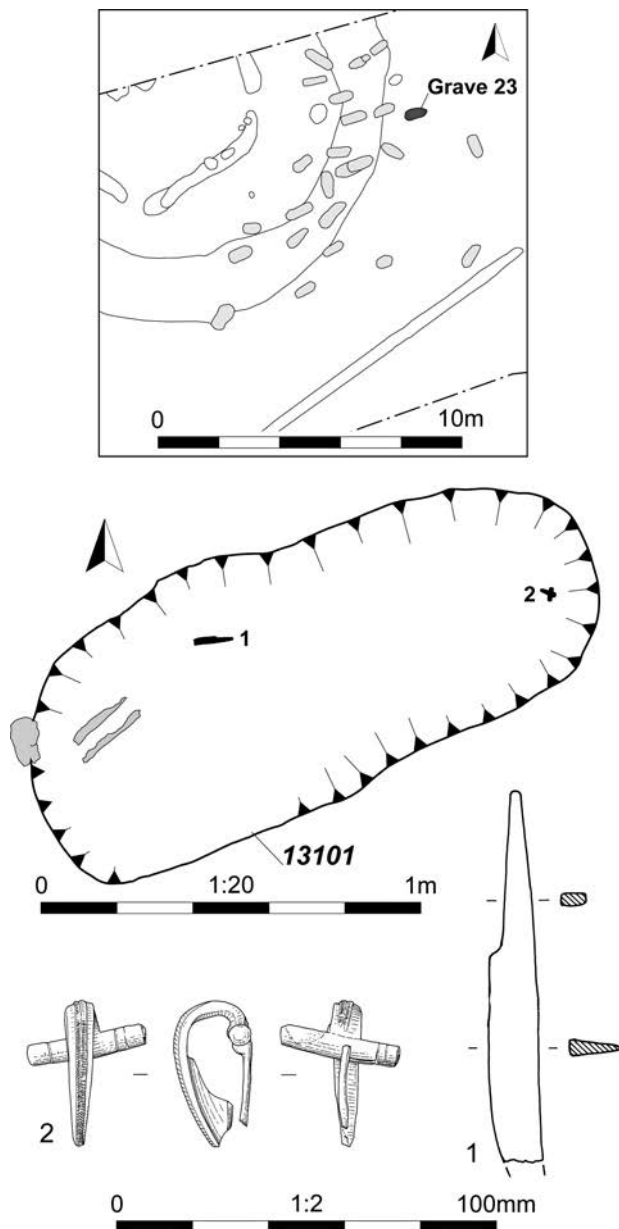


Figure 9.48 Grave 23 cut 13101: plan and associated artefacts

The grave lay 1.4m outside the outer edge of the outer ring ditch, 13215. It had been severely plough-damaged. The fill was brown silty sand, 13100.

Human remains, 13099, were represented by fragments of the skull (left parietal, temporal bones and maxilla) and left tibia. The skull rested upon the edge of the grave and the tibia was close to it, which suggests disturbance of the grave.

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | - | - | - | - | - | - | - | - | - | - | 5 | 6 | 7 | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Table 9.26 Grave 23 dental inventory

A knife (1) lay partway down the grave and there was a Roman brooch (2) at the eastern end.

Grave goods:

- 1 Iron **knife**, point missing. Pointed tang, expanding to step at shoulder, merges into cutting edge. Cutting edge straight, back is beginning to turn towards point where broken. L. >95mm, blade >55mm x 12mm. Type: Drinkall D1 or E1. SF 70486.

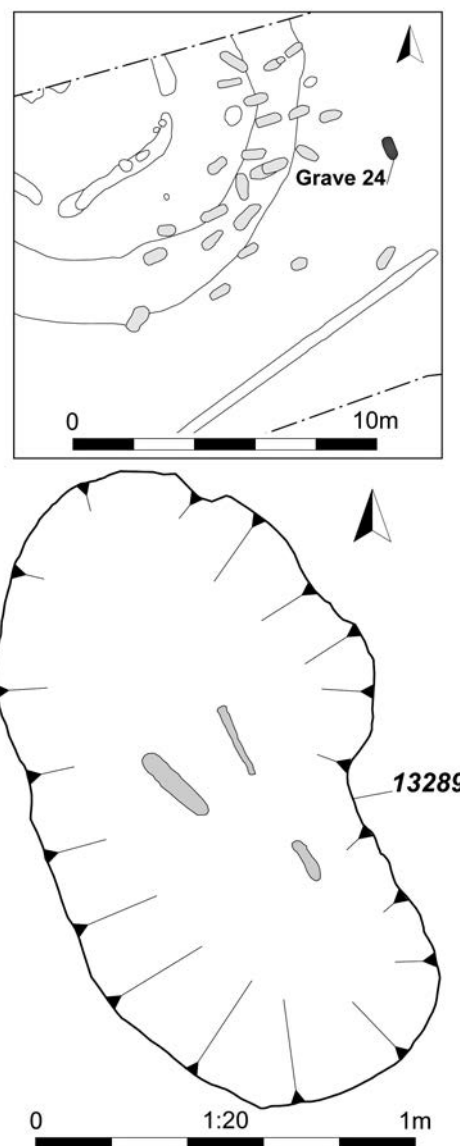


Figure 9.50 Grave 24 cut 13289: plan

- 2 Cast copper-alloy T-shaped **Roman bow brooch**. There are two narrow raised bands with incised marks, giving a chevron effect that runs the full length of the outer face of the bow; and there are irregular incised lines encircling the crossbar/wings. The tip of the copper-alloy pin is missing and the catch-plate broken. Type: Hull 130. L.39mm, W. along cross-bar 34mm, W. across stem 8.5mm; cross bar 6mm diameter. SF 70488.

A sample of human bone from 13099 produced a radiocarbon determination of cal AD 540–660 (1460 ± 35 BP; SUERC-5771; GU-12847).

Grave 24

Figs 9.50–51

Cut 13289, fill 13290, human remains 13291

Dimensions: length 1.55m; width 0.74m; depth 0.20m

Orientation: 324° (between NW–SE and NNW–SSE)

Grave shape: irregular oval

Container for body: none recognised

Sex and age: undetermined

Gender of finds: no finds

Body position: head to NW, body probably extended

The grave lay 6m to the east of the outer ring ditch, 13215. The fill was orange-brown sand, 13290.

Human remains, 13291, were represented by a left tibia which was lifted for osteological examination and right tibia and right humerus recorded during excavation.

There were no artefacts.



Figure 9.49 Grave 23 cut *13101*, looking south. Iron knife 23/1 can be seen towards the near side of the grave



Figure 9.51 Grave 24 cut *13289*, looking east, showing the remains of skeleton *13291*



Figure 9.52 Cremation 2 cut 13106, containing fragmentary cremation vessel C2/1 (SF 70481)

II. The cremation burials

Cremation 1

Not illustrated

Cut 13305, fill 13308, human remains 13307

Dimensions: approximately 0.5m diameter; depth not recorded

Sex and age: adult, sex undetermined

Gender of finds: none

This isolated cremation pit was cut into the natural substrate approximately 38m to the east of the external ring ditch. It was severely plough-damaged and the pit and its fill survived only beneath the remains of the urn. The pit outline was poorly defined, but approximately circular, and the fill was orange-brown sand, 13308.

Human remains, 13307, were represented by 289g of white cremated bone from a single individual, including fragments of long bones, skull, metacarpal and axial bones. They lay within a broken and now rimless cremation vessel (1). There were also three sherds from a small accessory vessel (2).

- 1 The lower part of a **vessel** in Early Saxon grass-tempered ware (ESO1). SF 70465a.
- 2 Three sherds of a **baggy vessel** in Early Saxon grass-tempered ware (ESO1). SF 70465b.

Cremation 2

Fig. 9.52

Cut 13106, fill 13105, human remains 13304

Dimensions: length 0.54m; width 0.41m; depth 0.07m

Sex and age: undetermined

Gender of finds: none

The pit was cut into the natural substrate, approximately 12m to the east of the outer ring ditch. It was sub-rectangular and severely plough-damaged. The fill, 13105, was brown silty sand.

Human remains, 13304, were represented by 54g of white cremated bone from a single individual. No bones could be identified. They were associated with the fragmentary base of a **vessel** (1) in Early Saxon granitic tempered with organic inclusions (ESOM). SF 70481.

A sample of 13304 produced a radiocarbon determination of cal AD 410–600 (1555 ± 35 BP; SUERC-5773; GU-12850).

III. Finds not from graves

(for pottery, see Chapter 2)

SF 70450 Fragments of a pair of copper-alloy tweezers. Plain with flat arms, slightly flaring towards tip. Largest fragment 23 x 8mm. Not illustrated. Pit 13055.

SF 70451 Large copper-alloy annular brooch, irregularly cut from sheet metal. Ornamented with four equidistant groups of multiple transverse grooves. Small circular perforation for pin attachment, < 2mm diameter. Pin missing. D.52–55mm, band W.8–10mm, Th.2mm. Fig. 4.8. Context 13033.

SF 70452 A complete copper-alloy finger ring with flat oval bezel 14mm deep and band that widens towards the bezel. D.21mm. Context 13033

SF 70457 See Grave 15 object 5.

SF 70482 See Grave 6 object 8.

SF 70526 Amber bead: medium, faceted, diameter 6–10mm. Context 13200

SF 70527 Fragments from a single pair of sleeve clasps made of copper-alloy sheet metal. Perforations for attachment, 3mm diameter. Large repoussé bosses in a single row. Type: Hines B7, Four Cemeteries B7a. W. (across cuff) >25mm, L.19mm. Fig. 4.10. Context 13033.

SF 70545–6 Iron fragments from an iron-bound bucket. Found during machining. The bucket was probably about 300mm diameter; no estimate can be made of its height or of any flare or taper. The rim is shorter on the internal face (10mm) than the external (28mm). The pieces include: (a) fragment of U-shaped rim, with clip attached by a rivet; (b) fragment of U-shaped rim with part of kite-shaped suspension mount, with remains of hook from handle; attached to the rim and top hoop by a rivet with flattened head; (c) fragments of D-sectioned hoops, double, about 15mm wide (about 410mm in total); and (d) fragments of D-sectioned hoops, single, about 8mm–10mm wide (about 560mm total); and (e) two fragments of flat hoop, 30mm wide. Fig. 4.24. Context 13033.

SF 70548 Fragment of a copper-alloy Late Iron Age or Early Roman bow brooch. It has a small crossbar protecting the spring, which has an external chord, held in place by a short hook extending from the top of the bow. Slender bow, undecorated. The pin is absent apart

from the coil; the pin catch was probably lost in antiquity. Type: Hull 90, Colchester type. L.55, W. across spring 15mm. Not illustrated. Context 13033.

No number Three beads, one of type *Koch 34*, one of type *Orange* and one translucent yellow, possibly type *Melon* variant. (Fig. 4.17/121–3). Context 13033.

IV. Analysis of two pieces of metalwork from the cemetery

by Jennifer Jones and Philip Clogg

Sleeve clasp, Grave 6, object 5

On the front of the clasp, parts of the small raised rectangular decorative panels, and also the area between the two perforations have visible traces of a white metal plating (Fig. 9.53).

Following examination of the clasp, both the front and back were surface analysed using EDXRF (energy dispersive X-ray fluorescence) to determine the composition of the alloy and to identify the white metal plating. No corrosion products were removed from the clasp prior to analysis. Surface EDXRF identified the alloy as a leaded gunmetal, though the level of detected zinc was considered too low to have been a deliberate addition. It was confirmed that the clasp was originally tinned on both sides (Table 9.27).

Levels of elements detected in analyses of surface corrosion products should be regarded as being qualitative only, as they may not accurately reflect the quantitative composition of the original alloy.

Hybrid brooch, Grave 13, object 2

The aim of the EDXRF analysis was to confirm the presence of gilding on the brooch front, and to identify the composition of the copper alloy used to manufacture the brooch.

Gilding

To expose and explore the gilding in preparation for analysis, green copper corrosion and soil cover were removed from selected small areas of the brooch front using hand tools and also a water/industrial methylated spirits/non-ionic detergent mix, applied with cotton wool swabs. It was noticed that below the green copper corrosion products, the brooch front was very dark coloured (Fig. 9.54). Attempts were made to determine whether the black surface continued below the gilding, by further selective soil and corrosion removal. Examination of a limited number of sites on the brooch front found that in some places the black layer continued below the gilding, and in other places it did not. An area on the square head of the brooch with visible gilding was analysed using EDXRF. Gold and mercury were detected, suggesting that the brooch was mercury gilded (Table 9.28).

Copper alloy

On the brooch front, surface analyses were carried out on a blackened area and also on the damaged lower edge of the brooch. In order to expose the metal to obtain a full quantitative analysis, corrosion products were totally removed from a small area on the corner of the back of the square brooch head. This was then analysed. The exposed metal was found to be a leaded gunmetal with a high level of tin (13 per cent). Levels of detected zinc (1.2 per cent) were considered too low to have been a deliberate addition (Table 9.28). Low levels of silver were present throughout, though gold and mercury were only detected on the front.

Examination of the black coating on the brooch front tentatively concluded that it was not a deliberate patination, but was most likely to be a corrosion product, possibly resulting from the relatively high levels of tin in the alloy.

| Sample | Mn | Fe | Ni | Cu | Zn | As | Au | Hg | Pb | Ag | Sn | Sb |
|-----------|-------|-------|-------|--------|-------|-------|------|------|-------|-------|--------|-------|
| 6/5 back | 0.111 | 0.853 | 0.031 | 65.420 | 0.818 | 0.016 | n.d. | n.d. | 8.207 | 0.681 | 23.420 | 0.320 |
| 6/5 front | 0.123 | 0.880 | 0.035 | 59.574 | 1.863 | 0.149 | n.d. | n.d. | 8.589 | 0.818 | 27.471 | 0.395 |

Table 9.27 EDXRF analyses of sleeve clasp 6/5



Figure 9.53 Front and back of sleeve clasp 6/5. Photo, Chris Casswell, Network Archaeology



Figure 9.54 Detail of front of brooch 13/2, showing gilding and black surface. Photo, Chris Casswell, Network Archaeology

| <i>Sample</i> | Mn | Fe | Ni | Cu | Zn | As | Au | Hg | Pb | Ag | Sn | Sb |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 13/2 front black | 0.158 | 1.847 | 0.074 | 48.791 | 1.663 | n.d. | 4.693 | 0.146 | 10.004 | 2.150 | 29.896 | 0.324 |
| 13/2 front foot | 0.042 | 0.260 | 0.042 | 81.113 | 0.985 | n.d. | 0.076 | n.d. | 5.192 | 0.972 | 11.118 | 0.140 |
| 13/2 front head | 0.074 | 0.366 | 0.021 | 76.398 | 0.598 | n.d. | 6.746 | 0.044 | 4.171 | 0.552 | 10.776 | 0.161 |
| 13/2 back cleaned | 0.008 | 0.317 | 0.043 | 79.694 | 1.222 | 0.127 | n.d. | n.d. | 4.710 | 0.242 | 13.233 | 0.155 |

Table 9.28 EDXRF analyses of brooch 13/2

The possibility was considered that the blackening might be an example of *shakudo* — the deliberate decorative blackening effect used in many parts of the world on copper alloys, including (rarely) early medieval British artefacts (Caple and Clogg 2001). However, all researched examples of *shakudo* necessitate a low level of gold in the base alloy, which was not present in this

brooch. As the *shakudo* technique requires the object to be immersed in liquids, it cannot be selectively applied to the surface.

The scope of the analysis carried out for this project has not been able to determine the exact reason for the blackened corrosion products found on the front of the brooch.

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