Life on the Edge:
Social, Political and Religious Frontiers
in Early Medieval Europe



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By Babette Ludowici

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Social, Political and Religious Frontiers in Early Medieval Europe

Edited by Sarah Semple, Celia Orsini and Sian Mui

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Preface

The sixth volume of the series 'Neue Studien zur Sachsenforschung' presents 36 papers presented originally at the 63rd Internationales Sachsensymposion, held in St John's College at Durham University, from the 1st to 6th of September 2012. These proceedings have been published with the Braunschweigisches Landesmuseum and the Internationales Sachsensymposion.

The theme of the conference 'Life on the Edge: Social Political and Religious Frontiers in Early Medieval Europe', was stimulated by the situation of Durham in the ancient kingdom of Northumbria. Formed from a series of smaller British polities in the 7th century, this political unit, at its greatest extent, reached from the Irish to the North Sea and from the River Humber north to the Firth of Forth, now in Scotland. It brought together British and Anglo-Saxon communities, but also at times encompassed Pictish populations. To the south, the kingdom spanned the old Roman frontier, and its legacy of fortifications, some of which continued in active use in the 5th and perhaps even 6th centuries. This frontier continued to exert an influence on the early medieval populations of the region, and Hadrian's Wall, the stone-built limit of Britannia, ultimately came to form a building medium for some of the remarkable early Christian churches and sculptures that survive in northern England today.

As a result of Roman and Romano-British legacies, cultural exchanges and contacts with Irish and North Sea communities, and conflicts and political alliances with British and Pictish territories, the region offers a unique landscape in which to consider issues of politics and identity in early medieval society. This gave rise to the conference theme, with the hope that members might contribute papers that touched on liminality, frontiers and boundaries, centres and peripheries and borderlands, as well as stylistic, artistic, linguistic and cultural divides. In total 42 members and invited speakers presented at Durham, with six poster presentations. Although not all participants chose to publish in the volume, this proceedings represents a rich and varied repertoire of papers that capture the temporal and geographic breadth of the event.

The articles included range widely, dealing with archaeology, art, and at times written sources, and cover the 1st to the 13th centuries AD. Geographically the papers touch on sites and finds from Britain and Scotland, Germany, the Netherlands, Denmark, Sweden, Norway and Poland. Articles encompass many topics, including exchange at the North Sea edge, the building of linear divisions and defences, central places and production, religious transition, cultural borders, burial and identity, and the limits between real and imagined worlds. A number of invited participants and contributors also provide a specialist view of northern mainland Britain, focussed on key political and religious transitions and important discoveries of sites and objects.

The conference organising committee comprised Sarah Semple, Becky Gowland, Richard Gameson, John Henry Clay and David Petts (all Durham University), who were ably guided by the Internationalen Sachsensymposion UK Co-ordinating Committee: Charlotte Behr, John Hines and Chris Scull. In addition the event was made possible by the hard work of a group of Durham doctoral student volunteers: Jocelyn Baker, Brian Buchanan, Lisa Brundle, Celia Orsini and Tudor Skinner.

An important feature of the Durham meeting was the attendance of a group of Polish members, whose papers appear here under Section III. Space, Place, Frontiers and Borders. It seems apt that our conference on frontiers witnessed the bringing together of scholars working on early medieval archaeology in northern and eastern Europe. Another distinctive provision was funding from the Internationales Sachsensymposion, Durham University and Durham's Institute for Medieval and Early Modern Studies, to support scholarships for PhD students and early career researchers, allowing them attend and present their work. As a consequence this volume includes articles by number of new researchers from different countries.

During the conference, an excursion was made to some of the key sites in Northumberland and County Durham: to Holy Island, Lindisfarne, to see the site of the early Christian monastic community, the surviving sculptures and the medieval priory; to Bamburgh Castle, a seat of power from late prehistory, through to the Viking and Norman periods; to Yeavering or Gefrin, a central place and site of royal power and conversion in the 6th to 7th centuries AD; and to the Anglo-Saxon church at Escomb, Co Durham. The organising committee would like to thank Historic England for facilitating access to the exhibition at Lindisfarne, and David Petts for site tours of the abbey. Thanks are due to Graeme Young for the tour of the Bamburgh excavations, Eric Cambridge for introducing conference participants to Escomb, and The Gefrin Trust for an on-site tour of Yeavering and the

exhibition, coffee and traditional Northumbrian tart served up at Kirknewton Village Hall.

This volume is edited by Sarah Semple, Celia Orsini and Sian Mui, and we are grateful for the goodwill and patience of authors, and their willingness to publish in English. Authors worked hard to meet the conference theme and the articles presented here are split into sections, to reinforce the connections and synergies between papers. An introduction to the volume comments on key common findings. The papers represent the state of study in 2013 when most contributions were submitted for publication, but many authors took the opportunity to update their articles in 2015–16. This is a double peer-reviewed volume, a process which takes time, but has significantly strengthened the cogency of the book, making it an original contribution to current thinking on the theme of social, religious and political frontiers in early medieval Europe.

The editors would like to thank Alejandra Gutiérrez for typesetting the volume, Babette Ludowici for assistance throughout the production process and Tina Jakob for assisting with translation. The conference was made possible through funding from the Internationales Sachsensymposion, the Department of Archaeology and the Institute of Medieval and Early Modern Studies at Durham University. Publication costs have been met by awards from the Institute of Medieval and Modern Studies at Durham, the Department of Archaeology, Durham University, Arscan UMR 7041-Archéologies Environnementales at Université Paris 1 Panthéon Sorbonne, and The Marc Fitch Fund.

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Abstract

Life on the Edge: Social Political and Religious Frontiers in Early Medieval Europe brings together articles from specialists from across eight countries. Resulting from the 63rd meeting of the Sachsensymposion in Durham in 2012, this volume takes its inspiration from the position of this city close to the Roman frontier, and its instrumental role in the development of early Northumbria. The 7th-century kingdom of Northumbria at times united British, Anglo-Saxon and Pictish populations. To the south, it spanned the old Roman frontier and its legacy of fortifications; to the north, it stretched into modern Scotland. As a consequence Northumbria offers a unique landscape in which to consider issues of frontiers and boundaries, centres and peripheries, and the kinds of events, allegiances, political and religious changes, that helped shape the northern European early medieval identity.
Articles deal with archaeology, art, and at times written sources, and cover the 1st to the 13th centuries AD. Geographically the papers touch on sites and finds from England and Scotland, Germany, the Netherlands, Denmark, Sweden, Norway and Poland. Articles encompass topics including: trade and exchange at the North Sea edge; the building of linear divisions and defences; central places and production; the delimitation of settlements; religious transition; cultural borders; burial and identity; and the limits between real and imagined worlds.

Zusammenfassung
Leben am Rande: Sozialpolitische und religiöse Grenzen im Europa des Frühmittelalters (*Life on the Edge: Social Political and Religious Frontiers in Early Medieval Europe*) vereint Beiträge von Fachleuten aus acht verschiedenen Ländern. Dieser Band, der aus dem 63. Treffen des Sachsensymposiums in Durham 2012 resultiert, erhält seine Inspiration aus der Lage der Stadt nahe der römischen Grenze und ihrer bedeutenden Rolle in der Entwicklung des frühen Northumbrias. Das Königreich des 7. Jahrhunderts vereinte zeitweise die britische, angelsächsische und piktische Bevölkerungen. Im Süden umfasste es die alte römische Grenze und seine hinterlassenen Befestigungen, im Norden erstreckte sich das Reich bis in das heutige Schottland. Infolgedessen hat Northumbria eine einzigartige Landschaft zu bieten, in der Fragen zu Grenzen und Begrenzungen, Zentren und Periphärien, sowie Ereignissen, Allianzen, politische und religiöse Veränderungen, die halfen die Identität des frühmittelalterlichen Europas zu prägen, gestellt werden können. Die Beiträge befassen sich mit Archäologie, Kunst, und gelegentlich Schriftquellen und umfassen zeitlich das 1.-13. nachchristliche Jahrhundert. Geographisch betrachtet gehen die Beiträge auf Fundstellen und Funde aus England und Schottland, Deutschland, den Niederlanden, Dänemark, Schweden, Norwegen und Polen ein. Thematisch befassen sich die Beiträge mit Handel und Güteraustausch am Rande der Nordsee, dem Bau von linearen Begrenzungen und Befestigungen, Zentralorten und Produktion, der Abgrenzung von Siedlungen, religiösen Übertritten, kulturellen Grenzen, Begräbnis und Identität, und den Grenzen zwischen der realen und imaginären Welten.

Résumé
Life on the Edge: Social Political and Religious Frontiers in Early Medieval Europe rassemble les contributions d'archéologues spécialistes du haut Moyen Âge de huit pays différents. Ce volume est né de leurs échanges lors de la 63e rencontre du Sachsensymposion à Durham en 2012. La proximité de la ville de Durham avec le mur d'Hadrien et son rôle dans le développement du royaume de Northumbrie, a inspiré le thème de cet ouvrage. Ce royaume rassemble et unit, durant le 7e siècle, des populations bretonnes, anglo-saxonne et pictes. Au Sud, il comprend l'ancienne frontière romaine et l'ensemble de ces monuments et forts ; au Nord, il s'étend jusqu'en Écosse. Sa diversité et sa topographie créent un paysage unique qui s'adapte particulièrement bien à l'étude des frontières et des marges, des centres et des périphéries, et en outre, à l'étude des transformations sociales, politiques et religieuses, qui participent à la création de l'identité des groupes sociaux du haut Moyen Âge dans le nord de l'Europe.
Dans cet ouvrage, différentes disciplines se côtoient pour répondre à ces questions, à partir des données archéologiques, de l'histoire de l'art et des sources écrites du 1er au 13e siècle de notre ère. Au niveau géographique, les articles portent sur les sites et les objets d'Angleterre, d'Écosse, d'Allemagne, des Pays-Bas, du Danemark, de Suède, de Norvège et de Pologne. Les discussions portent : sur les échanges autour de la Mer du Nord, les divisions internes des bâtiments et des habitats, les systèmes de défenses, les lieux de pouvoir et de production, les transitions religieuses, les tombes et les questions d'identité, les limites des cadres culturels et les limites entre les mondes du réelle et de l'imaginaire.

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At the Limits: Frontiers and Boundaries in Early Medieval Northern Europe

Sarah Semple, Celia Orsini and Sian Mui

Introduction

The European populations of the 1st millennium AD contended with significant political upheavals, war and conflict, natural disasters and religious change. Some of the polities that developed found a foothold and grew to shape the medieval, and even modern, political scene (Wickham 2005, 2). However, the grand narratives often fail to take account of the ordinary communities and everyday life, or the fluidity and diversity that at a local level characterises the archaeology of the period. Claims for land and resources, the signalling of religious and political affiliations, and the development of a sense of place and belonging, are all factors that stimulated ground-up processes of political formation and consolidation. In this volume, articles concentrate on the many ways that populations used to delimit themselves within this challenging world, and how the dissolving of the major political frontiers of the Roman Empire provided a catalyst for change in early medieval populations.

In September 2012, the 63rd meeting of the Internationales Sachsensymposion took place in Durham in the United Kingdom, and some 120 members and invited participants attended (Fig 1). Six days of conference presentations and activities at St John's College, Durham University, were organised around the theme of *Frontiers and Boundaries in Early Medieval Northern Europe*. Durham is an historic city, a place that was once vital to the politics and defence of the medieval north, and it seemed uniquely apposite as a stepping off point for the conference theme. Situated in north-east England, the city lies some 20 km from the Roman fortified monumental complex of Hadrian's Wall, build in AD 122 to separate the province of *Britannia* from the barbarian



Figure 1. Attendees at the 63rd Sachsensymposion at Durham University in 2012 on the steps of Durham Castle.

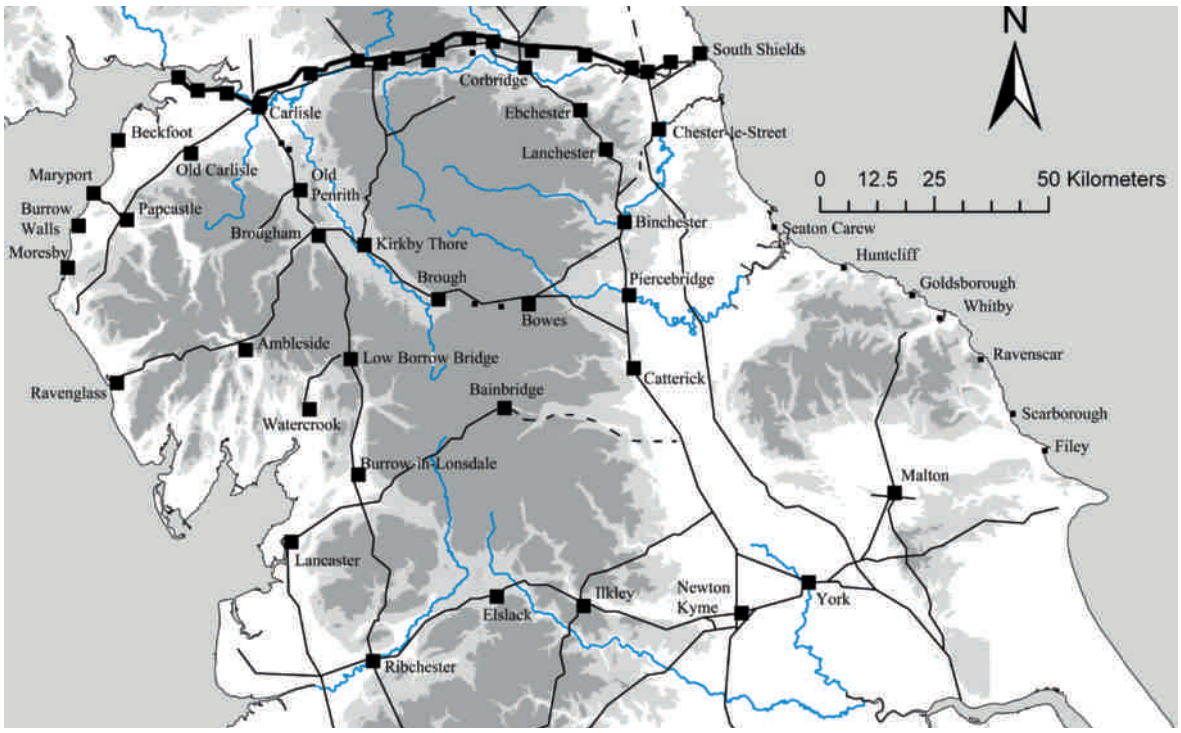

Figure 2. The frontier zone in northern Britain c 350–400, showing the distribution of Roman forts (reproduced with permission from Collins 2012, Map 1, xvii).

north (Fig 2). Durham was also the seat of Norman power in the north (Bonney 1990, 12–36), and, as the final resting place and medieval cult centre of St Cuthbert, played an exceptional role in the religious transitions of the medieval age (Bonner et al. 1989). Since the withdrawal of Roman authority in the region in the 4th/5th centuries, the Roman frontier — a zone of military occupation that extended as far south as the legionary fortress at York — has continued to shape the development of the north in political and cultural terms (Collins 2012, 1–20). Likewise, the narrow geographic neck of Britain that encompasses northern England and southern Scotland has proved optimal in facilitating mobility and contacts between Irish and North Sea communities (Cramp 1983; Cramp this vol). All of these factors played their part in shaping Northumbria — one of the largest and earliest kingdoms in early medieval Europe (Rollason 2003) (Fig 3). Formed from a series of smaller British and so-called 'Anglian' polities, and forged through warfare and skirmish and political and marital alliance, Northumbria has long remained distinctive for its languages, dialects, economies and art styles (Petts and Turner 2011, 1–12; Cramp this vol).

This opening chapter provides a contextual framework for the volume. Boundaries, frontiers, peripheries and edges are themes that have been picked up in a number of major compendiums and syntheses. A volume dedicated to boundaries in early medieval Britain in 2003 explored ideas of exclusion and belonging, boundaries between the living and the dead, and the ways in which space was divided and demarcated (Griffiths et al. 2003). But broader reviews have more usefully stepped beyond national perimeters and deconstructed the concepts of borders and frontiers in general (e.g. Abulafia and Berend 2002; Rodseth and Parker 2005). The idea or concept of a 'frontier' can be seen as a modern construct, bound up with 19th-century perceptions of territory and power (Rodseth and Parker 2005, 3). In the 1st millennium AD 'frontiers' were fluid zones of interaction, formed and transformed, and as the articles in this volume demonstrate, could be created via a variety of material strategies. The 'edges' might emerge though the process of forming centres or result from the convergence of populations at the periphery (Ibid., 3–22). It is important therefore to try and view divisions and differences from the point of view of medieval populations, rather than characterising from the material culture alone (Power and Standen 1999; Abulafia and Berend 2002). In this volume frontiers and borders are discussed as permeable and interactive zones, especially the Roman *limites* and their afterlife. Boundaries delimit the material and immaterial, but are generally treated here as fixed material (or natural) divisions, for example a ditch, linear earthwork or fence, a river or ridge. The liminal and peripheral also feature. Liminality, the intermediate and transitional, is something relevant especially to the transformations in decorative schemas used in the Migration Period, or the transition points between life and death. Peripheries and margins are the places created in opposition to centres, and can emerge in geographic terms, or can be human-formed,



Figure 3. The extent of the kingdom of Northumbria in the 7th century AD. Smaller kingdoms absorbed by Northumbria and neighbouring kingdoms are shown. Modern county boundaries are also marked.

lying at the edges of the settled and inhabited world. In all instances, however, these are fluid concepts. A place on the periphery can be changed into something central by human action, and a boundary can act as a place of activity and negotiation. A broad understanding of boundaries, frontiers and peripheries is needed, therefore, to maximise the inclusivity and comparative value of these discussions.

Thematic divisions are thus used here to organise the content to best advantage, to allow common results to emerge. The different archaeologies that have developed in countries around the North Sea have themselves created intellectual boundaries and divides in how common issues are addressed: even chronologies and terminologies can differ (see Wickham 2005, 2–3). The strength of the Internationales Sachsensymposion is that it breaks down these national divisions, bringing together archaeologists working across different European countries on the archaeology of the 1st millennium AD. In this spirit, the volume seeks to look beyond geographic and disciplinary divisions. This chapter is not a comprehensive exploration of past or current work. Instead themes are developed in relation to current thinking and case studies, charting the physical, political and mental terrains of early medieval populations.

Articles are divided under: *Material Culture and Identity in the North; Centres, Settlements and Boundaries; Space, Place, Frontiers and Borders; Connected and Liminal Landscapes;* and *Embodied Objects and Material Identities*. Within these sections, articles move between regions, countries and chronologies. A volume with such a geographic range presents particular challenges in terms of terminologies. Northern and western Europe were divided by the Roman *limites* into areas under direct Roman rule or hegemony, and regions beyond Roman governance that were, however, within the orbit of Roman influence through social contacts and material objects (Geary 1988, 57–61; Halsall 2007, 138–162). While Roman military withdrawal resulted in the eventual collapse of direct Roman authority, in some regions a strong sense of Roman identity was carried forward by the early medieval populations (Halsall 2007, 455–498; 2010, 105–130, 131–207). Beyond the *limites*, unbroken late prehistoric traditions and lifeways continued, but populations were subject to influences and changes prompted by Roman contact (Ströbeck 2006; Hunter 2007, 10–32). These differences determine the terminologies we use for particular societies and time periods. As Table 1 shows, in some regions the Migration era overlaps with the

<table>
<tr><th>Date ranges AD</th><th>Scandinavia*</th><th>Netherlands/ Northern Germany**</th><th>Poland/eastern Polish border***</th><th>England</th><th>Scotland****</th><th>This chapter</th></tr>
<tr><td>1–100</td><td rowspan="2">Early Roman Iron Age</td><td rowspan="3">Early
Roman Iron Age
Late</td><td rowspan="3">Roman Iron Age</td><td rowspan="3">Roman</td><td rowspan="2">Middle Iron Age</td><td rowspan="2">late prehistoric/Roman</td></tr>
<tr><td>100–200</td></tr>
<tr><td>200–300</td><td rowspan="2">Late Roman Iron Age</td><td rowspan="2">late Roman Iron Age/ late Roman</td></tr>
<tr><td>300–400</td><td rowspan="5">Late Iron Age
[Picts/Scots/Gaels/British]
early historic</td></tr>
<tr><td>400–500</td><td rowspan="3">[Angles]
Early Germanic Iron Age
[Migration Period]</td><td rowspan="2">Migration Period
[Franks]</td><td>Early Migration Period</td><td>Post Roman</td><td rowspan="5">early medieval</td></tr>
<tr><td rowspan="2">500–600</td><td rowspan="3">Late Migration Period</td><td rowspan="3">Anglo-Saxon</td></tr>
<tr><td rowspan="2">Merovingian</td></tr>
<tr><td>600–700</td><td rowspan="2">Late Germanic Iron Age
[Vendel Period]</td><td rowspan="5">early medieval/ Early Middle Ages</td></tr>
<tr><td>700–800</td><td rowspan="4">Carolingian</td></tr>
<tr><td>800–900</td><td rowspan="4">Viking Age/
early medieval</td><td rowspan="3">[Viking]
Middle Ages
[Alba]
[late Norse]</td></tr>
<tr><td>900–1000</td></tr>
<tr><td>1000–1100</td></tr>
<tr><td>1100–1200</td><td rowspan="2">Norman/ medieval/High Middle Ages</td><td rowspan="2">[Scoto-Norman]</td><td rowspan="2">High Middle Ages</td></tr>
<tr><td>1200–1300</td><td>Middle Ages</td><td>Middle Ages</td></tr>
</table>

Table 1. Periodisation relevant to the regions discussed in this volume, including terminology used by authors.
* Based on Hedeager 1992, tabs 1.1–1.2. ** Based on Todd 2004; Collins 2010. *** Based on Bliujienė 2011, tab A1, xxxvi.
**** Based on Hunter and Carruthers 2012, 9–10, tab 1.

time frame for the Merovingian and Anglo-Saxon periods, while the late Iron Age in Scotland and the late Germanic Iron Age in Scandinavia each encompass timescales that can be referred to as early medieval. Archaeologists also tend to characterise evidence and art styles in terms of the peoples and kingdoms described in documentary records, for example the Franks, the Picts and the Anglo-Saxons. As many of the papers in this volume demonstrate, the archaeology of northern Europe is diverse and such labels are elusive and problematic in material culture terms (Geary 1988, 39–76; Hills 2003, 85–107, esp 107; Lucy 2005; Halsall 2007, 35–45; Gerrard 2013, 180). These labels were relevant for early medieval populations, but largely as political constructs rather than embedded ethnic dispositions (Geary 2002, 15–40; Hills 2003, 102–107). As a result archaeological research has moved away from associating finds and features with particular ethnic groups; instead, in the mid-1st millennium, ethnicity is more commonly characterised as 'endlessly fluid' and mutable (Halsall 2007, 37) — a time during which material culture was the intellectual currency from which identities were created (Carver 2011). Nevertheless it remains difficult to separate the discussion of particular regions and styles from such labels. For the purposes of this introduction, therefore, where possible 'late prehistoric' and 'Roman' are used for the first two centuries AD, and 'late Roman Iron Age' and 'late Roman' are used for the centuries before the collapse of Roman authority; 'early medieval' is then applied to the remainder of the 1st millennium AD. In the articles that follow, authors use the terminologies that best fit the material they describe and the chronological terms that operate within their own genres of study (see Tab 1).

Material culture and identity in the north: challenges and opportunities

In the first section of the volume, articles offer new insights into the changing character of northern Britain in the 1st millennium AD. The Roman frontier of *Britannia* is generally characterised by the monumental stone-and-turf construction of Hadrian's Wall that reached from the Solway Firth in the west, to Walls End on the North Sea. And yet, the frontier was not just a linear division, it was an extensive zone (Collins 2012, 1, 10–11) (Fig 2). The stone wall took many years to complete, but in AD 138, a push to occupy lowland Scotland resulted in a new (if short-lived) border — the Antonine Wall — which stretched from the River Clyde to the Firth of Forth and was occupied for no more than 20 years; subsequently, the Roman army reoccupied and garrisoned Hadrian's Wall until AD 410 (see Collins 2012, 12–20). Recent archaeological investigations and discoveries suggest that the northern fortified border of Hadrian's Wall had a life beyond the early 5th century (see Collins 2009, 186–193; 2017; Petts 2013). Forts on, and to the south of the Wall, such as Birdoswald, South Shields and Binchester, remained active, with evidence of occupation (Wilmott 2000, 13–23), burial (Bidwell and Speake 1994) and production (Petts 2013; 2015). Military life

in its true Roman sense may have ceased, but communities continued to live and work within the standing remains of the frontier, while elements of Roman infrastructure across the zone, such as roads and bridges, continued to have an instrumental effect on settlement development and activity long after the 5th century (see Orsini this vol).

The 'end' of *Britannia* is now envisaged in terms of transformation rather than collapse. For some the process was slow (e.g. Faulkner 2004, 58–180, esp. 80–96), others argue for a more rapid end (Esmonde Cleary 1989, 131–161, esp. 161). The north, however, perhaps because of its militarised landscape and its long biography as the frontier zone with *barbaricum*, had a more complex and messy character than other regions (Petts 2013). The Roman past exerted a powerful influence on the early medieval populations in the north (Cramp 1983; Rollason 2003, 65–6; Collins, Cramp both this vol), and was returned to many times in reality and imagination (e.g. see papers in Bolgia et al. 2011).

A heavy emphasis on the Roman military infrastructure and the late Anglo-Saxon presence has come at the expense of understanding 'British' communities, and the late Iron Age–early medieval transition in regions beyond the Wall (Petts 2013). While fieldwork and research has gone someway to addressing the gap (e.g. see collected papers in Collins and Allason-Jones 2010; and Petts and Turner 2011), closer attention to the material transformations of the 4th–7th centuries may well lead to a better understanding of the processes of change at local and regional levels (for sites and places see: Wilmott 2000, 13–25; Halsall 2007, 371–413; Collins 2012; on objects see: Swift 2012; 2014; Fleming 2012; Collins 2013). Beyond the frontier, the northern political scene, although a continuum from the Iron Age, passed through similar processes of change. Although accounts are limited, disruption and political flux are suggested in the 6th–8th centuries (Woolf 2007, 2–14). A striking diversity is evident in settlement traditions (Carver this vol), which seems to underscore the idea of fragmented and competing populations. The variable topography and resource zones across Scotland and its islands may also have proved influential. Changes in the 5th/6th centuries, however, signal a move to a broader common cultural package with more visible burial rites (Maldonado 2013), major elite centres, and new monumental forms, suggestive of a time of coalescence and transformation (Gondek and Noble this vol).

Consideration of the 1st millennium archaeology of northern England and Scotland together is, however, rare. Even though Roman activity spread intermittently into Scotland, and the first major, large early medieval kingdom of Northumbria embraced modern-day northern England and southern Scotland, research still often operates within separate national frameworks (Petts and Turner 2011, 1–14) (Fig 3). This hinders holistic discussion of the common processes of transformation across these regions, for example the arrival of a more archaeologically visible suite of funerary processes (see Maldonado 2013; Orsini 2017; Orsini, Semple et al. both this vol), commemorative strategies in stone (Petts and Turner 2011, 4–5), the emergence of elite centres (see Gondek and Noble this vol), and the forging of new larger political structures (see Rollason 2003, 5–10; and Woolf 2007, 4–37). The presence of late-Roman metalwork hoards and finds of 'Anglo-Saxon' metalwork in Scotland (Marzinzik this vol; Blackwell in preparation), the scatter of cist graves across the north of England (Maldonado 2013, fig 5) and the survival of Anglo-Saxon sculptures in southern Scotland (Craig 1992), all point to a need to abandon artificial modern divisions. Here, in a microcosm then, are challenges relevant to the whole of northern and western European archaeology along the old Roman frontiers. Similar biases and divisions exist in how surviving sources are handled and interpreted and national insularity can hamper transnational research (Geary 2002, 15–40; Wickham 2005, 3).

From the articles presented here, a number of fresh avenues emerge for rethinking frontiers and post-Roman transformation. First, in seeking answers regarding the form and shape of post-Roman societies, effort has often been expended on looking for direct evidence of the continuity at villas, forts and towns (see Esmonde Cleary 1989, 188–205). Roman legacies can, however, be less dramatic and obvious, yet still have powerful transformative effects. Hadrian's Wall is argued here to have played a central role in the immediate centuries after Roman authority was withdrawn (Collins 2012; Collins this vol). The stone monument had an afterlife, but the frontier zone itself had a much greater influence and impact. The idea of a localisation of power in the post-Roman landscape is powerful and relevant to the transformations across Europe. Too often the collapse of Roman authority is viewed from a centrist perspective; a peripheral and rural view, however, allows consideration of localisation, alongside factors such as migration and cultural convergences (see, for example, arguments by Heather 2005, 385–459, esp. 407–415 and 437–459; Gardner 2007; Halsall 2012). Exploring trajectories of settlement and political consolidation on the frontiers or margins, may thus be useful as a means of reassessing Roman, or late prehistoric to early medieval change (Collins 2012; Halsall 2013, 221–252, see also fig 10.4 for 'core-out' patterns of development in the north). Such ideas feature in the discussion later in the volume on the development and demarcation of borders and frontier zones in eastern Europe. As the articles by Adam Cieśliński and colleagues demonstrate, military and political frontiers and borders in Migration-Period to early-medieval Poland should perhaps be reconceived as formative zones rather than barriers.

A recently presented revisionist view of the 4th to 6th centuries in Britain, argues that political instability in northern regions may well have forced the take-up of new signalling strategies (Halsall 2013, esp. 270–299). Much of the archaeological change discussed in articles here dealing

with northern England and Scotland could be viewed in the light of the fluidity and anxiety of political instability (Ibid.). Varied forms of settlement (Carver this vol) and new centres and monumental strategies (Gondek and Noble this vol), all suggest that the populations of Scotland and northern England were engaged in similar processes of change. Susan Oosthuizen has recently explored how claims and access to common land in post-Roman populations may have proved pivotal to the emergent landholding and administrative arrangements of early medieval polities (2016). In addition, authors here have also pointed to the striking relationships in some southern English regions between Roman routes and early medieval burial (Brookes 2007, 56–75; Mees 2014). The tenacity of Roman power structures in some areas and a power vacuum in others, alongside disruption and mobility among the population, may have resulted in new strategies that produced these densities. While military structures remained active for some time (Collins 2012; Collins this vol); routes of travel and communication seem, as in the south-east of England (Brookes 2007, 56–75), to have had a more long-term legacy. The Roman coastal fort at Cramond on the River Almond serves as an example. Here the fort at the river-mouth became important again in early medieval times. Burials discovered in the 1970s have now been dated to the 6th century (City of Edinburgh Council 2015). Along with later metalwork finds (Cessford 2001), the activity confirms the strategic post-Roman role of the fort, while some 5 km inland the 5th-/6th-century Cat Stane and its associated funerary complex are located at a strategic crossing point on the river (*Canmore* 50719). Roman infrastructure, it seems, played a powerful role in determining patterns of post-Roman activity, but long-term patterns of mobility may have been equally instrumental in the changing early medieval scene (Semple et al. this vol). This emphasises that early medieval archaeology cannot be considered in a vacuum, but as part of a landscape filled with continuing and changing traditions of exploitation, in which communications and resources often remained instrumental.

Finally, objects and belongings might initially seem less demonstrative of the Roman past than the standing-stone structures of the northern frontier, but these also played a part. The use and recycling of Roman objects is evident beyond the frontiers and in contemporary and post-Roman contexts (Boye, Marzinzik, Sherlock all this vol). The hoarding of late-Roman silver in Scotland and Ireland, for example, highlights the significance of metal as bullion in the Migration Period and confirms the permeability of the frontier zone (Hunter and Painter 2013; Marzinzik this vol). Other Roman objects and materials were also privileged. In eastern Denmark in Zealand, Roman imports appeared in graves and ritual deposits, but not in neighbouring regions, implying only some communities had access to such material (Boye this vol). Similar discernment and differentiation is evident in early medieval populations: Roman items might be used as scrap (Fleming 2012; Harrington and Welch 2014, 207–208); or remodelled and transformed (Swift 2012); or serve as mementoes or heirlooms (Eckardt and Williams 2003). By the 7th century in England, Roman items were reworked as part of elite and early Christian repertoires (Geake 1995, 298–309; 1997). At Street House in northern Yorkshire old Iron-Age objects and Roman items were being repurposed in the female dress accessories of elite and possibly Christian individuals (Sherlock 2016; Sherlock this vol), demonstrating how such material could be revisited and refashioned as part of new strategies.

These processes of reception and reconceptualisation of the Roman legacy and Rome are evident across early medieval European societies (see papers in Bolgia et al. 2011). Within the Christianised northern landscape, as in other regions in Europe (e.g. France and northern Spain), the Roman legacy took on an especially powerful meaning, providing the fabric and materials for new forms of architecture and monument (Cramp this vol): the surviving pre-Conquest crypt at Hexham, Northumberland, for example is built from Roman spolia (Bidwell 2010). Much later, along the eastern Carolingian frontier, the Roman legacy proved influential in the creation of a new physical and ideological boundary (see Hardt this vol). Material culture was important in the conveyance of ideas and meanings, both beyond the frontier and in later centuries. Appreciation and use of Roman objects were not static, however, the perceived values and opportunities in metalwork, jewellery, ceramic and other material survivals changed from place to place and over time. On the one hand access to such portable material might serve to set a particular group or society apart from another, but such material could be refashioned as well, and take on a new purpose and meaning. Renewed interest in such items, Roman material in particular, seems to have been a distinctive factor in the creation of elite material traditions around the mid/late 1st millennium AD (Cramp, Sherlock both this vol).

Northumbria emerges as an early medieval region that has significant archaeological potential for exploring the models of post-Roman change; it is a unique environment in which to consider questions of rupture, continuity and transformation (Petts 2013, 314). Together with exploration of frontiers and boundaries in Denmark and Jutland and in eastern Europe, Northumbria offers evidence for the powerful legacies of Roman infrastructure, and the need to consider frontiers as transformative zones rather than boundaries.

Centres, settlements and boundaries

In this section of the volume, discussion largely focuses on the connected communities of the Danish-Baltic region. Boundaries and edges only emerge through the development of centres. The central places of southern Scandinavia have been much discussed, and formed the main theme of the 52nd Sachsensymposion in Lund in 2001 (Hårdh and Lars-

son 2002). Here they are introduced as places of exceptional production and ritual (Axboe, Gondek and Noble, Hårdh all this vol), while other articles explore the development of political and cultural boundaries, and the increasing boundedness of personal space. In a series of four interlinked papers on Jutland and Denmark, the splitting up of the landscape in physical terms is interrogated in a variety of ways (Boye, Ethelberg, Kruse, Sørensen all this vol). The section closes with a discussion about the use of special deposits in settlement contexts (Sofield this vol).

Boundaries, in their many forms, are relevant to most societies (Champion 1989, 1–4). The natural environment provides its own boundaries in mountains, lakes and rivers, marsh and tundra. While some are traversable, and some also serve to connect populations, such zones define and constrain settlement and movement. Within this natural framework populations share the resources available: the cultivatable soils, the coastal and river access, grazing, timber, ores etc. Populations construct their place in the world and their worldview, using the natural and human-altered environment (Ingold 2000, fig 1.1) — environments are continually in a process of being reshaped and are 'fundamentally historical': shaping us as we shape them (Ibid., 20).

In reconstructing how 1st millennium AD communities inhabited their landscapes and set out the centres and peripheries, a multi-scalar approach is important. Populations operated with multiple senses of space and boundaries, and inhabited a world in which supernatural and real boundaries were relevant (see Bergsvik, Magnus both this vol). People were also active in creating their sense of place in real and imagined terms (Jones and Semple 2012) and were not passive inhabitants (Lightfoot and Martinez 1995). As the previous section sets out, the populations of northern Europe in the 1st millennium AD contended with significant change and dislocation. The altering form of the *limites*, for example, during Roman times and after, stimulated new senses of identity connected to peoples and regions (Halsall 2007, 499–518, esp. 517–18). Conflict and wars, instrumental in territorialisation, could result in population change, and the abandonment of regions (Cieśliński, Ethelberg, Kruse all this vol). However, it is also clear that some places remained constant; signalling the stability of some forms of productive, elite and ritual centres (Hårdh this vol).

The name or term 'central place' can encompass an array of different types of site (see, for example, collected papers in Ludowici et al. 2010). In Scandinavia central place sites are identified by rich assemblages of material, but many different aspects are wrapped into the 'central place' bundle (discussed by many, but see, for example, Jørgensen 2003, 175–191; Skre 2010; Fabech and Näsman 2013). Yet they share aspects such as multi-functionality, evidence of production and exchange and cultic practices, and a royal/chieftainly presence (e.g. Uppåkra, Sweden — see Hårdh this vol; for similar functions at Rhynie, Scotland, see Gondek and Noble this vol). As the papers in this volume demonstrate, the lives of central places vary. They are generally of the Migration Period and usually continue over several centuries (Hårdh this vol), although sites such as Old Uppsala remained active as late as the 11th and 12th centuries (Gräslund this vol). An important facet of the complexes is a sacred or ritual component, often denoted by evidence of ritual acts and deposits (Hårdh this vol), and by the production of items with mythological or religious value such as bracteates (Pesch 2008; Axboe this vol). Placenames too can denote associations with deities or sacred activities (Näsman 2011, 185–7; Axboe this vol). At Uppåkra in Sweden, gold bracteates were found beneath the floor of a possible ceremonial house. These carry unique designs and display the adaptation of Mediterranean Christian symbols showing the importance of Uppåkra as a place where ideas and ideologies were introduced and transformed (Hårdh this vol). Close assessment of the production of bracteates and their association with central places, has also facilitated the reconstruction of networks, centres and territories and in papers here, emphasis is given to the role of these sites as territorial centres producing distinctive ritual repertoires of objects and designs (Pesch 2008, 125–128; Axboe this vol). Recent finds in Britain, along the eastern coast, have been used to suggest that similar productive sites existed here, perhaps different in scale, form and function, but nevertheless connected to North Sea elite networks (Behr and Pestell 2014). Most recently finds at Rendlesham, Suffolk, point to the existence of an exceptional complex with North Sea connections (Scull et al. 2016). While much has been written on the central place phenomenon, the articles in this volume help underline how these sites and the items produced, served to create a different scale of elite connection that spanned numerous regions and extended across the North Sea. They were not just central to their regions, denoting territorial arrangements; these sites also operated together, facilitating the spread of objects, styles, ideas and beliefs (Axboe, Hårdh both this vol).

Central places signal increased control over resources, scrap and precious metals, and imports in the Migration Period. The 1st millennium AD was a time of political consolidation with the emergence of polities and larger kingdoms. Certain groups achieved greater control, and a major facet of this millennium is evidence for widespread mechanisms through which land could be alienated and privately owned. Textual sources, although usually later in date, chart some of the conflicts and struggle for territorial control and ownership. In a series of four articles dealing with Jutland and Denmark (Boye, Ethelberg, Kruse, Sørensen all this vol), authors build a careful understanding of the ways in which territory and land holdings were physically divided up, and how populations and communities distinguished themselves in terms of material culture. The use of natural boundaries in tandem with built divisions is evident in the construction of Olgerdiget, which is argued to mark out

the territory of the Angles during the 1st and 2nd centuries AD. In a discussion of the populations living on either side of the Øresund, a similar use of natural boundaries and artificial constructions for the marking out territory is evident (Boye this vol). The division of farms using fences is taken further in a discussion of Østergård (Sørensen this vol): the phases of division of farms are shown to correspond with legal arrangements set out in the *Jutish Law*, suggestive of inheritance processes that resulted in increased pressures of family members and property (Ibid.). Material expression is also used, however, to mark out differences, in terms of house types in Jutland (Ethelberg this vol) and differential access to certain types of goods in Zealand (Boye this vol).

Contact and conflict are also explored here in relation to Nydam Mose in south-eastern Jutland (Kruse this vol). The ritual deposition of military gear is linked in to other material expressions of change in population and authority. Here the deposition of objects, although large scale, is used to mark out the closure of political events, and signal a new regime (Rau 2010; Kruse this vol). Evidence for acts of deposition also feature at a local and intimate level: the placing of the Østergård treasure at the western gable of a hall house seems to have been an act of concealment of female dress items within the domestic realm (Sørensen this vol), perhaps linked to the dividing up of property.

The centrality of certain places can be created through production and ritual action, however a striking consideration is the way in which central places were connected with each other, facilitating communication and flows of ideas and objects, from place to place, irrespective of distance or sea. Multi-scalar study in this section of the ways that people defined territories and divided property, also provides insight into the pressures operating on people in these centuries. Even at a farm and household level, domestic territory was marked out by divisions and fences, and with placed deposits (Sørensen, Soffield both this vol).

Space, place, frontiers and borders

Identities in the early medieval world were fluid and could transcend or emerge from physical borders (Geary 2002, 93–110, esp. 114–118; Lebecq et al. 2007. 54–55; Pohl 2008, 23–25). In the papers that open this section, a macro-perspective is achieved on the political agency of groups and powers in delivering on larger visions for frontiers and boundaries. In four connected papers, authors explore the ways in which frontiers and boundaries were materially developed in East Central Europe (Altmann, Cieśliński, Hardt, Wołoszyn all this vol). These articles touch on ideas discussed earlier in relation to the Roman frontier in Britain, and review evidence for how frontiers and boundaries can be reconceived as fluid zones. In Roman Iron-Age/Migration-Period Poland, material 'cultures' as well as material absences are used to model the development of early social and political borders (Cieśliński this vol). The use of natural as well as human-altered features appears in discussions of the River Saale as a border zone (Altmann this vol), while the establishment and siting of towns is argued as an instrumental policy in the early medieval Polish-Rus border (Wołoszyn this vol). In contrast to the kinds of processes discussed above, where the creation of ritual centres, physical borders and even local divisions served to demarcate the world view and local scene of Roman Iron-Age and Migration-Period communities, these articles review more monumental undertakings: for example the short-lived eastern frontier created by Charlemagne, designed as an Imperially-inspired feature (Hardt this vol), the use of *urbs* by the Frankish Empire (Altmann this vol), and the Cherven towns (Wołoszyn this vol), all military and political strategies aimed at denoting border zones and stimulating their transformation.

These constructed border zones seem to have condensed expressions of power and authority, yet were areas of population movement and settlement, contact and exchange. In human geography the margins are conceived as an interface that divides but also creates a permeable zone (Lévy and Lussault 2003, 197). The ambiguity of the material culture found at the margins of societies signals frontier zones as optimum places for cultural interaction. Ideas of syncretism and creolisation may be of value. Audrey Horning has demonstrated this phenomenon in colonised countries, where traditional practices were not abandoned, but the introduction of new ideas and material culture instead created processes of blending and mimesis (Horning 2007). In this way, as the papers on eastern frontiers reveal, both authority and the mixing of populations created distinctive material signatures during the times when each border operated. Such ideas may help renegotiate more traditional views of cultural zones: while differences are evident between groups, it is useful also to consider that borders themselves can generate particularly vibrant material records.

The nature of political competition in all regions of Europe brought with it new forms of organisation which have left their traces in the early medieval landscape. A move to supra-regional power structures often arrived hand-in-hand with new ways of describing territorial boundaries. The use of symbol stones in northern Scotland to denote places, lineage and claims (Gondek and Noble this vol), is echoed in similar monumentality in the British, Welsh and Irish kingdoms (Handley 2001; Petts 2002; Halsall 2007, 364; Gerrard 2013, 178–179). In Scandinavia, runestones also appear at the end of the 1st millennium AD connected to families and elites, perhaps prompted by Christian ideas and influences (Sawyer 2003, 17–18; Gräslund this vol). By the late 1st millennium, more defined and formal ways had arrived for splitting up landscape. The inhabitants of local units of territorial organisation often met regularly at natural or old landmarks, many of which were liminal locations: e.g. heaths,

fords, bridges or crossing places and old burial grounds (Pantos 2002; Semple and Sanmark 2013). These ideas are explored here in relation to Anglo-Saxon England (Baker and Brookes this vol), although they apply more broadly to North Sea communities (Semple and Sanmark 2013), and the ambiguity of meeting sites as peripheral and yet temporarily central places is discussed.

In the previous and current sections, the ideas of centrality and periphery have been explored. Both were instrumental to the territorialising processes of the 1st millennium AD. The physical environment was the fabric from which populations created their place in the world and signalled their claims. Borders and boundaries, however, were fluid and changing, while centrality and periphery could be altered by human activity. Processes of blending might also create distinct material repertoires within such zones. While some papers have explored the macro-level creation of major political frontiers, discussions have also pointed to the striking nature and importance of regional identity and how it could be created from the physical environment, administrative geography and cultural zones.

Connected and liminal landscapes

Emporia, ports, trading sites and beach markets are all 'on the edge' of land and sea, yet they are also situated in optimal locations that provide good access for trade and exchange (Hodges 1982). Richard Hodges' model for a network of large 'gateway' communities has seen re-evaluation in the light of new discoveries and fieldwork along most North Sea coasts, resulting in arguments for coastal contact zones (Loveluck and Tys 2006, 140–169). Coastal connections were achieved through ships and fleets, but vessels were just as important for inland penetration (Lebecq 1983, 35–39, 149–151; Ferguson 2011). It is therefore now more acceptable to consider maritime landscapes, coastal and riverine, as unified zones, with common behaviours, characterising a 'medieval North Sea culture' (Verhaege 2006; Tys 2015).

Richard Hodges was particularly concerned in his seminal book on understanding the ways in which the collapse of Roman authority changed the economic systems and networks that connected mainland Europe and North Sea communities. As a consequence the focus was often on disruption, with the emergence of the large emporia characterised as a symptom of the re-emergence of managed networks of trade and exchange. As a number of articles in this volume demonstrate, much has been done to rethink this picture. For example, the exploration of landing places and riverside markets of the Lower Weser in this volume demonstrates evidence of specialist industries and contacts with the Roman Empire in the early 1st millennium AD, and a continuation of such processes (Siegmüller and Mückenberger this vol). The reconsideration of different types of river markets and transhipment points provides socio-economic evidence for the river as a unifier for activity, rather than a divide: rivers and estuaries like frontiers and coastal corridors were as likely to create communication and commonalities between groups, than act as barriers. Smaller but thriving settlements within such coastal corridors are also demonstrated as the medium from which larger expansive trading sites might emerge. This is argued here for Dorestad (Velde this vol), suggesting the region connected with a 7th- and 8th-century 'international network'. Although significant advances have been made in re-characterising coastal contact, mobility and exchange, more comparative investigation of river/estuary-based economies, landing places and mercantile zones, can help in revealing the connections between early power structures and trade (Nicolay 2014; Scull 2015; Deckers 2016).

Attention is also given in this section to the mobility of the producers and traders in ceramics: a departure from the traditional use of ceramics in arguments for migration (see Nieuwhof this vol). Long and short distance mobility is increasingly recognised as significant factor in early medieval societies (Montgomery et al. 2005; Brettell et al. 2012). Recent analysis using isotopic evidence points to two-way movement, between England and the near Continent, supporting the idea that seaways and coastal highways were a connecting factor enabling short- and long-distance travel (Brettell et al. 2012). There is a tendency to consider contacts and imports within national contexts: for example, Frankish imports in Kent (Harrington and Welch 2014, 174–205). Yet a broader North Sea perspective has long proved fruitful, evident, for example, in the work by John Hines on the cross North Sea contacts between eastern England and Scandinavia (1984). Recent studies have focussed on Anglo-Saxon imports on the continental coast (Soulat 2009; Nieuwhof 2015), and insular items in Viking-Age Scandinavia (Heen Petterson 2014). Just in the way that a broader scale of exploration is needed to reveal the connections between coastal and inland river-based trading places, more holistic research on the presence of imports, in terms of assessing the diversity and composition of mercantile communities, could prove beneficial (see, for example, Nicolay 2014; Nieuwhof 2015; Scull 2015).

The idea of fluid communities and mobility is not limited, however, to migration or to coastal contacts. In some landscapes, subsistence practices demanded seasonal mobility. In lowland Scotland and northern England, later in time, the movement of large numbers of livestock took place over long distances (Semple et al. this vol). The fishing communities of the north-east English coast were also mobile in early modern times, with the women and children travelling seasonally along the coast to follow the fishermen and their vessels (David Petts pers comm). Certain types of environment, therefore, that might be considered liminal, demanded a degree of seasonal mobility. The saltmarshes of Flanders (Tys 2015), coastal wetlands and marshland (Rippon

2009), and fenlands (Oosthuizen 2017) were marginal but of vital importance to Iron-Age, Roman and early medieval communities. At Oakington in Cambridgeshire, on the Fenland edge, the cemetery provides evidence of people who exploited the fenland resources. Here there is evidence of varied ritual strategies in dealing with the dead. The cemetery signals a blend of political associations that echo its physical position between larger kingdoms (Mortimer et al. this vol). There are hints here as well, however, that like frontier communities, or populations with greater mercantile access (Scull 2015), those exploiting distinctive terrains may have felt a need to distinguish themselves from other groups (Williamson 2003, esp. 192–196; Rippon 2008, esp 264–268). The common presence of settlements with ditched enclosures around the fen-edge, for example, might reflect the demands of keeping stock in a wet environment (Hamerow 2012, 89), while in the far north the importance afforded to cattle at Rhynie in Aberdeenshire underlines the centrality of livestock to the daily existence and beliefs of this population (Gondek and Noble this vol).

In 1995 Nico Roymans put forward a model for urnfield populations in the Lower Rhine, in which communities occupied the cultivated heartland, and buried their dead on the perceived margins (see also Fontijn 2010). This world-view influenced the beliefs and folkloric traditions of communities, which in turn led to activities at the 'edges', reinforcing the liminality of this zone (Roymans 1995). These peripheries were not inactive or unexploited, but, like the fen, they demarcated the world view of rural communities and were often conceptualised as a place for ancestors, ghosts, felons and monsters (Roymans 1995; Semple 2013). Alongside old monuments and wastes — and fens and marshes — caves and fissures also carried supernatural connections (Semple 2010). Activity in caves has frequently been interpreted within a ritual framework, with the cave considered a threshold to other worlds or a place of transformation (Bergsvik and Skeates 2012, 7–8). In Norway, however, caves were used as seasonal bases for hunting, fishing and stock management, temporarily transforming the 'marginal' nature of these places. Human activity could change and alter perceptions of place: the coastal zone, rivers and marshes were described in some sources as remote and dangerous, but they were often prime locations for the establishment of monastic communities (Blair 2005, 193–194). Likewise the sea could be characterised as terrifying and treacherous, and yet defined the connections that created maritime communities (Wickham-Crowley 2006, 102–103; Petts 2009).

Such evidence shows us that by using all sources of evidence late prehistoric and early medieval mentalities can be accessed, especially in regards to place, landscape and features. Over time, human activity reinforced traditions and beliefs embedding ideas about places in folk tradition and tales (Magnus this vol). 'Layers' of human activity helped to define the centres and edges of activity in the long-term (Theuws and Roymans 1999, 18–20). Major climatic and environmental transitions also left a profound mark on people's beliefs (Gerrard and Petley 2013; see Sørensen, Magnus both this vol). The 1st millennium AD witnessed exceptional transformations, including religious transition, especially the arrival of Christianity. This is often considered in terms of speed, and top-down or bottom-up processes (Carver 2003; Petts 2011). For early medieval communities around the North Sea, Christianity meant a new world view. Ancestors and ancestral sites were side-lined. Places and rituals of importance involving the landscape and settlements were subject to change (Magnus, Soffield both this vol). At the great and long-lived central place of Old Uppsala, some of the graves are argued to have Christian characteristics, pointing to people changing their funerary and commemorative processes even at a long-held location of non-Christian belief and ritual (Gräslund this vol). These archaeological signatures underline the intellectual tensions for populations engaged in periods of religious transition (Sanmark 2004; Petts 2011; Thomas et al. in press) and show how beliefs and practices can be reframed within new ideologies (see Sanmark 2004; Gräslund, Magnus both this vol).

In the sections so far, the ambiguity of 'the limits', be they chronological, geographic, topographic, spatial or supernatural, has been a running theme. It is interesting that by the time of written and documentary accounts, the northern European communities around the North Sea seem to have enjoyed such multiplicities in riddles, poems, historic writings, sagas, drawings, designs, motifs, illuminations on manuscripts and carvings in stone (Leigh 1984). For many populations, to be at the centre was also to be at an edge, be it a coast, on an island, on a land route or within a frontier zone. Such connections seem to have provoked particularly vibrant materialities. The same can be said of religious transitions that resulted in a florescence of new and hybrid ideas (Geake 1992). Mobility and engaging with the periphery proved influential in the determination of populations world view, stories and identities. The late mentalities regarding 'place' and 'edge' found in written accounts and folklore (Wickham-Crowley 2006, 85–110), may echo the heritage of many early medieval communities as migratory and mobile, and defined by political and environmental unease (see Howe 1989, esp. 179–180).

Embodied objects and material identities

The richness of the 1st millennium AD in terms of metalwork and art are well recognised across the countries represented in this volume. In this section, stone sculptures, dress-fittings, personal objects and weapons are just some of the categories explored in terms of boundedness and liminality.

A powerful theme that emerges is the permeable boundary between the animate and inanimate in late prehistoric to early medieval mentalities, echoing the kinds of permeability envisaged in relation to the physical landscape (see above). Objects could be named and given an individual identity (Brunning this vol); the decorative repertoires used on the surface of metalwork could be used to create life and agency in the object (Kristoffersen this vol); while objects could be made and deposited in ways that suggest they were far more powerful than just decorated items (Fern, Kruse both this vol).

Sue Brunning explores the 'person-like' attributes of early Anglo-Saxon swords. The object-biography approach has been used to good effect in relation to a range of worked media including stone (Hall 2011), portable items (Williams 2010; Swift 2012) and weaponry (Theuws and Alkemade 2000, esp. 419–427; Fischer 2007, esp. 25–27). The idea of heirlooms and modified objects has already been touched upon above (Boye, Sherlock both this vol). Old things had value, especially if they were personified or objects of fame. But objects could also carry negative connotations, perhaps as a result of absorbing the deeds or qualities of an owner. The special handling and deposition of objects, particularly weapons (old and contemporary), varies dramatically from place to place in the 1st millennium AD. The sacrificial deposition of large quantities of recently used weaponry in lakes, for example, at Nydam Mose in the Roman Iron Age (Jørgensen and Vang Petersen 2003; Rau 2010; Kruse this vol), is significantly different in scale and scope than the individual depositions of swords and other items in rivers in England and elsewhere (Webster et al. 2011; Brunning this vol). The deposition of weapons, especially in watery places, has a long prehistoric pedigree (Bradley 1990) and features in western Atlantic and North Sea traditions (Hines 1989; Lund 2005; 2010). While such 'deposition events' cannot be compared like-for-like, there are broad connections. Although using medieval sources to contextualise early practices should always be undertaken with care, strong associations with dividing land or determining or closing boundaries are evident in some accounts. The use of a shield, floated on the river with a sheaf and taper, to decide the bounds of the monastic estate at Abingdon, Oxfordshire (North 1997, 190), and the presence of late-medieval weapons in the River Witham (Lincolnshire), both associate military gear with marking estate limits and traversing waterways (Stocker and Everson 2003; Lund 2005). It is hard to find such precise meanings in earlier times, however, there are broad similarities: the deposition of blades and weapons may have been used to 'close' special graves (Price 2002, fig 3.8b), or facilitate the safe crossing of bridges and fords (Lund 2005), while placed deposits on settlements might be used to mark a boundary, or the end of life of a structure (Hamerow 2006; 2012, 129–138; Soffield this vol). The small traditions evident in the splitting up of farms (Sørensen this vol) and placed deposits (Sofield this vol) are important for understanding definitions in space imposed by familial and community conventions, whereas weapon deposits in water or elsewhere, individually or in bulk, can be understood as potent — facilitating control and closure of liminal events and places. The breaking up and burial of martial gear in the Staffordshire Hoard, is something highly distinctive and different from normal practices in England (Webster et al. 2011), but is also argued by authors to be a closing deposit marking the end of a major battle, and deposited in a frontier zone (Brunning, Fern both this vol).

The very making of metalwork may have been transformative. The application of Style I animal art is argued by Kristoffersen (this vol) as a means of imbuing the object with the 'capabilities' of the animal. This transformative energy or magic drew broadly on cosmology of the Migration Period, and is traceable in other aspects of early medieval mentalité (Kristoffersen 2010). The mingling of human and animal bodies seems to signal a stage of transcendence between the species boundaries (see, for example, Brundle 2014; Capelle 2004; Hedeager 2011 and others). The metalworker or the wearer, or even a viewer, might also be empowered by these decorated pieces (Gell 1996, 40–63, esp. 53–56).

Connections between powerful female individuals and certain object categories feature here in a number of papers. Recent discussion of early Anglo-Saxon cruciform brooches has created connections between these special dress items and important roles and categories of knowledge (Martin 2015). In this volume Lisa Brundle draws connections between representations of human faces and forearms in Style I, or the 'gripping-arm posture' and drinking vessels, but also points to the mourning connotations of such figural poses (see also Brundle 2013). The roles of women as funerary specialists, mourners, ale-makers and ale servers are suggested by Brundle to come together within these decorative schemes. Powerful females are present in early Anglo-Saxon contexts and in Scandinavian societies too. In the Viking Age, arguments have been put forward for female magical specialists (Price 2002, 64, 112; Gräslund 2003, 483–494). Rich female graves, in special locations, occur in England as well, at a time when named women were written about as intellectual and religious leaders (Hamerow 2016). At an earlier point, in the 6th century, associations between certain object categories and special female burials have also been suggested. Particular investment in female graves is evident in several regions: notable, for example, in Merovingia, where women are argued to be the lynchpins of political strategies (Halsall 2007, 302–305). Some female graves, however, stand out as exceptional investments. At Oakington on the fen edge, a woman was buried with a cow, dressed, with belt fittings including girdle hangers (Mortimer et al. this vol). The association between girdle hangers and female power is explored here by Kathrin Meents (née Felder) who argues that the specialist involvement of women at times of transition such as birth, illness and death, may have led to some being marked out in exceptional ways at death (Dickinson 1993;

Meents this vol). These ideas advance significantly on using the female grave assemblage as nothing more than a basic proxy for cultural packages. The political role of women has been underestimated in early medieval European societies (see Halsall 2007, 302; 2010, 289–314, 315–355; Hamerow 2016). Close attention to the archaeological context, and often multi-disciplinary research, can open up far more complex ideas of agency and personhood and political and economic personal capital.

These articles underscore the idea of death and the grave as a liminal threshold, a dangerous time of transition, during which important specialists were needed, but also powerful objects and artistic repertoires. As the contribution by Frans Stylegar (this vol) on funerary fashion underlines, the passive transmission of 'identity' via material culture, in this instance funerary rites, is open to question. Stylegar points to the way in which the funerary sphere should be regarded as a suite of specific ideas, which can be subject to local and regional manipulation. Likewise, the 'grammar of power' evident in 1st millennium societies, in which landscapes, monuments, objects and rituals were repurposed to suit new aspirant political identities, points to the creative possibilities on offer to the local populace and elites (Halsall 2010, 124–129). The closing paper by Chris Fern on the remarkable Staffordshire Hoard, encapsulates many of the issues of identity that challenge those working with early medieval objects. The richness of the hoard allows the author to pose new questions regarding production and style, the political affiliations signalled by the design and decoration of the items, and ultimately the nature of the political events and clashes that led to the deposition of this collection (Fern this vol). On the one hand the 6th-7th-century objects demonstrate affinities with the elite artistic repertoires of the North Sea communities who shared a common art style. Yet British and Irish influences are evident too, as well as Northumbrian connections. The objects span a considerable time frame, and the collection combines many traditional pagan and Christian symbols. Although it must be considered in the broad context of continental depositional practices (see above; Hills 2011), this is, for Britain, a unique large deposition of war gear encompassing the old and new, and seems expressive of the diversity of the age (Webster et al. 2011). Here then, in microcosm, the hoard expresses in material form, the kinds of relationships and conflicts between political parties and groups that gave rise to a more consolidated political scene in early medieval societies in Europe in the 1st millennium AD. The hoard also underlines the agency of objects, their personification and magical qualities, their power for opening and closing boundaries and worlds, and the need in some instances for special handling and deposition. It also points to the fluid nature of designs, motifs and decorations, in terms of signalling regional affinities or elite identities.

Crossing frontiers

Authors thus show how the 1st millennium AD in northern Europe is a particularly useful window onto understanding state formation processes and how changes to material culture and landscape organisation can signal shifts in status, power, social, religious, and political transformation. These are themes of broad appeal, relevant to the study of past and present. This closing section now moves into new areas of discussion, picking out topics of broader resonance, significant for rethinking the archaeology of Europe in the 1st millennium AD.

Frontier dynamics

The material evidence for the emergence and functioning of complex societies is something that all archaeologists deal with. The 1st millennium AD in northern Europe was a time of transition, during which some societies acquired documentary traditions. It is a period that offers the possibility of a deep time perspective, with the ability to mingle prehistoric archaeology with the evidence drawn from later written accounts. This at times has been problematic; early medieval archaeology can be the first port of call for those seeking evidence to underpin nationalist narratives (see, for example, Geary 2002, 15–33). If a critical framework is in place, however, then the value of 1st millennium European archaeology is manifold, in addressing issues of emerging social complexity, mobility and migration, cult, bottom-up structures, consensus and identity-making. The archaeological scene offered up by this volume provides a diverse wealth of information on changes in funerary tradition, architecture, commemorative strategies and monuments. In this volume, articles offer models for frontier-driven post-Roman development (Collins this vol), and set out the signatures of religious change (Cramp, Gräslund both this vol). The development of central place complexes is used to show the changing dynamics of centres of power that operated at especially at transformative junctures (Axboe, Gondek and Noble, Hårdh all this vol); while the emergence of trading places and networks provides a changing economic narrative in long-term perspective (Siegmüller and Mückenberger, Velde all this vol). In societies in which belief, tradition and law could have deep roots, the 1st millennium AD offers a useful environment in which to consider changing religious expression. On the one hand evidence for beliefs and ritual practices suggest a strikingly diverse local scene (Bergsvik, Carver, Soffield all this vol), but outlets were also present for dramatic and large-scale expression (Kruse, Hårdh, Fern all this vol). Most striking of all is evidence that major environmental events might shape and change life-ways, traditions and beliefs (Magnus, Sørensen both this vol), although regional and local effects should not be underestimated (Stylegar this vol).

In a modern age when migration, dislocation and large-scale movement of populations are topics at the top of the political agenda, consideration of the transformative centuries of the 1st millennium AD in western and northern Europe takes on a greater resonance. Archaeologists have sought to reconfigure the culture history approach and think more creatively in terms of the mutability of identities in early societies, especially within frontier contexts (Gardner 2007). For those dealing with the 1st millennium AD, the documentary record provides a particular challenge, comprising fragmentary accounts, that are also frequently exercises in the creation of political and religious paradigms (Geary 2002, 73–79). Within these accounts labels or names are used for groups, and yet, just as the articles in this volume reveal, and as many others have argued, material culture points to a far less static or certain situation (Pohl 1998).

Connections, influences, shared ideas, political relations and economic contacts all facilitated the through-flow of people, objects and ideas in early medieval societies. In the papers presented in this volume, the first striking impact is the sheer diversity of material culture and the variance of communities. But what becomes apparent is the ways in which these communities were connected: sometimes through coastal contact or corridors (Siegmüller and Mückenberger this vol), via the movement of people or goods (Nieuwhof this vol), at centres and emporias (Axboe, Hårdh both this vol), and through shared cultural characteristics (Ethelberh, Kruse both this vol), or funerary traditions (Orsini, Stylegar both this vol). As all the articles here demonstrate, therefore, a far more careful approach is needed to read the material culture of the age. A greater sense of permeability across frontiers should be considered (Marzinzik this vol), while frontier zones might themselves operate as connecting forces, and emerge as motivating factors in the development of post-Roman identities and heartlands (Collins this vol), provoking distinctive and vibrant archaeologies (Boye, Cieśliński, Wołoszyn all this vol). Nationally defined scholarship can create artificial separations. The hybridity of the archaeology across northern Britain demands a broader examination of material culture across perceived Anglo-Saxon, British and Pictish zones (Carver, Noble, Orsini all this vol). The result here is evidence for exceptional diversity between sub-regional communities (Carver, Orsini both this vol), but also indications of similar elite processes of change in the 6th and 7th centuries (Gondek and Noble, Sherlock both this vol).

Simple relationships between material culture change and migration or conquest, are no longer tenable. Instead there is clear evidence for varied processes of political competition, coalescence and signalling. In this environment of cultural exchange, it may be as important to look for the little traditions as it is for monumental statements. The ritual praxis embedded in daily life (Sofield this vol) or the subtle differences and similarities in the use of space and place (Buchanan this vol), can both offer new ways of thinking about culture contact and integration. However, most important of all, is a need to respect the versatility of these populations, their creativity in creating claims, forging connections and shaping their place in the world, by means of the material cultural at their disposal.

Bounded identities, mobile populations

In this time of political and religious change in the 1st millennium AD, populations across northern Europe were especially aware of a need to claim a place and a character. Political stresses but also environmental demands may have encouraged people to buy into similar material repertoires to distinguish themselves and their claims on resource and land. As several papers demonstrate, routes of access, seaways and river systems all had a powerful effect on the shaping of early territories and boundaries (Altmann, Siegmüller and Mückenberger both this vol), while the control of landing places, crossing points, and land routes, features many times, whether signalled by cemetery or settlement patterns, or by the establishment of large mercantile settlements. Mobility, has perhaps, been rather underestimated as an influential factor for many 1st millennium populations. The movement of people on land and sea (Nieuwhof this vol) or seasonal mobility (Bergsvik this vol), may have been far more common and impactful than previously thought. A transnational perspective, therefore, offers a useful lens through which to understand cultural contact and interconnectedness. The end of the Roman frontiers has frequently been treated as a time of collapse, but it ushered in, instead, a time of transformation in which mobility in general, and not just migration, may well have played a major part in establishing the shared dynamics of different groups and societies in the North Sea zone (Collins, Cramp both this vol).

The conflict and pressures on populations in south-eastern Jutland led to distinctive processes of defining boundaries, limits and identities, using the built environment, monuments and large-scale ritual acts (see Boye, Ethelberger, Kruse all this vol). Such tensions are illustrated even at farm or household level (Sørensen this vol). Elsewhere in eastern Europe, creating space was also essential to maintaining limits (Cieśliński this vol). Borderlands were kept clear or even naturally created (Altmann, Cieśliński , Hardt, Wolosyn all this vol). Thus while we seek similarities, a transnational perspective also picks out the regional responses and distinctions. Identity in the 1st millennium AD was multi-scalar. A person might be attached to their immediate family, a kin group, a locality, but also move some distance to access resources. Elite geographies were more ambitious and subject to expansion (Gondek and Noble this vol). The material culture signals this fluidity and these intersecting processes, but also the power of human agency to change situations. By gathering together, people might create a central place

in a liminal zone (Baker and Brookes this vol), by building fences and dykes they could create new geographies of ownership (Ethelberger, Sørensen both this vol), by burying the dead they could stake new claims (Orsini, Semple et al. both this vol). Elites participated in and came to manage all these processes and invest in certain repertoires of art and regalia, as well as monumentality, to assist in consolidating their power (Brunning, Fern, Gondek and Noble all this vol).

Therefore, by using the landscape and material culture to chart small- to large-scale territorialisation, we can read state formation processes in action. It is the complexity of the sources and evidence that allow exploration of different scales of change (Escalona and Reynolds 2006), helping to illuminate the processes by which communities chose to situate themselves in landscapes (Foxhall 2016) and shape their local territory (DeMarrais 2016), even alongside the impacts of large-scale frontier formation and elite ideologies.

Landscapes of mind

No single paper deals with liminality in the landscape, but many articles touch on the special nature of certain locations in the minds of early medieval populations: lakes and bogs (Kruse this vol), caves (Bergsvik this vol) and rocks and boulders (Magnus this vol). It is suggested here that people's daily lives shaped their world view, but that what we perceive as liminal now, may have been more ambiguous to these communities. The supernatural too played an amorphous part; clearly useful in signalling claims, the supernatural and liminal seem to have required special handling and specialist handlers (Brundle, Meents, Mortimer et al. all this vol). These nuanced understandings are achieved by careful reading of archaeological and documentary evidence; what is clear, however, is that there was no monolithic belief set. Instead we see common thoughts but exceptional diversity in how these operated and were applied. This poses important questions about the connectedness of people to their environs and how this may have shaped their beliefs. Populations invested things and places with importance, giving them life in terms of names, stories and events; the challenge is to read our settlement and funerary evidence within this fabric of meaning, to render a fuller understanding of belief in the 1st millennium AD.

Ritual, artistic and symbolic repertoires are a rich field in early medieval studies and in this volume. The stone heads of the Iron Age provide a striking reminder that long-term trajectories are often evident beyond the old Roman frontiers (Zachrisson this vol). And yet, the papers presented reveal a tension between the *longue durée* and changes provoked by social and political upheaval and even climatic events (Axboe, Hårdh, Kristoffersen, Zachrisson all this vol). While dress fittings and jewellery, as well as military gear, have long been used in discussions of gender or social status, this volume presents papers with fresh perspectives on the connections between people and objects (Brunning this vol) and the efficacy of motifs and art styles (Brundle, Kristoffersen this vol). The interest of Migration Period and early medieval communities in ambiguity and riddling is signalled by their interest in hybridity, and in defining and dissolving boundaries between human and animal. The connections between communities, environment and beliefs demonstrate the active association of these early historic populations with the world around them. Environment, resource and natural events are shown to shape long-term beliefs. While there are clear major transitions, populations also had a strong awareness of the past, and used it selectively to build new identities and ideologies, something evident far more broadly in time and place (Díaz-Guardamino et al. 2015).

Final thoughts

Much of this introduction has dealt with convergences of evidence and with comparing and contrasting the archaeology from different regions and countries. In this way the volume is geared to dissolving the artificial scholarly boundaries that can prevent us from useful cross-disciplinary and transnational research, something that can be difficult to achieve. It is perhaps a mark of the time taken to gather and edit these articles, but in the few years since the conference, the modern European political climate has undergone profound change, and national divisions and devolution are significant and pressing concerns. As the articles in this volume signal, a transnational approach is a major advance on breaking down insular traditions. Only by crossing boundaries can we better and more fully comprehend the big questions for 1st millennium northern Europe, and contribute to broader archaeological global debate.

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I. Material Culture and Identity in Northern Britain

Northumbria, a Kingdom

Rosemary Cramp

At the height of its powers, the Kingdom of Northumbria embraced a land mass stretching from south of the Humber to the Firth of Forth in the east, and around the Solway basin to around the Ribble in the west. A short introduction cannot hope to cover the whole area and here the focus is largely on the north-east heartland — the old kingdoms of Bernicia and northern Deira, which formed the major part of the unified kingdom of Northumbria (Fig 1). In anticipation of the papers that follow in this section of the volume, the emphasis here is also on the effects of religious change in Northumbria, and the impact of Christianity on settlement types and monuments.

Like all the Anglo-Saxon kingdoms of the heptarchy, the kingdom of Northumbria was formed from a federation of many independent tribes, but with a richer mix than others, since it included not only the native Britons who had been under Roman rule, but others who had been largely independent. Land was won and lost from others who had been fully independent and spoke a different language; the Picts in the north, and another linguistic group, the immigrant Scots from Ireland who had established their kingdom of Dalriada in the west at the same time as the Anglo-Saxons were consolidating their position in the east. It is the interaction of all these peoples which gives Northumbria at the height of its powers a distinctive culture.



Figure 1. Northumbria showing the sub-kingdoms and several key sites.

The fluctuation of its borders and extent, often placed it 'on the edge' of other territories and cultures. The kingdom fronted on two seaboards, and the trading contacts on each differed from the post-Roman to the Viking Age (Wooding 1996; Fergusson 2011). Much of Northumbria contained highland and moorland zones which formed a significant barrier between the east and west coastal plains, and in the Roman period it was a militarised frontier zone embracing Hadrian's Wall along the major E-W routeway of the Tyne valley (Collins 2012). All of these features had an effect on the formation of Northumbria in the aftermath of the Roman system's collapse (Collins 2010; 2011; 2012; Collins this vol). The settlement patterns of the prehistoric period continued to exert an influence, especially in the period of Anglo-Saxon land taking (Semple et al. this vol; Carver 2011). Brian Roberts in his maps of woodland (Roberts 2008, figs 13.1–13.3), has indicated that the cultural cores of early cleared land settlement are in the coastal plain and river valleys, where communication might most easily have been maintained by sea.

The early kingdoms

Bernicia, the more northerly kingdom, bears a Brittonic name which plausibly means 'the land of the mountain passes'. In the past a good deal of time was spent in trying to define the boundaries of the consolidated kingdom of Bernicia; today there is a near-consensus that the Tees is a southern frontier zone and remains so throughout into the Viking age, but in the north there were radical changes between the rather indefinite Forth–Clyde line in the 7th century to a new frontier zone in the Tweed valley by the 11th. Before the effective takeover of Cumbria c AD 700, the western border

is undefined and was probably a fluctuating boundary, even when Cumbria formed an outlying part of Bernicia (Cramp 1995). Extending down to the Ribble valley and along the Solway coast, it remained a debatable land bordering on the Britons to the north and partially taken over by the Scots in the 10th century. From the 9th century, as with eastern Deira, a strong infilling of Scandinavians altered the settlement pattern.

Deira, which stretched from the Tees to the Humber, included an area which had absorbed more civil Roman influence than Bernicia, and the density of settlements from the late prehistoric through the Anglo-Saxon period has been well demonstrated by modern surveys such as Dominic Powlesland's (Morris 2012, 209–24; Powlesland 2000). Moreover there is a long-recognised distinction between the density of Anglo-Saxon burial sites (which include furnished burials) in areas north and south of the Tees (Lucy 1999, 16–20), which implies a stronger Anglo-Saxon presence or influence in Deira.

Throughout the post-Roman/early medieval period the major Roman centre of York, despite its post-Roman shrinkage to isolated strong points (Hall 2011), uniquely retained some urban functions and was not only a royal centre, but the site of the only mint in Northumbria and an important religious focus, with pretentions to rival Canterbury. Linked to the major international trading route through the Humber estuary, it remained, throughout the pre-Conquest period, the most consistent economic as well as political and religious centre in Northumbria, taking on a new development and expansion after it became a power base for Scandinavian kings in the 9th and 10th centuries. At that period there was communication between the eastern and western seaboards, but in general our knowledge of how routes for communication and trade between centres elsewhere within the borders of Northumbria functioned, is still an imperfectly developed subject. All the major, and indeed to a lesser extent minor, rivers on the eastern seaboard provide significant points of entry for coastal trade, and the river valleys may be considered as boundary zones, not borders. There is however, except for monastic sites (see below), minimal evidence for overseas trade on the eastern seaboard. Major Roman roads do continue as important route-ways, especially where, as with the Stanegate, they lead to crossing points for rivers, and indeed, as has often been remarked, some, like Dere Street, seemingly provide cultural boundaries between the Britons and Anglo-Saxons, and later between mainly Scandinavian and Anglo-Saxon lordship (Smith 1990; 1992).

The current consensus seems to be that life in the 5th century shows only slow change, although there was the loss of a coinage economy, and regional economies became based on fort territories. There were those in the eighties who considered that 'the presence of legendary leaders like Urien of Rheged', even in isolated pockets in the highland zone, 'could have been sufficient to ensure a full regeneration of Celtic life as soon as the military and economic conditions which supported the veneer of Roman civilisation had been removed' (Smyth 1984, 4). There seems to have been some return to occupation of hill-forts, and the *vici* of some of the more advantageously placed forts remained a focus, as excavation recently has demonstrated in the east, at South Shields, Corbridge, Vindolanda, Binchester, earlier Piercebridge; and in Cumbria, Carlisle and Papcastle/Cockermouth, and some of these sites have developed as later settlements. The question of the political and economic control of such sites and the many native settlements around them has taken all of fifty years for some sort of consensus to emerge. Here as elsewhere, it would seem that there were changes from literate to mainly oral culture, from large industries to small-scale production, controlled not by the state, but apparently by local potentates, operated in a largely moneyless economy. There were probably many in the 5th century who expected things to return to 'normal', and pollen diagrams, particularly from the west, show little difference in rural land use until the 6th century (Huntley and Stallibrass 1995). It seems possible that here as on the Continent, as John Casey first suggested (Casey 1993), local military commanders took over strategic points such as some forts and a screen of east coast defences and their surrounding regions, with control points on major roads and river mouths. These are exactly the places which later, when the Anglo-Saxons kings were in full control, seem to have been royal land, but over the last decade our understanding of the development of British Bernicia into part of the Anglo-Saxon kingdom of Northumbria has been much advanced.

Wood's conclusions (based on the not very chronologically precise evidence in the form of place-names) that Brittonic survival sometimes correlates with good soil and land areas like the Millfield and Till basin is not surprising (2011), but in the regions of the mid-Tweed and the mid-Wear and Tees valleys it is more so, as is the nature of the hybridization which he suggests for parts of the coastal zone, and also where early Anglian evidence in place-names could suggest small early settlements under British allowance.

Despite the similarities in the social structures of the Northumbrian peoples, linguistic distinctions persisted for some time. In the gradual change of life-style as the Roman systems collapsed and the region fragmented into tribalism, the new immigrants soon began to absorb the smaller groups into larger kingdoms, with distinct languages. The same arguments have been advanced to explain the formation of a Gaelic-speaking Dalriada in the west as for the Anglo-Saxon speaking Bernicia in east: mass migration, or takeover by a small group of elite, or a slow long-term cultural change among native and immigrant groups in which one distinctive group became dominant, and their language the *lingua franca*. The differing burial practices in Northumbria, and the types of the artefacts from furnished graves, have also been used to distinguish groups. There is no doubt that dress and dress

fastenings can proclaim identity or affiliation, not only in the distant past, but in more recent folk costumes, but they also proclaim status and aspiration. The complexities of interpreting the burials of Northumbria has been well summarised by Sam Lucy and discussed elsewhere (Cramp 1983; 1988, 71–4; Lucy 1999; O'Brien 2010, 115–19; Semple et al. this vol). A sprinkling of new finds in Bernicia, mainly of the small-long and cruciform brooches, which do distinguish the Angles and their affiliates, have been seen as indications of early Anglian settlement. An Anglo-Saxon type of brooch may be a pointer to a burial ground serving a nearby settlement, but, the brooch is only evidence for the presence on a site of someone dressed in Germanic fashion. Brooches in the north got bigger and more elaborate during the 6th century, and this applies to both the Anglo-Saxon square-headed and small-long type, and the ring pins of the British and Irish, as if in competition. This was a time of struggle for land taking and supremacy and they could have signified affiliation to an ethnic, regional, familial or social group. Moreover in the complex interchange of contacts and alliances which distinguish the 6th and 7th centuries in the North, dress fastenings could suggest more than a single affiliation.

There are still many gaps in the evidence for how domestic buildings changed between the 5th and the 7th centuries, and whether certain types of structure can be associated with different cultural groups (Carver this vol). Christian churches have been claimed for structures in several forts, the most obvious being Vindolanda, where a D-ended building occupied part of the Commanding Officer's courtyard, and a *pax* with a Latin inscription was also found (Birley 2009, figs 106, 107). Claims for similar buildings have also been made for Traprain Law (Smith 1990, fig 5.5), Housesteads and South Shields (Petts 2003, 76–8). Throughout Northumbria, there is currently no evidence for a continuing tradition of Christian buildings, although there are hints that earlier burial grounds did provide foci for later Christian burials (Cramp 2005, 78–80). Just as there is the development of small independent social and linguistic groups (Wood 2011), so no doubt a variety of religious practices could have continued in Northumbria up to the later 7th century. Both native and foreign troops in the Roman army had discovered comparable sacred beings to honour, and this could have applied to the invading Anglo-Saxons also. The much-discussed Franks Casket illustrates the point, especially on the right side with its encoded inscription (Fig 2): the three mothers/the three hooded ones occur in both Celtic and Germanic religions as does *Epona* the horse goddess, the smith god, and creatures half human and half beast (see Webster and Backhouse 1991, fig 70; Cramp 2009, 5–9; Waxenberger this vol). There seems to be a return to, or revival of, sacred places regardless of associated belief. We know very little about the religious beliefs of the Anglo-Saxon settlers, but they seem, from place-name evidence, to focus on sacred locations, such as woods, lakes, and marshes (Gelling 1976, 154–62; Semple 2010). In a migratory situation they had then to attach their rites to something similar, and in many cases this could be the sacred places of their new homeland, like the royal site of Yeavering with a history dating back to early prehistory.



Figure 2. The right side of the 8th-century Franks Casket showing mythological figures. By kind permission of the Trustees of the British Museum.



Figure 3. Conjectural reconstruction of the wooden church at Whithorn. Photograph: R. Cramp, by kind permission of the Friends of Whithorn.

Wood rather than stone became the norm, from the massive buildings excavated at Birdoswald which had stone footings for a timber superstructure (Wilmott 2000; 2010) and at the other end of the scale are the small wattle and daub huts at Lanton Quarry which have been variously defined as the homes of the native British or the invading Angles or a mixture of both (Waddington 2009). The most famous example for what has been claimed as exhibiting a hybrid culture is the site of Yeavering, one of the vills of the Northumbrian kings where there is a lengthy record of burial and cult practice (Hope-Taylor 1977; Semple et al. this vol). Colm O' Brien has summed up the debate concerning the origins of the great enclosure and the halls (O'Brien 2011, 210–16), whereas authors like Jenny Walker have explored the hall as active in the transformation towards a more hierarchical society, and made comparison of the nature of the layout of space between some halls and churches (Walker 2011). The social significance of the hall in a poem like *Beowulf* or as the epitome of an earthly life of safety and bonding with one's companions, as in Bede's conversion story (*Bede HE*, 2.13, in: Colgrave and Mynors 1969; Cramp 1993), enhances the significance of such buildings. At Yeavering the building and rebuilding on the same central space, as is the case with many later Christian churches, does seem to indicate a sacral role.

The only buildings, however, which can be claimed as distinctively Anglian are the sunken featured structures which occur in large numbers in Deira (Tipper 2004) and in a more scattered distribution in Bernicia and Cumbria. Regional as well as temporal and social differences in the wooden architecture of the Early Middle Ages are possible. Indeed Bede, in describing the wooden church on Holy Island as being of 'hewn oak in the manner of the Scots' (from Iona), need not have been contrasting wood with stone, but a different style of timber building with that of the Angles, and they could have copied Roman building techniques in wood as well as in stone.

The impacts of Christianity

After Aethefrith (572–616) joined the two kingdoms, the succeeding Anglian dynastic rivals had travelled widely in the British Isles before they gained supremacy. Edwin, the second king of a united Bernicia and Deira, was exiled while young among the Britons in the west and the Angles south of the Humber. He had, as Bede tells us, adopted some trappings of Roman pomp in the provision of law and order and civic amenities, and when he travelled, was preceded by a standard bearer. His marriage to a Kentish princess brought the Roman missionary, Paulinus, to Northumbria, and the adoption of Christianity by the kings of Northumbria provided acceptance into a wider world, as is demonstrated by letters from the Pope and marriage alliances with the other Anglo-Saxon kingdoms further south. Paulinus baptised Edwin in the old Roman town of York, as would have seemed appropriate to a continental bishop, but there does not seem to have been a stone church surviving from the Roman period and a wooden one was newly constructed. In peregrinating through the royal vills in 627 the missionary Paulinus baptised 30,000 people in the nearby River Glen at Yeavering. The ability to use the past selectively and so to invent new constructs in the present, is something that informs much of the early medieval art and archaeology of this region, exemplified in the unique timber amphitheatre here (Hope-Taylor 1977).

The church at Yeavering is one of only two timber churches excavated in Northumbria, the other being at Whithorn (Fig 3; Hill 1997, 44–5, fig 4.12), although one of a similar form to that at Yeavering has been identified as a crop mark both at Sprouston and at Millfield and the simple two-cell layout is found in later stone churches such as Escomb in County Durham, as well as the domestic buildings mentioned above. The close relationship between the secular elite and the church in the 7th/8th centuries means that disentangling the functions and activities on the sites of the major vills is a difficult archaeological task, but it does seem that from the

beginning in Northumbria there were churches on private estates. York remained an important episcopal centre, and was given archiepiscopal status in the 8th century.

Edwin was defeated and killed by a coalition led by the Bernician prince Oswald, having been in exile among the Irish of Dalriada, who had their major missionary centre at Iona. With Oswald's accession there were major changes in the organisation of the Northumbrian church, since the new Anglo-Saxon king looked to the Celtic west for its leadership. After 635, and the establishment of a monastery at Lindisfarne as the centre for a missionary monk-bishop from Iona, Lindisfarne (Holy Island) became the main diocesan centre in Northumbria and from it a network of subsidiary monasteries was established (Cramp 2017). The siting of these monasteries crossed boundaries between Deira, Bernicia and Cumbria, and some monasteries were established in the lands which had not long before been under the control of the British church. In that way Melrose in southern Scotland and sites in the west around the River Ribble came under Anglo-Saxon control. This produced a huge diocese, and later it was divided (not without dispute) between Lindisfarne, York and, for a period, Hexham and Whithorn (Rollason 2003, 44–5).

The establishment of a network of monastic communities produced stable foci for mission, as well as centres where literacy, teaching and learning could flourish, and there crafts could be practised and trade could be conducted all the year round. The monasteries were established at key points on royal land, often linked with a major secular settlement, and commanded both east and west coasts and major route centres, thus enabling them to interconnect for barter or trade by sea and land. Their land holdings included a population which could provide renders and services, and on several sites lay cemeteries have been found, as for example at Whitby, where a cemetery dating back to the sub-Roman period has been recently excavated to the south of the monastery (Wilmott 2017), while at Wearmouth, an earlier cemetery of men, women and children was cut through by the monastic buildings of the 7th/8th centuries (Cramp 2005, 77–8, fig 8.3).

Although we know from documentary sources that monasteries in the 7th to 9th centuries played a key role in Anglo-Saxon society, and in Northumbria more of such sites dating from this period have been excavated than in any of the Anglo-Saxon kingdoms, in the present state of our knowledge it is difficult to compare such complex and extensive sites when there have been only small interventions into different functional areas. We know that provision had to be made for a wide variety of social groups of all ages, from children to the very old and sick. Moreover there had to be hospitality extended to secular visitors (Cramp 1976, 204–7; Foot 2006, 138–85). In fact Sarah Foot summarises the position by the comment that these communities 'do not appear far removed from their secular counterparts: they housed people of all ages, from different social classes, who — whether bound by kinship or economic ties — lived together on one estate or group of estates' (Foot 2006, 185). Nevertheless, the buildings and the layout which provided the housing for these groups need not have been the same as, for example, those for a noble household, even though the forms of the buildings might have been the same. There seem to have been separate locations for travellers, for the postulants and for the sick, and in some double monasteries there was (as at Barking) a strict division between the male and female part of the institution (Cramp 1976, 206–7). In the Rule of St Benedict it was assumed that the monastery would contain everything which was necessary for self-support, but it is evident, from both documentary and archaeological evidence, that monasteries were engaged in trade and exchange with the secular world. The extent of this would however depend on the nature of their endowment. Some of the sites were supported with extensive tribute-paying lands, as for example Lindisfarne, where the dependencies originally stretched well into Scotland (Morris 1977), or the later joint foundation of Wearmouth and Jarrow which was supported by an extensive land block (Cramp 2005, fig 4.2).

An enclosure which could act as a barrier between the religious and the lay world has been seen in the past as an identifying element for a monastic site and, despite the fact that secular sites could also be surrounded by enclosures, some form of enclosure seems to be an essential element in a monastery. Topography probably often determined the nature of the enclosure, so that a site could be on an island, peninsula or promontory with the sea or rivers forming all or part of the enclosure. Man-made enclosure on one side only seems to be the case at Hartlepool and Melrose, while many monasteries like Wearmouth, Jarrow or Bywell are sited beside a river. On other sites, particularly where there is a tradition of enclosed secular sites, as in the Celtic west, a full enclosure is often identifiable in open ground. This enclosure could have been a hedge, palisade or stone wall, but the most visible archaeologically is the bank and ditch, which can be seen from the air (Knowles and St Joseph 1952; Norman and St Joseph 1969) as banks or crop marks, or can be detected by electronic survey. In Britain a substantial *vallum* ditch has been excavated at Glastonbury in Somerset, in separate sections which, if joined together, would enclose c 14 hectares according to one calculation or just 4 hectares according to another (Gilchrist and Green 2015, 416–17). In Northumbria, only at Hoddom in Dumfries has such a site enclosure been fully identified and this enclosed an area covering 8 hectares/20 acres (Figs 4a and b). At several other sites less substantial ditches have been found, as at Beverley or Hartlepool (see below), but they seem to form functional sub-divisions within the sites.

Only selective excavation inside the main enclosure was possible at Hoddom, but it was sufficient to demonstrate what seems to be a common factor on these sites, that the domestic, agrarian, and craft activities took place on the bounda-

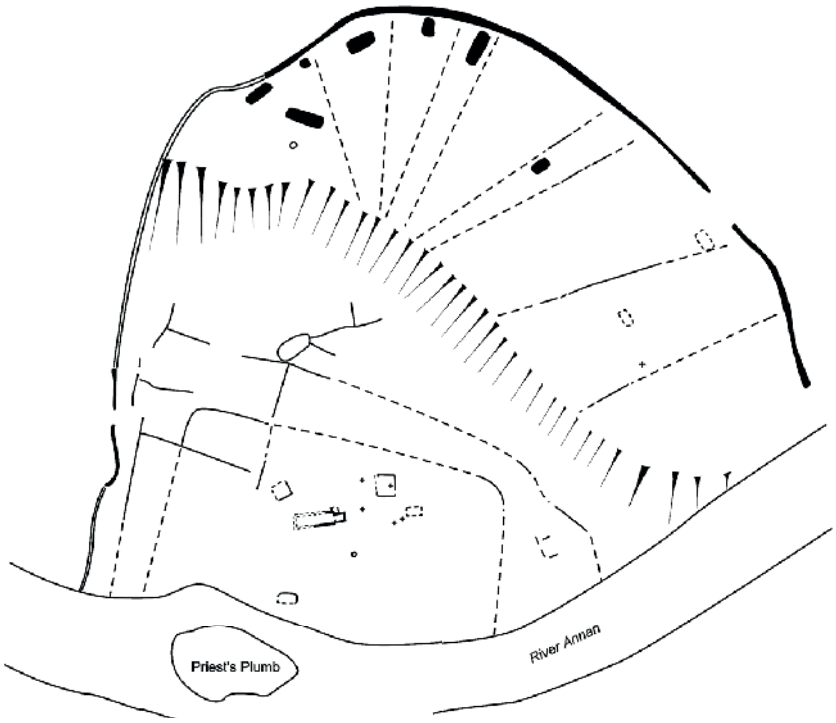

Figure 4a. Interpretative plan of the layout of the monastic settlement at Hoddom in the 8th century. After Lowe 2006, fig 8.11.

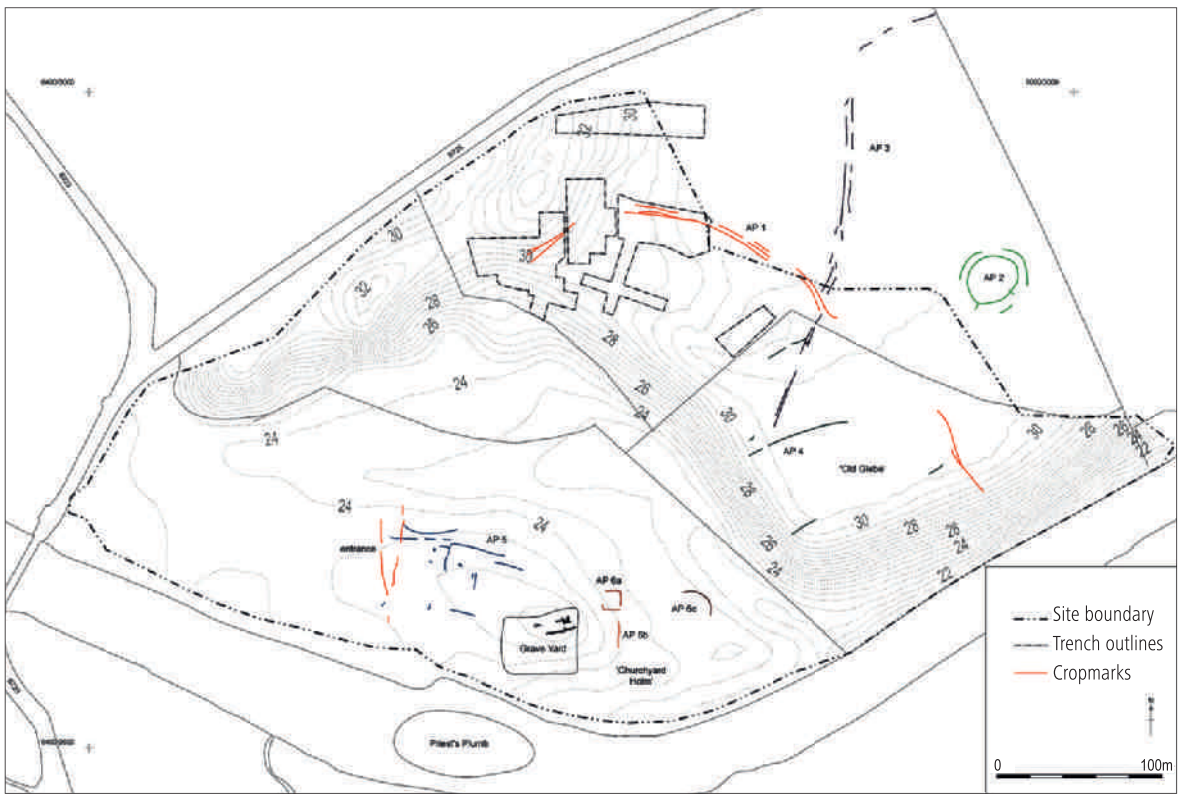

Figure 4b. The crop mark evidence of the site of Hoddom. After Lowe 2006, fig 3.3, by kind permission.

ries of the sites, with the churches and cemeteries occupying their own enclaves at some distance away. At Hoddom there were a number of corn-drying kilns at the site boundary (Lowe 2006, 186–90, fig 8.11). Similarly at Martin Carver's seminal excavation of the Pictish monastery at Portmahomack the 6th- to 8th-century workshops, for the production of vellum, were at some distance from the church and cemetery down a slope (Carver et al. 2016). On the smaller site at Jarrow, the workshops for metal and glassworking were down a slope near to the river crossing and partially hidden from the church, cemetery and main buildings. It is clearly common sense to separate any long-term industrial process from the quiet heart of the monastery, and also to make the products easily available to the outside world by siting the workshops alongside a river. So far, however, no site in Northumbria has produced evidence for the extensive industrial activity (mainly concerned with cloth manufacture and preparation) excavated along its waterfront as at Brandon in Suffolk (Tester et al. 2014, 372–4). An area, or even a site, devoted to specialised production seems to be indicated nevertheless at several excavated monasteries, and it is worthy of note that in some which are closely connected, there is evidence for interchange of the forms and decoration of craft products. At Hartlepool, which had been founded from Lindisfarne, the motifs in the metalworking moulds reflected those in the well-known Lindisfarne Gospels (Cramp and Daniels 1987; Daniels 2007, fig 7.3), and the distinctive memorials known as name stones are closely similar on both sites (Daniels 2007, fig 7.7). Similarly the same patterns in the millefiori rods which make up decorative glass mounts found at Wearmouth occur on the waste rods from the Jarrow workshops (Cramp 2006, 263–7, fig 31.4.4).

The only Anglo-Saxon buildings which survive above ground on monastic sites in Northumbria and elsewhere in England are the stone churches. Many of the early churches however must have been of wood like that at Yeavering (mentioned above), or the excavated church at Whithorn (Fig 3). According to Bede, the first church at Lindisfarne was also of wood (*Bede HE*, 3.25, in: Colgrave and Mynors 1969) and this must have been the commonest building material for all structures on most monastic sites. Bede says that the early monastery at Lindisfarne had few buildings other than the church, but so far the layout of the monastery at Lindisfarne is unproven and no complete buildings have been found, although trial excavations have indicated their presence (DigVentures 2013), but the nearest parallels could be the structures on Lindisfarne's satellite sites. Both of those excavated are for double, not male, communities however. At Hartlepool, founded c 640, several burial grounds and a few structures had been identified on the headland before Robin Daniels's excavation of a series of timber buildings (Daniels 2007, 32–42, fig 1.11), but his work has provided examples of buildings from unidentified sectors of the site, which are valuable in interpreting other sites such as Whitby. There are also internal boundaries which could have divided up functional areas of the site. The buildings are of various structural types, from spaced posts, post in trench to stone footed — this last type being coin-dated to the 8th century, while the post in trench and spaced posts are an earlier type. In several cases the stone footings seem to have been added to earlier timber buildings, most probably to prolong their life, while some are newly constructed (Daniels 2007, figs 8.8, 8.9). The buildings are of various sizes, but are small in comparison with secular buildings of the same construction; their average size being 4.4 m × 2.7 m. Similar small buildings have been excavated at the monastic site of Whithorn in south-west Scotland and interpreted as cells for the monks (Hill 1997). Despite some evidence for craftworking around them at Hartlepool, Daniels is inclined to interpret these buildings also as living quarters. It is possible that they were used for both purposes, as can also be suggested for similar buildings at Whitby, the monastery established by the famous St Hild after she left Hartlepool in c 657.

Whitby was the first excavated monastic site in Northumbria (Peers and Radford 1943) and, for many years afterwards, was seen as an archetypal example of a monastery of the 'Celtic' type in which the inmates lived in individual cells rather than with a common dormitory and refectory. The evidence, which depends on two composite plans for the area cleared by Ministry of Works workmen between 1920–5 to the north of the medieval church, is difficult to elucidate. The plans were redrawn by Philip Rahtz (Cramp 1976, fig 5.7; Rahtz 1976), leaving out the many burials both pre- and post-Conquest which were interspersed with the buildings. Like Hartlepool there are phases of buildings replacing each other on the same space which could imply that the site is constrained by a boundary, but more recently, unpublished excavations have shown that activity extended over the whole headland. In the area of the earlier excavations, post-built timber and stone-footed buildings have been excavated, as well as deposits of wattle and daub which could have been from partitions or an earlier phase, and it is clear from the original work staff's notebooks that several levels of buildings were noted. Some are obviously living quarters subdivided and with a hearth at one end; others show evidence for crafts such as sewing and weaving or writing and one was interpreted as a smithy. The personal finds, however, all imply female occupancy. It appears as if some buildings were linked into ranges and fronted by paths. To the east of them there was a major boundary which seems to be a main road through the site, and to the east of this there is more evidence for structures and metalworking extending to the cliff edge (Wilmott 2017). To add to the complications of the area first excavated, there seem to have been burials both under and cutting though buildings. Some of the smaller structures measured about 5.5 m × 3.4 m, but there were larger buildings, one measuring 14.3 m × 5.8 m. When excavated these structures, which were sometimes sub-divided, were consid-

ered to be like the small houses mentioned in Adamnan's description of Coldingham, as recorded by Bede (*Bede HE*, 4.25, in: Colgrave and Mynors 1969), where the inmates lived in cells individually, but at Whitby's subsidiary monastery at Hackness there is mention of a dormitory for postulants, and the picture at Coldingham is, as here, complex. As Adamnan approached the site he saw lofty buildings, and then he prophesied that all the buildings *publica vel private* would be reduced to ashes because of the sins of their inmates, as he had been told in a vision, by an angelic visitor. The angel had inspected both individual cells where people were sleeping and little houses (*domunculae*) which had been constructed for prayer and reading, but which were being used for feasting, drinking, gossip and so forth. It would seem therefore that in these early monasteries provision could be made for private cells and public buildings.

Wearmouth was founded in 673, after Benedict Biscop, its first abbot, had acquired extensive knowledge of continental as well as English monasteries. The Anglo-Saxon west front and porch of St Peter's church still survives. Benedict had built up contacts on the Continent and, in order to build 'in the Roman manner', which he had always admired, procured masons and then glass workers from northern Gaul. The mortar mixers for large-scale production of mortar for the stone structures — which like the church were constructed of rubble and poured cement (Cramp 2005, figs 9.4, 9.8–11) — are, like the painted plaster from the walls and the coloured glass from the windows, a testimony to how well he succeeded in this new technology. Excavation to the south of the church has produced a plan which in its final form is reminiscent of a Roman villa, with a single corridor linking the centre of St Peter's church to a range of large-scale buildings to the south (Fig 5; Cramp 2006, 93–114). The corridor or processional way extends for c 33.53 m from the church and seems to divide the monastic from the lay cemetery before it passes through the southern range. It is indeed the most distinctive feature in the area excavated, and has been considered as an imitation of the processional ways which linked the early stational churches of Rome (Ó Carragáin 1994, 13; 1999), as well as being similar to the corridors which linked several Gaulish churches (Cramp 2005, 358).

The monastic buildings to the south of the church were built in stages, but the final plan indicates that this sector of the site was enclosed on the west, but seems to continue to the south (probably to the river frontage), while the east 'range' is conjectural and may have been divided into separate buildings on the same line (see Turner et al. 2013, 121, fig 3.24a–b). Unfortunately the floors of the range of buildings to the south had been destroyed by later occupation, but the better preserved structures at the twin monastery at Jarrow may provide a clue to their functions.

Jarrow was founded in 682 and built over several years, this time not by foreign workmen, but by members of the *familia* from Wearmouth. The main church was dedicated in 685. Separated by a narrow gap from this basilica there was a small single-cell church to the east, which may have been a funerary church (Cramp 2005, fig 13.16). This is still extant, forming now the chancel of St Paul's church. It is, like the monastic buildings on the site, constructed with neat courses of reused Roman stone from the nearby Roman site of Arbeia. A recent radar survey of the interior of the east church has revealed a large cavity under the floor (Turner et al. 2013, 163–4, fig 4.29). This might have been a mausoleum intended for an important burial, for example that of King Ecgfrith who marked out the position of the altar in the church and



Figure 5. Model of the excavated buildings at the monastic site of Wearmouth.

is named in the foundation inscription. Only excavation can however determine the form of this cavity.

Immediately to the south of the two churches at Jarrow is a burial ground and, in parallel, to the south of that, two large buildings, A and B (Cramp 2005, fig 16.37) separated by a narrow gap (Fig 6). Although disturbed by later developments on the site, these buildings were better preserved than those at Wearmouth; Building A had an *opus signinum* floor and had been decorated with sculptured panels in the style of fragments from the church. In its first phase it had been divided into a large room with a small room at the west, but had then been adapted with the addition of an adjunct building to the south which has been identified as a kitchen. It is suggested that Building A was a refectory with a dormitory above, and Building B a multi-purpose hall with a small private 'cell' to the east. This last is reminiscent of one type of building to the north of the church at Whitby, while the whole complex can be compared in scale with the ranges of timber buildings at Yeavering, measuring as they do externally 27.89 m × 7.93 m and 18.52 m × 7.93 m. As well as these structures, at Jarrow there was another building complex alongside the river which included a possible guest house (later converted into a workshop) and some lightly constructed workshops for metal and glassworking (Cramp 2005, 219–41; see Fig 6). Despite the difference in appearance of these two monastic houses, they are obviously working to the same general model, with the intervals between the different areas scaled down at Jarrow (Fig 7). These sites, we know from documentation, accommodated other types of buildings which included both cells for sick or for elderly monks (like Bede who died in his cell) as well as domestic and agricultural buildings, and these, as on other sites, could have been to the north or west of the churches. Since at neither site have we the measure of the total enclosure it is not possible to predict the total plan. Nevertheless there are some buildings which can be seen to be essential for the communal monastic life and Buildings A and B may be compared with the two major buildings mentioned on Irish monastic sites — the *Proindtech*: the eating house or refectory and the *Tech Mor*: the big house which had a variety of uses like a secular hall (Cramp 1986, 196–8). As I have stated elsewhere in considering these Northumbrian monasteries, 'A complex picture has emerged in which the concept of 'type sites' has been swept away, but certain common patterns of layout are apparent and can hardly be co-incidental' (Cramp 2008, 124; 2017).

The sculpture in high relief which survives from the interior fittings and the external decoration of the buildings at Wearmouth, Jarrow and Hexham no doubt influenced the transition from wood to stone or incised to relief monuments in Bernicia. This can be seen in the memorial stones when



Figure 6. Model of the excavated building at Jarrow monastic site.

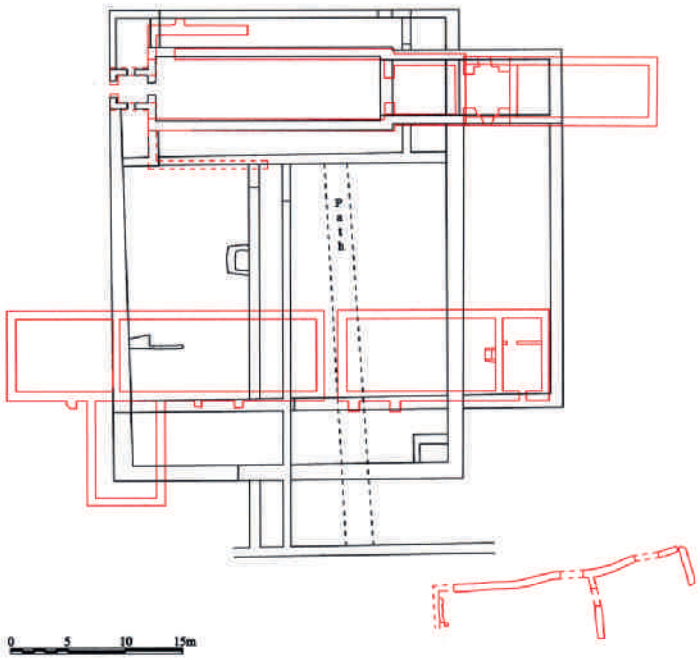

Figure 7. Overlay of the plans of the Anglo-Saxon monasteries of Wearmouth and Jarrow. © R. Cramp.

comparing Hartlepool (as mentioned above) with Wearmouth and Jarrow in relation to their distinctive cross shapes (Fig 8). The new skills also influenced the high crosses which are a notable feature of the Northumbrian landscape. Bede records that the earliest high cross raised in Northumbria was of wood, and some commemorative monuments must have continued in this form, but there are many stone crosses in the kingdom which can be reasonably dated from the late 7th to the 9th centuries (Fig 9), and the catalogue of these monuments has now been completed for northern England (*Corpus of Anglo-Saxon Stone Sculpture* volumes I, II, III, VI, VIII).

Some crosses are sited at the monasteries themselves, where they could be commemorative of the founder, an abbot or abbess, or they could be in liminal positions at the entrances to the sites. Some may have been used as a focus for prayer on a lay or religious site, and some of the most impressive are on the borders of the kingdom, as Aberlady or Abercorn by the Firth of Forth bordering the Picts, or in the west, where the British church had been well established at Bewcastle in Cumbria or Hoddom and Ruthwell in Dumfries. Here they were obviously meant to impress.

One monument may illustrate the new creative achievements of the early Christian world of Northumbria. The Bewcastle cross still stands in its original position to the south of the church (Fig 10a). The site was originally dedicated to the British deity, Coccidius (Higham 1986, 18, fig 5.9), and then became a Roman fort before housing a religious establishment, and it has been suggested that the cross was specifically located in the heart of the fort (Orton and Wood 2007, 25–9). The runic inscription on its main face indicates that it was raised up for an individual (probably of the royal house) under the patronage of a group of individuals, some of which could have been laity, and it is possible that the inscription, at eye level, in Old English, and in the native runes rather than Latin characters, emphasised the lay interest in the monument. It is possible also that this inscription was meant to relate directly to the figure below, who in his dress and his accompanying bird of prey could be seen as the personage commemorated. Above this, however, the figure of Christ in Majesty is entitled by a Latin inscription, and finds its parallels on the Ruthwell cross (probably carved at Wearmouth/Jarrow) and the lid of the coffin of St Cuthbert from Lindisfarne. This monument indeed demonstrates, in its ornament and iconography, links with several influential monastic centres. The humane and classical figure sculpture of Christ and John the Baptist, as well as the inhabited plant scroll on the east side, reflect the influence of the icons, books and sculptures gathered together at centres such as Wearmouth/Jarrow; the medallion plant and vine scrolls are a typical feature of the Hexham sculptures and the elegant geometric panels of interlace derive from the insular traditions in metalwork, or in manuscripts such as the Lindisfarne Gospels (Fig 10b) (Bailey and Cramp 1988).

Northumbria's precocious achievements in learning, as well as in art and architecture, were diminishing in the early 9th century, a time when the kingdom was plagued by civil war, and the ideals of the early monasteries were dimmed. The later 9th/early 10th century is one of the most obscure periods in Northumbria's history, and it is possible that life changed during the 9th century in monasteries, and that they



Figure 8. Memorial stones from Wearmouth and Jarrow with characteristic cross shapes in relief, and Hartlepool and Wearmouth name-stones with incised crosses. © R. Cramp.



Figure 9. Map of the early sculpture of Durham and Northumberland. *Corpus of Anglo-Saxon Stone Sculpture, volume 1.*



Figure 10. a. The Bewcastle Cross (left); b. Detail of the south face of the cross (right).

were opened up more to lay control, although this has still to be fully demonstrated. At all events the Viking raids and settlements of the 9th century brought about the dismemberment of the Northumbrian kingdom, with Bernicia remaining in Anglo-Saxon control, but cut off from the other kingdoms in the south by the Viking settlements in Deira and Cumbria.

What happened to the monastic communities is still a matter of debate. In the most fully excavated sites of Wearmouth and Jarrow the major buildings all show destruction by fire, but, here as elsewhere, churches and burial grounds remained. Some religious possibly went back to lay life, some tried to join other communities, but these in Bernicia eventually were pared down to one — the Lindisfarne fraternity which became the Community of St Cuthbert.

Nothing is better for demonstrating the breakdown of the international monastic network than the plethora of small monuments with localised patterns, which imitate wood and metalwork motifs, but lose the link with late antique figure sculpture and its subtle Christian iconography. The Viking rulers in Deira brought new trading contacts and new production centres and were eventually Christianised and absorbed into society, but the rulers at Bamburgh in Bernicia were isolated and partly absorbed into the increasing power base of the Scottish kings.

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The Frontier Foundations of Anglo-Saxon Northumbria

Rob Collins

Introduction

The kingdom of Northumbria is famed for its 'Golden Age', during which its secular rulers and monastic communities produced scholars such as Alcuin and Bede and masterpieces of art such as the Ruthwell Cross and Lindisfarne Gospels (Cramp this vol). In stark contrast to most of the other English kingdoms of the early medieval period, Northumbria also benefits from the incredible preservation of many of the sites and monuments attested by Bede and other Northumbrian writers, for example at Bamburgh, Yeavering, Hexham, Jarrow, Escomb and York to name only a few examples (e.g. Cramp 2005; Hope-Taylor 1977). Despite these achievements, Northumbria has long been seen as a hybrid kingdom — a kingdom in which the dominant Anglo-Saxon kings ruled a culture that incorporated the English and the British, with further influence from the Irish and perhaps even the Picts (O'Brien 2010; 2011). This perspective has been championed by Hope-Taylor (1977), primarily in his excavation report for the royal palace and sequence of halls at Yeavering. Indeed, it has long been accepted that Northumbria was formed from the union of the sub-kingdoms of Deira and Bernicia, both of which have Brittonic linguistic roots rather than English, with a number of other high-status sites also suggestive of pre-Anglian British origins (Alcock 1988).

However, this hybridised perception of Northumbria has largely ignored the significance of Hadrian's Wall and the Roman frontier zone, despite accumulating evidence for post-Roman activities at a number of military sites in the Roman frontier (Fig 1). I would contend that it was the resilience of the martial tradition and perhaps even the political and social structures of the Roman frontier that laid the foundations for the kingdom of Northumbria. If the presumption that Roman soldiers were entirely removed or withdrawn from the frontier is abandoned, and the archaeological evidence from Hadrian's Wall and other military sites is understood as the social and political transition of the Roman soldiers into local warbands, then a new model emerges, with considerable implications for the formation of Northumbria and possibly other early medieval kingdoms striding the former frontiers of the Roman Empire.

Current models on the origins of Northumbria

The formation of Northumbria is generally understood in terms of the political emergence of an English elite, predominantly through the successful competition of two royal lines, that of Ida (via Æthelfrith) of Bernicia and that of Aelle (via Edwin) of Deira (Yorke 1990, 74–81). Ida and Aelle are named founders of their respective dynasties in the early-mid 6th century, but little is known about either individual. Based on what little we do know of Ida, his dynasty presumably displaced another dynasty in Bernicia, based on the claim that he linked Bamburgh to Bernicia (*Historia Brittonum*, 61, in: Morris 1980). Æthelfrith and Edwin provide firmer historical ground, mostly due to Bede's extensive writings. However, it is notable how little Bede actually related about the origins of Deira or Bernicia in his *History*, instead repeating Gildas' narrative for the construction of Hadrian's Wall as the final act of Roman soldiers in the early 5th century (*De Excidio*, 15.1–18.3, in: Winterbottom 1978). A reliable historical narrative only begins with the unification of Bernicia and Deira under Æthelfrith's and Edwin's ascendance and successors. Bede further reinforces an interpretation that Bernician expansion under the English Æthelfrith really only began in the 7th century (e.g. *Bede HE*, I.34, in: Colgrave and Mynors 1969).

Rollason (2003, 65–6) has presented the most recent summary of the formation of Northumbria, suggesting three models. Model 1 presents the possibility of a concession of Roman or sub-Roman authorities to English elites: more-or-less peaceful with broad demographic continuity. Model 2 envisages English elites taking authority from the British elites that expanded south of Hadrian's Wall in the aftermath of the end of Roman Britain; again, this model is more-or-less peaceful and suggests a broad demographic continuity, though one in which the Roman inheritance is considerably reduced. Model 3 is the traditional bloody conquest, colonisation, and displacement/replacement of the natives at all levels of society by incoming English migrants and elites, with very little reference to a Roman or British past. Rollason (2003, 93–109) highlights the ambiguities in the dating of the archaeological evidence, and notes that there is some evidence for Roman/sub-Roman and British influence in Northumbria, as well a tradition of English and British hostility.

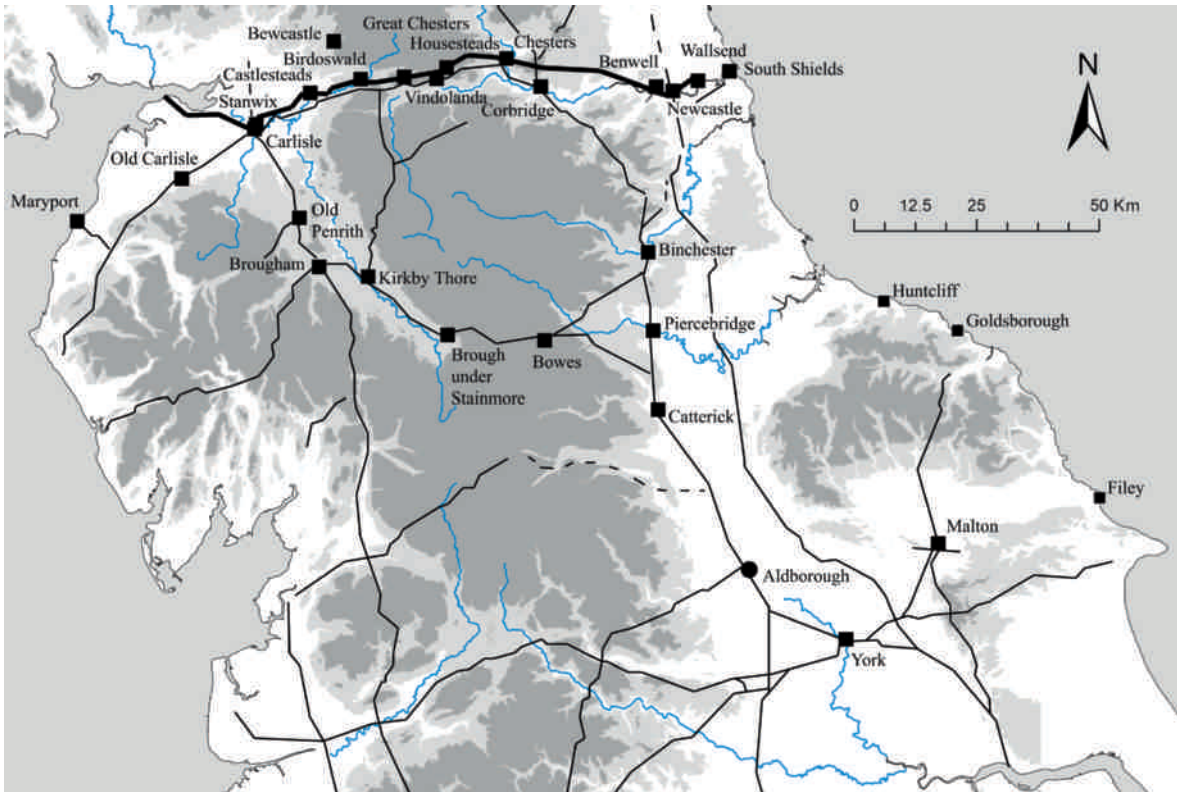

Figure 1. A distribution map of Roman military installations with evidence for activity and/or occupation dating to the 5th–8th centuries in the frontier area of northern *Britannia*.

While acknowledging the evidence for activity at Roman sites in the 5th and 6th centuries, Rollason downplays any impact or inheritance from Roman or sub-Roman authorities. No special consideration is given to the fact that the frontier was densely occupied for centuries by a professional military body, and it should be remembered that the area between the Humber estuary and Hadrian's Wall was its own province through the 4th century, with a full provincial government that operated independently of the rest of the diocese of *Britannia*. It is perhaps significant that the kingdom of Northumbria broadly corresponds geographically with the extent of the Roman frontier zone, and it has been suggested that the lower Tyne was a core area for Bernicia (Wood 2008; Roberts 2010; Intro this vol). It could be argued that the formation of Northumbria was in fact the reformation of the fragmented Roman frontier, and in this light it is worth reassessing the significance of the Roman frontier for the formation of Northumbria.

The frontier-foundation hypothesis

There is a considerable amount of evidence for activity in Roman forts that can be dated to the 5th century and later (Tab 1; see also App 1). The archaeological evidence is often fragmentary and ephemeral, and there are very few sites with any great quantity of evidence available, though Vindolanda is a notable exception. Previous scholars have suggested that the Roman garrisons at each site remained in place in the early 5th century, and that these soldiers formed the core of warbands (Casey 1993; Wilmott 1997; 2000). Such an interpretation has seen some disagreement, with an alternative interpretation of the evidence suggesting that the Roman forts were occupied by a new or different population that need not have been the continued occupation by a Roman military garrison (Hodgson 2009, 40). However, if a longer-term view of this activity is taken, the evidence for 5th-century activity can be seen as the final phase of a transformation of the Roman frontier army throughout the 4th century. There are a number of reasons to suggest that the garrison of Hadrian's Wall and the rest of the frontier were deeply embedded — economically, socially and politically — in the frontier region. This argument can be found in greater detail elsewhere (Collins 2012a), but is summarised here:

- There is no direct documentary evidence that suggests the complete or widespread withdrawal of the frontier units from northern *Britannia*. Although there is more evidence for the redeployment of the units that were garrisoned on the Saxon Shore frontier of southern *Britannia* (see also Collins and Breeze 2014).

	Earthen defences with stone/timber revetment	Structural or Occupational Evidence	Class I Inscribed Stone	'British' type Artefacts	'Anglo-Saxon' type Artefacts	Evidence for Christianity	Burial Evidence
Hadrian's Wall							
South Shields	■	■		■	■	■	■
Wallsend					■		□
Newcastle	□	■		■	■		■
Benwell					■		□
Corbridge		□		■	■	□	□
Chesters				■	■		□
Housesteads	■	■		■		□	■
Vindolanda	■	■	■	■	■	■	□
Great Chesters						□	
Birdoswald	■	■		■	■	□	■
Castlesteads			□				
Stanwix		□					
Carlisle		■		■	■	■	
South of Wall							
York		■		■	■	■	■
Malton	■				■		■
Filey	■						
Goldsborough				■			
Huntcliff				□			
Aldborough	■				■		
Catterick		■		■	■		■
Piercebridge	■			■	■		
Binchester	■	■		■	■		■
Bowes	■						
Brough under Stainmore					■		
Brougham			□				
Old Carlisle			□				
Old Penrith					■		
Kirkby Thore				■	■		
Maryport			□				
Manchester					■		■
North of Wall							
Bewcastle					■	■	

Table 1. Evidence for occupation and activity of the 5th–8th centuries at Roman frontier forts. A solid square indicates definite evidence, while a hollow square indicates probable or possible evidence.

- The units in garrison c AD 400, according to the *Notitia Dignitatum*, are largely the same as those units attested on inscriptions from various sites in the frontier in the 2nd and 3rd centuries, with 'newer' units and more recent deployments of the later 3rd and early 4th centuries occurring at the forts positioned on the main roads south of the Wall (Breeze and Dobson 2000, 256–76; Hassall 1976; Hodgson 1991). This indicates not only a stable long-term deployment of these military units, but also fairly established supply and logistics arrangements. In addition, the fact that the northern frontier of *Britannia* was not considerably reorganised, as seen in other frontiers of the Roman Empire — notably along the Rhine and Danube — further suggests that the existing arrangements were largely successful from a Roman imperial perspective.

- While there is some archaeological evidence for the ruination and/or collapse of individual structures in forts, these cannot be presumed to indicate the complete abandonment of a site. Rather, there is evidence for selective use of space. For example, there is a reduction in the size and opulence of commanding officers' houses at South Shields and Vindolanda; the headquarters buildings see a range of new activities introduced, and granaries are often reduced in capacity/size, demolished or otherwise converted for alternative use, at Newcastle, Housesteads, Vindolanda, and Birdoswald (Fig 2). Additionally, many forts display evidence for very late refurbishment of the defensive circuit, in which earth, timber and/or stone are used for revetment rather than building true free-standing walls.

- The material culture associated with high status military activity in the final decades of the 4th century arguably can be linked to the elite material culture of the 5th and 6th centuries, particularly notable in dress accessories such as the zoomorphic penannular brooch and feasting equipment like glass cups and beakers (see also Collins 2010; Price 2010; Alcock 2003).

- The organisation of the late-Roman army in the 4th century had already blurred the distinction between the social and economic relationships between officers and soldiers, and between military authorities and civil authorities (Whitby 2007; Whittaker 1994, 243–78).

- The archaeological evidence for 5th-century and later activity in Roman forts may be reduced relative to evidence from the 2nd–4th centuries in both quantity and quality, but it is generally consistent with that from other high status sites elsewhere in Britain in the 5th and 6th centuries, notably the parallels from hillforts (see also Collins 2013b; Cool 2000).



Figure 2. A reconstruction of the final phase of the 'granary sequence' at Birdoswald, depicting the timber hall and west gate from the north-east. Drawing: M. Hoyle.

When assessing these factors, there is a compelling line of reasoning to suggest that the Roman frontier of northern *Britannia* did not collapse in the 5th century. Collapse suggests widespread military failure and/or abandonment: inappropriate perhaps, given the amount of evidence accumulating for 5th-century and later activity at Roman forts. Rather, the frontier should be seen as fragmenting, or breaking up into smaller sectors or areas, becoming politically and economically independent from other sectors. While this does indicate a geographically reduced scale of society and economy, it also suggests a greater level of stability than would be expected in those parts of *Britannia* that suffered a collapse. The challenge for archaeologists, however, is demonstrating the duration of occupation and activity in Roman forts in the 5th and 6th centuries, and the extent to which the frontier fragmented into allied/affiliated clusters of sites, or became independent settlements.

The 'relict' military architecture and organisation, largely surviving from the later 2nd century, and which did not require constant reinforcement from imperial authorities or reorganisation, indicates that the frontier garrison was generally successful in its defence of *Britannia* from the northern barbarians. Furthermore, a number of changes visible in the archaeology of Roman forts occurring in the final decades of the 4th century indicate considerable changes to the social and structural organisation of the frontier garrison that has been interpreted as an increasingly regionalised military identity contributing to a greater sense of place (Collins 2012b). The recurrence of many of these changes to the built environment, however, does not provide clear evidence of fragmentation.

The deeply embedded nature of the supply of the military garrisons, as well as the long-term occupation of each unit, further reinforces the likelihood of continued occupation of the frontier in the confused aftermath of Constantine III's failed usurpation that originated in Britain in AD 407. Indeed, accounts in *The Life of St Severinus* highlight that soldiers did not automatically disband or abandon their posts due to a lack of continued or frequent communication from central imperial authorities (*Eugippius*, *Life of St Severinus*, 4.2, 20.1, in: Bieler 1965). Supply and the (re)distribution of materials are key to understanding the continued solidarity or fragmentation of the frontier. There has been some evidence that the Yorkshire kilns continued to produce calcite-gritted pots into the 5th century (Whyman 2001), but as yet this methodology has not been applied to assemblages from outside the city of York; examination of the distribution of the identified 5th-century fabrics is crucial in further elucidating the fragmentation of the frontier through its discontinued or much-reduced supply and distribution. Coins, the other major type of imported high-quantity material, do not shed any further light on the issue. No large coin shipments were made after AD 402, meaning that there are no fresh coins whose distribution could demonstrate maintained payment mechanisms; rather, 4th-century coins continued to circulate in the 5th century in much the same pattern observed in the late 4th century (Collins 2013a).

Elsewhere in Britain, mortuary archaeology often provides the most tantalising evidence for 5th- and 6th-century activity, often linked with the appearance of Anglo-Saxon material culture, and presumed migrants. It is notable, however, how few 5th-century burials are found along Hadrian's Wall. There are burials in the courtyard house and outside the western gate at South Shields that date to the 5th century (Bidwell and Speak 1994), and recently excavated cist graves at Birdoswald and Maryport probably belong to the late 4th and 5th centuries. In contrast to the Roman frontiers along the Rhine and the Danube (Brather 2005, 162–8), there are no known extensive late 4th- and 5th-century row-grave cemeteries with furnished burials associated with the Wall. Even accepting the dearth of excavated cemeteries of any date on the frontier, furnished burials in the late-Roman tradition are relatively scarce, with the largest number in the frontier from the site of Scorton, outside Catterick (Eckardt et al. 2015).

Anglo-Saxon burial traditions and even the distribution of identifiable Anglo-Saxon objects is also uneven in the frontier (Lucy 1999). The earliest and largest cemeteries, both cremation and inhumation, can be placed in the East Riding of Yorkshire, and it is notable that the largest early 'Anglo-Saxon' cemetery outside of Yorkshire is to be found on its borders at Norton-on-Tees (Sherlock and Welch 1992). Including discoveries recorded by the Portable Antiquities Scheme over the past decade makes this distribution even clearer (Fig 3). The greatest density and most even spread of Anglo-Saxon material culture can be found in the Yorkshire region, between the Humber estuary and River Tees. There is some occurrence in the eastern lowlands of County Durham and Northumberland, but as yet, there are no large early Anglo-Saxon cemeteries. Interestingly, this distribution generally corresponds with the distribution of more densely settled agricultural landscapes, which is also where Roman villas tend to be found.

These burial practices, with furnished inhumations in the late-Roman and Anglo-Saxon traditions can be taken as further evidence for the robustness of the social structure of the frontier, notably in the more militarised areas. If we understand furnished inhumation as a ritual indicating local social stress and competition, social anxiety and insecurity (Halsall 2007), then its absence probably indicates a more robust sense of social position. In the greater Yorkshire region, with lower levels of military presence and higher levels of landed gentry, the 5th century saw increased levels of social insecurity by the elite, during which time furnished inhumation and Anglo-Saxon material culture became increasingly common (for beyond the frontier, see Semple et al. this vol). In contrast, those areas of the frontier with denser military occupation and the areas north of Hadrian's Wall seem to have been less effected with social insecurity.

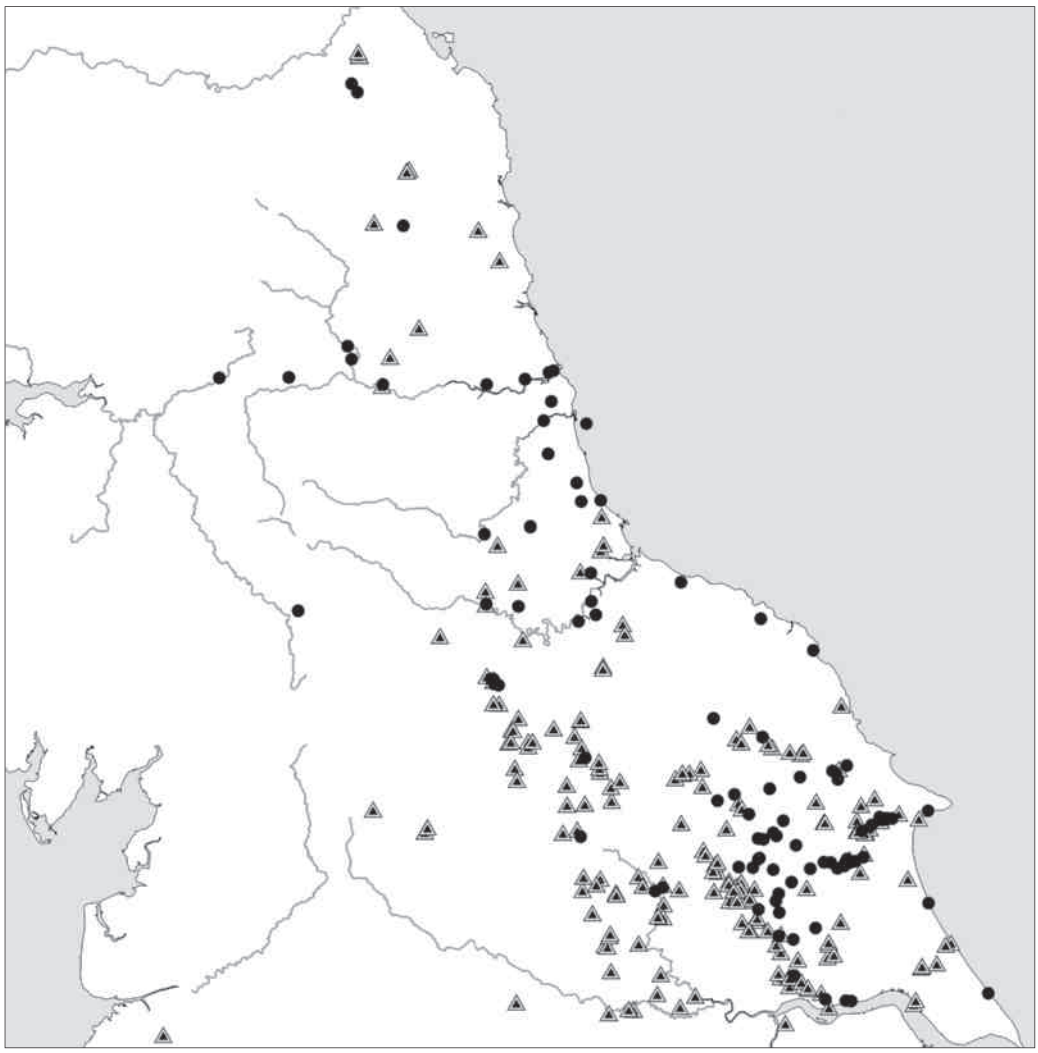

Figure 3. The distribution of 5th- and 6th-century mortuary activity (black circles) based on data from Lucy 1999, with additions by the author, compared to objects of early Anglo-Saxon date recorded by the Portable Antiquities Scheme up to 29 July 2011 (grey triangles).

I would link this security or insecurity to competing models of elite-identity formation and their bases in the politics and society of the Roman Empire.

The landed gentry of the greater Yorkshire region, like much of the south of *Britannia*, were tied into Roman notions of status and property, such that their authority was justified and sanctioned through imperial government. When Roman imperial government was lost in the 5th century, the landed gentry had to revalidate their continued existence. In contrast, the militarised areas of northern *Britannia* possessed an elite officer class that probably outnumbered other elite groups. While their legal authority may have rested on their position in the Roman imperial military, the loss of Roman imperial government still saw these officers in charge of armed followers, which enabled them to maintain their position through force of arms. North of Hadrian's Wall, the situation was generally similar to the militarised areas of the frontier. Barbarian chiefs were supported by armed followers, and as long as these followers could be retained, then so too could the chief remain in charge. The practical aspects of maintaining an armed group of followers enabled Roman officers and barbarian chiefs to retain power regardless of the presence of Roman imperial government; these warlords did not have to compete with alternative models of elite identity, as the landowning gentry did. Rather, the warlords directly competed with each other for resource, which reinforced the military identity and martial tradition as essential in seizing and holding power. The introduction of Anglian material culture provided an alternative form of elite identity and display that could compete with existing martial elite-identity formations elsewhere in the frontier. The robustness of these Romano-British martial elite-identities proved resilient, such that the nominally English kingdom of Northumbria is far less Anglo-Saxon in its material culture than the other English kingdoms.

Implications and conclusions

If it can be accepted that the Roman frontier army was not withdrawn, and that the archaeological evidence supports an argument for continued military occupation of the frontier into the 5th century, then the origins for Deira, Bernicia, and subsequently Northumbria become far more intimately linked with the Roman frontier culture. As argued above, the regionalised and robust nature of Roman military identity provided a martial tradition across northern *Britannia* for Roman Britons and barbarians alike that did not suffer from the divorce from Roman imperial authorities. This militarised identity was not uniform across the frontier; indeed, where it seems weakest is where the strongest evidence for an Anglo-Saxon identity can be found, in the greater Yorkshire region where there was more intensive agricultural settlement and exploitation under a landed gentry class.

Such an interpretation has considerable implications on our understanding of the kingdom of Northumbria. If the martial identity formation is perceived as more robust, this may also have been associated with political and economic stability that was lost in other parts of *Britannia* in the decades after AD 410. Northumbria was able to capture the martial capacity and social and economic stability of the region that allowed it to rapidly expand at a time when the other English kingdoms were still consolidating their territorial integrity. There is also the possibility that other elements of Roman frontier culture were drawn upon by the kings and bishops of Northumbria, those elements visible in the extant standing remains and monuments of three centuries of military occupation.

This frontier-foundation hypothesis also raises important questions for other early medieval kingdoms that formed astride the frontiers of the former Roman Empire. Was there a greater survival of the Roman frontier army of the middle and lower Rhine that contributed to the formation of the Frankish kingdoms? Did this also happen in the upper Danube, contributing to the formation of the Ostrogothic kingdom? While these kingdoms are ascribed with barbarian names and extended quite deep into the Roman Empire, it is possible that these new barbarian kingdoms were in fact drawing on the martial traditions and structures of the Roman frontier armies. Did this provide an initial advantage to these kingdoms, making the former periphery of an empire into a strong core of a smaller kingdom that allowed it to increase its penetration and expansion into the Empire? In focusing on the expansion of the barbarian successor kingdoms and their boundaries, the Roman frontiers became politically — though not socially or economically — redundant, and this has further clouded the significance of the Roman frontiers to the successor kingdoms. It is hoped that future research is more sensitive to the possibility of the longer-term significance and influence of the Roman frontiers on post-Roman polities and powers.

Appendix 1

A Gazetteer of Post-Roman Activity along Hadrian's Wall at Roman Sites

South Shields

The key publication is Bidwell and Speak (1994), with sequences at the south-west gate, the *principia*, and the courtyard house (still to be published in full) suggesting 5th-century activity, possibly including a church. A small handful of objects, including a 7th-century mount and bone pins, attest to some activity in post-Roman centuries on the site, though these are largely unpublished and lack any associated archaeological contexts (A. Croom pers comm).

Wallsend

Hodgson (2003) provides an account of the most recent excavations, but 4th-century and later remains are generally lacking. However, a sherd of an Anglo-Saxon cremation urn has been found (Tipper in preparation).

Newcastle

Excavations of the fort at Castle Garth, Newcastle have been reported for the Roman period by Snape and Bidwell (2002) and the early medieval remains by Nolan et al. (2010). There is tantalising evidence for post-Roman activity in the *praetorium*, and overlying the barracks in the *praetentura*. A cemetery of the 7th century and later was built in the fort, and there are a very small number of artefacts that suggest activity of 5th- and/or 6th-century date.

Benwell

There is no clear evidence for structural activity at Benwell in the 5th century or later, but two cruciform brooches have been found to the east of the fort during the insertion of utilities (Brewis 1936; Jobey and Maxwell 1957). Both brooches were found in approximately the same area, with the second brooch associated with a fragmented glass vessel that was discarded by the workers. Unfortunately, archaeologists were unable to examine the findspots.

Corbridge

A pair of cruciform brooches and an urn were found at Corbridge (Hedley 1937, 102).

Chesters

An Anglo-Saxon annular brooch with confronted animal heads probably dating to the 6th/7th century was found on the fort site (Miket 1978), while a sword-pyramid mount of late 6th–7th-century date was found to the north-east of the fort (PAS find ID: NCL-925284). Note also the proximity of the fort to Oswald's camp at Heavenfield and the subsequent battle in AD 634.

Housesteads
Structural sequences probably extend into the 5th century inside the fort, notably over the barracks, and there is very late refurbishment of the defences, including timber post-built towers. A stratigraphically late apsidal building near the north rampart has been tentatively identified as a church (Crow 2004; Rushworth 2009).

Vindolanda
Vindolanda is the site with the greatest quantity of post-Roman evidence, consisting of building sequences in the north-east, north-west and south-east quadrants, at the granaries, probably the *principia*, the *praetorium* and also the southern and western defences, with recent excavations in the south-east quadrant attesting more building sequences (Bidwell 1985; Birley et al. 2002; Birley and Blake 2007; Birley 2013). In addition, the *Brigomaglos* stone (Jackson 1982), and the recent discovery of the *Riacus* stone, together provide two Class I inscriptions, and there are a number of artefacts, including a likely post-Roman penannular brooch, a late 6th-/7th-century opposed-head annular brooch, and two late 'Saxon' strap ends (Birley 2013, 173–4; Miket 1978).

Great Chesters
While unproven, it seems likely that the *Ahse* mentioned in the anonymous *Life of St Cuthbert*, where the local population gathered to meet the saint, can be identified as a derivation of the Roman name for Great Chesters fort, *Aesica* (Rollason 2003, 61).

Birdoswald
The best-known sequence at Birdoswald relates to the granaries and the western gate (Wilmott 1997), culminating in the post-built hall, but also discussing the possibility of a late 5th–6th-century small-long brooch reputedly from the site. Recently, a Byzantine half-follis of Justinian minted at Constantinople has been found on a ground surface associated with wear and erosion (F. McIntosh pers comm). Note also a later disc-headed pin of 8th-century date.

Castlesteads
A possible Class I inscribed stone, *RIB* 2331, has been found on the site, which Collingwood and Wright (1965, 734) attribute to the 6th century, but Thomas (1992, 10, no 6) dismisses.

Stanwix
Full details for excavations at Stanwix are not yet published, but some details are available in McCarthy (2002), notably the substantial timber post-built structures of 4th-century or later date.

Carlisle
The Carlisle Millennium excavations are published in Zant (2009) and Howard-Davis (2009), detailing evidence for likely 5th-century sequences in the fort relating to the *principia* and dark earth deposits. The town of Carlisle also has the sites of Blackfriars, in which a pair of properties are utilised into the 7th century (McCarthy 1990), and a townhouse at Scotch Street, which has evidence for occupation continuing into the 5th century (Keevill et al. 1989).

South of Hadrian's Wall
To the south of the Wall, there are a number of sites that exhibit post-Roman activity, including sequences at York (Ottaway 2004; Phillips and Heywood 1995), Catterick (Wilson 2002; Wilson et al. 1996), Piercebridge (Cool and Mason 2008) and Binchester (Ferris 2010).

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Permeable Frontiers: Changing Views of the 5th-century Silver Hoards from Coleraine, Northern Ireland, and Traprain Law, Scotland

Sonja Marzinzik

This contribution focuses on the relationship between the late or latest Roman Empire and areas outside of its borders, as exemplified through two finds of Roman silver, known as the Coleraine and Traprain Law Treasures from Northern Ireland and Scotland respectively, and on their interpretation.

The Coleraine Treasure

The Coleraine Treasure (Fig 1) was found in 1854, near the town of Coleraine, Co Derry. It included a crumpled sheet-silver vessel, fragments of beaded vessel rims from late-Roman dishes, chopped-up parts of two spoons, a vessel base and parts from what might have been a casket. There were also a number of ingots, including two axe-shaped examples with Roman *officina* stamps, a flat bar and several narrow finger ingots. Lastly, the Treasure contained just over 1500 coins, with a further parcel of 195 coins coming to light later, apparently retrieved nearby. Only some 120 coins now survive and the latest ones in the British Museum date to around AD 407/8. Of special interest are three outstanding, silver, parcel-gilt fittings from the treasure (Marzinzik 2013).

A rectangular fitting (Fig 1, see centre left) was thought to come from a sword scabbard mouth, but this now seems unlikely due to the construction of the mount which is unsuited for such a purpose. Furthermore, the fitting does not follow the form of any late-Roman or early medieval scabbard mouth fittings. Another distinctive object has also previously been erroneously described as a sword scabbard mount (Fig 1, centre left). This instead appears to be a fitting that belonged to a belt set similar to the large copper-alloy suites worn by officers in the late-Roman army (Bullinger 1969). The third object is a silver-gilt and nielloed fragment of a Böhme (1987) Type B belt buckle of the late 4th or perhaps first third of the



Figure 1. The Coleraine Treasure. © The Trustees of the British Museum.

5th century (Fig 1, centre right). Like the other two fittings, it is distinguished by very fine craftsmanship and was at some point chopped up.

Another set of late-Roman fittings which fall outside the norm are those of the 'chef militaire' from Vermand, Aisne (cf Halsall 2010). Through examination I have been able to confirm that in technique as well as quality, the rectangular fitting and buckle fragment from Coleraine match these northern French finds. Further links between the two finds extend not only to style and execution, but even to the close match between one of the decorative motifs found in both assemblages: a six-pointed star with a floral design in the centre. The grave at Vermand belonged to a high-ranking individual, most likely associated with the late-Roman army, probably the *comitatus* or field army. Metalwork, such as the belt suite and weapon fittings he was buried with, was produced in state-controlled workshops and was certainly restricted to a very select circle in 5th-century Gaul. This is reinforced by evidence that these silver pieces were not made from moulds but crafted individually (Schorsch 1986; Marzinzik 2013; contribution by Lang in Marzinzik 2013).

The Coleraine Treasure has often been explained as the result of Irish sea raiders attacking Britain. It has also been suggested that this hoard was the possession of an itinerant Roman trader, selling his wares in Ireland. It seems dubious that a trader would have carried over 1000 silver coins and, moreover, this interpretation does not account for the presence of the ingots with official Roman stamps, or of the flat bar ingots, which are of a silver fineness comparable to the official ingots (contribution by Hook and Callewaert in Marzinzik 2013). A recent suggestion has been that such flat bars may represent tax payments ready for the mint (Abdy 2013).The outstanding craftsmanship of the Coleraine fittings and the fact that they were made from silver, unlike the absolute majority of late-Roman chip-carved metalwork, links these fittings to the grave assemblage from Vermand. Therefore, both the Northern Irish ingots and fittings suggest a high ranking milieu with official and/or military connotations.

The Traprain Law Treasure

Traprain Law is located approximately 30 km to the east of Edinburgh (Hunter 2013) and about 4 km inland from the sea. It is a volcanic outcrop, dominating the surrounding landscape. The silver treasure was found in 1919 (Fig 2) on a plateau at the western end of the hill, while a Pictish silver chain discovered during quarrying came from the eastern end.

The majority of the Traprain Treasure consisted of Roman silver plate in form of vessels and hacksilver. There were fragments from approximately 160 objects, with a total weight of around 24 kg and four late 4th- to early 5th-century *siliquae*, two of which have a *terminus post quem* of AD 397 (Guest 2013). In addition, the Treasure comprised a number of non-plate silver objects, some of them parcel-gilt and niello-inlaid. Curle in 1923 identified the items as a group and the material has been discussed and presented as such ever since. Through examination of the material, however, I have identified that this collection is not a cogent single group. The supposed Gothic connection of the material is not tenable and any general, eastern Germanic associations are weak at best. While some of the objects may have been functional when they were buried, others had undoubtedly fallen out of use by that point (Marzinzik in preparation).

The buckles, strap-ends, hair pin — previously erroneously identified as an earring — brooch and a silver-studded leather strap, most likely from a horse bridle (Hartley et al. 2006, figs 256–8), span the late 3rd to the middle of the 5th centuries. All, except for the brooch and leather strap, have strong associations with material culture. In particular the finely-crafted large buckle with small rectangular fittings and the round and respectively lancet-shaped strap-ends belong into a military context with comparative pieces known from Britain and northern France to Pannonia and the eastern Mediterranean.

The excavator of Traprain Law, A. O. Curle, mused in his diary in 1919, 'the general character was too early for the vessels to belong to native Celtic Christians. Loot it must have been. Who then was it looted from and by whom?' (Typescript

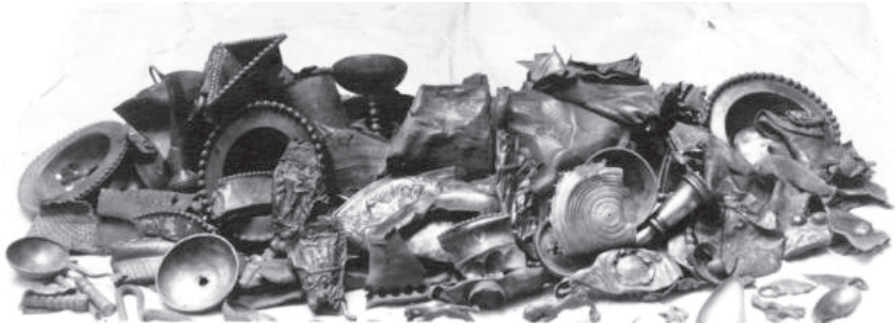

Figure 2. The Traprain Law Treasure shortly after discovery. © National Museums of Scotland.

copy, Archive of the Department of Prehistory and Europe, The British Museum). Much of the discussion since has followed in this vein, while the question of who amassed the bullion remains open.

Silver was to remain scarce in the British Isles up to the Viking period (Ryan 1982) and in the late and post-Roman eras, access was likely closely controlled by the elites (cf Rau 2013). The material in itself as well as the novel objects developed from it — such as dress pins (Gavin 2013) and the massive Pictish chains (Youngs 2013) — acted as highly visible status markers, proclaiming connections beyond the border.

Without over-emphasising the parallels, there are some commonalities between these two hoards from Northern Ireland and Scotland. Both comprise late-Roman dress accessories. These stand out from the majority of comparable, late-Roman metalwork in that they are made from silver, partly also gilt and niello-inlaid, and of a very high standard of craftsmanship. At least some of the dress accessories show unambiguous signs of chopping, and in both hoards some of the objects were bent or folded. Both hoards further contained late-Roman plate, partly as hacksilver, as well as coins. Some of these were clipped, which is seen as an indication that they were buried in the 5th century, after the official withdrawal of Roman authority from Britannia (Abdy 2013). The composition of both hoards is by no means unparalleled outside the late-Roman Empire (Rau 2013) and it is notable that a number of the pieces were either official issue or can be associated with material thought to have been made under state control for official use, particularly in association with the army.

Largitiones, donativa and subsidies

Plate, dress accessories, ingots and coins in varying combinations, and both cut up or whole, have been associated with the practices of *largitiones* and *donativa*. Precious metal was distributed by the emperor or late-Roman officials on particular occasions, e.g. at the accession of a consul (Olovsdotter 2005). Donatives also became current in the late-Roman army, with hacksilver and particular ingot shapes being given to soldiers as rewards (Hardt 2004; Marzinzik 2013; Guggisberg 2013). Therefore, an alternative narrative, namely the socially embedded gifting of precious metal, is entirely compatible with the physical evidence of both hoards.

Irish society at this time was highly martial and consisted of numerous petty kingdoms. While written sources repeatedly referred to Irish sea-raiders who attacked Britain, they also mentioned a number of peoples who provided mercenaries for the *comitatus* in northern France (Rance 2001; 2012). Coleraine could therefore represent or at least include donative material handed out to such mercenaries or payments to those who provided warriors to the Roman army. For Scotland, the range and contexts of Roman objects strongly suggest that interactions with the Empire were not always hostile. At Traprain Law there is evidence for sustained and friendly contact with Rome and it has been suggested that the site might have enjoyed a 'favoured status' (Hunter 2009). The silver hoard from Traprain could therefore comprise donatives to mercenaries, and/or Roman subsidies paid to a friendly client kingdom (Hunter 2009; Marzinzik 2013; cf Bland 2012).

Seen in this light, the borders of the Empire in the British Isles were not simply demarcation lines where conflict manifested itself, but they were rather permeable barriers for people and goods, including payments, awards and official handouts to non-Romans.

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Rhynie: New Perspectives on Settlement in Pictland in the 5th and 6th centuries AD and the Context of Pictish Symbol Stones

Meggen Gondek and Gordon Noble

Introduction: the Northern Picts — on the edge?

The early medieval kingdoms that developed in Scotland have often been thought of as geographically and politically peripheral to the transformations that occurred in Europe in the 1st millennium AD. This peripheral assignation is a legacy of a challenging historical situation, in which there are few native documents surviving prior to the 12th century. Although the area's archaeology is rich, it has also been difficult to provide precise dates, and modern programmes of research have been limited. Other regions suffer from a similar dearth of early medieval written accounts, but the lack of documentation has been particularly keenly felt for the Picts, people associated with kingdoms that once occupied a large area of eastern and northern Scotland. Historically, the word *Picti* first appears in late-Roman accounts of Britain defining troublesome tribal groupings north of the Roman frontier. In the post-Roman period, we know that these groups went on to dominate north-eastern Scotland until the 9th century, after which the use of Picts as a term to describe the people and kingdoms of eastern Scotland disappeared, but there are very few historical documents that help illuminate Pictish society (Woolf 2007; Fraser 2009).

The archaeological record for the period (c AD 300–900) and region in which the Picts are known to have occupied (broadly east central Scotland to the northern Isles of Orkney and Shetland) can also be diffuse and difficult — giving rise to the 'Problem of the Picts' debate at a seminal conference in the mid-20th century (Wainwright 1955). The iconic Pictish symbol stones and carved stone monuments have also marked the Picts as distinctive and the material evidence for connections with other regions of early medieval Britain and Ireland has been limited. One of the key problems has been the lack of ambitious and targeted fieldwork programmes (Carver 2011, 1481). This has meant that the recognised historical and archaeological problems have been slow to be resolved and the Picts have retained their peripheral and distinctive air. The political and cultural status of the Pictish regions and its kingdoms, and the extent of cultural exchange and influence with other regions, has also been difficult to address. Recent historical and archaeological work is beginning to redress this situation, suggesting in many cases that regions in northern Pictland were much more influential and powerful than previously recognised (Woolf 2006; Carver 2008; Evans 2008; Noble et al. 2013). This includes recognition that Fortriu, the most cited and perhaps most powerful Pictish kingdom, was situated around the Moray Firth area in northern Pictland rather than further south as had long been thought (Woolf 2006). The archaeological work includes new work at Rhynie which has uncovered evidence for a powerful Pictish settlement and royal centre in the north, the evidence for which we outline below (Noble et al. 2013).

Rhynie, Aberdeenshire, is located in Scotland's rich agricultural north-east, an area that has seen much less archaeological work than more populated and industrialised areas of Britain (Fig 1). If Pictland in general has been thought of as peripheral to Europe, this large area, equating to much of modern-day Aberdeenshire, has been seen as peripheral even to Pictland itself, Fraser and Halliday for example suggest the area was 'a peripheral zone between the two power blocs of Moray and southern Pictland' (2007, 116). However, Aberdeenshire, is the focus of a dense concentration of Class I Pictish stones, those carved only with motifs from the group of Pictish symbols, monuments we suggest were intimately connected to the new forms of power and authority that emerged in the 5th and 6th centuries AD (Gondek 2006; Noble et al. 2013). Rhynie itself has long been well known for a remarkable group of eight Pictish carved stone monuments. Carved monuments such as these are in many ways an iconic marker of Pictish material culture and monumentality. They offer ways, in the absence of documents and extensive invasive archaeology, of studying social, ideological and political developments. The monuments found at Rhynie are all Class I, incised only with Pictish symbols, and they have no Christian iconography. The Pictish symbols probably communicate names or identities (e.g. Samson 1992; Forsyth 1997; Lee et al. 2010) and the monuments are part of a wider northern European phenomenon of carved stone monumentality, which became popular from the 5th century AD onwards (Handley 2003, 177; Edwards 2007, 30; Fraser 2008, 2). The iconography of the Rhynie stones, when considered in conjunction with the new archaeological evidence discussed below, reveals cultural contacts and characteristics significant in understanding the role of art and the development of kingship in the region.

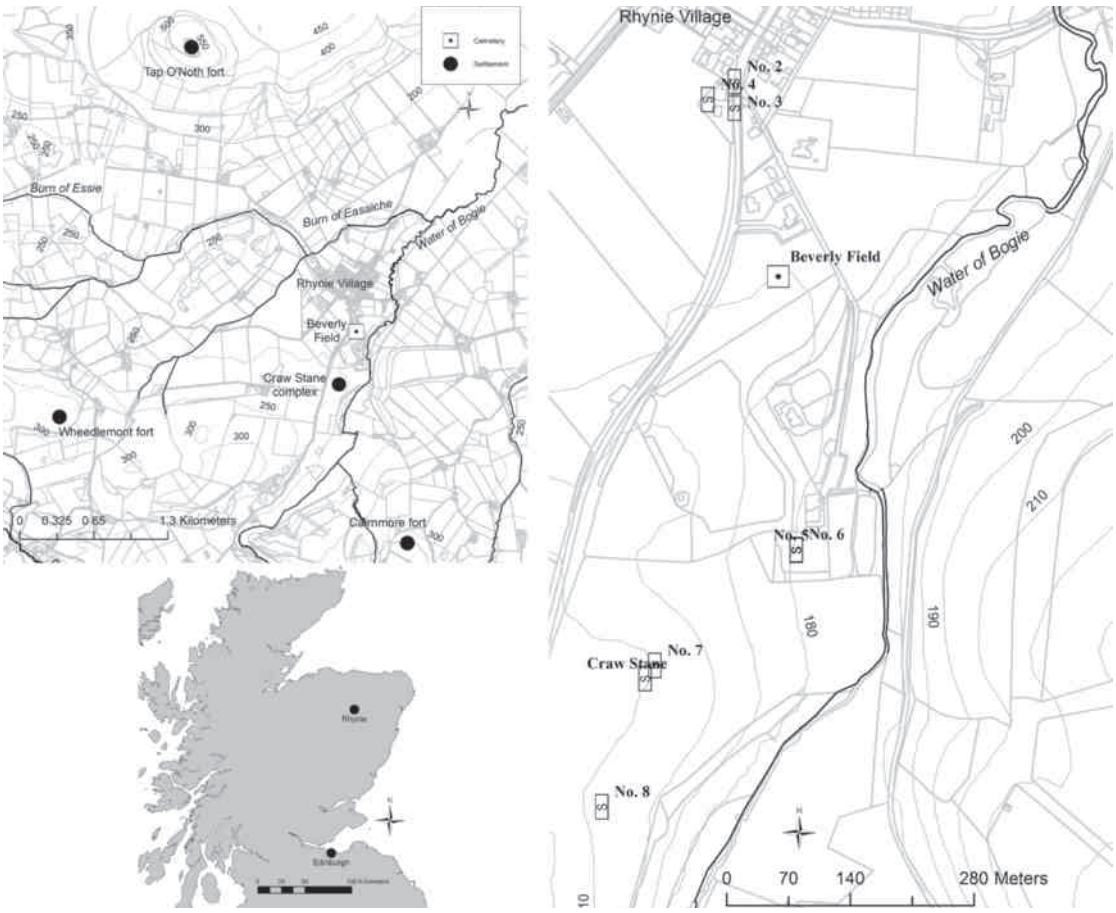

Figure 1. Location of Rhynie and key features in the Rhynie Landscape. Base map: Crown Copyright/database right 2013. An Ordnance Survey/EDINA-supplied service.

Rhynie in the 5th–6th centuries AD

In addition to the carved symbol stones at Rhynie, previous work by Aberdeenshire Archaeology Service in the area from the 1970s onwards uncovered a revealing series of cropmarks around one of the symbol stones (Aberdeen Archaeology Surveys 1979). The Craw Stane (Fig 2), a large monolith carved with two animals (a fish and 'Pictish beast'), although reset in concrete, is probably in its original location and aerial photographs showed at least three concentric enclosures encircling the knoll on which the monument stands (Fraser and Halliday 2007, 119–22). Geophysical survey conducted in 2005–6 suggested a range of interior features such as pits and postholes as well as potential annexes associated with the enclosures (Gondek and Noble 2011; Noble and Gondek 2011; Noble et al. 2013). The Craw Stane, even prior to excavation, could be identified standing in relation to the entrance of these enclosures. An even more remarkable stone (No 7, the 'Rhynie Man') was also found nearby and the findspot suggests that it too once stood in close association with the enclosures at the Craw Stane (Fig 1). A third stone (No 8) was also found a short distance to the south of the Craw Stane. Non-invasive work clearly highlighted an unusual juxtaposition between a number of Pictish Class I stones and a complex series of cropmark enclosures at Rhynie, but without being able to date the stone or the features, little more could be said. The evaluations conducted to date followed a 'strip, map and sample' methodology (Carver 2009, 101) to establish the nature and extent of archaeology around the site of the Craw Stane and to investigate if any chronological relationships could be established. The excavations, thus far, have provided extensive, datable evidence as to the construction and destruction of the site as well as the high-status nature of activities that went on there. The three concentric enclosures shown on aerial photographs were confirmed; excavations revealed these to be a plank-built palisade or box-rampart with substantial foundations, up to 1.5 m deep, suggesting an impressive timber wall originally 4–5 m high surrounded the site. This outer enclosure was supported on its interior by a ring of substantial postholes, probably forming a raised wall-walk around the complex. Within this were two internal ditched enclosures, which may have had associated ramparts, but any bank material had been truncated. These substantial ditches show evidence of

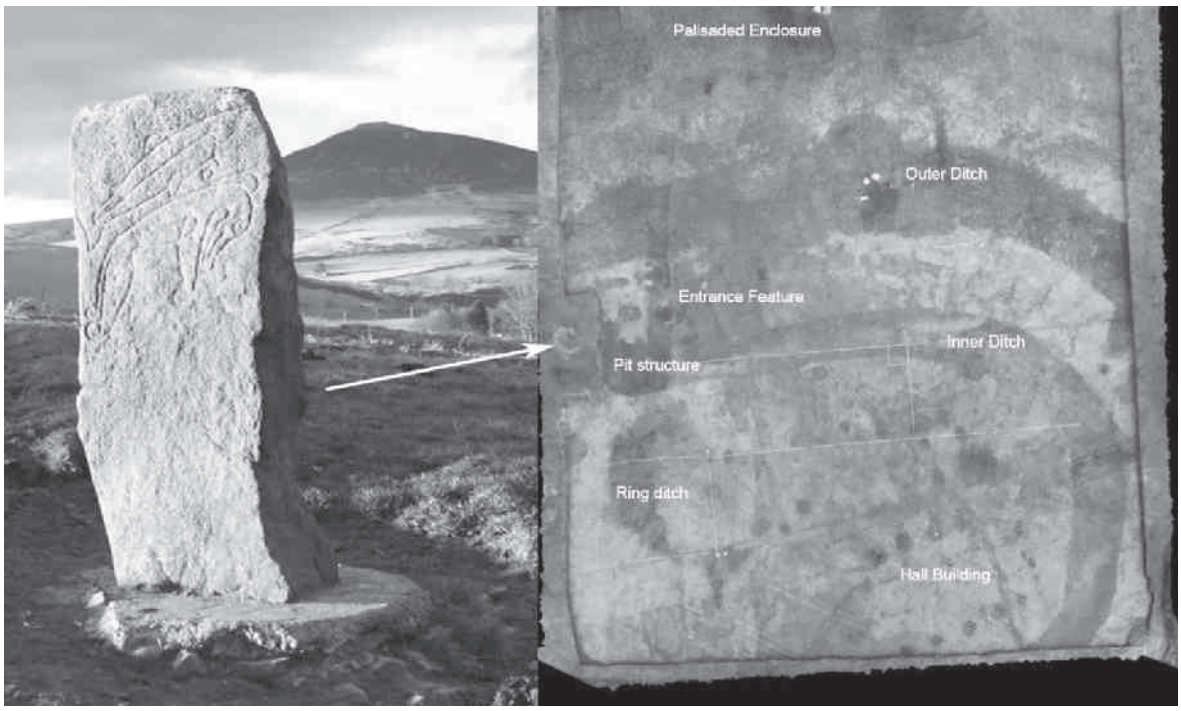

Figure 2. The Craw Stane. Left: Class I Pictish stone. Photograph © C. MacIver. Right: Excavations around the stone in 2012. Kite photograph: O. Sveinbjarnarson.

infill and re-cutting over the existence of the settlement. The ditched boundaries may represent a successive sequence of internal earth and timber boundaries — phasing is tentative at present, but it may be that the internal ditch was replaced over a short period by the larger outer ditch.

Although no direct stratigraphic relationship exists, the Craw Stane appears to stand at the entrance to at least one phase of the ditched enclosures with a very elaborate building standing opposite consisting of curving timber walls defined by multiple post and beam settings. At the terminal of the outer ditch a stone hole for a large standing stone was found in 2015. These elements all indicate substantial investment, especially in the sourcing, transport and working of timber resources. The environmental remains, size of postholes and impressions of individual planks within the outer defence foundation all suggest massive oak timbers were used for the main structural elements. Environmental evidence for the area is slight, but it is unlikely that these timbers were sourced locally as prehistoric structures found in the same landscape show little evidence for the presence of oak.

Inside the enclosures there is more evidence to suggest the lavish and labour-intensive use of dressed planks and woodland resources. In the interior area excavated thus far, there is the ground plan of at least one post-defined rectangular structure measuring at least 9 m × 5 m, built with squared timber posts. There is also evidence for larger buildings or structures with plank slots extending for at least 20 m within the enclosure. A series of calibrated radiocarbon dates from across the main features and Bayesian modelling of the dates indicates activity centred on the 5th to mid-6th centuries AD (Fig 3).

It is not only the resource-intensive architecture that suggests Rhynie to be a high-status site. The assemblage from the site is exceptional, particularly for northern Britain. Most finds come from deposits in and around the outer defence, outer ditch and fills of the inner ditch and confirm the 5th–6th-century date for the site. Of primary importance is the evidence for imported pottery and glass vessels. Several sherds of eastern Mediterranean late-Roman amphorae (types LRA1 and LRA2, also called B Ware in Britain) can be dated to the earlier 6th century (Fig 4). They are the first of their kind to be identified from northern or eastern Scotland. These amphorae probably contained wine and must have resulted from trading links with the Roman Empire, probably via western Scotland (Campbell 2007, 18–24). There are also fragments of fine imported glass drinking vessels from the site, which probably arrived via the same contacts. The amphorae and glass are key finds and reveal for the first time that the inhabitants of Rhynie were participants in this high-status exchange network which characterised the emergence of new forms of power and authority in western Britain and Ireland in the post-Roman period (see discussions of central places in the Intro, Axboe, Hårdh all this vol). The evidence from Rhynie offers a very rare glimpse into the social and economic networks of this region of north-eastern Britain.

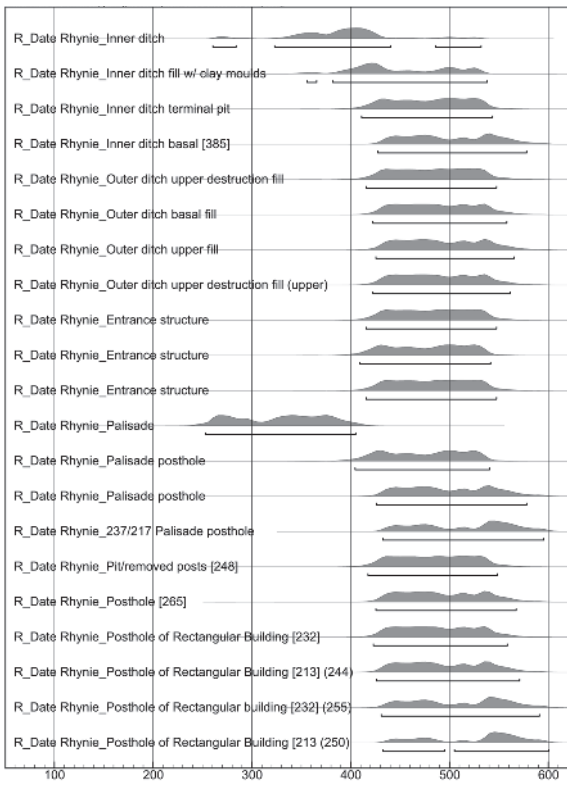

Figure 3. Radiocarbon dates from the Craw Stane complex.

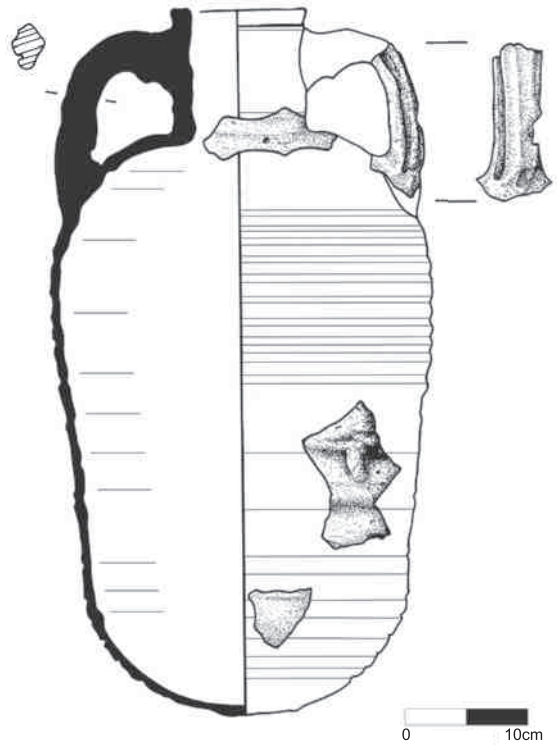

Figure 4. Sherds of late-Roman Amphora (type 1) from Rhynie. Drawing: A. Watterson.

Similar to other high-status early medieval sites, there is also considerable evidence for non-ferrous metalworking taking place at Rhynie. A range of moulds, including a complete valve of a small Type H penannular brooch and possible pin moulds, crucibles and a pair of early medieval metalworking tongs shows that Rhynie's inhabitants also had command over the expertise and resources associated with this activity. Evidence of personal ornamentation commensurate with a high-status site includes amber beads, bronze mounts and bronze pins, some of which have possible parallels to Anglo-Saxon 5th–6th-century toilet implements. These finds, and the fact that only a tiny proportion of the site has actually been excavated thus far, further emphasises the exceptional nature of the site and its links with the wider world of both the North Sea zone and Atlantic Britain.

Unusually, the site also has good preservation, particularly in the burnt deposits, for ferrous material and bone. Animal bone, largely cattle with some pig, has been found within burnt deposits located inside one of the excavated outer boundary postholes and in the burnt layers of the outer ditch. A considerable amount of highly burnt animal bone is found throughout features on site. Iron objects, such as the metalworking tongs found deposited in a palisade posthole, survive relatively well, although many iron objects are unstratified or undiagnostic. The most remarkable ferrous object came from the destruction layer above the palisade slot in 2012. An iron pin, shaped like an axe with a zoomorphic serpent attached to its butt-end represents a unique find.

Rhynie's place: cultural contacts and parallels

The identification of Mediterranean imports at a Pictish site is exceptional and the continental finds are also incredibly rare. This type of material is found in Scotland, western Britain and Ireland almost exclusively in the context of high-status, in some cases documented royal, sites. In Scotland only three other sites with late-Roman amphorae have been identified (Campbell 2007, 22, 116–17). There are two fragments of LR2 amphorae from the fort at the Mote of Mark (Dumfries and Galloway); several sherds came from a major settlement at Whithorn (Dumfries and Galloway), which in its early phases (e.g. 6th century) has characteristics also more generally associated with high-status secular sites (Gondek 2006, 134). The other site with imported amphorae is Dumbarton Rock (Strathclyde) north of Glasgow on the River Clyde, the stronghold of the later Kings of Strathclyde (Alcock 2003, 145). From the mid-20th century a series of diagnostic early medieval hillfort types in Pictland and beyond, such as Dumbarton Rock and Dunadd (Argyll) the seat of the kingdom of Dál Riata, have been identified and interpreted as chiefly or kingly residences and as early medieval 'capitals' (Alcock 2003, 186–91). Rhynie is not documented as a royal centre (it is not documented at all). However, the name 'Rhynie' is

cognate with '*rhynnoid*', which means 'a very royal place', a fitting identifier for this enclosed complex (Watson 2011 [1926], 34–5).

Understanding the nature of enclosed settlement is one way of accessing the development of power structures in the past (Driscoll 1991). Rhynie is not a hillfort; it is very much a lowland site located in the shadow of an Iron-Age hillfort at Tap O'Noth. In that sense, it shows the potential for another type of royal centre in Scotland. The phenomenon of enclosure in the Pictish region can now be seen to encompass hillforts, coastal forts, crannogs, ringforts and lowland enclosures like Rhynie (Noble et al. 2013). The two former classes, hillforts and coastal forts, are well known from antiquarian investigations and more recently in work by Leslie Alcock (1988; Alcock et al. 1989; Alcock and Alcock 1990) and Ian Ralston (2004). However, the latter two classes have only been fully recognised in the last five years with dating of a smaller class of ringforts in Aberdeenshire by Murray Cook and through the work at Rhynie (Cook 2011). Clearly, a diverse range of enclosed settlement types existed in Pictland. There are other sites around Rhynie that may be contemporary to the lowland enclosures (Cairnmore and Wheedlemont; Fig 1). Recent excavations at Cairnmore have produced 5th–7th-century radiocarbon dates and metalwork moulds and Wheedlemont has close morphological parallels to other sites of the 5th–7th century AD (Cook 2011, 216, 219). Both, therefore, appear to be broadly contemporary with the lowland site at Rhynie, suggesting the area was relatively well populated in the 6th century with a range of fortified enclosures.

In a wider context it now seems clear that both smaller and larger defended enclosures in Pictland appear to emerge in the 5th and 6th centuries AD (Noble et al. 2013). Assessment of the dating available for enclosed sites in Pictland shows that major hillforts, coastal forts, ringforts and palisaded enclosures emerged contemporaneously in a concentrated burst of construction in the period c 450–550 cal AD, beginning perhaps less than half a century after the Roman withdrawal from Britain, and coming to an end by around 900 cal AD (Noble et al. 2013). In Aberdeenshire, for example, all of the smaller enclosures with dates show clear evidence for construction and use in the 5th–6th centuries AD, but no evidence for later use. The larger dated forts, such as Mither Tap (Aberdeenshire) and Burghead (Morayshire), which also emerge at the same time, continue into at least the 7th and 8th centuries (Noble et al. 2013). This suggests that the smaller enclosures represented more localised power centres superseded in the 7th and 8th centuries AD by an increasing focus on the larger hillforts.

This process of an emergence and proliferation of a range of enclosed sites in the mid-1st millennium AD mirrors evidence from Ireland and Scandinavia. In Ireland, ringfort and crannog traditions, forms of architecture connected to the emergence of kingship and kingdoms, also appear to have originated in the 5th–6th centuries AD, although the floruit of enclosure here appears to have been primarily a phenomenon of the 7th to the end of the 9th century AD (Stout 1997, 24, 29; Fig 2). In southern Scandinavia, in the mid-1st millennium AD, enclosed architecture became a key strategy for the manifestation of power in certain regions (Näsman 1999, 4–5; Fallgren 2009). The evidence from regions peripheral to the Roman Empire — Ireland, northern Britain and southern Scandinavia — suggests that the construction of enclosed sites, particularly in the centuries around AD 400–600, was an action associated with the formation of new kinds of society and hierarchies that developed in the post-Roman world, albeit that in each place these developments took on their own trajectories and character. This evidence indicates that Pictland was not peripheral in any sense to these trends; while Pictland was different to Anglo-Saxon areas to the south (though Bernicia would seem to share in this fortified tradition), the social and political centralisation in the north focused on traditions of enclosed settlement and were part of a much wider northern and western tradition that extended from the 'Celtic' west to southern Scandinavia and more central parts of Europe. Enclosed sites were a method of consolidating and marking power over territories as communities developed new hierarchical strategies of organisation.

Aspects of the architecture of the buildings and structures at Rhynie also find parallel in other high-status sites across the northern World. The substantial timber defence of the outer enclosure at Rhynie shares some similarities with the Anglo-Saxon period structures at Yeavering (Northumberland), documented by Bede as a royal site in the 7th century, particularly the Great Enclosure (Hope-Taylor 1977, 205–9; *Bede HE*, II, 14). While the Great Enclosure is larger than the Rhynie palisade, the massive plank-built character is similar. The timber hall and palisade at Doon Hill (East Lothian) also offer (probably 7th-century) architectural parallels in an Anglo-Saxon region (Alcock 2003, 235–7). There are hints that topographies of power were also influential in developing hierarchies. Yeavering, echoing the juxtaposition of Rhynie and Tap O'Noth, has an earlier Iron-Age hillfort overlooking the royal centre (see Semple et al. this vol). The oval summit fort at Tap O'Noth, near Rhynie, may date to the 4th–3rd centuries BC judging by parallels with a recently excavated enclosure of similar form at Dunnideer in Aberdeenshire (Cook 2010, 86–7). Tap O'Noth's size, complexity and number of associated house platforms (near 100), may indicate that this was an earlier Iron-Age tribal centre. Interestingly, there is also a cropmark just south-west of the Doon Hill complex of a large square enclosure as well as a cropmark complex to the north-east showing a double-ditched settlement site (RCHAMS nd a, b). These have not been excavated, but the combination of features is remarkably similar to Rhynie's landscape; they could very likely pre-date the 7th-century phase of activity at Doon Hill, which itself has at least two phases of hall-building (Alcock 2003, 236). The possibility remains that Rhynie

No 1 Craw Stane	Fish, Pictish beast	In situ
No 2	Double disc and Z rod, Crescent and V rod	Found near village
No 3	Man with spear and shield	Found near village
No 4	Lost: Pictish beast, Cresent and V rod?, Mirror	Fragments in local buildings
No 5	Beast head, Double disc and Z rod, Mirror, Comb (13 Cupmarks)	Foundations of church
No 6	Double disc and Z rod, Crescent and V rod, Mirror	Foundations of church
No 7 Rhynie Man	Man with axe	Ploughed up near Craw Stane
No 8	Pictish beast, Mirror, curving symbol	Ploughed up near Craw Stane

Table 1 Monuments from Rhynie. Collated from Fraser and Halliday 2007, 119–22; Fraser 2008, 38–41.

can be interpreted within this framework as a lowland royal palace complex with hitherto unrecognised architectural and topographic parallels with other areas of northern Britain, including the Anglian kingdom of Northumbria.

However, the Anglo-Saxon parallels may be misleading for investigating and understanding the true significance of a site such as Rhynie. Significantly, neither Yeavering nor Doon Hill have the sculptural evidence nor the numbers of imports evident at Rhynie, and the dating evidence suggests the complex at Rhynie is earlier than both of these examples. Attention should perhaps also be drawn to complexes of 5th–6th-century Scandinavia such as Gudme, in Denmark, and Uppåkra in Sweden (see Intro, Axboe, Hårdh, Gräslund all this vol, for discussion on central places). Here the lowland centres show investment in large timber architecture, but also appear to have aspects of a more ritualised nature. Finds and deposition of gold foil figures at halls and more specialised buildings at places such as Gudme and Uppåkra suggest ritual and iconography formed an important element of political authority at these sites, particularly in their 5th–6th-century phases (Nielsen et al. 1997; Ringtved 1999, 50; Larsson 2007). Indeed, Hedeager (1999, 151) has argued that new types of political authority in the 5th and 6th centuries in Scandinavia were rooted in a new religious authority and access to the world of the gods was crucial. The presence of special finds at these Scandinavian centres is key to detecting the mixed cultic and political nature of these sites and it is with this in mind we can begin to re-assess the assemblage and iconography of the art at Rhynie.

Art and power: monumental Rhynie

It is clear that Rhynie was not just a site, but a landscape or topography of power stretching from the Craw Stane complex to at least the site of the modern village and overshadowed by the impressive ancestral centre of Tap O'Noth. The landscape includes references to the deep past (via the presence of Tap O'Noth, the probable Bronze-Age burial mound at the Bell Knowe and several standing stones, stone circles and prehistoric rock-art carvings in the immediate area), features often perceived as being important to early medieval potentates when seeking to consolidate and legitimise their power (Bradley 1987; Gannon et al. 2007; Driscoll 2011, 271–4). There is also evidence of an early medieval cemetery approximately 440 m to the north of the Craw Stane complex (Gondek et al. 2013). Excavation in 2013 revealed two distinctive square barrows with central graves, one a stone-lined cist and the other a wooden coffin adjacent to two larger square enclosures of unknown function. There are also reports of human remains being found near the village in this area when the turnpike road was built in the 19th century. In association with these human remains were at least two carved stones and two apparently uncarved stones (Fraser and Halliday 2007, 121). What is particularly striking at Rhynie is the juxtaposition of carved monumental stones with these other Pictish-period features. It seems there were at least two foci for the erection of Pictish symbol stones in this landscape: the Craw Stane complex itself and the potential cemetery area to the north (Tab 1).

The iconography of this group of carved monuments stands out in two ways (Fig 5). One is the iconography of the Craw Stane itself, which unusually shows two paired animals: a fish and a Pictish beast, which itself might be a mythical creature. Although both of these symbols are quite common on Pictish carved stones, their juxtaposition is not. Paired animals, where no other symbols (including crosses) are present, are quite unusual. Only two other examples exist: Tillytarmont no 4 has only an eagle and Pictish beast and Gairloch (Ross and Cromarty) also has an eagle/bird over a fish. It is more common to see a beast paired with one or more of the abstract or geometric symbols or a cross (Fraser 2008). Lone animal iconography is also rare, but more common than paired beasts (e.g. the lone bear and boar from Old Scatness and at least six single bulls from Burghead). A review of carved stones where the findspot is known to have been associated with contemporary buildings or structures has identified the predominance of lone animal stones among the examples, perhaps pointing to a particular cultic significance between the lone animals and use of these stones in the building or structural contexts of which they were part (Gondek 2015). Thus, the iconographic statement of paired animals at Rhynie

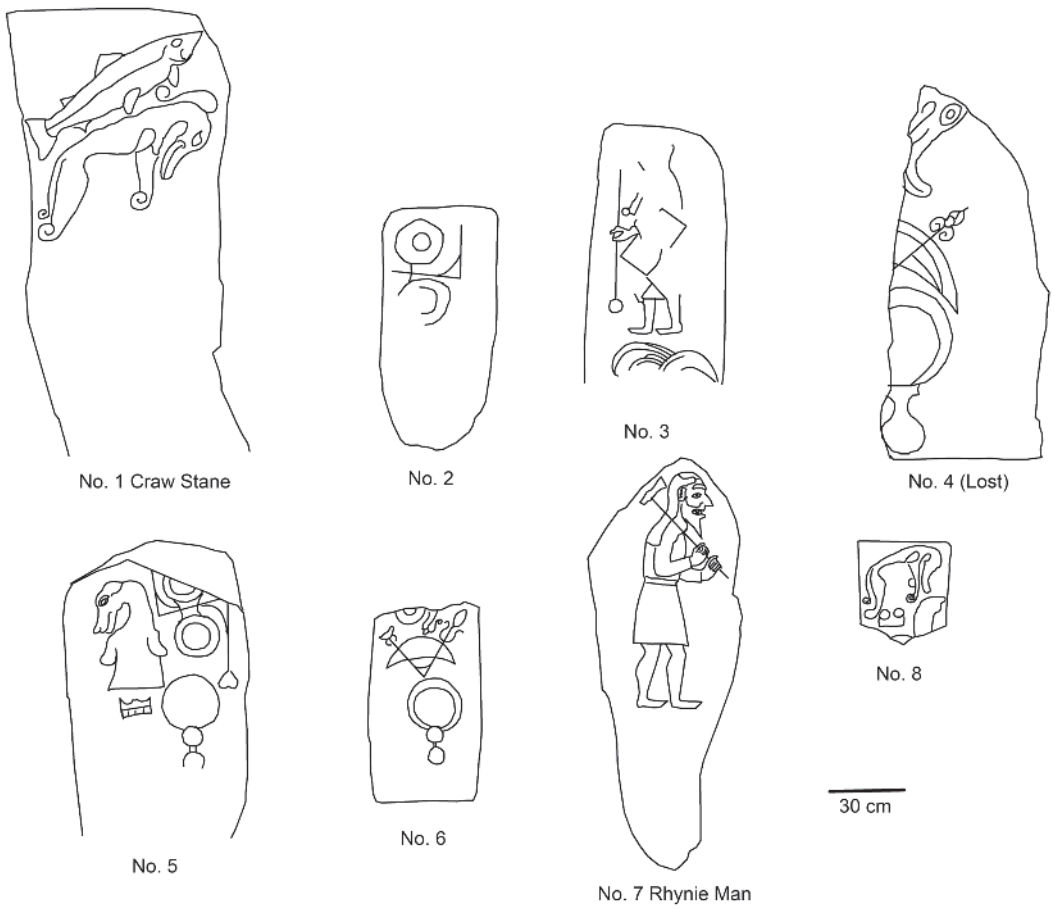

Figure 5. The Rhynie symbol stones. Redrawn after Fraser 2008.

and the siting of the Craw Stane at the entrance to the interior of the complex may be significant.

Most iconographically outstanding, however, is the appearance of two lone single large humans among the stones at Rhynie. Such large figures are extremely rare among the corpus of Scottish carved monuments (summarised in Tab 2). Another human unmasked figure, on a cross slab from Golspie (Sutherland), shares some of the Rhynie Man's characteristics, but he carries a very different type of axe and shares the monument with many other Pictish symbols (Shepherd and Shepherd 1979; Fraser 2008, 98–9). Parallels for this type of lone large figure outside northern Scotland are difficult to find. One of the closest in effect is a much later 11th-century rune stone (DK283) from Hunnestad in Sweden (Fuglesang 1998, 206). Part of a collection of monuments at the site, many of them destroyed, this stone showed a lone long-robed/coated, helmeted or capped man walking to the right with an axe on his shoulder (Worm 1643). The Hunnestad figure's axe is of a different type, being more flared and without the pointed butt-end of the Rhynie Man example. The only other carving on the stone is the band of runes noting who raised the stone and for whom. This figure has not been identified, but another stone from the site (DR 284) depicting a woman riding a wolf has been linked to the Norse myth of the giantess *Hyrrokkin* (Price 2006, 182; Williams 2009, 220). Despite the Hunnestad axe-carrier not having a known identity, there is the potential for him to be a character out of myth or legend. A similar mythological background might be posited for the Rhynie Man himself, albeit from a much older story within the Pictish world.

The Rhynie figures stand out because there is no other recorded site with two examples of this type of human figure and because they are 'opposites' of each other: walking in different directions, armed differently, sized differently, and located at the two extremes of the stone distribution (Gondek and Noble 2011, 288–90). The well-preserved Rhynie Man is a striking character, just over 1 m tall, associated with the Craw Stane high-status complex (Fig 6). The incised figure appears to be walking or on the move. He wears a simple belted long-sleeved tunic and appears to be shod; although, no clear boot or shoe lines are visible. Particular attention has been paid to carving the hands, which both grasp the very thin shaft of an axe lying on his right shoulder. Detail also focuses on the head, which seems slightly enlarged, depicting a face with pointy features: sharp teeth and a hooked nose with heavy brows and a pointy beard. The hair

Site	Accessories	Features	Direction	Other elements
Rhynie No 7 (Rhynie Man)	Axe-hammer in both hands on right shoulder	Grotesque visage	Walks to right	Emphasis on hands
Rhynie No 3	Spear/shaft in left hand with ring at base, shield? In right	Unknown	Walks to left	Hint of other motif(s)
Balblair (Inverness-shire)	Club in left hand	Helmet?	Walks to right	Cupmarked stone
Mail (Shetland)	Axe-hammer on right shoulder, club in left hand	Dog-faced/masked, hooded	Walks to right	
Newton of Collessie (Fife)	Thin spear/shaft in left hand with circular ring at base, shield in right	Naked	Walks to left	Arch and Pictish beast possibly identified on the stone
Westerton (Angus)	Unclear	Naked	Walks to left	Cupmarked stone

Table 2 Summary of 'lone figures'. Collated from Shepherd and Shepherd 1979; Lines 1993; Fraser 2008.

has been suggested to be a head-dress or wig (Hall 2012, 102), but appears more like a realistic depiction of a balding pate and long hairstyle. The grotesque nature of the face has encouraged some to see the Rhynie Man as a masked figure, but other more clearly masked figures on Pictish sculpture, including the close parallel from Mail (Tab 2), are animal-headed showing an interest in hybridity; they are not human-like face masks (Kilpatrick 2011, 181–5; Hall 2012). Instead, the focus on the head and its slight disproportion to the body is likely a somatic emphasis, conveying the importance of the identity of the figure, which centres on the upper body and his accessory, the axe. Thus, the Rhynie Man appears to be a depiction of a human, albeit a rather grotesque one, moving or processing towards an activity requiring the distinctive axe on his shoulder.

The significance of the axe on his shoulder is echoed by the unique find of the iron axe-shaped pin from the site. The pin, broken at its tip, measures c 115 mm long and at its widest is c 27 mm across at the axe head. X-rays show that the blade of the axe is triangularly shaped with a slight curve at the blade edge, but not concave as to produce a flared blade. At the top of the pin is a small hole, possibly for looping through a chain or cord to help secure the pin in place or perhaps even to use the pin as a pendant. The butt-end of the axe shows a small end projection, not unlike the butt-end of the Rhynie Man's axe. However, on the pin there is additional detail in the form of a zoomorphic spiral attached to the butt.

The Rhynie Man carries an axe, or axe-hammer, with a very distinctive double-ended blade and extremely thin shaft. Its morphology is strongly paralleled by the axe-hammer found in the Sutton Hoo Mound 1 ship burial (dated to the 7th century). Both the Rhynie Man axe-hammer and the Sutton Hoo axe have similar proportions with the shaft length almost four times the width of the axe blade; although, the Sutton Hoo example has a ring attached to the end of the shaft. Dobat in a reassessment of the Sutton Hoo axe-hammer convincingly interpreted the Sutton Hoo example as an implement for sacrificing cattle pointing to the distinctive double-ended blade, hammer-butt end and thin iron shaft (Dobat 2006). The Sutton-Hoo sacrificial axe-hammer remains a unique find, but Dobat's work has shown comparative imagery and textual associations in relation to animal sacrifice and a cultic ritual role associated with early Germanic kings and chieftains. Thus the axe-hammer is a powerful symbol of sacral kingship in a pagan northern Germanic context (Dobat 2006, 889). Animal sacrifice was central to notions of leadership in a pre-Christian context where there was a very blurred line between secular power and leadership in cult. At times the leader himself appears to have enacted the ritual role, while at others, such as at Uppsala the royal lineage supervised the sacrificial rites (Dobat 2006, 886). Iconographic evidence of the cultic association between the axe-hammer and ritual can also be found in late-Roman sculpture. A 3rd-century AD relief from a Gallo-Roman temple at Le Donon, Vosges (Alsace) depicts a powerful male, interpreted as divine or semi-divine, armed and carrying an axe-hammer in his left hand standing in front of a stag (Aldhouse-Green 2004, 127–9; Museums of Strasbourg 2013). Thus, the cultic associations of the very specific axe of Rhynie Man suggest the Craw Stane complex not only functioned as a high-status settlement, but also had a cultic aspect. The abnormal facial features of the Rhynie Man may also be intentionally creating distortion or a 'shocking visage' designed to convey the otherworldly aspects of the figure and his actions (cf Aldhouse-Green 2004, 182).

The other lone figure from Rhynie, the armed man on No 3, is very worn and his face and the detail of his attributes are not clear. He appears to be carrying a shield in his left hand, but this area is very damaged, and in his right a very thin-shafted object with circular butt or ring at its base. The right hand is visible and appears very claw-like, without the realism and careful attention apparent on the Rhynie Man. There is also a depiction of a boxy object or appendage with basal ball or ring emerging from the upper body or neck. The thin shafted object may represent a spear with a knobbed spearbutt, a type of weapon recently redated to a mid-1st-millennium AD context (Heald 2001, 691). However, knobbed spearbutts tend to have a more pear or doorknob shape (Heald 2001, 689) and the base of the shaft carried





Figure 6. Left: The Rhynie Man. Photograph © Aberdeen Archaeology Service. Right: The axe-pin (X-ray) from the Craw Stane complex.

here is very round and ring-like. It may be that Rhynie No 3 is instead carrying a thin staff; he may be comparable to repeated depictions of figures in profile carrying staffs or sceptres on 6th–7th-century *guldgubber* from Scandinavia, such as a drinking man from Uppåkra (Watt 1999, 179; Larsson 2001, 28). Standing at the opposite end to Rhynie Man in this monumental landscape, he may represent other actions and identities of the individuals associated with the cemetery at this location.

Conclusion

The 5th–6th centuries are key in the development of 1st millennium AD polities. The re-assessment of the evidence for enclosed settlement in north-east Scotland highlights the importance of the 5th–6th centuries, a period often considered peripheral in Pictish and other early medieval studies because of the lack of historical documentation, but also because of the lack of archaeological evidence capable of being ascribed to this time. The work at Rhynie shows the transformations in knowledge that can come from even modest programmes of work on a hitherto under-researched area of early medieval Europe. By combining a landscape approach to monumental carved stones with evaluative excavation and careful and intensive dating programmes, we are starting to be able to enhance our understanding of the role of power, symbolism and cult in post-Roman northern Britain. At Rhynie it can be shown for the first time that these polities, like their neighbours to west and east, were bonded by underlying shared ideological constructs — although with their own trajectories and character in each area. The Rhynie Man could symbolise a leader's role as both secular and sacred authority. The notion of sacral leadership can perhaps add another new dimension to our considerations of emerging power centres in northern Europe. The topography of power from high-status enclosed complex to ritual areas for the dead at Rhynie also shows that there may have been blurred lines between strongholds and cultic centres in the 5th–6th centuries. The work at Rhynie is changing our understanding of the contacts, cosmologies and power structures of northern Britain and reconfiguring our perceptions of periphery and how 'life on the edge' was as critically engaged in the development of new forms of power underlined by kingship and cult, as in other regions across northern Europe.

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Living in the Middle: Multiple Sources of the 'Pictish house'

Martin Carver

The Picts, introduced in the previous article, emerged in the 4th century as a loose confederacy inhabiting the north-eastern parts of Britain, and by the late 7th century they were seen from Anglo-Saxon England as powerful northern neighbours. This paper tests the idea of a cultural identity in Pictish building, defining 'Pictland' archaeologically as the region marked by the distinctive Pictish symbol stones. The connections implied by the small number of examples known so far prove to be notably diverse. They have roots in the Iron Age and make references not only to neighbouring regions north, west and south, but also east, across the sea. From the 7th century until they vanish in the 9th, the Picts appear as a self-determined, if eclectic community, with international links.

Introduction

Discussions about the Pictish house have been impeded through the years by some fundamental obstacles; in the first place by disagreement about the extent of Pictland, and in the second through a lack of houses that fall within the Pictish period (5th–9th century). If the whereabouts of Pictland is determined by the distribution of monuments with Pictish symbols, then the principal locus is the eastern mainland of present-day Scotland between the Firths of Forth and Moray — also known as the 'Pictish heartland' — or more neutrally the 'Firthlands' (Fig 1) (see Gondek and Noble this vol). Documentary hints, combined with a few stray symbols, have encouraged commentators to extend this territory to include the western and northern islands, including Shetland, so conjuring up a 'greater Pictland' (Driscoll 1988; Ritchie 1997; Dockerill 2010, 27). The case for this larger identity has its merits, but this paper chooses to focus on the Firthlands and examine the evidence for the interactions between this region and its neighbours. The neighbours to north and west are here defined as an 'Atlantic zone' (e.g. Romankiewicz 2011), while Argyll and Galloway comprise a zone sharing ideas with the other Irish Sea lands. To the south lies a territory, now called the Borders, where Anglo-British Northumbrian influence was strong (Fig 1) (Orsini this vol). A review of such houses as we have swiftly reveals the difficulties of defining any single model: the corpus is famously varied, including figure-of-eight dwellings in the western and northern isles, round sunken-floored buildings in Angus and long buildings with round ends in Perthshire, all cited in the past as 'Pictish' (Ralston 1997). However this apparently anarchic pattern is not without interest. While domestic architecture in the Firthlands generally seems to draw on a local Iron-Age substrate, the developed forms of dwellings can be argued to refer to the architecture of different neighbours, often remote rather than immediate.

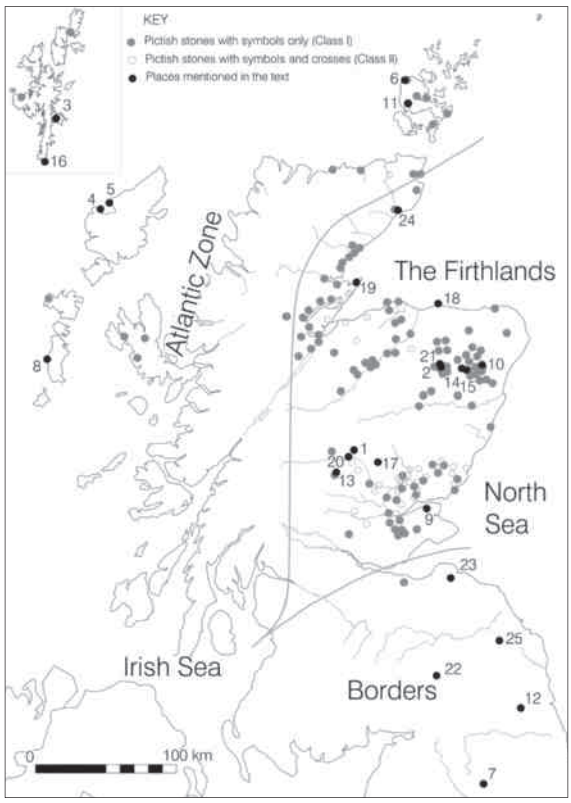

Figure 1. Map of northern Britain showing zones of housing culture and places mentioned in the text: (1) Aldclune, (2) Cairnmore, (3) Clickhimin, (4) Beirgh, (5) Bostadh, (6) Buckquoy, (7) Cow Green, (8) Dun Vulan, (9) Hawkhill and Easter Kinnear, (10) Hill of Barra, (11) Howe, (12) Huckhoe, (13) Litigan, (14) Maiden Castle, (15) Mither Tap, Bennachie, (16) Old Scatness, (17) Pitcarmick, (18) Portknockie, (19) Portmahomack, (20) Queens' View, Allean, (21) Rhynie, (22) The Dod, (23) Traprain Law, (24) Wag of Forse, (25) Yeavering.

Atlantic zone (Fig 2 below)

The architecture of the Complex Atlantic Roundhouse (CAR), recently redefined and mapped by Romankiewicz (2011) is distributed in the northern and western isles, Sutherland, Caithness and Argyll with some examples in the Lowlands. The bulk of the Firthlands region does not host these structures (Romankiewicz 2011, illus A10). The most obtrusive examples are stone-built and circular, with internal radial divisions (wheelhouses) or alcoves (intramural cells), often found in the form of modifications to earlier Iron-Age wheelhouses and brochs that took place largely during the 6th and 7th centuries (Harding 2009a, 172–92). These modifications take the form of round-houses placed inside brochs (e.g. Clickhimin — Harding 2009a, 181), cellular divisions inside round houses (Beirgh, Isle of Lewis, 3rd–6th century — Harding and Gilmour 2000; Dun Vulan on South Uist AD 500–750 — Harding 2009a, 188), or new free-standing cellular buildings which are variations on curvilinear themes as at Buckquoy, Orkney (Ritchie 1977), or Bostadh, Lewis (Harding 2009a, 190). Old Scatness on Shetland exhibits a variety of these themes in its Phase 7 (5th–9th century): an oval walled space (S25), a cellular building within the broch tower (S7), a figure-of-eight building (S5), and a round house with added piers (S11) (Dockerill et al. 2010, 28–46). Some rectangularity also begins to find expression at the site of 'wags', long buildings with round ends divided into stalls, like a wheelhouse stretched out, as at Phase 8 stage 4 at the Howe, Orkney (4th–7th century — Ballin Smith 1994, 91, illus 64) and the Wag of Forse, Sutherland (Harding 2009a, 192–4, fig 41). Buckquoy too may have been a round-house elongated by a cellular hall (Brundle et al. 2003, 95). In this zone, secondary occupation and recycling of the existing Iron-Age stone settlements may be regarded as the norm (Harding 2009b, 472–3).

The Irish Sea zone

In contrast to Scotland, Ireland has one of the best documented early medieval settlement archaeologies in Europe. The tally of identified early medieval settlements has reached 47,000, subject to more than 1000 excavations offering a window onto architectures of timber, stone and turf, with stone-walled enclosures (O'Sullivan et al. 2014, 1, 32). Where there is organic preservation, as at Deer Park Farms, the building

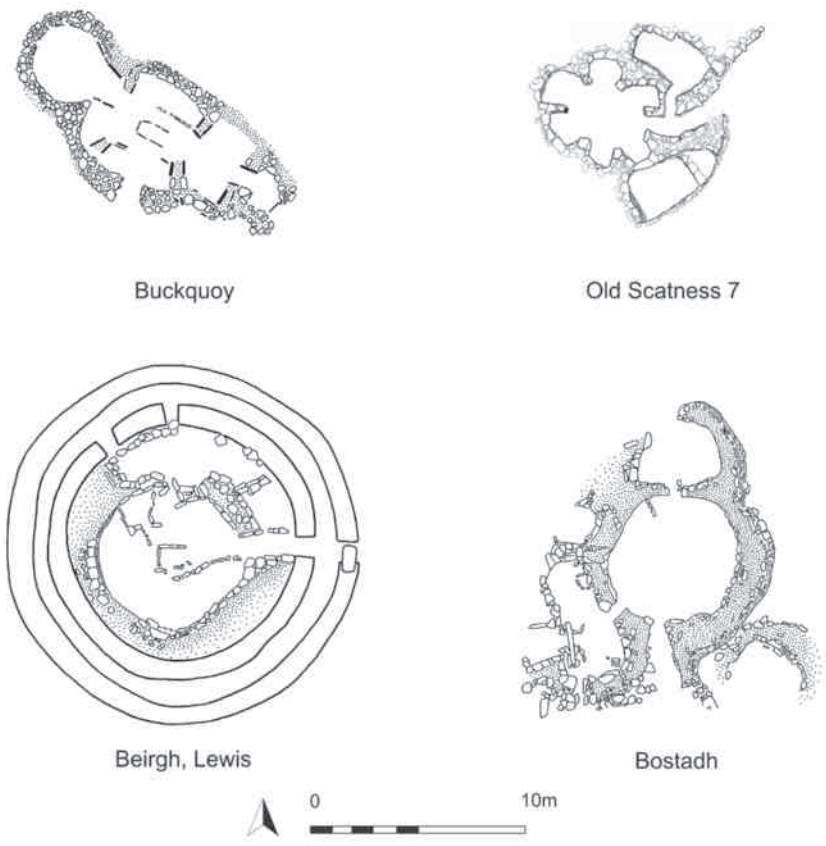

Figure 2. Buildings of the Atlantic zone: cellular building at Buckquoy, Orkney; modified wheelhouse at Beirgh, Isle of Lewis; modified broch at Old Scatness Shetland; figure-of-eight building at Bostadh, Isle of Lewis (Harding 2009a, fig 40; Dockerill et al. 2010, fig 2.8).

plans are round or double-round (figure of eight), marked out by one or two concentric circles of wattle or stake holes indicating turf walls revetted with wickerwork (O'Sullivan et al. 2014, fig 3.11–3.13). Written sources of the 7th and 8th centuries refer exclusively to round buildings (Lynn 1994, 82), and in the field round-house architecture is indeed prevalent until superseded everywhere around AD 800 by rectangular structures (O'Sullivan et al. 2014, 93).

The new settlement corpus of the 5th–8th centuries has a number of interesting features. At Deer Park Farms, Co Antrim, seven principal buildings with concentric wicker walls succeeded each other within a raised circular enclosure or rath during the 7th to 9th centuries, with intensive activity in the 8th century (Lynn and McDowell 2011, 233–4). Beyond the surviving raths, motorway excavations have revealed a number of enclosed villages with or without churches provisionally termed 'cemetery-settlements'. Their enclosures may be 'plectrum-shaped' and as well as the usual round ringworks and settlements, they often have evidence for watermills and industry. At Twomileborris, Co Tipperary, a plectrum-shaped enclosure of 5th- to 6th-century date was replaced by a circular enclosure containing three roundhouses of the 7th to 8th centuries, with adjacent cemetery and evidence for smithing and grain drying (O'Droma 2008). At Camlin 3, Co Tipperary, three round-houses were superseded by three rectangular buildings within a ringwork 50 m across. Here too the cemetery was included in the enclosure (Flynn 2009). The cemetery-settlements that have not produced churches have been interpreted as family farms and industry with uncertain or undeclared religious affiliations (Ó Carragáin 2009).

How far the formula of enclosed roundhouses and cemeteries, mills and light industry was shared along the north-west coast of Britain is still to be determined, but some shared approaches to settlement building traditions can be tracked across the northern part of the Irish Sea. Small defended forts, termed 'fortified outcrops' in Co Antrim and 'duns' in Argyll, attest to connections either side of the northern Irish Sea, in the trans-marine region of Dál Riata (McSparron and Williams 2011). Both types of structure were probably roofed and could be regarded as a species of fortified dwelling, although evidence for the roofing is debated (Alcock 2003, 269). These structures and certain portable artefacts (e.g. Type G pennanular brooches) have been used to argue an intrusion from Argyll into Antrim (Campbell 2001), or Antrim into Argyll (McSparron and Williams 2011). For the purposes of this review it is only necessary to observe that Argyll and Galloway are within easy reach of Northern Ireland, and human and material traffic would be intense and continuous unless prevented by political or ideological forces.

Related to the forts of Dál Riata and the Atlantic CARs, is a version of the fortified roundhouse that can be identified along the glens eastwards from the headwaters of the River Tay as far as Atholl (Taylor 1990) (Fig 3). The example excavated at Queen's View above Loch Tummel was 16.5 m

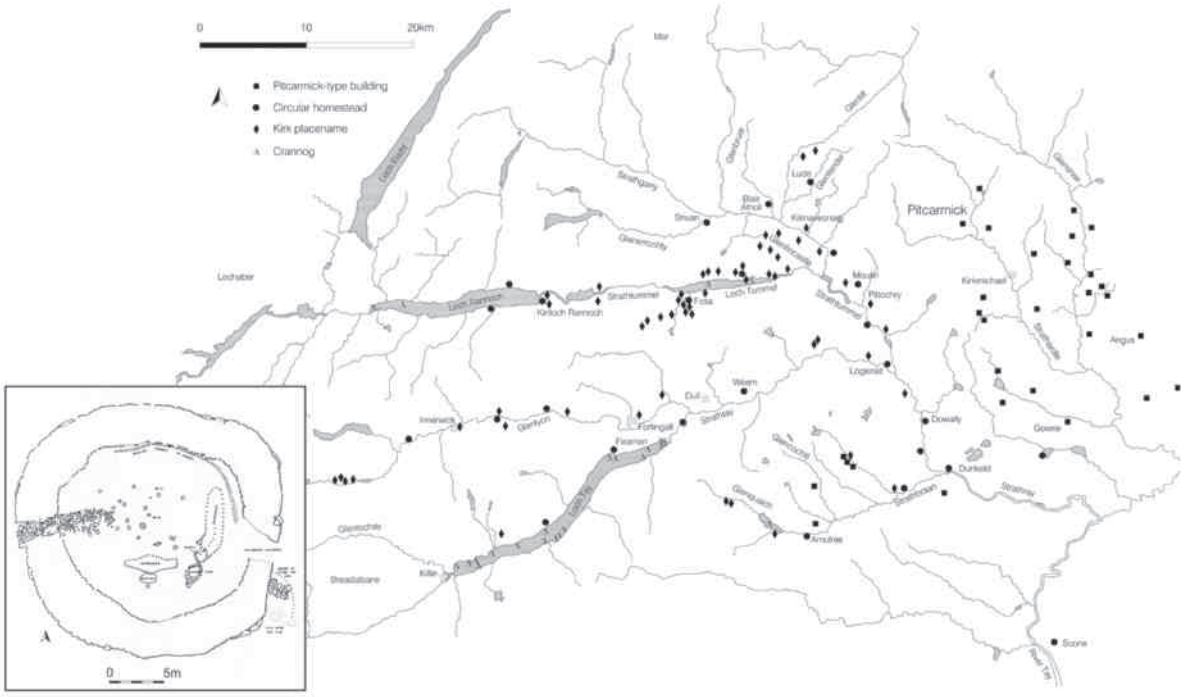

Figure 3. Distribution of fortified round houses in north-west Perthshire, and [inset] an example excavated at Queen's View, Allean Forest, Perthshire (Taylor 1990, figs 3 and 9).

in diameter with walls 4 m thick and an entrance through the wall 1.5 m wide (Taylor 1990, 21, 27). There were postholes inside and most commentators believe that the whole structure was roofed (Taylor 1990, 29; Harding 2009a, 186; Ralston 2004, 9). Finds included a yellow bead, assigned to AD 700–900, and a stone lamp paralleled at Crossnacreevy, Co Down, by a 7th–8th-century example. At a fortified round-house investigated nearby at Litigan, a radiocarbon date from clearance above the subsoil gave a *terminus ante quem* of AD 840 × 1020 (Taylor 1990). Taylor argues that the distribution of these fortified houses is significant given that such massive structures 'are not easily overlooked or readily destroyed' (Taylor 1990, 41). He notes that an early name for them was Caisteilean nam Fiann or 'castles of the Feinn' and argues that they originated in the Scottish west (Taylor 1990, 62–3). The evidence is in need of further precision and ratification, but their architecture appears to refer to an Atlantic or Irish Sea tradition and we can agree *pro tem* with Ralston (1997, 25), that 'Taylor constructs a reasonable case for seeing them as a later first millennium AD phenomenon in Atholl, with a background in the west, and thus as perhaps indicative of Scottic penetration eastward'.

The Border zone

The Borders, where Northumbrian influence was potent from the 7th century, bring additional designs in range of the Pictish heartland. Although founded in an Iron-Age British territory, Anglian Northumbria used a different pattern book. Ian Smith considered the architecture of the Tweed Valley 'British' and connected neighbouring sites in Northumberland, Cumbria and Lothian at Traprain Law, The Dod, Cow Green and Huckhoe. Where ephemeral stone rubble ground plans could be identified they were rectangular but apsidal at one end, recalling the form assigned to the early church at Icklingham in East Anglia (Smith 1990, fig 4.19; Thomas 1981, 192). Roman inspiration, as well as Anglian, was claimed for the structures at Yeavering, Northumberland, which included long halls, short halls and a wedge-shaped theatre. A case was made that these well-made buildings followed a sophisticated

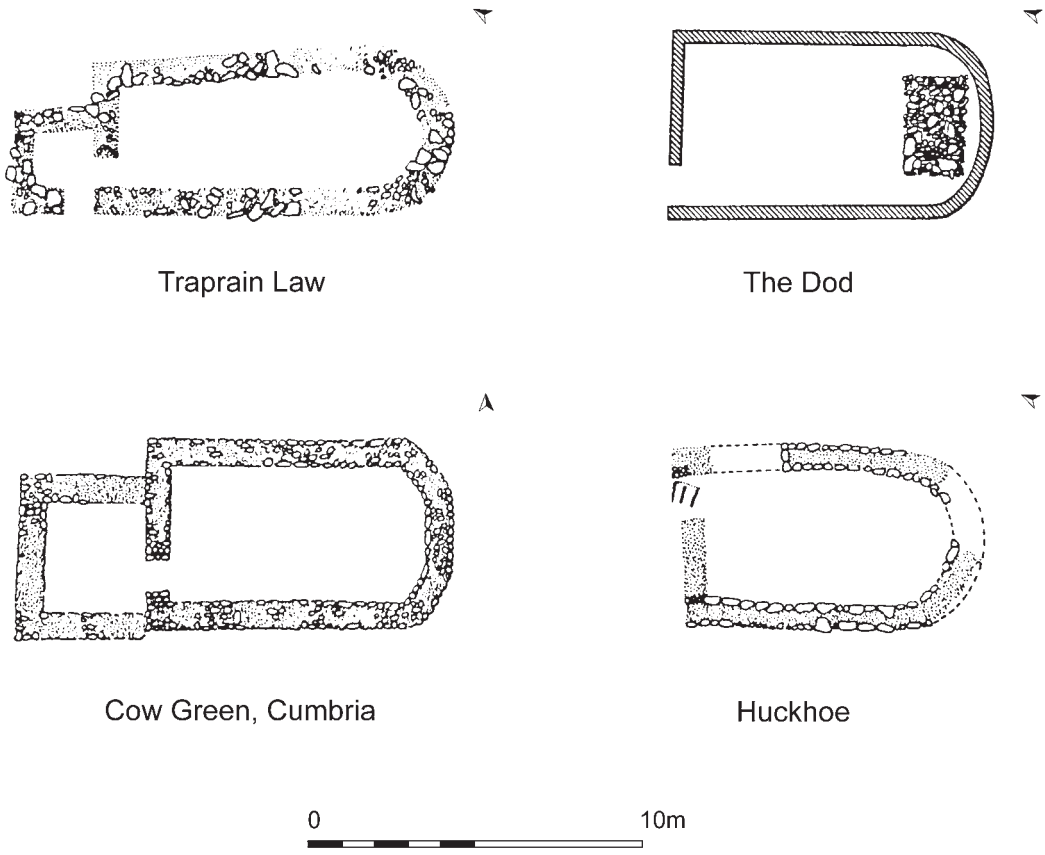

Figure 4. Rectangular and apsidal halls of Northumbria and the Borders. (1) Traprain Law (half-size), (2) The Dod, (3) Cow Green Cumbria, (4) Huckhoe (after Smith 1990, fig 4.19).

design, employing a standard unit of length (Hope-Taylor 1977; here Fig 4). The same kind of hall was defined further north at Dunbar, East Lothian (Hope-Taylor 1980) and Gordon Maxwell (1987) reported a number of rectilinear timber halls located from the air in Fife, Angus and Aberdeenshire. Up to 30 m long and 9 m wide, these are comparable with the largest halls at Yeavering (e.g. A3, Hope-Taylor 1977), if of less robust appearance (Fig 5). These buildings were erected, and some presumably were still visible, within the Firthlands as well as on its frontier from at least the 7th century, a time that Ian Smith proposed a strong interaction, if not a confrontation, between Northumbrian and Pictish ideologies (Smith 1996).

The Firthlands

The Firthland region was therefore bordered by several architectural genres in the 5th–8th centuries: cellular in the north; round, complex and fortified in the west; and rectilinear with a strong design in the south. What can we say of the development of house-building within the Firthlands, our Pictish heartland? The indications are that it was eclectic and it was changing, with the 7th century an important watershed. In the earlier period, fortified sites similar to those on the west coast are found within Pictland as at Dundearn, Dunottar and Dunollie (Alcock et al. 1987; 1989; 1992), Craig Phadraig (Small and Cottam 1971) and Clatchard Craig (Close-Brooks 1986). However, none have produced convincing structures. Small fortified hilltop enclosures have been recently defined in Aberdeenshire, and radiocarbon-dated at Mither Tap Bennachie (AD 340–540, AD 640–780), Maiden Castle (AD 430–570, AD 535–620, AD 540–600), Hill of Barra (AD 480–540) and Cairnmore (AD 480–540, AD 535–600) (Cook 2011, 209, 217). This move into fortifiable locations thus broadly occurred across the 3rd to 7th centuries, a period which Murray Cook noted was absent in his extensive settlement excavations on lower-lying ground at nearby Kintore (Cook 2011, 211). No structures have been defined in these small forts, unless they are themselves roofed like the fortified homesteads of the upper Tay (see above). Investigating the promontory forts of the northern coast, Ian Ralston described an excavated structure at Portknockie as 'a single course of water-rolled stones defining the inner and outer margins of what may have been a turf-cored wall, defining a building some 4 m wide with rounded corners'. This building also appears to have had a post-pad (Ralston 1997, 27; 1987, fig 3). The buildings are thus often elusive, perhaps caused by the evanescent practice of constructing with turf.

If there was an inheritance from the previous Iron Age, the form of structure referenced should be the round house, and the longer-lived type appears to be that with an internal ditch (Fig 6). Iron-Age sites like Eildon Hill and Traprain were revived in the Roman period, while the excavation of examples like Ironshill in Angus and Culduthel in Inverness indicates a lingering use into the same period (Harding 2009, 78–80, 268). On Tayside, the Iron-Age ring-ditched round-house is thought to have survived 'well into the 1st millennium AD'

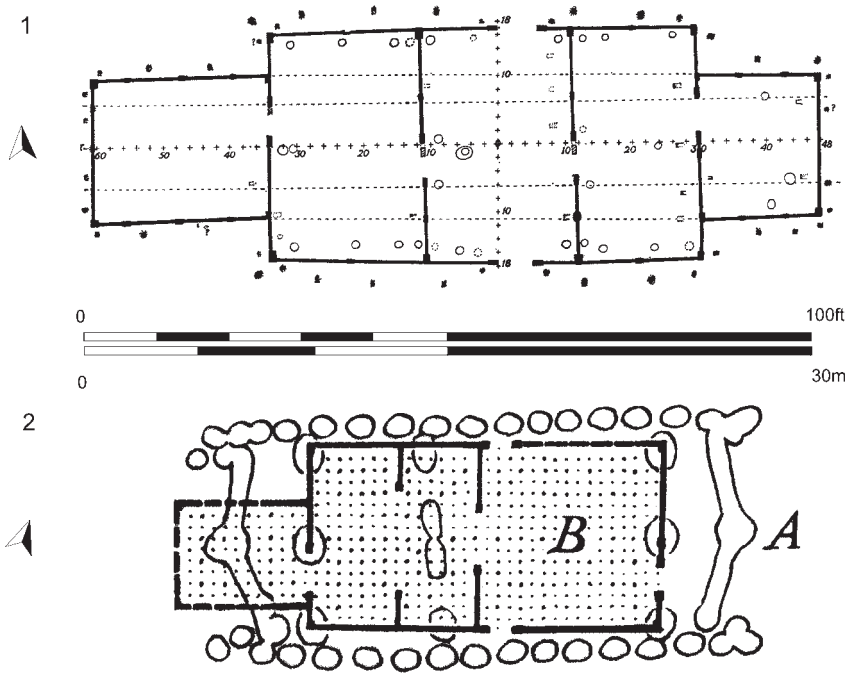

Figure 5. (above) Yeavering Hall A3, showing metrics (Hope-Taylor 1977, fig 68); (below) Doon Hill (Hope-Taylor 1980).

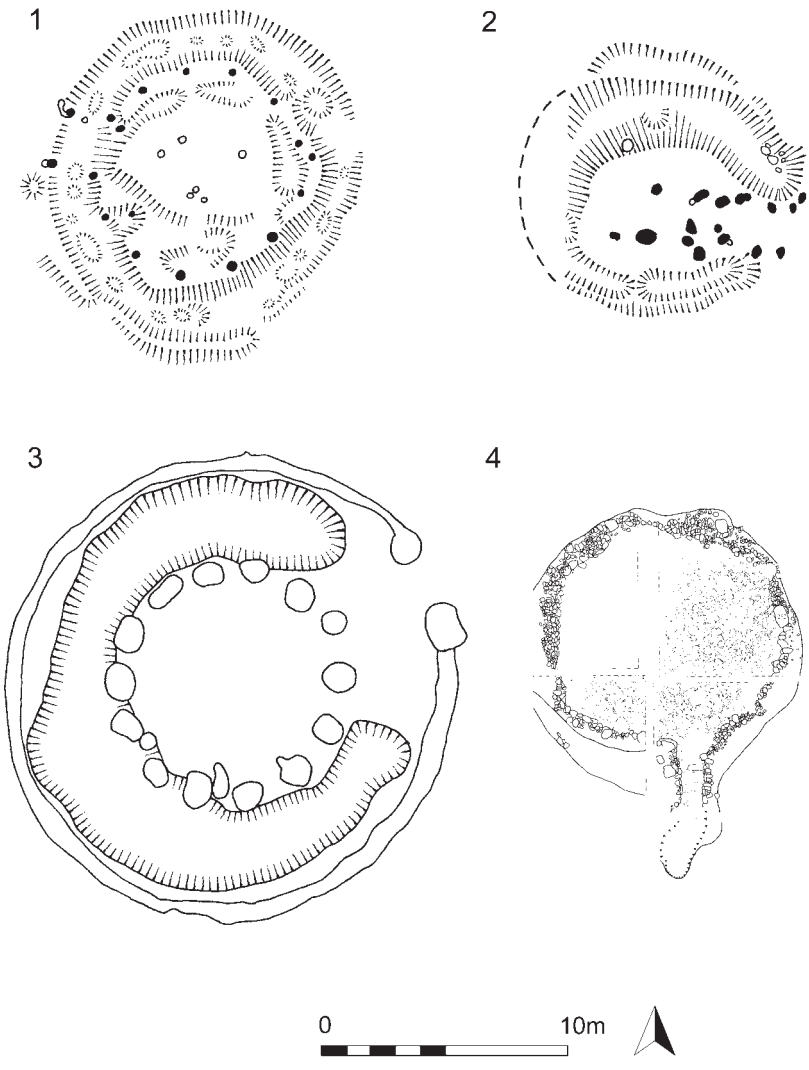

Figure 6. Roundhouse inheritance: northern British ring-ditch round-houses (Harding 2009a, fig 15) 1. Braidwood, Midlothian, House 1; 2. Ironshill, Angus (Ibid.); 3. Culduthel Farm, Inverness (Harding 2009a, fig 16); 4. Hawkhill R (Driscoll 1997, ill 17).

(Harding 2009a, 186; see Dunwell and Ralston 2008 for the sequence). At Aldclune, the latest round-house was oval and ringed by a stone wall and built in the 2nd to 3rd century, but was thought to have been used or re-used for longer (Hingley et al. 1997). At Easter Kinnear and Hawkhill R, the round-house form was transmogrified into a sunken-floored, flat-bottomed oval pit, 1 m deep, revetted with a stone wall, datable to the mid-6th to mid-7th century (Driscoll 1997, 115; Harding 2009a, 185–6). But at this point the trail goes cold.

The three other recently encountered indications of early medieval Firthland architecture are radically different, both from these examples and from each other. Investigations at Rhynie (Aberdeenshire) have defined a multivallate and palisaded circular enclosure in association with the Craw Stane, a Pictish symbol stone standing in a field beneath the shadow of Tap o'Noth. The enclosure contains a number of unexcavated features that imply a rectilinear posthole building measuring at least 9 m × 5 m, and a rectilinear hall at least 20 m long, made with plank walls (Fig 7). As we know from this volume, finds from this remarkable centre include late-Roman amphorae (LR1 and 2), and imported glass drinking vessels. Its construction and use was radiocarbon-dated to the 5th/6th century (Gondek and Noble 2010; Noble et al. 2012; Gondek and Noble this vol).

Another sighting of early medieval dwellings was made at Pitcarmick in north-west Perthshire, but these belonged to subsequent centuries. They were noted from the air by RCAHMS as earthworks with the form of rectangular buildings with rounded ends. Their occurrence on the ground, between stone round-houses of Bronze Age date and rectangular buildings that can be assumed to be medieval or post-medieval, suggested that an early medieval date would not



Figure 7. Unexcavated buildings within the multi-vallate enclosure at Rhynie, Aberdeenshire, showing impressions of postholes (above) and plank walls (below). The Craw Stane stands at the right hand corner adjacent to a possible entrance (courtesy of Gordon Noble; and see Gondek and Noble this vol).

be improbable (RCAHMS 1990; Stevenson 1991). Excavation by John Barrett and Jane Downes of two examples on the upper western slopes of Strathardle revealed the lines of the buildings, and subsequent research showed them to be byre-houses measuring 18 m × 4 m (Building C1), and 22.5 m × 4.5 m (Building E1) internally. They were built of turf and stone with the residence in the west end and animals housed at the east end (Carver et al. 2012; Fig 8). Radiocarbon dates placed their construction within the 7th to 9th centuries. Both sites were re-occupied in the later Middle Ages.

A third example came to light within the large-scale excavation of the Pictish monastery at Portmahomack on the Tarbat peninsula, Easter Ross, which took place between 1996 and 2007 (Carver 2008). One building constructed in the 8th century (S1) was exceptionally well preserved; it had a ground plan formed of a semicircle, sharing its diameter (10 m) with a trapezium (Fig 9). It contained a symmetrical array of post-sockets supporting a roof and was clad by a stone-revetted turf wall about 1.5 m thick. The posts were laid out with geometrical precision and supported on pads and packed with blocks cut from the same vein of sandstone. As at Yeavering, the precision with which the building had been laid out indicated a deliberate design based on multiples of a standard length. In the 8th century, the monastery's heyday, the building had housed workers in precious metal. After the raid on the monastery, in the 9th century, it was converted to use as a kiln barn and provided with a flue and an upper floor (Carver 2008, 126–30; Carver et al. forthcoming).

Discussion

In so far as generalisation is possible, the buildings in the Firthland area tend to the circular before, and the rectilinear after, the later 7th century. In the search for local antecedents, the obvious point of departure should lie in the local round house tradition. Some particularly robust round-houses have been excavated at Birnie south of Tarbat in Moray (Hunter 2007; Romankiewicz 2011, A56, 57), and there were roundhouses in the phase immediately preceding the Portmahomack monastery in the 6th–7th century, so we need not doubt that there were northern exemplars to hand. Even more evident to Pictish builders were the Bronze-Age stone roundhouses at Pitcarmick, which are still visible above

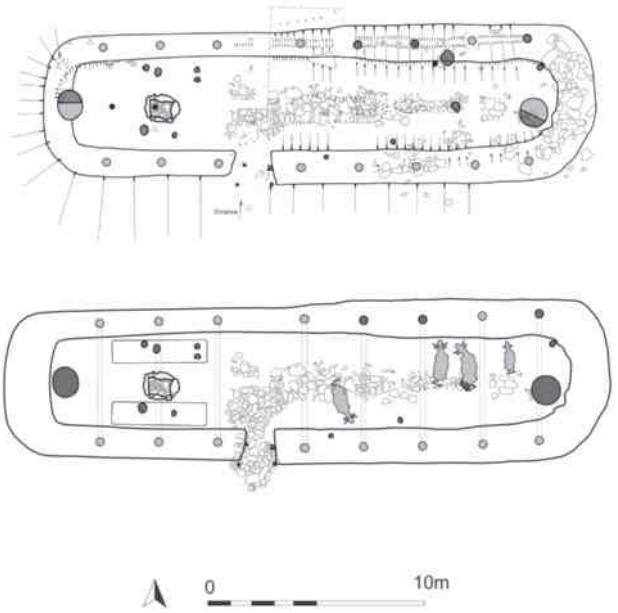

Figure 8. Plan of the byre house (E1) at Pitcarmick, Perthshire, with a reconstruction drawing (Carver et al. 2012, illus 22, 27).

the heather today. It was noted there that the Bronze-Age and later Pictish builders, although working to different blueprints, used the same basic technique of construction: walls of boulders layered with turf, with posts set either in the open space between the walls or within the walls. The Pitcarmick byre-houses also had a large posthole central to each end, thought to indicate a principal support for a hipped gable. This interpretation, leaning heavily on the supposed use of turf, is bolstered by many analogies from Iceland and Scotland in the form of photographs, site studies and reconstructions (Fenton and Walker 1981; Brunskill 1982, 134; Walker 2006; Sigurthardottir 2008; reconstructions in Highland Folk Museum; see Carver et al. 2012 and Carver et al. forthcoming). Given the ubiquity and endurance of such practice one can imagine even the highly original Portmahomack building as owing something to ideas already to hand — a round house with a giant trapezoidal porch — while the Pitcarmick building could be seen as a round house cut in two halves and stretched out to provide a linear corridor joining them.

However such 'evolutionary' development, even if technically feasible, seems depleted in human agency. At Portmahomack, the early medieval monastery has Irish and Northumbrian links in its material culture, but as yet there are no forerunners of its precisely devised bag-shaped buildings. This implies the creation of an original architecture in the context of an unusually learned community. The design can be argued to stem from early Christian ideology modified by Celtic thinking and thus seen as 'Insular Art' in the same way as a chalice or paten — indigenous in execution but provoked by incoming Christian ideology (Carver 2008, 131–2). The Pitcarmick buildings on the other hand are startling because they do have close parallels, but not in Scotland or indeed England. The long-house (or more usefully byre-house) is an enduring feature of the near Continent, especially Jutland and the Rhine delta, where it has a long history in various forms from the Neolithic to the 7th century AD, at which point it is superseded by the hall (Hamerow 2002, 15; 2012, 26). Examples excavated at Sjelborg 2 (Webley 2008) and Federsen Wierde 10 (Haarnagel 1979), are particularly close to Pitcarmick in size, proportion, features and, inferentially, usage. The latter is widely thought to involve keeping cows warm in winter, either to improve milk yield, facilitate breeding, or to foster family bonding (Zimmerman 1999, 326). In Scandinavia, the byre-house is seen as a feature of the summer pastures, dedicated to milking and making cheese (Nyman 1993). In Sweden there was a 'shieling zone' running from Uppland to Bohusland, which represented a transitional region between cattle herding in the north and arable farming in the south (Nyman 1993, 108, 109). The social, economic and climatic context of the byre-house is thus equivocal and offers a possibility that its essential signal was as much cultural as practical (Webley 2008, 49; Van der Welde 2013). The widespread presence of the byre-house in later medieval Britain tends to presuppose their presence in the Early Middle Ages, but so far it is conspicuous by its absence until the 13th century (Hamerow 2002, 26; 2012, 21–2; cf Beresford 1979, 125–7; the Anglo-Saxon 'long-house' reported recently from Eye is a long house but not a byre-house: Caruth 2013). There is some expectation that such a thing should turn up

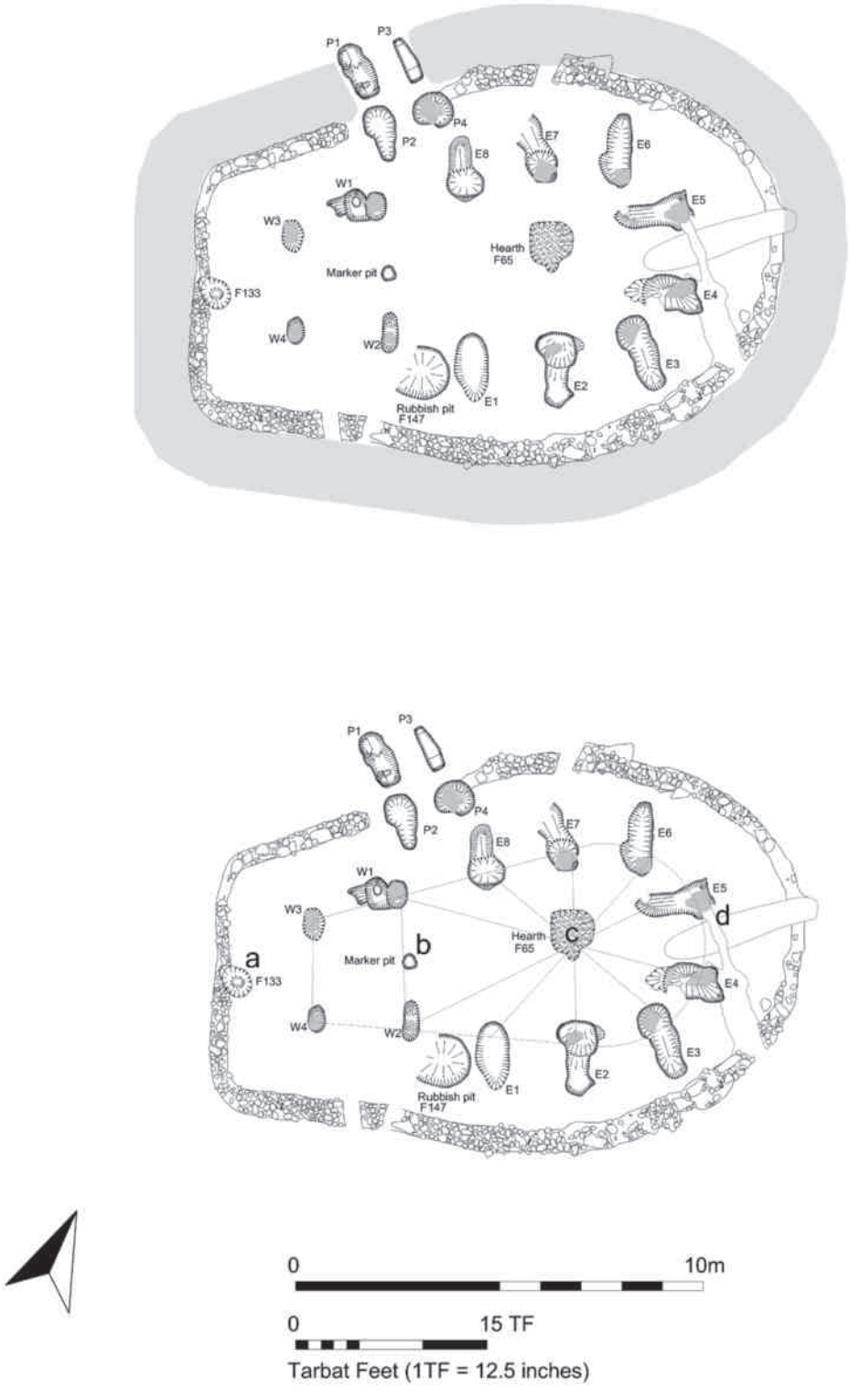

Figure 9. Plan of the building S1 at Portmahomack, showing the likely turf cladding (above) and the metrics of the design (below) (CARVER et al. forthcoming, ch 5.9).

in early Scotland, as has been surmised at the Howe (Harding 2009a, 245); however, at present it has been uniquely defined at Pitcarmick and the most immediate parallels to this discovery lie across the North Sea.

The idea that housing in eastern Scotland was being directly influenced by the near Continent in the late 7th and 8th centuries is novel, but no more outlandish than accepted arguments for routes of influence across the Irish Sea and along the northern Atlantic corridor. Whether such influences imply immigration or emulation or intellectual exchange in harness with environmental demands, is a question that needs more research. In the meantime, the small and diverse group of buildings defined to date suggests that, by the 7th century, the people who occupied the Firthlands and whose ancestors were referred to by Romans and later scholars as *Picti*, were operating as members of an internationally connected society. They need not have regarded themselves as marginal, and neither should we.

In comparison to northern Britain, archaeologists in Scandinavia and Ireland have unearthed many hundreds of sites and buildings of the Early Middle Ages. A strong policy towards heritage protection and preservation, combined with a low level of infrastructure investment in the north, means that opportunities to study early medieval settlement in Scotland have been limited thus far. However, given an international framework of research and ambitious field designs, the preliminary corpus reported here has the potential to produce one of Europe's most vivid and informative housing sequences.

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Negotiating Identity in North-East England and South-East Scotland

Celia Orsini

Introduction

Early medieval funerary practices in northern Britain are complex. Although inhumation seems to be the only depositional practice, burial practices are varied and can be defined by their diversity. This paper focuses on the use of the landscape in early medieval north-east England and south-east Scotland in the 5th to the 8th centuries AD — a region acknowledged here in previous articles as a component of the Northumbrian Kingdom. By the 7th century, Northumbria had become a major political and ecclesiastical power (Cramp 1995; 2002; Rollason 2003). While the development of the southern part of the kingdom is well documented, the history and archaeology of the northern and western parts is less well understood (Cessford 1999; Toop 2011; Cramp, Collins both this vol). The chronological frame of this paper allows for consideration of the deep political and religious changes that began in the 4th/5th centuries with the departure of the Roman army. The emergence of large kingdoms followed along with the conversion to Christianity and the acceptance and unification of the Christian faith in the 8th century AD (Rollason 2003; Yorke 2006). During the 8th century, the increase of Scandinavian contact gave way to the emergence of the Danelaw providing an end point for this study (Yorke 1990).

The area under consideration in this paper lies between two demarcations of the northern Roman Frontier: Hadrian's Wall and the Antonine Wall. The region contains three major valleys in which early medieval remains are mainly centred: the Tyne, the Tweed and the Forth. Historically around the 6th century the area was divided into the kingdoms of Bernicia in the south and Goddodin in the north (Fig 1) (Rollason 2003; Yorke 1990). South of Hadrian's Wall, the kingdom of Deira, centred on east Yorkshire, constituted the main opposing force against Bernicia, leading to numerous attempts to form alliances notably via marriage (Yorke 1990). In the 7th century AD, Deira and Bernicia united to create the kingdom of Northumbria. Goddodin was then conquered by the latter and remained under its authority for the rest of the period studied (Rollason 2003; Yorke 1990).

This paper explores the experience of the people who dwelled within this region in the early medieval period from the 5th–8th centuries. It does so by focussing on their funerary rites and practices and how they used their surroundings within funerary ritual to emphasise and signal their connection to place. Early medieval communities had at their disposal a complex landscape within which they constructed and signalled affiliations by means of interaction with natural and human altered features (Carver 1999; 2011; Lucy 1992; Semple 2010; 2013; Williams 1999; 2006). Such processes have been argued by many researchers as evidence of the use of the natural landscape and world in the processes of identity creation, with funerary ritual signalling the social and political transformations underway in the organisation of early medieval societies (Barrett 1990; Bradley 1998; 2000; Ingold 2000; Semple 2003; 2008; 2013; Shephard 1979; Thomas 2007; Williams 2006).

The northern part of the Tyne-Forth region is the main focus of this study, exploring mainly the Lothian area and a specific and regionally distinct funerary phenomenon: the use of natural mounds as places for burial. A knoll is defined here as an upstanding usually circular or sub-circular hillock with a conical shape rising up to 20 m above ground level. They are periglacial formations, created around 10000 BC by the thawing and freezing of the land and are designated by different appellations including knoll, hillock and knowe (Froyd 2006; Reid and Thomas 2006) which are occasionally present within place-names. These features can be large but mainly take the form of a small hill or a sub-circular rise on the ground and in form and size, many resemble prehistoric barrows. This paper contends that the use of these places for burial was not coincidental, but purposeful, and explores the implications of their practice.

Mortuary practices in the Tyne-Forth region

In the Tyne-Forth region, the distribution of dug graves and stone-lined graves demonstrate distinct differences between north and south. Of a total of 90 sites, 58 host cist-graves, and 23 sites are dominated by dug graves, and both modes of burial occur at only nine sites. The majority of cemeteries containing cist-graves are in the northern part of the region (57) and burial in the southern part is dominated by the dug-grave tradition. This geographic separation of practice seems to have occurred irrelevant of any distinction in site location such as associations with ancient monuments, hilltops or contemporary settlements.

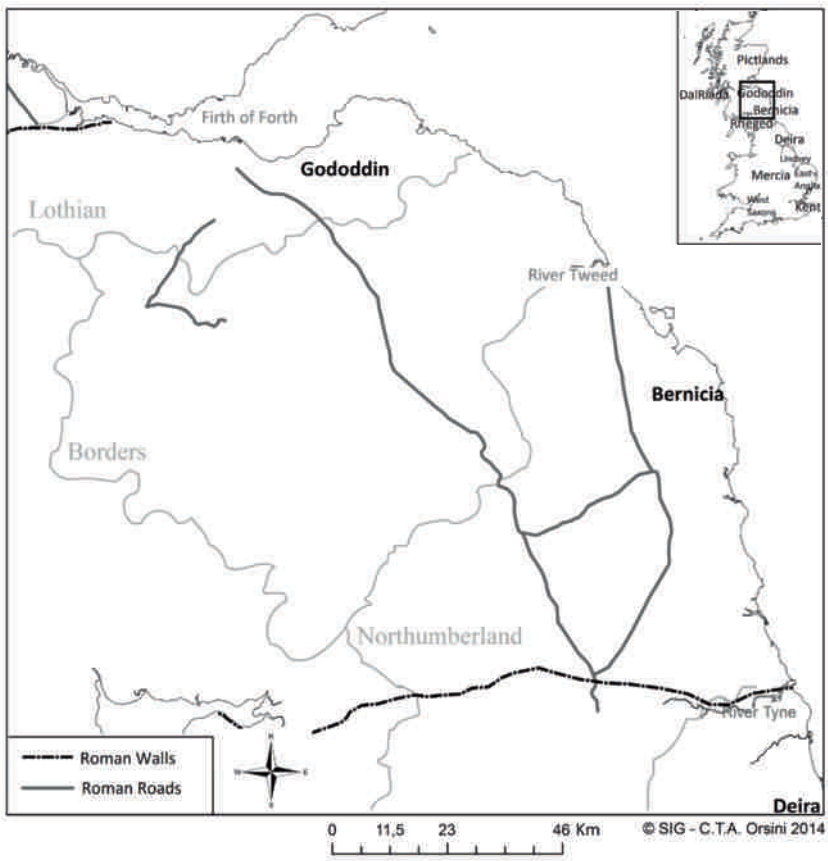

Figure 1. The early medieval kingdoms of the Tyne-Forth region (5th–6th centuries).

The cist-burial rite, common to the northern part of the Tyne-Forth area and mainly the Lothian, is represented by the interment of the individuals in a long-cist made of several slabs of stone with or without capstones or bases. In general these are c 1.8 m x 0.70 m. The majority of burials are oriented W-E, head to the west, are supine and extended and few have any gravegoods (Henshall 1955). This burial tradition is found across Scotland, Fife and the Lothians, but the latter hosts the highest density of this burial type. The chronology of these sites is problematic due to the low frequency of gravegoods. Radiocarbon dating has helped and a recent study has argued for an intensity in cist-burial during the 5th–8th centuries, despite their presence from the 3rd century to the 12th century AD (Maldonado 2013). Although not definitively Christian at the outset, there is clear evidence for their use for burial at early ecclesiastical sites such as Coldingham from the 7th century (Clarke 1969). Thus the rite was both widespread and endured across centuries.

The long-cist cemetery of Thornybank is one of the most recently excavated cemetery sites in the area. It lies on the southern shore of the Forth and comprises a 5th–7th-century inland burial ground situated on a relatively flat terrace. Although it lies between a number of contemporaneous cemeteries dominated by the long-cist rite (Rees 2002), the variety of practices at Thornybank is remarkable and does not seem to be the result of chronological development. Of a total of 108 graves, 63 are in long-cists and 45 are dug-graves. They are all oriented W-E and none contain gravegoods (Rees 2002). There is an apparent general pattern in rites, but burials were made in cists, dug graves and with shrouds, log-coffin and wood coffins. Thornybank attests to a more widespread phenomenon: despite general shared traditions that are evident across regions, there is a striking level of variability at an intra-site level (see Carver this vol on house forms).

The natural landscape is well recognised as an active element in identity creation (Bradley 2000; Ingold 2000). In early medieval Britain, communities and elite groups drew upon natural and human altered features, using the emplacement of cemeteries and burials in relation to valleys, hills, rivers and roads as a means of structuring experience (Brookes 2007; Semple 2013; Williams 1999). Antecedent cultural features were chosen as places for the burial of the dead, such as barrows, enclosures and forts used as foci for individual interments and cemeteries (Lucy 1998; 2000; Semple 2003; 2008; Williams 1997; 1998). The inventory of burial grounds in the Tyne-Forth region (n=90) reveals that early medieval funerary sites were established at a wide

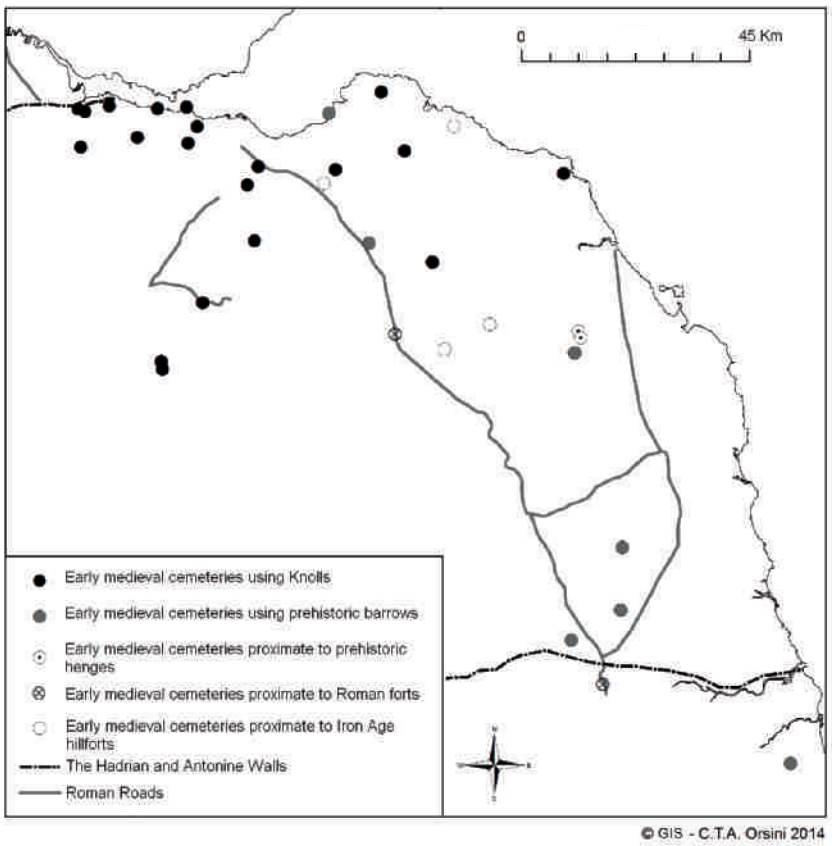

Figure 2. Distribution of all early medieval funerary sites reusing older monuments or natural knolls or mounds.

variety of landscape locations (Fig 2). Twenty-four sites were associated with old features including nine in association with Bronze Age barrows. Fifteen sites were associated with contemporary settlements; 12 with lay settlements and three with monastic sites. A total of 56 sites were isolated from settlements and ancient monuments.

Of course it is entirely possible that several of the latter were located next to older monuments that have since been eroded or ploughed away: such factors remain to be discovered. Of this group of remote cemeteries, 20 were situated on, or by, topographic mounds that can be designated as natural knolls.

The use of natural mounds in the Tyne-Forth

These periglacial formations are found densely spread across the Tyne-Forth region. The burials situated on top of them, however, are mainly located in West Lothian (Fig 3a). Many can be likened to prehistoric barrows (Fig 3b). The chosen knolls are c 7 to 17 m in diameter and are mostly isolated although, on two occasions, the burial-ground uses one of two proximate knolls. Knoll sites usually host a small number of burials following funerary trends in the Lothian in general, but this varies with eight sites composed of two to six burials, five sites of less than 45 burials and two much larger sites (100 burials on average). Many cemeteries are, however, unlikely to be comprehensive and could be larger in extent. The majority of burials also follow general trends, and are orientated W-E, head to the west, and are supine and extended without gravegoods. Although mainly dated between the 5th and 8th centuries, the long cist cemeteries do not provide a precise chronology. Most of the sites seem to belong to the 5th–7th centuries AD. Two burial grounds located at knolls have been scientifically dated: Parkburn-Lasswade and Kingston Common. Parkburn is a famous long-cist cemetery lying on top of a relatively small knoll (England's Hill). 116 inhumations dating to the 5th to 7th centuries were located here; most were in long-cists, densely packed in rows (Henshall 1955). Forty-three individuals were discovered, although the site is thought to be much larger with perhaps up to 200 graves. The deceased were supine and extended, and almost all buried within long cists with three exceptions. Half were accompanied by a few gravegoods. The site is dated between AD 561 and AD 762 at 95% probability (two sigma), although this is based on a single sample (burial F7: a young adult, extended on its back in a long-cist without gravegoods) (Suddaby 2009). The site is representative of both regional mortuary practices and the rites evident at knolls. There is little, in fact, specific to knoll sites, that is not regularly encountered at other cemeteries.



Figure 3. a. Funerary site located on top of a natural mound (Abbey Knowe). b. Funerary reused barrows (Copt Hill, Houghton-le-Spring).

Parkburn is located 6 km inland from the coast on the lowland, 1 km from the River North Esk and 800 m from a Roman road. This follows a more general pattern of burial placement across the Tyne-Forth region. Settlements cluster in the three main river valleys, the Tyne, the Tweed and the Forth, but funerary sites are generally located close to secondary water courses (below 300 m). Knolls were prominent landscape features. Parkburn's position close to major thoroughfares and watercourses reflects a more general trend. Using ArcGis, calculations were used to determine the visibility of sites from major routeways. Fourteen appear to have been prominent to land routes, particularly to the main Roman Road that extended into Scotland.

Barrows or knolls?

The reuse of prehistoric and Roman monuments for burial in Britain was recorded as early as the 18th century (see, for instance, Bateman 1861; Greenwell and Rolleston 1877), but the topic has only been addressed in depth from the 1990s onward (Bradley 1987; Lucy 1998; Petts 2001; Semple 1998; Williams,1997). Most of the authors acknowledge that 'mound-like' natural features were adopted and used in the same way but there has been little discussion of the use of 'mound-like' natural features.

In the Tyne-Forth region, burial grounds reuse Bronze-Age barrows, Iron-Age forts and Roman structures, and can be proximate to early medieval settlements, monasteries and stone markers. Cemeteries or burials that appropriate knolls, however, are never in close proximity to these criteria and seem mutually exclusive (Figs 4 and 5). Two exceptions are known, at Polmont Little Kerse (McCord and Tair 1977) and Abbey Knows (Lothian). Both sites are Roman camps. At Abbey Knowe, a knoll located 125 m away from the fort perimeter forms a focus for a group of early medieval burials (Corder et al. 1998). Polmont Little Kerse is similar; the Roman camp possesses an enclosed annex, surrounding a knoll, which later becomes the focus of an early medieval cemetery. In both cases, the position on top of the knoll takes precedence over surviving remnants of the fort.

Knolls in this region are densely and rather homogeneously dispersed (Fig 4). By contrast, barrows of all periods are relatively infrequent, particularly north of the River Tweed (Fig 5). What is even more striking is that early medieval barrows cluster around the Rivers Tyne and Tweed along with cemeteries reusing prehistoric barrows. The knolls that existed in this landscape, however, were not selected as burial grounds (Fig 4). Early medieval communities chose not to bury their dead at knolls even though their characteristics are identical to the northern examples. From the evidence that has been gathered, the phenomenon of knoll-usage is localised in the Lothian within the north-west corner of the region. Knolls are also rarely associated with other forms of reused monuments implying 'knoll use' and 'barrow reuse' were mutually exclusive practices. The phenomenon is thus localised with some rare outlying exceptions (see, for example, Ailcy Hill, Ripon, Yorkshire: Hall and Whyman 1996). The visibility and the prominence of these natural mounds seem to have had an especial appeal for early medieval societies in the Lothian as locations for burial during the 1st millennium AD.

Barrows were built across Europe during the early medieval period (Billard et al. 1996; Carré and Treffort 2010; Carver 1998; Thäte 2007), but Bronze-Age, Iron-Age and Romano-British barrows were also reused by these communities (Esmonde Cleary 2001; Williams 1997). The repeated experience of digging and opening ancient burial mounds meant that communities in some regions would have encountered human bones and burials during the process of secondary interment (Carré and Treffort 2010). By contrast, the knoll diggers of the Lothian would not.

Despite the elusive nature of evidence for the organisation of land ownership in the Early Middle Ages (Le Jan 2003; Smith 1991), the density of mortuary evidence suggests the Tyne-Forth was a busy populated zone (Fig 2). In the north-west of the Tyne-Forth region communities had multiple ways

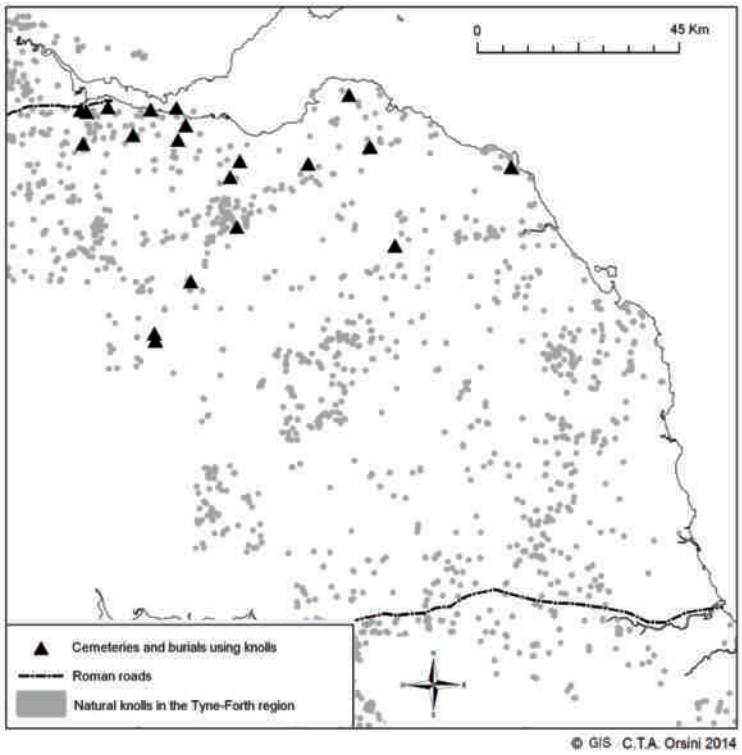

Figure 4. Distribution of knolls in the Tyne-Forth region with burials and cemeteries reusing knolls marked out.

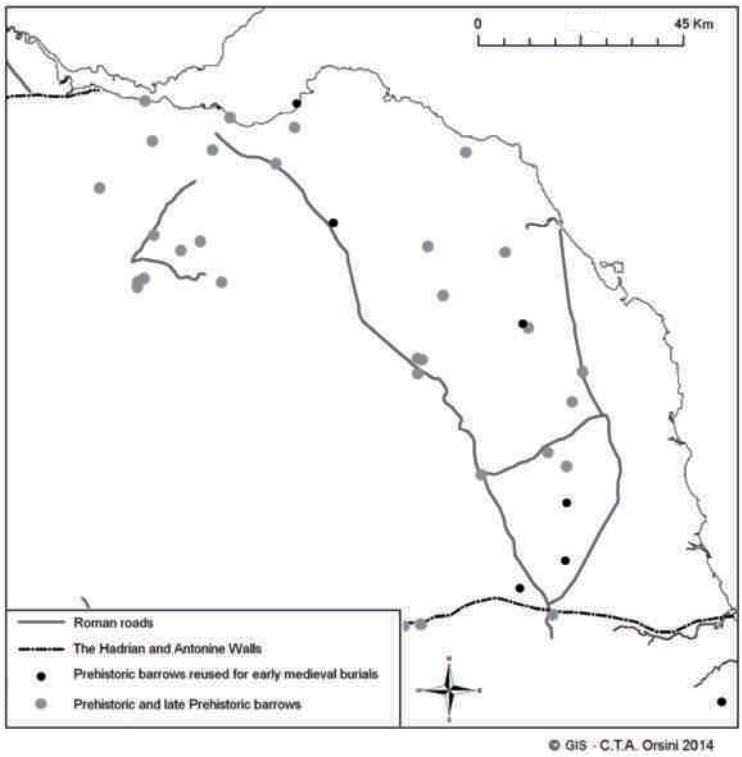

Figure 5. Broad distribution of prehistoric barrow in the region, with burials reused for early medieval burials marked out.

of expressing their attachment to this landscape. Ancient monuments were reused but natural mounds were also selected as funerary locations. Here land claims and feelings of belonging were expressed through the selection of sites for burial, some of which were older monuments, and some that were natural features.

Summary

The question of whether knolls were perceived as natural or built features, remains unanswerable, but the use of these features was purposeful. They were impressive landmarks and prominent places of burial. Between the 5th and 7th centuries AD, the Tyne-Forth region underwent political upheaval with pressure from Northumbria and from the Pictish North. This may have created a specific border or frontier zone. It is possible that the use of knolls for burial, all of them dominant and visual physical markers, represents the signalling of contested land ownership and identity. These are not rich burials and cemeteries, suggesting such acts are not comparable with the elite signalling evident in Anglo-Saxon England in the 7th century (Carver 1998; Hirst 2004). Instead it can be suggested that these knoll-cemeteries represent the burial-grounds of small communities trying to legitimate their position in a contested landscape.

Their proximity to water-courses, and their visibility from the Roman road north, underline that these burial places were intended as visible and encountered places (see Semple et al. this vol). Just as prehistoric barrows were used in other regions, natural knolls were adopted in the Lothian, within a restricted regional area, as places for the burial of the dead. The Lothian is the furthest land conquered by Northumbria in the 7th century; the century in which the practice of using knolls as funerary locations ceased. In this zone of conflict, the natural knoll seems to have provided a theatre for social expression and a material means of local identity creation for populations vying to hold their claim on disputed lands.

Acknowledgements

This paper draws on the results of my PhD research on 'Mortuary practices and burials ground location in the Tyne-Forth area'. My thanks to Sarah Semple, Martin Carver and Anne Nissen for their constructive discussion on the topic of this article with a particular mention to Sarah Semple for her invitation to the Saschensymposium and her comments on earlier drafts of this paper. Thanks also to the anonymous reviewers for helpful comments. Any errors remain my own.

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Power at the Edge: Yeavering, Northumberland, England

Sarah Semple, Brian Buchanan, Sue Harrington, Darren Oliver and David Petts

Gefrin, or Yeavering has already been mentioned a number of times in this volume. It is an iconic site and location and the place was documented in AD 731 as a site visited by kings, and a place of assembly, preaching and baptism (*Bede HE* II, 14). The extensive early medieval settlement was recognised in aerial photographs in 1949 and excavation followed in the 1950s/60s (Knowles and St Joseph 1952; Gates 2005, 65–83, 67) (Fig 1a). An extraordinary site was revealed, with a great hall complex, integrated cemeteries, changing cult foci and an 'assembly' structure — a theatre built from timber (Hope-Taylor 1977). Since then, scholarship has debated its 'British' versus 'Anglo-Saxon' origins and attributes (Miket 1980, 301–3; Scull 1991; O'Brien 2005), the site chronology (Scull 1991; O'Brien 2005), and prehistoric, Roman and continental influences on its buildings and its layout (Bradley 1993; Frodsham 1999; 2005; Barnwell 2005, 174–84) (see all previous papers this vol). Yeavering is also now recognised as one of a distinctive collection of early medieval elite complexes (Hamerow 2012, 102–9). Buildings, aligned structures and finds imply these sites fulfilled a range of ritual, elite and productive functions. They mark a moment of social differentiation in settlement tradition; for a time operating at the apex of the settlement hierarchy, and while some share attributes with the central places of southern Scandinavia, the latter are more long-lived and significantly richer in material terms (see papers by Axboe and Hårdh this vol; collected papers in Hårdh and Larsson 2002; and Hamerow 2002, 157–69; 2012, 107–8). In recent years the relationships between these elite sites and their hinterlands have been considered in terms of accessibility, resource zones, food acquisition and hunting grounds (e.g. Sykes 2010; Rollason 2012), and their architectural impact, in terms of aesthetics and display, has also been considered (Niles 2007, 169–227; Walker 2011).

Taking inspiration from this, we explore the relationship of *Gefrin* or Yeavering to its immediate and broader surroundings, notably in relation to the late prehistoric and early medieval activity identified in what is known as the Milfield Basin, a region that incorporates the watersheds of the Rivers Glen, Till and Tweed. Drawing on extensive evidence for early medieval burial sites, late prehistoric and early medieval settlements, land and river routes and historic land use,[1] this article questions the motivating factors that prompted the early medieval populations in this region to situate their settlements and their cemeteries. We argue that across the 5th to 8th centuries, common strategies related to seasonal modes of exploitation, mobility, and the need to claim and control routes of access, may have underpinned these locational choices. We consider how the site of Yeavering operated in relation to this broader portfolio of activity, offering a new framework within which to consider the emergence of an elite site — one that emphasises consideration of routes of access and seasonal functionality, and control of people, resources and travel.

Yeavering: a synopsis

Yeavering, situated in the Milfield Basin, lies in northern England, close to the modern Scottish border, some 20 km inland from the east coast and c 70 km north of Hadrian's Wall. It was a region that had developed with little interruption from the late Iron Age to the mid-1st millennium AD, although Roman incursions left their traces. Initially part of the kingdom of Bernicia, a polity with a Brittonic name, meaning something like 'the land of the mountain passes' (Cramp this vol), the region, along with Bernicia, eventually became part of the larger kingdom of Northumbria (Rollason 2003, 53–109). Yeavering lies in Glendale in the Till Valley, a southern tributary of the River Tweed that from the 11th-century marked a political division between England and Scotland, but in the 6th and 7th century, occupied a position in a fluctuating political scene, sometimes perhaps at the territorial limits, but at other times, more centrally placed (Cramp, Collins, Orsini this vol). Yet, as the place name signals, this region was defined by an upland landscape and by the river valleys that provided access routes that enabled short and long distance movement through the hills. In this way, perhaps, the populations of the Till-Tweed-Glen valleys were always 'on the edge': inhabitants in a corridor landscape that facilitated communication between north, south, east and west. The site is located by the River Glen which merges with a small stream, the College Burn, close by. The River Glen flows east, before joining the River Till approximately 7.5 km downstream. On the 1st edition Ordnance Survey (1866) the River Glen by Yeavering is marked out as a wide, meandering, and shallow watercourse, with numerous small gravel islands breaking the surface of the river (Passmore and Waddington 2012, 57).

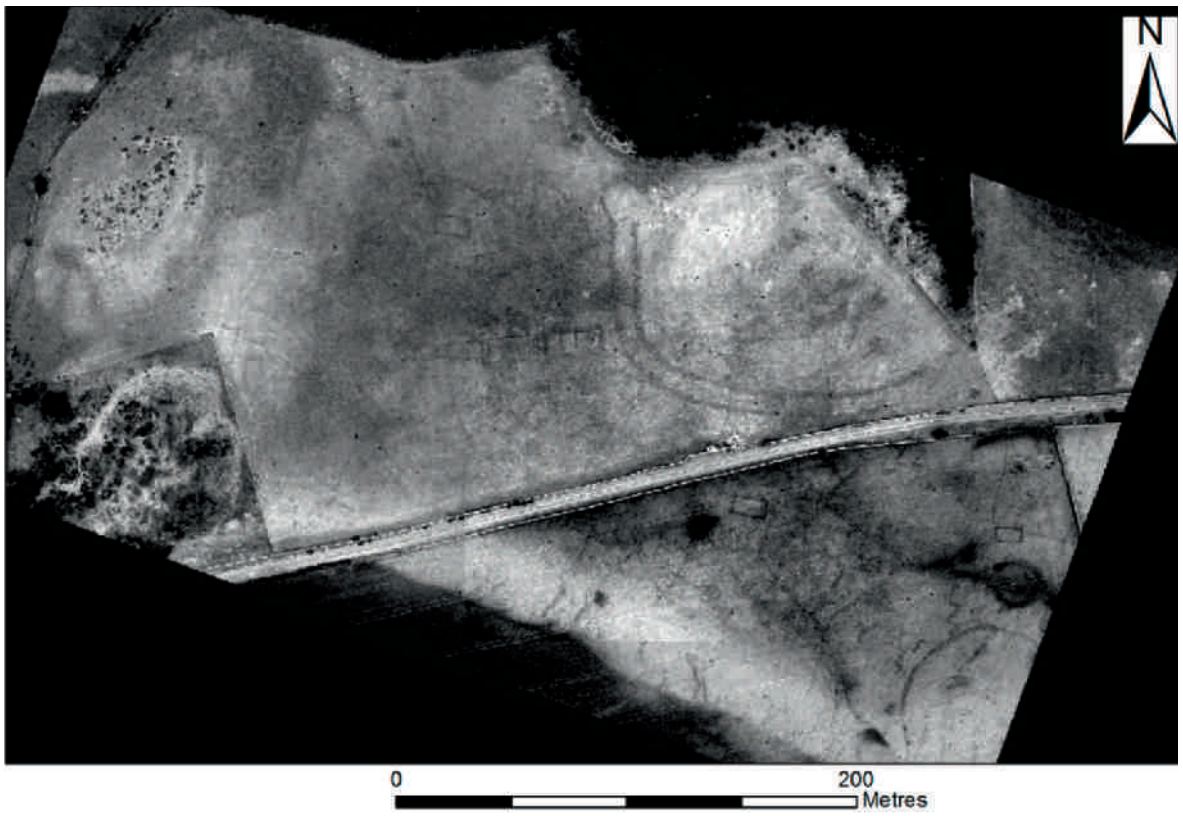

Figure 1a. Air photograph showing the palace site to the north of the road and additional monuments and features to the south. © The Gefrin Trust.

Gefrin was termed a *villa regia* by Bede (*Bede HE* II, 14), and has been described since as 'a royal residence' (see translation Sherley Price 1969, 129), a 'royal township' (Hope-Taylor 1977, 4), a 'royal vill' and a 'palace' (Rollason 2003, 84). In AD 627, Bede describes how King Edwin and his queen, accompanied by the missionary Paulinus, visited the site and many people were baptised in the River Glen (*Bede HE* II, 14). Bede also describes how the site was deserted in the time of the kings that followed Edwin, and that another palace was built close by at *Maelmin* (Milfield) (*Bede HE* II, 14). The place name *Gefrin* survived through the centuries, as did some knowledge of its importance (Camden 1637, 815), but the real details were provided by excavations (Hope-Taylor 1977; Tinniswood and Harding 1991).

The site is multi-period. It occupies a natural, raised gravel plateau situated north and below the rising Cheviot Hills. A hillfort, Yeavering Bell, sits above the site. This was inactive by the time the early medieval settlement was in development (Oswald et al. 2006), but there is evidence that some neighbouring forts attracted settlement activity in the Roman Iron Age (Oswald et al. 2002, 106–108; 2006). An entrance through the north wall of the defences on the Bell, may also be a later feature (Oswald and Pearson 2005, 112–3). Air photographs and two phases of excavation have revealed that older monuments, including a ring-ditch and henges, played an agent role in the location and spatial organization of the early medieval settlement (Figs 1a and b) (Hope-Taylor 1977; Tinniswood and Harding 1991; Frodsham 2005). The existence of a Bronze Age cemetery was revealed by Hope-Taylor on the plateau (1977, 335). Another feature that may pre-date the early medieval settlement is the Great Enclosure (Fig 1b). This large, double-palisaded feature passed through several phases of development and represents in Hope-Taylor's argument, the beginning of the sequence of activity that would culminate in the palace complex. He placed its inception, eventually, in the late 4th century, but this date, based on the relative sequence, remains speculative (O'Brien 2005) and its function remains equally poorly understood. The size and scale, and apparent funnelling mechanism, have led to suggestions of an enclosure for cattle (Frodsham 2005, 53). Assessment of the excavated zooarchaeological material indicates an absence, even a disregard, for the maintenance of breeding herds, with the implication that large numbers of cattle may have been driven down seasonally from a wide area, for sorting and for butchery at the early medieval site (Hinton 1990, 9). It is worth emphasising that the Old English words for cattle and livestock could also be used for goods and property (see discussion by Banham and Faith 2014, 86–7), reinforcing that for many early medieval communities,

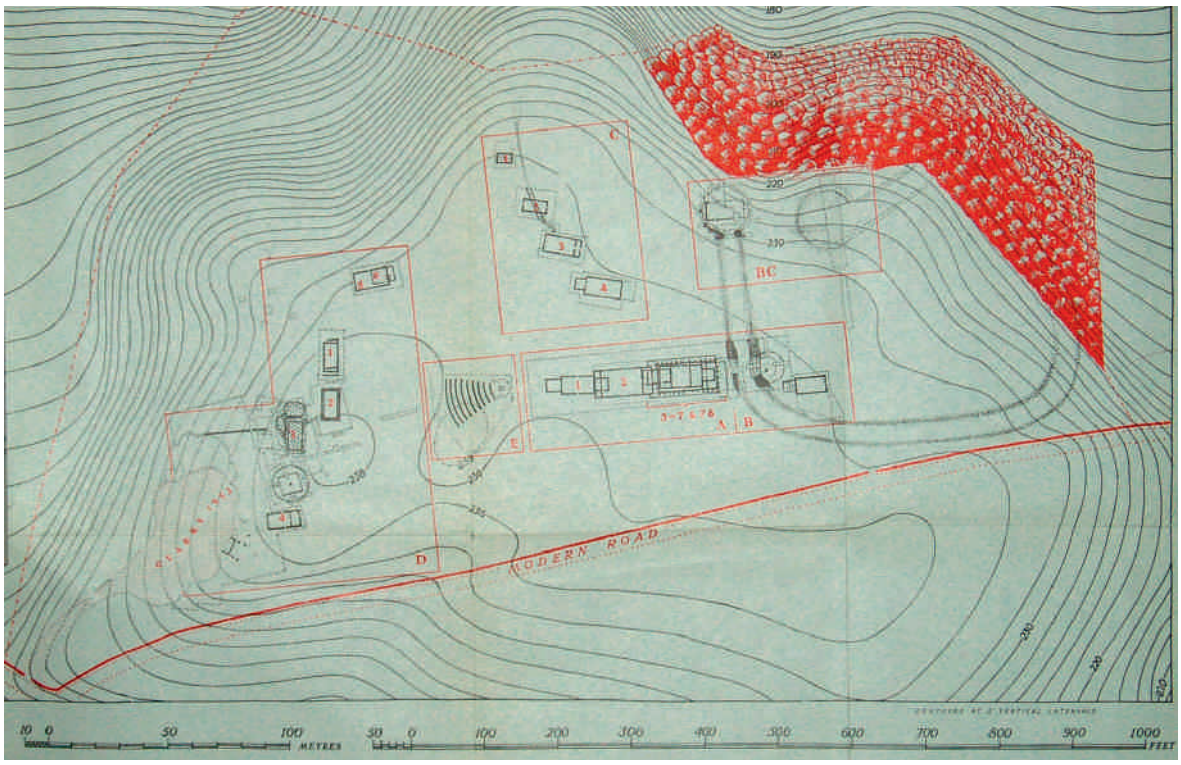

Figure 1b. Plan of the areas of excavation opened between 1952 and 1962 and associated features and structures (Hope-Taylor 1977, fig 12).

'...wealth must overwhelmingly have consisted of livestock' (Ibid., 87).

Hope-Taylor, in a reading of historical sources and the relative association of features revealed by excavation, suggested that the settlement or 'township' at Yeavering developed from c AD 550 and was abandoned by c AD 700 (1977, 150–4). Current thinking places the initial construction of a series of buildings in the mid-6th century (Miket 1980, 301–3; Scull 1991) (Fig 1b), with burial initiated around the same time, around the western ring-ditch. A series of rectangular structures or halls were built to the west, orientated N-S and the timber theatre was constructed. By the 7th century, an elaborate hall complex had developed to the east of the theatre, and in the final phase of activity, a series of additional buildings and halls were constructed north of the hall complex, and the Great Enclosure was superseded by a possible church and eastern cemetery (Hope-Taylor 1977, 258, figs 74–79; Lucy 2005, 139). The 'church' was large and the cemetery extensive, implying both served a significant population, or that the complex lasted longer than Hope-Taylor envisaged (see Lucy 2005). Two phases of destruction by fire seemed to prompt this eastern shift in activity. The site also extended south (Fig 1b). Here excavations of a prehistoric henge monument produced secondary early medieval evidence attesting to timber structures and metalworking activity (Tinniswood and Harding 1991, 101–2). Inhumation burial was practiced throughout the lifetime of the early medieval site (Fig 1b). These burials, initially to the west of the site, were related to older monuments, standing posts and structures. Later on, the eastern ring-ditch and hall complex were marked out by the interment of the dead, before the eastern cemetery developed around structure B.

Hope-Taylor considered first halls and evidence of settlement as a product of the 'British' communities in the region. However, it is now accepted that the complex could equally fit with 'Anglian' fashions and activity in the Milfield Basin, in the mid-6th century (Miket 1980, 301–3; Scull 1991). At its most developed, the settlement was connected with Bernician, and then Northumbrian, royal households. Although documentary records suggest abandonment by the 8th century, Sam Lucy has noted that some burials in the eastern cemetery could date from this time (Lucy 2005).

In recent years, as a result of a research effort by The Gefrin Trust[2] with Durham University, new geophysical survey results have been achieved, through the use of resistivity (Fig 2a), revealing a potentially earlier enclosure within the circuit of the Great Enclosure (A); a possible structure overlapping (or cut by) the southern lip of the Great Enclosure (B); a funnel-like feature, opening out on the northern edge of the plateau and the Glen (C), and two circular features and an adjacent rectangular structure close to the eastern complex (F). Use of infra-red photography via a drone, repeated at regular intervals, has provided clearer evidence of one of these

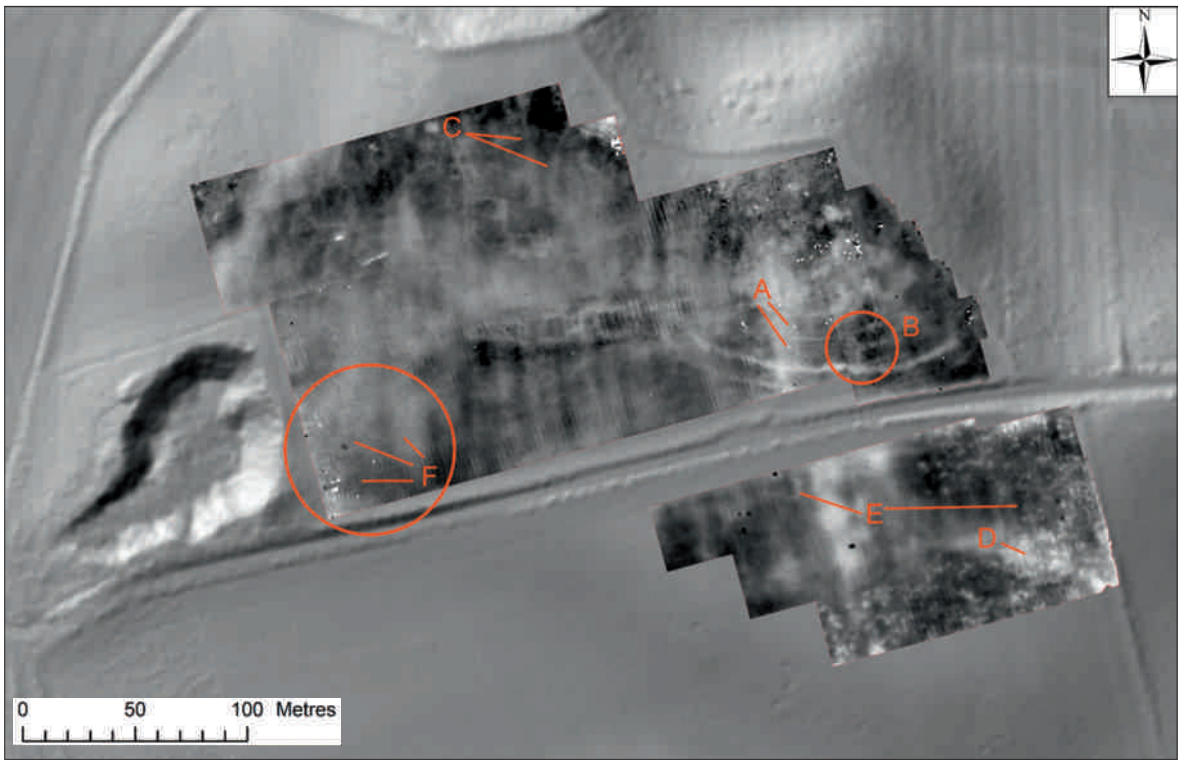

Figure 2a. Resistivity survey conducted at Yeavering 2007–9. Possible features include **A**: smaller earlier double palisade enclosure; **B**: one or more rectilinear features, perhaps buildings, lying within the lip of the palisade enclosure; **C**: funnel-shaped feature with high resistance rectangular platform set within its splayed ditches; **D**: henge complex excavated by Harding (Tinniswood and Harding 1991); **E**: hall-type structures already recognised on air photographs; **F**: faint traces of two large circular features, and a rectangular structure commensurate in size with other excavated halls.

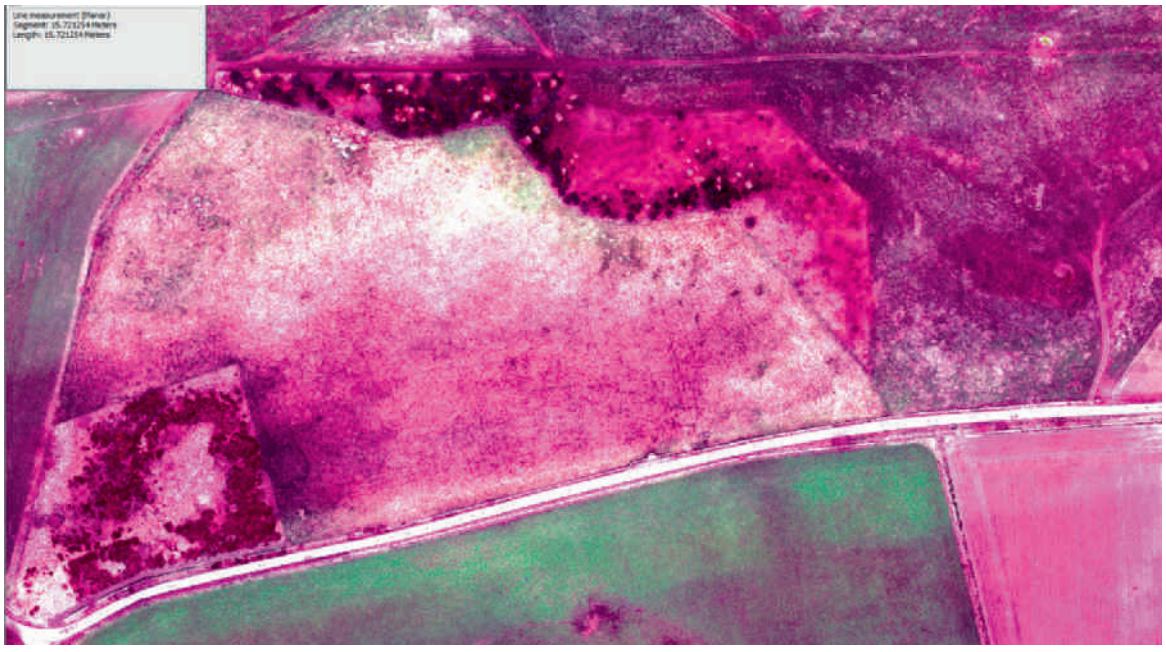

Figure 2b. Results of systematic near infra-red aerial photography using a low altitude unmanned drone (UAV) by Darren Oliver (Oliver 2016). Note the two circular features east of the quarry boundary.

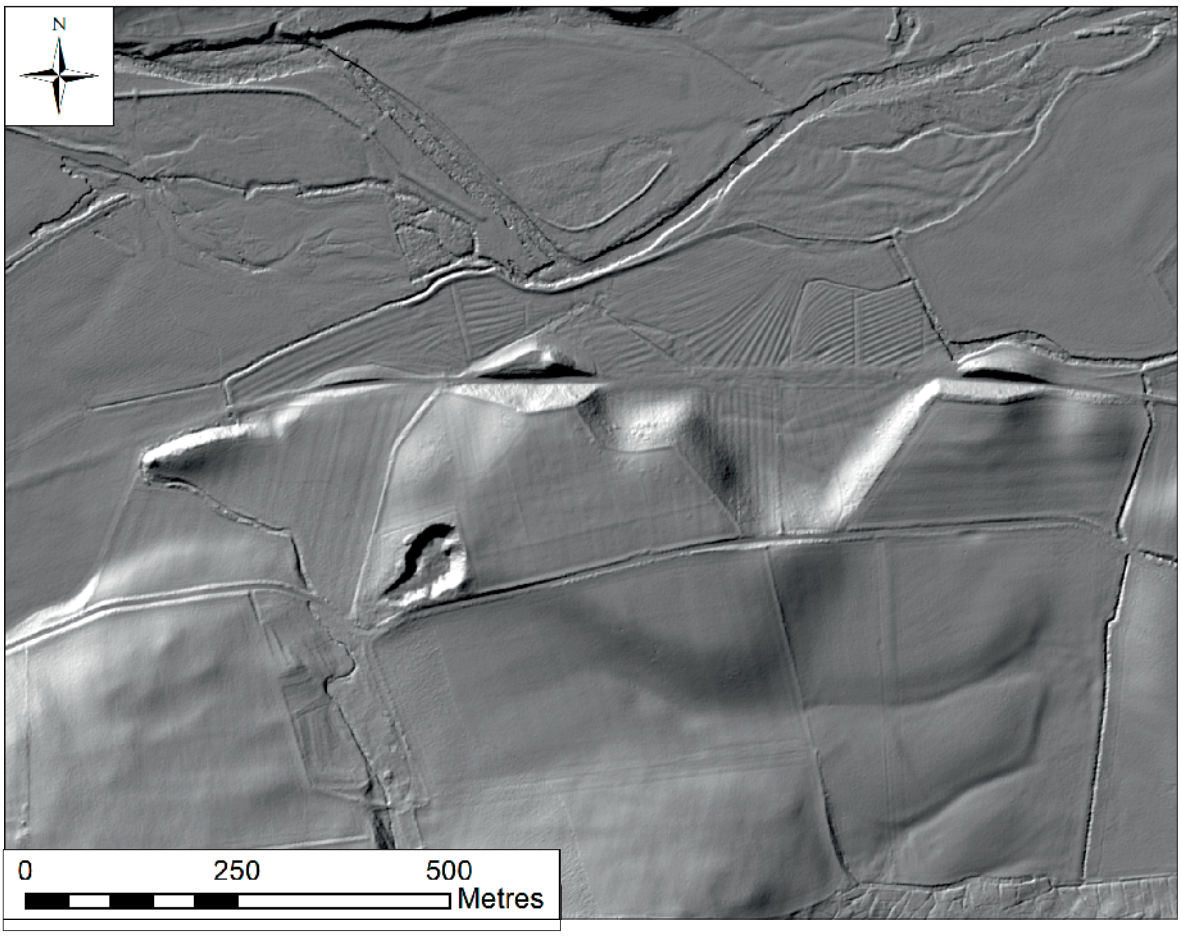

Figure 2c. Hill shade generated from LiDAR digital elevation model. Plateau in foreground and rig or water meadows to the north, with traces of possible banks by the channel of the River Glen. Map produced using data from © Environment Agency copyright and/or database right 2015. All rights reserved.

eastern features (Oliver 2016) (Fig 2b). LiDAR data also hint at the complexity of surviving earthwork traces north of the plateau by the River Glen. Although complicated by traces of field systems, there are faint suggestions of a banked area, perhaps a fording place across the river (Fig 2c).

These features remain speculative and require further investigation, but they add weight to arguments for a more complex time-depth to the site in prehistoric and historic terms. They also underline the need to understand the interconnections of the settlement with the broader spread of early medieval activity in the region, especially in terms of access and egress, travel and communications. *Gefrin* did not existed in isolation: the words of Bede and the existence of the timber theatre signal that the complex operated as a location where large numbers of people might come at certain times of year. What must have been a visually impressive arrangement of buildings, enclosures and monuments, from afar and within, seems to have offered a theatre for ritual acts, for demonstrations of kingship, and for gatherings. For a time *Gefrin* operated as a central place, and yet occupied an almost gateway-like position between the rising uplands and the river systems and open floodplain of the Glen-Till-Tweed tributary systems, that, as we shall see, hosted a density of early medieval activity. This article now turns to this broader portfolio of evidence.

Early medieval activity in the Milfield Basin

Settlements (Figs 3 and 4; Tab 1)

Activity of all prehistoric periods is known from the upland of the Cheviot Hills, where Bronze Age, Iron Age, late Iron Age and Roman Iron Age/Romano-British activity has been recognised through the forensic study of surviving field systems and features (Oswald et al. 2002; 2006). On the plain, aerial reconnaissance and excavations, if taken together, show a similar chronological range of activity. Although many sites are undated and caution is needed, Gates has pointed to this as evidence for a greater 'persistence' of prehistoric activity in lowland areas than previously envisaged (Gates 2012, 68–90).

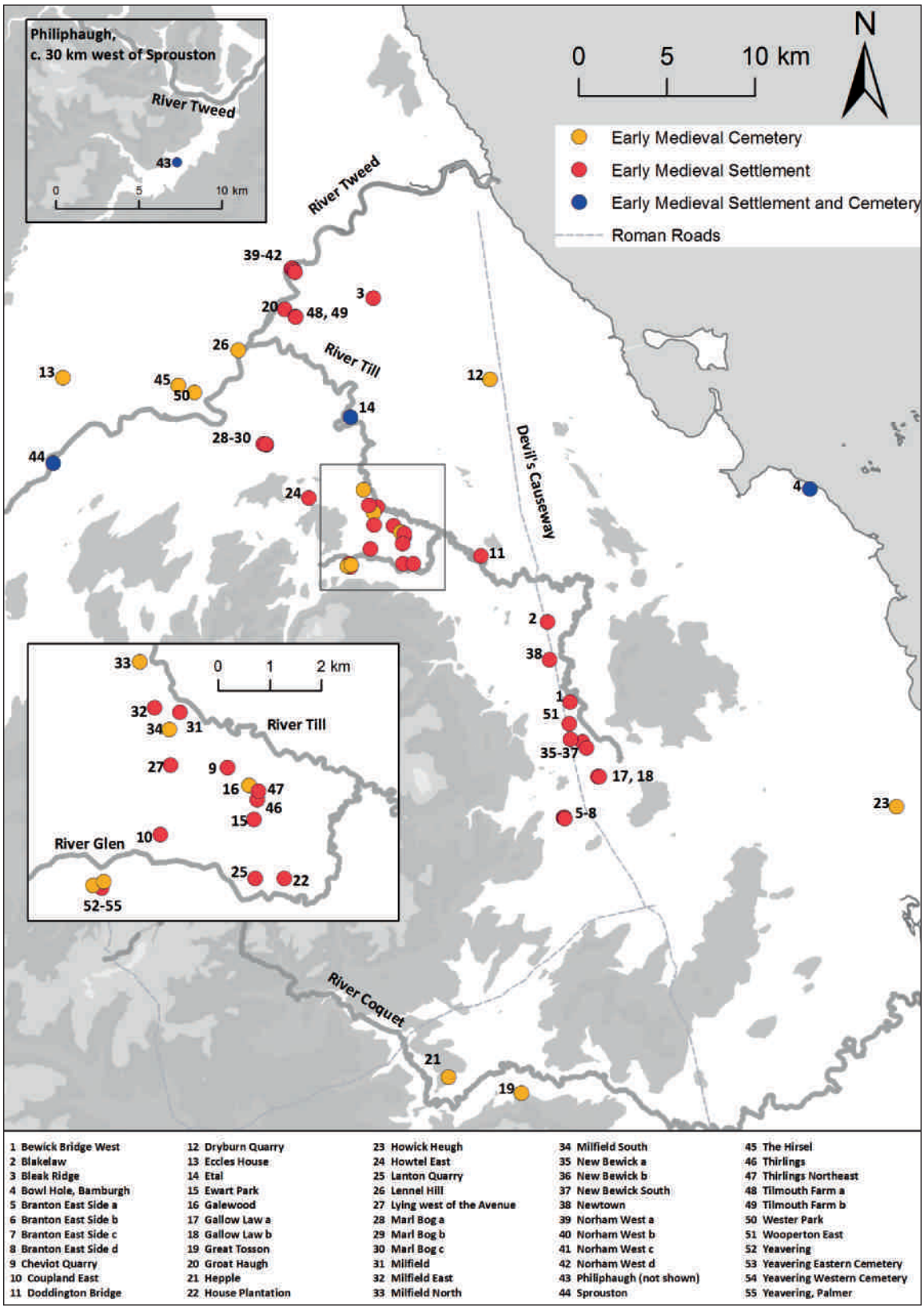

Figure 3. Distribution of actual and possible early medieval settlement and cemetery evidence in the region, 5th–8th centuries AD. Numbering corresponds to Tables 1 and 2. Map produced using data from © Crown Copyright and Database Right (2017). Ordnance Survey (Digimap Licence).

Site no.	Name	Historic parish (1851)	Site type	Associated burials?	Antecedent feature?	Date	Reference
1	Bewick Bridge West	East Lilburn	Cropmark	Unknown	Yes	5th–?	Passmore and Waddington 2009, 380
2	Blakelaw	Branxton	Cropmark	Unknown	Yes	5th–?	Passmore and Waddington 2012, 110.
3	Bleak Ridge	Shoreswood	Cropmark	Unknown	Yes	5th–?	Passmore and Waddington 2009, 369
5	Branton East Side A	Branton	Cropmark	Unknown	No	5th–?	Passmore and Waddington 2009, 380
6	Branton East Side B	Branton	Cropmark	Unknown	No	5th–?	Passmore and Waddington 2009, 380
7	Branton East Side C	Branton	Cropmark	Unknown	No	5th–?	Passmore and Waddington 2009, 380
8	Branton East Side D	Branton	Cropmark	Unknown	No	5th–?	Passmore and Waddington 2009, 380
9	Cheviot Quarry	Coupland	Excavated	No	Yes	5th-6th	Johnson and Waddington 2008
10	Coupland East	Coupland	Cropmark	Unknown	Yes	5th–?	Passmore and Waddington 2012, 110.
11	Doddingon Bridge	Doddington	Cropmark	Unknown	Yes	5th–?	Passmore and Waddington 2012, 110.
14	Etal	Etal	Excavated	Yes	No	5th?	Collins 2010
15	Ewart Park	Ewart	Cropmark	Unknown	Yes	5th–?	Passmore and Waddington 2012, 110.
17	Gallow Law A	Beanley	Cropmark	Unknown	No	5th–?	Passmore and Waddington 2009, 380
18	Gallow Law B	Beanley	Cropmark	Unknown	No	5th–?	Passmore and Waddington 2009, 380
20	Groat Haugh	Twizell	Cropmark	Unknown	Yes	5th–?	Passmore and Waddington 2009, 369
22	House Plantation	Akeld	Cropmark	Unknown	No	5th–?	Passmore and Waddington 2012, 110
24	Howtel East	Howtel	Cropmark	Unknown	Yes	5th–?	Passmore and Waddington 2012, 110
25	Lanton Quarry	Akeld	Excavated	No	Yes	5th-6th	Stafford and Johnson 2007
27	Lying west of the Avenue	Coupland	Cropmark	Unknown	Yes	5th–?	Passmore and Waddington 2012, 110
28	Marl Bog A	Learmouth	Cropmark	Unknown	No	5th–?	Passmore and Waddington 2009, 369
29	Marl Bog B	Learmouth	Cropmark	Unknown	No	5th–?	Passmore and Waddington 2009, 369
30	Marl Bog C	Learmouth	Cropmark	Unknown	No	5th–?	Passmore and Waddington 2009, 369
31	Milfield	Milfield	Cropmark	Unknown	Yes	7th-8th	Gates and O'Brien 1988; Passmore and Waddington 2012
32	Milfield East	Milfield	Cropmark	Unknown	Yes	5th–?	Passmore and Waddington 2012, 110
35	New Bewick A	New Bewick	Excavated	Unknown	No	5th–?	Passmore and Waddington 2009, 380
36	New Bewick B	New Bewick	Excavated	Unknown	No	5th–?	Passmore and Waddington 2009, 380
37	New Bewick South	New Bewick	Cropmark	Unknown	No	5th–?	Passmore and Waddington 2009, 380
38	Newtown	Newtown	Cropmark	Unknown	Yes	5th–?	Passmore and Waddington 2012, 110
39	Norham West A	Norham	Cropmark	Probable	Yes	5th–?	Passmore and Waddington 2009, 369
40	Norham West B	Norham	Cropmark	Probable	Yes	5th–?	Passmore and Waddington 2009, 369
41	Norham West C	Norham	Cropmark	Probable	Yes	5th–?	Passmore and Waddington 2009, 369
42	Norham West D	Norham	Cropmark	Probable	Yes	5th–?	Passmore and Waddington 2009, 369
43	Philiphaugh	Selkirk	Cropmark	Yes	Yes	7th–11th	Hale 2016
44	Sprouston	Sprouston	Cropmark	Yes	Yes	7th-8th	Smith 1992
46	Thirlings	Ewart	Excavated	No	Yes	6th	O'Brien and Miket 1991
47	Thirlings NE	Ewart	Cropmark	Unknown	Yes	5th–?	Passmore and Waddington 2012, 110
48	Tilmouth Farm A	Twizell	Cropmark	Unknown	No	5th–?	Passmore and Waddington 2009, 369
49	Tilmouth Farm B	Twizell	Cropmark	Unknown	No	5th–?	Passmore and Waddington 2009, 369
51	Wooperton East	Roseden	Cropmark	Unknown	Yes	5th–?	Passmore and Waddington 2009, 380
52	Yeavering	Yeavering	Excavated	Yes	Yes	5th–7th	Hope-Taylor 1977
55	Yeavering, Palmer	Yeavering	Cropmark	Yes	Yes	5th–7th?	Passmore and Waddington 2009, 380

Table 1. Actual and possible early medieval settlements in the Till/Tweed/Glen watershed in the 5th – 8th centuries AD.

Early medieval settlement, funerary or agrarian activity, in contrast, rarely leaves substantive earthwork traces, and as a result, appears almost entirely absent in upland zones. Single radiocarbon dates from a cultivation terrace at Ritto, and upland boundary features at Brough Law and Little Haystack (all in the Breamish valley), support the idea that cultivation extended to the uplands in the early medieval period (see arguments put forward by Passmore and Waddington 2012, 289). Yet settlement evidence remains elusive. So-called 'scooped settlements', situated on the lower slopes of the Cheviots, are considered a late Iron-Age/Roman Iron-Age settlement type, probably serving a seasonal function (Jobey 1960), but some of these may have been reused in medieval times: at Hetha Burn, the scooped settlement was re-occupied in the medieval era, and probably used as a shieling (Burgess 1984, 167). Such evidence hints at the longer-term use of upland enclosures and sites, perhaps on a seasonal basis.

On the plain, early medieval settlement evidence is significantly richer. Discoveries via aerial photography and excavation have revealed a number of sites along the river valleys, broadly datable to the late 5th to 8th centuries (Fig 3 and Tab 1). The sand and gravel terraces that sit above the floodplain account for 13% of the total landmass visible in Figures in 3 and 4. Early medieval settlement sites are largely restricted to this geology (n=30, 73%), although some occupy more elevated positions (n=11, 27%) (Gates and Deegan 2009; Gates 2012). This pattern of course may reflect the optimum nature of the gravels for revealing cropmark sites, in contra-distinction to the poor visibility of early medieval activity in upland areas.

Settlements have been recognised and excavated at Yeavering, Milfield, Thirlings, Lanton Quarry, and Cheviot Quarry and their nature and extent varies. At Lanton and Cheviot Quarries radiocarbon dates suggest activity of 5th-/6th-century date, whereas Thirlings is considered a 6th-century site of greater size and investment (O'Brien and Miket 1991; Passmore and Waddington 2012, 295–6). Yeavering is assumed to span the 6th and 7th centuries, and *Maelmin* or Milfield is considered 8th century, based on Bede's account, although the cemeteries at Milfield North and Milfield South produced 6th/7th-century assemblages (Scull and Harding 1990). Further afield, cropmark evidence points to settlements of broadly similar date range at Sprouston (Smith 1992) and Philiphaugh (*Canmore* SM1281) across the modern Scottish Border, though these remain unexcavated. Many more, smaller cropmark sites have been identified on the gravels along the Till-Tweed river systems, however, identified as early medieval and 5th–8th-century date on the basis of features reminiscent of *Grubenhäuser* or sunken-featured buildings (Gates and O'Brien 1988; Gates and Deegan 2009, 168, fig 4.31, Appendix F; Gates 2012, 110, tab 3.12) (Tab 1). Trial excavations at New Bewick have verified this (Gates and O'Brien 1988). Passmore and Waddington argue, based on the dating at Lanton and Cheviot Quarries, and drawing on the cropmark data, that the 5th/6th centuries are well represented by the settlement activity along the Till, Tweed and Glen valleys (2012, 289, fig 9.5) (Fig 3 and Tab 1). Thirlings, Yeavering and Milfield, while generally held to be products of the 6th and 7th– 8th centuries, are all associated with either excavated, or cropmark attested *Grubenhäuser*, which raises the question of whether these sites have earlier beginnings and longer trajectories.

Locations

The frequent situation of early medieval settlements on the sand and gravel terraces, proximate to rivers, is noted by Passmore and Waddington (2012, 298–9), who also suggest the larger sites of Yeavering, Maelmin and Sprouston could be situated to control river crossings. Most of the early medieval settlements on the plain are low-lying, proximate to the historic floodplains. Thirty of the 41 known settlements (73%), are less than 600 m from the water's edge, situated on the sand and gravels, and most (24 sites, 77%) are elevated within 4 m to 12 m above the historic floodplain (Fig 4 and Tab 3a).[3] Yeavering represents an interesting outlier, positioned c 21 m above the floodplain, but still occupying a large gravel terrace less than 300 m from the river that overlooks the Glen-Till confluence. Milfield too was sited at a 'pinch point in the valley', perhaps a natural crossing place (Passmore and Waddington 2009, 261). Norham, a cropmark site much further north, is located close to a crossing point on the Tweed, above the flood level and on the inside of a river bend (Gates and Deegan 2009, 169–70). Such relationships are not confined to the excavated or the larger complexes; the majority of cropmark sites (25 sites, 74%) also lie within 600 m of historic water courses and a good proportion are situated less than 12 m above the floodplain (21 sites, 62%) (Tabs 1 and 3a; Fig 4). Even when a cropmark site is in a more remote position, such as at Howtel, Marl Bog, or Bleak Ridge (Tab 3a) (10 in total), these are still proximate to, and perhaps intervisible with, stretches of the Rivers Tweed and Till.

This congruence between the settlement pattern and the historic floodplain could be due to the superiority of the gravels in revealing cropmarks, or (although untested here), might signal a relationship between early medieval settlement and areas of agricultural affordance. However, the proximal relationship is reinforced by a further correspondence between early medieval cemetery sites and the flood plain. The striking relationship of some settlements with pinch points and fording places also merits further investigation.

Cemeteries (Fig 3; Tab 2)

Burial at Yeavering took place as early as the Neolithic (Tinniswood and Harding 1991) and Bronze Age and

Site no.	Site name	Historic parish (1851)	No. of burials	Artefacts in association with one or more burial?	Antecedent feature?	Date	Reference
4	Bowl Hole	Bamburgh	96	Yes	No	560–780	Groves 2011; Groves et al. 2013
12	Dryburn Quarry	Lowick	3	No	No	1–1000	Lucy 1999, 40
14	Etal	Etal	N/A	Possible	No	5th	Collins 2010
16	Galewood	Kirknewton	2	Yes	No	500–680	Meaney 1964, 198
19	Great Tosson	Rothbury	Unknown number excavated	Yes	Yes	610–680	Meaney 1964, 199
20	Hepple	Rothbury	1 grave recorded plus an unknown number of others present	Yes	Yes	600–680	Lucy 1999, 39
23	Howick Heugh	Howick	10 graves recorded plus an unknown number of others present	Yes	Yes	500–680	Lucy 1999, 39
33	Milfield North Henge	Kirknewton	6	Yes	Yes	575–675	Scull and Harding 1990
34	Milfield South Henge	Kirknewton	25	Yes	Yes	650–800	Scull and Harding 1990
53	Yeavering Eastern Cemetery	Kirknewton	5 noted in text plus unknown number of others	Yes	Yes	?–700	Hope-Taylor 1977
54	Yeavering Western Cemetery	Kirknewton	31 shown on site plan (possibly more present?)	No	Yes	550–?	Hope-Taylor 1977
45	The Hirsel	Coldstream	Unknown number	No	No	400–800	Cramp 2014
50	Wester Park	Coldstream	1	Yes	No	400–800	*Canmore* ID 59633; RCAHMS 1980
26	Lennelhill	Coldstream	4 (1 + 3 in multiple inhumation)	No	No	230–620	Ritchie and Ritchie 1982; Ritchie 1983
44	Sprouston/ Whitmuirhaugh	Sprouston	380+ (from cropmark)	Unexcavated	No	n.d.	Smith 1992
43	Philiphaugh	Selkirk	Unknown number	Unexcavated	Yes	600–1000	Hale 2016

Table 2. Early medieval cemetery events in the Till/Tweed/Glen watersheds in the 5th – 8th centuries AD.

possibly later cremations were also identified (Hope-Taylor 1977, fig 73). Visible rites of the late Iron Age/Roman Iron Age are scarce in the northern England and lowland Scotland (Armit and McKenzie 2013, 504). Occasional evidence for cremations exist, but these are usually unurned, while fragments of bone from secondary contexts imply some form of excarnation practice (see for example Broxmouth; Artmit and McKenzie 2013, 504). Roman influence may have prompted the use beyond the frontier around the 1st AD, of inhumations in long cists. These are generally unfurnished and thus only broadly dated, but the practice continued in the second half of the first millennium (Maldonado 2013). To the south of the Lothians, cist graves are rare finds: a couple are recorded at Bamburgh, for example, in the 19th century (Lucy 2005, 136).

The arrival of inhumation cemeteries at Yeavering, Bamburgh, Milfield and Sprouston thus marks a significant shift in the region to an archaeologically visible disposal rite for the dead (Fig 3). The early medieval cemetery and burial evidence known from Northumberland is not especially rich in terms of numbers or evidence of furnished rites. It has been outlined before by Miket (1980) and Lucy (1999; 2005), and Table 2 provides an up-to-date list. Despite the strong arguments for new traditions of lowland settlement at the late 5th-/6th-century transition (see above), the cemetery evidence is traditionally classed as 6th and 7th century in date (Miket 1980; Scull 1991; Lucy 1999). The cemeteries at Yeavering are dated by the settlement-cemetery sequence and finds, including a burial with a buckle and knife (Hope-Taylor 1977, 183, 185). Milfield North and South are considered late 6th–7th century on the basis of gravegoods (Scull and Harding 1990; Lucy 2005, 138) and burial at Sprouston is dated by analogy (Smith 1992). At Bamburgh, a burial ground containing inhumations, largely unfurnished but some with

buckles, a pin, knife or animal bone, is placed in the 6th–8th centuries (Groves 2011, 241). All are proximate or integral to a settlement complex considered of significant status.

Alongside these larger cemeteries are a number of smaller burial grounds (Miket 1980; Lucy 1999; 2005) (Tab 2; Fig 3). Galewood and Dryburn are situated within the Till-Tweed watersheds. At Galewood, now lost, two annular brooches, spearheads, a bead, a knife and a vessel were located around one kilometre to the south of Milfield (Keeney 1935; Miket 1980). The findspot, although now only vaguely known, would place this cemetery very close to the settlement of Thirlings, suggesting another settlement-cemetery pairing. At Dryburn Quarry, near Lowick, another uncertain location, a seax or large knife may signal another cemetery. Much further south, in Coquetdale, records mention additional discoveries of funerary evidence at Great Tosson and Hepple (Miket 1980; Lucy 1999). To the north, on the Tweed, at Lennelhill, Eccles House, Wester Park and The Hirsel, long cist graves or cemeteries are recorded, one with a 'short sword' at Wester Park. Gravemarkers at neighbouring Hirsel probably date to the 9th century and mentions of earlier finds of cist graves could point to pre-9th-century practice (*Canmore* 59632). At Lennelhill, however, radiocarbon dating provided a date range of AD 230–620 (Ritchie 1983). None of these cemeteries, whether composed of dug graves or cists, contain richly furnished burials: only a few graves at Yeavering were furnished. This is indicative more broadly of Northumbrian trends (Cramp, Collins both this vol). Further afield, a comparatively well-furnished small cemetery was discovered at Howick Heugh, considered 6th century (Miket 1980, 285), while at Etal, metal-detecting turned up a distinctive assemblage of 5th/6th-century brooch fragments, but the funerary context is lost (see Collins 2010, 387–398). Most of these smaller cemeteries differ from Yeavering, Milfield, Bamburgh and Sprouston, in being, at face value, spatially distinct from the broader pattern of 6th-century settlement evidence. The finds at Galewood, however, do imply that where cemetery evidence is forthcoming, settlement may not be far removed.

Locations

Cemeteries have a more dispersed and varied locational pattern in the Milfield Basin than settlements. Eight (50%) are located on the sand/gravels, and the remainder on other geologies. This diversity is also reflected in their relationship to the floodplain. They pepper the river tributaries, but are not consistently low-lying (Tab 3b). As Hepple and Tosson indicate, burials could occupy prominent and high locations, but close to and over-looking river valleys (Tabs 2 and 3b; Figs 3 and 4). In terms of elevation, eight sites (50%) are within 12 m of the flood plain, and six (38%) are within 30 m. Ten are situated within 600 m distance from the floodplain (62%) and overall 21 cemetery locations (87%) are within 1 km of an historic watercourse/floodplain.

At Yeavering, Milfield South, Sprouston and Galewood by Thirlings, where cemetery evidence is allied to settlements, sites are situated at low, elevated positions by the floodplain, and all are within or around 1 km from an historic fording place or bridging point on the waterway (Figs 3 and 4).[4] Likewise, the possible cemetery at Etal appears to have been proximate to a large natural knoll in an elevated location above a major bend in the River Till, overlooking at least one, if not two, fording places (Figs 3 and 4). Further north, at Lennelhill, the cemetery is close to a strategic crossing point on the Tweed at Coldstream. At Howick Heugh, the cemetery exploited a natural rise overlooking a N-S land route that skirted a large low-lying plain which in the past would have been subject to inundations, but also lies c 1 km from an historic fording/bridging point. Overall, 12 cemeteries (75%) are within 1.4 km of an historic bridge/ford or ferry (Tab 3b).

Another striking shared attribute is an association with earlier monuments, usually of prehistoric date. At Yeavering and Milfield, prehistoric barrows and a henge were repurposed as focal points for inhumations. At Howick Heugh, the location of the cemetery is on a natural rise, now quarried out, where Bronze Age cremations were recorded (Northumberland HER ID 5644). At Etal, a large natural, barrow-shaped knoll provided a focus (see Orsini this vol) and at Hepple and Tosson in Coquetdale, both cemeteries seem to have been directly proximate to older earthworks of prehistoric date. In total eight cemetery and burial sites (50%) have a relationship with earlier monuments of some kind. This of course, applies to several settlements.

While the cemetery evidence is largely characterised by its paucity, it marks a break from long-running traditions. This small number of funerary events cannot reflect the size of population inhabiting these lands in the 4th–8th centuries, but these dug-grave and cist cemeteries, whether large or small, share certain characteristics. Sometimes cemeteries and settlements were allied and some burial grounds were isolated, but mortuary evidence was often proximate to activity or monuments of an earlier date. While cemeteries are more diverse in their placement than settlements, in terms of height above, and distance to, the floodplain and watercourses, a significant proportion are reasonably close to historic crossing places such as fords, bridging and ferry points.

Cemeteries and settlements in the Milfield Basin

Some settlements have provided dates that fall in a late 5th-/6th-century range (see above). The cropmark sites remain undated, but are assumed to span the late 5th–7th centuries. The larger excavated settlements of Thirlings and Milfield are placed in the 6th and 8th centuries respectively, and Yeavering, at its most developed, in the 6th–7th centuries. The cemeteries

Site Name	Elevation above historic floodplain (m)	Distance to floodplain (m)	Distance to ford, bridge or ferry (m)
Bewick Bridge West	19.7	430	703
Blakelaw	32.55	1039	1357
Bleak Ridge	36	2657	4525
Branton East Side A	2.8	177	631
Branton East Side B	3.6	159	623
Branton East side C	4.5	164	613
Branton East side D	3.2	244	701
Cheviot Quarry	3.29	550	1069
Coupland East	9.9	287	533
Doddingon Bridge	12.2	200	321
Etal	11.6	131	586
Ewart Park	0.9	969	1599
Gallow Law A	4.6	81	485
Gallow Law B	10.2	143	414
Groat Haugh	2.4	411	1382
House Plantation	7.4	246	312
Howtel East	16	1300	2063
Lanton Quarry	8.88	99	697
Lying west of the Avenue	1.6	413	1065
Marl Bog A	22	1056	3895
Marl Bog B	19.3	1149	3989
Marl Bog C	19.8	1203	4042
Milfield (*Melmin*)	5.89	236	448
Milfield East	1	112	946
New Bewick A	17.3	397	871
New Bewick B	18.1	654	2498
New Bewick South	31.5	763	1168
Newtown	17	140	991
Norham West A	2.3	50	215
Norham West B	1.8	52	280
Norham West C	2.4	196	471
Norham West D	2.5	325	375
Philiphaugh	0	0	600
Sprouston/*Whitmuirhaugh*	0	0	1070
Thirlings	12.3	553	1875
Thirlings NE	11.2	337	1777
Tilmouth Farm A	19.7	839	1700
Tilmouth Farm B	19.5	854	1659
Wooperton East	2	380	1083
Yeavering	21.08	213	705
Yeavering, Palmer	21.08	213	705
Mean	11.20	473.71	1244.93

Table 3a. Elevation above, and distance in metres. between settlements, the historic floodplain, and historic crossing points (fords, bridges, or ferries).

Site Name	Elevation above historic floodplain (m)	Distance to floodplain (m)	Distance to ford, bridge or ferry (m)
Bowl Hole	0	0	N/A
Dryburn Quarry	7.52	25.6	2189
Etal	11.6	131	586
Galewood	7.8	325	1061
Great Tosson	92.5	679	1360
Hepple	86	1085	1223
Howick Heugh	27.4	972	1071
Lennelhill	29.93	160	845
Milfield North	1.8	171	1634
Milfield South	2.65	667	682
Philiphaugh	0	0	600
Sprouston/*Whitmuirhaugh*	0	0	1070
The Hirsel	20.54	1783	1988
Yeavering Eastern Cemetery	21.6	157	867
Yeavering Western Cemetery	20.4	235	989
Wester Park	29.03	805	1038
Mean	22.42	449.73	1146.87

Table 3b. Elevation above, and distance between cemeteries, the historic floodplain, and historic crossing points (fords, bridges, or a ferry).

are all considered 6th-century or later in date. It seems entirely possible that some of the larger settlements like Thirlings, Milfield and Yeavering that host *Grubenhäuser*, may have their beginnings before the mid-6th century; if so, we perhaps need to rethink the assumption that the cemetery evidence falls only within a 6th- and 7th-century timeframe.

Both settlement and cemetery sites, however, share a spatial congruence with rivers and floodplains. Just like cemeteries, settlements are situated close to historic fording or bridging points across the rivers, with 11 (46%) situated within 600 m, and in immediate visible distance of an early 19th-century crossing point on a watercourse (Tabs 3a and b; Figs 3 and 4). If, taken together and considered in relation to the pre-19th-century alluvial deposits, many early medieval sites mark optimal crossing points at what would have been wide, and seasonally marshy, low-lying wetlands. Forty sites (76%) are within 1.6 km of an historic crossing-point, fording or bridging point, of which 12 sites (23%), whether cemetery, settlement or paired, sit in immediate proximity (Tabs 3a and b; Figs 3 and 4).

Correspondence with older monuments is also a shared feature, with 33 sites (62%) situated in an apparent immediate relationship. Settlements such as Sprouston and Philiphaugh, known from aerial photographs offer indications rather than evidence of explicit relationships between early medieval activity and older enclosures and features. At Thirlings features of Neolithic date were excavated and the early medieval settlement lay north of Ewart henge (Miket et al. 2008, illus 1). The cropmark features suspected as *Grubenhäuser* are less well connected to antecedent features, but Tim Gates and Alison Deegan note that four appear proximate to prehistoric or Romano-British settlement sites, with a direct correspondence between a *Grubenhaus* and an earlier ditched enclosure at Marl Bog (Gates and Deegan 2009, 170–1). At Yeavering and Milfield, the prehistoric remains are instrumental to the design and layout of the complexes.

Such associations hint at the long-running significance of some locations, and also the access routes that connected them. Some correlations could of course be co-incidental, or result from a correspondence between human activity and the agricultural affordance of the terrain. However, it is also possible that at least some of these locational relationships were strategic: by integrating older monuments within new genres of settlement and funerary activity, claims on nodal locations could be reinforced. Settlements offered a means of control, while the dead may have served to demark such places in supernatural and even protective terms (see O'Brien 1999).

Movement, travel and communications: Yeavering in the *longue durée*

Hope-Taylor considered the Yeavering cemeteries as 'deeply revealing local entities' that probably represented 'British' practices. However, the vast majority of settlements and cemeteries in the Glen-Till-Tweed river systems, despite their date or their perceived associations with British or Anglian communities, bear striking locational similarities. Together they appear to point to a common strategy in their situation in relation to routes of travel and the floodplain. It seems that the populations settling the gravels in the 5th–8th centuries and burying their dead close by, shared considerable common

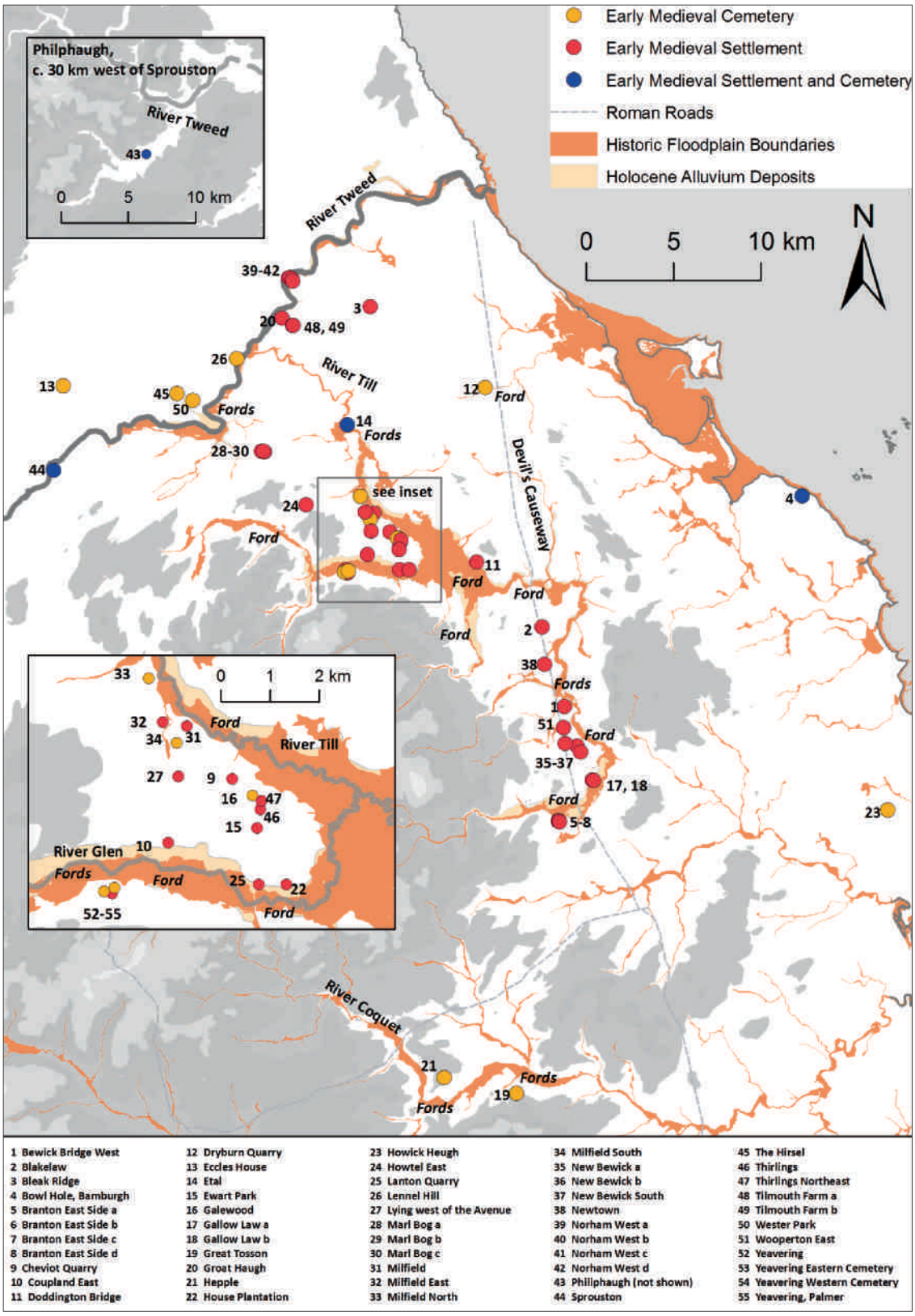

Figure 4. Distribution of all settlement and cemetery sites in relation to the river systems, historic flood levels and Holocene alluvium deposits, showing ford and crossing points based on OS 1st edition maps of the region. Map produced using data © Crown Copyright and Database Right (2017). Ordnance Survey (Digimap Licence).

ground in their desire for control over and access to a share of the regional resource base.

Through clearance, the productivity and stability of the uplands in Northumberland was eroded in prehistory (see Tipping 1994, 653 on the Bowmont Valley), meaning that the late-Iron-Age landscape was similar to the exposed upland visible today (Oosthuizen 2013, 40). The use of the Cheviot uplands for seasonal grazing is mentioned in medieval documents, and it is widely accepted that such practices must have operated in prehistoric times. The seasonal movement of animals from lowland to upland grazing is a transhumance practice that likely had significant longevity. There are hints in medieval documentary sources that pasturing, droving and supply of livestock could be ambitious in terms of distance. The upland grazing for Shap Abbey in Cumbria, for example, was some distance from the medieval abbey (Winchester 2000). Closer to home, estates along Bowmont Water were gifted to the early medieval monastery of Lindisfarne, presumably to enable the supply of grazing rights and livestock (*Historia Sancto Cuthberto*: Johnson South 2002). The Cheviot Hills were also used as a corridor for long-distance stock movement. Drove routes from Scotland crossed this region in the early modern and Victorian eras, facilitating the movement of cattle and sheep to large urban markets. Although this type of commercial droving may have been greatly in excess of the scale of stock movement in the Roman Iron Age and early medieval eras, some of the drover accounts attest to the challenges of the Cheviot terrain. An 80 year-old in the late 19th-century described his experiences of driving large herds of sheep to market at Morpeth, via Yetholme, Alwinton and Rothbury or Tosson (Jones et al. 2017). The route is known as Clennell Street, and is considered medieval, if not prehistoric in date. In George Robson's account, even in the summer months such journeys were hard, 'In a storm when the mountain streams came down in torrents, it was a very trying and difficult time for us. We often had to wait half a day until the small rivers subsided sufficiently to enable us to pass… In order to get on we did not always wait till it was safe, and I have stood nearly up to my waist in the streams keeping the sheep and lambs from being carried down by the current' (Ibid., 48). Not only does this account verify the Cheviots and Bernicia as a terrain that allowed through routes and movement of stock from north to south and west to east, but it also illustrates the difficulty of the routes which frequently follow watercourses, and require crossing of rivers and floodplains.

We have established that 5th–8th-century settlements and cemeteries occupied elevated positions close to the floodplain, and in some instances sites were congruent with historic fording places or crossing points. Using GIS, it is possible to model optimum paths of access across the up-lands and lowlands, in relation to the historic floodplain. While it is useful to reconstruct movement between early medieval sites to create a sense of the communication network that linked settlements and test the relationship of cemeteries to this network, it is also of value to assess the optimum routes that may have connected the late prehistoric upland sites to the lowland. In this way the relationship of early medieval activity to long-term routes of movement can be tested. Early medieval evidence is virtually absent in the upland zone, but scooped settlements present an interesting type-site that could have functioned as seasonal shielings in late prehistory to medieval times. Likewise Iron Age and Roman/Iron Age forts and settlements offer the possibility of testing out the long-term consistency of paths of movement. By modelling the most efficient paths through this landscape, using these multi-period sites, it is possible to test the evidence of locational strategies presented by settlement and cemetery evidence, and the optimum situations of the larger 'palace' complexes within the communication network (Figs 5a–c).

Archaeological Cost-Surface Analysis has become an increasingly popular method of modelling transportation routes, trade networks, or transhumance paths across past landscapes (Gietl et al. 2007; Herzog 2013a; 2013b; 2014; Howey 2011; Rahn 2005; White and Surface-Evans 2012). The Cost-Surface Analysis of the Yeavering environs was focused on slope and the historic floodplain as the primary factors affecting movement, based on the time and effort it would take to move through the landscape. Reliance on using slope in Cost-Surface Analysis to determine what are called Least-Cost Paths, or optimum routes, risks ignoring environmental and cultural factors that may have affected movement, such as waterways, soil types, and established pathways. These factors, some argue, should also be incorporated to create better and more nuanced models of movement, but others suggest that a simple Cost-Surface Analysis using one variable such as slope can be preferable, and can be more easily adjusted to fit a research question (Batten 2007, 170). Here, therefore, a simple model related to slope derived from the OS Terrain 50 DTM was used in the first instance to establish a basic model of movement from the upland to the lowland and valley floor (Fig 5a). In this exercise Iron Age hillforts and enclosed settlements and late Iron-Age/Roman Iron-Age 'scoop settlements' were included, alongside early medieval settlement and cemetery sites. The aim was to model potential long-term routes of movement from the lowland to upland, with a view to assessing how burial and settlement in the 5th to 8th centuries AD intersected with optimum paths of travel.

The generated Least-Cost Paths or optimum routes derived from the slope-only Cost-Surface Analyses, as Figure 5a demonstrates, link multi-period sites, suggesting consistent and long-term patterns of lowland-upland occupancy and use from the Iron Age to medieval times. The pathways generally follow stream and river cuttings that drain into the River Glen, and cross the Glen before converging on a path to Milfield. It is noticeable that Yeavering occupies a nodal place in these networks, placed right on the confluence of routes that led

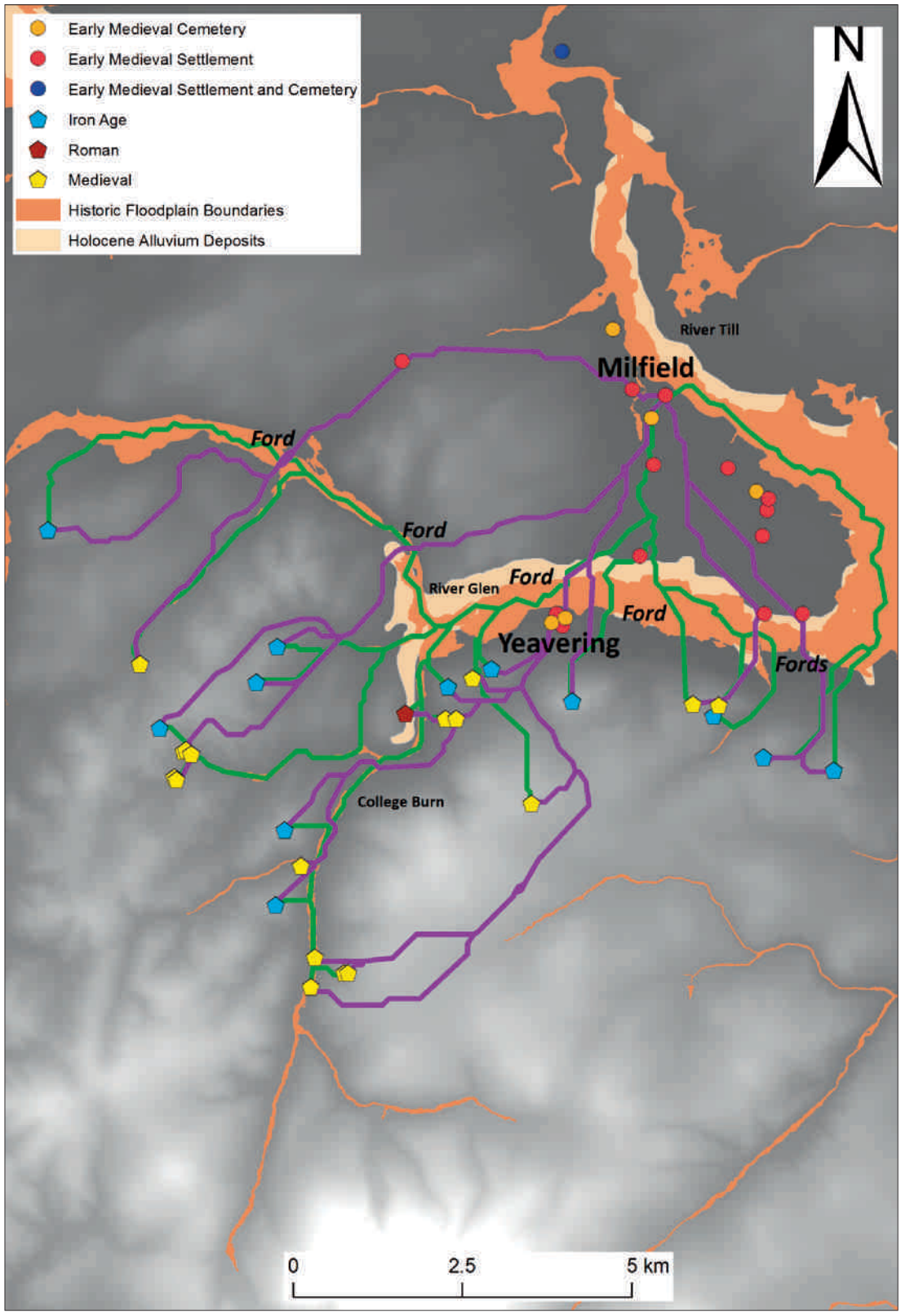

Figure 5a. Least-Cost Paths to Milfield and Yeavering from upland sites. Green: LCP generated using slope only. Purple: LCP generated using slope with weighted floodplain integrated. Ford: location of fording place marked on the 19th-century Ordnance Survey or place-name attested. Map produced using data from © Crown Copyright and Database Right (2017). Ordnance Survey (Digimap Licence).

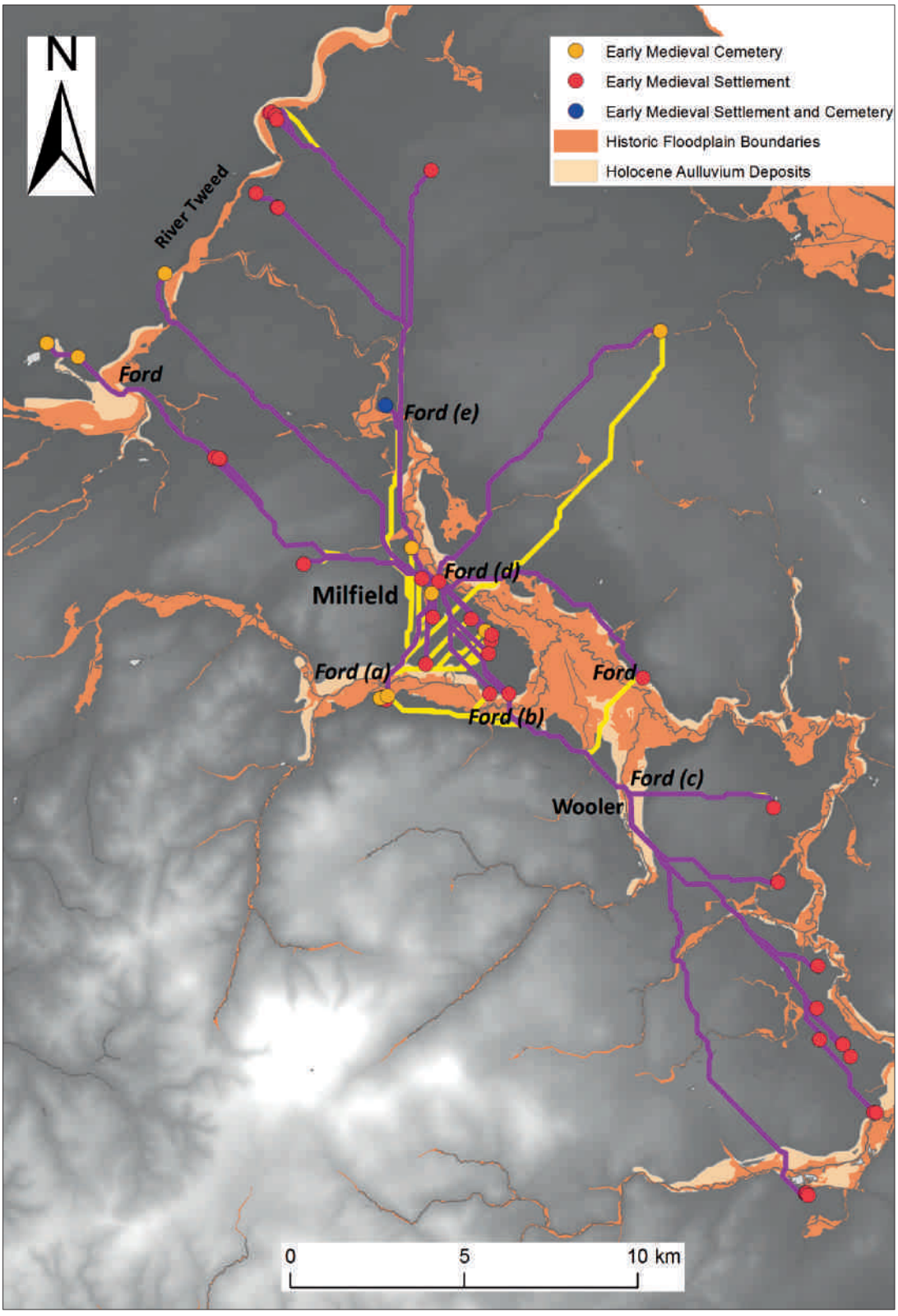

Figure 5b. Least-Cost Paths from all early medieval sites to Milfield and Yeavering generated using slope with weighted flood plain integrated. Yellow: paths generated between early medieval sites and Yeavering. Purple: paths generated between early medieval sites and Milfield. Ford: location of fording place marked on the 19th-century Ordnance Survey or place-name attested. Map produced using data from © Crown Copyright and Database Right (2017). Ordnance Survey (Digimap Licence).

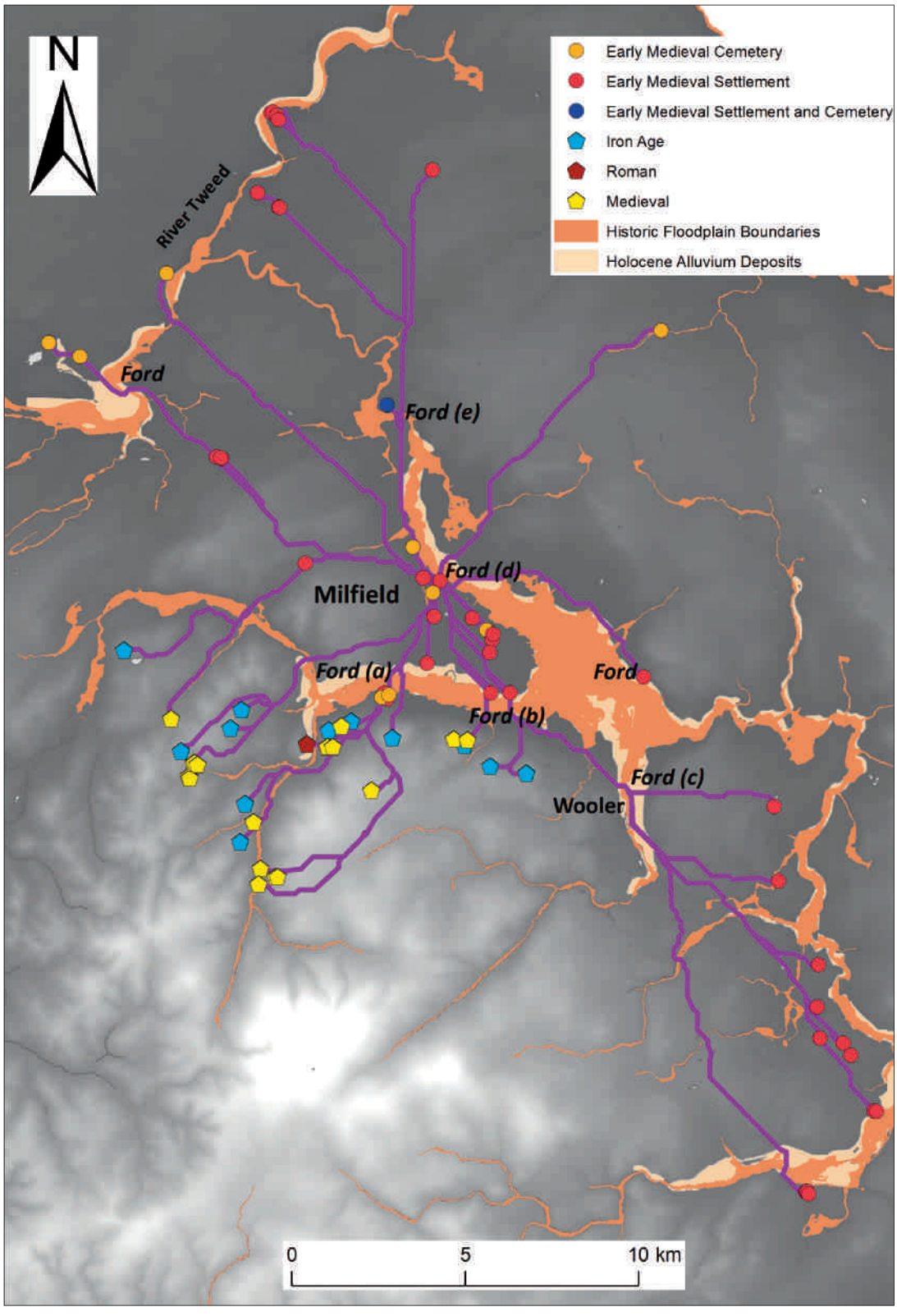

Figure 5c. Least-Cost Paths linking all upland sites and all early medieval sites on the gravels to Milfield. Ford: location of fording place marked on the 19th-century Ordnance Survey or place-name attested. Map produced using data from © Crown Copyright and Database Right (2017). Ordnance Survey (Digimap Licence).

down from the Cheviot Hills to the open valley floor and floodplains of the Glen and Till. Streams and floodplains, however, can also present major obstacles to travel. The waterways within the region are generally narrow and shallow, but can have heavy flow rates in the winter and spring that would have affected movement through the region. To accommodate and test water levels, the historic floodmap was entered as a GIS layer along with the extent of the Holocene alluvial deposits (see fn 4). These were integrated with the slope-derived Cost-Surface Analyses and the layers were weighted, based on distance to the waterways, to test the difficulty of traversing the floodplains within the study region (Figs 5a–c). The Least-Cost Paths generated were then compared to the historic floodplain boundaries and the fording and bridging points recorded on the 1st edition Ordnance Survey (Figs 5a–c). Although the geographic spread of the sites is diffuse and diverse, the Least-Cost Paths generated, refined understanding of the natural routes of movement and communication through this landscape.

In comparison to the Cost-Surface Analyses derived purely from slope, the combined weighted Cost-Surface Analyses of floodplain and slope produced different routeways connecting the uplands to Yeavering and Milfield (Fig 5a). These reinforced the importance of the College Valley as an optimum route of travel from the upland to Glendale and demonstrate again that Yeavering occupies an advantageous position in the network. Both exercises demonstrate a similar and consistent pattern of likely long-term routes of movement linking multi-period sites. The main and significant difference is that once evidence for the floodplain is taken into account, movement across the River Glen is further restricted, with just some routes available that would have funnelled people and animals via Kilham, Kirknewton, Lanton Quarry and House Plantation.

To test broader connectivity and routes between the early medieval sites across the Basin, regional Cost-Surface Analyses were generated that encompassed Yeavering and Milfield and sites in the Tweed, Till, and Breamish valleys. Effort to travel across slope and through floodplains was incorporated. All settlement and cemetery locations were included, but a subset of the sites was selected for analysis, comprising 49 early medieval cemetery and settlement sites (Figs 5b–c). This was chosen to incorporate those sites closest to the early medieval settlement density in the Milfield Basin, discounting outlying sites whose distance from the main core of activity was prohibitive to running the analysis. Although the spatial distribution of the sites and resulting Least-Cost Paths represent a diverse network of transportation routes, the key crossing points of rivers and floodplains repeatedly appear within this refined Cost-Surface Analysis. On the River Glen these were situated to the north of Yeavering (a), to the south of House Plantation along the River Glen (b), and near the modern village of Kilham (c) (Figs 5b–c). On the Till they were located near the modern bridge at Wooler on the River Till (c), at Redscar Bridge (d), and at Etal (e) (Figs 5b–c). These five locations appear repeatedly within the Least-Cost Paths as nodes in the transportation network and all functioned as historic fording and bridging points, reinforcing the suggestions from the LiDAR of a key crossing point on the Glen just north of *Gefrin*. With the exception of the crossing at Wooler, each of these places has a close spatial association with an early medieval site.

Early medieval settlement and cemeteries in the Milfield Basin are striking in terms of their relation to river crossings and to these short and long distance routes of movement. While, as we have seen, settlements are more proximate, and cemeteries more removed, from these junctures, early medieval sites have close spatial and visual access to critical points in the travel network. This implies that long-term routeways were agent in the strategies employed by early medieval communities when situating their settlements on the gravels and when burying their dead. While such choices are in some ways obvious — reflecting the centrality of resource exploitation and the life-ways of these populations — it is also possible that these were acts intended to signal claims to routes and to land rights. These access paths to the upland grasslands would have been vital to the success of these communities at certain times of year, and to be cut off from such rights would have severely hampered their ability to subsist in this landscape.

Yeavering in its broader settlement and cemetery context

While further modelling is needed to test such patterns, a final word is necessary on *Gefrin*. The generated Least-Cost Paths and Cost-Surface Analyses underscore the nodal nature of the hillfort and palace as locations situated overlooking essential long-term routes of communication down through the Cheviots and cross Glendale. Yeavering has a prehistoric life as well as prominence in the early historic period. A prominent monument on the plateau, which recent geophysical survey indicates might be replacement for an earlier feature (see Fig 2a), is the Great Enclosure, possibly used to gather and sort animals at certain times of year. In addition, the possibilities of a track connecting the site to the most accessible fording place on the Glen might corroborate the more southerly course of the drove identified at *Maelmin* which passes by two prehistoric monuments before turning south-west towards Yeavering (Passmore and Waddington 2009, 175–96, figs 5.2–5.3). Greater credence for this is now provided by the Cost-Surface Analyses, which identifies the fording place on the Glen as a river crossing if travelling between the upland, Yeavering, Milfield, Thirlings, and sites to the north and east (Figs 5a–c). Not only was the palace situated to surveil a major confluence of routes, it overlooked the convergence of these routes at the optimum place for moving and managing people and animals across the Glen.

These connecting paths between *Gefrin* and *Maelmin* are just portions of a larger a network of communications that linked the upland and lowland sites. This network served populations in the Milfield Basin from late prehistory, and proved agent in the changing patterns of early medieval inhabitation and funerary ritual. Just as the 19th-century drover noted the difficulties of passing along and across the watercourses in the Cheviots, so it seems that earlier populations prized those places where rivers and floodplains were most easily traversed. Here early medieval communities set up their buildings and settlements and sometimes, at a slightly further and more elevated remove, invested in visible statements involving the burial of the dead.

The early medieval settlements and cemeteries of the lower lying valleys represent a new archaeologically visible phase in the long term inhabitation and use of Milfield and its resources. The pollen sequences in the Milfield Basin suggest early upland clearance and cereal cultivation on the lower river valleys. The appearance of settlements and cemeteries in the 5th/6th centuries might signal new strategies for exploiting both zones, and hint at a need for more strategic ways of visibly claiming the rich cultivatable lowland, while maintaining rights to upland grazing. By the 7th century, a much larger, royal site had come into operation at *Gefrin*, while burial was taking place at *Maelmin*. At Yeavering, investment in large halls, and structures for the purpose of assembly or gathering, and the on-site burial of the dead in relation to monuments, markers and posts, constituted a shift to a powerful visual and ritual grammar connected perhaps to the elevation of this site as a place where tribute could be extracted. People had always gathered at Yeavering, and the management of stock is in evidence from the earliest point of Hope-Taylor's complex. Livestock embodied social and physical capital in Anglo-Saxon Society (see earlier and Banham and Faith 2014, 87). What better location could there have been for a king to come with his entourage and manage his people and extract his dues? The Great Enclosure ceased to function before the site was abandoned — *Maelmin* of course had a much larger enclosure and emerged as the elite, successor-site to Yeavering in the 8th century. Perhaps we should see these sites as overlapping rather than sequential: always linked within the network of communications that served the seasonal needs of communities in this landscape. Both sites, however, attest to a new geography of power that did not overwrite the emerging network of claims by communities to land and resource, but did signal a new visual rhetoric, perhaps necessary to the management of an expanded territory.

These results show that close-grained exploration of both funerary and settlement evidence must consider, not just the landscape situation, but the long term patterns of resource exploitation and modes of inhabitation into which early medieval communities fitted. The life-ways and traditional funerary rituals of the Milfield populations were changing in the late 5th to mid-6th centuries, but we should perhaps be wary of allying this explicitly to written accounts of incoming Anglian communities or Anglo-Saxon elite powers. Instead it is worth giving consideration to such changes within a longer-term narrative of land- and resource-use by the populations of the region. While traditional routes of communication that supported lowland and upland exploitation did not change, lowland settlement and new investments in burial close by, might imply a need to stake a claim and establish rights and access to cultivatable land and pasture (see Lucy 1992; Semple 2008).

The use of older standing monuments for burials is common to most of the early medieval cemetery and settlement evidence, implying that establishing long term rights/access by means of 'ancestral' monuments, was potentially an overriding concern for all communities (Semple 2008; 2013, 13–62). The elite settlement complexes that emerged in the 7th and 8th centuries were, therefore, situated in a landscape in which populations had already established local networks of control and communication, using burial to mark out key corridors of movement, and in particular vital river crossings and routes across floodplains. These sites were opportune, and represent, in the case of Yeavering, the development of an existing important locale, already advantageous in terms of its locational relation to seasonal cycles of movement.

Our results are pertinent to the region and its resources, but present interesting questions more broadly about other 1st millennium palace complexes, in terms of how they were situated to exploit a regional resource base. At Yeavering the importance of the place as a site of gathering, nodal in the landscape in the long term was central to its early medieval role. Its situation on a highway serving seasonal stock movement for most communities seems unlikely to be a mere co-incidence. The short-lived nature of this site may also relate to its role as a place intended to maximise control over fragmented and fluid communities, whose life-ways depended on short and long distance travel within the region and resource zone. Perhaps as power extended further, a larger and more readily accessible locale was in demand, leading to the formal establishment of a new royal site at Milfield.

Long and short distance mobility is increasingly recognised as a significant factor in early medieval societies (see Intro this vol). Indeed, at the coastal site of Bamburgh, isotopic evidence points to a diverse community in the 7th and 8th centuries (Groves et al. 2013). *Gefrin* is situated at a juncture where routes for long-distance droving, and seasonal paths for transhumance, may have intersected. Perhaps this site and other elite/palace complexes in Britain and abroad, represent a response to a need to manage and extract resource from larger territories with shifting and mobile communities. Long-term seasonal gathering places, linked to cycles of resource exploitation, may well have presented themselves as vital theatres for the implementation of new elite power structures,

facilitating authority within the fluid environments of early medieval European societies.

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Notes

1 This article has been developed using the datasets and results of the Leverhulme-funded project, *People and Place: The Making of the Kingdom of Northumbria AD 300–800* (2013–18) and findings from *The Yeavering Project*, a field and research collaboration between Durham University and The Gefrin Trust.

2 <http://gefrintrust.org/> [accessed 16.09.17].

3 For the purposes of this article we have combined modern Environment Agency data, based on records since 1946, for the extent of the floodplain of the Milfield River systems, with a reconstruction of the extent of pre-19th-century Holocene alluvial terraces and floodplain deposits created by David Passmore and Clive Waddington (2012, fig 2.22).

4 For the purposes of this study we have included the locations of fords, bridges and ferry points marked on the early 19th-century 1st edition, Ordnance Survey 6 inch to 1 mile (1:10560 m) County Series. The course of rivers and roads can change over time, and thus we accept these only as a basic guide to the possible river and floodplain crossing places in the pre-modern landscape. In nine cases, the crossing place serves a Roman road, however, providing confirmation that the location of the ford or bridge operated as a crossing place in antiquity.

Abbreviations

Northumberland HER Historic Environment Record for Northumberland County, UK.

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Bede HE
A History of the English Church and People (ed. and trans. Sherley Price 1969)

Canmore
National Record of the Historic Environment of Scotland <https://canmore.org.uk/> [accessed 5.8.2017].

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A Royal Anglo-Saxon Cemetery at Street House, Loftus, North-East Yorkshire

Stephen J. Sherlock

Introduction

Moving further south within the Northumbrian kingdom, this paper concerns the discovery and excavation of a conversion-period cemetery at Street House, near Loftus in north-east Yorkshire (Fig 1). A full report was published in 2012. This paper presents some of the most interesting aspects of an unusual site that produced a high preponderance of high-status burials and the only Anglo-Saxon bed burial known in north-eastern England, together with evidence for the purposeful arrangement of the cemetery within a prehistoric landscape.

Discovery

The site was discovered in 2005 during excavations of an Iron-Age settlement. Thirty graves were identified, clearly visible as rows with the graves aligned E-W crossing the enclosure and cutting through a number of the roundhouses. While human remains did not survive owing to the aggressive nature of the boulder clay, a number of significant finds were noted. The gravegoods were sufficiently diagnostic to suggest that the site could be dated to the 7th century AD. The next season of excavations in 2006 revealed a further 13 graves to the east of the earlier discoveries. Among this group of 13 burials, grave 43 contained a triangular gold pendant, and the bed burial, grave 42, included three gold pendants. This discovery highlighted the importance of Street House in the Anglo-Saxon period, and a further campaign of excavation in 2007 sought to establish the extent of the site and to characterise the discovery. These excavations demonstrated that the site was defined by rows of graves that formed a square, approximately 36 m × 34 m. This 'enclosure' had an entrance facing south, roughly aligned with the entrance to the Iron-Age enclosure. At the end of 2007 the full extent of the cemetery had been identified. It comprised 109 graves, all considered 7th century in date, set in an arrangement that took the form of an irregular square (Fig 2).

The site

The cemetery is located within a landscape that contains evidence for long-term human activity including monuments of the Neolithic, Bronze and Iron Ages and the Romano-British period. It is proposed here that these antecedent sites and monuments were important in the siting of the 7th-century cemetery. It is long accepted that Anglo-Saxon cemeteries were often located near or upon Neolithic and Bronze Age monuments (Williams 1997), examples are known locally in the Tees Valley at Scorton (Speed forthcoming) and Catterick (Moloney et al. 2003). These monuments were clearly visible in Anglo-Saxon times. It has been noted elsewhere (Boddington 1990) that the reuse of earlier monuments for the purpose of burial in the 7th century was one of a number of factors contributing to what has been identified as the final phase (Leeds 1936) or conversion period (Geake 1997). At Bromfield, Shropshire (Stanford 1995), and Garton, East Yorkshire (Stead 1991), cemeteries of 7th-century date were sited within Iron-Age enclosures. The Street House cemetery is similar, located within an Iron-Age enclosure; the marked difference is the arrangement of graves forming a square within that enclosure. During the Romano-British period, a settlement was established at Street House that was active in the 4th century AD, which produced evidence for cereal production and jet and pottery manufacture (Sherlock 2010; Sherlock forthcoming a). It is suggested that some items produced and circulated on this site were later reused and deposited in the 7th-century cemetery.

Street House differs from other early medieval cemeteries in north-eastern England because it contained a number of structures and features — buildings and burial mounds — that are argued to be contemporary with the burials. Two buildings were recognised within the cemetery, both were aligned E-W. One, a *Grubenhaus*, was interpreted as a 'mortuary house'. A similar interpretation has been suggested for other such structures at Sarre, Kent (Perkins 1991) and Mucking, Essex (Hirst and Clarke 2009). The second building was a posthole structure 7 m long and 2.90 m wide with a doorway on the northern side. Posthole buildings are known at other cemeteries for example Spong Hill, Norfolk (Rickets 1995, 47), and Springfield Lyons, Essex (Tyler and Major 2005, 202), but there are similarities between the size of this building and one of the posthole buildings excavated at the Anglo-Saxon monastery at Hartlepool, Durham (Daniels 2007, 33). Evidence was also recovered for two low mounds lying to the north of the two structures. One mound was raised over two burials: grave 41 and the bed burial in grave 42, but the

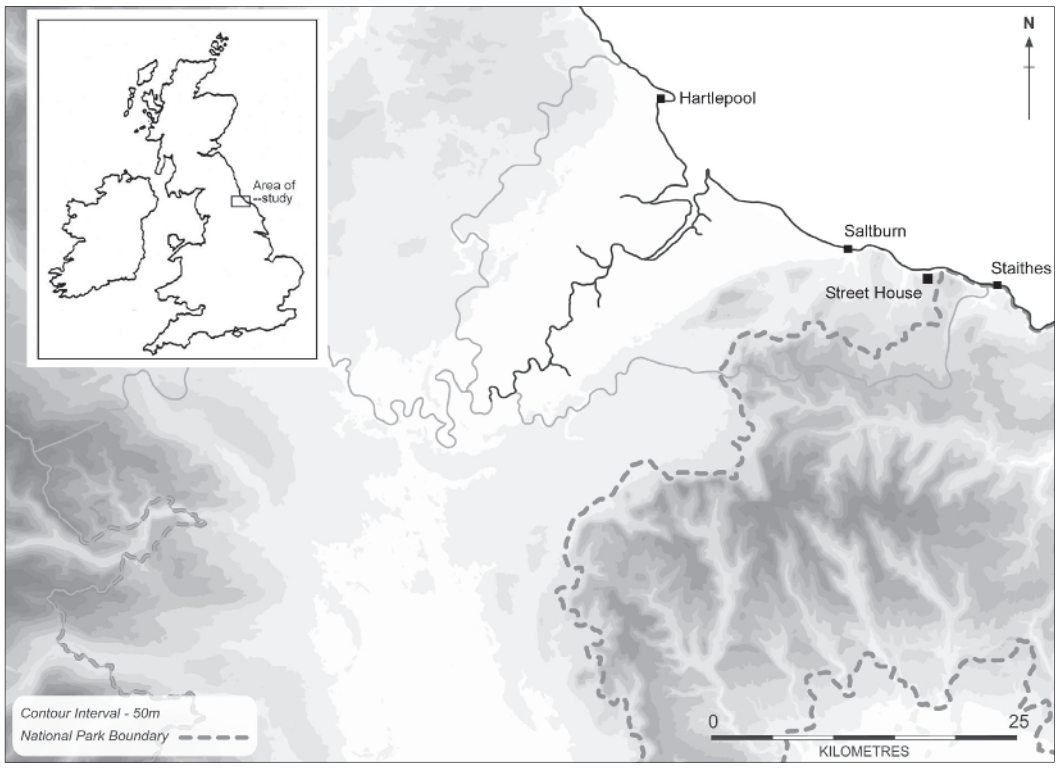

Figure 1. Location of Street House cemetery.

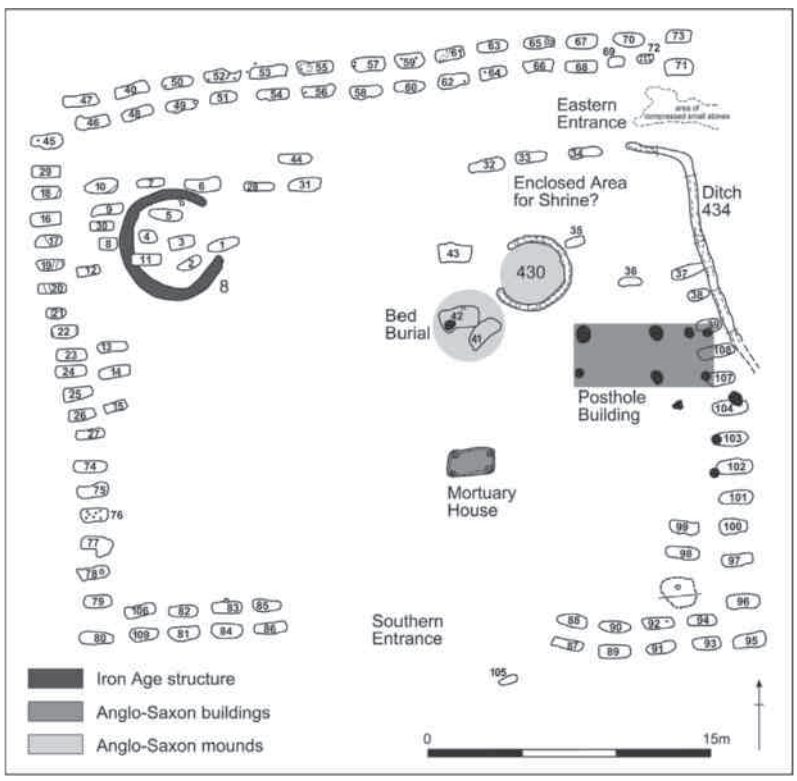

Figure 2. Plan of the Street House cemetery showing the principal features.

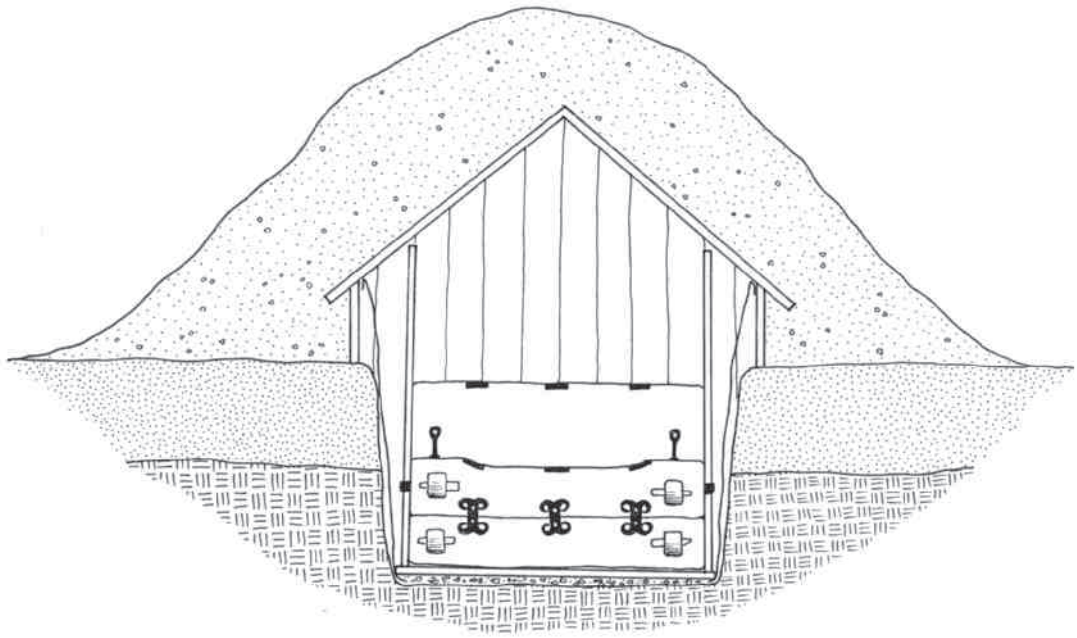

Figure 3. Conjectural reconstruction through grave 42, based upon the available evidence.

second mound did not contain a grave. In the immediate area additional graves would have been visible as low mounds, thus defining a discrete part of the cemetery initially screened from the entrance to the south. Parallels for such a shrine can be found at the early Christian church at Whithorn, Dumfries and Galloway (Hill 1997, 89–91). A final structural element that defined this unusual cemetery were wooden grave markers. A further three stone examples were also recovered, which have parallels at other early Saxon cemeteries (e.g. Jarrow: Cramp 2005; the Hirsel: Cramp 2014). The principal defining feature, however, is the Anglo-Saxon bed burial, laid out within a grave chamber (Fig 3). This burial, unique in the region, contained three gold pendants as part of an assemblage of grave finds that accompanied what can be assumed to be a female laid upon a wooden bed with iron decorative fittings.

The finds

The cemetery comprised 109 graves of which 67 contained objects of some sort (c 61% of burials). Overall this is a high proportion when compared to other sites of the period. The finds discussed here include a range of objects, some of the high-status pieces and items that seem to have been reused. 7th-century cemeteries generally contain less finds than burials of the 6th century (Geake 1997, 127): for example, the number of graves with finds at Harford Farm (72%), Leighton Buzzard (56%), Appledown (38%) and Bromfield (10%) (Penn 2000; Geake 1997, 144, 176; Stanford 1995). Nineteen finds types were located, with potsherds the most frequent type. Finds included dress fittings and ornaments, personal equipment and tools as well as a seax and miscellaneous objects including a gaming piece, grave markers, pottery and slag. The potsherds could perhaps be residual waste, or result from the disturbance of Iron-Age features. The frequent occurrence of these sherds around the head area at the west end of the grave suggests that they may have been placed intentionally during the burial. In general the finds are evenly distributed across the cemetery (Sherlock 2012, 115), although the high status items were generally found in graves to the north of the site along with 16 graves that included beads. One of the most intriguing aspects of the site is the number of objects that show signs of having been reused before they were deposited within graves. Nine graves included items showing signs of reuse (21, 42, 43, 52, 55, 67, 70, 73 and 99), including four of the six high-status burials that contained items manufactured in gold or silver.

Graves containing reused objects

Grave 21 was small. The burial was accompanied by eight monochrome glass beads and, uniquely, two coins attributed to the Iron-Age tribe, the *Corieltavi*, in near-mint condition. While old coins are known from other Anglo-Saxon graves, often reused as jewellery, they are almost always Romano-British, mostly copper alloy and usually date to the 3rd and 4th centuries AD (White 1988, 302–3). In several instances, Iron-Age coins have been found within graves as at Watchfield, Berkshire; Gilton, Kent (Scull 1990); and Buckland, Dover,



Figure 4. Gold pendant from grave 42.

Kent. These were found in purses, and in one case, the coin was reused as a weight for a set of scales (Watchfield: Scull 1990). At present no other instance of an Iron-Age coin perforated for suspension is known to the author. It is notable that the Street House examples have a possible cross motif; if the coins were worn this motif would have been suspended on the body and may have been visible (Sherlock 2012, 51).

Grave 42, the bed burial, contained two items that can be suggested to be Romano-British in origin, a jet hairpin and a scallop-shaped gemstone worn as the centre-piece for an elaborate cloisonné pendant. Jet is not considered to have been in fashion as a jewellery item/body ornament in early Anglo-Saxon England, although several examples are known locally: from Norton (Sherlock and Welch 1992), Sewerby (Hirst 1985) and West Heslerton (Haughton and Powlesland 1999). Jet hairpins were popular in Roman times and there is evidence for jet working at Street House from buildings 100 m south of the Anglo-Saxon cemetery (Sherlock 2010). The second item from grave 42 is a garnet gemstone that has a scallop shell shape (Fig 4). The scallop shape does not have an early Anglo-Saxon parallel in metalwork, jewellery or indeed on any other media. The symbol is a Christian motif signifying rebirth and resurrection. There are examples of the scallop motif on a 4th-century sarcophagus from London (Wheeler 1957, 39) and at Hemsworth villa in Dorset, where a mosaic pavement depicts Venus against a scallop shell (Neal and Cosh 2005, 151–2). It is thought that the gemstone, like the additional 56 inset garnets used for this pendant, was extracted and reused from jewellery of an earlier date, due to the rarity of gemstones in Anglo-Saxon times and the significance of the symbolism within the context of bed burials and Christianity.

Grave 43 (Fig 5) contained a series of three gold and four silver beads, two glass beads, a silver annular brooch and a gold triangular pendant (Sherlock 2012, 33). This gold pendant was notable because part of an Iron-Age bead was used in a cabochon setting: the bead had been split and the gold apparently set around it. The bead is a type categorised by Margaret Guido as a Colchester type 6a (Guido 1978). Three examples of this type used as settings in Anglo-Saxon pendants are known (Sherlock 2012, 46), while other examples of Iron-Age beads reused within conversion-period graves have also been identified (Sherlock 2016).

Grave 52 contained a collection of finds probably placed within a bag. This bag contained 20 Anglo-Saxon beads and two pieces of glass from Romano-British vessels (Sherlock 2012, 35), which may have been collected from a Romano-British site 100 m to the south of the cemetery (Sherlock forthcoming a). At some cemeteries, such as Buckland, Dover, glass found in such contexts has been interpreted as cullet (Evison 1987, 98–9). An alternative suggestion is that Romano-British objects were being curated and reused within graves during the 7th century at sites such as Street House and Dover. A further glass item, a fragment of bangle, was from grave 67, where it was found together with seven beads in a bag. The reuse of glass bangles has been noted at other cemeteries (e.g. grave 44 at Norton: Sherlock and Welch 1992, 154), but it is the deposition within a bag, rather than evidence that the item/s were worn, that remains notable at Street House.

Four other graves at Street House provide evidence for reused items. In grave 55 a jet item, considered to be an amulet or charm, was found in the region of the chest. This piece is stylistically unique in terms of Anglo-Saxon finds: the nearest parallel in terms of shape and design is a jet item from a Bronze Age burial mound at Scawton, North Yorkshire (Elgee 1930, 112). Grave 73 contained the only amber bead from the cemetery. Grave 99 produced a Roman crossbow brooch;



Figure 5. Objects from grave 43, including a triangular-shaped pendant with Iron-Age bead.

it was the only piece of copper alloy from the excavations. Lastly, in grave 70, a gold cylinder was found associated with other beads. This item may have originally formed a suspension loop for a pendant and may even be the original loop from a gold pendant discovered in the same grave (Sherlock 2012).

In summary, it has long been recognised that early to mid-Anglo-Saxon graves sometimes contained artefacts from earlier periods (White 1988), but it seems evident from Street House that this may have occurred more frequently in conversion-period cemeteries and that such associations were generally with high-status burials. At Street House there are ten instances within nine graves. It is clear that these reused items are not necessarily heirlooms passed on from a recent deceased relative; some are clearly antiques such as the Iron-Age coins in grave 22 and the Iron-Age bead from grave 43 at Street House.

The bed burial

The most distinctive and unusual grave at Street House (grave 42) contained an Anglo-Saxon bed burial, a rite more commonly associated with East Anglia, southern and south-western England. Aside from two examples in the Peak District, this type of burial remains unparalleled in the north-east. Fifteen bed burials are known and in some cemeteries, particularly in East Anglia, more than one example has been found (e.g. Barrington and Shudy Camps in Cambridgeshire, Coddenham and Sutton Hoo in Suffolk). The bed burial from Street House was recognised within a shallow chamber measuring 2.02 m × 0.92 m. The chamber had a number of stakeholes and two postholes upon which a timber structure is suggested to have been built (Fig 3). The bed was most likely made from ash (*Fraxinus excelsior*), of which only a negligible amount survived, but the ironwork within the grave had several recognisable features reinforcing the suggestion that a bed was located in the grave. A total of 56 pieces of ironwork, comprising cleats, headboard stays, staples, decorative plates, brackets, nails and rivets were recovered. The grave contained all of the essential ironwork elements for an Anglo-Saxon bed, but certain details make this example very distinctive. Woodworking expert Richard Darrah (pers comm) acknowledges that some of the ironwork was decorative because of the absence of nails at certain locations, such as the corners of the box construction. The cleats are more elaborate with bifurcated scrolls at the terminals. The small headboard stays and four decorative rectangular plates found at the head and foot of the bed are also decorative rather than functional (Fig 6).

Where human remains have survived, Anglo-Saxon bed burials have usually been shown to be female burials. Thirteen are argued as such on the basis of finds or skeletal remains. In three examples the gender is unknown and at Lapwing Hill, Derbyshire, the burial is thought to be male (Penn 2011, 58). At Street House no bone survived, but a number of finds within grave 42 suggest a female inhumation. These comprise three gold pendants, one gold wire bead, two blue glass beads and a fragment of a jet hairpin. The pendants include a circular gold cabochon pendant, an oval cabochon pendant and the gold scallop-shaped pendant containing 57 cloisonné cells. The small size of the cells in the latter implies the probable garnets were reused (Welch quoted in MacGregor and Bollick 1993, 157). The pendant is unique in Anglo-Saxon England. The artefact types found with bed burials vary considerably, just as the location of bed burials can vary (e.g. Barrington: Malin and Hines 1998). Some bed burials may have been disturbed in the past, but others appear to have few finds (e.g. Collingbourne Ducis: Stoodley 2008; and Shudy Camps grave 29: Lethbridge 1936).

Discussion

The excavations at Street House unearthed a group of finds that would be traditionally dated to the 7th century AD. The scarcity of weapons (there was only one seax), the grouping of

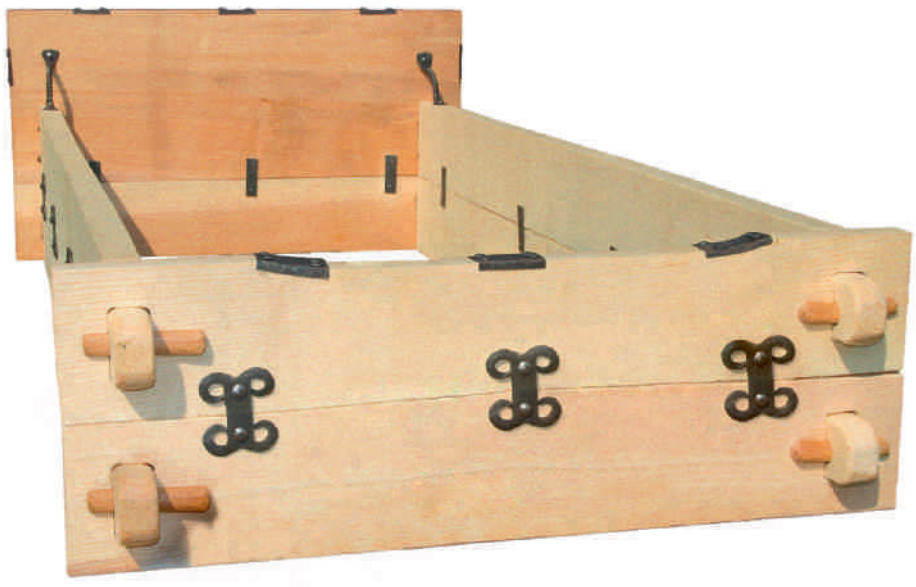

Figure 6. Reconstruction of Anglo-Saxon bed showing ironwork found in grave 42, Street House.

burials with bags and the presence of certain beads such as an amethyst from grave 22, all confirm this date. Recent analysis of grave finds combined with a programme of high-precision radiocarbon dating suggests that bed burials occurred in a well-defined period, AD 620–650, a time of change in Anglo-Saxon society (Hines 2013, 552). In the north-east region, we know this was a time of religious change and Christian expansion; a period in which the Abbess Hild left the monastery at Hartlepool and established a new religious house at Whitby, 18 km to the south of Street House (Daniels 2007, 121).

In many respects the site at Street House is not like other cemeteries in north-eastern England. The high-status gravegoods are remarkable for the number and the quality of the pieces included within the assemblage. The location is also important: the reuse of prehistoric and Roman monuments as locations for early Anglo-Saxon burial is well known and the siting of burials of this date within old enclosures has parallels around the country, but the marking out of a cemetery by creating a square pattern of graves is unique. Within the cemetery, the presence of two buildings, the marking of graves with timber posts, the erection of burial mounds and the creation of structural features within the graves imply a co-ordinated structure and order for burial rites at the site (Sherlock 2012, 106, 107). The cemetery embodies many of the traits evident in some of the cemeteries we can place in the conversion period, and parallels for many aspects of activity at Street House are not local, but from East Anglia and elsewhere in southern England. These connections alongside access to jewellery, garnets and ivory suggest the Street House population benefitted from the presence and patronage of important people and connections via land and sea. It is argued that the site is the location of a high-status community, possibly associated with the Deiran side of the Northumbrian royal family (Sherlock 2012).

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Date and Provenance of the Auzon or Franks Casket

Gaby Waxenberger

Introduction

In the middle of the 19th century, the outstanding casket with its unique Old English runic inscription came to light far from its place of origin (Figs 1a–e). Professor P-P Mathieu obtained it from a family in Auzon, Département of Haute-Loire, France (Webster 2012, 55). Sir Wollaston Franks acquired most of the pieces of the whalebone casket in 1857 and gave them to the British Museum in 1867. The casket was named after its donor although it is sometimes also referred to as the Auzon Casket after its findspot. In this article it is termed the Auzon/Franks Casket (Auzon/FC). The missing right side of the casket was discovered in 1890 at the Museo Nazionale (Carrand Collection no 25) in Florence and a cast of it has been fitted into its proper place on the remounted casket in the British Museum (Elliott 1989, 123; Page 1994, 178; for the casket's history see also Napier 1901, 362–4; Webster 2012, 55–61).

On a basis of only five linguistic criteria each, Napier (1901, 380f) stated in 1901 that the 'most likely date' for the Auzon/FC was the 'beginning of the 8th century' and that its home was 'the coast of Northumbria'. Napier is largely right, but the evidence he uses does not support some of his claims. More importantly, he neglected other kinds of linguistic evidence that would have bolstered his conclusions. Elliott's comment (1989, 138f), shows the tremendous influence of Napier's dating on later studies of the casket: 'The date and provenance of the Franks casket have been established beyond doubt by Napier's (1901) linguistic analysis. The language is unmistakably Anglian and certain forms limit it further to Northumbria, and, in point of time, to the early eighth century'. From a mostly art historical point of view, Webster (2012, 45–7) draws a similar conclusion (see conclusions below).

With the exception of one form on the Ruthwell Cross, Napier's (1901, 380f) evidence is taken from non-runic sources. Although the Auzon/FC must have been influenced by the writing conventions of the manuscript tradition in some areas (see below), some of Napier's criteria are not suitable for runic texts, because, for example, runic inscriptions differ from manuscript texts in their way of writing graphemes (the rune <**w**> instead of <**u**> for /w/) and allophones (manuscript: <h> for [**ç**] and [**x**]; runic tradition: rune *hægl* ᚻ **h**, *yew*-rune ᛇ, ᛇ; rune *ġ(i)efu* **g** ᚷ: see below). Additionally, one form Napier cites is incorrect (see '***sefu***' below).[1]

In order to obtain a more accurate result it is necessary to examine the runic context, for which, not only the language but the runes themselves must be taken into account. Figure 2 (see below) shows the runic inscriptions of Northumbria (late 7th–10th/(11th) centuries).[2] Where the runic data are insufficient for my analysis, I have consulted non-runic sources, but limited my analysis to the MS **L** of *Cædmon's Hymn*.[3] This is for two reasons: first, it has been dated to the period in question — the 8th century — and second, it is clearly Northumbrian and has even been assigned to a certain place of origin: the twin monastery of Jarrow and Monkwearmouth (Parkes 1994; Lowe 1958; Schapiro 1958).

Napier's five criteria for dating (see Tab 1 after Appendix)

Table 1 shows Napier's five criteria for dating the casket. In the second column I comment on their relevance for dating the casket, and in the third column note them as 'relevant' if they are used in my own analysis.

Napier regarded –**u** in **flodu** as a very important criterion for dating the casket (Tab 1, no 5), but Luick (1921, §350) dates the loss of *-**u*** after long root syllables to the beginning of the 7th century, which means the noun should be endingless (***flōd***) on the Auzon/FC. In my reading I applied Bammesberger's (1991, 632) suggestion of **giuþeasu** = **giuþeasu**[*me*], with <ū> representing <um> (see below Fig 1e, back panel), to **flodu**. If the rune carver's original was in Latin characters, an abbreviation <ū> is thinkable for the ending -**um** (see Sievers-Brunner 1965, 4, no 4), which would mean that it could have been **flodum** (dat pl functioning as instrumental) that was originally intended. For the various attempts to explain and categorise –**u** in **flodu** see Waxenberger (2010, ch 2, no 3b). At the end of his analysis Napier (1901, 381) concludes that the 'most likely date' for the casket is the beginning of the 8th century. As can be inferred from Table 1, however, only one of his five criteria is relevant.

Napier's five criteria for provenance (Tab 2)

Napier (1901, 380) concludes '…that the home of the casket was the coast of Northumbria' and that the language

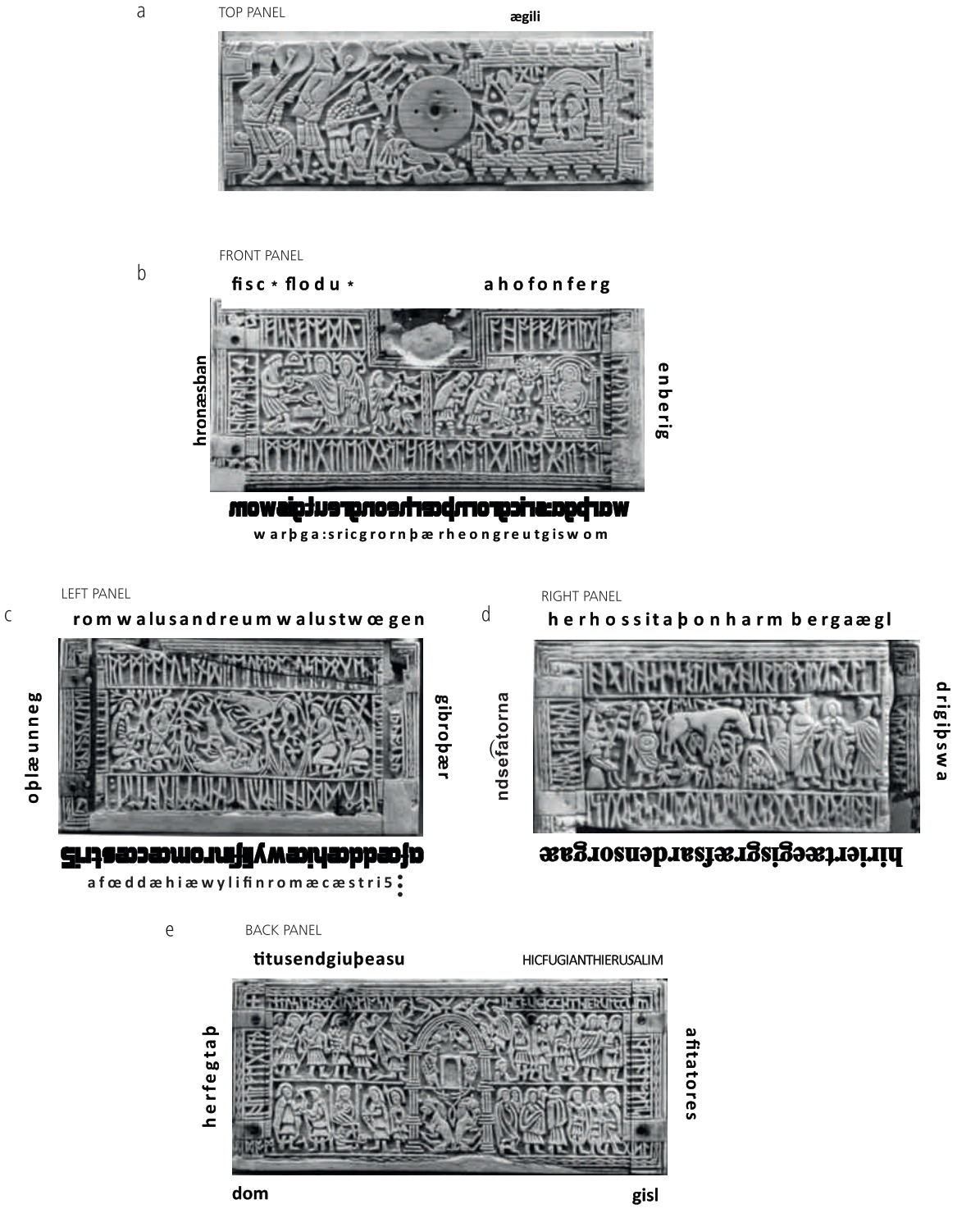

Figure 1a–e. The panels of the Auzon or Franks Casket with transliterations of the inscriptions. Photographs © Trustees of The British Museum.

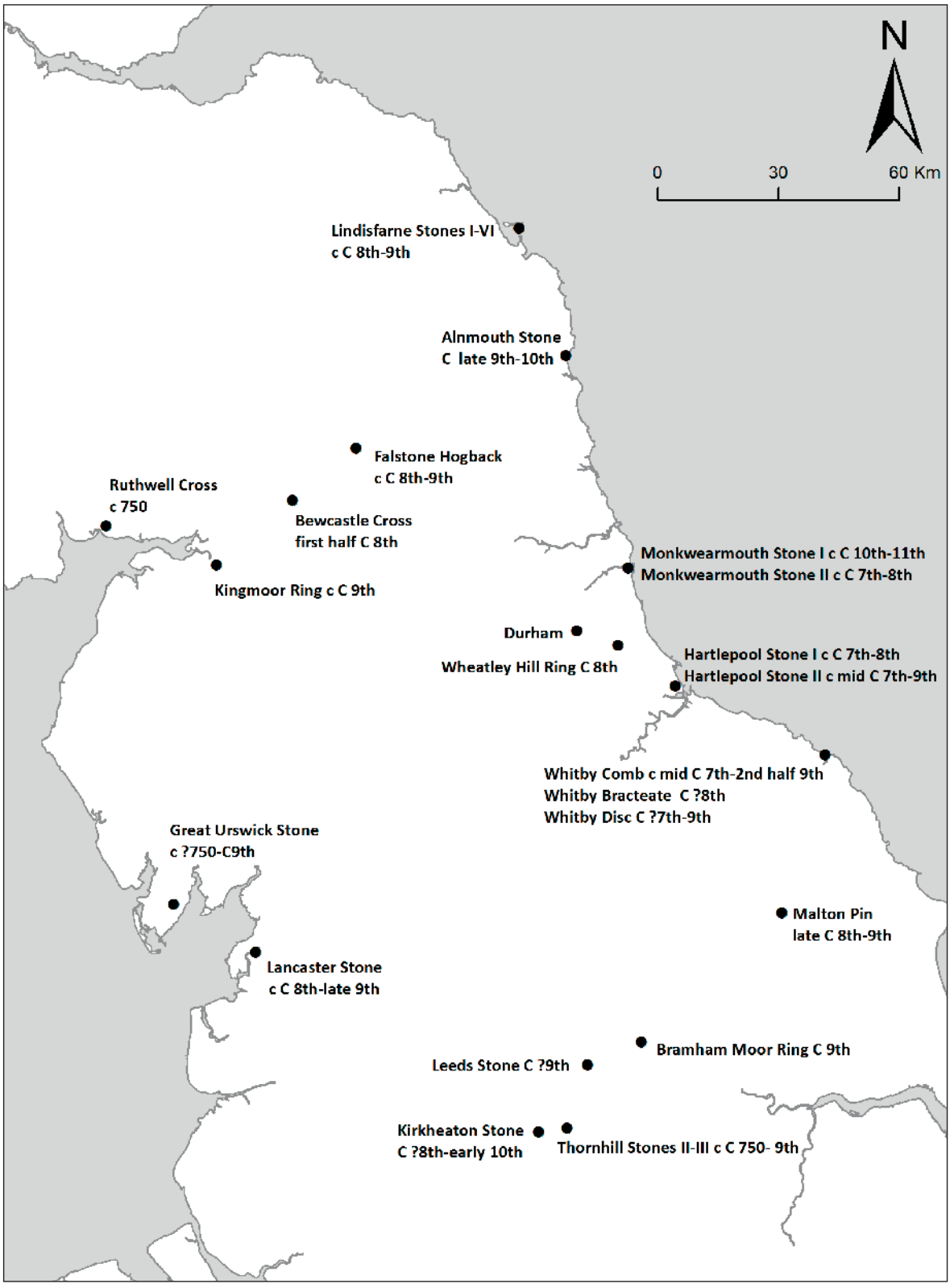

Figure 2. Runic inscriptions in Northumbria of the late 7th–10th (or 11th) centuries. Legend: Durham = St Cuthbert's Coffin, provenance probably Lindisfarne.

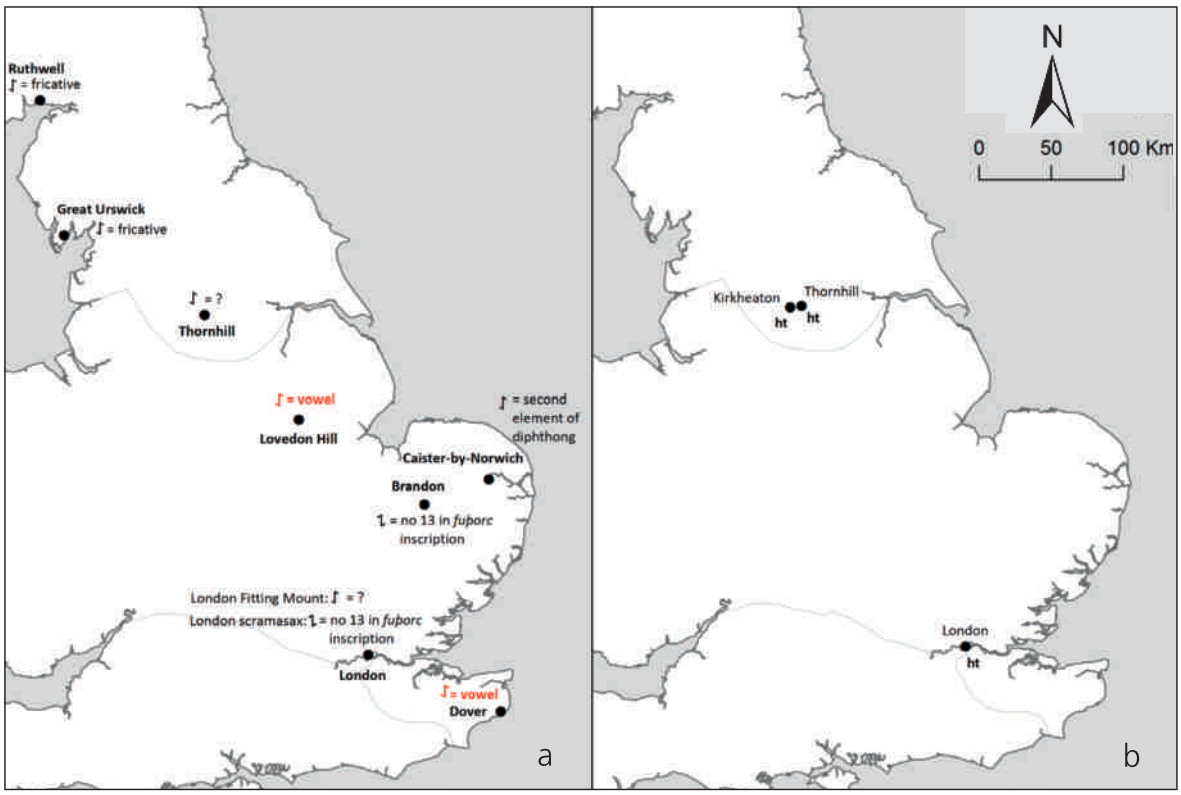

Figure 3. (a) Inscriptions applying the *yew*-rune (fricative, vowel, rune no 13 as *a fuþorc*-unit: for the full sized map see Waxenberger 2010, ch 7.10). (b) Runes **ht** used to denote the clusters [**x**t], [ç**t**] (for the full sized map see Waxenberger 2010, ch 6.2.2).

is Northumbrian.[4] In a (possibly rhetorical) question he also suggests that it can be yet more narrowly localised: 'Can the whale have been stranded at the foot of the cliffs on the summit of which stood the abbey of *Streoneshalh* (= Whitby)?' Napier focuses, however, only on a fraction of the linguistic evidence, and more importantly, on evidence that does not support the conclusions he draws (Tab 2, nos 3–5).

In order to test Napier's hypothesis, a more detailed analysis of both the language and the rune-forms on the casket is required. There are five pieces of linguistic evidence that Napier overlooked (Tab 3). This evidence helps to establish that the text is not only Anglian but distinctly Northumbrian. The tables set out this linguistic evidence (see Tabs 3, 3.1–3.3) and Figs 3a and 3b show the distribution of the relevant *yew*-rune and **ht**.

The runes and their allograph-types (Tabs 4–8)

A grapheme is defined as 'the smallest distinctive unit in a writing system' and an allograph as a 'variant of such a distinctive unit' (Bussmann 2002, 264; Waxenberger 2010, ch 7).

Fig 4 shows the distribution of the allographs ᚻ$_{\rightarrow}$ (7th–10th century) and ᚺ$_{\rightarrow}$ (8th–9th century).

As far as the runes **s**, **d**, and **o** are concerned, the Auzon/FC does not deviate from the runic context of the 8th century. There are more runes that help to clarify the picture (Tab 5). Table 6 describes the differences between the early east coast inscriptions and those from the west of Northumbria with regard to the runes *ċēn* ᚳ and *calc* ᛣ. Looking at the Ruthwell Cross as the most prominent and sophisticated representative of north-west Northumbria, it differs in many points from the Auzon/FC as Table 7 reveals. In general, the Auzon/FC shares features with the east coast inscriptions of Northumbria. It seems very close to one inscription, namely the Whitby Comb (dated to between AD 652 and the 2nd half of the 9th century, see Page 1973, 168; 1999, 165). Apart from the more common runes such as **s**, the Whitby Comb and the Auzon/FC share the chevron type of the rune **o** ᛟ, the pointed, narrow **u** ᚢ, the early **y**-type ᚣ, the early *wynn*-rune **w** with the small and pointed pocket ᚹ and, last but not least, the early type of the rune **c** ᚳ (see Tab 8).

Summary

What can we conclude about the Auzon/FC's language and its runes in the context of the Old English Runes Corpus in general and the Northumbrian sub-corpus in particular?



Figure 4. Distribution of ᛋ→ (7th–10th century) and ᛋ→ (8th–9th century). Allographs of the rune **s** on unprovenanced objects:
ᛋ→ : Derby(shire) Bone Plate, 7th–9th century; Auzon/FC front panel ←ᛋ : Auzon/FC front side ᛋ→: Gandersheim Casket, c AD 800.

1 Regarding the language of the casket, some dialectal features (Anglian smoothing, lack of diphthongisation of æ after palatals) assign it to Anglia, while others (retraction of *a*; <o> for Gmc. **a*+nasal) make a narrower attribution to Northumbria possible. This gives rise to the question of how the casket fits in with other Northumbrian runic monuments. In comparison with the Ruthwell Cross and the other north-west Northumbrian objects, two points became more and more obvious: first, the Auzon/FC must be older than the RC, and second, it differs in its runes and also in some language features (no back umlaut) from the north-west, but shows clear affinities to other east coast inscriptions (rune **y**). Additionally, its runes have particularly close similarities with the Whitby Comb. The object came 'from a rubbish dump near the ruins of Whitby Abbey, and is traditionally associated with the Anglo-Saxon monastery of *Streoneshalh*, founded in AD 657 and destroyed in the second half of the 9th century' (Page 1973, 168; 1999, 165). Last but not least, the MS **L** of *Cædmon's Hymn* has dialect features that are also shared by the Auzon/FC (lack of back-umlaut; <o> for Gmc. **a*+nasal: see Tab 3 no 2). If the Whitby Comb and *Cædmon's Hymn* are accepted as clearly narrowly located, then the home of the casket can be limited to an area between Whitby and Jarrow/Monkwearmouth.

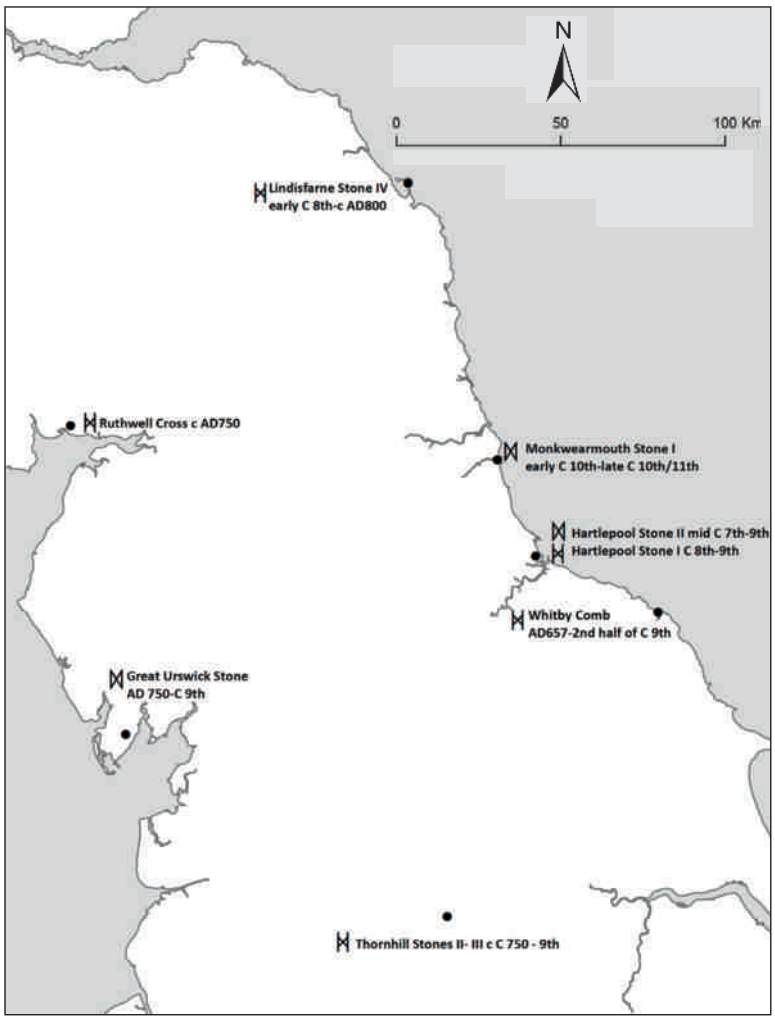

Figure 5. Distribution of the large **d** ᛞ and the small **d** ᚦ allograph-types of the rune **d**.

2 Regarding the dating of the Auzon/FC, in the literature the dates range from c AD 700[5] to the beginning of the 8th century[6] and the first half of the 8th century[7] and more generally the 8th century as a whole[8] to the 10th century.[9] However, a close look at the runes and the language reveals that the dating can in fact be narrowed down a little more, as some of the features — for example, the use of the rune ***giefu*** exclusively for the palatal and velar allophones of Gmc. */ɤ/, rune **g** ᚷ instead of the ***yew***-rune ᛇ, ᛇ the earlier narrow form of rune ᚳ *cēn* (see Tab 8), the presence of the unstressed vowels -**i** and –**u**; and no back-mutation, in comparison to the other objects, prove that the Auzon/FC must be older than the Ruthwell Cross. I therefore suggest the earlier decades of the 8th century (in line with most date ranges suggested above), while ruling out the period from the later 8th century onwards.

This dating and location are confirmed by other aspects of the casket, which have been discussed by Webster (2012, 45), who arrives at the very similar conclusion, noting that the Auzon/FC 'was made in Northumbria, probably shortly after 700'. Her conclusion is based on an art historical examination of the 'distinctive style' (see Webster 2012, 45–7), but also on the 'language and letter forms'. For the latter, Webster (2012, 46) points out that the inscriptions 'share many links with manuscripts', one of which is that 'some individual letters are artfully constructed to mimic the sequence of pen strokes, showing that the carver was fully familiar with writing letters on the page'. In my opinion, the influence of the manuscript tradition can also be seen, for example in the use of abbreviations such as **flodu** on the front panel (Fig 1b) for *flōdum* (dat pl of Old English *flōd* 'flood'; masc *u*-stem) — in the Latin script <-ū> instead of <-um> **could** have been used. Thus ᚢ <-**u**> in **flodu** may be a runic analogy to this usage. In conclusion, the runes and the language they

encode, provide clear indications for dating and locating the origin of the casket, far away from the place it was found, to the region between Wearmouth/Jarrow and Whitby on the eastern coast of the kingdom of Northumbria in the first decades of the 8th century.

Acknowledgements

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Appendix

Transliterations of the panels of the Auzon/FC (taken from Waxenberger 2010, ch 2, no 3).

Top panel (Fig 1a)
Ægili masc. personal name (Eichner 1991, 604; Waxenberger 2003, 949).
There has been controversy about the exact form, the name's etymology, and the identification of the person with Egill, brother of Wayland (see Page 1973, 180; 1999, 177; Flowers 1999, 1).

Front panel (Fig 1b)
fisc flōdu (= flōdum) ahōf on fergenberig
warþ gasric (gās(t)rīc) grorn þær he on
greut giswom
hronæs bān.

'The fish arose by means of the floods/high tide onto the cliff-bank/earth, Gās(t)rīc was sad, as (= when) he swam on to the sand (= aground). Whale's bone/s (bones = skeleton)' (Waxenberger 2006, 305f).

mægi 'magi; the Three Wisemen'

I translate *gās(t)rīc* (= *gāst* 'breath, soul, spirit, life'; *rīce* 'strength, power' *ja*-stem) as 'the one who has the power of breath/life'. Since the compound must refer to **he**, I consider it to be a name for the whale. ***rīċe*** appears as ***-rīċ*** in second elements of compounds (Campbell 1959, §348 n 5).

hronæsban: 'All the bones collectively, the skeleton' see *Dictionary of Old English in Electronic Form* A–F (Healey DiPaolo et al. 2003, s.v. ***bān*** A.2).

Left panel (Fig 1c)
I follow Bammesberger (1998, 13) in his reading and translation (see below), but parse the sequence **wylifinromæcæstri** as *wylifin in romæcæstri*.

Romwalus and Reumwalus twœgen
gibroþær
afœddæ hiæ wylifin in Romæcæstri
oþlæ unneg
(Bammesberger 1998, 13)

'Romulus and Remus (were) two (twin) brothers — a she-wolf raised them — in the city of Rome far from the native land' (Bammesberger 1998, 13).

Back panel (Fig 1d)
Hēr fegtaþ
Titus end giūþea su[m]
(Bammesberger 1998, 13)

Hic fugiant (= Class. Lat. *fugiunt*)
Hierusalim
afitatores (Class. Lat. *habitātōres*)
(Page 1995, 311; 1999, 177)

dōm *gīsl*

For the sequence **titusendgiuþeasu** I follow Bammesberger's translation (Bammesberger 1991, 632): 'Here Titus and a Jew (= someone of the Jews) fight' or 'here Titus and some Jews fight'.

For the sequences HICFUGIANTHIERUSALIM, and **afitatores** I follow Page (1995, 311; 1999, 177): 'Here the/its inhabitants flee from Jerusalem'

'judgement' 'captive'

Right panel (Fig 1e) (see Waxenberger 2010, ch 10)
Hēr hōs sittaþ on harmberg ā. æglæca
drīgiþ. swāh (= swāc)
irri. E/Ērtæ egi sgrf (= scrf) sār, den
sorga
ænd sefa torna.

'Here/listen, the company preside/s [3rd pers sg pres or 3rd pers pl pres] over the harmful burial place/mound [acc] (always). The awesome opponent/ferocious fighter always performs/acts/endures. Anger has left.
Ertæ assigned/decreed by means of the horse: distress, the grave of sorrows, and the sad mood'.

Tables

Napier's criteria for dating the casket	Relevance	Waxenberger's criteria
1. Use of full vowels in the Auzon/FC text in unstressed syllables (<-**æ**>, <-**i**>: e.g. **hronæsban** (gen sg) 'whale's bone'; **gi̯swom** 'swam'	Relevant The Old English Runes Corpus (OERC) confirms Napier's result	**Relevant**
2. <**eu**>-spelling for the later diphthong *eo* (**greut** 'sand')	Irrelevant Non-conclusive as there is only one form in the OERC	Excluded
3. <**f**>-spelling instead of <b>-spelling for the allophones [f] and [v]	Irrelevant <b> only occurs in manuscripts; in the runic tradition it is exclusively <**f**> for both [f] and [v]. In the OERC, rune **b** is not used for the voiced labio-dental fricative [v] as in the manuscript tradition, but solely used for the voiced bilabial plosive /b/	Excluded
4. Northumbrian loss of final *-n* in '*sefu*'	Irrelevant Napier read *sefu* but in fact the sequence is **sefa͡**. For the loss of *–n*, see Waxenberger 2010, ch 10	Excluded
5. Final -**u** in the word **flodu** 'flood'	Irrelevant *-u* in final position should have been long lost (see below)	Excluded

Table 1 Napier's five criteria for dating.

Napier's criteria for the provenance of the casket	Relevance	Waxenberger's criteria
1. Anglian smoothing of the diphthongs (diphthongs *eo/ēo*, *ea/ēa* become monophthongs in certain environments: e.g. **be̯rig** 'cliff', **unne̯g** 'far', **fe̯gtaþ** 'fight').	Relevant For Napier it narrows the dialect to Anglia	**Relevant** Anglian smoothing is a dialect criterion for Anglia (see Campbell 1959, 222ff)
2. Absence of diphthongization after palatals: West-Saxon (WS) *ea* vs Nhb. æ **romæcæ̯stri** 'Rome' vs WS *ceaster*	Relevant For Napier it narrows the dialect to Anglia	**Relevant** It is a dialect criterion for Northumbria (see Campbell 1959, 186; Waxenberger 2010, ch 4.7)
Napier's criteria for Northumbria		
3. Nhb. loss of final *-n* in '*sefu*'	Irrelevant Napier read *sefu* but the sequence is **sefa͡**	Excluded Napier's reading is wrong
4. Parasite vowels in -**beri̯g** (instead of *–berg* 'cliff') and **wyl̯f** (instead of *wylf* 'wulf')	Irrelevant The limitation of parasite vowels to Nhb. can neither be wholly justified by Old English grammars (Campbell 1959, 360) nor by the OERC itself	Excluded
5. Lack of Second Fronting: *æ* > *e* (e.g. **romæcæ̯stri** 'Rome')	Irrelevant This sound change does not restrict the casket to Nhb. but merely excludes that part of Mercia where the *Vespasian Psalter* was written	Excluded The restriction to Nhb. is not given (Campbell 1959, 168)

Table 2 Criteria for the casket's provenance.

Waxenberger's criteria	Phenomena	Dialect area
1. Retraction of *æ > *a*	Nhb. Retraction of *a* vs Breaking of *æ + *r* + Consonant > *ea* (Campbell 1959, 139ff; SB 1965, 43.2, 87) Nhb. retraction of *æ > a* in stressed syllables is especially common when a labial (*f, p, b, m, w*) precedes the vowel or follows the *r* (Campbell 1959, §144). Auzon/FC front panel: **warþ** 'became'	Northumbria
2. Gmc **a* + nasal	This was spelt <o> and <a> in early Nhb. but <o> greatly predominates (Campbell 1959, §130 n 2). In the 10th century Nhb. texts <o> is practically universal (Campbell 1959, §130 n 2; SB 1965, 79 n 1; see also Waxenberger 2010, ch 6.1.2). Auzon/FC front: **hr<u>o</u>næsban** (*hron/hran* 'whale') Auzon/FC front: **gisw<u>o</u>m** (3rd pers sg pret *swam/swom* 'swam') and also the preposition **<u>o</u>n** 'on, onto' (2x). In addition to the evidence from the OERC, the non-runic Nhb. MS **L** of *Cædmon's Hymn* confirms this at least for the stressed syllable (*m<u>o</u>ncynnæs* 'mankind's'; see Waxenberger 2010, ch 6.1.2, 6.1.6). The sequence **ænd** has parallels in **and** (Auzon/FC left panel) and in **end** (Auzon/FC back panel). If the word is **ænd** (< Gmc. **andi*), it should be the forerunner of *end*. Although *ænd* is somewhat unusual when compared to the other sides, the variation in the vowels (**e** (**end**) - **æ** (**ænd**) - **a** (**and**)) could be due to the conjunction being an unstressed word	Northumbria
3. Runic representation of the cluster [**x**t]; [ç̱t] <**ht**>	Auzon/FC: [**ç̱t**] = <**gt**> and also Auzon/FC: [**ç̱**] = <**g**> (see Waxenberger 2010, ch 6.2.2). Ruthwell Cross (RC) and Great Urswick Stone: the *yew*-rune ᛇ,ᛇ was used for [**ç̱**] and [**x**]. The RC and the Auzon/FC texts differ in assigning characters to [**ç̱**]: it is the rune *giefu* ᚷ for the Auzon/FC but the *yew*-rune ᛇ for RC (see Figs 2 and 3a and b above).	Auzon/FC differs from the inscriptions in the west of Northumbria

Table 3 Linguistic evidence.

Auzon/FC	**Ruthwell Cross (West of Nhb.)**
[**ç̱**]: Rune *giefu* ᚷ	[**ç̱**]: Rune *ē(o)h/īh* (*yew*-rune) ᛇ

4. Runic representation of the velar consonants after the palatalization/ assibilation processes	The OE allophones ([j̯], [ɤ], [ɟ], and [g̱]) of Gmc. */ɤ/ were at first represented by the rune *giefu* ᚷ exclusively (7th century until as late as the 9th/(10th)century in the south). Sometime later rune *gār* ᛯ emerged in Nhb. and took over the velar allophones ([ɤ] and possibly [g̱]). For the exact distribution see Waxenberger 2010, ch 5, tabs 9, 10 and maps 3, 4.	Auzon/FC differs from the RC (western Northumbria)

Table 3.1 Rune *giefu* ᚷ, *yew*-rune ᛇ.

Auzon/FC	**Ruthwell Cross (West of Nhb.)**	
Rune *giefu* ᚷ palatal and velar allophones of PreOE */ɤ/: [j̯] (word initially, medially, finally); [ɤ]/[g̱] (word initially); [ɤ] (word medially and finally)	Rune *giefu* ᚷ palatal allophones of PreOE */ɤ/: [j̯] (word initially, medially, finally)	Rune *gār* ᛯ velar allophones of PreOE */ɤ/: [ɤ]/[g̱] (word initially); [ɤ] (word medially, finally)
5. Back mutation: *e > eo* (Nhb. <ea>) (see Waxenberger 2010, ch 4.8)	The RC shows back mutation before [v]: RC: **h<u>e</u>͡<u>a</u>funæs** (= *heofunæs*) 'heaven's' whereas it is absent in Auzon/FC: **sef͡a** 'mind'	Difference in time

Table 3.2 Rune *giefu* vs rune *gār*.

.

Runes	Analysis	Conclusion
1. Rune **s** Relevant allographs of rune **s**: ᛋ→ ; ᛊ→ See Fig 4.	The rune **s** proves only that the Auzon/FC is in congruence with the other Northumbrian inscriptions of the 8th and 9th centuries because it has the allograph-type ᛋ→ ; ᛊ→ for the **s**-rune predominant for that time (see Waxenberger 2010, ch 3.11.1, figs 1–3 esp Fig 2).	Well-integrated into the runic context of the 8th century
2. Rune **d** Relevant allographs of rune **d**: ᛞ and ᛞ See Fig 5.	The rune **d** has a large and a small allograph. The large was used until c 700. After that time the small allograph-type was introduced and both types seem to have been used side by side for the next 300 years or so. The data provided in Fig 5 reveal neither a geographical pattern nor a time-line.	Well-integrated into the runic context of the 8th century.
3. Rune **o** Relevant allographs of rune **o** Chevron type ᚩ (7th/8th–9th/(10th) century) Pointed angle type  (mid-7th–9th centuries (late Anglo-Saxon period)): see below Tab 8.	Basically, there are two allograph-types of the rune **o** in Nhb. Both types are common from the 7th–9th centuries and there is no obvious distributional pattern. The Auzon/FC shows the pointed chevron type (=1B) and is therefore well integrated into the runic usage at the time in question (see Waxenberger 2010, ch 7.2).	Well-integrated into the runic context of the 8th century.

Table 4 Runes and allograph-types.

Runes (see Waxenberger 2010, ch 7)	Distribution of allographs	Northumbrian East Coast	West of Northumbria
1. Rune **y** Relevant allographs of rune **y**: Transparent type A: ᚳ Transparent type B: ᚣ Obscure Types (Types 3.1, 3.2): ᚣ ᛤ	Obscure types: later, more sophisticated and often southern inscriptions: Bristol/ Linstock Castle Agate Ring; Morton Runic Strapend: ᚣ London Thames *scramasax*: ᛤ	Nhb. East Coast inscriptions show a more uniform allograph-type: the Hartlepool Stones, the Whitby Comb and also the Auzon/FC share almost the same allograph-type ᚳ (transparent type A).	The crosses of Bewcastle, Ruthwell and Lancaster show the broader allograph-type ᚣ (transparent type B) of the rune **y**
2. Rune **ea͡** ᛠ *ea/ēa* In Nhb. this rune is also used for *eo/ēo*)	The rune (**ea͡** is used in the RC inscription (**hea͡funæs** 'heaven's', **[..]ea͡[.]du[.]** (= **bihea͡aldun** = *behēoldon*) 'biheld') but is lacking in Auzon/FC: **giuþeasu** *iudeasu* (= *iudea su*[m] 'some(one) of the Jews' **greut** = *grēot* 'grit, sand'		The possible interpretation of the absence of **ea͡** ᛠ on the Auzon/FC is threefold: Firstly, the sequence was not considered to be the diphthong **ea** (loan word) and therefore the quality and the position of **ea** may have been felt to be different from the native pattern. Secondly, the bindrune **ea͡** did not exist at the time of the Auzon/FC. Thirdly, the Auzon/FC carver pronounced both **ea** and **eu** (slightly) differently from the RC carver/ designer
3. The rune *ċēn* ᚳ (see Waxenberger 2010, ch 5.7.1)	The rune *cēn* ᚳ denotes velar [k] as well as the palatalized/ assibilated [tS] variants of Gmc */k/ in early East Coast inscriptions. In the earlier west Nhb. and also in the later Nhb. inscriptions [k] is denoted by calc ᛣ and also by rune 31 ᛯ		The starting point for the innovation seems to be the RC.

Table 5 Rune **y**, rune **ea͡**, and rune *ċēn*.

Early east coast inscriptions	Early inscriptions from the west of Nhb. and later Nhb. inscriptions	
Rune *ċēn* ᚳ palatal and velar allophones of PreOE */k/: [tS] (word initially, medially, finally) [k] (word initially, medially, finally)	Rune *ċēn* ᚳ palatal allophones of PreOE */k/: [tS] (word initially, medially, finally)	Rune calc ᚴ; rune 31 ᛯ velar allophones of PreOE */k/: [k] (word initially, medially, finally)

Table 6 Rune *cēn* vs runes *calc* ᚴ and rune no 31 ᛯ.

Auzon/FC	RC
Rune ***ġiefu*** ᚷ is used in the cluster [**x**t]	***Ɣew***-Rune ᛊ, ᛇ is used in the cluster [**x**t]
Rune ***ġiefu*** ᚷ is used for the OE velar and palatal allophones of Gmc. */ɣ/	Rune ***ġiefu*** ᚷ is used for the OE palatal allophones of Gmc. */ɣ/ Rune *gâr* is used for the OE velar allophones of Gmc. */ɣ/
Lack of back umlaut	Back umlaut
No use of rune **ea͡** ᛠ (**giuþ<u>ea</u>su**; **gr<u>eu</u>t)**	Rune **ea͡** ᛠ is used **h*ea*funæs**; **ea͡[.]*d*u[.]** (= **bihea͡ldun**); **fea͡rran** 'from afar')

Table 7 Comparison of the Auzon/FC and RC.

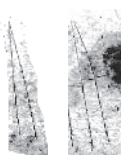
	o	**u**	**y**	**w**	**c**
Whitby Comb					
Auzon/FC					

Table 8 Runes **o**, **u**, **y**, **w**, and **c** on the Whitby Comb and the Auzon/FC.

Notes

1 The following graphic conventions are used in this article: runes are transliterated in lower-case and bold letters. Roman characters are presented in upper-case letters. Uncertain runes are given in italics. Bind-runes are marked by an arch ⁀ . Uncertain runes that allow for more than one interpretation are placed in braces { } and the individual interpretations are separated by slashes. Phonemes are put between slashes / / and square brackets [ ] are used for allophones. Graphemes are denoted by angled brackets < >.

2 I did not plot the inscriptions found on the West Coast (St Ninian's Cave: […]***ate***; Mote of Mark: **aþili**; Whithorn Stone I: **[**…**]*f*erþ[.]**; Whithorn Stone II: **[..]*r*[.]hwitu [...]**) because they are too fragmentary and with the exception of the Mote of Mark Bone — too late. See also Waxenberger (2010, ch 1.2.3, map 1).

3 The Moore MS (**M** = Cambridge University Library) is dated to c AD 737 or possibly AD 734–737 (Smith 1978, 2, 19ff) and the Leningrad MS (L = Leningrad Public Library) is dated to AD 746 (Smith 1978, 2, 19ff); see also Sievers-Brunner (1965, §2).

4 'I think, safely assert that the home of the casket was the coast of Northumbria'.

5 Date of the Auzon/FC in the literature: suggestions vary from c 700 (Viëtor 1901, 11; Dahl 1938, 1; Bouman 1965, 214; Page 1973, 24; 1999, 25; Cramp 1984, 20; Odenstedt 1990, 29; Parsons 1999, 25) to the 8th century (Maskell 1875, 53; Okasha 1971, 50; Wadstein 1900, 54: not after 750; Arntz 1938, 76: the first half of the 8th century (if not somewhat later); Elliott 1959, 108; 1985, 137: early 8th century; Eichner 1991, 606: the beginning of the 8th century; Mitchell 1994, s.v. Fr1: the first half of the 8th century).

   The use of the vowels in unaccented syllables support the hypothesis that the Auzon/FC was carved in the 8th century (Waxenberger 2006, 298).

6 Napier 1901, 381; Elliott 1959, 108; 1989, 137; Eichner 1991, 606.

7 Eichner 1991, 614; Mitchell 1994, Franks Casket 1; Arntz 1938, 76; Wadstein 1900, 54.

8 Maskell 1875, 53; Okasha 1971, 50.

9 Frank 1973, 120–122, but see also Waxenberger 2010, ch 8.

Abbreviations

FC	Franks Casket
Nhb.	Northumbria/Northumbrian
OE	Old English
OERC	Old English Runes Corpus
RC	Ruthwell Cross

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II. Centres, Settlements and Boundaries

Uppåkra's Political Situation in the Migration Period [1]

Birgitta Hårdh

The theme of frontiers and borders is closely linked to the concepts of core and periphery. In relation to the European Continent, southern Scandinavia must be regarded as peripheral; however, the so-called central places of the region are manifold, providing a foci for the reception and spread of new ideas, commodities and skills from continental neighbours. In the recently published volume *Die Goldbrakteaten der Völkerwanderungszeit*, Lutz von Padberg maintains that the Migration Period, for very good reasons might be referred to as one of the most important periods in Scandinavian history. In the 5th century, this marginal region was a powerful cultural and political component of Europe (von Padberg 2011, 603). The focus for such relations were elite groups and central places. This contribution examines Uppåkra in precisely this period, to characterise the place in order to capture a sense of the cultural interactions at this central place in this time.

The so-called central places of the Iron Age in Scandinvaia usually have continuity over several centuries. These were the kind of sites where new impulses were first encountered, accepted or rejected, not least ideological currents. Leading groups, chiefly in southern Scandinavia, had to handle the expansive force of Christianity, and the tool with which to manage this new religion was knowledge: to know as much as possible about Christian religion and culture. Von Padberg has argued that the elites of Migration-Period Scandinavia consciously decided to make use of the Christian symbols (2011). How this was done is not clear; we cannot reconstruct the process but the result is evident in the presence of Christian material and decorated goods and symbols within central place assemblages (von Padberg 2011, 631). Border areas and especially central places made up contact zones or sites, or, as Ulf Näsman recently stated, central places are 'sites where objects and other values were transformed, ritually or in other ways' (Näsman 2011, 109).

Alexandra Pesch, in the same volume of *Die Goldbrakteaten*, concentrates on the role of the central places in the interplay between various aspects of society. She argues that the gold bracteates indicate an explosive distribution of new ideas, craft products and craft techniques. From the record we can assume a rather peaceful exchange of culture and trade relations. The role of the central places can be elucidated from the gold bracteates. Here the so-called 'chiffres' or figures and symbols are important. No central place developed all chiffres, but they share affinities suggesting that some kind of supraregional authority managed the conception and definition of criteria. The sites, it seems, were subjected to common laws, but also had the freedom to create their own images (Pesch 2011, 276f).

Among the southern Scandinavian central places, Uppåkra seems to have had the longest existence as a centre. It is the largest site of the group and also the richest in objects. In this paper I consider a restricted time span — the 5th century and beginning of the 6th century, or what can be termed the Migration Period. This article builds on a paper delivered at the Sachsensymposion in Lund in 2001 (Hårdh 2002), integrating the new evidence that has emerged in the 11 years since.

At the beginning of the Migration Period, c AD 400, the ceremonial house at Uppåkra had already been standing on its spot for several centuries. There are some excavated structures beneath the house that suggest there may be still an older spot for cult and ceremonies. Inside the house, particularly at one of the four huge standing posts and in the area close to the north entrance, gold-foil figures have been found. It is possible that they were once attached to the posts and doorposts as some kind of personal sacrifice (Larsson and Lenntorp 2004; Larsson 2011, 178–79). Gold-foil figures are usually difficult to date and are generally assigned to the Merovingian period. Of the gold-foil figures at Uppåkra, 112 items are closely connected to those found at Bornholm, especially at Sorte Muld and at Uppåkra. There is a stratigraphical date for some of these, placing them as early as the Migration Period (Watt 2004). Weapon sacrifices had been undertaken at the site in the previous period, and seem to have continued in the Migration Period (Helgesson 2004; 2010). A number of surgical tools have also been found around the house, perhaps illustrating connections between cult and healing (Frölich 2010). Odin as a healer, parallel to Christ and perhaps also to Asclepius, has been emphasised by bracteate research (cf Hauck 1980). A find of a pendant with snake ornaments has been interpreted along similar lines (Hårdh 1999, fig 2). Two remarkable vessels made at the end of the 5th century or around AD 500 were probably used in the house. These comprise a two-coloured glass bowl made in the Black Sea region and a metal beaker with gold-foil ornamentation in Style I (Fig 1). Obviously they had some special significance as they were not simply discarded within

the structure after falling from use, but were deposited under the floor in the middle of the house and close to the fireplace (Stjernquist 2004; Hårdh 2004). The floor belongs to a house from the transition between the Migration and Merovingian Periods and the vessels were obviously old when deposited.

The central area of the Uppåkra site saw several dramatic events. A series of halls in the immediate neighbourhood of the ceremonial house were burnt. The Uppåkra hall complex seems to have continued in use from the Roman Iron Age to the Viking Age, although the house complex is still under investigation. The situation is complicated and excavations here need time and resources. However, what seems to be clear is that the area just west of the ceremonial house had a series of long houses, which all seem to have been destroyed by fire (Larsson 2011). The Migration Period is usually characterised as a period with intense struggles for supremacy between various clans and warlords and this area of Uppåkra seems to confirm the picture. The oldest buildings here were burnt down in the early Migration Period and then a new hall was built with a slight displacement in its location (Fig 2). This house, the Migration-Period hall, was also burnt and the residues contain various finds. There are glass shards, including some from Snartemo beakers and some gold objects, among them a gold ring and a clipped part of a stamped neck-ring (Fig 3). There are also human remains of at least five, maybe up to 10, individuals. The human remains are displaced and mixed up with all sorts of finds (Lenntorp and Hårdh 2009, figs 1, 3, 4; Larsson 2011, figs 5, 6, 7). The deposits suggest that those responsible for burning down the hall together with some of its inhabitants, were dedicated to destroying the complex and perhaps humiliating the patron of the hall. Although from a later time period, there are echoes here of the motif of revenge evident in a number of early written sources: for example the hall descruction scenes in the poem *Beowulf* (see Porter 1991, 18–19). To understand the events it is important to consider that the ceremonial house remained undamaged throughout all these dramatic events. It was never attacked or damaged by fire, in spite of the burning halls only a few metres away at repeated junctures. This has led to the assumption that those who attacked the halls were not external enemies but family or clan members.

The number of gold bracteates found at Uppåkra is now seven, including a fragment (Figs 4a and 4b). Four of them were found by excavations in the area close to the ceremonial house. Three of the bracteates are from the same stamp, which could be an indication that they were made at the site. Pesch characterises the Uppåkra bracteates and their designs as previously unknown examples with extraordinarily qualitative



Figure 1. The metal beaker from the ceremonial house. Made of copper alloy with silver and gold bands. Height 165 mm. Photograph: B. Almgren, LUHM.

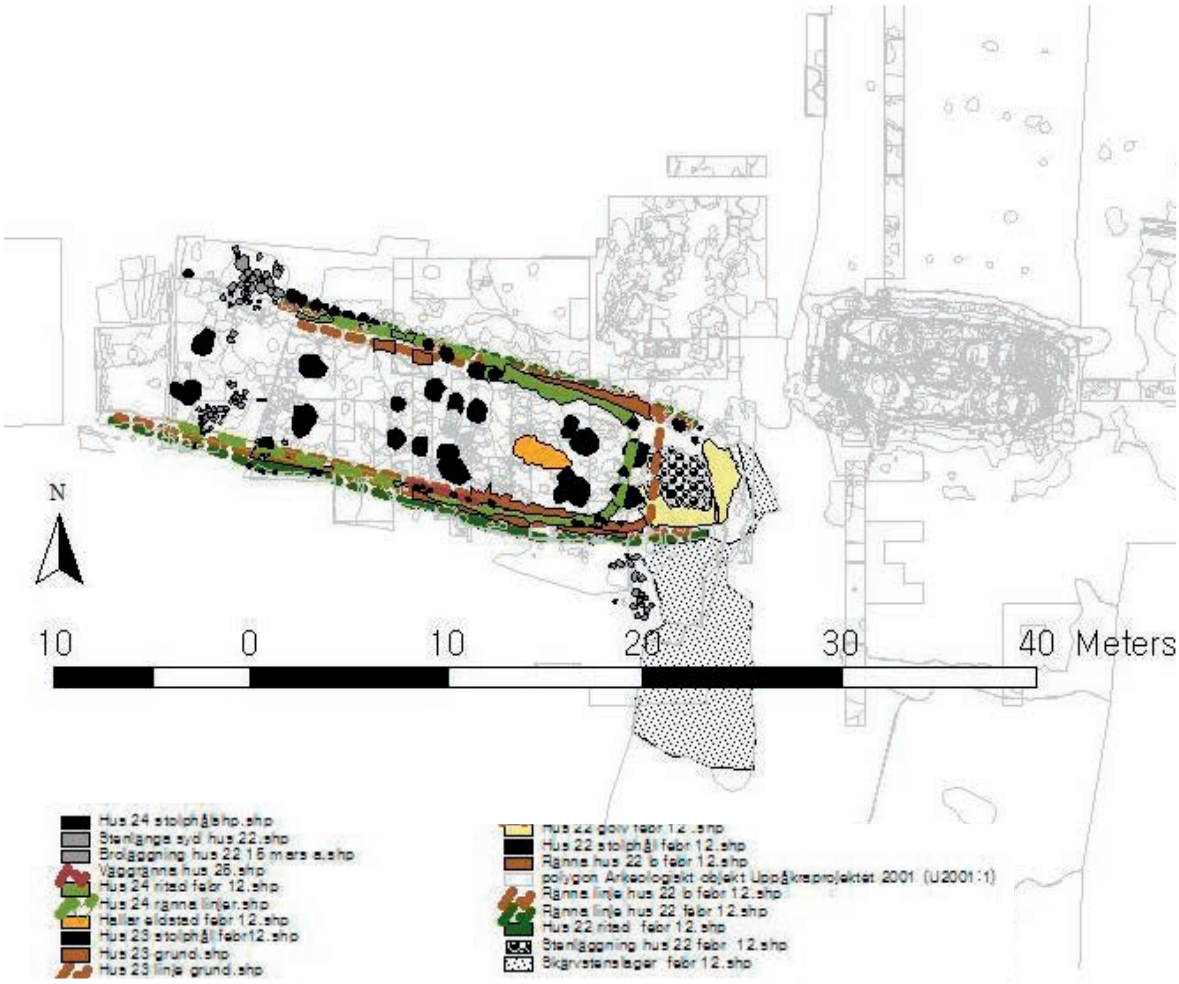

Figure 2. Sequence of houses west of the ceremonial house. House B: Migration Period; house C: Merovingian Period; house D: Viking Age. Red: fireplace; grey: stone; grey hatched: stone packing; black: posthole. After Larsson and Söderberg 2014.



Figure 3. Fragment of golden neck-ring from bottom of a posthole in the the Migration-Period long house. Length 24 mm. Photograph: LUHM.



Figure 4. (a) Gold bracteate from Uppåkra, 29 mm diam. Found in house A, slightly north of the house sequence presented in Fig 2. Photograph: B. Almgren, LUHM. (b) Gold bracteates from Uppåkra made from the same stamp, both 24 mm diam. Photograph: LUHM.

model pictures, which in all likelihood were conceived and made at Uppåkra. IK 610 relates to items from Zealand and Öland. Thus the eastern and the western Formularfamilien seem to meet together at Uppåkra. The first conceptualisation of Formularfamilie C12, with a wide distribution in southern Scandinavia and the southern Baltic, probably took place in Uppåkra. The bracteates Uppåkra, according to Pesch, signal a sovereign place, where ideas were exchanged and from which innovations in styles and designs radiated in various directions (Pesch 2011; also Axboe 2001; Axboe and Stoklund 2003). As well as this, changes in ritual can be observed in the move from gold bracteates to gold-foil figures.

Von Padberg emphasises the close connections between the southern Scandinavian central places and centres on the Continent. A book-shaped pendant with decoration in Sjörup style is, for instance, an indication of awareness of continental Christian ideas (Hårdh 2003, fig 12). This relief brooch, found in the cultural layers, relates to a group of brooches chiefly from Scania and Zealand. Some of them have a rim of triangles and circles, a pattern well-known from the mausoleum of Theoderic the Great in Ravenna (Magnus 2001). A number of small exquisite brooches might also show personal relations. They were usually gilded and often completed with gold foil and red stones or glass. A group of five 'Dreirundelfibeln' show connections to a group of brooches with a distribution from Thuringia to Friesland. They might be imported, but it is possible that they are local products made following continental patterns. Clear imports include a couple of S-shaped brooches. This type can be found in Italy and eastern Europe, to France and southern Germany up to the Rhine area. They have no Scandinavian parallels. One oval brooch comes from Italy or the Danube region. An example is also known from Gudme. This pendant has a parallel in the well known grave beneath Cologne Cathedral (Hårdh 2002, figs 5, 6). Only last year a magnificent silver brooch with red inlay was found during the excavations in the hall complex at Uppåkra (Fig 5). The perfect condition, the solid silver and the stones make it probable that this resulted from personal connections, indeed one can suggest this for the group as a whole.

Scrap metal is a typical feature of the central places. Among the numerous fragments from Uppåkra there is an unfinished 'Paragraphenfibel'. It probably came as continental scrap metal, reflecting the trade in recycled metal, or possibly foreign craftsmen, who brought work material with them as raw material or models for new ornaments. Uppåkra is extremely rich in metal objects, fragments and melts. Metallurgical investigations have shown that the record gives abundant evidence of advanced metalworking techniques. The alloys clearly show an interest in experimentation and innovation, which must indicate permanent workshops at least from the Migration Period onwards (Hårdh 2002, figs 4, 7). Serial production is usually connected to the Merovingian and Viking periods. However, serial production of simple cruciform brooches is likely to have taken place here, indicated by a number of very similar brooches.

Pesch's and von Padberg's articles give two aspects of the relations of central places to the surrounding world. Pesch emphasises peaceful cultural and commercial exchange and sees an explosive spread of ideas, trade commodities and techniques. Through the bracteates we get an image of networks, of independent actors, who formed part of this specialised community. Von Padberg has underlined that Scandinavia was not isolated. The reaction to the expansion of Christianity was immediate. The elites that were responsible for shaping religious ideas copied, translated and adapted the Christian symbols. Their aim was first and foremost to provide dignity for their own religion, comparable to the victorious Christianity of the Continent. This also inevitably led

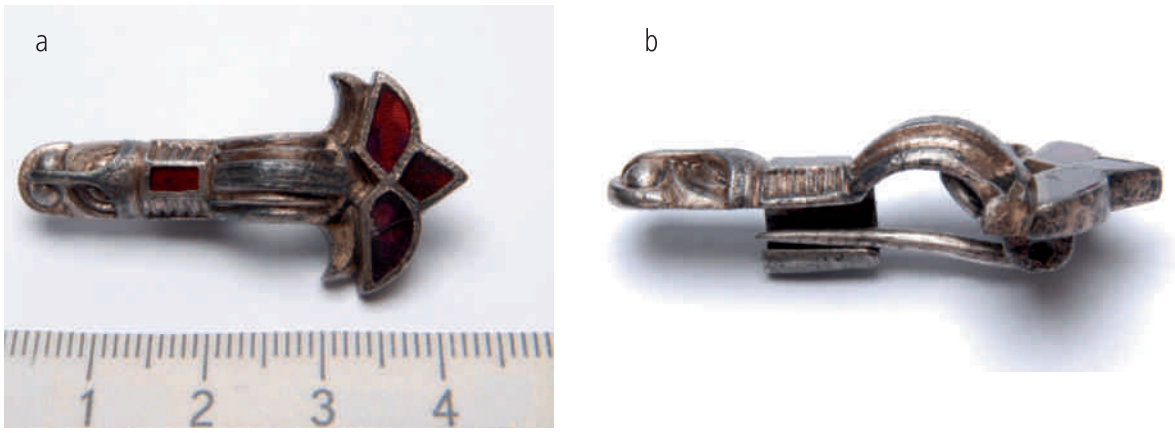

Figure 5. (a and b) Silver brooch of continental origin. Silver with garnets, length 41 mm. Photograph: L. Dahl, LUHM.

to changes in their own ideas. We might also express this as Ulf Näsman did at the Maastricht symposium, that 'South Scandinavian polities seem rather to belong to the European Early Middle Ages than to a Nordic Iron Age'.

The beaker which was found under the floor was in all probability made in Uppåkra. The rich decoration with gold foil with serpents, human figures and quadrupeds, might be interpreted as an illustration of birth, death and resurrection. It is clearly a product of a religious and aristocratic centre with well-developed handicraft. Thus the external continental contacts encountered indigenous traditions at the site, which in all likelihood were involved in the development of Style I. Style I must have been developed at the southern Scandinavian central places. The decoration on the beaker shows close affinity to gold bracteates and also to the magnificent relief brooches, mainly from Scania and Zealand. The beaker, together with the glass bowl, was deposited during the Merovingian period or the early Viking Age. Various objects from the Christian Continent had been arriving for some time in Scandinavia and Uppåkra. Perhaps a church even replaced the ceremonial building in the late 10th century.

The archaeological record indicates Uppåkra's relations at three levels: local relations to the immediate agricultural surroundings, for instance in serial production of simple ornaments; regional relations, mainly the central place network, evident in the designs and symbols on bracteates and other iconography; and the continental contacts signalled through finds of glass, brooches and weapons, etc. The Migration-Period society centred on Uppåkra was characterised by dynamic and dramatic events, manifested in the burnt halls. On the other hand stability is evident too in traditions and rituals at the ceremonial house. The finds, however, provide vivid insight into how these central places operated as places of transformation and knowledge exchange, leading to the introduction and cirulation of new ideas, ideologies and beliefs within Migration-Period southern Scandinavia.

Notes

1 English revised by Alan Crozier.

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Local Innovations and Far-reaching Connections: Gold Bracteates from North-East Zealand and East Jutland

Morten Axboe, with a runological note by Lisbeth Imer

From Thomsen to Pesch, bracteate research has endeavoured to establish groups of related bracteates (e.g. Thomsen 1855; Salin 1895; Mackeprang 1952; Pesch 2007; for history of research, see Pesch 2007, 27–39 and Behr 2011). This is necessary if we are to comprehend the material. In this paper I shall rely on the groups which Pesch (2007) has established and labelled *Formularfamilien* (FF), but my primary argument is that that we should also pay attention to 'outsiders' — odd small groups like FF C3 treated below, and designs which are not full members of the *Formularfamilien*, or which cannot be associated with known groups at all. Some of these outsiders are indeed poorly made, but others have consciously designed motifs with details of obvious iconographical importance. Their makers were innovative — perhaps too innovative to have followers, and thus they never gave rise to new *Formularfamilien*. These designs 'at the edge' of recognisable *Familien*, can make a significant contribution to current understanding of places of production and central sites and the intellectual vigour of the Migration Period. A second line of argument is that bracteate production and innovation were not limited to the large 'central places' like Gudme, Sorte Muld or Uppåkra with their 'temples' or 'royal halls' and workshop activities (e.g. Axboe 2012; Jørgensen 2009; Pesch 2011). Other areas and centres on a smaller scale will also have contributed, not only with 'standard' designs, but also with iconographic innovations.

The gold bracteates of North-East Zealand

North-East Zealand, situated north of Copenhagen between Roskilde Fjord and Øresund, is an area where numerous bracteates have been found (Mackeprang 1952, 112ff; Axboe 2011, 981f [IK 619,2]), while no central place has yet been identified. Among the bracteates are the first recorded find from Denmark, a C-bracteate (IK 50; Fig 6) found in 1672 on the banks of the lake Esrum Sø, and the hoard from Jørlunde/Hjørlunde (IK 77–9, 94,2; Fig 1) which was donated in 1817 to the Royal Commission for the Preservation of Antiquities, thus initiating the bracteate research of C J Thomsen (Axboe et al. 2006; Axboe 2006).

The Jørlunde hoard consists of four bracteates from different dies, IK 77–79 and 94,2. A fifth design is represented on the reverse of IK 94,2, indicating that the flan was re-used, but although it can be seen to represent an otherwise unknown C-bracteate die, little can be said about it (Axboe 1981, 30f; IK vol 3.2, Taf 129). The Jørlunde bracteates are all of C-type, but if we take a closer look, the bracteates IK 78 and 79 (Figs 2 and 3) are quite extraordinary. Both have large male heads with marked eyebrows, moustaches and elaborate hair-dresses with diadems and beaded contours, ending with a bird's or snake's head. On IK 78 this is accompanied by a human head in front of the large male head with a runic inscription saying **alu** above it. In the same place IK 79 has a full human figure armed with a sword, and below the large male head, where the C-bracteate 'horse' would normally appear, there is a full C-bracteate motif with a human head and a horse. The large head has an arm, which seems to hold or point to the small figure and the criss-cross motif below it (see Hauck 2011b, 99ff, 111). These two bracteates are so characteristic that Alexandra Pesch has placed them in a separate *Formularfamilie*, FF C3, together with just one more die, the C-bracteate IK 29 from Bolbro on Funen, where both the male head and the C-bracteate animal are closely related to the Jørlunde bracteates IK 79 and especially IK 78 (Pesch 2007, 158–61).

Quite a few bracteates have been found on Zealand, but it is remarkable that all finds are located in the eastern and southern parts of the island; the north-west is simply devoid of bracteates (see map in Axboe 2007, 10). If we look for further parallels to the Jørlunde bracteates, it should be noted that one of them (IK 94,2) is actually die-identical to two bracteates IK 94,1 in the Kitnæs hoard (Fig 4) found c 10 km west of Jørlunde on the opposite bank of Roskilde Fjord (Munksgaard 1966; Jørgensen and Vang Petersen 1998, 258f). These die-linked bracteates have a more common, but nevertheless elaborate, C-bracteate design. They belong to the rather small group of C-bracteates which show a human hand resting on the horse's shoulder (Axboe 2004, 148; to the list can be added IK 153,2 Suchań and IK 647 Stavnsager, Fig 10). Besides these we find a snake and a strange bird or other creature facing each other in front of the human head, a snake-like zigzag line over the head, and below the animal the obscure runic inscription **l'it**. The design of this die doesn't quite fit in with Pesch's *Formularfamilien* and she places it among the '*Bastard*' dies — hybrid or associated members — of her C 2 family (FF C2,a). Similarly, the fourth Jørlunde bracteate IK 77 (Fig 5), where the elaborate, eared bird can be



Figure 1. The Jørlunde hoard. Photograph: A. Mikkelsen, © NM Copenhagen.



Figure 2. IK 78 Jørlunde. Diam 31 mm. After IK.



Figure 3. IK 79 Jørlunde. Diam 27.3 mm. After IK.



Figure 4. IK 94,1 Kitnæs, die-identical to IK 94,2 Jørlunde. Diam 27.2 mm. After IK.



Figure 5. IK 77 Jørlunde. Diam 39 mm. After IK.



Figure 6. IK 50 Esrum (Esrom) Sø. Diam 28 mm. After IK.



Figure 7. IK 93 Kitnæs. Diam c 25 mm. After IK.

noted, is only associated with the C1 family. Nevertheless, this die too shows a consciously designed iconography with the 'breath' line pointing from the man's mouth to the animal's right ear and two similar lines from the bird's beak to the man's nose and the animal's left ear.

Thus the Jørlunde bracteates stand out as rather special: two of them (Figs 2 and 3) almost form their own *Formularfamilie*, while the other two differ to some degree from the families they are most closely related to. We may add a fourth bracteate from the area to the C3 'Jørlunde Family', the C-bracteate IK 50 Esrum (Esrom) Sø (Fig 6) found some 20 km north-east of Jørlunde. Pesch includes it among the '*Bastard*' dies associated with her FF C 2, but she also explicitly mentions it as a link connecting the 'Jørlunde' group FF C3 and FF C2 (Pesch 2007, 153, 159); a relationship already noted by C. J. Thomsen (1855, 302). This bracteate also has individual features: the bust of the large male head — Odin/Woden in Karl Hauck's interpretation — is larger and more detailed than usual, showing his healing hand on the horse's flank, while his other hand is holding a small man with a staff in one hand, a small circular object in the other, and with rings on both arms. Besides, there are two small snakes above Odin's head and S- and volute-shaped *Beizeichen* next to the small man.



Figure 8. IK 92 Kitnæs. Diam 26.5 mm. After IK.

Apart from the two bracteates linked with Jørlunde, the Kitnæs hoard contains bracteates from two more dies. IK 93 (Fig 7), represented by 13 bracteates in the hoard, is a basic C-bracteate, and is associated with Pesch's first C-bracteate *Familie*, albeit only as a member of the '*Bastard*' group C1a (Pesch 2007, 142–51): neither the hairstyle, the triangular male nose, the rather open mouth of the animal nor the lack of a runic inscription fits with the characteristics of the main group C1. Nevertheless the bracteates show an articulate and conscious design. The third Kitnæs die (IK 92, Fig 8) is represented by five bracteates and is special both as one of only four dies depicting a rider on horseback (IK 65, 93, 112, 173; Axboe 2004, 148) and through the additional motifs: a small man with a staff or a sword in each hand in front of the horse, and a spear under the horse. Pesch includes it in her group C2a; both the '*Bastard*' dies and those of the main group C2 show unusually wide variation in their motif details (Pesch 2007, 153, n 3).

Small human figures are unusual on A- and C-bracteates, but as we saw they occur not only on IK 92, but also on two of the Jørlunde bracteates (IK 78–79) as well as on IK 50 Esrum Sø. Moving farther south to the tip of Roskilde Fjord we find another C-bracteate with an extra man: IK 585 Sankt Ibs Vej (Hauck and Heizmann 2003), and still farther south the three double bracteates IK 101 from Kongsvad Å in South East Zealand (Jørgensen and Vang Petersen 1998, 243f). East Zealand thus holds six of the known bracteate designs with small human figures, while the remaining dies (putting the classic B-bracteates aside) are widely dispersed: IK 141 Penzlin (Mecklenburg-Vorpommern), IK 197 UFo (of unknown, but probably Danish provenance), IK 261 Guldbæk (Northern Jutland), IK 353 Tønder area (South West Jutland), and IK 584 Brinton (Norfolk).

There are other bracteate finds in North-East Zealand, both single finds and the impressive hoard from Stenholts Vang with 12 bracteates, partly mounted on elaborate tubes with filigree ornamentation, a large golden bead and some pieces of hack gold (Mackeprang 1952, 113; IK 179–180; Jørgensen and Vang Petersen 1998, 240f), but these examples must suffice to demonstrate that the bracteates from this area have a rich and varied iconography. Some of the details are unusual, like the horseman bracteate from Kitnæs (Fig 8), and dies with human beings as additional figures are definitely more common here than elsewhere. When the dies do not fit into the *Formularfamilien* it is not due to a poor or misapprehended iconography. On the contrary, we find motifs rich in detail, demonstrating the artistic and iconographic originality of the bracteate makers, with the closely related dies IK 78–79 from Jørlunde (Figs 2 and 3) as the foremost examples.

Bracteates were precious and their iconography has been a matter of great importance and reflection. Karl Hauck has proposed an interpretation of the Jørlunde and Esrum bracteates (Figs 2, 3 and 6), where the small human figures are identified as Balder/Baldr, the son of Odin. This interpretation is to be understood within the framework of Hauck's general thesis that bracteate iconography focused on Odin as the lord of magic and master of life and death. Thus the C-bracteates depict Odin with Balder's mortally injured horse, which according to the Second Merseburg Charm he alone had the power to heal, while the *Drei-Götter-Brakteaten* show the ritual death of Balder (ultimately to return from Hel), which had been foreboded by the fatal accident of his horse. Hauck interprets IK 79 Jørlunde (Fig 3) as Odin (the large head with the outstretched arm) presenting Balder partly as the well-armed young lord (one of the possible etymologies of 'Baldr'; see Schier 1976, 2f; Simek 1993, 28) in front of him, partly as taking his horse on the fatal ride in the bottom part of the picture field. The horse's imminent fate is illustrated by the vomit emanating from its mouth, and Balder's impending death by the criss-cross detail in front of him, which has been interpreted as the funeral pyre, with reference to representations on Roman coins (Hauck 1970, 297 with no 53, 327). On IK 50 Esrum Sø Odin is holding Balder, who carries a staff or sceptre in one hand and a circular object in the other, while Odin's hand is resting on the horse below him. Parallels to the circular object are found on IK 189 Trollhättan and the *Drei-Götter-Brakteaten* IK 51,3 Gudme II, 165 Skovsborg and IK 646 found near Lejre (Christensen 2015), as well as on the late-Roman medallion imitation IK 126 Midtmjelde (Hauck 1992, 499ff; 2011a, 7–9). IK 78 Jørlunde seems to be an abbreviated version of the motif with Balder represented by his head only (Hauck 1992, 472ff, 2011b, 100f, 111f; Hauck and Heizmann 2003, 247–50). On the otherwise closely related IK 29 Bolbro, Balder is not shown.

Within the same frame of reference, Hauck has interpreted small human figures on other bracteates as Balder. Two of these come from the area around Roskilde Fjord: IK 92 Kitnæs (Fig 8) and IK 585 Sankt Ibs Vej, Roskilde (Beck and Hauck 2002, 67–72; Hauck and Heizmann 2003). No matter how

far one can follow Hauck's interpretations, it is obvious that North-East Zealand and the Roskilde Fjord area have given rise to original, consciously designed bracteates with an independent iconographic profile, testifying to coherence in iconographic and mythological thought.

Far-reaching bracteate connections

This was not due to isolation, a fact highlighted by two new finds. At the Sachsensymposium in Haderslev in 2010, Alexander Bursche presented the Suchań site in West Poland with finds of different origins, including two C-bracteates. One of these, IK 153,2 Suchań, is die-identical to a bracteate allegedly found in Scania as part of a hoard of four bracteates (Mackeprang 1952, cat no 226). This was the first time a die linkage could be established between Scandinavia and the Continent. Shortly after the symposium Linda Boye reported the find of a bracteate fragment at Søtoftegård about 7 km south-south-east of the recorded find-spot of the Jørlunde bracteates, and on examination it proved to be die-identical to the other Suchań bracteate (IK 619,1, Fig 9). The provenance of the 'Scanian' hoard with IK 153,1 is rather dubious, as it is one of the 19th-century finds that appeared in private Danish collections as 'found in Scania', a label which one may suspect was chosen to circumvent the Danish treasure trove (danefæ) regulations (Axboe 1981, 2ff). The Søtoftegård fragment, however, provides the Suchań site with a secure link to a Danish find-spot, not just to the more dubious 'Scanian' hoard. One may speculate whether the 'Scanian' hoard actually was found in North-East Zealand, but that remains unprovable.

The die IK 619,1 Suchań / 619,2 Søtoftegård belongs to the *Bastard* group FF C14,a. The proper FF C14 consists of only five bracteates from four dies, found in Scania, Blekinge and on Bornholm (Pesch 2007, 220–4). Apart from the Søtoftegård/Suchań bracteates, *Bastard* bracteates have been found on Öland (IK 134) and in Central Poland (IK 386 Wapno). The bracteates of FF C14 all have the runic inscription *ota* ('fear, terror'). As demonstrated by the Suchań bracteate the inscription of IK 619 reads *oh*, which is probably to be understood as a garbled version of *ota* (Axboe 2011, 981). The bracteate from Søtoftegård was cut in two, and the preserved lower half was folded up and most likely intended for the crucible. Nevertheless, it demonstrates connections within the West Baltic area, including Poland.

A direct connection between North-East Zealand and Scania is proved by a folded up C-bracteate found September 2014 at Høvlsbakke east of Helsinge together with fragments of a silver-gilt brooch closely related to the fibula from Vedstrup / Hove Mølle. The bracteate appears to be die-identical with IK 625 from Uppåkra.

If we look at the other bracteates discussed above, the two Jørlunde bracteates in Figs 2 and 3 belong to the very small group FF C3, the third member of which is IK 29 Bolbro. Apart from lacking the small human head/figure of the two Jørlunde bracteates this die is obviously a close relative, and besides it is interesting as a link to the concentration of bracteate finds of East Funen around the centres with the sacral place-names Gudme (Home of the Gods) and Odense (Odin's sanctuary). As mentioned, the Esrum Sø bracteate (Fig 6) can be seen as connecting FF C3 with FF C2. The proper members of this group with known find-spots come from within present-day Denmark, and apart from IK 133 Öjorna/Östtorp from Västergötland, the associated C2,a bracteates have all been found in Zealand, including the bracteates IK 94,1 Kitnæs (Fig 4), IK 94,2 Jørlunde and IK 92 Kitnæs (Fig 8; Pesch 2007, 152–7). IK 77 Jørlunde (Fig 5) and the 13 copies of IK 93



Figure 9. IK 619,1 Suchań (Diam 24 mm; after IK) and 619,2 Søtoftegård (17.9 x 14.1 mm). Photograph: M. Axboe.

Kitnæs (Fig 7) belong to the *Bastard* group C1,a. The proper FF C1 is a large group mostly found in Zealand and Gotland, but also represented in Scania, Funen and Jutland as well as in South East Norway and East Poland. The only proper C1 bracteate in North-East Zealand is IK 298 Lynge Gyde, found c 6.5 km east of Jørlunde (Pesch 2007, 142–51).

Of the remaining bracteates from North-East Zealand, the seven specimens of IK 179 Stenholts Vang belong to FF C12,a and are thus related to bracteates mainly from Scania but also from Funen (the seven bracteates IK 30 from the Bolbro hoard with the third member of FF C3), Bornholm, Gotland and northern Poland (IK 100 Körlin/Korlino; Pesch 2007, 210–15). Neither IK 191 Tulstrup which shows rather peculiar details, nor the remaining bracteates from Stenholts Vang (IK 180) are ascribed to any of Pesch's groups. Last, but not least, the A-bracteate IK 383 from Viksø belongs to the bracteates featuring a male bust accompanied by 1–2 boars, Pesch's FF A1–A2 (2007, 72–9). Together, these two groups have a very peculiar distribution, following the coastal route from West Norway via Kattegat and Øresund to Öland and thus exemplify the far-reaching connections of bracteate iconography (Hauck 1988, 206f).

North-East Zealand: aspects of centrality

Had the bracteates from North-East Zealand been found in Funen, Scania or on Bornholm, one would point to Gudme, Uppåkra or Sorte Muld as the central places where such innovations might have taken place, but at present nothing similar is known from North-East Zealand. The find spot of the Jørlunde hoard is generally located to the site Lærkefryd, situated between Jørlunde and Slangerup. This information was obtained from the Sites and Monuments Register of the National Museum for 1890, but the sources are ambiguous, as other information claims that the find was made just north of Slangerup in 1817. When the bracteates were donated to the museum, the only information given was 'found near Slangerup', which may fit with both locations. Meanwhile, excavations and detector surveys have revealed a sacrificial site at Lærkefryd, situated at the top of a hill. The detector finds range from the late-Roman Iron Age to the Viking Period, and they include high-quality objects which have been deliberately destroyed. Among them are both late-Roman and Migration-Period sword hilt parts, fragments of late-Roman and Nydam Style scabbard mounts, a buckle tongue with a Style I mask, an iron battle axe, bridle parts, strap fittings with rings, bronze brooches and several denarii, as well as gold finger-rings, one of which has snakes' heads, and fragments of gold neck-rings which have been violently cut up. There are few Vendel-Period finds, while the Viking Age is represented by a dirham, circular pendants and several fragments of a bronze-gilt equal-armed brooch with animal ornamentation. Partial excavations have revealed some postholes, but no real settlement structures: two pairs of posts may be the remains of a small building, but traces of walls or floor were not preserved. There were numerous cooking pits (Sørensen 2000, 66–73; 2006b; Jørgensen 2009, 347; pers comm Palle Ø. Sørensen 2012). The site seems to be an open-air sacrificial site, used more or less intensively over 700 years. In the valley at the foot of the hill lies the pre-Roman/early Roman age Rappendam bog with finds of wagon parts and ploughs as well as human and animal bones (Kunwald 1970; 2003).

As far as we know the Iron-Age settlement of the area consisted of single farms, but some sites stand out from the usual rural settlement in having aspects of centrality. At Hørup, about 3 km north-west of Lærkefryd, a small workshop starting in the early Roman Age and continuing into the Migration Period has been detector-surveyed and partly excavated. There is clear evidence of the works of a blacksmith, bronze-caster and comb maker, while the presence of gold- or silversmiths is only indirectly suggested by the fragments of finished objects, like clasp buttons. Patches of clay, 0.5–0.6 m in diameter, with a red-burnt centre and accompanied by small burnt stones, are interpreted as forges, and postholes near them as wind-breaking fences. Vitrified clay was found both near the forges and elsewhere. Six ovens were excavated, but there was no indication of what they had been used for. Some of the brooches found have been deliberately folded up, as if to be recycled; these 'scrap fibulae' seem to date to the late Roman and early Migration Period. Fifteen Roman coins have been found, the latest issued by Valentinian I (AD 364–7). Secure evidence of fine metalworking is provided by more than 70 fragments of crucibles, two of which were almost totally preserved, and a fragment of a mould, while tuyère fragments may belong both to fine metal smiths and to blacksmiths (Sørensen 2000; 2006a; Axboe 2012).

Around 6.5 km south-east of Lærkefryd lies the settlement of Søtoftegård with late-Roman and Migration-Period bronze brooches, denarii and other Roman imports, as well as hack silver and gold, including fragments of Roman dishes and the halved bracteate IK 619,2 (Fig 9). On the slope below the settlement, detector finds from culture layers include bronze sprues, smelted lumps and drops, and the site may be a contemporary parallel to Hørup, obviously with bronze working and most likely with silver and gold smithing too (Sørensen 2000, 65; Axboe 2012).

The general wealth of the area in the late Roman Age is demonstrated by graves with status objects like gold rings, silver jewellery and spurs, as well as Roman glass and bronze vessels (Sørensen 2000, 62–4). The only medallion imitation known from Denmark was found at Gundsømagle Holme 10 km south of Lærkefryd (Mackeprang 1952, 107; IK 262). Hørup and Søtoftegård are evidently not 'central places' in the same sense as Gudme or Uppåkra, but they seem to be part of a 'central landscape' including the open-air sacrificial site at Lærkefryd. Even a theophoric place-name can be found

in the surrounding district: the hamlet Onsved in Hornsherred west of Roskilde fjord, meaning 'Odin's sanctuary' or 'Odin's Grove' (Kousgård Sørensen 1992, 232; Jørgensen 1994, 220). Until now, however, preliminary detector surveys have yielded no indications of a central place here (pers comm Palle Ø. Sørensen April 2013), a situation comparable to that of the Gudum ('Home of the Gods') area in West Zealand and two Gudum villages in North Jutland, which are equally devoid of finds in spite of their cultic name (Dobat 2011; Henriksen 2011; compare however Claudi-Hansen and Axboe in preparation). Both the bracteates and the Roman imports demonstrate economic and intellectual surplus in the late Roman and Migration Periods, but it seems that the 'landscape of power and cult' was organised differently from the pattern we find at Gudme, Uppåkra, and Sorte Muld — the 'central' functions were dispersed over several sites.

Lejre

When discussing the area around Roskilde Fjord one must also mention Lejre, situated near its southern tip. Lejre is the legendary seat of the equally legendary *Skjöldung* dynasty of Danish kings. Apart from the myths, however, there are not only early historical sources like Thietmar of Merseburg that point to the former importance of Lejre; in recent years there have also been archaeological finds. Most of the finds have been Viking-Age, including the Mysselhøjgård magnate's farm with several succeeding large 'halls' from the late 7th century to around AD 1000 (Christensen 2007; 2010, 241–9; 2015 [appeared after the present paper was completed]). Another 'hall' was found at Fredshøj some 500 m further north, dating from the 6th to 7th centuries and possibly demolished only to be moved to Mysselhøjgård (Christensen 2007, 116–24; 2010, 249–52). From the 7th century, when graves were generally sparse in Denmark, Lejre can boast the Grydehøj barrow, constructed over a large cremation burial. The cremation layer covered around 380 sq m, and apart from small bronze lumps, iron nails and poorly preserved human bones, it contained bones from horse, cattle, dog, sheep/goat, birds and deer. When the barrow was built, the cremation layer had been covered with gold-wrought cloth and with timbers, possibly from a mortuary house (Wulff Andersen 1993, 103–16; 2007, 150–155; Andersen 2007, 135–8). Had the cloth been on the pyre as part of the deceased's dress, as proposed by Wulff Andersen, no trace of the fine gold threads would have been preserved.

Lars Jørgensen lists Lejre among his 'second-generation aristocratic sites', founded in the 6th and 7th centuries (Jørgensen 2009, 337, 344f). But new finds may be taking Lejre further back in time as a high-status site. Thanks to metal-detector enthusiasts, Migration-Period precious metal finds are now also emerging. In 2011 a small hoard of gold bullion and a Justinian I solidus imitation was found at Lejre (Bondesson and Bondeson 2012). The following year a 5th-century hoard was detected at Mannerup some 8 km south of Lejre. It consists of c 3000 pieces of hack silver together with a few coins and a gold ring, and its total weight of about 7 kg makes it the largest Migration-Period hoard from Denmark. In the same year a gold bracteate was found at Lejre (IK 646). It is a *Drei-Götter-Brakteat* struck with a die closely related to IK 165 Skovsborg, but most extraordinarily it is a double bracteate, consisting of two flans with the same design soldered together. Bracteate and hoard will be published by Tom Christensen, Roskilde Museum, together with the recent Lejre excavations (Christensen 2015).

Thus the Lejre area seems to have been of some importance as early as the 5th and early 6th centuries, in the 'Golden Age' of mythology. Moving into more speculative territory, it is tempting to recall the many 'Balder' bracteates from North-East Zealand and the Roskilde Fjord area, to which IK 646 from Lejre itself can now be added. The Norse sources on Balder seem to indicate a connection between the *Skjöldung* dynasty and Balder, possibly as a mythological ancestor and/or tutelary deity, as well as a connection between Balder and the Lejre area (Schier 1976, 5; 1992). Is this part of the background for the concentration in this area of bracteates with additional small human figures? If so, it must be stressed that even if the later literary transmission of the Balder myths shows important differences between Danish sources like *Saxo Grammaticus* and the Norwegian/Icelandic sources, the *Drei-Götter-Brakteaten* indicate that Balder's death by the mistletoe shot was well-known in southern Scandinavia, where all these bracteates are found, with IK 20 Zagórzyn ('Beresina') from Poland as the only exception.

Stavnsager

The assertions that bracteate production was not limited to the large central places, and that iconographic innovation might also take place elsewhere, can be substantiated by a bracteate hoard from Stavnsager in East Jutland (Fig 10). Stavnsager is a settlement area south of Randers in East Jutland (Fiedel et al. 2011). The investigations undertaken until now seem to indicate that the settlement started as a 5th-century rural hamlet, developing during the 6th century with longhouses, *Grubenhäuser*, a large number of brooches, fragments of weaponry, traces of bronze casting, a gold foil figure (*guldgubbe*) fragment and evidence of connections to south-eastern Scandinavia. In the 7th century there are indications of a magnate's farm and jewellery with high-quality animal ornamentation with mythological associations, and the settlement continues during the Viking Age as a manor as well as a crafts and trading centre.

The four bracteates IK 647–650 were found with a metal detector only a few metres from one another during the



Figure 10. The Stavnsager bracteates. Top: IK 650 (Diam 25 mm), left IK 649 (22.3 mm), right IK 648 (24 mm), bottom IK 647 (39 mm). Photograph: A. Mikkelsen, © NM Copenhagen.

summer of 2012 and most likely represent a dispersed hoard. They were struck on four previously unknown dies, two of type C and two of type D. The largest is the C-bracteate IK 647 (Fig 10, bottom). Its lower part is torn and it was somewhat bent, but has been straightened during conservation. The picture field shows a human head with a rather flat hair-style and a characteristic half-mask-like shape of the eye. An arm is indicated by the angled line connecting the cheek with the back of the animal, and the scroll under the animal's head may be interpreted as a hand. The animal is depicted with four legs with shoulders and thighs in rather un-anatomical positions. Its eye is a half-mask like the man's, and it has a high, slender ear and U-shaped horns. It is impossible to tell whether the scroll over the animal's snout represents a bird or a snake. Both interpretations have been proposed for the related dies IK 110 Lindkær and 140 Overhornbæk (IK vol 1,2, 194, 243; Pesch 2007, 225), and may also be considered for the 'hand' on the Stavnsager bracteate. The picture field is framed by a band with bird's-head terminals, filled with runes and rune-like characters (see Imer below). This border was part of the die, while the zones of epaulettes and small bosses were punched separately.

The central motif of IK 647 is closely related to IK 110 Lindkær and 140 Overhornbæk, and together with the runic band also found on these two bracteates it qualifies IK 647 as a 'core member' of Pesch's FF C15. An identical band is found, however, on the A-bracteates IK 312,1 Overhornbæk and 312,2, allegedly from Vendsyssel, and like IK 647 their inscriptions can be taken as failed *futarks* (Moltke 1957). Such runic bands are unique to these four dies, and it is of great interest that we here have an indisputable link between A- and C-bracteates (Axboe 2004, 155ff).

Along with IK 647 two D-bracteates were found, both from new and intriguing dies which do not fit in with Pesch's *Formularfamilien*. IK 648 shows a bird-like creature with a round head and a curved beak (Fig 10, right). The body is curved, ending in a foot with two toes. From the thigh emerges an up-turned wing, from which the tail is hanging. Less normal for a bird are the two ears, but similar ears can be found on a few bracteate birds: IK 77 Jørlunde (Fig 7), 123 Market Overton and 206 Várpalota. More rudimentary ears appear on IK 29 Bolbro, 141 Penzlin, 154,1–3 Zealand/Overhornbæk/Unprovenanced and 304 Mjønes, and possibly on the B-bracteates 104 Lau backar, 176 Söderby and 195 Ulvsunda. Birds' heads with ears may even occur at the forehead (IK 570 Sylten) or the nape of the human heads (IK 50 Esrum Sø, Fig 6), 105 Lellinge Kohave, 149,1 Scania(?) and 255 Geltorf. Equally unusual for birds are the hair- or bristle-like lines at the creature's back, although a few parallels may be quoted: IK 200,2 Gärvalds and 341 Sønder Rind, and less obviously the contoured 'bristles' of IK 22 Bergløkken, 63 Gotland, 200,1 Unprovenanced (Gotland?) (IK 200,1–3 represent three different dies — see Axboe 1981, 69f) and 571 Dannau.

It is striking, however, how these lines are reminiscent of the hatched hairstyle of some human heads on the bracteates. Perhaps this gives us a clue to the interpretation of IK 648. It is not unknown in Migration-Period art for some details to be interpreted in more than one way, for example as both a human head (or part of one) and a Style I animal. Equally well-known are animals with a human face, so-called *Tiermenschen* (Leigh 1984; Haseloff 1986; Lindstrøm and Kristoffersen 2001; Kristoffersen 2010). Both phenomena are warnings that motifs in Migration-Period art should not be taken at face value: there can be more to them than meets the eye. Similarly, some gold bracteates and chronologically earlier medallion imitations (Axboe 2004, 216–23) may be interpreted as illustrating Odin's shape-shifting abilities. This applies to the medallion imitations IK 193 Tunalund Av, where the large male head rises from a rather naturalistic supine bird (Hauck 1994, 264f); IK 3 Åk Av, where the bird is more stylised; and IK 346 Strangegården, which I am inclined to include among the medallion imitations rather than the A-bracteates (Axboe 2004, 61f). Among the bracteates the unprovenanced IK 196 is crucial: here a bird emerges from the hair of the large male head (Fig 11; Hauck 1978, 389); but the many bracteates with a bird or animal head at the forehead or nape may also hint at shape-shifting.

The recently found A-bracteate IK 641 Weltzin from Mecklenburg-Vorpommern (Fig 12; Pesch 2014) is important for this discussion. Here we find not only the compulsory human head with stylised diadem and brooch pendants or cloak and a bird facing it, but also an animal with an open mouth, a large eye and a pointed ear, hatched fur and a hind leg. The animal gives the immediate impression of being a wolf, although it lacks carnivore's teeth to confirm the identification. The lines indicating the furred body of the animal can alternatively be seen as the man's hair, and the animal may be interpreted in several ways: either as a demonic creature menacing 'Odin' and his bird helper, or as an indication of his ability to shape-shift to bird, snake or wolf (see Lange 2005).

Both IK 641 Weltzin and the bird bracteate IK 648 from Stavnsager add new aspects to bracteate iconography. The same can be said of the other Stavnsager D-bracteate, IK 649. This shows a 'classic' D-bracteate design with a backwards-looking beast where the ribbon-shaped neck and body together form an S and are interlaced with the limbs (Hauck's



Figure 11. Unprovenanced bracteate IK 196, where a bird seems to emerge from Odin's hair. Diam 30 mm. After IK.



Figure 12. IK 641 Weltzin. Diam 29 mm. After Pesch 2014.

GM 1 [IK vol 3.1, 42–7], compare Pesch FF D8–10). The head, which is hanging down at the right edge of the picture field, has an ear and an open mouth with a tongue. Shoulder and hip are looped, the legs are slender, and each foot has two toes. *Beizeichen* appear as two groups of three beads each, a triangle at the right end of the loop and a Y-shaped detail in the upper left part of the picture field, whose most likely interpretation is as a small creature (*Ketos* in Hauck's terminology) of the kind found on some D-bracteates (IK vol 3.1, 22–6). The shape of the head of the large animal does not fit in with the parallels mentioned above, and neck and body are drawn with broader lines than usual for the GM 1 bracteates. So again we have an individualistic version of a classic bracteate motif. This is emphasised by the runes **aalul** (see discussion by Imer below) at the left lower edge of the bracteate. For one thing this appears to be a garbled version of the well-known **alu** inscriptions, perhaps intended as a sophisticated palindrome **alula**, as proposed by Klaus Düwel (pers comm 2012). More importantly, we have here the first example ever of a runic inscription on an indisputable D-bracteate. Until now runes have been known only on A-, B-, C- and a few F-bracteates, and it has been regarded as an established fact in bracteate research that runes never occur on D-bracteates. In this light the silver-gilt bracteate IK 388 from grave 14 at Welbeck Hill near Grimsby might be reconsidered, with its inscription **law** or **læw** — perhaps a miscopied **laþu** — this may possibly represent a bird and thus be counted among the D-bracteates. The design is difficult to grasp, and several interpretations have been proposed. There are no such problems with the D-bracteate from Stavnsager. The design is clear and the runes beyond doubt.

The fourth bracteate, IK 650 (Fig 10, top), was found some months after the first three. It is a C-bracteate where the human head has not only a hatched hair-style, but also a plait. The beads contouring the front hair echo the Roman emperor's diadem, or more precisely its central jewel. Both man and animal have eyes of the 'half-mask' type. An elaborate bird is facing the man. The feet of the animal should be noted: they are large and lobed, and the foremost foot has an extra 'toe'. This has a parallel on IK 163 Skonager, and within the framework of Hauck's interpretation of the C-bracteates it is tempting to understand this detail as a way of indicating the wounded leg of Balder's horse, just like the 'blood drops' on IK 157,1–2 Sievern and other bracteates (Hauck 1970, 136ff). The bracteate is closely related to Pesch's FF C2 and its derivatives FF C2,a; actually, if the bust diagnostic to FF C2 had been present, Pesch would, as a matter of course, include IK 650 in the main *Formularfamilie* C2 (pers comm 2013).

A short inscription, consisting of two runes, is placed between the cheek and the front leg of the animal. It can be transliterated **ïz**, and though this, as noted below, makes no linguistic sense, it can be compared to similarly placed inscriptions, among others on IK 163 Skonager just mentioned above, which have been interpreted as names (Beck in Hauck 2001; Beck 2011, 301; Düwel and Nowak 2011, 469ff).

Stavnsager in context

As we have seen, the closest relatives of IK 647 Stavnsager are the C-bracteates IK 110 Lindkær and 140 Overhornbæk of FF C15 and — because of the runic band — the A-bracteates IK 312,1 Overhornbæk and 312,2 of unknown provenance ('Vendsyssel' is only the area where the presumed finder lived). The recorded find-spots of these bracteates are all in the Randers area, forming a triangle of 9 × 16 × 18 km. To these can be added the B-bracteate IK 384 Vindum Stenhuse, which Pesch with good reason combines with IK 312,1–2 in her FF A8 group. IK 384 was found some 30 km west of the rest; nevertheless we have a rather local and very distinctive production comprising both A- and C-bracteates, most likely made in the same workshop and possibly by the same artisan.

The other C-bracteate from Stavnsager, IK 650, has peculiar details like the 'bleeding' foot and the missing bust, but can be affiliated to FF C2, which also includes the bracteates IK 58, 75,1–3, 142, 163 and 300 with inscriptions under the animal's head representing names, as mentioned in Lisbeth Imer's contribution below. The two D-bracteates have general resemblances to some other bracteates, but they both show special characteristics and have no really close relatives: the head and body of IK 649 are peculiar and its runic inscription is simply unique, while bird bracteates like IK 648 are generally scarce and incongruous in design. On the other hand there is no reason to regard these bracteates as second-rate or 'degenerate': they show a conscious design, and the shortcomings of the inscriptions are no worse than usual.

The find-yielding area at Stavnsager measures c 100 ha and is thus comparable to Gudme, Uppåkra and Sorte Muld. At present, Stavnsager cannot qualify as a central place as early as the Migration Period. In the Vendel Period it appears to rise to a status comparable to some of Jørgensen's 'second generation aristocratic sites' like Järrestad or Toftegård (Jørgensen 2009, 337sq), but our knowledge of Stavnsager is still preliminary. The new bracteate hoard is another small piece of the puzzle: no matter whether they were produced at Stavnsager or just deposited there, they hint that the site may have acquired an aristocratic status a little earlier than presumed (see Fiedel et al. 2011).

Unless future research reveals Stavnsager as another Gudme, the bracteates from East Jutland thus illustrate the same point as those from North-East Zealand: independent and innovative dies with a consciously designed iconography could be created away from the large central places and the 'religious specialists' ascribed to them. The same can be said of other areas like West Himmerland in Central Jutland (Axboe and Nielsen 2011) and the Trollhättan area in West Sweden (Axboe and Källström 2013). The complexity of

the 'central place' phenomenon and the organization of fine metalworking in the late Roman and Migration Periods should not be underestimated. North-East Zealand will not be the only place where several sites shared aspects of centrality between them, thus together constituting a 'decentralised central place'. Similar thoughts have been published by Feveile on South West Jutland with Dankirke and the Høgsbrogård precious-metal hoard (Feveile 2011; 2014), and fine metals were worked not only at the central sites, but also in more humble surroundings (Axboe 2012).

The runes on the Stavnsager bracteates

Lisbeth Imer

IK 647 Stavnsager-C (C 38872)

On bracteates, we often come across rune types that are not known from other objects; sometimes the markings have nothing to do with runes. On the large C-bracteate from Stavnsager we find both runes and rune-like characters. In the following transliteration, the two rune-like marks at the beginning and at the end of the inscription are not included. They probably belong to the decoration of the bird's head or neck. In the transliteration below, '-' denotes an unidentified rune or sign, '=' denotes a ligature, and '( )' denotes an uncertain reading. The writing direction runs partly to the right, partly to the left and shifts in the middle of the inscription.

u	**þ**	**a**	**-**	**i**	**-**	**-**	**u**	**-**
1	2	3	4	5	6	7	8	9

e	**(l)**	**a**	**(l)**	**d**	**(a=a)**	**e**	**r**	**u**
10	11	12	13	14	15	16	17	18

i	**-**	**a**	**l**
19	20	21	22

Runological comment on the reading:
1. Normal **u**-rune with low branch.
2. Normal **þ**-rune with angular pocket.
3. Normal **a**-rune with low branches.
4. Uncertain — possibly a **u**- or a **þ**-rune. An error in the casting of the die might interfere with the reading.
5. Normal **i**-rune.
6. Possibly a reversed **t**-rune, also known from the Lindkær bracteate, where it is transliterated as a possible **k**-rune.
7. Uncertain — possibly a **k**-rune. The sign is known from other bracteate inscriptions.
8. Normal **u**-rune.
9. Uncertain — possibly a wrenched **n**-rune.
10. Normal **e**-rune.
11. Possible **l**-rune with low branch.
12. **a**-rune damaged by the crack in the bracteate.
13. Possible **l**-rune with low branch, damaged by the crack in the bracteate.
14. **d**-rune.
15. Uncertain — possibly a double **a**-rune. The type is also known from the Overhornbæk bracteate, where the sign is read as uncertain.
16. **e**-rune with very low angle.
17. Normal **r**-rune.
18. Normal **u**-rune.
19. Normal **i**-rune.
20. Uncertain; also known from an A-bracteate from Overhornbæk (IK 312).
21. Normal **a**-rune.
22. Normal **l**-rune.

Translation and interpretation:
The inscription does not make linguistic sense. The best parallel for the Stavnsager bracteate is the bracteate from Lindkær (IK 110), which reveals an attempt to write the futhark. The first three runes, **uþa**, on the Stavnsager bracteates can be interpreted as a similar attempt.

IK 649 Stavnsager-D (C 38874)

The runes on the D-bracteate are a sensation. Even though D-bracteates constitute the largest group of bracteates, runes have never been found on this type of bracteate before. The inscription is short, but carved very nicely and steadily into the matrix die.

a	**a**	**l**	**u**	**l**
1	2	3	4	5

The runes 4 and 5 are a little smaller than the previous runes, because the ornamentation has taken up much of the space. This implies that the runes were added after the creation of the ornamentation.

Translation and interpretation:
At first glance, the inscription makes no linguistic sense, but possibly it represents a corrupt or extended version of the **alu** formula, or even a corrupt palindrome of the word **alula**. Palindromes are known from other runic inscriptions, e.g. the Kylver stone in Sweden and the ceramic vessel from Spong Hill in England, where **alu** is written with mirror-runes. The interpretation of **alu** is much disputed. Some argue that

it could have the meaning 'rage, ecstasy' or 'protection, defence' (Krause and Jankuhn 1966, 239), whereas others believe it could mean 'sanctuary' or 'temple', and that it can be traced in place-names in *Al-* (cf Brink 1992). A very prevalent interpretation is the word 'ale', i.e. Old Norse ǫ (Høst 1976, 102), because this is the most logical development of the word, linguistically speaking. We do not know when ale was introduced as a drink in prehistoric times, however, so we have no direct evidence of a link between the drink and the word. The above-mentioned suggestions hold the word to be a noun, and only Rooth proposes that the word could be a 1st pers pres sg verb with the meaning 'I give strength' or 'I protect' (Rooth 1926, 9–10). This latter interpretation of **alu** fits better with the contextual use of the word, considering its occurrence on weapons, amulets, rune stones and so on (Imer 2011).

IK 650 Stavnsager-C (C 39138)

The second C-bracteate from Stavnsager bears two runes, transliterated **ïz**, beneath the head of the horse. They make no linguistic sense, but the position of the runes is known from other bracteates in the vicinity of Stavnsager, namely the Randers and Skonager bracteates (IK 142 and IK 163 respectively) and from the Maglemose, Hesselager and Funen bracteates (IK 300, IK 75 and IK 58 respectively). On the Skonager, Randers, and Funen bracteates the inscriptions are names: the Skonager inscription is read as the name *Niuwila* 'The new one'(?), and the Randers and Funen *Houaz* is thought to mean 'The High One' (Randers: cf Imer 2013, 105f; Seebold 1992, 289). This is probably also the case with the Maglemose bracteate, which bears an abbreviated form **ho•z**. Taking this into consideration, it is plausible that the runes on the second C-bracteate from Stavnsager also represent a name in an abbreviated form.

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Slesvig as Borderland in the 1st and 2nd centuries AD

Per Ethelberg

Geographically speaking, Slesvig is the area between the rivers Kongeå in the north and the Ejder in the south, the Wadden Sea in the west and the Baltic Sea in the east. The present border between Denmark and Germany divides the area into North and South Slesvig (Fig 1). The development in South Slesvig during the 1st and 2nd centuries AD differs in almost every way from that of North Slesvig: there are no inhumations; the cemeteries are extraordinarily large consisting, not untypically of more than 1000 cremations (Fig 2), for example Husby (Raddatz 1974), Sörup I (Raddatz 1981), Süderbrarup (Bantelmann 1988) and Bordesholm (Saggau 1981; 1985). There is a tendency in these cemeteries to separate male and female burials (see discussion by Willroth 1992, 378). Burials containing weapons are found more frequently in some cemeteries than in others and during the 1st and 2nd centuries AD, the number of weapon burials decreases significantly perhaps implying that the circulation of weaponry became centralised. There are no princely graves comparable to those known from North Slesvig (Ethelberg 1995). The only site at which a large number of Roman imports have been found is Quern Scheersberg, but little is known about the finds context (Mestorf 1886, 41f), but it is perhaps not coincidental that the large cemetery of Husby is located in the near vicinity of Quern Scheersberg. The key to understanding why South and North Slesvig are so very different in the first two centuries AD is suggested in this paper to be the earthwork called Olgerdiget in North Slesvig (Neumann 1982). This name consists of two early elements: 'Olger' and 'dige'. Originally, 'dige' is a hollow, ditch or grave but later it was also used for a bank or mound. 'Olger' is considered to be a personal name going back to the legend of Holger Danske. Alternatively, 'Olger' might have developed from Old English 'ealgian' meaning to defend or protect.

Excavations of Olgerdiget

The earthwork known as Olgerdiget was first examined archaeologically by the National Museum in 1928 when Hugo Mathiassen made a small excavation at Lovtrup. He concluded that the construction consisted of a mound, a ditch and some rows of poles, but did not date the construction. Comprehensive and systematic excavations started in the beginning of the 1950s and continued until the beginning of the 1970s. These were led by Vilh. La Cour, but due to illness, Hans Neumann of the Haderslev Museum took over in the 1960s. The excavations at six places were to determine the extent, construction, date and function of Olgerdiget and who built it and why. As a result this earthwork is now considered a key site for understanding the development of the Roman Iron Age in southern Jutland. In 2003 supplementary excavations were carried out by Lisbeth Christensen of the Museum Sønderjylland, Arkæologi Haderslev, at Ligård (Christensen 2006) which resulted in dendrochronological dating of Olgerdiget which provided a date of the 1st century AD.

The extent and construction of Olgerdiget

Olgerdiget starts at the River Gejlå near Gårdeby and continues east of Tinglev, then east of Uge until Urnehoved east of Bolderslev. The total, documented extension is 11.6 km (Fig 3). The extent of the northern end of the dyke is uncertain, but it may have continued up to the Åbenrå Inlet for another 6.6 km.

On the Isle of Sild, the ring fortress Archsumburg has been excavated (Harck 1990). A similar but smaller ring fortress, 'Trælbanke', has been found by Kærgård north of Højer (Harck 1979; 1990). Between these two ring fortresses the river Vidå flows into the Wadden Sea and from here the access to the Vidå could be controlled. Pottery from the two fortresses date them to the early Roman Iron Age suggesting that the two ring fortresses were part of the defensive complex. The Trælbanke consists of a bank surrounded by three moats which are not all contemporary with each other and on the inside of the mound, there is yet another moat. The mound has a diameter of 85–90 m and is about 1.5 m high but originally would have been higher. From the Trælbanke we have three radiocarbon dates from oak found in the moat that place the Trælbanke in the period before the birth of Christ.[1] The pottery from the site, however, suggests activity in the 1st–2nd centuries AD. It seems the fortress was in use for a considerable period of time and at least eight phases have been identified.

The excavations have shown that Olgerdiget consists of a varying number of palisades which were reinforced by ditches and probably a bank. At Ligård, there were up to six palisades and four ditches (Fig 6). The wooden posts of the palisades could be single or double and round or square.



Figure 1. Cultural groups in southern Jutland AD 50–100.

Round posts were usually located closest to the ditch and squared posts further away, but at some places both are found in the same palisade. It is uncertain whether the bank and the ditch were always part of the structure; they never cut the palisade but they do not always run exactly parallel either. One of the ditches at Ligård ran between the rows of palisades, and assuming that this is an early extension of the original construction, it can be suggested that the ditch and mound were added soon after the initial phase. At one point, also at Ligård, the rows of palisade and ditches have been deliberately interrupted at regular intervals. These interruptions have straight sides, and the interruptions of the different rows of palisades and ditches are staggered. To be able to pass, one would virtually have had to move through a labyrinth. The many palisades and ditches at Ligård suggest an intentionally constructed passage for entry, so far the only access through Olgerdiget. No traces of watch towers have been recovered.

The date of Olgerdiget

Until recently, the date of Olgerdiget was uncertain with suggested dates ranging from the pre-Roman Iron Age until the Viking period. As the excavations have not produced any datable objects, the date is based on radiocarbon dating

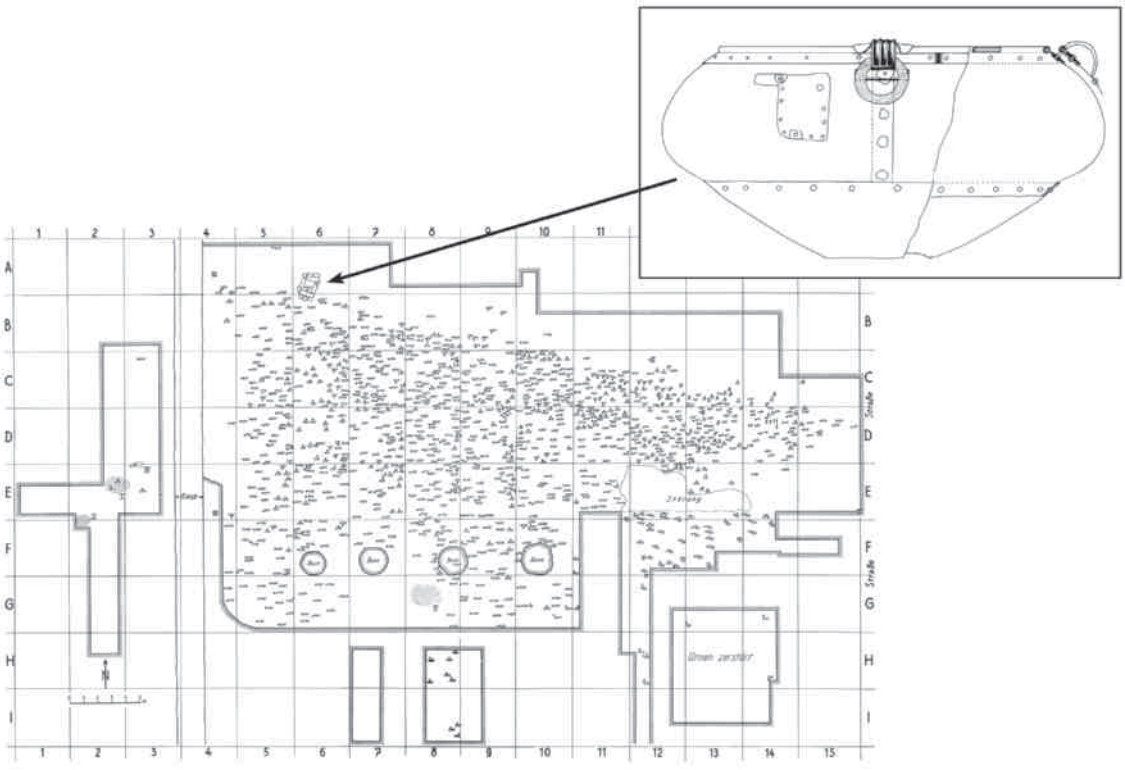

Figure 2. Cemetery of Husby south-east of Flensburg contains more than 1200 graves which are predominantly male burials (after RADDATZ 1974).

and dendrochronology. In total, 15 radiocarbon dates were carried out. Two were made on material which did not come from the palisades; these have produced dates that have a striking deviation and are not considered further here. The remaining 13 dates come from the palisades (Fig 4). The material has been sampled from the three continuous rows of palisade from the whole length of the construction. These are conventional dates with a standard deviation of ±100 years. The standard deviation may be reduced to around 50 years if one calculates average dates for statistically identical dates although it is questionable whether such an approach is acceptable (see below). Each sample represents between 16 and 40 growth rings. The implication is that each date is based on material with an average age of 10 to 20 years. This means, that if a date is based on a sample with 40 growth rings, the obtained date is 20 years older than a date from a sample containing the youngest growth ring. Since two to three samples were taken from each trunk it is uncertain whether all the dated samples derive from the same place on the trunk, but where possible samples closest to the time of felling were selected.

The radiocarbon dates appear to suggest that Olgerdiget was in use or maintained for a period of more than 130 years. The dendrochronological analyses put this in dispute, but if we consider the date nos 6–10 individually instead of calculating an average, it appears that each of them within one standard deviation, correspond to the dendrochronological dates. Date nos 11–13 are anomalous but only within one standard deviation, giving AD 130–384 at 68% probability and AD 16–534 at 95 probability. Detailed discussion is not included here, but it is apparent that the anomaly was generated artificially as a result of a statistical method of calculation.[2]

The question arises whether it is appropriate to calculate average dates of the present material in order to reduce the probable error — especially considering the fact that we generally apply a date range of ±100 years, or minimum 200 years. Based on these considerations there is obviously not an inconsistency between the dendrochronological dates and the radiocarobon dates. The apparent anomaly has been generated artificially as a result of a statistical method of calculation which lends the dates an accuracy which they in fact do not have.[3]

Dendrochronology

Since the 1960s, wood has been sent in for dendrochronological dating at the Wormianum and the National Museum laboratories and scientific analysis has now been undertaken of all samples from Olgerdiget.[4] Between 1965 and 2003 a total of 87 samples had been submitted, and of these, samples relating to 65 posts were potentially related to the

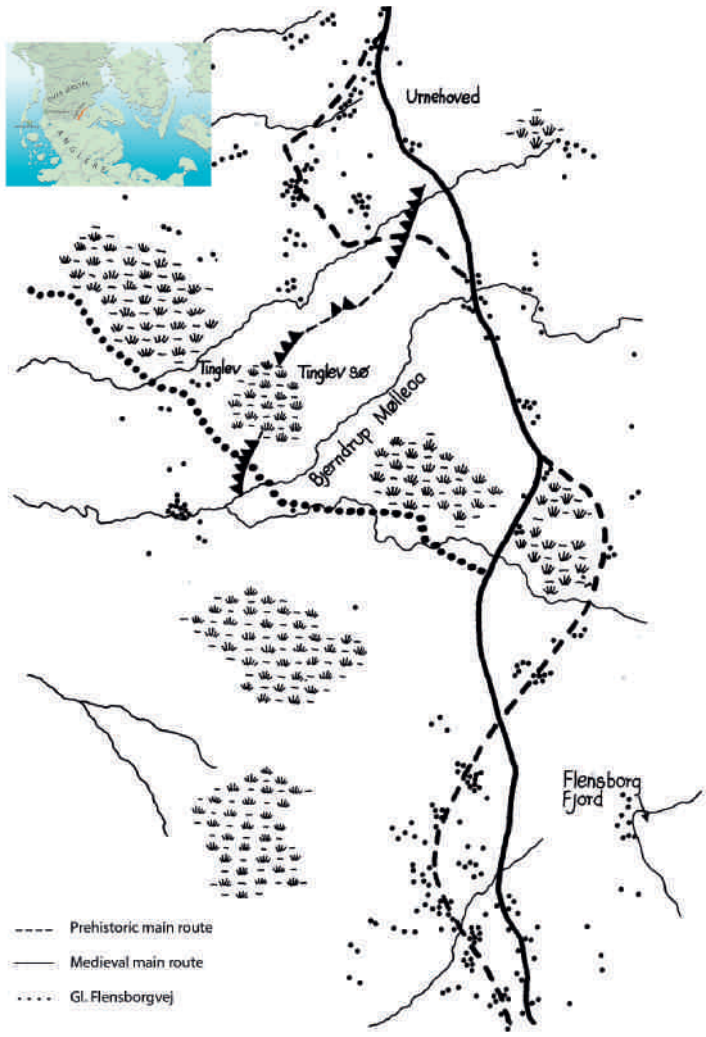

Figure 3. Extent and location of Olgerdiget.

same palisade. In total, the growth rings from 57 posts were used to create a chronological sequence covering 442 years. Sapwood was preserved on 11 samples, but only nine of these could be dated. In four or possibly five cases the bark ring was preserved. Most samples derive from palisades 2 and 3, but there are also samples from palisades 1 and 6. Palisade 3 is closest to the ditch and consists mainly of round posts and is therefore considered to be the oldest.

The last year of the youngest sample with preserved sapwood is AD 89. The sample has 22 sapwood growth rings of which the last may possibly be the bark ring, but this is uncertain. Considering this uncertainty, the tree must have been felled in AD 89 or a few years later. Some of the other samples have an almost identical date, but are without sapwood, implying felling in the 2nd century AD. The oldest dates in contrast, can be placed in the first decades BC, but these samples are all without sapwood. Some of the samples may of course derive from re-used timber, but not enough has been preserved of the individual posts to determine this with certainty.

In sum, the dates from Olgerdiget are listed in Figure 5. From palisade 1, the farthest from the ditch, two dates suggest it was erected after AD 71±9. Palisade 1 is thus younger than palisade 2, but may have existed simultaneously with palisades 3 and 6.

From palisade 6, which could only be demonstrated in connection with the passage at Ligård, one date has been obtained that suggests erection after AD 86±9, which does not contradict that it was contemporary with palisades 1 and 3, but it is most likely younger than palisade 2. Eighteen dated samples from palisade 2 are available. Taking into account the lack of sapwood, all samples are younger than 13±8 BC – AD 65±10. Only one sample included sapwood and bark ring, and this dates to AD 51. Figure 5a demonstrates a small maximum around AD 20 and a more pronounced maximum around AD 40, although these maxima are not statistically significant. Kjeld Christensen has pointed out that a long span

K-number	^{14}C Age (BP)	Cal. 1. StDev.	Cal. 2. STDev.	Pal. number	Site
1617	1960 +/- 100	96 BC – 208 AD	340 BC – 322 AD	2	Gårdeby 1965
1621	1910 +/- 100	20 BC – 230 AD	164 BC – 338 AD	2	Ligård 1968
1623	1900 +/- 100	2 AD – 237 AD	160 BC – 376 AD	3	Ligård 1968
1624	1880 +/- 100	8 AD – 249 AD	95 BC – 386 AD	3	Ligård 1968
1619	2010 +/- 100	165 BC – 80 AD	354 BC – 230 AD	2	Ligård 1968
Av. 1-5	1932 +/- 45	24 AD – 125 AD	42 BC – 210 AD		
847	1850 +/- 100	56 AD – 322 AD	50 BC – 401 AD	-	Uge Bæk
1183	1830 +/- 100	76 AD – 326 AD	40 BC – 406 AD	3	Gårdeby 1965
1616	1850 +/- 100	56 AD – 322 AD	50 BC – 401 AD	1	Ligård 1968
1618	1830 +/- 100	76 AD – 326 AD	40 BC – 406 AD	1	Todsbøl Bjerg 1966
1622	1850 +/- 100	56 AD – 322 AD	50 BC – 401 AD	3	Todsbøl Bjerg 1966
Av. 6-10	1842 +/- 45	126 AD – 236 AD	40 BC – 406 AD		
1182	1760 +/- 100	140 AD – 384 AD	52 AD – 534 AD	3	Gårdeby 1965
1615	1760 +/- 100	140 AD – 384 AD	52 AD – 534 AD	1	Todsbøl Bjerg 1966
1620	1780 +/- 100	130 AD – 378 AD	16 AD – 532 AD	2	Ligård 1968
Av. 11-13	1767 +/- 58	170 AD – 345 AD	126 AD – 397 AD		

(Oxcal 4.2 (86) 9-5 2014)

Figure 4. Radiocarbon dates from Olgerdiget.

of dates for the trees within a specific construction phase is not unique. An example of this is the Ravning Enge bridge from the Viking period: the dates of the tree trunks used in this bridge have a range of more than 200 years although only one construction phase has been identified (Christensen 2003, 216). On the other hand, the identification of the two maxima is emphasised by the fact that, first, the two maxima fall approximately between the measurements from palisades 2 and 3, and second, the maximum which can be most clearly related to palisade 2, and to which a sample with a preserved bark ring is associated, more or less mirrors the oldest maximum of palisade 3 to which another sample with preserved bark ring is associated. Only three of the samples from palisade 2 come with certainty from trees which were felled after AD 51 suggesting it was erected in AD 51 and maintained in following years. Twenty-four samples (of which three have sapwood preserved) have been obtained from palisade 3. On one, possibly two, of the samples the bark ring was also preserved. These samples have been dated to AD 22 and AD 31 respectively. On the third sample 16 rings of sapwood have been preserved suggesting that the tree was felled around AD 93±10, but not earlier than AD 86. In Figure 5b two maxima may be identified falling around AD 40–50 and AD 20. The oldest maximum coincides with the possible bark ring date of AD 22.[5] Five of the 12 dates which could not be associated with a specific palisade have larger or smaller number of sapwood year rings (Fig 5c). Four derive from trees which must have been felled around AD 90/91±10 and are thus too young to have come from palisade 2 and most likely derive from palisade 3, constructed around AD 90/91±10. The dates also show that Olgerdiget was maintained at least until AD 110, and perhaps a little after AD 120.

It is uncertain whether more than one building phase can be recognised for palisade 3. Assuming that the sample with a bark ring dated to AD 31 indicates when palisade 3 was erected, this compares well to the maximum of dates around this time and with the existence of several older dates. If palisade 3 had two building phases it must have been erected at the earliest in AD 22, and at the latest in AD 31. If palisade 3 was erected earlier than AD 31, the sample from this tree trunk, together with some of the slightly younger dates, may express that the palisade 3 was maintained until the construction of palisade 2. If palisade 3 really was erected during the period AD 22–31, it could provide an explanation for the older dates from palisade 2. These samples could arguably express that timber from palisade 3 was reused in palisade 2 when it was erected in AD 51.

If the dates around AD 90/91 express a re-erection of palisade 3 rather than its initial construction, the maximum around AD 50 could express that tree trunks from palisade 2, which were still in a good state, were reused in palisade 3. This intimates that Olgerdiget was constructed during the period AD 22–31 but modifications were swift to follow. In AD 51 palisade 3 was dismantled and superseded by palisade 2. Around AD 90/91 palisade 2 was torn down and palisade 3 re-erected. Until the re-erection of palisade 3, palisade 2 was continuously maintained. At the passage at Ligård it is plausible that around AD 90/91 both palisade 1 and palisade 6 existed together with the youngest phase of palisade 3 suggesting at least three co-existing palisades

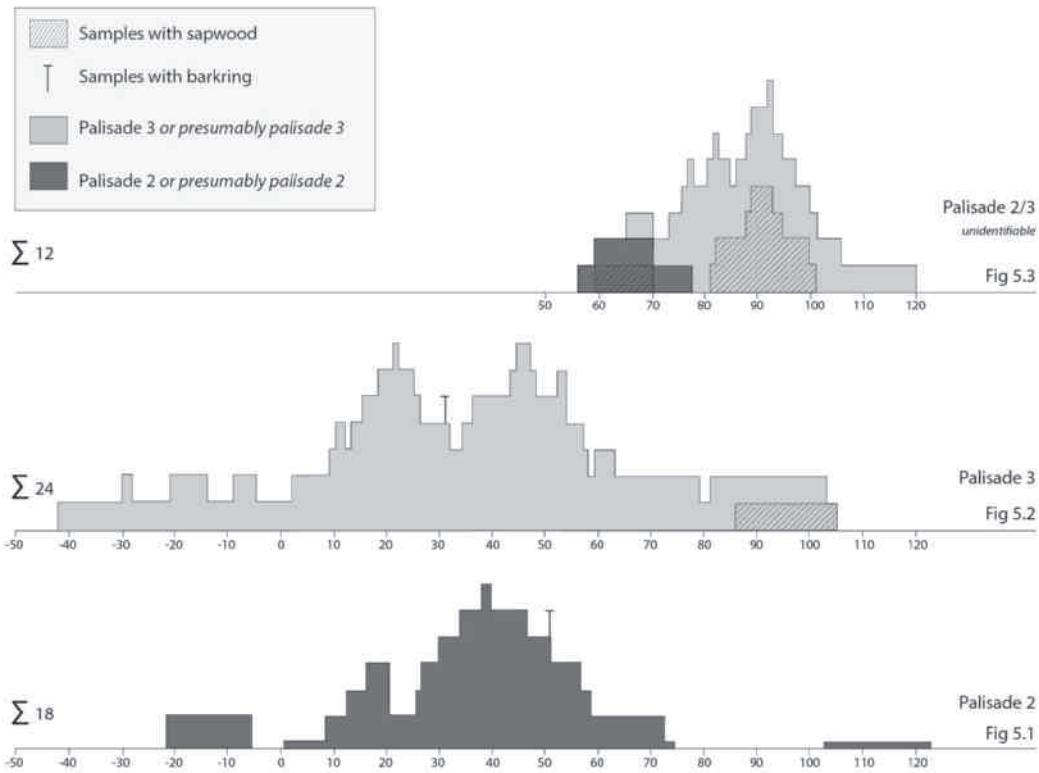

Figure 5. Tetri diagram showing the dendrochronological dates from Olgerdiget, a: the dates from palisade 2; b: the dates from palisade 3; c: the dates from unassociated samples, or from samples which cannot be associated more closely than palisade 2/3.

along with ditches and a bank (Fig 6). Olgerdiget appears to have been in use for c 100 years and at least three phases of construction can be identified. The interpretation of three phases of construction agrees well with the date of the oldest farm from Johannesminde — the settlement situated close to Olgerdiget near Ligård. It also agrees with the other dates obtained from Olgerdiget. Initial construction of Olgerdiget is thus argued for the period AD 22–31, most likely in AD 31 (Fig 7), if however, the dates are considered rather more conservatively, palisade 2 can be suggested to mark the construction of Olgerdiget, implying that it was erected no later than AD 51. It is also beyond doubt that this earthwork was continuously maintained throughout its period of use, for somewhere between 70 and 90 years.

Who built Olgerdiget and why?

Until Neumann's excavations the monument was understood as a military defence structure erected by the Jutes (BRØNDSTED 1966, 272; 1977, 492). Neumann, however, considered it was built by the Angles due to its resemblance to the Roman *limes* of the 3rd century. Olgerdiget is not strategically placed, but Neumann thought of it as a way of controlling trade/traders and collecting taxes rather than a military construction. More recently it has been argued that the defences were erected by the Jutes. The argument is based partly on its location, partly on the question whether or not a ditch was related to the construction. In a recent publication of the material evidence from Ejsbøl Mose, Anne Nørgård Jørgensen has argued that Olgerdiget is turned towards the south (JØRGENSEN 2014, 370). She refers to the similarity to *Alesia* which was conquered by Caesar in 52 BC. Here, the palisade is erected closest to the defence. However, the comparison loses its significance because of the existence of other parallels, which are geographically, culturally and chronologically much closer to Olgerdiget (please see the discussion of the *Heidenschanze* below). *Alesia* is situated some 900 kilometres away from Olgerdiget, the area had been a Roman province west of the Rhine since 52 BC, and the difference in date of the two works of defence is at least 83 years. In comparison, the distance to the Heidenschanze is about 175 kilometres, it is situated in *barbaricum* (i.e. east of the Rhine), and there is at the most 48 years' difference in date between Olgerdiget and the Heidenschanze. Finally, it should be mentioned that towers are integrated in the defence works of Aleasia; this is apparently not the case at Olgerdiget.

The recent dendrochronological analyses have shown that the *limes* cannot have been a model for Olgerdiget as this is older than the *limes*. Olgerdiget is not unique, in north-east

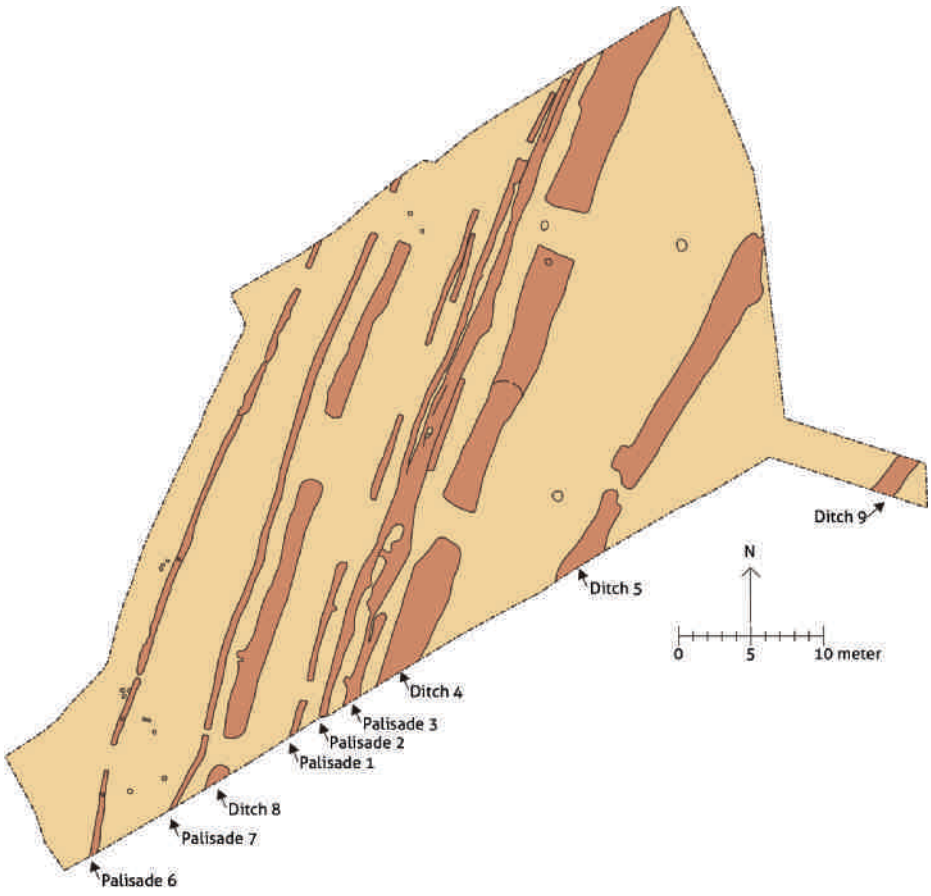

Figure 6. The passage at Ligård (after Christensen 2006).

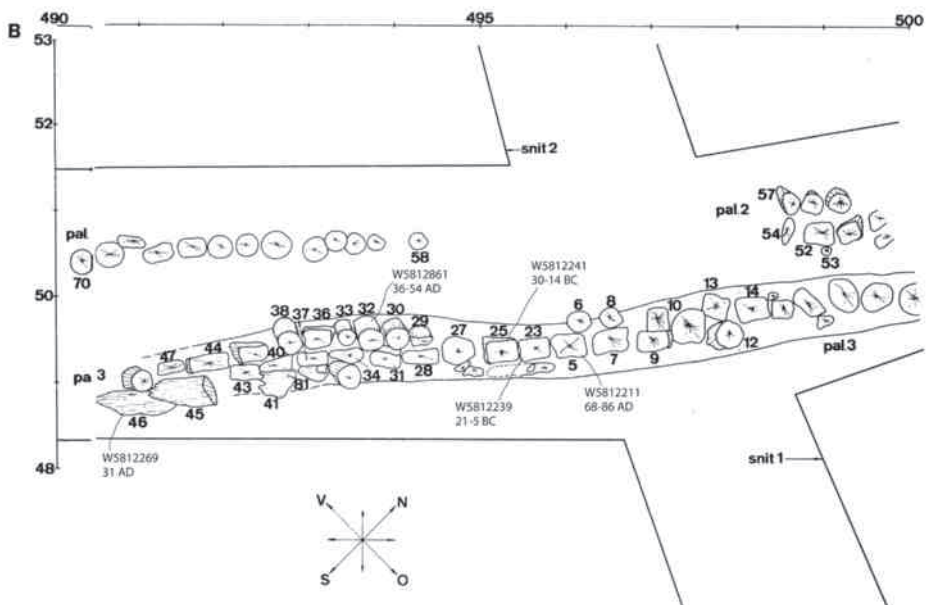

Figure 7. Example of a section of Olgerdiget showing the posts which have been measured and those which have been dated. W5812269 is the oldest sample with a bark ring. It shows that palisade 3 was probably erected in AD 31.

Bremerhaven, in the Elb-Weser-Dreieck, there is a settlement — the Heidenschanze — dating to the first centuries around the Birth of Christ. Surrounded by an impressive bank and ditch, recent excavations have revealed the presence of a palisade on the alternate side of the ditch which is dated to c AD 79 (Schön 2000; Zimmermann et al. 2011, 175). The Heidenschanze and Olgerdiget are some 175 km apart but are contemporary and constructed according to the same strategic principles. If one accepts that in defensive constructions the palisade was turned towards the enemy, Olgerdiget must be orientated north. Even with Iron-Age wagons it would have been very difficult to pass Olgerdiget: the openings in the construction at Ligård are simply too narrow, implying a military rather than economic purpose.

If the context is expanded more information can be gathered. The settlement of Johannesminde (excavated 1999–2000: Ethelberg 2003, 185f), is located 800 m west of Olgerdiget and the houses date to the early Roman Iron Age. The living quarters have characteristic layouts with the posts set in modules and the walls erected on sill beams. A parallel is evident in a house from Osterrönfeld in northern Holsten excavated in the beginning of the 1980s (Jöns 1993), and an almost identical example was excavated at Vestergård near Frøslev by Lisbeth Christensen (Ethelberg 2003, 183). This led to the identification of the Osterrönfeld-type house as a distinct type which might be related to the Angles (Ethelberg 2001). This house type emerged during the first half of the 1st century AD and continued in use until the end of the 4th century; four main types can be recognised (Fig 8) (Ethelberg and Kruse 2013). Type 1, the earliest, is an E-W orientated, three-aisled long house divided into four rooms: living quarters, entrance area, byre and barn. The four pairs of roof-supporting posts of the living quarters were set in two rectangular N-S orientated modules. The entrance area had two opposed doorways and separated the living quarters from the byre. The roof-supporting posts of the byre were replaced regularly and somewhat closer, and form the basis of the stalls. The barn is located in the eastern end of the house. The barn is commonly marked by two pairs of roof-supporting posts with opposite entrances between them. With minor variations, type 1-houses have so far been identified on 10 sites all of which are located close to, or south of, Olgerdiget. On the sites of Kærgård and Ullerup such houses have been radiocarbon dated to AD 1–100. By the time that type-2 houses appear, the barn element is lost. Four pairs of roof-supporting posts are found on either side of the entrance and the two living areas are still distinct. This features on seven sites, and their distribution is similar to that of type 1 but reaches further north; no examples are known from South Slesvig. At the sites of Klosterbjerg III, Klosterbakken, Tavhave I and Kærgård, type 2-houses have been dated to AD 75–225 with the main emphasis on the 2nd century.

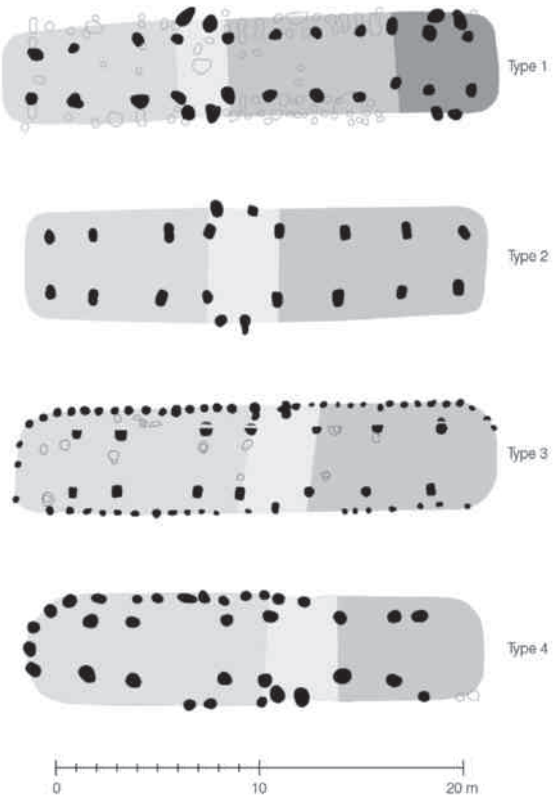

Figure 8. The typological development of the Osterrönfeld-type house from AD 1–400 according to Ethelberg and Kruse (2013). The type 2 house was excavated at the site of Johannesminde.

At Johannesminde type 1 and type 2 houses are present. Three type 1-houses are located in the eastern end of the excavated area and probably represent two farms. Towards the west there are three farms where the main buildings are type 2-houses. These three farms make up a small village. The settlement includes buildings which are contemporary with all three dates.[6] Two of the C14 dates show that activities had taken place at the site around the time when Olgerdiget was erected and maintained. The third date is statistically identical with the other radiocarbon dates from type 2-houses which support this date range.

It seems possible that Angles lived at Johannesminde around the time when Olgerdiget was erected some 800 m further east. A contemporary settlement could explain why it was necessary to have passage here: in this way, the people of the village could have sought shelter behind the defences in times of trouble. The site of Kærgård is located on the edge of the sandy heath lands some 900 m west of the Trælbanke[7] and type 1, 2 and 3-houses have been identified here. One type-1 house has been dated to AD 29–76 and a type 2 to AD 84–209.[8] The dates support the idea of contemporary Anglian settlements at Kærgård when the Trælbanke was in use and maintained.

The combined evidence implies that Angles may have erected Olgerdiget and the Trælbanke and that Olgerdiget, and the Vidå, Archsumburg and Trælbanke ring fortresses might be considered a single defensive structure running c 60 km from the Åbenrå Inlet in the east to the Wadden Sea in the west. Returning to the typology of the Anglian houses, type 3-houses differ from those of type 2 by having only three pairs of roof-supporting posts in the byre. The layout of quite a few of the type 3-houses is mirrored which means that the byre is located in the western end of the house. Generally, type 3-houses have been radiocarbon dated to AD 200–325. The type 3-houses are the most common house-type and their distribution reaches from the Schlei in the south to the Kolding Fjord in the north, and there is a clear concentration towards the Lillebælt. The distribution of the type 3-houses suggests that Olgerdiget lost its significance in the first half of the 2nd century.

Summary

It is possible that the Angles erected Olgerdiget in order to control their growing territory. In his analysis of the written sources, Neumann notes that in the accounts of the expedition of Tiberius along the Jutlandic West Coast in AD 5, the Angles are not mentioned, whereas the Jutes further north are, implying by this date that the Angles had not yet reached the Wadden Sea. Considering that Olgerdiget is built in AD 31 and we find the same house type near Olgerdiget and Trælbanke, it becomes a possibility that Angles conquered the Wadden Sea between AD 5 and 31.

At the end of the 1st century Tacitus describes the tribal situation north of the Elbe 'After them come the Reudigni, Aviones, Anglii, Varini, Eudoses, Suarines, and Nuitones…' (*Germania* 98, 40.1). It is interesting that *Anglii*, *Varini* and *Eudoses* are listed in this order. The *Anglii* are the Angles while the *Eudoses* are the Jutes. Around AD 100, when Tacitus wrote, Jutes and Angles were separated by the Over Jerstal-group which allows for assumption that the Over Jerstal-group was populated by the *varinii*. Around AD 200 at the latest, the Angles from the South and the Jutes from the North had defeated the *varinii*, and their territories were now bordering each other (Ethelberg 2003; 2011). This accords well with the fact that the *varinii* are not mentioned in written sources which are younger than Tacitus. At the time when the *varinii* had been driven out of their former territory, Olgerdiget had long ago lost its importance.

In conclusion it can now be argue Olgerdiget was erected in AD 22 to AD 31 and was refurbished or rebuilt around AD 51 and again in AD 90–91. The defence was orientated towards the north and may have been co-ordinated by the Angles. Together Olgerdiget, the ring fortresses Archsumburg and Trælbanken, and the Vidå river system mark the Anglian border until the first half of the 2nd century AD which ran across Jutland from the Åbenrå Fjord in the east to the Wadden Sea in the west, stretching c 60 km. As the Angles expanded further north and east, Olgerdiget lost its political significance. Testimony to this expansion can be found in the distribution of the Osterrönfeld-type house in the 1st to 3rd centuries AD.

If one accepts that Olgerdiget represents the northern border of Anglia in the 1st century AD, the implication is that the formation of an Anglian realm began in the period around the Birth of Christ. The Dannevirke was thus not the first border which was constructed across Jutland and as this paper has shown, there are similarities which suggest a military as well as political purpose for Olgerdiget. The main difference, however, is that Dannevirke faced the south, whereas Olgerdiget looked to the north. Dannevirke was obviously erected by a royal power, but in terms of Olgerdiget we are still far from a comparable consensus on the instigator and the purpose of this early division.

Notes

1 (KI1701: 2000±65 BP; KI1703: 2070±55 BP; KI1704: 1990±38 BP. Average KI 1701 and 1703-4: 2030±38 BP: cal. 1. STDev: 91 BC–68 BC (11%), 61 BC–23 AD (57%); cal 2 STDev: 162–130 BC (6%), 118 BC–55 AD (89%). The dates are conventional. Considering the old wood effect and the lack of sap wood it is most likely that the Trælbanke should be dated to the 1st century AD.

2 The radiocarbon analyses of Olgerdiget were carried out before the AMS method had been developed. The results of the radiocarbon analyses have been included in this article in order to illustrate on which basis Olgerdiget was dated before the dendrochronological method could be applied.

3 There is some discussion whether radiocarbon dates should be quoted with one or two standard deviations (sigma). Some argue that the dates quoted with two sigma are the more correct because of the higher probability that the date lies within this interval. Others argue that one should use the dates with one standard deviation, but that one ought to quote the date with two standard deviations as well. The radiocarbon analyses of Olgerdiget were carried out before the AMS method had been developed. The results of the radiocarbon analyses have been included in this article in order to illustrate on which basis Olgerdiget was dated before the dendrochronological method could be applied. The author is of the opinion that the highly refined sub-division of the Iron Age, especially after the Birth of Christ, makes the use of dates with two standard deviations meaningless. Unless several statistically identical dates from suitable material (such as grain) exists, the interval will often span at least three sub-periods. The Museum Sønderjylland, Arkæologi Haderslev, and the AMS-laboratory at Århus University have developed a procedure for dating houses. As a rule, three statistically identical dates are needed in order to consider a house dated. The samples must derive from the impression of the post, and in order to rule out a dead wood effect, suitable material such as grain or hazel twigs are preferred. This procedure is necessary in order to on the one hand increase the probability that the material which we date actually does derive from the particular house, and on the other hand to reduce the statistical uncertainty. A further advantage of this procedure is that the average calculations of three radiocarbon dates with one and two standard deviations respectively turn out to be very close to each other.

4 Undertaken in 2011–2012 by Museum Sønderjylland, Arkæologi Haderslev (Per Ethelberg and Lisbeth Christensen), the Wormianum (Kjeld Christensen), and the Nationalmuseet (Niels Bonde), with analysis and management of the large data set by Kjeld Christensen. The project was financed by Kulturstyrelsen and Museum Sønderjylland. Arkæologi Haderslev (Christensen 2012).

5 In his report Kjeld Christensen seriously doubts whether this sample really had sapwood preserved, as it would have had unusually many sapwood growth rings compared to the number of growth rings of the heart wood. This aspect does not change the fact that there is a maximum of dates around AD 20, but it does affect the interpretation and estimation of when Olgerdiget was erected.

6 AAR 11845: 2290±47 BP, cal. 1 StDev.: 403–356 BC (42%) and 286–234 (26%); cal. 2StDev.: 416–202 BC.

AAR 11846: 2028±28 BP, cal. 1 StDev.: 54 BC–AD 19; cal. 2StDev.: 111 BC–52 AD.

AAR 11847: 1917±35 BP, cal. 1 StDev.: 56–126 AD; cal. 2 StDev.: 3–172 AD (93%), 193–210 AD (2%).

7 Kærgård, HAM 4980, sb. 94 Emmerlev parish. Unpublished A. Hartvig.

8 K7 is a type 1-house. A calculation of the average of the 14C-dates AAR16027-29 comes to 1943±15 BP corresponding to: cal. 1 StDev.: 30–38 AD (12%) and 50–76 AD (56%); cal. 2 StDev.: 20–87 AD (91%), 105–120 AD (4%). K1 is a type 2-house. A calculation of the average of the 14C-dates AAR16024-26 comes to 1868±15 BP corresponding to: cal. 1 StDev.: 85–140 AD (54%), 157–166 AD (6%) and 196–208 AD (8%) cal. 2 StDev.: 82–214 AD.

Acknowledgements

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Anglian Settlements in South-East Jutland, 3rd–4th centuries AD

Pernille Kruse

During the last few years, Museum Sønderjylland has excavated a large number of settlement sites in south-eastern Jutland in particular. Some of these settlements are located close to the famous Nydam Mose and are contemporary with the war booty sacrifices taking place there. This paper places the settlements in their regional context and attempts to identify who might have carried out such sacrifices.

Settlement archaeology is only rarely spectacular, but if the number of excavated sites is large enough, settlement patterns may reveal significant changes in society. An example of this is the identification of the so-called Osterrönfeld-type house (Ethelberg 2011; Ethelberg this vol). This house type was recognised in 2001 as clearly distinguishable from other contemporary house types in southern Jutland and was named after the first known site, i.e. Osterrönfeld near Rendsburg in Schleswig-Holstein, Germany (Jöns 1993; Ethelberg 2001; Ethelberg and Kruse 2013). With the increase in settlement sites dating to the Roman Iron Age, it appears that the distribution of Osterrönfeld-type houses is directly related to the absence of another house type and material culture associated with a cultural group in Jutland known as the Over Jerstal group (Ethelberg 2003; 2011). The new house type and differences in burial culture as well as the construction of large defence works all suggest that the Osterrönfeld-type houses — and the people who built them and lived in them — spread northwards from the area in Schleswig-Holstein traditionally known as Angeln (Ethelberg 2011; 2012; Ethelberg this vol).

Since the Osterrönfeld-type house was recognised in 2001, the number of known houses of this type has increased significantly (Ethelberg 2001; Ethelberg and Kruse 2013). Settlements have been found along the N-S gas pipeline excavated in 2011 and 2012 and particularly along the motorway between Kliplev and Sønderborg excavated between 2008 and 2010 (Fig 1). As of May 2013, 41 such settlement sites in North Schleswig have been recognised and excavated, providing a striking contrast to the seven sites known from excavations south of the Danish/German border which may reflect different excavation policies and cultural heritage management strategies operating in these different areas (Fig 1).

The landscape around Nydam Mose

Until relatively recently, the general opinion was that sacrificial bogs in Denmark were located in border regions with a low density of population. In 1999, Jytte Ringtved, for example, suggests that the war booty sacrifices were carried out in border zones (Ringtved 1999, 374f). During the last decade, Museum Sønderjylland has excavated several contemporary settlements close to the Ejsbøl sacrificial bog near Haderslev (Jensen 2011; Kruse 2013). Like the bog of Nydam, Ejsbøl is known for the great sacrifices of military equipment which took place here during the first five centuries AD, with two large sacrifices taking place around AD 300 (Ejsbøl 2) and in the early 5th century (Ejsbøl 3) (Ørsnæs 1988; Jørgensen 2011; Jørgensen and Andersen 2014). The Ejsbøl 2-deposition is a considerable sacrifice of military equipment of an army of some 150 soldiers (Jørgensen 2011, 305; Jørgensen and Andersen 2014, 194ff). The range of equipment suggests that it was a well-equipped and mobile army which was nevertheless conquered by local troops (Jørgensen 2011, 305; Jørgensen and Andersen 2014, 210f). Ejsbøl 3 comprises equipment of officers and infantry, but it is not possible to estimate the size of this army with certainty (Jørgensen 2011, 300; Jørgensen and Andersen 2014, 216ff, 242). Of course, these figures comprise only the equipment of the soldiers who were captured or killed or whose equipment was seized; theoretically the army may have been larger than the extent of the military equipment suggests.

Our excavations have shown, however, that the area around Ejsbøl was not sparsely populated at the time when the lake was used for the sacrifices. Contemporary settlement sites include Bramdrup (Jensen 2011), Fredsted (Hartvig 2010), Louisegården (Christensen 1996), Hammelev (Andersen forthcoming) and Nørremark (Kruse 2013). Excavations at Nørremark have revealed two settlements located 4 km west of Ejsbøl. One of the settlements consists of five farms which have been radiocarbon dated to the first half of the 3rd century and the beginning of the 4th century AD (late Roman Iron Age, C3). The other settlement at Nørremark consists of three contemporary farms dating to the 5th to early 6th centuries (early Germanic Iron Age, D1–D2); there is no continuity between the two settlements (Kruse 2013).

In advance of the construction works for a motorway between Kliplev and Sønderborg, Museum Sønderjylland

1. Osterrönfeld (D)
2. Kosel West (D)
3. Füsing (D)
4. Hüsby (D)
5. Rantrum (D)
6. Joldelund (D)
7. Vestergård HAM
8. Hjøhøj HAM
9. Kærgård HAM4980
10. Johannesminde HAM 3698
11. Klosterbakken HAM 4474
12. Sportspladsen HAM3975
13. Danfoss Universe HAM 4103
14. Dohøjvej HAM 2059
15. Vårhøj HAM 3700
16. Kragemade HAM 1221
17. Tavhave I HAM 4726
18. Ravnshøjgård III HAM 4791
19. Avnbølgård II HAM 4738
20. Avnbølgård I HAM 4737
21. Trunbro I HAM 4744
22. Kobberholm HAM 4750
23. Ullerup HAM 4575
24. Søndergård III HAM 5025
25. Søndergård II HAM 4866
26. Søgård HAM 4962
27. Klosterbjerg III HAM 4753
28. Lundbæk HAM 5159
29. Søgårdsmark HAM 4759
30. Lundsgårdsmark XIII HAM 4951
31. Strandelhjørn HAM 1095
32. Galsted By HAM 1098
33. Adelvej HAM 1111
34. Lundsbæk HAM 5130
35. Dyrgård MKH 1743
36. Aggerhus HAM 5215
37. Aggerhus Syd HAM 5216
38. Bremerhus Nord HAM 5217
39. Rehdesborg HAM 4409
40. Langholtgård I MKH 1769
41. Trunbro III HAM 4746
42. Langholtgård IV MKH 1800
43. Louisegården HAM 3381
44. Hammelev HAM 3883
45. Galsted Syd HAM 1097
46. Tofting (D)
47. Dragehøj HAM 5129
48. Solvang VII HAM 5234

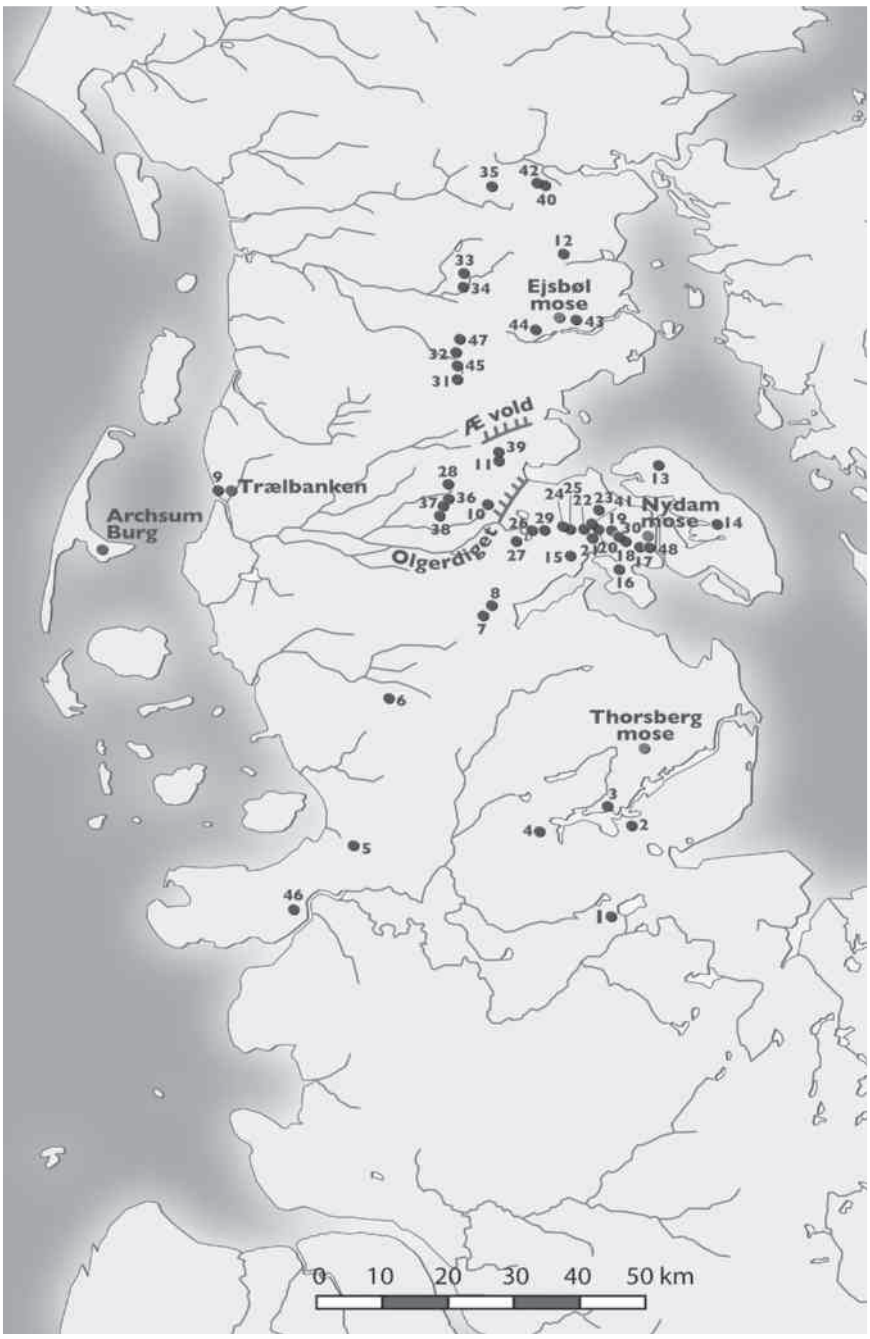

Figure 1. Distribution map of all Osterrönfeld-type houses (as of May 2013). Graphics: J. Andersen, Museum Sønderjylland – Arkæologi Haderslev.

also excavated 23 settlements dating to the Roman Iron Age, some of which are close to Nydam Mose and contemporary with the great weapon deposits. We now know that the area of Sundeved was an attractive place to live in the Iron Age (Heidemann Lutz 2012; Kruse 2012). Pollen diagrams and macrofossil analyses provide us with information about the immediate surroundings, the floral diversity, agricultural practices and what was prepared for food, etc. Pollen diagrams from the Nydam Mose also reveal the natural and cultural landscape in the immediate surroundings of the lake/bog (Kolstrup 2009). The results from Nydam are particularly interesting because they can be linked directly to the archaeological find layers in the lake/bog. According to Kolstrup, the cultivated plants represented in the pollen diagrams in the pre-find layer demonstrate human activity around the lake in the form of cultivated land and various kinds of crops such as wheat, oat, barley and possibly rye, but also flax and hop (Kolstrup 2009, 34–5). The pollen

diagrams suggest that relatively large areas may have been occupied by arable land and pastures (Kolstrup 2009, 39). Oak is also represented in the pollen diagram, and we know from the settlements that oak was preferred for building houses and other constructions. Kolstrup notes, that 'in order to have long, high quality timber, old, stable, well-tended forests are necessary' (Kolstrup 2009, 35). All in all, the general picture from the period before the depositions of military equipment took place suggests 'a stable, well balanced situation probably with a great variety of natural as well as cultivated resources […] suggesting rather intensive and prosperous human activity' (Kolstrup 2009, 36). This pre-deposition period spanned a few hundred years at the most (Kolstrup 2009, 30–1).

From the time of the deposition layers, the previously stable picture reflected in the older layers in the pollen diagrams changed character, showing a clear decrease in the pollen from cereals (Kolstrup 2009, 36–7). According to Kolstrup, the pollen diagrams suggest a change towards decreased human activity and cultivation (Kolstrup 2009, 37). It seems as if the surroundings became more open, implying 'a different and, so it seems, less intensive use of land, and it is quite possible that there was a collapse of the previous agricultural pattern' (Kolstrup 2009, 37). Kolstrup notes that these changes cannot be explained in terms of climatic changes (Kolstrup 2009, 37).

From the settlement of Tavhave I on Sundeved, plant macrofossil material was collected from all roof-supporting posts of House II (Fig 2) (Andreasen 2011; Heidemann Lutz 2012); this house belongs to Type 2 of the Osterrönfeld-house typology (Ethelberg and Kruse 2013) and has been radiocarbon dated to AD 136–216.[1] Since the house was not burnt down, the macrofossils represent what was spilled or dropped in the house over the years. Ninety-six % of the plant material comes from cultivated species, in particular camelina (77.5%) but also different types of wheat, barley and flax (Andreasen 2011, 3). It is quite clear that the plant camelina was cultivated as oilseed crop rather than flax which in this context may be regarded as a weed (Andreasen 2011, 3–5). In terms of the cereals, wheat predominates (69%), whereas barley only makes out 31% of the material (Andreasen 2011, 5). This distribution is unusual for the period and location (Andreasen 2011, 5, 10; Hardt 2003, 42–6). The majority of the material was found in the western end of the house, particularly in the westernmost roof-support posts. The very low percentage of weeds is unusual and suggests that the crops had been cleaned (elsewhere) and were ready for use. It is likely that the crops and cereals were brought into the house in small portions ready for use for cooking which probably took place near the westernmost roof-supporting posts; storage probably took place elsewhere (Andreasen 2011, 6–9; Heidemann Lutz 2012).

A quite different picture is provided by the macrofossil analyses from the settlement of Trunbro I, likewise on Sundeved (Larsen 2012; Pedersen forthcoming). As in the case of Tavhave I, the plant macrofossils were collected from all roof-supporting posts of the main house K1, but this house was burnt down. K1 belongs to Type 4 of the Osterrönfeld-house typology (Ethelberg and Kruse 2013), and it has been radiocarbon dated to AD 259–295 (34.9%), 322–349 (25.9%) and 369–378 (7.4%). The macrofossils from this structure are predominately weeds; there are many different species which typically grow on fields, and which are commonly found in samples from this period (Larsen 2012, 3). Apart from the weeds, barley and a small amount of wheat; rye and oat were found as well which are well-known from this period (Larsen 2012, 2–3; Hardt 2003, 42–6). Larsen suggests that the material represents either accumulated waste near the area where the crops were cleaned or handled or a stage in the cleaning process before the crops were ready to use (Larsen 2012, 3). In any case, the crops were handled or kept near the westernmost posts of the house. Interestingly, Signe L. Pedersen chose to collect samples, not only from the main house but also from a secondary building on the site, i.e. the fence with a hipped roof. This material is completely different from that of the main house as it consists almost entirely of flax seeds (Larsen 2012, 3). It is quite clear that large amounts of flax were handled and/or kept under the roof of the fence; the seeds were used for oil, the stems of the plant for textile production (Larsen 2012, 3). Compared to the evidence from Tavhave I, different preferences for oil plants are evident. The evidence from Trunbro I, underlines the importance of sampling not only the main houses but also the secondary buildings from settlement sites as these may — as is the case here — indicate activities and preferences which would otherwise have remained unknown.

Settlement sites in the region of Nydam Mose

Within 7 km of the Nydam Mose, nine Anglian settlement sites have been excavated with Osterrönfeld-type houses: Tavhave I, Ravnshøjgård III, Avnbølgård I, Avnbølgård II, Trunbro I, Kobberholm, Ullerup, Trunbro III and Solvang VII. In order to characterise these, three are introduced below: Kobberholm, Ravnshøjgård III and Tavhave I (Fig 3).

Kobberholm is located 6.5 km from Nydam, and can be considered as totally excavated. It consists of 13 houses as well as fences and secondary buildings (Kruse forthcoming a) (Fig 4). The analyses and interpretation of the settlement evidence have not yet been completed: the focus here is on three of the farms. In all three cases, the Osterrönfeld-type house makes out the main house on the farm. The apparently oldest farm has K8 as its main house and building K11 as a secondary building; K8 is a Type 3-house of the Osterrönfeld-house typology (Ethelberg and Kruse 2013). The western extent of the farm is marked by the characteristic fence with a hipped roof. House K8 has been C14-dated to AD 258–299

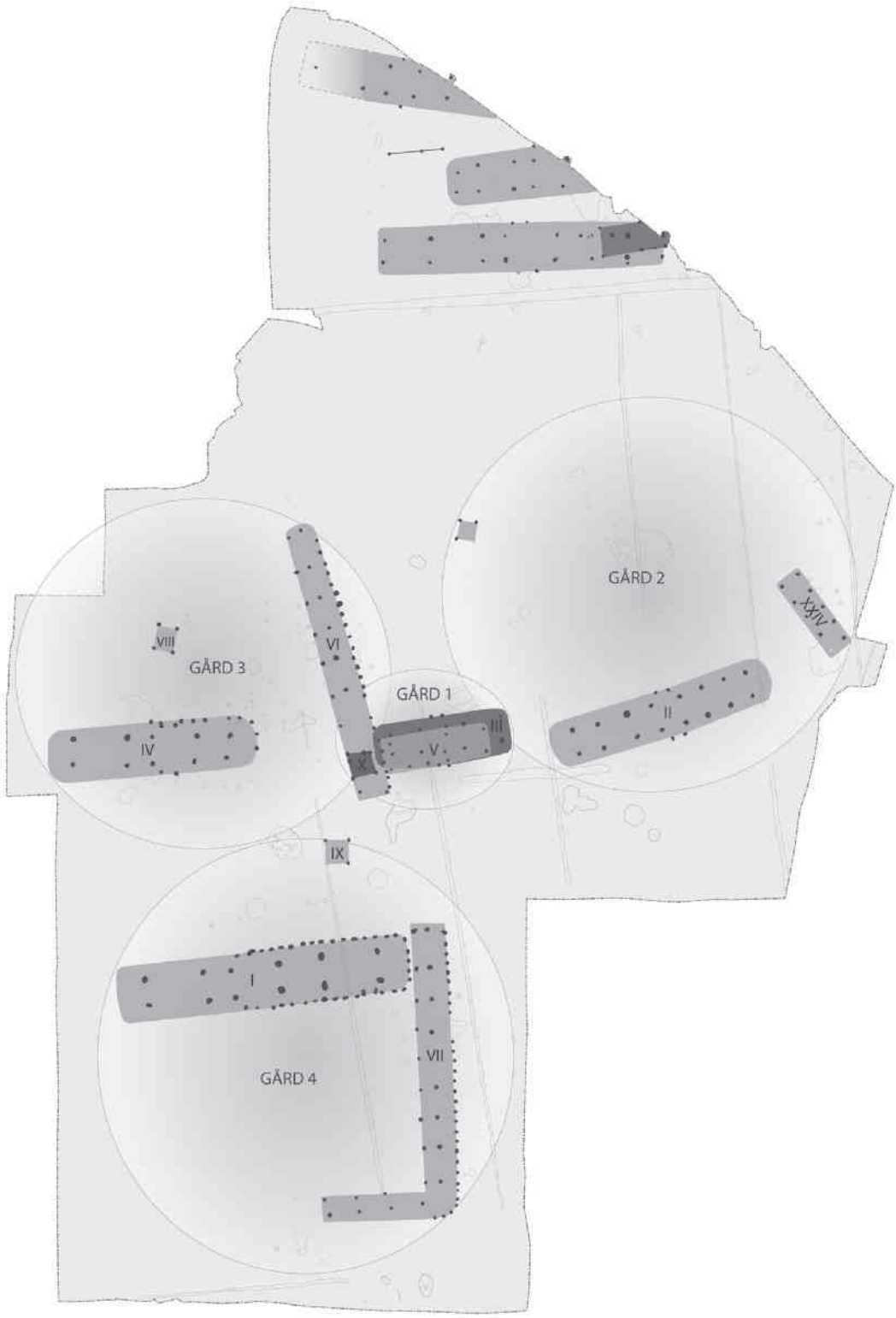

Figure 2. Excavation plan of the settlement site of Tavhave I (Heidemann Lutz 2012, fig 1).

(42.3%) and 319–345 (25.9%), and house K11 has been dated to AD 258–300 (45%) and 318–341 (23.2%). Farm 2 consists of the main building K5 and the secondary building K1. Also in this case, the western extent of the farm is marked by a fence with a hipped roof. K5 is a 'miscellaneous' type in the Osterrönfeld-house typology (Ethelberg and Kruse 2013), and house K5 has been C14-dated to AD 264–275 (10.4%) and 334–384 (57.8%); house K1 has been dated to AD 265–272 (6%) and 335–388 (62.2%). Farm 3 with K10 as its main building represents the second phase of Farm 1, and is contemporary with or a little later than Farm 2. Typologically speaking, K10 is a Type 3-house (Ethelberg and Kruse 2013), and it has been dated to AD 355–366 (13.6%) and 381–410 (54.6%). The settlement of Kobberholm thus lives through three phases, but was abandoned when the last farm burned down.

At the site of Ravnshøjgård III, located 4 km from Nydam Mose (Fig 3), 18 three-aisled longhouses as well as fences and secondary buildings dating from the early Roman to early Germanic Iron Ages have been excavated (Kruse forthcoming b; Nissen 2016). Among these houses, two are particularly relevant for this paper because they illustrate the cultural development and territorial expansion of the Angles. The two houses are placed on top of each other; one of them is a typical house of the Over Jerstal-group and the other is an Osterrönfeld-type house (a Type 3-house (Ethelberg and Kruse 2013)). On 13 sites, Vestergård, Kærgård, Klosterbakken, Sportspladsen, Danfoss Universe, Ravnshøjgård III, Strandelhjørn, Galsted By, Adelvej, Lundsbæk, Dyrgård, Rehdesborg and Langholtgård I, both types of house can be found, but this is the first time that a direct stratigraphic relationship between the two house types has been recovered and it shows that the Over Jerstal-type house is older. The interpretation of the radiocarbon dates from these two overlapping structures is not straightforward, but one may suggest a possible date of the Over Jerstal-type house of AD 128–212 and of the Osterrönfeld-type house of AD 253–329 (Ethelberg and Kruse 2013, 115; Kruse forthcoming b). House K21 from Ravnshøjgård III has not been totally excavated but could very well be another Osterrönfeld-type house.

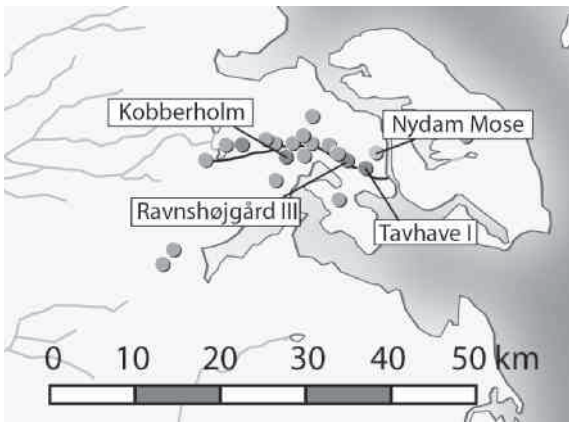

Figure 3. Map showing the location of the settlement sites discussed in the text. Graphics: N. Kossmer, Museum Sønderjylland – Arkæologi Haderslev.

The site of Tavhave I where four farms were excavated is located 3.4 km from Nydam Mose (Figs 2–3) (Heidemann Lutz 2012). The oldest farm, Farm 1, has been dated to the pre-Roman Iron Age and is not relevant in this discussion. Farm 2, from where the plant macrofossils were discussed above, has been dated to AD 136–216. There is a gap in the dates of the Farms 2 and 3 which suggests the existence of another farm (Heidemann Lutz 2012, 124–5) which may be located further north. Lene Heidemann Lutz suggests that Farm 3 was succeeded by the almost identical Farm 4 (Heidemann Lutz 2012, 125–6). The two main houses of Farm 3 and 4 are examples of Type 4-house in the typology of the Osterrönfeld-houses (Ethelberg and Kruse 2013); they have been radiocarbon dated to AD 240–260 (23.8%) and 283–324 (44.4%) and AD 336–401 (68.2%) respectively. The main house of Farm 4 burned down no later than AD 400, after which the settlement was abandoned.

The results from the pollen analyses compare moderately well with the evidence from the settlement archaeology. The stable, prosperous situation which Kolstrup describes on the basis of pollen is reflected archaeologically in a significant number of farms, implying large areas of arable land, but the indications of a less intensive use of the land evident from the beginning of the depositional phase in which military gear was deposited in Nydam Mose are not mirrored in the settlements. From Sundeved we have several examples of settlement sites dating to the deposition phase and there are no indications of a population decrease, an instable situation or less intensive use of land. The macrofossil analyses from Trunbro I in particular show a similar variety and proportion of plant remains as do other sites from this period (Larsen 2012, 3). However, the inferred expansion of the Anglian cultural group and the expulsion of the previous inhabitants of the area are likely to have been dramatic events (Ethelberg 2011). The large and repeated depositions at Nydam Mose arguably followed battles involving a substantial number of soldiers. It is to be expected that such dramatic cultural changes would mean that an intensive agricultural use of the land could not be maintained continuously over a period of time. Museum Sønderjylland has not yet had the opportunity to search for settlements closer to Nydam Mose than 3.5 km (see below). One interpretation of the pollen analyses is that the immediate area, up to 3.5 km around Nydam Mose was vacated during the phase of the large depositions which might explain indications of open and less arable lands.

An alternative interpretation of the evidence could be that the deposition layer in the pollen diagram reflects the end of the depositions. According to Kolstrup, the deposition layer is found between 2.60 m and 2.76/2.78 m corresponding to a 30 to 40 year period (Kolstrup 2009, 30–1). While it is



Figure 4. Excavation plan of the settlement site of Kobberholm. Graphics: N. Kossmer, Museum Sønderjylland – Arkæologi Haderslev.

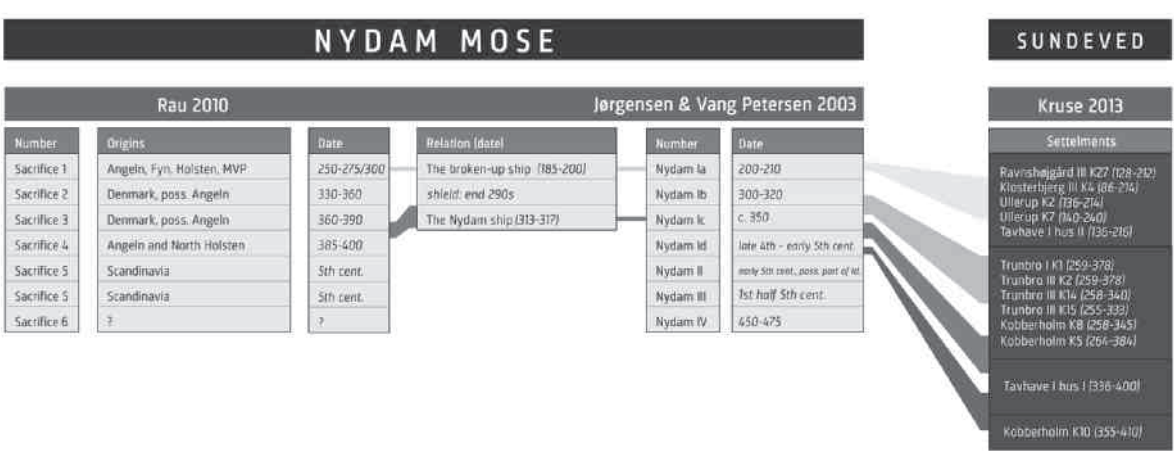

Figure 5. Table showing the number of sacrifices at the Nydam Mose, their suggested dates, the provenance of the personal belongings and the contemporary settlement sites; only radiocarbon dated settlement sites have been included in this list. Graphics: N. Kossmer, Museum Sønderjylland – Arkæologi Haderslev.

not quite clear from where exactly the two pollen diagrams derive in relation to the archaeological finds, one may speculate that this particular part of the sequence represents later depositions. Wood from the deposition layer, located 0.5–1.3 m east of pollen diagram 1, has been radiocarbon dated to AD 260–530 (68.2%) (Kolstrup 2009, 29). In this case, the agricultural collapse suggested by Kolstrup would be contemporary with the disappearance of the Osterrönfeld-houses from Sundeved. Around AD 400 the Anglian settlements in the area of Sundeved apparently disappear from the archaeological record (cf Ethelberg 2003).

Nydam Mose

In this discussion of the weapon depositions, the research of Peter Vang Petersen (1999; 2003), Andreas Rau (2010), Erik Jørgensen (1999, 2003), Lars Jørgensen (2003), Flemming Rieck (1999; 2002) and others are referred to for their theoretical, chronological and typological considerations. Nydam Mose served as a sacrificial lake in the pre-Roman and early Roman Iron Ages, in which objects such as pottery and animal bones were sacrificed. During the late Roman Iron Age the nature of the sacrifices changed into that which made Nydam famous: the considerable and frequent depositions of military equipment. The sacrifices include weapons, tools, personal belongings and even ships. Lars Jørgensen has suggested that the sacrifices should be understood as important aspects of the celebrations of a victory (Jørgensen 2003). By carrying out substantial sacrifices, the victory and the military strength could be demonstrated both for the army itself as well as for the 'normal' farming population. We should imagine the shore and slopes around the lake full of shouting, enthusiastic participants. Likewise, we may assume that everybody in the area knew of the outcome of the previous battle and was aware of what was to happen next.

During the period AD 200–475 at least six sacrifices of military gear were carried out (Jørgensen and Vang Petersen 2003; Rau 2010). On the whole, there appears to be an agreement regarding the relative chronology of the sacrifices in the lake/bog. Due to the excavation history of Nydam Mose (Lund Hansen 2003; Rau 2010) and due to the highly complex nature of the deposit — objects lying on top of each other, having floated from their original place and having been pressed down through older layers — it remains a possibility that future research or additional excavations could lead to new results and interpretations of the events taking place at the Nydam Mose.

In his recent study, Andreas Rau has re-termed (most of) the depositions and reconsidered the dates of the sacrifices (Rau 2010).[2] The table in Fig 5 sums up the relative chronology of the depositions and points out the discrepancies in terms of date and association. In addition, the Osterrönfeld-type houses excavated in the area of Sundeved and from which we have obtained radiocarbon dates have been included in this table. On the whole, Rau agrees with Jørgensen and Vang Petersen 2003 regarding the sequence and the association of the depositions. In this way, the oldest oak ship (the chopped up ship) is related to Nydam Ia/Rau's Opferung 1 (Jørgensen and Vang Petersen 2003, 263; Rau 2010, 34). Planks from this ship have been dated with dendrochronology showing that the tree was felled around AD 190 (Rieck 2002, 76; 2013, 115); assuming a period of use of 30 to 40 years, the implication is that the deposition may have taken place until c AD 230 (Rieck 2002, 76; 2013, 115). Jørgensen and Vang Petersen suggest a date of deposition between AD 200 and 210 (Jørgensen and Vang Petersen 2003, 263), whereas Rau suggests that the sacrifice took place in the period AD 250–275/300 (Rau 2010, 34).

The next deposition is Nydam Ib/Rau's Opferung 2. Traditionally, the pine ship has been connected with this deposition and stratigraphic observations have been interpreted to suggest that the pine ship and the great oak ship (also known as the Nydam ship) belong to two different sacrifices (Jørgensen and Vang Petersen 2003, 263); Rau indicates an association between Opferung 2 and 'a ship' without discussing in more detail which ship this might have been (Rau 2010, 37). According to Rieck, however, the association with this deposition is not certain and it is possible that the pine ship and the oak ship (the Nydam ship) were deposited at very close intervals, possibly even at the same time (Rieck pers comm). A built-in oak board from a shield has been dated dendrochronologically to AD 296 (Bonde 1999), and assuming that the shield did not have a long life-time it was probably deposited around AD 300 (Rieck 2002, 76; Jørgensen and Vang Petersen 2003, 263). While it is not certain whether the shield actually did belong to the pine ship (Rieck pers comm), the association of the shield with the second offering ought to be unproblematic.

Engelhardt's excavation notes as well as the 1992 excavations at Nydam Mose show that the pine ship and the oak ship (the Nydam ship) were deposited parallel to each other (Rieck 2002, 76; Jørgensen and Vang Petersen 2003, 259–63). Also this oak ship has been dendrochronologically dated: it was built from oak felled between AD 310–320 and, assuming a 30-year period of use, deposited no later than AD 350 (Jørgensen and Vang Petersen 2003, 263; Rieck pers comm). Jørgensen and Vang Petersen associate the Nydam ship to the third offering, i.e. Nydam Ic (Jørgensen and Vang Petersen 2003, 263). In his recent study, Rau suggests that the Nydam ship belongs to Opferung 4 or Opferung 3 (Rau 2010, 37–8, 44, 46/footnote 33).

While Jørgensen, Vang Petersen and Rau largely agree on the relative sequence of the depositions, they do not agree on the absolute chronology of the first three depositions which Rau suggests are significantly younger (Fig 5). There is, it seems, a significant discrepancy between Rau's dates and the dendrochronological dates of the two oak ships, even if the

Nydam ship was part of Opferung 3 rather than 4. Rau suggests that the ships were old, possibly inactive, when deposited rather than being parts of the war booty (Rau 2010, 43) and continues 'sollte es sich bei diesen Wasserfahrzeugen aber um einheimische Transportmittel und durch kultisch-rituelle Vorstellungen notwendige Medien der Opferung handeln, so wird die Auswahl von älteren Fahrzeugen nicht überraschen' (Rau 2010, 43). This is not supported by the state of the Nydam ship which according to Rieck does not show signs of being particularly old or worn (Rieck pers comm); recent analyses confirm that the Nydam ship had not been in use for more than 30 years when deposited (Rieck pers comm). Based on the available data, the traditional dates of the depositions are thus preferred in this article.

One chronological problem relates to the 13 Nydam brooches found within the ship field (Rau 2010, 146). According to Rieck, stratigraphic observations show that these brooches were deposited after the Nydam ship, and he relates them to Nydam Id which he dates to AD 350–375 (Rieck 2002, 80–1). Also Rau associates them with Opferung 4 (dated AD 385–400) (Rau 2010, 146), whereas Jørgensen and Vang Petersen associate them with the third deposition, taking place just before AD 350 (Nydam Ic) (Jørgensen and Vang Petersen 2003, 271). In his discussion of the personal belongings from the Nydam Mose, Rau dates the Nydam brooches to AD 355/365–405/415 (Rau 2010, 168) which seems quite late compared to the general chronology of southern Jutland (Ethelberg 1990, 29ff; Hansen 1987, fig 10).

In spite of the chronological discrepancies touched upon above, Rau's analyses (Rau 2010) remain highly valuable and important for gaining new insights into the cultural setting of the Nydam Mose. By focusing his research on the personal equipment, he is able to suggest the origins of the soldiers whose weaponry and personal belongings were deposited in the lake/bog (Rau 2010, 473ff). Generally speaking, the objects had not travelled far. The implication must be that the defeated army, whose equipment was sacrificed, came from areas relatively close to Nydam. The battles must have taken place between two groups who did not live far from each other and one may also assume that the battle field was close by.

Combining Rau's results of the analyses of the personal belongings (Rau 2010) with the traditional dates (Jørgensen and Vang Petersen 2003), leaves us with the following arguments:

1) The army, whose military gear and personal belongings were sacrificed in Nydam Ia/Opferung 1, came from Angeln, Fyn, Holstein, or Mecklenburg (although relatively few suitable objects were available from this sacrifice) (Rau 2010, 474–6). Traditionally, this deposition is supposed to have taken place between AD 200–210 (Jørgensen and Vang Petersen 2003, 263).

2) The army, whose military gear and personal belongings were sacrificed in Nydam Ib/Opferung 2, came from present-day Denmark or possibly Angeln is sacrificed (Rau 2010, 476–8). Traditionally, this deposition has been dated to AD 300–320 (Jørgensen and Vang Petersen 2003, 263).

3) The same happened shortly before AD 350 (Nydam Ic/ Opferung 3) (Jørgensen and Vang Petersen 2003, 263; Rau 2010, 476–8).

4) Finally the army, whose military gear and personal belongings were sacrificed in Nydam Id/Opferung 4 came from Angeln and northern Holstein (Rau 2010, 478–83). Traditionally, this deposition has been dated to around AD 400 (Jørgensen and Vang Petersen 2003, 264).

Summary

Within North Schleswig the sites with the supposedly youngest Anglian houses are located in Sundeved within 7 km of the Nydam Mose, an area which appears to be the heartland of the Anglian expansion into present-day Denmark. The many recent excavations present a picture of a rather densely populated area of Sundeved in the Roman Iron Age in particular. There are many settlements from this period and the choice of Nydam Mose as the scene for a demonstration of power and victory stresses the importance of the area. The intensive and stable arable cultivation with a great variety of plants and herbs shown by pollen diagrams and macrofossil analyses supports a picture of prosperity and continuity.

Rau's results regarding the provenance of the personal objects sacrificed in Nydam Mose combined with the settlement evidence indicate that the Angles carried out the first three sacrifices. So far, it appears that the youngest Anglian settlements date to the middle of the 4th century or around AD 400. Considering this together with Rau's analyses it appears that the Angles lost an important battle around this time, because it is their belongings that are deposited in the Nydam Mose in Opferung 4. It seems as if the Angles did not recover because apparently their houses disappear from the archaeological record around this time. Two illustrations of this development are provided by the settlements of Tavhave I and Kobberholm which exist in several phases before they are burnt down and apparently abandoned.

It is argued here and elsewhere (see Ethelberg this vol; Ethelberg 2011; Ethelberg and Kruse 2013) that the Anglian territorial expansion into present-day Denmark can be mapped according to the typological development of the Osterrönfeld-houses. The settlement evidence reveals not only the success and expansion of the Angles, but also their defeat. The interpretations presented in this article are preliminary results of on-going research. Future excavations as well as new results from the recently excavated sites may

refine the picture of the Anglian movements. There are, however, many more aspects which must be addressed if a comprehensive picture is to be obtained: our understanding of contemporary pottery is currently insufficient for example, as is the interpretation and dating of the cemetery sites in North and South Schleswig. Future interdisciplinary research will address these and other aspects of the cultural development of Schleswig in the 1st–6th centuries AD.

Notes

1 All radiocarbon dates discussed in the text have been analysed and calculated at the C14-Laboratory at Århus University: I am grateful to Jan Heinemeier and Marie Kanstrup for their generous assistance. At Museum Sønderjylland – Arkæologi Haderslev the standards for dealing with radiocarobon dates prescribe the availability of three statistically identical dates per structure; only then a structure may be considered securely dated. All dates have been calculated as an average date with one standard deviation.

2 In this way, Opferung 1–4 correspond to Nydam Ia–d (Rau 2010, 33–8). Nydam II, Nydam III and Opferung 5 possibly represent the one sacrifice in three different places (Rau 2010, 39–40), whereas Rau argues for an association between Nydam IV and Opferung 6, but decides to keep the term Nydam IV (Rau 2010, 39–40).

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House and Fence, Landscape and Boundaries: The Landscape AD 1–500 in Eastern Denmark

Linda Boye

Boundaries are not only defined by man-made fences but also by natural features such as watercourses and the sea. Rivers often provided boundaries for old parishes and continue to shape the borders of modern municipalities. On eastern Zealand the boundaries of municipalities are determined by rivers and wetlands. This paper discusses the way boundaries were developed in the landscape in the early first millennium AD by the communities inhabiting the land that flanked the Øresund strait. Natural borders are considered in terms of local and regional scales of enquiry, while man-made fences are examined through local case studies.

The Øresund project (Fig 1)

This paper draws on findings from the Øresund project which focused on the Øresund strait as a unifying and separating element for the Iron-Age societies inhabiting eastern Zealand and Scania. In 2000, the University of Copenhagen and the University of Lund began a collaboration with the University of Øresund, named *Cultural relations in the Øresund region during the Iron Age and the Viking period – Settlement and development of society in Scania and on Zealand 500 BC – 1050 AD*, and within this a project was developed to explore cultural contacts and the development of society in Scania and on Zealand in the Iron Age to Early Middle Ages.[1] This considered the geographical and artificial boundaries that delimited settlements and peoples in different periods in the Iron Age (published as Carlie 2008a). The project had many outcomes, but an important discovery was that differences existed between the two areas in terms of scientific traditions, museum and registration policies and cultural heritage laws. During the project, Iron-Age settlement patterns were examined along with burials, individual settlements and subsistence practice, and chronological and typological developments in terms of artefacts and structures. Perhaps unsurprisingly, the outcomes showed that the Øresund had functioned in different ways for communities over time: it was a barrier dividing these areas but also a bridge uniting Zealand and Scania (Carlie 2008a). This paper takes up the themes of separation and connectedness and explores excavated sites and material findings moving from a macro-regional to a micro- and intra-site scale.

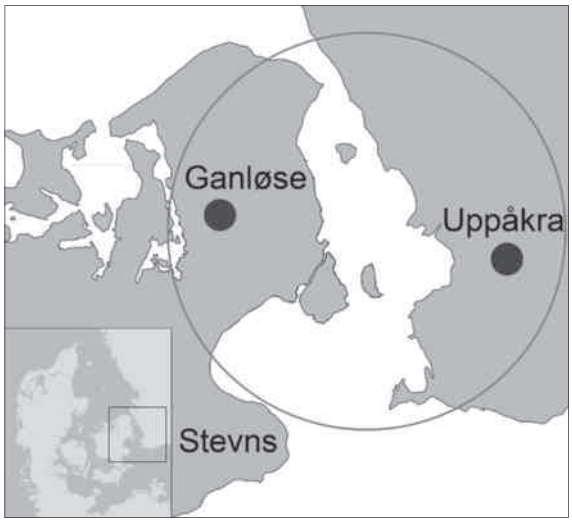


Figure 1. Eastern Denmark and Scania divided by the Øresund. The centres of Uppåkra and Ganløse are marked on the map. Illustration: A. Bönnelycke, © Kroppedal Museum.

The Øresund strait: macro-scale perspectives

At the largest scale of assessment, the archaeology of Zealand offers some interesting patterns in terms of similarities and differences in settlement, lifeways and burial. Generally, house types are very similar (Boye 1992), although disagreement exists in terms of their precise dating. Similar house styles are evident in both regions but in the Copenhagen area developments occurred at a slightly later date than in Scania. The very large houses dating from beginning of the early Roman Iron Age in Scania, for example, seem to pre-date similar types of structure in Zealand which appear from the late Roman Iron Age (Boye 2008; Carlie 2002, 541ff) (Fig 2). Settlement structures also followed quite different paths of development: on eastern Zealand they were more diverse. Settlements consisted of a main farmhouse which could be of varying dimensions, with at least one additional structure. These settlements were organised as dispersed villages, consisting of farms situated within a confined resource area which was defined by the surrounding agricultural fields and areas of uncultivated land (Boye 2008, 22; Artursson 2006; 2008, 40ff). The houses of the late Roman Iron Age

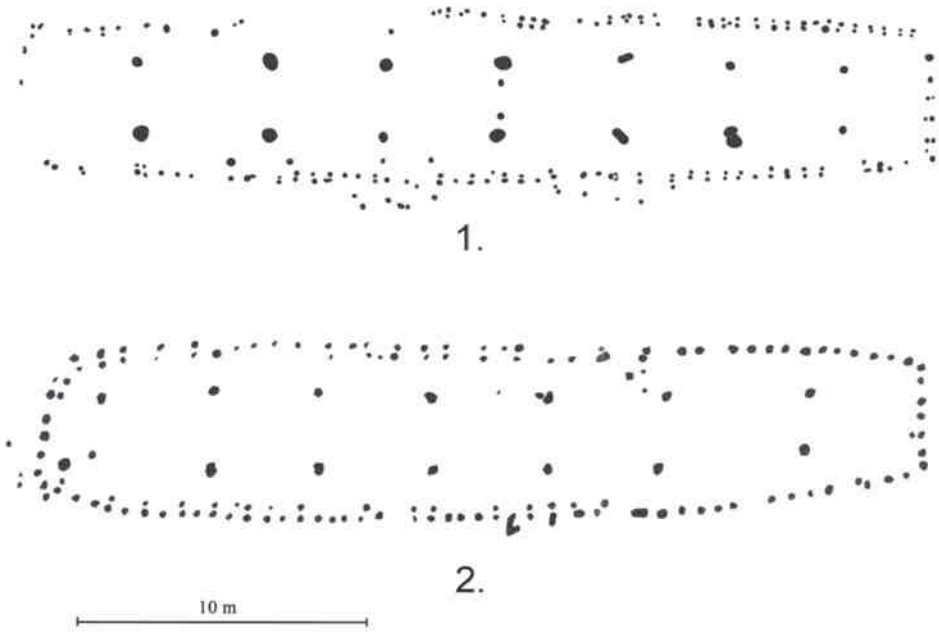


Figure 2. There are remarkable differences in the chronological dates of similar house types on each side of the Øresund. The type shown in the illustration is dated to the late Roman Iron Age on Zealand, while in Scania the same type is dated to the early Roman Iron Age. (1) Main building from Brøndsager on eastern Zealand dated to the late Roman Iron Age. (2) Farm 2 at Böljenamosse in Scania dated to the early Roman Iron Age (Carlie 2002, 543). Illustration: A. Bönnelycke, © Kroppedal Museum.

on eastern Zealand by contrast can be divided in three types: Høje-Taastrup, Ragnesminde and Stuvehøj (Boye 2011). Exact parallels are not present in Scania (Boye 2008, fig 4).One Ragnesminde house type has been uncovered, but it lacks features typical of the Ragnesminde farms on Zealand, notably a fence surrounding the premises of the house.

In terms of central places, centres of power on opposing sides of the Øresund strait may have either functioned as allies or competitors. Anne Carlie has concluded that only a few similarities existed between both areas, arguing that the Øresund did not unify but separated societies inhabiting its shorelines (Carlie 2008b, 75–6). Uppåkra is a well-known central site in Scania (Carlie 2008b, 56–80; Hårdh 2008) (see also Fig 1). It is not noticeable for rich graves or imported objects, as several locations in eastern Zealand are, but it is characterised by large structures and massive workshop areas. Anne Carlie considers Uppåkra as a centre for political power comparable to that on Stevns (Carlie 2008b, 57ff). The centre Stevns on Zealand is known for its rich graves containing objects of high status such as rings of gold and large quantities of imported Roman objects typical for the Roman elite (Carlie 2008b, 57; Lund Hansen 1987, 1995). Exact parallels to the central site of Uppåkra are unknown on Zealand, but in the vicinity of Ganløse, a comparable workshop area was located which produced pieces of worked bone, fragments of gold and silver and metal bars etc. This might provide evidence for an eastern Zealandic centre of wealth (Sørensen 1990, 80ff; Sørensen 2000, 56ff). Several important sites lie near Ganløse and the most significant is Lærkefryd which has produced metal-detected finds (Sørensen 1990, 92–3). Lærkefryd is situated in the middle of the north eastern Zealandic mainwater divide. In the wetlands that surround the site, a number of finds perhaps of sacrificial nature have been made. To the north of the Lærkefryd plateau, several bog skeletons were uncovered in the dry lake of Jørlunde and in the rivers connected to it (Sørensen 2000). In 1871 four gold bracteates were also located and recent finds include a large number of weapon fragments. This research is ongoing as part of a collaborative research project between Roskilde Museum, Kroppedal Museum and the University of Copenhagen led by curator mag. art. Palle Østergaard Sørensen of Roskilde Museum and the author. These centres seem to demonstrate similar levels of wealth and function despite being situated on either side of the strait. Yet if the imported Roman objects are taken into account, a distinct difference is evident. It can be argued that the influence of the political centre on Stevns did not reach across the Øresund, as imported objects seem to have spread no further than Zealand (Lund Hansen 1995). In spite of this, there are no clear indications that the centres of Zealand and Scania were rivals.

Burial sites do provide indications of distinct rites in each area (Rudebeck and Ödman 2000). Burial sites in Scania generally demonstrate continued use from the early to the late Roman Iron Age, which is unusual on Zealand (see

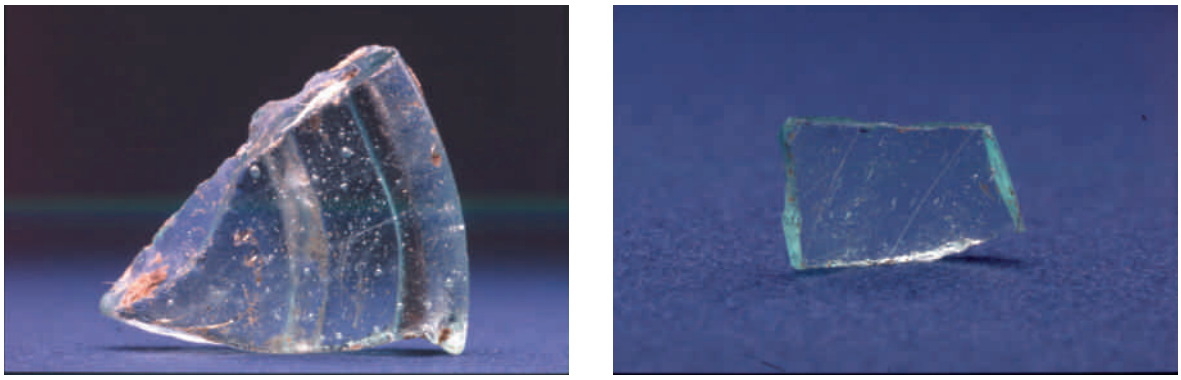


Figure 3. Charon's items might be coins, fragments of gold, glass shards, and amber beads. (a) Glass shard found in Engbjerg grave 6 and measures 2.0 × 1.5 cm. Photograph © Kroppedal Museum. (b) Glass shard from Engbjerg grave 4 and measures 1.1 × 0.8 cm. Photograph © Kroppedal Museum.

Björk 2008, 86ff). Furthermore, late Roman Iron-Age burial sites that contained imported Roman objects are lacking in Scania, while on Zealand such burial sites are relatively common. On Zealand it is also common to find evidence of the deposition of a piece of gold or shard of glass, or glass bead in the mouth of the deceased during the periods late Roman Iron Age C1b-C2 (AD 200–300) (Figs 3a and b). This custom, associated by some with the payment of Charon to cross the Styx, is extremely rare in Scania. Only a single grave near Kristineberg, dated to late Roman Iron Age C3 (AD 300–375) contained such a deposit. In regards to the custom of Charon's payment, the Øresund acts as a division. Yet if the secondary burial of graves in older burial mounds is considered, this can be seen to be a custom common to both sides of the Øresund, perhaps because it is a tradition evident across most areas of prehistoric Europe (Tegner 2008).

Differences between Zealand and Scania have been interpreted in several ways. Evidence exists to support either standpoint. Graves, settlements, houses, etc., can all be used to argue for separate traditions. It is also possible, however, to observe ties between these geographically divided societies. In order to understand the role of the Øresund more fully, it is necessary to explore activity at a variety of scales and examine activity across a wider geographically defined area.

Analysis at a regional/local scale

On eastern Zealand, in comparison to other areas of the Øresund, settlements were structured differently through time. During the pre-Roman Iron Age, small concentrated villages existed next to more dispersed farms. In the early Roman Iron Age, the dispersed village, usually placed in a natural resource area, was common. Finally, in the late Roman Iron Age, nucleated villages with fences dividing farms or enclosing complete villages became the norm. In addition, the tradition of dispersed settlements located in a resource area continued (Boye 2008, 22ff). During the late Roman Iron Age, fences were usually linked to specific kinds of settlement and special house types. This might indicate that fences had a distinctive meaning that related to the houses and buildings they were connected to (Fig 4). Fences enclosing entire villages were rare, however, alongside coherent fenced areas that clearly demarcated farm units. In the first half of the first millennium AD settlement patterns were also continuously determined by natural boundaries. Rivers and sea were used to provide an edge or demarcation to settlement zones. Soil conditions and proximity to water, woodland and clay were also driving factors in settlement placement. A case study serves to exemplify how the natural landscape and fencing became central to people's lived experience in the late Roman Iron Age in eastern Zealand and in Scania, showing the development of localised traditions of farming and settlement.

The Ishøj complex: the landscape as boundary for the settlements (Fig 5)

An example of a single farm, rebuilt several times within a confined resource area, was uncovered near Ishøj west of Copenhagen (Ishøjgaard, TAK 1284 and Pilemark TAK 1042, Kroppedal Museum) (Boye 2006, 110). The area is confined by natural borders: to the north is Baldersbækken and to the south is Lille Vejleå, on the east a bog defines the boundary of the settled area. Excavations revealed an area with small elevations on which the settlement evidence was located. No finds were recovered from the lower areas. The earliest traces date to the early Roman Iron Age and seem to consist of two farms, one of which had a fence close to the farm. These farms continued in the following centuries: two Ragnesminde-type farms of the 3rd/4th and 4th/5th centuries AD respectively (Mahler 1985; Boye and Fonnesbech-Sandberg 1999). Both of these also had fences surrounding the premises of the house. This pattern is later echoed in the rebuild of the farms to the east in the 6th–8th centuries AD.

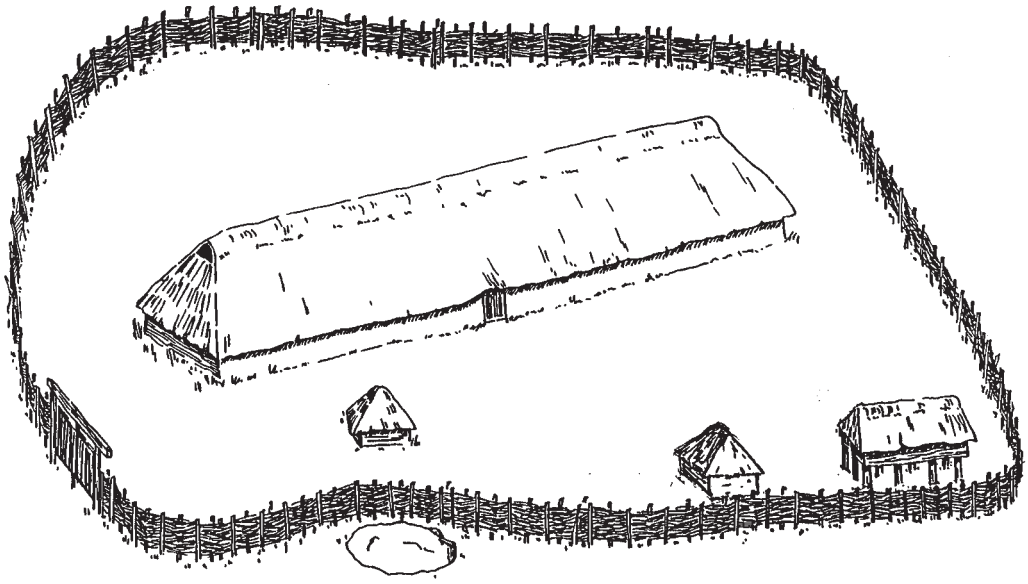


Figure 4. The Ragnesminde type is the only house type in which the main building always was surrounded by a fence. Drawing © Kroppedal Museum.

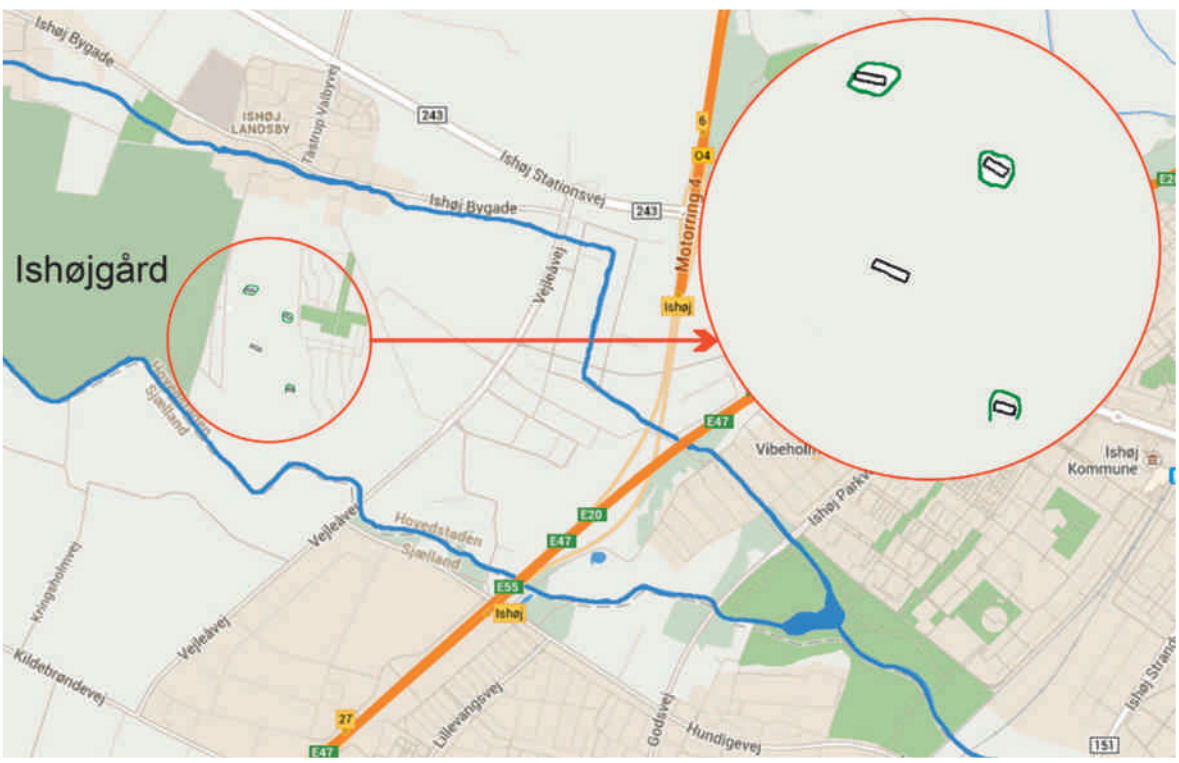


Figure 5. Settlement pattern within a resource area in Ishøj. The area contains only a few contemporary Roman Iron-Age farms. A similar situation can be recognised in several areas in the vicinity of Copenhagen. Drawing: A. Bönnelycke, © Kroppedal Museum.

The Hvissinge settlement: man-made fences as boundaries (Fig 6)

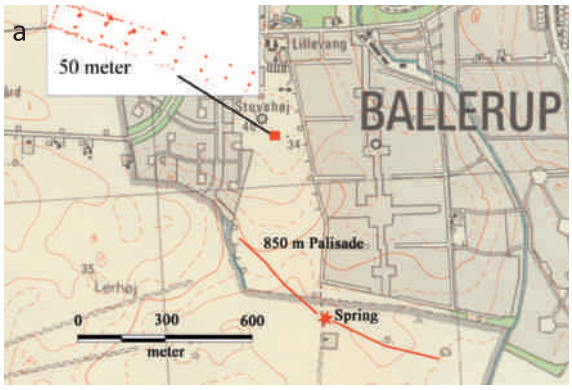
A village with fences, dated to the end of the late Roman Iron Age and to the Germanic Iron Age, was uncovered at Hvissinge, Glostrup (Boye 2006, 64ff). The Hvissinge settlement consisted of at least 11 contemporary farms dated from the 4th to the 8th centuries AD. Each farm consisted of a main building measuring, on average, 20 m in length. The western part of each main building was the residential area, while stables were located in the east. Additionally, there were workshops within the enclosing fences. Supplementary buildings used for storage and fodder were also frequent. Each farm was enclosed by a fence and had its own well, located within the enclosure. Furthermore, there was uncultivated land separating each farm. The Hvissinge village is different from other contemporary settlements due to its distinctive village character in which individual farms were located in such a manner that they did not share fences although they were located at a short distance indicating that they formed a community. Thirty wells were excavated and many contained organic materials. Eight of the wells contained wooden ladders and examination of macrofossils has shown that some of the wells were used for retting hemp and flax.

Stuvehøj: a peculiar boundary in the landscape (Figs 7a and b)

At Stuvehøj an Iron-Age settlement was revealed by E. Fonnesbech-Sandberg in 1989, which consisted of 69 houses, dating to 50 BC to AD 700 (Boye 2006, 143ff). Several of the settlement phases can be dated to the late Roman Iron Age including four contemporary farms located just to the south of the great Stuvehøj burial mound (currently unexcavated). One of the farms had a large main building some 50 m in length. It was constructed of timber and its construction and form suggest it was built at some point between the 3rd to 5th centuries. This large building seems to have been connected to a palisade construction, measuring more than 900 m in length. This was excavated in 2012–2013 under direction of L. Sparrevohn and remains unpublished, but to summarise it appears to have been constructed from closely spaced posts, with only a 20 cm gap between each individual post. The fence ends in a bog which forms a natural continuation of this human-made boundary. The palisade was erected and functioned during only a single settlement phase and there are no indications of replacement posts. This may have been a social marker but it seems more likely to have had a fairly short-term defensive function.



Figure 6. Part of the Iron-Age village at Hvissinge. Each farm had two to four construction phases and the main buildings were rebuilt several times at exactly the same locations. This gives us the opportunity to examine typological developments in the layout of houses for several generations. The illustrated phase has been dated to the late Roman Iron Age. Drawing: J. Poulsen, © Kroppedal Museum.



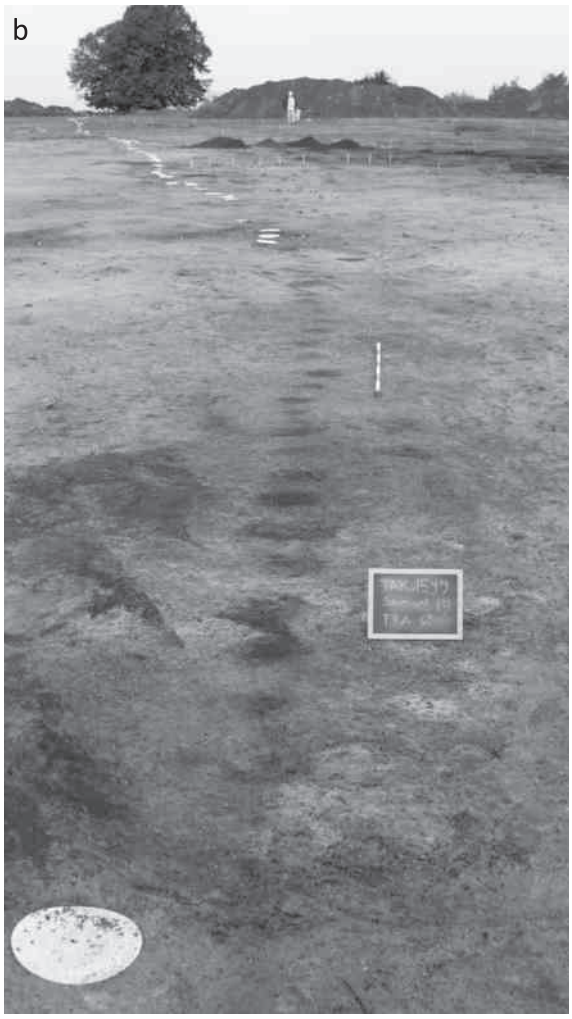


Figure 7. (a) The Stuvehøj area with the large farm, located on top of the hill, and the palisade. The palisade can be interpreted in at least two different ways: it can be seen as a social marker, but also as an actual boundary determining the catchment area of the farm. Drawing: J. Poulsen after L. Sparrevohn; (b) Excavation of the Stuvehøj area. Photograph © Kroppedal Museum.

Summary

Along the Øresund straits, people shared traditions and ideas in terms of burial rites and settlement forms, but this geographic boundary could also create a striking cultural separation when it came to the influence of imports at central places and in graves. However, all communities drew on the natural landscape and topography of this area to demarcate cultural zones and facilitate contact — the natural landscape was exploited in terms of defining human activity at a variety of scales: territorial and regional, and at a local level to separate settlements and even demarcate homesteads. At a closer scale of analysis, the case studies underline how natural land features and created artificial boundaries were used together by late Roman Iron Age communities to demarcate space. Such traditions varied across the Øresund and changed over the *longue durée*.

Water separated societies and formed a natural boundary between regions but these regions had characteristics and several general distinct variations in terms of access to and use of imports. At a local level, sea and rivers formed natural boundaries of the catchment areas of Iron-Age farms which, as shown by the Ishøj example, even in fertile soil regions consisted of considerable areas of land. Within settlements, timber fences were used to mark different features. They had a practical function marking a boundary, but also a social function as a signal of status, or in the last case, as a form of protection rather than as a social marker. At the local level, these settlement and fencing traditions varied from site to site and across the Øresund. These communities, it seems, bought into a varied multi-scalar sense of identity. At the broadest level the settlement and farming traditions were different, yet both sides had central place sites and landscapes, implying a similarity in terms of cultic centres and traditions. Yet, at central places, and in burials, it is clear that only in Zealand were Roman imports deposited in sacrificial rites and in graves which might intimate only these areas had access to, and were in receipt of, such material. At the closest scale, that of the settlement and farmstead, these communities shared traditions of using the natural landscape to demarcate their settlements and territories, but the way they set out farms and fenced areas, and shared or used cultivated land, demonstrates striking local variations.

Translated by Freerk Oldenburger.

Notes

1 The project (*Øresund – Barrier or Bridge? 2002–6*) was supervised by Birgitta Hårdh (University of Lund) and by Ulla Lund Hansen (University of Copenhagen) and involved universities and local museums situated on both sides of the strait.

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Demarcations of Tofts at Østergård, Jutland, Denmark — Farms and Inheritance

Anne Birgitte Sørensen

Introduction

At the Sachsensymposion 2006 in Münster, I presented the interim results of my research of the settlement patterns dated to the late Viking and the early medieval periods (i.e. 10th–13th centuries) at the site of Østergård (Sørensen 2007). As a result of the continued analyses of the settlement evidence, the conclusions presented in 2006 have to some extent been revised. Thus the settlement phases and farm names are altered. The settlement is located in central southern Jutland between Haderslev and Ribe (Fig 1). In this paper some of the final results of the analyses of the settlement patterns are briefly presented (Sørensen 2011). Based on specific examples of Iron-Age and Viking-period settlements from southern Jutland, it will also be considered whether the development visible at Østergård is based on a customary practice reaching back into the Iron Age and Viking periods, or whether the development should rather be understood in connection with the introduction of Christianity. Initially, however, the fences of Østergård are briefly discussed.

From the beginning of the Iron Age until well into the medieval period, the fences hold the key to the understanding of the development of both the settlement as such, as well as the individual farm. Initially marking a collective right of property, the fences developed over time into features that defined the individual property rights (Ethelberg 2014, 247).

Fences define the size of the farms and which buildings belong together, and often also provide evidence for the sequence in which they were erected; the larger the farms, the more important the fences. During the early medieval period in Denmark, the farms reached hitherto unknown/unprecedented dimensions. One of the largest farms we know from this period was excavated at Østergård and covered more than 6 ha (Fig 1). On such large tofts there may be



Figure 1. The site of Østergård is located in central southern Jutland between Haderslev and Ribe. It is not until phase 3/farm 3 that the medieval settlement is surrounded by fences, marking an area of 6.15 ha. Farm 3 is thus one of the largest farms known from this period in Denmark. Farm 3 is divided into two farms by a N-S fence, which cuts through the main building. The buildings belonging to farm 3 are highlighted with different shades of grey: light-grey = Farm 3 later phase; medium-grey = Farm 3 earlier phase; and dark-grey = Farm 3 both phases. In the background the outlines of the features belonging to the other farms / settlement phases are faintly marked. After Sørensen 2011, appendix 4.

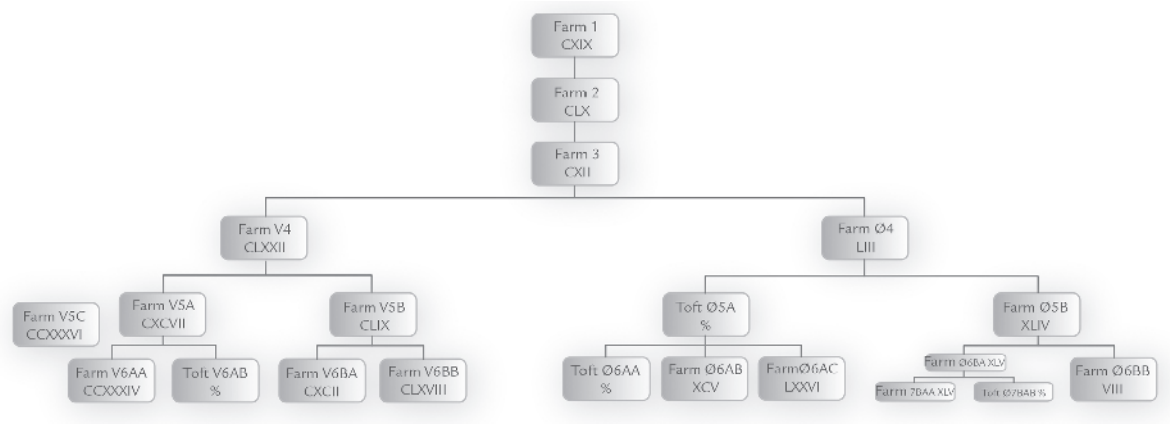

Figure 2. Schematic diagram showing the development of the settlement over time, from a large single farm at the end of the 10th century (phase 1), to seven farms and three vacant tofts towards the end of the 12th century (phase 7). After Sørensen 2011, fig 10.9.

several hundred metres between the houses. Without traces of the fences it would be extremely difficult to determine which houses belong to the same farm.

Østergård was founded towards the end of the 10th century as a large single farm (farm 1). For a thorough discussion of the dates, the chronological framework and related problems, please refer to Sørensen 2011, 226ff. In phases 2 and 3 it was succeeded by single farms of approximately the same size. It is not until phase 3 that the farm was surrounded by fences, marking an area of 6.15 ha (Fig 1). Towards the end of the 11th century or at the beginning of the 12th, farm 3 was separated into two farms (phase 4). During the following periods, the farms were divided rapidly and the number of farms grew from phase to phase. In phase 5 covering the first half of the 12th century to the second half, or end, of the 12th century, the settlement consisted of three farms and a vacant toft. According to the usual definitions used by Danish archaeologists, the settlement of Østergård was now a village. British archaeologists, however, would define it as a hamlet. In phase 6 towards the end of the 12th century, Østergård consisted of seven farms and two vacant tofts. Before the village was moved to Hyrup (about 1200), another division took place but this time only in respect to one farm (phase 7). In this last phase (phase 7), the settlement still included seven farms, but the number of vacant tofts increased to three (Figs 2 and 5). Throughout this sequence of development, the settlement covered the same area except in phase 5 where a new farm was erected at the western fence of the village. By the final phase, the area that during the phases 1–3 had functioned as a large single farm, had been split up into 10 tofts (Fig 5) (Sørensen 2011, 289ff; 2013, 218f).

New perspectives on divisions and fences at Østergård

The settlement plan reveals two distinct and interesting aspects (Figs 1 and 5). Two of the large main buildings were divided by younger N-S orientated fences and these N-S orientated fences appear almost systematically to divide the settlement into halves and thirds. These two observations led to the idea that the development and division of the settlement should be seen as a result of division of inheritance (Sørensen 2011, 289f).

In one of the Danish land laws, *Jyske Lov* or 'Jutish Law' set down in written form in AD 1241 with the assent of King Valdemar Sejr, laws of inheritance are described which most likely prevailed at the time when the settlement at Østergård existed. In chapters 4 and 5 it says, '... the inheritance is divided between them as if they all were brothers and sisters. A woman takes one third and a man two shares' (*Jyske Lov* I, Bog, kap. 5 after Fenger and Jansen 1991, 244) and that the '... brother takes two shares and sister the third share both after father and mother and also after brothers and sisters' (*Jyske Lov* I. Bog, kap. 4 after Fenger and Jansen 1991, 244). In other words, if a farm was to be divided between an heir and an heiress, the heiress received one third whereas the heir received two thirds of the inheritance. Two heirs would receive one half each.

The first farm which was divided is farm 3 (Fig 3). As already mentioned, this farm amounted to 61,500 sq m and was divided into two farms: the eastern farm Ø4 and the western farm V4. Farm Ø4 covered 36,500 sq m whereas V4 covered 25,000 sq m, corresponding to 59.4% and 40.6% of the overall land encompassed by farm 3. Immediately after the division, the fences of the tofts were rearranged. After the rearrangement farm V4 comprised 27,400 sq m. This was in turn divided into two farms V5A and V5B of 13,000 sq m and 14,100 sq m in size respectively, corresponding to 48.5% and 51.5%. Farm V5C (Fig 2) represents a newcomer and has no implication for the division of the land for the purpose of inheritance. Farm V5C only existed in a single phase before being given up. Farm Ø4 comprised 41,600 sq m after the rearrangement of the fences. This farm was divided into farm Ø5A and farm Ø5B of 20,850 sq m and 20,750 sq m in size

respectively, corresponding to 50.2% and 49.8%. Farm Ø5A remained a vacant toft, until the farm was divided in phase 6.

The table (Fig 3) reveals that the divisions of the farms are all within 1.5% of the expected divisional size set out in the laws of inheritance described in the *Jyske Lov*. Most of the divisions even fall within a tolerance of ± 0.8%. The only exception to the pattern is farm 3. Had this farm been divided between two men, one would expect that the division would fall into two halves (a ratio of 1:1). Had it been divided between a man and a woman, the division should reflect a ratio of 2:1. Within a tolerance of ± 0.6% it is, however, divided in the ratio of 2:3, which means that farm Ø4 is almost exactly 50% larger than farm V4. Had the farm been divided randomly one would hardly have achieved such a precise ratio. Since the ratio of 2:3 is more even than that of 1:2 it is possible that the farm was divided between two men. In the case of two heirs, an equal division in the ratio of 1:1 should have taken place, but did not. An interesting additional find, and one that might well explain the disparity, is the Østergård treasure (Fig 4) (Sørensen 2000, 165; 2005; 2011, 297). This assumption is supported by the fact that the treasure was located on farm V4, the smaller of the two farms. The treasure may represent a compensation for the smaller share of land. This explains plausibly why farm V4 is smaller than Ø4, and at the same time it makes it probable that also farm 3 was divided according to the laws of inheritance. However, another item or land may have been included in the inheritance instead of the treasure.

In summary, farms 3, V4, Ø4, V5B and Ø5B were all divided into halves which could suggest inheritance between two men or two women. Farm V5A and Ø6BA were divided according to the ratio of 2:1, implying an inheritance shared between a man and a woman. Finally, farm Ø5A was divided in the ratio of 2:2:1, thus between two men and one woman. On this basis it is obvious to interpret the divisions of the tofts as an expression of division of inheritance, which over time split the large single farm into still smaller tofts. This is a development which was not uncommon around this time in southern Jutland and is known from written sources (Poulsen 2003, 428f). In the Land Laws (a.o. the Jutish Law) rules of divisions of inheritance are described (as mentioned above). It seems through the excavations at Østergård, that for the first time, we are able to demonstrate what such a division of inheritance would look like archaeologically.

The increased division into still smaller tofts probably explains why the settlement was eventually given up. Any further division into smaller tofts after phase 7 (Fig 5) would have created plots that were unworkably small with no space for the necessary buildings. In the beginning of the 13th century, at the latest, the settlement was moved to present-day Hyrup (Sørensen 2011, 298).

Over a long period of time it has been discussed whether the laws of inheritance, as they are written down in the *Jyske Lov*, express a common practice which goes back to the Iron Age, or whether they express new guidelines (a.o. Gelting 2005). The development of Østergård reveals that inheritance in the ratio of 2:1 between heiress and heir was introduced in the beginning of the 12th century (phase 5).

Farm/toft - divisions	Size/area	% of area of former toft	
Farm 3	61.500 m²	100 %	
Farm Ø4	36.500 m²	59,4 %	
Farm V4	ca. 25.000 m²	40,6 %	
After rearrangement:			
Farm Ø4	41.600 m²	60,3 %	
Farm V4	27.400 m²	39,7 %	
Farm V4	27.400 m²	100 %	
Farm V5A	13.300 m²	48,5 %	
Farm V5B	14.100 m²	51,5 %	
Farm Ø4	41.600 m²	100 %	
Toft Ø5A	20.850 m²	50,2 %	vacant
Farm Ø5B	20.750 m²	49,8 %	
Farm V5A	13.300 m²	100 %	
Farm V6AA	8.900 m²	66,9 %	
Toft V6AB	4.400 m²	33,1 %	vacant
Farm V5B	14.100 m²	100 %	
Farm V6BA	7.200 m²	51,1 %	
Farm V6BB	6.900 m²	48,9 %	
Farm Ø5A	20.850 m²	100 %	
Toft Ø6AA	4.100 m²	19,7 %	vacant
Farm Ø6AB	8.300 m²	39,8 %	
Farm Ø6AC	8.450 m²	40,5 %	
Farm Ø5B	20.750 m²	100 %	
Farm Ø6BA	10.550 m²	50,8 %	
Farm Ø6BB	10.200 m²	49,2 %	
Farm Ø6BA	10.550 m²	100%	
Farm Ø7BAA	7.050 m²	66,8 %	
Toft Ø7BAB	3.500 m²	33,2 %	vacant

Figure 3. Table illustrating the division of the farms and toft areas. Farm 3 was the first farm which was divided. After Sørensen 2011, fig 11.10.

In order to test whether these laws of inheritance were really new in the 12th century, or if they reflect much older customs, this paper now considers older settlements and the development of tofts in the early and late Iron Age and Viking periods.

Early Roman Iron Age

In south Jutland during the centuries around the Birth of Christ, the territorial demarcations were limited to fenced-in settlements. In the beginning of the 1st century AD, one may begin to see a tendency towards a toft structure. Each farm had its own entrance in the common fence from which a short



Figure 4. The Østergård-treasure consists of two brooches: one is circular and worked in brilliant gold filigree with enamel inlays and a central large oval rock-crystal, the other brooch has a rock-crystal of the same type, but considerably larger in a mounting of beautifully interlaced silver filigree. The treasure was found at the western gable of a large hall-house — the main building belonging to the farm V4. Presumably it had been buried under the house-floor next to the gable-post by the owner of the house as a way of safe-keeping goods in turbulent times. Photograph: J. Kraglund, Tidsskriftet Skalk. After Sørensen 2000, 165; 2005; 2011.

connecting fence ran towards each main building. In this way, a small yard between the main building and the common fence was created. This yard rarely exceeded 200 sq m and was the private area of the household. It was separated from the common, central yard by the main building. Each main building also had an entrance to the common central area (Hvass 1985, fig 110a–b, 308; Ethelberg 1997, fig 2a; 2003, 199f, fig 70–71).

From the middle of the 1st century AD the common fence was abolished. Instead, each farm now had its own fence. The main building was commonly placed centrally, whereas the secondary buildings were integrated with the fence at the limits of the plot. The farms were arranged in rows so that neighbours shared a fence. The implication of this new layout was that the common area disappeared. The small yard was now more like a regular toft of which the size could vary considerably. At the site of Galsted in the central part of south Jutland, the size of the farms thus varied between approximately 600 sq m and 1400 sq m. The settlement of Galsted is a prime example of this development (Ethelberg 1997, fig 2a, 3a, 3b; 2003, 201f, fig 72–73). When changes appeared in the size of the farms, in most cases it was the result of the farm being extended, never because it had been divided. This pattern is also apparent in the development of a contemporary double-farm at Østergård (Ethelberg 2003, 210).

The late Roman to early Germanic Iron Age, 3rd–5th centuries AD

During the late Roman Iron Age the tofts generally increased in size. A good example of this development is the settlement of Hjemsted in the western part of southern Jutland (Ethelberg 1988; 2003, 250ff, fig 129). From the middle of the 3rd century a toft could comprise 1700 sq m and towards the end of the 3rd century a toft could comprise up to almost 2900 sq m. As the settlement of Hjemsted grew the degree of variation in terms of size between the farms also increased. There were thus both small and large farms. During the 4th century, however, the farms generally decreased in size comprising between 1300 and 2200 sq m. This development reflects hierarchical developments in society. At Østergård an almost contemporary settlement has been excavated: in the beginning of the 4th century AD, confirmed through recent radiocarbon dating, there were farms with tofts of 3500 sq m (Ethelberg 2003, fig 176). As was the case in the early Roman Iron Age, some farms were extended. There are possibly also farms which decreased in size, but these changes never imply an actual division of a farm. Instead, it appears that when a major rearrangement of a toft was necessary, in the case of a major rebuilding, or perhaps when it was handed down to the next generation, the farm was torn down and moved entirely.

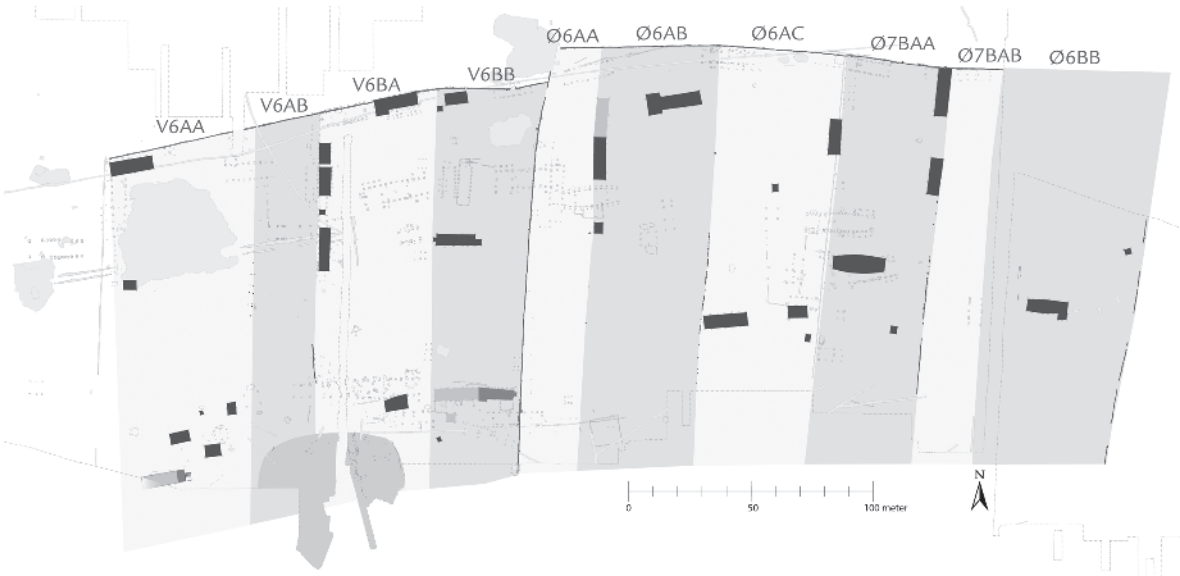

Figure 5. Plan of the settlement in the last phase (phase 7), showing seven farms and three vacant tofts. In the beginning of the 13th century, at the latest, the settlement moved to present-day Hyrup - c 1 km to the west. After Sørensen 2011, fig 11.9.

'The AD 536 event', the Fimbul winter and a decrease in settlement

From the middle of the 6th century there is a marked decrease in the number of settlements. The sparsely populated area, probably Angeln or Anglia, was described by Bede in AD 731 as *angulus desertus*. This decrease in the number of settlements is traditionally explained as a result of the emigration of Angles, Saxons and Jutes to England (Ethelberg 2003, 271f). In recent years, other explanations have been suggested such as the so-called Fimbul winter mentioned in the later Edda. Bo Gräslund has argued convincingly that it was not so much one long winter but rather a period of three years where the sun was darkened and the summers very cold (Gräslund 2007, 95ff with references). The cold summers caused failure of crops. This darkening of the sun was so severe and prolonged that it must have been caused by a powerful volcanic eruption or a meteorite crash. Morten Axboe has explained the numerous sacrifices of bracteates as attempts to appease the gods after the failure of crops resulted by the darkening of the sun — 'the AD 536 event' (Axboe 2001, 127ff).

Single farms: the development after the settlement decrease

The decrease in the number of settlements of the 6th century was succeeded by a new acquisition of land during the 6th and 7th centuries. In southern Jutland, these new settlements are generally single farms without fences (Ethelberg 2003, 330). We can assume that the fences around farms primarily belong to the villages where their main function was to regulate the farmers' rights and duties (Ethelberg 2003, 330). The settlement of Vorbasse, located near Vejle in eastern Jutland, was excavated 1974–1987 under the supervision of Steen Hvass (Hvass 1979; 1981; 1983; 1988). In the 8th century, Vorbasse consisted of seven farms arranged on either side of a common road — four to the north and three to the south (Hvass 1988, fig 33; Hvass et al. 1991, 25; Ethelberg 2003, 328, fig 193). As the plan of the settlement shows there are no indications of a division of farms according to set rules.

During the 9th century, the number of farms is reduced to six, still located on both sides of the road (Sawyer 1992, fig 6; Ethelberg 2003, 354, fig 217). At one of the farms sections for certain activities were marked by fences and buildings, but one cannot speak of a division as such as there is only one main building. There is thus no indication of an actual division of the farms. In the 11th century (Ethelberg 2003, 366, fig 230), one may identify at least five farms at Vorbasse on the basis of the fences, but judging from the buildings between the fences, it may be assumed that, there were up to eight farms. Again, there is no indication of an organised division of the farms.

Conclusion

In the Early Roman Iron Age the change from the early fenced-in villages to villages with individually fenced farms might illustrate a change in ideas of property from communal ownership of land to ideas of land owned by the family (Ethelberg 2014, 247ff).

Judging from the known settlements of southern Jutland of the Iron and Viking Ages it does not appear that the farms were divided. Commonly, one finds extensions to houses and farms, or the houses and farms were rebuilt, but there are no

indications of actual divisions. The same appears to be true for the 9th–10th centuries. For this period Vorbasse is a good example. This settlement is, like Østergård, almost completely excavated but there are no indications of divisions of farms in halves or thirds, as at Østergård. The explanation may be that the settlement of Vorbasse ceased or was moved before the new laws of inheritance were introduced. This would agree well with the fact that hall-houses with side-extensions, which are typical of the 12th-century farms at e.g. Østergård, are not present at the settlement of Vorbasse.

Recent Danish research suggests that the laws of inheritance which were written down in the *Jyske Lov* were introduced in the middle of the 12th century and were originally written down in the oldest of the Danish statute books, the so-called inheritance book from 1169–70 (Gelting 2005, 88ff; Vogt 2005, 67ff). Accordingly, these rules cannot reflect a Viking-period system of inheritance. Rather, the rules were formed by the Christian church and it was the church which had these laws written down and executed (Gelting 2005, 88ff; Vogt 2005, 196ff; Andersen 2006, 75ff, 183ff; Sørensen and Madsen 2011, 315).

It is relatively uncertain what the rules of inheritance were before the introduction of the new laws. It appears, however, that the head of family had the disposal of the estate and that the rights of inheritance of women were very limited. Whatever rules of inheritance were applied, they did not leave any traces archaeologically (Sørensen 2011, 298).

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Thresholds in the Lives of Settlements: Anglo-Saxon Placed Deposits Made at Entrances and 'Liminal Times'

Clifford M. Sofield

Introduction

Doorways and entrances were architecturally and symbolically important in southern and eastern England during the early and middle Anglo-Saxon periods (5th–9th centuries). They constitute a prominent element of the formal symmetry seen in some ground-level buildings of the 5th to 7th centuries, while the doorways of some 7th–9th-century (and later) buildings featured massive doorposts or showed signs of repair or replacement (Hamerow 2012, 41–3). In axially or orthogonally aligned 'great hall' complexes, as seen at Yeavering, Northumberland, and Cowdery's Down, Hampshire, opposing doorways may have permitted formalised or ritualised procession between buildings (Reynolds 2003, 104–6). Bede uses the aligned doors of a great hall to illustrate the beginning and end of human life, which passes as quickly as a sparrow that 'enters in at one door and quickly flies out through the other' (*Bede HE* II, 13). Strategic placement of doorways could control access to space; for example, at Cowdery's Down, structure A1's annexe lay within the fenced enclosure, but it could only be entered from *outside* the enclosure, via the building's main hall (Millett with James 1983, 194, fig 27). Enclosure entrances could be elaborate as well, as seen in the ditched trackways controlling the entrances to some of the enclosures at Catholme (Losco-Bradley and Kinsley 2002).

This paper approaches thresholds in rural settlements of the early and middle Anglo-Saxon periods in a fresh way, by viewing them through the lens of deliberately 'placed' deposits of objects and materials associated with entrances. It extends the discussion to include temporal 'thresholds' in the life histories of buildings and settlements (see Binford 1968, 21; Schiffer 1987, 13–4). Drawing on the author's doctoral research (Sofield 2012), it considers how placed deposits made at 'liminal' places and times might have marked, reinforced, or subverted spatial and temporal boundaries.

Although most of the archaeological material recovered from rural settlements in 5th–7th-century England is fragmented and dispersed throughout the fills of features, some material stands out as having been deliberately selected or assembled, unusually treated, and carefully arranged or placed in the ground (Sofield 2012, 31). These are sometimes called 'placed' deposits (e.g. Pryor et al. 1985; Guttmann and Last 2000; Proctor 2002). Such deposits are well-known from prehistoric settlements throughout Britain and north-west Europe in a variety of forms, such as head-and-hoof burials (Piggott 1962), foundation deposits (Capelle 1987; Falk 2006; Beilke-Voigt 2007), structured deposits (Richards and Thomas 1984), and special deposits (Grant 1984) (for discussion of these terms, see Beilke-Voigt 2007, 48–52; Brudenell and Cooper 2008, 15–6; Sofield 2012, 10–9; Thilderkvist 2013, 5–6). Once archaeologists might have explained away such deposits as anomalous ritual activity, to the point where their identification was viewed as an interpretation in itself (Garrow 2007, 12). In the last 20 years, however, researchers have embraced more nuanced interpretations of how placed deposits may have affected daily lives, social networks, and settlement structure, as well as reflecting worldview (Hill 1995; Brück 1999b; Gerritsen 1999).

Placed deposits in Anglo-Saxon England have only recently begun to attract detailed study. In a preliminary survey, Hamerow (2006) identified over 40 deposits of skulls or articulated human or animal remains, many of which were located in *Grubenhaus* pits or near walls or boundary features, from 16 settlements of the 5th–10th centuries. She also notes the existence of other forms of placed deposits, such as complete or semi-complete pottery vessels, rows of loomweights, and possible 'female' assemblages (Ibid., 17–9). Morris and Jervis (2011) have shown that articulated bone groups and near-complete vessels are also found in rural and urban contexts in 9th–11th-century England. They point out that not all articulated bone groups must have been deliberately placed, and advocate a biographical approach to interpreting such deposits (Ibid., 74–7).

In a recent examination of 141 rural settlements in England dating to the 5th–9th centuries, the author has identified 151 placed deposits from 61 sites (Sofield 2012). Recognizing that completeness or 'oddness' is not sufficient evidence for deliberate deposition, a deposit was identified as 'placed' if there was evidence of at least two of the following (Ibid., 30–2, 50–1):

- that the material or objects in it were deliberately selected or assembled;
- that it/they were treated exceptionally (as compared with material and objects from similar and surrounding contexts);
- that it/they were carefully positioned in their context.

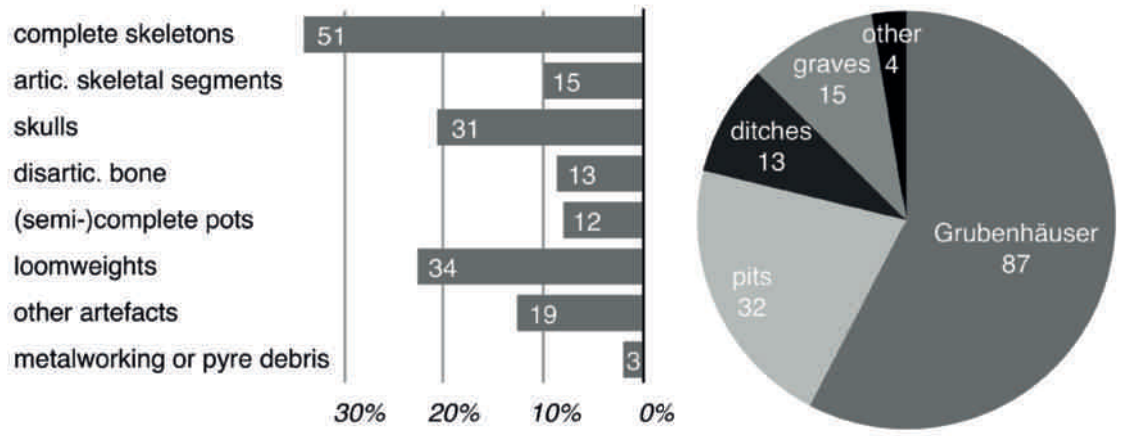

Figure 1. Left: Types of objects found in 151 Anglo-Saxon placed deposits (Sofield 2012). Totals for each object type are shown on the data bars; the horizontal axis is the percentage of placed deposits. Some placed deposits contained more than one object type. Right: The contexts of the same 151 placed deposits (Ibid.).

The deposits fulfilling these criteria consisted primarily of domestic objects and materials, including animal remains, domestic artefacts, and human burials, and they were found in a variety of settlement contexts (Fig 1). The special selection, treatment, and arrangement of that material, however, indicates a purpose beyond mere rubbish disposal. With the help of correspondence analysis, it was possible to identify patterns among object types, context types, and associated features (Sofield 2012). One important characteristic of placed deposits in Anglo-Saxon-period settlements is their tendency to be associated with spatial boundaries (Hamerow 2006; Sofield 2012). Out of 151 placed deposits, 55 (36%) were associated with building walls, fences, enclosure ditches, other ditches, or ancient earthworks. Many of these were human burials, which in some cases may have been used to legitimise ancestral claims to settlement space and associated landholdings, and in others may have helped kin-groups or communities establish a common identity (Sofield 2015b).

Placed deposits at doorways and entrances

Given the propensity for placed deposits in early and middle Anglo-Saxon-period settlements to be located at spatial boundaries, it is perhaps surprising that only six were clearly associated with entrances.[1] Three of these were located under or just outside doorways in high status structures. Grave AX at Yeavering lay just outside the east gable entrance of Building A4, one incarnation of the site's 'great hall', in the late 6th to 7th century (Hope-Taylor 1977, 67–9, fig 25; Scull 1991). It contained 'powdery traces' of a supine, flexed adult burial of unknown sex, along with a staff and an animal skull, probably that of a goat. The grave lay precisely on the hall's long axis, with the head of the grave approximately 60 cm outside the doorway. A second probable goat skull was found in post AX, just to the east of grave AX, and might be related either to the doorway or to the grave (Hope-Taylor 1977, 67). Pit 6 at Cowdery's Down was situated just outside a small entrance in the western end of structure C13, a 6th–7th-century building belonging to the 'great hall' complex at that site (Millett with James 1983, 221, figs 49, 50). The circular pit was approximately 1 m in diameter and 1.5 m deep. The lower two-thirds of the pit was filled with a layer of clay in which a probable boar maxilla was the only find. Above the clay, an articulated cow skeleton lay on a level surface of cobbles. Marks consistent with skinning were present on the skull, and some meat may have been removed from the left forelimb, but any butchery stopped short of dismemberment (Maltby 1983; Morris and Jervis 2011, 76). Finally, at Staunch Meadow, Brandon, Suffolk, a horse skull and associated bones probably from the same animal were found in a doorway leading from the 'nave' into the 'chancel' of a proposed church (Crabtree 2007, 163; Tester et al. 2014, 48, 362). The horse remains lay directly under the threshold, in a large pit that served as a foundation for the door. They appear to have been present in the door-pit while the door was in use (A Tester pers comm).

Three placed deposits were associated with enclosure entrances. One of these, the grave of an adult male (3617) at Catholme, Staffordshire, was dug into the backfill of a *Grubenhaus* (AS13) that lay within the entrance to enclosure IV (Losco-Bradley and Kinsley 2002, 40–1, fig 3.97). The other two placed deposits — human burial 3666 at Catholme and an incomplete piglet skeleton at Gosberton Third Drove, Lincolnshire — were located in ditch termini flanking entrances to enclosures (Ibid., 41, figs 3.8, 3.10; Crowson et al. 2005, 35, fig 8, pl 2). In the case of burial 3666 at

Catholme, the entrance (E12) was a causeway through a substantial ditch complex comprising the settlement's eastern boundary (Losco-Bradley and Kinsley 2002, fig 3.97). Although the grave was dug into the ditch fill, its depth implies this happened before the ditch had been completely filled in (Ibid., 41); that is, while it was still in use.

These placed deposits can be compared to similar deposits in doorways and entrances from prehistoric Britain. For example, 'symbolic' deposits were placed next to the causeways in a segmented Neolithic enclosure ditch at Etton, Cambridgeshire. These included a complete pot of unusual form lying on a birch bark 'mat' in one ditch terminus and a 'bundle' of calf ribs in another (Pryor et al. 1985, 292–3). At a late-Bronze-Age settlement at South Hornchurch, Essex, 'token' deposits of cremated bone and (in later phases) placed deposits of freshly broken pottery were located in entrance contexts, such as doorway and porch postholes of roundhouses and ditch termini flanking entrances to ringworks and droveways (Guttmann and Last 2000, 355). Placed deposits have been found at the doorways of roundhouses at other Bronze-Age and Iron-Age settlements in Britain as well (Parker Pearson 1996; Brück 1999a, 152). On the Continent, doorways were a preferred location for placed deposits from the pre-Roman Iron Age through the Migration Period (Beilke-Voigt 2007, 98, 111–3). At Feddersen Wierde, Lower Saxony, six complete dog skeletons were buried in the doorways of buildings between the 1st and 4th centuries AD, and an upright cattle skull was found in a doorpost (Haarnagel 1979, 223–30). A nearly complete decorated terra sigillata bowl was placed inside a complete, locally made cup in a doorpost of a 4th-century building at Wijster, Drenthe, after the post had been removed (van Es 1967, 177, pl 23). Dog burials were especially prominent and have frequently been interpreted apotropaically as guard dogs (Beilke-Voigt 2007, 123–4). Thäte (2007) has identified a handful of 9th- and 10th-century burials sited in or adjacent to the doorways of disused Migration-Period buildings in southern Norway, which Eriksen (2013, 196–9) views in the light of further evidence linking doorways and death in Old Norse literature and Viking-Age mortuary contexts.

Given this long-standing and widespread tradition in north-west Europe, it is probable that Anglo-Saxon placed deposits in doorways and entrances, despite their rarity, had a special significance. They may have been intended to exercise a particular agency over people using the entrance, perhaps fulfilling an apotropaic role. Many societies perceive such 'liminal' places (van Gennep 1960 [1909]) as full of ambiguity, confusion, and unrealised possibility, and therefore as vulnerable, dangerous, or potent (Turner 1969, 95; Westerdahl 2005; Kerns 2010). The excavators of the late Bronze-Age settlement at South Hornchurch have suggested that the deposition of 'token' cremation deposits and freshly broken pottery may have referenced the ambiguity of their boundary contexts, noting that there was a greater emphasis on boundaries in that period than in the early Bronze Age (Guttmann and Last 2000, 355). Brück (1999a, 154) has suggested that such deposits may have 'emphasised the significance' of crossing boundaries. Viewed more actively, such deposits may have been perceived somehow to facilitate, protect against, or otherwise mediate the crossing of spatial boundaries. They may have done both, controlling access through the doorway like a door. The horse remains at Brandon lay directly under the threshold, so that anyone crossing from the 'nave' into the 'chancel' would have had to step on or over them.[2] With the head of grave AX at Yeavering only 60 cm outside the wall line, it would have required a special effort to use that door without walking across the grave.

The situation at the west door of Building C13 at Cowdery's Down is complex. Just north of pit 6 lay a shallow posthole, possibly for a raking timber but situated less than 0.50 m in front of the doorway; another posthole was found in the centre of the doorway (Millett with James 1983, 221). With either of these posts in place, using the doorway would have been difficult. Pit 6 appears to respect the posthole, suggesting it was cut while the posthole held a timber. Perhaps the doorway was taken out of use, and the placed deposit in pit 6 was associated with the process of sealing that entrance. If the doorway remained in use, then perhaps either or both posts and the placed deposit served to constrain or adjust how people entered the doorway. The slaughter, skinning, and limited butchery of the cow placed in pit 6 may also have been part of the event (Morris and Jervis 2011, 76).

Placed deposits at temporal 'thresholds'

Many placed deposits in prehistoric to medieval north-west Europe have been stratigraphically linked to important physical changes in the lives of settlements. 'Foundation deposits' set into the postholes and wall trenches of buildings at the time of construction are well documented in prehistoric to medieval settlements throughout north-west Europe. As mentioned above, such deposits were present at South Hornchurch, Essex (Guttmann and Last 2000, 355), as well as other Bronze-Age and Iron-Age settlements in Britain (Parker Pearson 1996; Brück 1999a, 152). In northern Germany and southern Denmark, the majority of placed deposits associated with buildings from the Bronze Age to the medieval period were in postholes or wall trenches (Beilke-Voigt 2007). These have been interpreted variously as apotropaic deposits designed to protect the house and its inhabitants, propitiatory gifts to chthonic spirits, and dedicatory offerings to deities (Ibid., 121–2). Termination deposits are also frequent. 'Special' deposits of animal and human remains were placed in disused grain storage pits at Iron-Age sites in southern Britain such as Danebury, Hampshire, prior to their backfilling (Cunliffe 1992; Hill 1995). Concentrations

of finds in the left-hand foundations of late-Bronze-Age and early-Iron-Age roundhouses in southern England have been linked with ritualised abandonment practices (Webley 2007). A collection of iron tools, agricultural equipment, and lock furniture, perhaps chosen to represent diverse aspects of life in a late-Saxon estate centre, were placed in a corner posthole of a cellared structure, probably a tower, at Bishopstone, East Sussex, after its demolition (Thomas 2008).

Placed deposits such as these were made at 'thresholds' in time. Just as societies impose order on their physical environment by constructing spatial boundaries (Zerubavel 1991; Ashford et al. 2000, 474), they construct temporal boundaries to organise lifecycles and the passage of time (cf Ingold 1993). Age thresholds such as birth, adolescence, and death divide the human life into stages, while solar events delineate the agricultural cycle. Similarly, the construction and destruction of buildings or other features lend structure to the life history of a settlement. The crossing of temporal thresholds is often accompanied by rites of passage, feasts, and (as the examples above illustrate) placed deposition. Whereas few placed deposits have been found at doorways and other entrances in early and middle Anglo-Saxon settlements, placed deposits found at temporal 'thresholds' are numerous. The present discussion treats placed deposits made at two kinds of liminal times: the demolition of *Grubenhäuser*, or sunken-featured buildings (SFBs), and the final backfilling of long-lived pits.

Termination deposits in Grubenhäuser

As excavated, *Grubenhäuser* typically consist of a sub-rectangular pit, on average c 4 m x 3 m in plan, with clean sides sloping to a flat base 30–50 cm deep; and two axial postholes, midway along the two short sides of the pit, with additional postholes possible, for example, at the corners (Tipper 2004, 1). *Grubenhäuser* were probably used for a variety of purposes such as craft working and storing grain rather than as living quarters, but determining their precise function is problematic because most, if not all, of the archaeological material recovered from them postdates the use of the building (Ibid., 160–77, 185). In his detailed study of this building type, Jess Tipper (2004) has argued that the clean, straight profiles and simple stratigraphy typical of *Grubenhaus* pits indicate that they were completely backfilled — largely with material from reworked rubbish deposits — shortly after the removal or collapse of the superstructure, before erosion had time to act on the pit walls.

Although redeposited rubbish accounts for most of the material in *Grubenhaus* fills, material could also be deliberately placed in them. In fact, of the 151 placed deposits identified by the author in 5th- to 9th-century rural settlements in southern and eastern England (see above), 87 (58%) came from *Grubenhäuser* (Fig 1; Sofield 2012), even though this building type became notably less common after the 7th century. Thirty-two of the placed deposits in *Grubenhäuser* consisted of lines, stacks, piles, or clusters of ordinary clay loomweights, most of which lay on or near the base of the pit, stratigraphically linking them with the destruction of the building (Tab 1). Such loomweights have commonly been interpreted as the in situ remains of upright looms or stores of loomweights. At Grimstone End, Pakenham, Suffolk, two parallel lines of loomweights, approximately 2.5 m long and comprising 30 and 32 weights, respectively, lay about 20 cm apart (Brown et al. 1955, 198–9).[3] The length and spacing are consistent with an upright loom set up for weaving with the shed raised (Fig 2; Hoffmann 1964, 313–4). Loomweights that are very tightly stacked, 'like books on a shelf' (West 1985), are more likely to represent stores of weights than weights hanging on a loom. In the *Grubenhaus* at Upton, Northamptonshire, which was destroyed in a fire, charred wood was found in the perforations of stacked loomweights, indicating that they were stored on wooden dowels (Jackson et al. 1969, 210). Stacks of loomweights in a *Grubenhaus* at Dover, Kent, were thought to have been hanging from the ceiling (Philp 1976, 122; 2003, 24). That *Grubenhaus*, which had also burned down, contained charred timbers, one at least conceivably from a loom (Fig 3; Walton Rogers pers comm). Loomweights found in clusters or clumps on the bases of other *Grubenhäuser* could have been stored in bags.

Unlike objects from *Grubenhaus* fills, loomweights found directly on the base of the pit or on a shallow occupation layer were probably present in the building prior to its destruction. They could be the in situ remains of weighted looms or stores of weights kept or used within the structure (Tipper 2004, 165–7), but the question of why they were abandoned remains (Gibson with Murray 2003, 210). Even though clay loomweights were relatively simple items, it is hard to believe that they would have been wasted (*pace* Tipper 2004, 169). To make loomweights, clay had to be retrieved from an appropriate source, shaped, and fired or dried (Leahy 2003, 71). They might not have been worth transporting long distances, but they could have been used elsewhere within the same settlement. It is also difficult to imagine a loom being abandoned for no reason. A small number of *Grubenhäuser* were clearly destroyed by fire (Tipper 2004, 166; 2012), and an accidental blaze could have resulted in the abandonment of some or all the objects inside; but of the 32 *Grubenhäuser* in Table 1, only 10 produced any evidence of fire. In the *Grubenhaus* at Upton, only the loomweights stacked on wooden dowels exhibited signs of burning; the others were not fired 'to any great extent' (Jackson et al. 1969, 210), leading to the suggestion that these might have been deposited after the *Grubenhaus* burnt down (Gibson with Murray 2003, 210–1).[4]

As an alternative to careless or forced abandonment, it can be suggested that looms or stores of weights were deliberately abandoned in some *Grubenhäuser* either before destruction

Site	Feature	Description	Fire	Reference
Bloodmoor Hill, Carlton Colville	Structure 20	Layer of 84 unfired loomweights and clay covering a semi-complete pot, on the base of the pit		Lucy et al. 2009, 74, tab 3.17, fig 4.56
Bloodmoor Hill, Carlton Colville	Structure 21	Concentrations of unfired loomweight clay in the northern half of the pit, on the base or in the basal fill		Lucy et al. 2009, 74
Bloodmoor Hill, Carlton Colville	Structure 30	9 lightly fired and 38 unfired loomweights in the north-eastern quadrant, on the base or possibly in the lower fill		Lucy et al. 2009, 90, fig 4.56
Brandon Road, Thetford	SFB 2232	A cluster of 20 unfired loomweights, some forming rough lines, in the north-west quadrant of the pit, 'very near to its base'		Atkins and Connor 2010, 27, fig 10
Catholme	AS 20	c 25 loomweights and unfired clay in 2–3 clusters, on the base of the pit		Losco-Bradley and Kinsley 2002, 54, figs 3.32, 3.33, 3.34
Catholme	AS 63	40+ loomweights in three clusters, on the base of the pit		Losco-Bradley and Kinsley 2002, 83, fig 3.79
Chalton	'Giant *Grubenhaus*'	Cluster of loomweights on the base of the pit, 'having collapsed from a stack or pile', overlain by charred timbers and burnt daub	Yes	Champion 1977, 365
Dover	SFB	100+ 'burnt' loomweights, in stacks and lines, with charred wood, on the base of the pit	Yes	Philp 1976; 2003
Gamlingay	Building 5	Cluster of unfired loomweights close to the north-western edge of the pit, on the surface of an occupation deposit		Murray with McDonald 2005, 186, 283
Grimstone End, Pakenham	Barrow ditch	Two parallel lines of 30 and 32 loomweights, about 2.5 m long and 20 cm apart, scorched on the upper sides; probably in an unrecognised *Grubenhaus*	Yes	Brown et al. 1955, 198–199, fig 23
Hinxton Hall	SFB 1	80 burnt loomweights in rows on the base of the pit	Yes	Tipper 2004, tab 55
Mucking	GH 84	c 140 unfired loomweights in 9+ rough lines, on the base of the pit		Hamerow 1993, 17, 68, fig 76
Mucking	GH 86	Raw loomweights and semi-complete pottery on a 'slight ledge' in the north-west corner and nearby edges of an SFB pit		Hamerow 1993, 14, 140–141, fig 76
Mucking	GH 93	'Substantial quantities' of loomweights overlying semi-complete pottery in one corner of the pit, on the base		Hamerow 1993, 17, 141
Mucking	GH 105	Approximately 30 raw loomweights and at least seven complete or semi-complete pots, broken in situ, on the base of the pit		Hamerow 1993, 17
Mucking	GH 142	Large 'puddles' of raw clay and loomweights in the north half of the pit, on the base		Hamerow 1993, 15, fig 78
New Bewick	*Grubenhaus*	20–30 loomweights, two fired, scattered on the base of the pit		Gates and O'Brien 1988, 6–7
Old Erringham	SFB	c 75 loomweights, 53 (semi-)complete, in two groups at the east and west ends of the pit, some in a line, on the base		Holden 1976, 313, 315
Pitstone	Building G32	6 complete loomweights, 3 halves, and other fragments clustered in the north-east corner of the pit, on the base		Phillips 2005, 8, fig 4
Prospect Park, Harmondsworth	SFB 3030	c 31 fired loomweights, some in a ragged line, in the southern half of the pit, on the base		Farwell et al. 1999, 16, 20, pl 6; Hutcheson 1999, 43, 44
RAF Lakenheath (ERL 101)	SFB 0638	Two discrete deposits of loomweights, one atop the other, with the upper exposed to heat; stratigraphy not reported	Yes?	Tester 2006, 31
Redcastle Furze, Thetford	SFB 915	A deposit of loomweights, 1 kg fired and 2.5 kg unfired, including 8 halves and c 40 fragments, some in a vertical stack, in the north-east corner of the pit, near the base		Andrews 1995, 11, 17, 100
Sutton Courtenay	House XX	A cluster of 14+ loomweights, complete and fragments, and a complete vessel in the south-east corner of the pit, on the base		Leeds 1927, 72–75
Swindon Old Town	SFB	100+ burnt loomweights, many in a long line, with lengths of charred timber, on the base of the pit, sealed by fired daub showing impressions of the superstructure	Yes	Tipper 2004, tab 55; Webster and Cherry 1977, 214
Tolley's Pit, Cassington	*Grubenhaus*	9 loomweights 'lying against one another' close to one wall of the pit		Berisford 1973, 210, 211
Upton	SFB	60+ fired and unfired loomweights in 2–3 groups, some in lines, some in a stack threaded by a charred dowel, on the base of the pit, partly covered by a layer of charcoal and charred timbers	Yes	Jackson et al. 1969, 208, 210, fig 4
West Heslerton	011AA00005	50 loomweights and burnt planks; stratigraphy not reported	Yes	Tipper 2004, tab 55
West Stow	SFB 3	73 loomweights, some in rough lines, scorched on their upper surfaces, between layers of charred timbers on the base of the pit	Yes	West 1985, 23, 138, fig 71
West Stow	SFB 15	170 loomweights in 3 groups of stacks or lines, scorched on their upper surfaces, between layers of charred timbers on the base	Yes	West 1985, 23, 138, fig 71
West Stow	SFB 36	A collection of loomweights in the centre of the pit, c 10 cm above the base		West 1985, 33–34, fig 125
Willington	GH 1	A mass of c 40 raw loomweights on the surface of an occupation deposit		Wheeler 1979, 126, fig 49
Willington	GH 2	c 20 loomweights in 3 groups, 'piled' on the surface of an occupation deposit		Wheeler 1979, 129, fig 50

Table 1. Placed deposits of clay loomweights in *Grubenhäuser* (Sofield 2012).

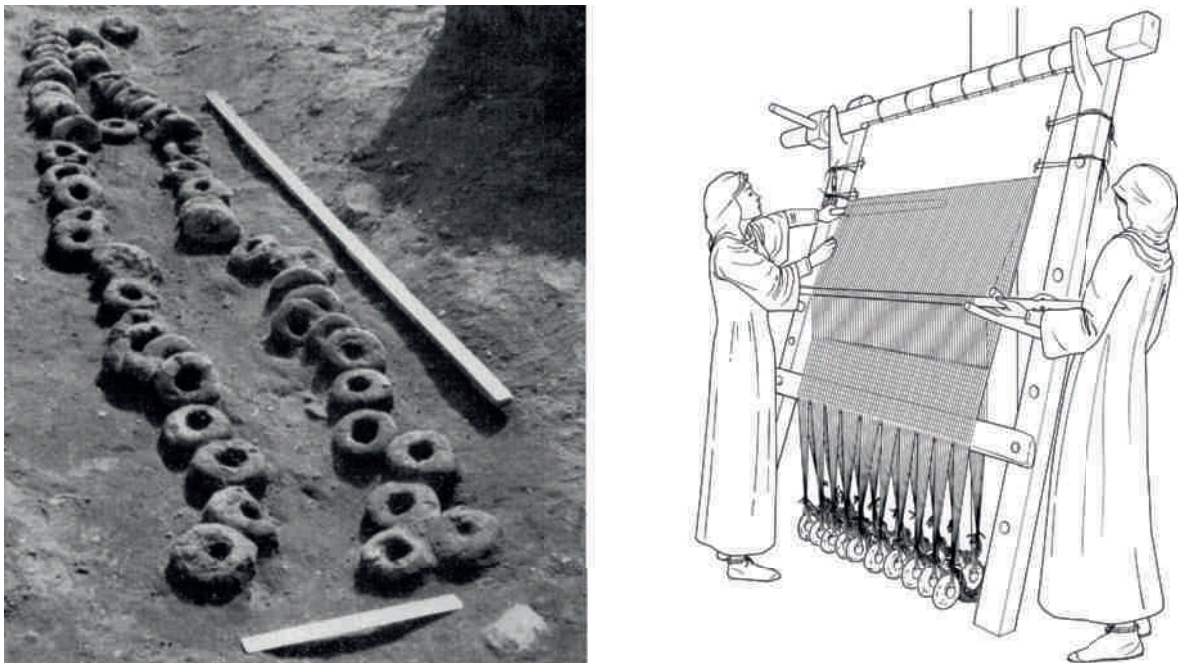

Figure 2. Left: Lines of loomweights at Grimstone End, Pakenham (Brown et al. 1955, pl 24). Photograph reproduced with the permission of the Suffolk Institute of Archaeology and History. Right: An upright loom in use (Walton Rogers 1997, fig 812). Illustrated by Simon Chew. Courtesy of The Anglo-Saxon Laboratory.

or immediately afterwards. As mentioned above, termination deposits have been identified in buildings in north-west Europe from prehistory to the medieval period. Brück (1999b) interprets portable bronze artefacts such as rings, razors, and knives found on the floors of Bronze-Age roundhouses, as at Black Patch, East Sussex, in this way. Not only did bronze have considerable social value, but the objects were often still usable; they could have easily been brought along to a new location (Ibid., 331). Pits containing substantial amounts of specially treated domestic artefacts have been found in a small number of early Iron-Age farmhouses in the Netherlands, apparently dug after demolition: some of the pits were found where roof-supporting posts should have been (Gerritsen 1999, 88–9). The complete vessels and artefacts, fire-damaged stones, charred grain, and burnt pottery they contained could be the remains of ritualised activities associated with house abandonment (Ibid., 89). A number of deposits of broken quernstones — some apparently shattered deliberately — and other domestic objects have been recovered from house destruction layers in early medieval Ireland (O'Sullivan and Nicholl 2010, 74–5). The placed deposit in the cellared structure at late-Saxon Bishopstone has already been mentioned (Thomas 2008).

In interpreting such deposits, many scholars have invoked ethnographic examples in which communities mark transitional or 'liminal' moments in the life histories of buildings, such as construction and destruction, with events that often resemble human rites of passage (e.g. Brück 1999a; Gerritsen 1999; O'Sullivan and Nicholl 2010). It is conceivable that the destruction or abandonment of some *Grubenhäuser* was accompanied by similarly ritualised activity, in which looms, loomweights, and other objects deposited or abandoned in the buildings were analogous to gravegoods in human inhumations. While it is possible that these particular *Grubenhäuser* were used for weaving or for storing weaving equipment (Tipper 2004, 168), the objects themselves might have carried additional connotations as placed deposits. Weaving is connected with prophecy and magic in a variety of early medieval and medieval contexts in northern and western Europe. The Fürstenberg series of 6th-century bracteates from northern Germany and southern Scandinavia depict a female figure, possibly a goddess, surrounded by amuletic symbols and sometimes holding what appears to be a weaving beam and a weaving swift (Enright 1990). Old Norse texts link weaving with divination, determination, and fate (Price 2002). In *Beowulf*, the 'gold glittering' (*goldfag*) tapestries adorning the walls of Heorot appear 'wondrously shifting' (*wundorsiona fela*), forcing people to stare at them (ll, 994–996). This language evokes the visual riddles of Style I and Style II metalwork, suggested by some scholars to have had apotropaic or even magical qualities due to its power to dazzle or entrap the viewer (Webster 2011, 467–8). Like goldsmithing, weaving may have been perceived as a 'technology of enchantment', producing objects capable of exerting influence over people (cf Gell 1992; 1998).

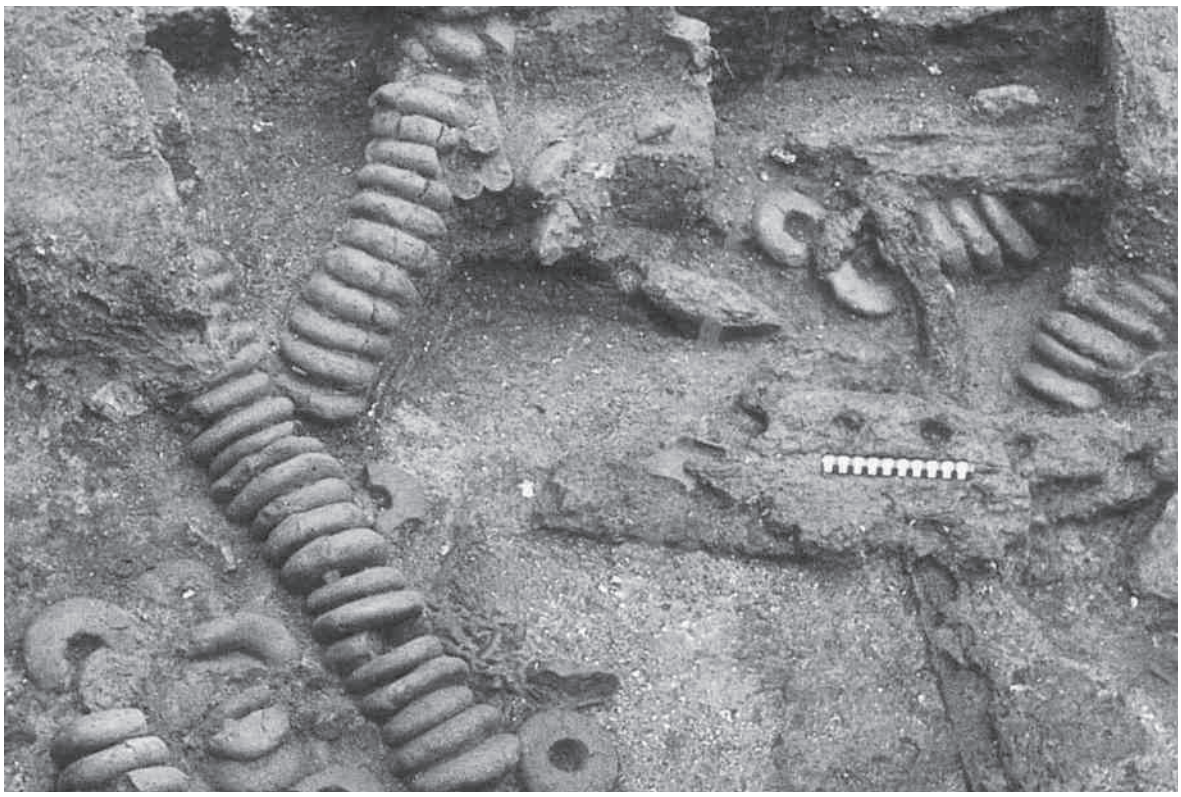

Figure 3. Lines of loomweights on the base of an SFB at Dover (Philp 2003, pl 3). Photograph reproduced with the permission of Brian Philp and the Kent Archaeological Rescue Unit.

Closure deposits in long-lived pits

The closing of long-lived pits represents another potential temporal 'threshold' in Anglo-Saxon-period settlements. Pits have received relatively little study in Anglo-Saxon settlement archaeology (Morris and Jervis 2011, 73), being relatively rare in the 5th and 6th centuries, but they became increasingly common in the middle Anglo-Saxon period (Hamerow 2012, 94). Pits phased with reasonable confidence to the 7th to 9th centuries outnumber *Grubenhäuser* at least four to one at Catholme, five to one at Yarnton, Oxfordshire, and seven to one at Bloodmoor Hill, Carlton Colville, Suffolk, all sites with at least a dozen *Grubenhäuser* (Losco-Bradley and Kinsley 2002; Hey 2004; Lucy et al. 2009). The possible mid-Saxon market site at Lake End Road near Dorney, Buckinghamshire, consisted wholly of over a hundred pits (Foreman et al. 2002; Ulmschneider 2011). Pits could be persistent features: some exhibit multiple recuts, while substantial natural silting indicates that others were kept open for an extended period of time. The final backfilling of long-lived pits could have marked a significant transition in settlement life.

Like foundation and termination deposits in buildings, placed deposits in pits have been found throughout prehistoric to medieval north-west Europe. Specially selected and arranged deposits of artefacts were a rare but consistent feature of late-Neolithic Grooved Ware pit sites in East Anglia (Garrow 2007, 14–5, 20). Pits containing burials of cattle and horses were prominent at some Iron-Age settlements in the Netherlands and north-west Germany, especially Wijster, Drenthe; Heeten, Overijssel; and Feddersen Wierde, Lower Saxony (van Es 1967, 114–7; Lauwerier et al. 1999; Haarnagel 1979, 223–30). While many of these pits were short-lived features, perhaps specially dug for the purpose of deposition, placed deposits specifically in long-lived pits have also received some attention. The placed deposits made after emptying Iron-Age grain storage pits in southern England have already been mentioned, for example, and Chapman (2000b) has specifically considered structured deposits in terms of the lifecycles of pits in Neolithic and Copper-Age settlements in the Balkans (see below).

In Anglo-Saxon settlements, eight placed deposits have been identified at the base of the final backfill of pits that show signs of recutting and/or substantial silting (Sofield 2012, 134–6, 143–6, tab 7.2).[5] Such deposits were placed immediately prior to the closure of these long-lived pits. Four of the placed deposits consisted entirely or primarily of cattle and/or horse skulls (Ibid., 135). For example, pit 195 at Hartigans, Buckinghamshire, dated to the 5th to 7th century, was recut at least once, and slumps of eroded soil testify that it remained open for protracted periods (Fig 4; Green

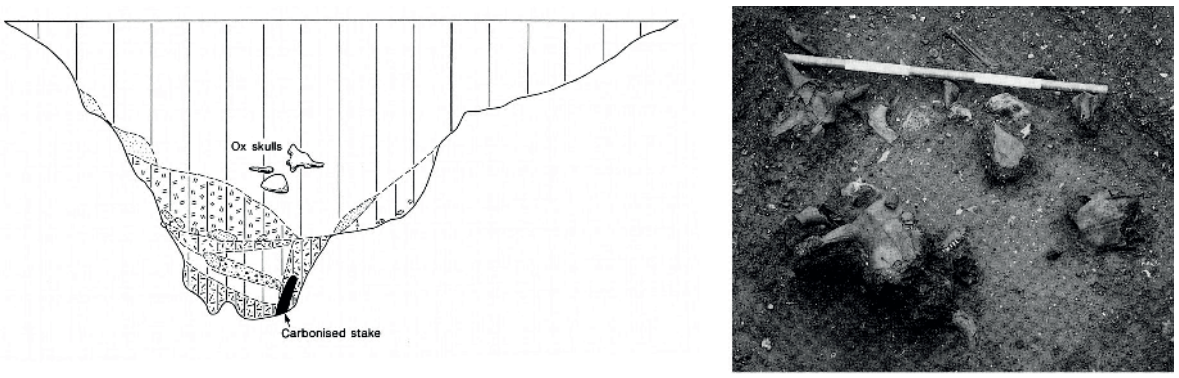

Figure 4. Ox skulls near the base of the final fill of pit 195 at Hartigans (Williams 1993, fig 81 and pl 20). Reproduced with the permission of the Buckinghamshire Archaeological Society.

1993, 188, fig 81). When the final cut was backfilled in a single event, two complete ox heads were placed near its base. At 8th-century Hartlepool, County Durham, a complete articulated horse head was placed on the base of a large post-pit (A2072) after the removal of the post (Daniels 1988, 181). Cattle and horse skulls were found together in pit F345 at Bloodmoor Hill at the interface between its two fill layers (Lucy et al. 2009, 142, 146).

Although the numbers are small, there is a clear impression that cattle and horse skulls were associated with the final backfill of long-lived pits. This impression is strengthened if placed deposits from the backfill layers of *Grubenhäuser* are taken into account. After the destruction or demolition of the superstructure, the subsequent complete and deliberate backfilling of the *Grubenhaus* pit could be regarded as the closure of a long-lived pit. Tipper (2004) has argued that while *Grubenhaus* pits were usually completely backfilled after the building's destruction, the backfill layers often contain two or three layers, representing material taken from different sources (Tipper 2004, 106–7). Thus objects can be considered to have been placed immediately prior to the closure of a *Grubenhaus* pit if they lay either at the base of the entire backfill or at the base of its top layer. Eight placed deposits found in such locations consisted primarily or entirely of cattle and/or horse skulls, e.g. Fig 5 (Sofield 2012, 131, 143–6, tab 7.2). Together, then, 12 placed deposits of cattle and/or horse skulls were made at the closure of long-lived pits or *Grubenhaus* pits (Tab 2). This represents more than half of all the placed deposits that contained cattle and/or horse skulls (Sofield 2012, appendix A).

The closure of some long-lived pits seems to have been a moment of significant transition in Anglo-Saxon-period settlements, a temporal 'threshold' in the life history of the pit, the household, or the settlement. No placed deposits of cattle or horse skulls have been found so far in pits that were clearly short-lived, and only two have been found that were definitely in the lower fills of pits that remained open afterwards (Sofield 2012, appendix A). Cunliffe (1992, 77–9) has suggested that special deposits in disused grain storage pits at Danebury, mentioned above, were made to propitiate 'chthonic deities' responsible for the seeds during the 'liminal time' between harvest and germination. Drawing on concepts of object biography (Kopytoff 1986) and his own principles of fragmentation and enchainment (Chapman 2000a), Chapman (2000b, 64) views structured deposits made during the closure, or 'death', of Neolithic and Copper-Age pits in the Balkans as the incorporation of current cultural material in exchange for ancestral material uncovered during the original excavation, or 'birth', of the pit. There is nothing to indicate that these specific interpretations applied to 5th- to 7th-century England; nevertheless, similar ideas of offering or biography could have lent a sense of significance to the closure of long-lived pits on Anglo-Saxon-period settlements.

The use of cattle and horse heads could be related to their economic and social value, but it could also be compared to their portrayal on some high status artefacts of the period, such as the horse head terminal from the Staffordshire Hoard (Leahy et al. 2011, fig 8), scenes of mounted warriors on the Sutton Hoo helmet, drinking horns, and the possible ox-head terminals on the Sutton Hoo 'standard' (Glosecki 1989, 181; Davidson 1988, 51). There is a growing appreciation that such imagery may have referred to or even evoked the characteristic ferocity, strength, and stamina of the animals in a way that recalls animistic worldviews (Glosecki 2000; Dickinson 2005; Pluskowski 2011, 770–2). We should also consider the possibility that in some cases such qualities may have been ascribed to actual animals and their physical bodies, and not only in high status contexts. This may have been the case in mortuary contexts, for example; Williams (2005) has suggested that on 5th- and 6th-century cremation pyres, the bodies and spirits of humans and animals (frequently horses; see Bond 1994, 121; 1996) could have been perceived to merge in the fire, the smoke, and the partial commingling of their cremated remains, allowing the animistic or totemic characteristics of the animal to help transform the deceased into an ancestor. The placement of horse and cattle heads

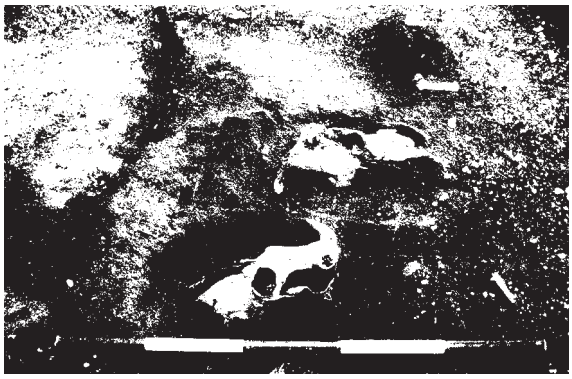

Figure 5. Cattle skulls lying on the surface of the lower fill of SFB 7395 at Cresswell Field, Yarnton (Bell 2004, pl 9.1). Photograph reproduced with the permission of Oxford Archaeology.

during the backfilling of long-lived pits and *Grubenhaus* pits may likewise have been attempts to harness those animals' perceived characteristics in order to mark, emphasise, or even facilitate the crossing of that temporal boundary.

No signs of weathering were reported for any of the cattle or horse skulls placed in long-lived pits, suggesting that they were deposited as fully fleshed heads; there is no evidence that they had been displayed like the ox skulls at Hofstaðir, Iceland (Lucas and McGovern 2007). The cattle skulls in these deposits could have been produced in ordinary butchery, but it is also possible that they came from household or community feasting events, perhaps following the (communal?) act of demolishing the *Grubenhaus*, or prior to backfilling the pit (cf Morris and Jervis 2011, 76). Even one animal would produce enough meat for such an event, and the likelihood that communal consumption was involved increases for placed deposits containing two, three, or four skulls. Feasting seems less likely in the case of horse skulls, since there is little evidence for horse butchery at the sites where placed deposits of horse skulls were found. Nevertheless, horse sacrifices are known from cremations and inhumation burials (Bond 1996; Fern 2007), and the possibility remains that the horse skulls placed in long-lived pits came from animals that were sacrificed, even if their flesh was not consumed.

Conclusion

This paper has offered some new perspectives on thresholds in early and middle Anglo-Saxon-period rural settlements by considering placed deposits made at doorways, entrances, and temporal 'thresholds'. Though few in number, placed deposits located at doorways in three late 6th- to 7th-century high status buildings — two halls at secular sites and a possible church — resonate with similar deposits identified throughout northern and western Europe from the Bronze Age to the medieval period. Together with the massive door posts evident in some structures, linear and cruciform building alignments, and 'private' fenced enclosures, placed deposits in doorways contribute to a sense that formal organisation

Site	Feature	Description	Reference
Bloodmoor Hill, Carlton Colville	Pit F345	2 cattle skulls and a horse skull within a deposit of disarticulated animal bone, at the base of the uppermost fill	Lucy et al. 2009, 146, tab 3.59
Bloodmoor Hill, Carlton Colville	Pit F366	A cow skull in the centre of the pit, near the base of the single fill	Lucy et al. 2009, 142, tab 3.56
Bloodmoor Hill, Carlton Colville	Structure 35	A discrete group of 3 cattle skulls in the north-west quadrant of the *Grubenhaus*, part of a large deposit of animal bone near the base of the uppermost fill	Lucy et al. 2009, 96, tab 3.32
Hartigans	Pit 195	2 ox skulls near the base of the latest fill	Green 1993, 188, fig 81
Hartlepool (Church Close)	Pit A2072	A horse skull on the base of the post-pit, placed after the removal of the post	Daniels 1988, 181
Pennyland	SFB 4	A cattle (or horse?) skull on the base of the *Grubenhaus* pit	Williams 1993, 59–62, 267
Sutton Courtenay	House XII	A large dorsal fragment of an ox skull, including horns, in the centre of the *Grubenhaus*, on the base of the pit	Leeds 1927, 64, fig 2
West Stow	SFB 45	A horse skull just above the base of the *Grubenhaus* pit	West 1985, 38, fig 153
West Stow	SFB 45	An ox skull at the base of the *Grubenhaus* fill's uppermost layer (possibly the fill of a compaction hollow)	West 1985, 38; Tipper 2004, fig 32
West Stow	SFB 57	2 ox skulls, part of a 'large pile of bones' (including a cat skeleton) near the centre of the *Grubenhaus*, at the base of the upper fill	West 1985, 46, 118, fig 190
West Stow	SFB 65	An ox skull in the centre of the *Grubenhaus*, near the base of the pit	West 1985, 50, fig 212
Yarnton (Cresswell Field)	SFB 7395	Parts of 4 cattle skulls within the south-west quadrant of the *Grubenhaus*, laid upright on the surface of the lower fill, at the base of the uppermost fill	Bell 2004, 183, fig 9.5, pl 9.1

Table 2. Placed deposits of cattle and horse skulls at the base of the final fills of 'long-lived' pits and *Grubenhäuser* (Sofield 2012).

and exclusivity of space characterised elite secular and religious structures in England in the late 6th and 7th centuries. Entry through these doorways may have been accompanied by formalised activities, such as procession, cleansing, or other ritualised acts, or access may have been restricted to certain groups or individuals. The placed deposits may have been one way to exert control over the doorways. Similar principles or protocols may have extended to enclosures with placed deposits in their entrances.

Placed deposits associated with the destruction of *Grubenhäuser* and the backfilling of long-lived pits are also part of a long tradition in north-west Europe. Significant physical changes in early and middle Anglo-Saxon-period settlements could have been perceived as temporal 'thresholds', mediating the passage of time just as doorways and entrances controlled movement through physical and social space. Acts of placed deposition, perhaps in conjunction with feasting or other formalised or ritualised communal activities, accompanied and perhaps facilitated the crossing of these temporal 'thresholds'. Loomweights and/or looms may have invoked magical connotations of weaving in the formalised abandonment and/or demolition of *Grubenhäuser*, while cattle and horse skulls may have invested the symbolic or totemic characteristics of living animals into the closure of long-lived pits. Placed deposits such as these enable us to glimpse how spatial and temporal thresholds influenced the rhythm of life in rural communities in early medieval England.

Notes

1 A few more placed deposits, such as the 'skull stack' in Building D2 at Yeavering (Hope-Taylor 1977, 98–100), lay near doorways and entrances, but not near enough to be certain the association was intentional. Other deposits, such as traces of a horn and teeth associated with doorways in Building A2, also at Yeavering (Ibid., 53; Hamerow 2012, 43), may have been deliberately placed, but poor preservation or recording makes it difficult to be certain.

2 The presence of such a deposit in a possible church, especially in such a prominent location, raises intriguing questions about placed deposits in Christian contexts (see Sofield 2015a).

3 Although it was not recognised during the excavation, the loomweights probably belonged to a *Grubenhaus* cut into the fill of the barrow ditch in which they were found (West 1985, 138).

4 Loomweights scorched only on their upper or exposed surfaces were found in some *Grubenhäuser* that burned down (e.g. Brown et al. 1955, 199; West 1985, 138). Some of the loomweights at Upton, however, were overlain by a charcoal deposit (Jackson et al. 1969, fig 5). If this deposit formed early enough in the blaze, it could have protected them from scorching.

5 Pit 366 at Bloodmoor Hill, Carlton Colville, was a discrete pit within a long-lived group of intercutting pits (Lucy et al. 2009, 142, tab 3.56). It cannot be determined where pit 366 fell in the sequence, but the cattle skull it contained was near the base of its single fill.

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III. Space, Place, Frontiers and Borders

A Cultural and Ethnic Border during the Roman and Early Migration Periods in North-East Poland[1]

Adam Cieśliński

The present day, north-eastern Poland, was a borderland between three large archaeological units in the Roman and the early Migration Periods. The background to presenting this cultural and ethnic border necessitates a cultural, chronological and settlement analysis, putting archaeological finds from the area in focus and cross-referencing the results with information from antique written sources. In order to provide the specifics of the archaeology of the Polish Iron Age, it is important to include an introduction, presenting the methodological basis of the cultural divisions in Central Europe, as well as the main characters of this story: the Wielbark, Bogaczewo and Dollkeim-Kovrovo Cultures.

The methodological foundation for distinguishing and classifying material remains, as employed by researchers in Central Europe, is based on a well-known and widely accepted tool — the definition of archaeological cultures. In scientific literature, different versions of this definition can be found, but just one of them will suffice here: an archaeological culture is seen as a structure limited in spatial and chronological terms and it is marked by a greater number of reoccurring factors (cf Kaczanowski 2010, 49f). The selection of these factors should reflect the variety of human activities as completely as possible, for example: burial rites, settlement activities, environmental interactions, economic habits, technological developments, life standards, preferences in art and styles, differentiations in society, models of social organisation, cult and religion, warfare and finally the direction, the quantities and the nature of contacts with the outer world, in the sense of other archaeologically defined units. Due to the characteristics of the archaeological sources and the state of research, only very seldom are all of the mentioned aspects available to be considered in a comprehensive and balanced way (Kaczanowski 2010, 50ff).

During the Roman Iron Age and the early Migration Period, namely from the beginning of the 1st to the middle of the 5th century AD, the vast area of Central Europe differed quite significantly from the Romanised provinces of the Empire: at the Rhine and Danube rivers, at the forest area on the eastern margins of our Continent and at the steppe zone in south-eastern Europe. Also termed the Central European *barbaricum*, this area can be subdivided using analysis of different aspects of the archaeological remains, although it must be noted that the different archaeological cultures also share some similarities across the regions in question (Godłowski and Okulicz 1981; Kaczanowski and Madyda-Legutko 2005). These cultural units are mainly distinguished on the basis of burial rites, and despite some unifying interregional tendencies, are also discernable from differences in dress accessories and pottery. To a lesser extent, deviations in settlement form and architecture can be observed (Kaczanowski 2010, 51f). However, in many cases, settlements are not intensively researched, e.g. in the heartland of our investigations, in the northern part of Central Europe (cf Nowakowski 1996, 64f; Michałowski 2007; Szymański 2007). Consequently, settlements are only useful to a minor degree in distinguishing cultural differentiation.

The analysis of archaeological finds from the Roman Iron Age and the early Migration Period in north-eastern Poland has led to the detection of three big archaeological cultures (Fig 1). In the West is the Wielbark culture (Mączyńska 2007; Kokowski 2010). This is rooted in the Oksywie culture of the pre-Roman Iron Age and demonstrates great dynamics in terms of its territorial development. During the early Roman Iron Age the Wielbark culture appears in Pomerania, the area at the mouth of the River Vistula and in the north of the region of Greater Poland. At the beginning of the late Roman Iron Age, the population of the Wielbark culture left a part of Pomerania west of the Vistula and settled in broad areas in eastern Poland, which were formerly inhabited by a population connected to the Przeworsk culture (cf Andrzejowski 2007; 2010). In the north-eastern corner of Poland and in the area of Kaliningrad in the Russian Federation, two closely related cultures can be observed (Fig 2): the Bogaczewo culture and the Dollkeim-Kovrovo-culture (Nowakowski 1996; 2013). Both are part of an overarching taxonomic unit, the West Balt Cultural Circle, which additionally incorporates seven small cultures and groups from Poland, Lithuania, Latvia and Belarus (Nowakowski 1996, 80ff; Bitner-Wróblewska 2010, 144ff). The seat of the Bogaczewo cultures lies in Masuria, while the Dollkeim-Kovrovo is found further north, in the area of Sambia and Natangia.

These three broad cultures (Wielbark culture, Bogaczewo and Dollkeim-Kovrovo) have been the focus of extensive studies and numerous publications. It is impossible to recall all aspects of discussion here, but the main foundations of the culture-historical differences in the area and the characteristics of the particular units are presented here in brief. The Wielbark culture is marked by the presence of bi-ritual burial

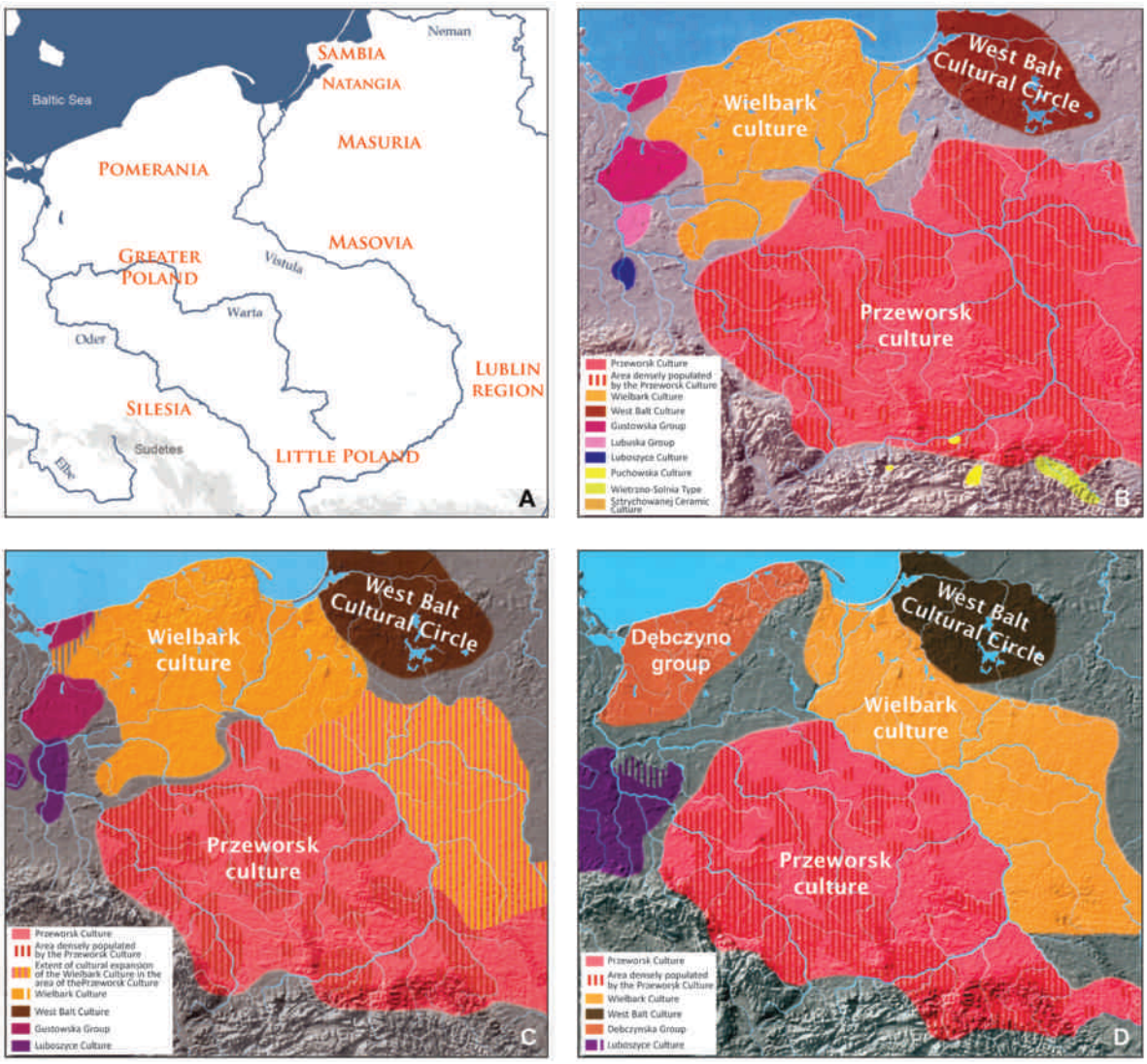

Figure 1. Cultural differentiation during the Roman and early Migration Periods in Poland and neighbouring countries: A. Historical regions of Poland and Prussia; B. Early Roman Iron Age AD 1–160 (phases B1–B2); C. Beginning of late Roman Iron Age AD 160–230 (phase B2/C1–C1a); D. Late Roman Iron Age and early Migration Period AD 230–450 (phases C1b–C2, C3–D) (A. Graphic arrangement A. Cieśliński; B-D after Kaczanowski and Kozłowski 1998, fig 144, 154, 159).

grounds, which contain inhumation and cremation burials of the same period, positioned directly next to each other (Mączyńska 2007; Kokowski 2010). The inhumations are typically characterised by their N-S orientation, with the head positioned to the north. Among the cremations, a great heterogeneity can be observed in the combination of urn burials and pit graves, with or without the remains of the pyre. In both types of grave a peculiar trait dominates — male burials are poorly furnished and lack any kind of weapons, with the exception of spurs as a possible indication for mounted warriors (Fig 3). In contrast, female burials contain relatively rich furnishings, a particular model of dress costume and dress accessories (Fig 4). In burials of both sexes, iron objects and tools occur very rarely. Additionally, the burials are furnished with a set of pottery vessels typical for the Wielbark culture (Wołągiewicz 1993). Wheel-thrown pottery was, however, not produced in the area, and was only minimally imported from other regions. The evidence for the import of Roman objects is, however, typical for Central Europe with the presence of numerous bronze or glass vessels (Wielowiejski 1985; Wołągiewicz 1993, 32ff; Stawiarska 1999). Yet in contrast to adjacent areas further south, in the Wielbark culture, Samian Ware was significantly rare, a situation that resembles the Western Baltic region (cf Przychodni 2010).

The Bogaczewo- and Dollkeim-Kovrovo cultures differ remarkably from the Wielbark culture and yet at the same time share similarities with each other (Nowakowski 1996; 2013; Bitner-Wróblewska 2010). This is explained by shared

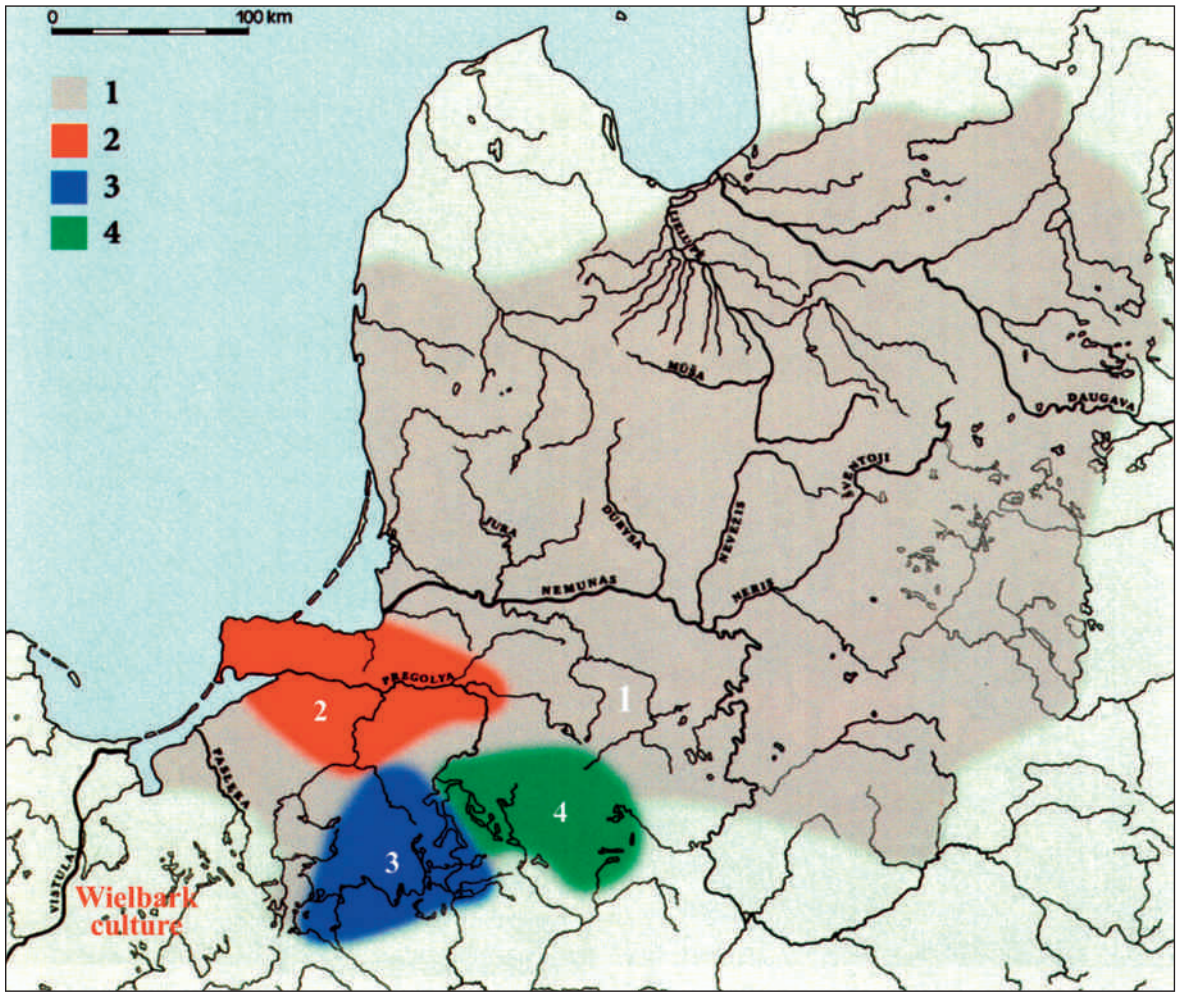

Figure 2. Balt territories during phase C2 (AD 260–300): 1. maximum extent in the Roman and Migration Periods; 2. Dollkeim-Kovrovo culture; 3. Bogaczewo culture; 4. Sudovian culture (after Bitner-Wróblewska 2010, fig 5).

roots in the West Balt barrow culture of the early Iron Age and pre-Roman Iron Age (Okulicz 1970). The most important difference between these two cultural units can be seen in the burial rite. Urn graves and pits with cremated bones with no visible mounds are typical for the Bogaczewo culture, while the Dollkeim-Kovrovo culture is characterised by bi-ritual cemeteries on which we observe flat graves with no sign of above ground markers or barrows or stone pavements. Urn-graves are dominant and the few inhumations present are mainly limited to the early Roman Iron Age and the beginning of the late Roman Iron Age. In contrast to the Wielbark culture, male graves in Masuria and Sambia are often equipped with weapons, and iron objects and tools are typical gravegoods (Fig 5). Another peculiarity of the West Balt Cultural Circle is the occurrence of horse burials and horse sacrifices (Nowakowski 1996, 63; 2009; cf Skvortsov 2009); these do not appear in the Wielbark culture at all (Fig 6).

The population of Bogaczewo- and Dollkeim-Kovrovo cultures can also be distinguished by a local clothing model, visible via the metal elements that survive from female attire (Fig 7). Another element that distinguishes the West Balt Culture from the Wielbark Culture, is the ceramics. The pottery from the Bogaczewo and Dollkeim-Kovrovo Cultures show certain stylistic similarities due to the continuation of the common traditions of the West Balt Barrow Culture (Nowakowski 1996, 59ff; Szymański 2000). A final distinguishing feature in the cultural units of Masuria and Sambia, is the Roman import model, which differs from other areas of Central Europe, in that it is characterised by the rare presence of bronzes and glassware (Nowakowski 1996, 65ff; 2001). Due to the local custom of depositing Roman coins in the graves (Bursche 1992; Zapolska 2011), in particular bronze sestertii and dupondii, another difference is signalled in the Wielbark area, where mainly silver denarii are present (cf Ciołek 2007; Romanowski 2008).

A particularly important activity that supports the identification of the archaeological units described above is settlement analysis. The objective is to verify to what extent

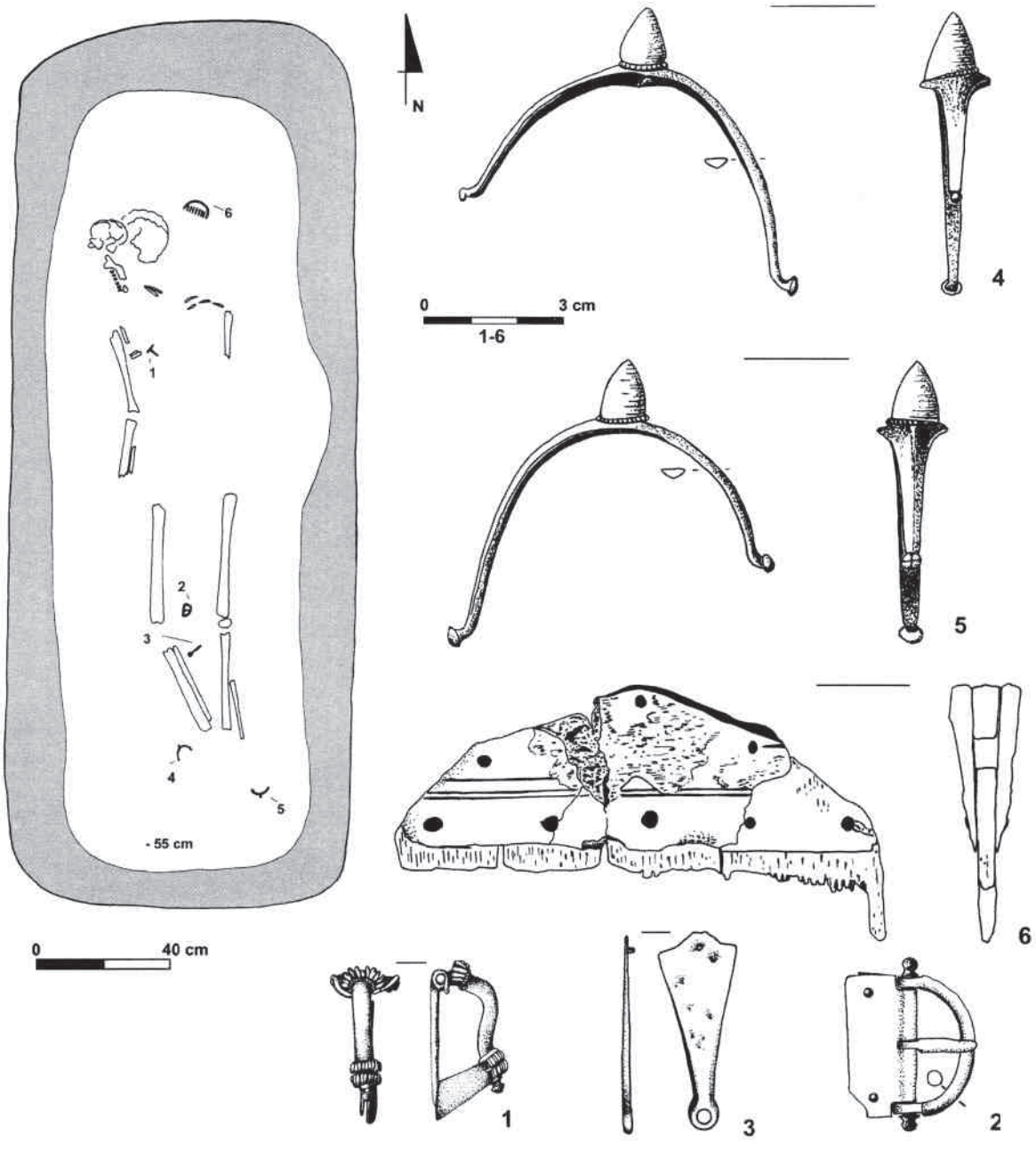

Figure 3. The male grave 166 of the Wielbark culture from PL Kowalewko, distr. Szamotuły (Greater Poland): 1–5 bronze, 6 antler and bronze (after SKORUPKA 2001, fig 50).

the archaeological cultures distinguished on the basis of material remains, correspond to the territorial communities evident in a given time within the given area. With such an objective in mind, we collected all archaeological sites, reliably dated to the Roman period and the early phase of Migration Period, found in the borderland located between the Lower Vistula, the Lower Pregolya, western part of Masurian Lake District and the northern edge of Masovia (Fig 8). These were analysed in regards to their cultural affiliation (Fig 9). The results showed that the settlement activities of Wielbark, Bogaczewo and Dollkeim-Kovrovo Cultures were located in more or less distinct concentrations, separated from each other by areas with sparse settlement, and distinctly uninhabited zones. Similarities can be drawn with the settlements of the Przeworsk Culture, present in northern Masovia, in the late pre-Roman period and the early Roman period that, due to the text size constraints of this paper, will have to remain outside our considerations. The observed settlement

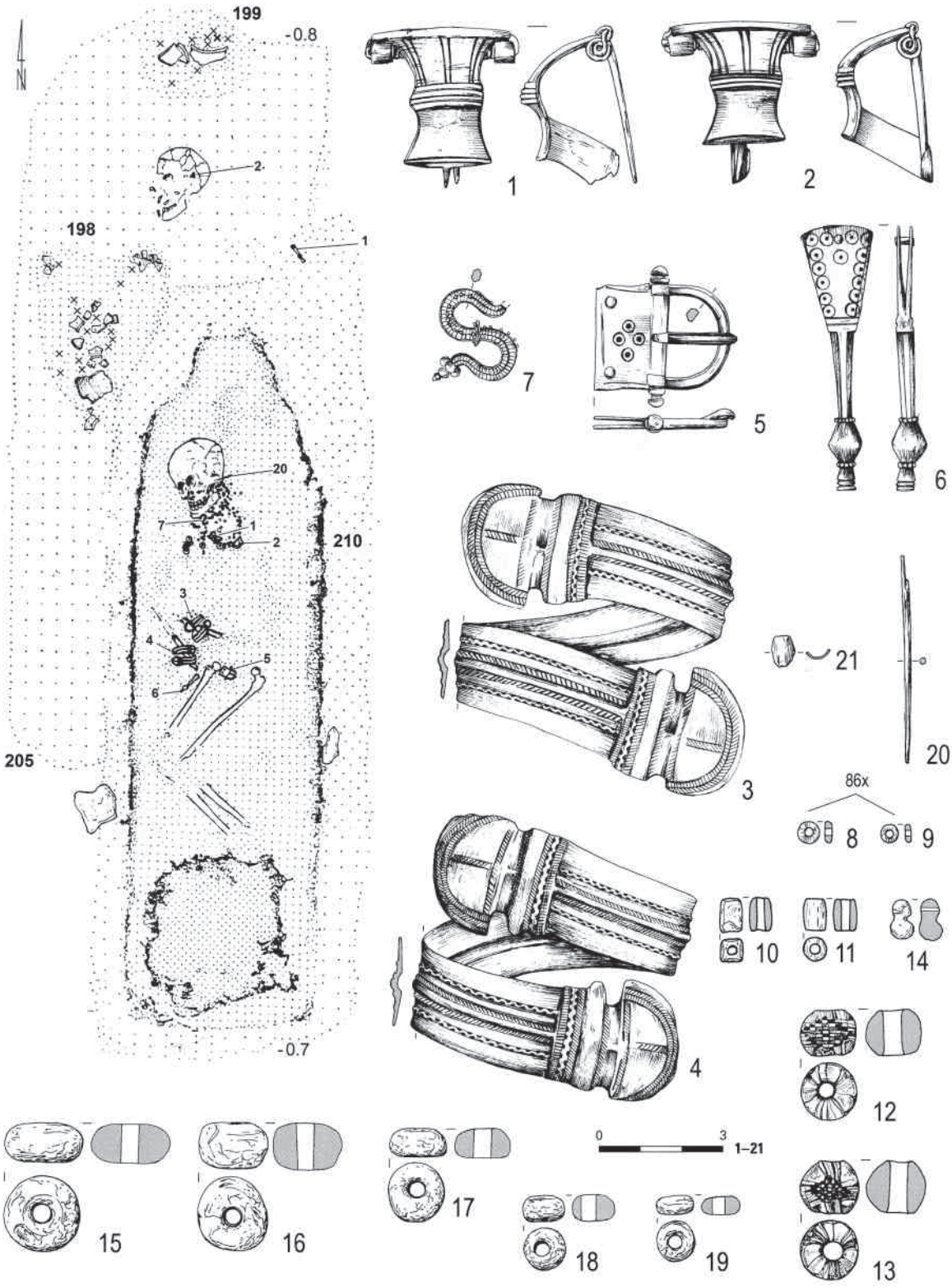

Figure 4. The female grave 210 from the Wielbark culture cemetery at PL Weklice, distr. Elbląg (Lower Vistula Region): 1, 2, 5, 6, 20, 21 bronze, 3–4, 7 silver, 8–14 glass, 15–19 amber (after Natuniewicz-Sekuła and Okulicz-Kozaryn 2011, pl 86).

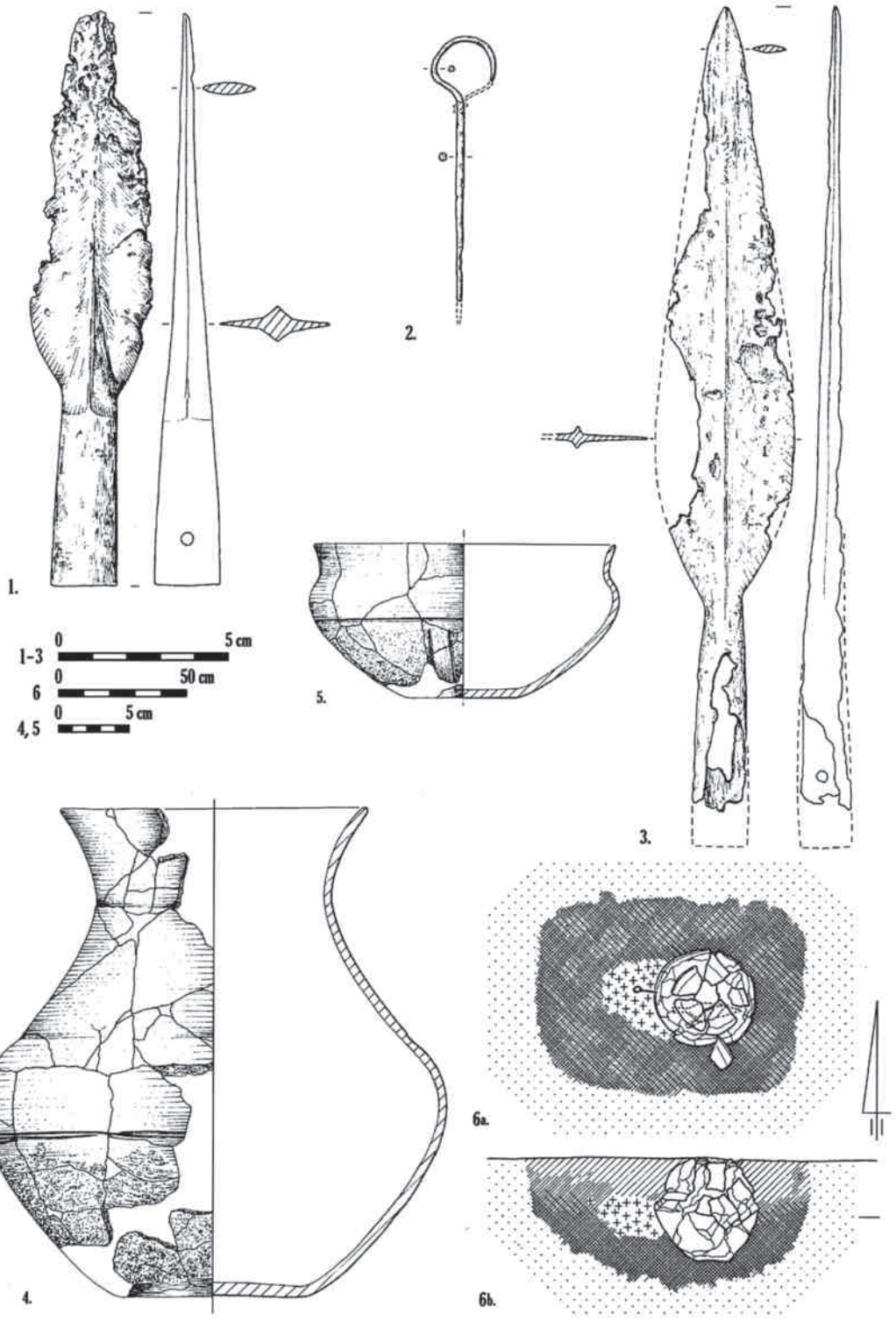

Figure 5. The male grave 33 of the Bogaczewo culture from PL Wyszembork, distr. Mrągowo: 1, 3 iron, 2 bronze, 4–5 clay (after Szymański 2005, fig 25).



Figure 6. The double horse burial No. 114 from the Dollkeim-Kovrovo culture cemetery at RUS Berezovka, distr. Gvardeysk (after Skvortsov and Ibsen 2010, pl 11b).

structures thus seem to confirm suggested cultural divisions and can be argued to correspond to territorial communities. This will be returned to below.

The map presented here does not present a real historic situation, as the settlement indicators are not concurrent: in extreme cases there may be as many as four centuries separating specific examples. Therefore, in order to chart the course of the border between the Wielbark, Bogaczewo and Dollkeim-Kovrovo Cultures, it is necessary to show a series of maps that plot settlements in the region in a number of precise chronological phases (Cieśliński 2010, 148ff, maps 2–6). These detailed maps of course are subject to some distortion caused by the problem of obtaining reliable dating for many sites in this region. Unsatisfactory and partial information are the result of the history of research and more importantly the severe destruction of archaeological collections and excavation archives as a consequence of World War II (Adlung et al. 2006; Bitner-Wróblewska 2008; Cieśliński 2010, 33ff). Thus, it must be accepted that the number of reliably dated settlements is significantly reduced, and the pattern presented does not reflect an absolute settlement distribution.

In phase B1 of early Roman period between the dense scope of the Wielbark Culture at the Lower Vistula, Przeworsk Culture in the northern Masovia, and Bogaczewo Culture in the Mrągowo Lake District, we can see an uninhabited area (Cieśliński 2010, 148ff, map 2). This area came into being in the late pre-Roman period, due to the departure of the peoples of the West Balt Barrow Culture already in the Early Iron Age. This fact is usually associated with the process of establishing the Przeworsk Culture in Masovia and Oksywie Culture at the Lower Vistula in the pre-Roman period. This border belt divided the peoples who were not only foreign in terms of culture, but also varied in terms of cultural development. This provides additional evidence to support the argument for a clear territorial separation for the representatives of the West Balt Barrow Culture.

Significant changes in the settlement process in the area in focus took place in stage B2b (Cieśliński 2010, 150ff, map 3). In this period, probably small groups of Wielbark peoples reached the line of the Pasłęka River, evidently establishing a few burial grounds that were used until the decline of Wielbark settlement in this area. Taking into consideration the long lifespan of these cemeteries — at least two centuries

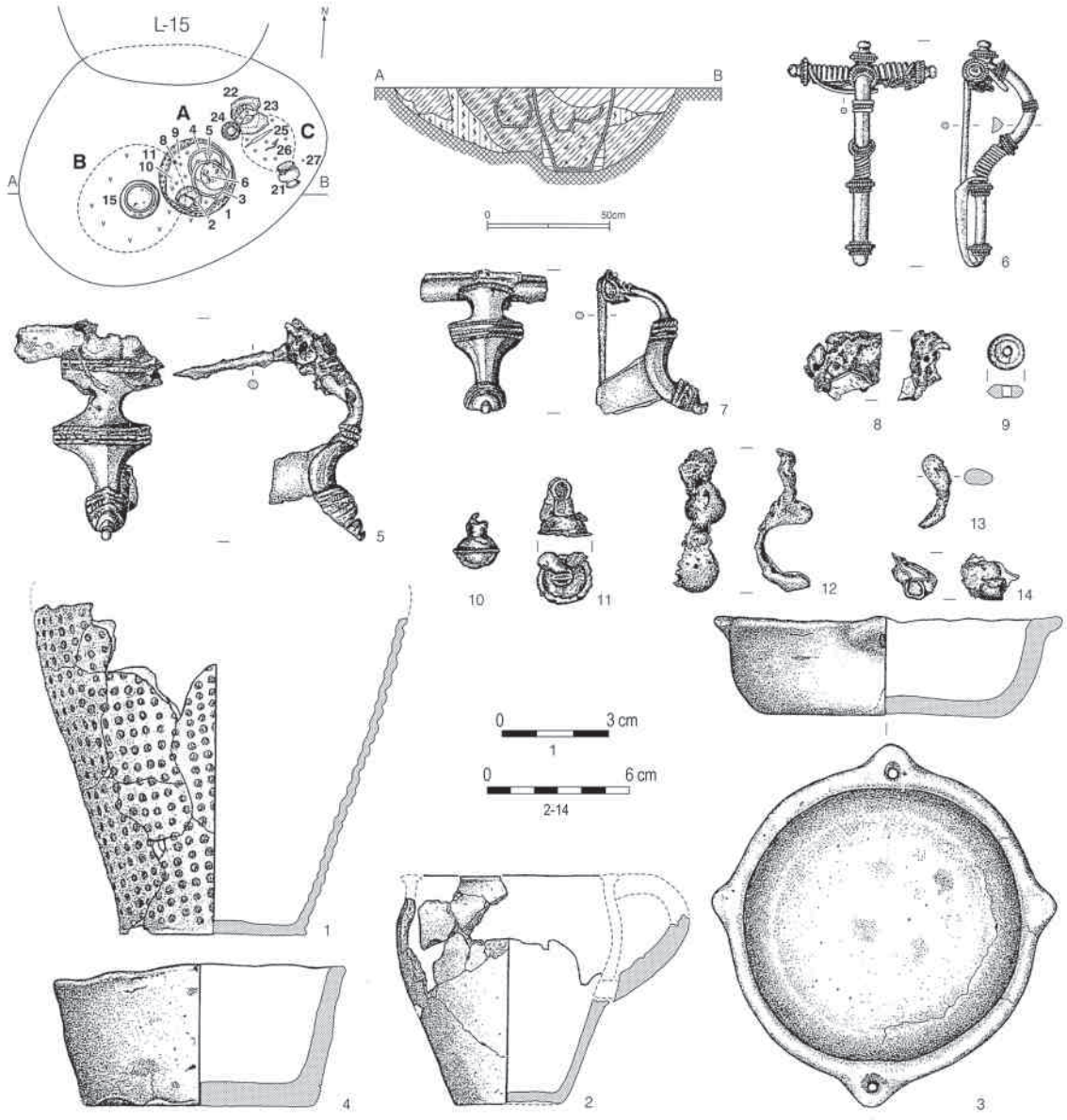

Figure 7. The female grave No. L-11 from the Dollkeim-Kovrovo culture cemetery at RUS Bol'shoe Isakovo, distr. Guryevsk: 1–4 clay, 5–7 bronze and iron, 6 bronze and silver, 8, 12, 13 glass, 9 amber, 10–11 iron, 14 glass and bronze (after Skvorzov 2007, pl 10–11).

— and their significant size, it can be suggested that they served the role of central burial grounds, around which local settlements developed. While the scope of the Przeworsk and Bogaczewo Cultures did not change significantly, a cultural and social transformation took place in the northern section of the analysed area, resulting in a new archaeologically-defined cultural group or unit that developed from the ruins of the West Balt Barrow Culture — the Dollkeim-Kovrovo Culture, which shares resemblances with other cultures of the Central European *barbaricum*.

In the next stage B2/C1–C1a, the people of the Wielbark Culture inhabited the area of the Olsztyn Lake District located further to the east, limiting the area of the empty zone to about 20 km in width (Cieśliński 2010, 153ff, map 4). This did not cause any disruptions in the territorial development of the Bogaczewo and Dollkeim-Kovrovo Cultures and proves the fact that the Wielbark people respected the western border of the West Balt district. Numerous monuments from this border area, confirming the exchange of goods and ideas, also indicate close and possibly neighbourly contacts between the representatives of both peoples, perhaps due to a very lucrative amber trade (Nowakowski 1996, 99; Andrzejowski and Cieśliński 2007). It is important to note that in the same period the Wielbark Culture occupies vast areas of eastern

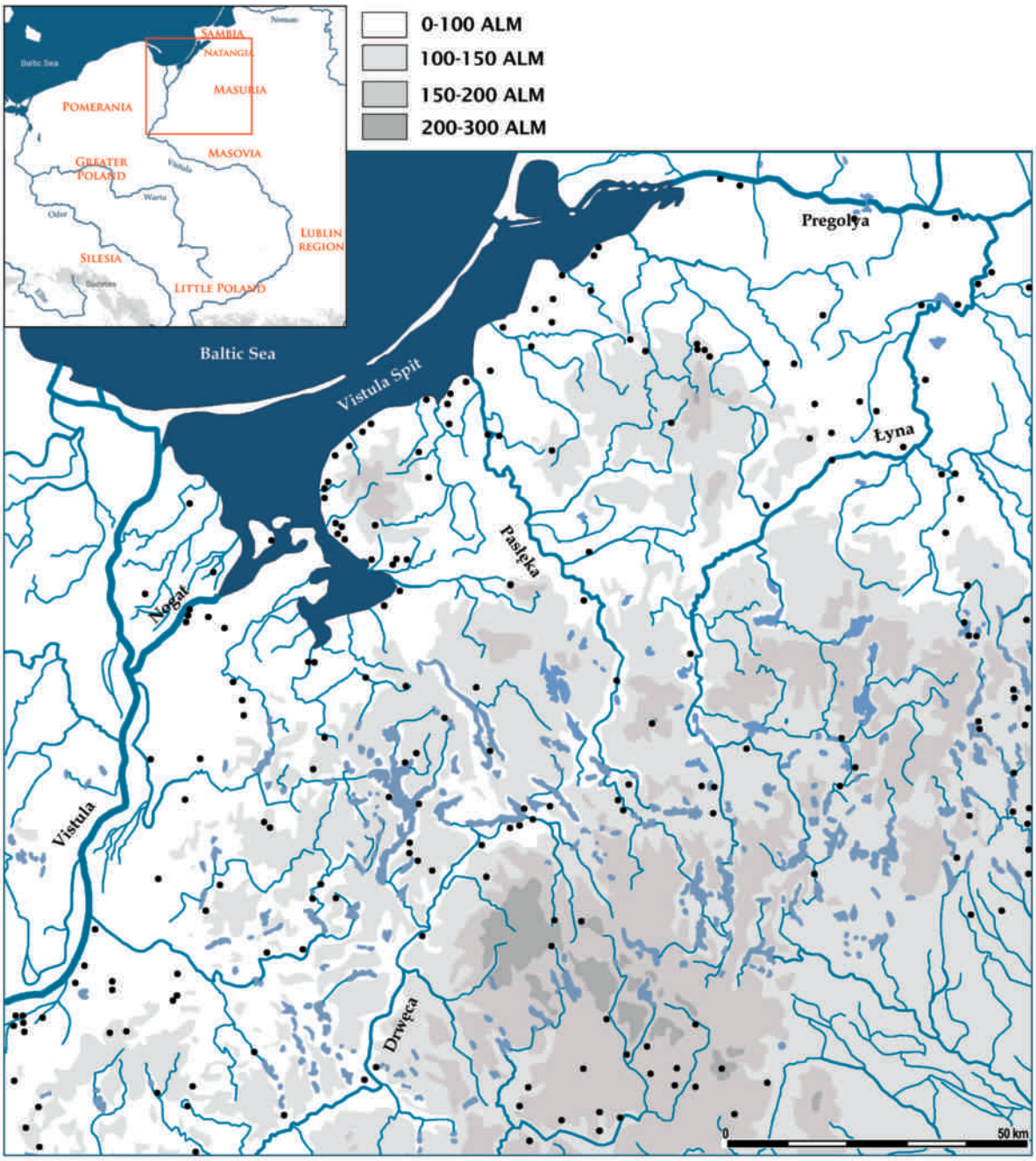

Figure 8. All reliably dated archaeological sites of the Roman period and the early phase of Migration Period from the borderland that is the focus of this paper (Graphic arrangement: A. Cieśliński).

Poland, including the northern edge of Masovia, previously inhabited by the peoples of the Przeworsk Culture. Even if we recognise that some of these areas had already been abandoned by the Przeworsk people, the settlement density of the Wielbark population in the south-east still outweighs the evidence of the north-eastern area.

In phases C1b–C2 of the late Roman period we do not see any differences in the settlements in our area of interest compared with the previous time horizon (Cieśliński 2010, 156ff, map 5). A dramatic change took place, however, in the late Roman and early Migration Periods, in phase C3–D (Cieśliński 2010, 160ff, map 6). During this time the discussed borderline province of the Wielbark Culture was almost completely depopulated. It seems that the people of the Wielbark Culture left their settlements in the context of an organised migration, which constitutes an element of a much more extensive phenomenon, also seen in other areas of the Wielbark Culture. The withdrawal of settlement from the

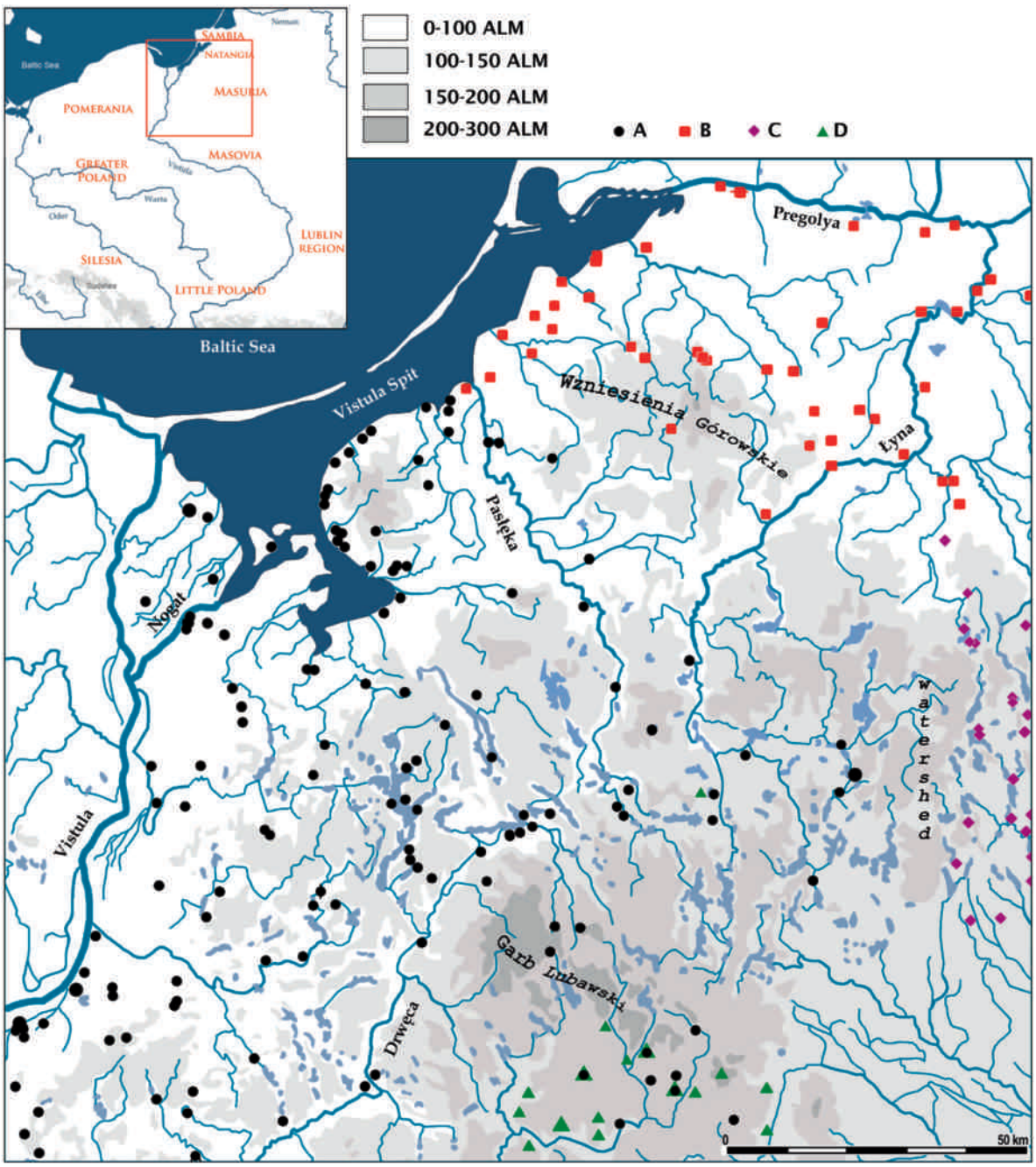

Figure 9. Cultural affiliation of all reliably dated archaeological sites of the Roman period and the early phase of Migration Period from the borderland that is the focus of this paper: A. Wielbark culture; B. Dollkeim-Kovrovo culture; C. Bogaczewo culture; D. Przeworsk culture (Graphic arrangement: A. Cieśliński).

mouth of Pasłęka River allowed the people of the Dollkeim-Kovrovo culture to occupy this strategic area. Spectacular relics from the early and late phase of the Migration Period confirm the far-reaching contacts of this settlement area with both the regions of the Baltic Sea and the Danube areas.

After the presentation of the shifting boundaries between the Wielbark Culture and the West Balt cultures throughout the centuries, let us now take a look at the nature of the empty zones and consider whether they could serve the role of a border. Here it is important to go back to the general map (Fig 9) which, despite the qualifications above, carries some interesting information which is less visible on the maps presenting settlement activity within certain time horizons. The combined map clearly shows uninhabited areas, which remain visible even after the non-datable evidence for the Wielbark Culture in the border area is introduced. Based on the preceding chronological analysis of the material from the region, it can be assumed that these empty zones may well

be connected to the late Roman period, when the Wielbark Culture reached its peak in territorial scope within the studied area. Empty corridors of landscape divided the representatives of various cultures and this reinforces the thesis that these areas of landscape acted as border zones.

The layout of empty zones was determined not only by the political relations between the peoples of particular archaeological cultures, but also by the geographical environment. It is not a coincidence that the empty zones are mostly located within the areas that are not beneficial for settlement, such as plateaus and watersheds, located above the valleys of major rivers, usually at the height exceeding 150 m above mean sea level (Fig 9). Model examples of natural barriers may be seen in the moraine hills of Garb Lubawski, reaching over 300 m AMSL; Wzniesienia Górowskie, a moraine plateau surrounded by topographic lows, with the height of 216 m AMSL; and the longitudinal watershed between the Olsztyn and the Mrągowo Lake Districts. The limited usefulness of these areas to the human economy was mainly caused by the poor water conditions and increased erosion, which had a direct impact on the quality of soil. A limited water grid also resulted in the lack of natural communication routes, which limited the attractiveness of the region to settlers (Cieśliński 2010, 144 ff, map 1).

It is now essential to check whether the presented cultural division at the southern coast of the Baltic Sea is reflected in any way in the surviving written sources. This is a very complicated issue, which could be the topic of a series of long lectures. It will be presented here in a simplified and shortened way. It should be stressed, that the historical interpretation outlined on the basis of the modern classification of archaeological finds has to be regarded with great caution and with the consciousness that archaeological entities are rarely directly congruent to the ethnonyms known from literal sources. A lot of the archaeological cultures have to be viewed as poly-ethnic groups which coalesced into so-called connected communities as a result of various social, economic, political and religious reasons (cf Kaczanowski 2010, 53f).

The ancient written sources concerning the areas of Central and East Europe, located far away from the borders of the Roman Empire, are both few and overused. The coastal area of the Baltic Sea from the Lower Vistula to the Sambian Peninsula stands out here, as it was one of the best known areas of *barbaricum* to the Romans, after the areas neighbouring of the *limes*. This was due to the fact that these areas had the biggest deposits of amber. This fossilised tree resin was highly valued in the Mediterranean world and constituted the main reason for Roman economic penetration to the territory of the Central Europe. Some information from Roman authors concerning this section of Europe must have come from first-hand experience, confirmed by the note on the official expedition for amber by a Roman *eques*, on a propaganda mission, during the reign of Nero (Kolendo 1981). The Vistula River was an important landmark in Greek and Roman geographic knowledge. The majority of information stemmed most probably from the fact that there were amber deposits at its mouth and the fact that the so-called Amber Route ran along its lower section. For a long time the Vistula River used to be one of the best known physiographic features in this part of Europe, and for this reason it also became a prominent element in geographic maps, which were often far from accurate. Depending on the author, it was used to separate Germania from Dacia, Germania from European Sarmatia, or even Sarmatia from Asia. The area of the Lower Vistula is also mentioned in *Getica* by Jordanes, a summary of a multi-volume work *Historia Gothorum* by Cassiodorus. The information is precious as it concerns the earliest history of the Goths and draws information from the oral tradition of the nation: the *prisca carmina*. What is more, an important factor for the location of particular peoples is the determination of the location of the Vistula's mouth to 'Mare Suebicum', also known as 'Northern Ocean' (Kolendo 1998a). In the ancient times, contrary to today's geographical perspective, the Lower Vistula could have referred to the Nogat River along with the Vistula Lagoon. As such, the mouth of the river should be understood as the breaks in the Vistula Spit (Nowakowski 2005, 122).

A critical compilation of information from written sources, in particular *Germania* by Tacitus, *Geographia* by Ptolemy and *Getica* by Jordanes, allows us to locate the settlement of Goths and Gepids within the territory of the Wielbark Culture, near the Lower Vistula (Okulicz-Kozaryn 1992, 139f; Bierbrauer 1998, 407ff; Kolendo 1998a; 2008, 169ff). Due to the laconic character of the sources, we cannot be certain, which of these concentrations were actually inhabited by the Goths and which by the Gepids, and whether there were some other peoples there whose names were not recorded by the ancient authors. In Sambia, within the Dollkeim-Kovrovo Culture, we may locate *Aesti* fairly reliably, who were described in detail by Tacitus, due to their presence within the territory containing amber, sought by the Romans (Nowakowski 1996, 109ff; Kolendo 2008, 176f). In the new literature we more and more often see a fairly probable concept that the *Aesti* equal the Vistula *Veneti*, mentioned by Pliny the Elder and Ptolemy (Kolendo 1998b, 99; Nowakowski 2005, 122). A particularly fortunate source situation is noted in the case of identifying the peoples of Bogaczewo Culture (Nowakowski 2013, 19f). To the south of the *Venedai* = Vistula *Veneti* and to the east of *Gythones* = Goths, Ptolemy places a people named the *Galindai*, which is connected with the *Galindo* tribal territory in Masuria, mentioned much later in the 13th and early 14th centuries, in the sources of Danish King and the Teutonic Knights (Wróblewski et al. 2003, 158). The new archaeological researches on the late Migration Period and Early Middle Ages in Masuria provide a basis for suspecting also a continuity of settlement and population (Wróblewski et al. 2003; Nowakowski 2006, 33ff; Nowakiewicz and Wróblewski 2010).

The border confirmed by the archaeological and written sources was of linguistic nature. The Goths and Gepids, living at the Lower Vistula, were surely Germanic peoples, and the Goth language in itself, due to the Bible translation by Ulfilas, is fairly well known (Schmitt 1998). On the other hand, the peoples of the Dollkeim-Kovrovo and Bogaczewo Cultures, as a result of a comparative archaeological, historical and linguistic analysis may be considered as the ancestors of medieval Prussians. Their language is extinct today, yet it is known to us to the extent that we may recognise it as a Balt language, along with the modern Lithuanian and Latvian languages (Eckert 2008).

In this context, a particular meaning may be granted to the short note in *Germania* by Tacitus that the language of Aesti is similar to the Brythonic language — *lingua Britannicae propior*[2] (*Germania* § 45). It is commonly understood that this wording cannot be treated literally. The belief that the Aesti language is similar to the language of the Celtic inhabitants of Britannia could stem from the accidental similarity of individual words. This information could come from a Roman citizen, who took part in the expedition to the Baltic Sea, and stayed in Britannia beforehand. Despite the fact that the statement about the nature of the Aesti language is not reliable, a very important piece of information is the indication of a clear linguistic separation between the *Aestorium gentes* and their western neighbours the *Gothones* (Kolendo 2008, 177f).

To conclude:

1. The analysis of archaeological finds from the Roman Iron Age and the early Migration Period in north-eastern Poland provides evidence for the separation of three archaeologically distinct cultures: Wielbark, Bogaczewo and Dollkeim-Kovrovo.

2. The settlement evidence for these cultures is located in more or less distinct concentrations, separated from each other by the areas defined by sparse settlement and even uninhabited lands.

3. These uninhabited lands can be interpreted as border zones.

4. The layout of empty zones was determined not only by the political relations between the peoples of particular archaeological cultures, but also by the geographical environment.

5. A compilation of information from written sources allows us to locate Goths and Gepids within the territory of the Wielbark Culture. The Aesti, possibly equal to the Vistula Veneti can be located within the Dollkeim-Kovrovo culture and Galindai people within the Bogaczewo culture.

6. Last, but not least, the border confirmed by archaeological and written sources was also linguistic as well.

Notes

1 In May 2012 the Polish Section at the Internationales Sachsensymposion was established in Warsaw. A direct cause of this event was the fact that some members of the Sachsensymposion noticed that it was essential to expand the topics of the annual conferences towards the southern area of the Baltic Sea and that it is necessary to integrate the Polish archaeology of the Iron Age even more tightly with the scientific circles from western and northern Europe. A consequence of this history-making expansion of the Internationales Sachsensyposion to the East is this very paper. I would like to thank Dr Andreas Rau (Schleswig) and Magdalena Małek MA (Warsaw) for translation into English.

2 *Germania* § 45: (...) *Ergo iam dextro Suebici maris litore Aestiorum gentes adluuntur, quibus ritus habitusque Sueborum, lingua Britannicae propior*; (…) Accordingly we must now turn to the right-hand shore of the Suebic Sea: here it washes the tribes of the Aestii; their customs and dress are Suebic, but their language is nearer British (trans M. Hutton).

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At the Boundary of East Central Europe: The Region along the Saale River as an Early Medieval Border Zone between the Frankish Empire and the Slavic Sorabs

Sabine Altmann

In the first half of the 9th century, the scholar Einhard composed the biography of Charlemagne, the *Vita Karoli Magni*. While describing the expansion of the Frankish Empire he also referred to a region at the eastern edge of the realm, reporting how the River Saale separated the Slavic Sorabs and Thuringians: *ac Salam fluvium, qui Thuringos et Sorabos dividit*, 'up to the River Saale, which divides Thuringians from Sorabs' (Einhard, *Vita Karoli Magni*, ch 15, in Holder-Egger 1911, 18). As a result of the submission of the early medieval kingdom of Thuringia at the beginning of the 6th century and its integration into the Frankish kingdom, new boundaries had developed in the east of the realm, one along the River Saale. At the time of Einhard's report it was supposed to mark the limit of the settlement areas of Slavic Sorabs which lay east of the river, thus separating people that spoke a different language and followed different cultural values.

Due to a remarkable written source, created at the Imperial abbey in Hersfeld, it is possible to study a specific area along the Saale River and to gain an idea of processes taking place in this border zone in the east of the Frankish Empire. Forming the western periphery of an area now called East Central Europe, this region and its development in the 9th and 10th centuries has been studied by a project hosted at the *Centre for the History and Culture of East Central Europe* in Leipzig that is centred on research on border concepts in early medieval times.

The present paper outlines some aspects of the region's development in the 9th century, in the time before the region east of the river was integrated in the Frankish kingdom. Since archaeological data from the 9th century available for study is limited, the paper focuses on the written sources and especially on the document from Hersfeld Abbey. What do written sources tell us about the border concepts in this region, the settlement structure of this border region, and how did this 'life on the edge' influence the region and its central places?

As early as AD 782 the River Saale was described indirectly as dividing the settlement areas of Slavic Sorabs from the Thuringians: (*Sorabi Sclavi, qui campos inter Albim et Salam interiacentes incolunt,* 'Slavic Sorabs, who lived in the fields between Elbe and Saale') (*Annales Regni Francorum* ad a. 782, in Kurze 1895, 61). Like the words of Einhard, this reference could suggest a linear border along the river. Indeed, there might have been efforts by the Carolingian administration to establish a border directly along the river at the beginning of the 9th century, attempts that were given up in the course of the century (Hardt 2000, 42–5). Instead, the mid-9th-century entries in the Frankish Annals of Fulda, while reporting an increasing number of conflicts between the Franks and their Slavic neighbours, also mentions a *Limes Sorabicus*, which as the name suggests, marked the border with the Slavic Sorabs (*Annales Fuldenses* AD 849, 858, 873 and 880, in Pertz and Kurze 1891, 38, 51, 81, 95). An entry in the Old High German collection *Samanunga*, which dates to the 9th century, shows that the word *limes* was synonymous with *marca* at this time (*Codex Vindobonensis* f 32v, in Unterkirchner 1960). From the beginning of the 9th century, Carolingian written sources produced in the milieu of the Carolingian court used the word *marca* to describe border regions at the periphery of the Empire (Stieldorf 2012, 47–54). According to this, at least in the second half of the 9th century, the boundary towards Slavic Sorabs comprised a border zone in which we might expect evidence of the transfer of languages and religions. As the entries in the Annals of Fulda show, the *duces* of the Limes were persons of high reputation in the East Frankish Empire. Thachulf, the first *dux* (*Annales Fuldenses* AD 849, in Pertz and Kurze 1891, 38), was one of the military leaders who were sent by Louis the German to defend different frontiers against several raids in AD 858. The other two leaders mentioned in this context were the sons of Louis, Karlmann and Louis [the Younger] (*Annales Fuldenses* AD 858, in Pertz and Kurze 1891, 49). Poppo, the last known *dux* of the *Limes Sorabicus* (*Annales Fuldenses* AD 880, in Pertz and Kurze 1891, 95), belonged to one of the most important families of the East Frankish Empire: the Babenbergs. In addition, the first mention of the *Limes Sorabicus* shows that Thachulf was well acquainted with Slavic laws and customs (*Annales Fuldenses* AD 849, in Pertz and Kurze 1891, 38): knowledge he may have gained during his military capacity in the border region and which might have been an important attribute of a person in charge of a Slav contact zone.

Unfortunately the annals give no further information about the exact location of the *limes*, its structure, nor any central places or events taking place there. Other written sources do not mention it at all. However, at the end of the 9th century, the monks of the Imperial abbey at Hersfeld drew up a document, which in its first two parts lists several settlements and *urbes* in a region known as *Friesenfeld*, which owed tithes

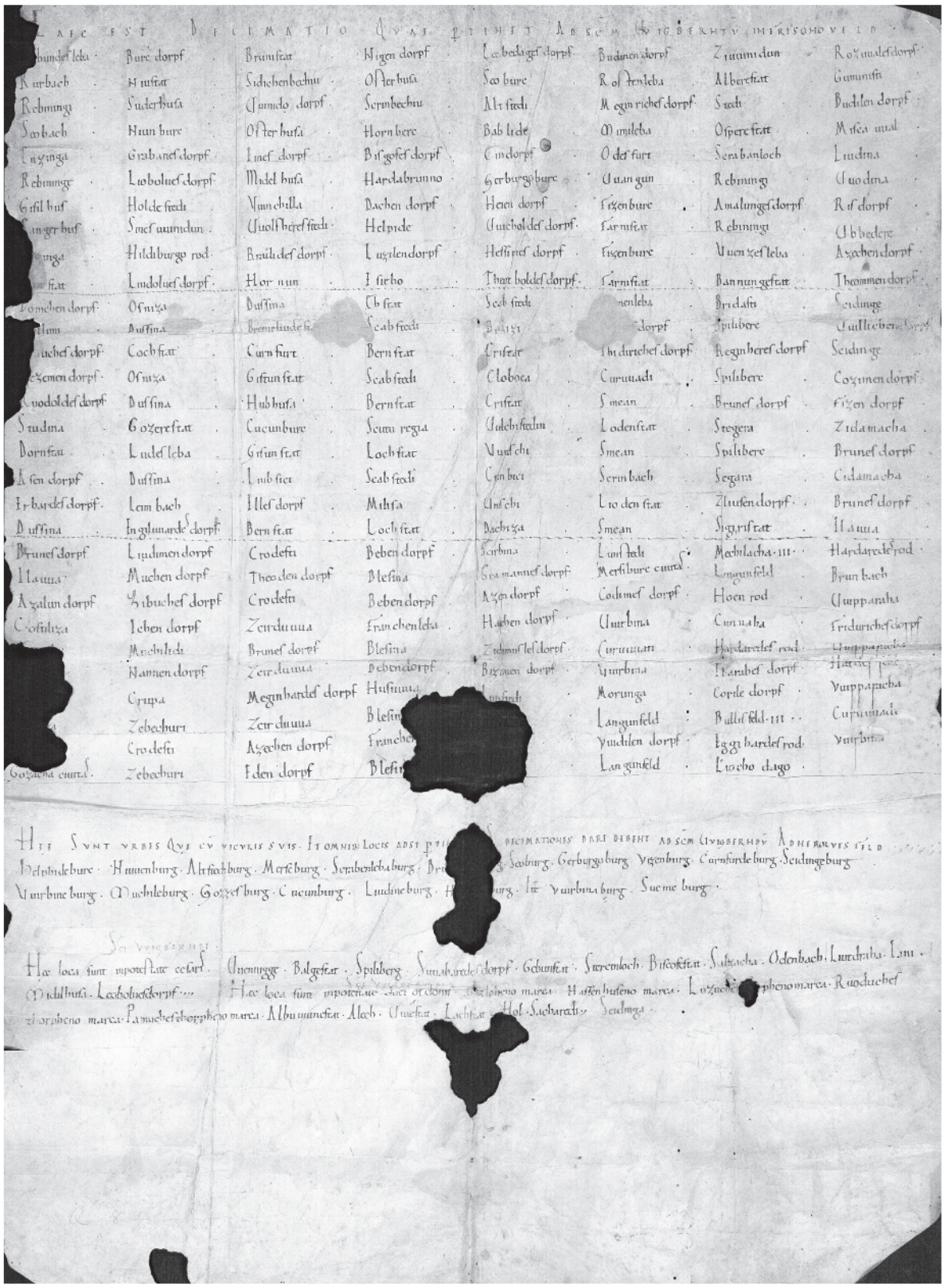

Figure 1. The Hersfeld document. © Hessian National Archive Marburg, Urk. 56, No 2268.

to the abbey (Fig 1). This payment is not an ecclesiastical tithe and, therefore, not evidence of Christianisation in the region, but it is probably identical with the tithe of the so-called *Hassegau* that had been donated to the Abbey Hersfeld by Charlemagne at the end of the 8th century (*MGH DD Kar 1*, n 129, in Mühlbacher 1906, 179–80; Schlesinger 1964, p XII, 79). The document refers to the tithe in *Hassega*, which based on Schlesinger's work, was usually translated as *Hochseegau* (Schlesinger 1941, 79). In his introduction to the second edition of *Die Entstehung der Landesherrschaft*, Schlesinger renounced this identification and rendered it as *Hassegau*, which is another notation for the region under study (Schlesinger 1964, XII), but covers a greater area than *Friesenfeld*. The name *Friesenfeld* occurs for the first time in the written sources of the Hersfeld Abbey in the 9th century (Springer 2004, 110, 171–2) and describes a region that was nearly identical with the *Hassegau*, covering the largest southern part and spreading west of the River Saale between the River Unstrut and the Harz foreland.

The Hersfeld document listing several settlements and urbes provides exceptionally detailed information on the settlement structure of an early medieval border zone at the eastern edge of the East Frankish Empire in the 9th century and the processes taking place here. It consists of four parts from different periods of the 9th century, which were brought together at the end of the 9th century and are preserved in a copy dating to the 11th century (Hessian National Archive Marburg, Urk. 56, no 2268). The first two parts of the document concern the region of *Friesenfeld*. The first part consists of approximately 230 names of settlements, and the second, 19 names of *urbes*. According to the heading of the second part, the settlements obviously belonged to the *urbes*: *Hec sunt urbes, que cum viculis suis et omnibus locis ad se pertinentibus decimationes dare debent ad sanctum Uvigberhdvm ad Herolvesfeld,* 'These are the urbes that with their settlements, all their places and all belongings have to give tithes to Saint Wigbert at Hersfeld' (*UB Hersfeld*, no 37, in Weirich 1936, 65–7).

The location of the place names mentioned in both parts also indicate that at least some of the settlements belonged to the *urbes*, and the *urbes* formed central elements of the settlement area (Fig 2). Two places are distinguished in the first part of the document as *civitates* and may have played a more superordinate role: Goseck (*Gozacha civitas*) and Merseburg (*Mersiburc civitas*); these probably differed from the other *urbes* and settlements with respect to their construction and/or function. Consideration of the locations of these settlements and *urbes* also shows that physical proximity to water seems to have been the main reason for selecting the sites of settlements and *urbes* in this region. This suggests the idea of a planned fortification system, especially with regard to the *urbes*, should be re-considered. Different scholars in the past interpreted the *urbes* as a coherent defence system, consisting of three lines of fortresses already established in

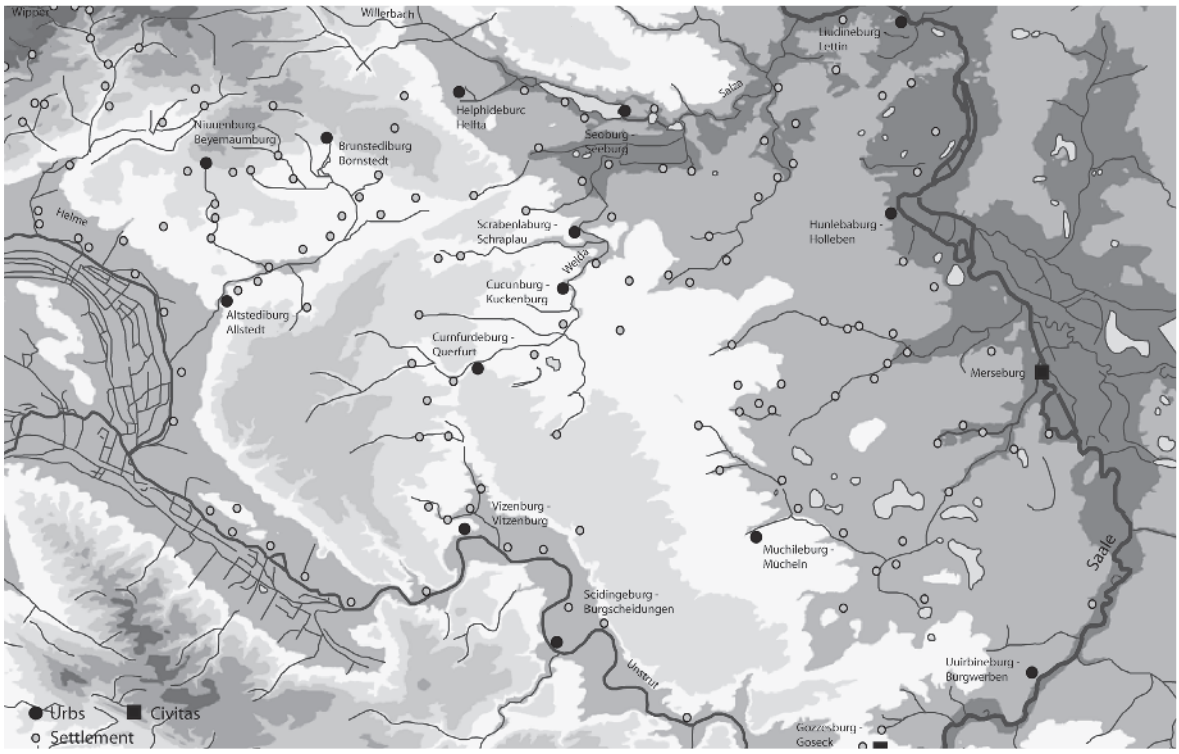

Figure 2. Urbes and settlements of Friesenfeld mentioned in the Hersfeld document. By S Altmann, based on CD Rom Top 50 Sachsen-Anhalt 2006.

the 8th century as a frontier against Slavs or even against Saxons (for instance Grimm 1958, 38, 44–6; Patze 1962, 58; Herrmann 2007, 134–5). A reassessment of the location of settlements and *urbes* recorded in this document suggests the central line of the supposed frontier system may instead have referenced the local topography by following the course of the Weida Creek (Fig 2). The identification of the *urbs Seoburc* (nowadays Seeburg) of the Hersfeld document with a *Hoohseoburg* (Steuer 2000, 14), first mentioned in AD 743 (*Annales Regni Francorum* ad a. 743, in Kurze 1895, 4), formed the basis for the assumption that all the *urbes* of *Friesenfeld* were erected in the 8th century (based on Grimm 1958, 36–7, 38). This is now under reconsideration (see Grabolle 2007, 60, no 398); as yet there is no evidence from either written sources or archaeological work to support the existence of the *urbes* in *Friesenfeld* as early as the 8th century. Seventeen named *urbes* can be connected to modern places through the place names which still exist today, while 16 *urbes* of the Hersfeld document can be linked to archaeological sites more or less precisely. Two *urbes* cannot be located: *Suemeburg* and *Uuirbinaburg*, and it is notable that two *urbes*, *Uuirbinaburg* and *Uuirbineburg,* carry nearly the same name.

Until now archaeological research only focused on sites in or near Merseburg (*Merseburg*), Schraplau (*Scrabenlaburg*), Bornstedt (*Brunstediburg*), Querfurt (*Curnfurdeburg*), Burgscheidungen (*Scidingeburg*), Esperstedt (*Cucunburg*), Goseck (*Gozzesburg*), Allstedt (*Altstediburg*) and Helfta (*Helphideburc*). From most of the sites only ramparts or ditches are left. Only two have been dated, to the 9th/10th or even generally to the 9th–11th centuries (Altmann/Grabolle 2011, 446, archaeological part by Roman Grabolle). In a few of the *urbes*, pits and postholes and pottery were found, which date to the 9th/10th centuries (Querfurt, Esperstedt, Burgscheidungen, Schraplau). Most of the sites lack settlement finds of early medieval date. Only in Esperstedt and Querfurt have pit houses been excavated, which also date to the 9th/10th centuries (Altmann/Grabolle 2011, 445–7 with further references; Grimm 1958, 216, cat no 150; Grimm 1958, 280–1, cat no 482), one of them producing a spur (Enrico Paust pers comm, Friedrich Schiller University, Jena). By contrast, new work at Frauenberg near Sondershausen, just 30 km to the west of the area under discussion has just produced several rich Frankish burials and a central place of the 7th and 8th centuries (Diethard et al. 2013, 249–58). Similar finds or records are absent from *Friesenfeld*. The documentary and archaeological evidence together suggest that the existence of a planned fortification system erected as a barrier against Saxons should be reconsidered, not only because of the choice of *urbes*' sites, but because of the simple fact that these places probably did not exist in the 8th century.

Although it seems to be clear that the *urbes* took on defensive functions, at least for the settlements surrounding them, the range of their functions also seems to have been much broader. This is suggested by the heading of the second part of the Hersfeld document which implies the *urbes* played a central part in the administration of the region by raising a tithe (see above; *UB Hersfeld*, no 37, in Weirich 1936, 65–7). A more comprehensive picture of the *urbes*' function and their impact on the region's development can be obtained by a detailed analysis of the place names in the region. This reveals a much more heterogeneous structure than the three suggested lines of fortification. Two examples will suffice.

North-west *Friesenfeld*

In the north-west of *Friesenfeld* (Figs 2 and 3), three *urbes* listed in the second part of the Hersfeld document, *Altstediburg, Niuuenburg,* and *Brunstediburg,* can be identified with the modern-day settlements of Allstedt, Beyernaumburg and Bornstedt in the southern part of the Harz foreland. The German names of two of them, *Altstediburg* and *Niuuenburg,* as well as of some settlements situated between the two *urbes*, offer information on the settlement development in the region. Two settlement names, *Suderhusa* and *Osterhusa*, reference the cardinal points south and east, and together with *Middelhusa*, their names may refer to their relationships with the 'new' (*niu*) castle *Niuuenburg*. *Niuuenburg* is connected to the 'old' (*alt*) *urbs Altstediburg* via two creeks (Rohne, Westerbach). Additional settlements are situated along these creeks; the names of two of them, *Nigendorpf* and *Niustat*, bear the prefix *nig[i]* or *niu[wi]*, which is an old Saxon expression for 'new' (Walther 1971, 281, 304). Thus, assuming that the place names are intentionally chosen by their founders, the early development of settlement along the river is conceivable or very likely.

Since we are lacking any additional written sources about this region in the 9th century, nothing is known about the people who established these settlements or who initiated this settlement process. Some of the settlement names, however, offer a glimpse of possible protagonists. *Hildiburgorod*, for example, a settlement north-east of *Brunstediburg*, is a place name created by combining the female personal name *Hildiburg* and the suffix '*rod*', that indicates the clearing of wood for the establishment of settlements. Two other names, *Ludesleba* and *Liudoluesdorpf*, were formed with the personal name 'Liud(w) olf' (Walther 1971, 269, 304), the leading name of the Saxon noble family of Liudolfing. As written sources of the early 10th century show, their various lands and possessions were scattered between the Harz region and *Friesenfeld,* and later reached up to the Saale. This family also established one of their palaces in *Altstediburg* and the earliest known document to be drawn up in *Altstedi* dates to AD 935 (*MGH DD H I*, no 41, in Sickel 1879–1884, 74). A bishop seems to have been another actor in the settlement processes in this region, as indicated by the name *Biscofesdorpf*, 'the village of the bishop', at the periphery of this area, west of *Brunstediburg*. The only ecclesiastical dignitaries whose spheres of influence

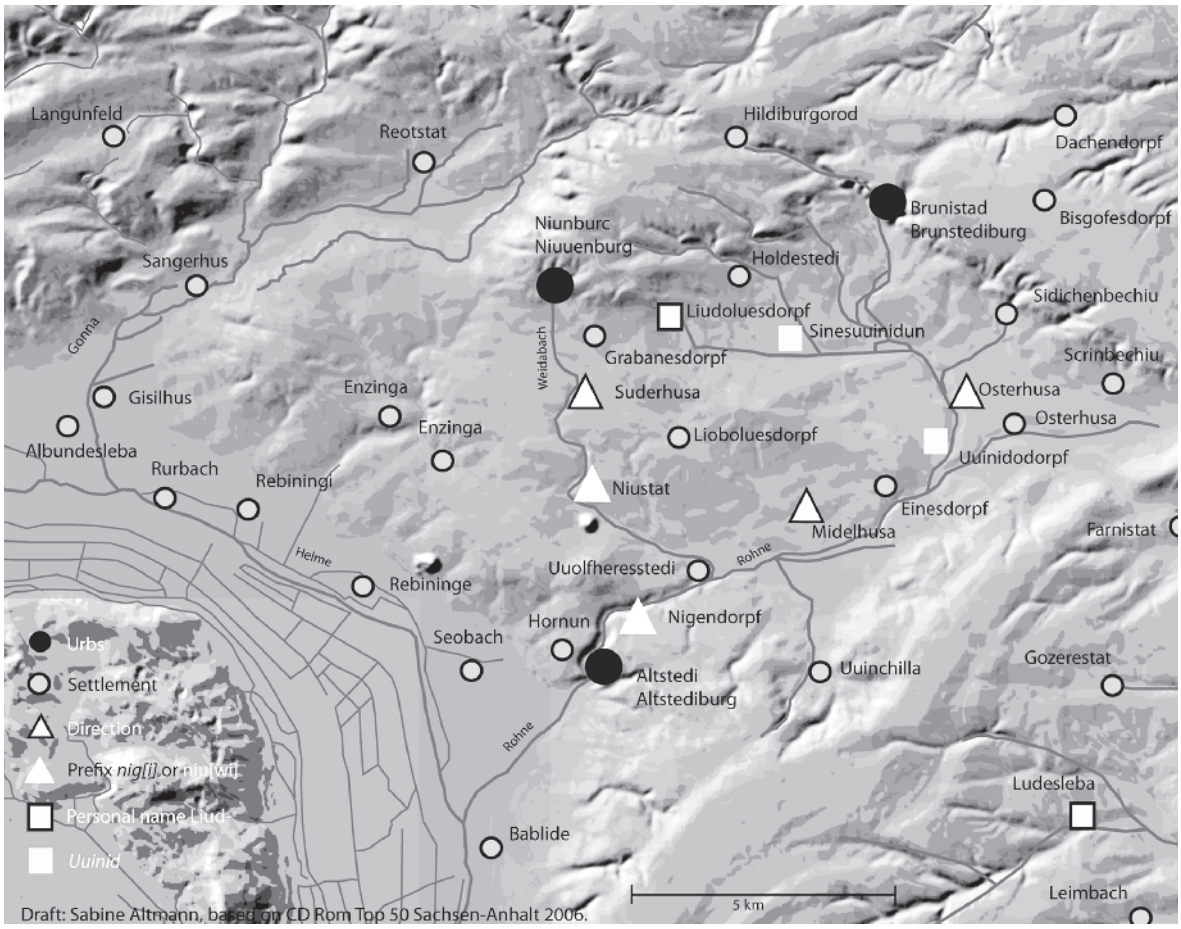

Figure 3. Detailed map of the urbes and settlements mentioned in the Hersfeld document between Altstediburg, Niuuenburg, and Brunstediburg. Draft: S. Altmann, based on CD Rom Top 50 Sachsen-Anhalt 2006.

included *Friesenfeld* at this time were the archbishop of Mainz and the bishop of Halberstadt, and one of them can probably be connected with that settlement. All of these reveal that at the end of the 9th century, the described complex represented an area of innovative settlement development, in which different rulers were active and had an impact on the course of events and were probably in charge of different estates. A major factor in the initiation of this settlement phase may have been the *urbes* of the Hersfeld document.

Equally, the settlement names also show that the area included people who were described as Slavs. Two names refer to places where Winids (Wends) lived: *Uuinidodorpf* (Walther 1971, 306) which could be translated as 'the village of the Wend', and *Sinesuuinidun* which might refer to a place where 'the Wends of [a person called] Sino' lived (based on Loga 2007, 109–10). Since these two names are exonyms, names imposed by others, and not Slavic names created by people speaking a Slav language, the names might indicate that the persons living there were in some respect different, probably in respect to language, and perhaps with respect to religion or other cultural matters as well. These German names referring to places settled by Slavs differ from another group of names referring to Slav culture, i.e. names of Slav origin. Such names are to be found only in the east of the *Friesenfeld*, along the Saale and its tributaries (Fig 4). There are none in the western part of the region.

These place name patterns correspond with the results of a spatial analysis of the archaeological evidence. Pottery produced in the Slavic tradition can be found along the rivers in the east of the region (Fig 4). Since written sources of the 9th century do not mention any donations by the Frankish king, respectively the Emperor, or Frankish nobles east of the river, it can be assumed that the Saale marked the border of the East Frankish realm in terms of sovereign rights. With respect to place names and pottery, however, a cultural transfer or contact zone can be observed along the river. These traces might also belong to groups described in the Annals of Fulda as Slavs living *circa Salam*: 'along the Saale', and being loyal to the Thuringians in 880, in the same entry that mentions the *Limes Sorabicus* for the last time (*Annales Fuldenses* AD 880, in Pertz and Kurze 1891, 95).

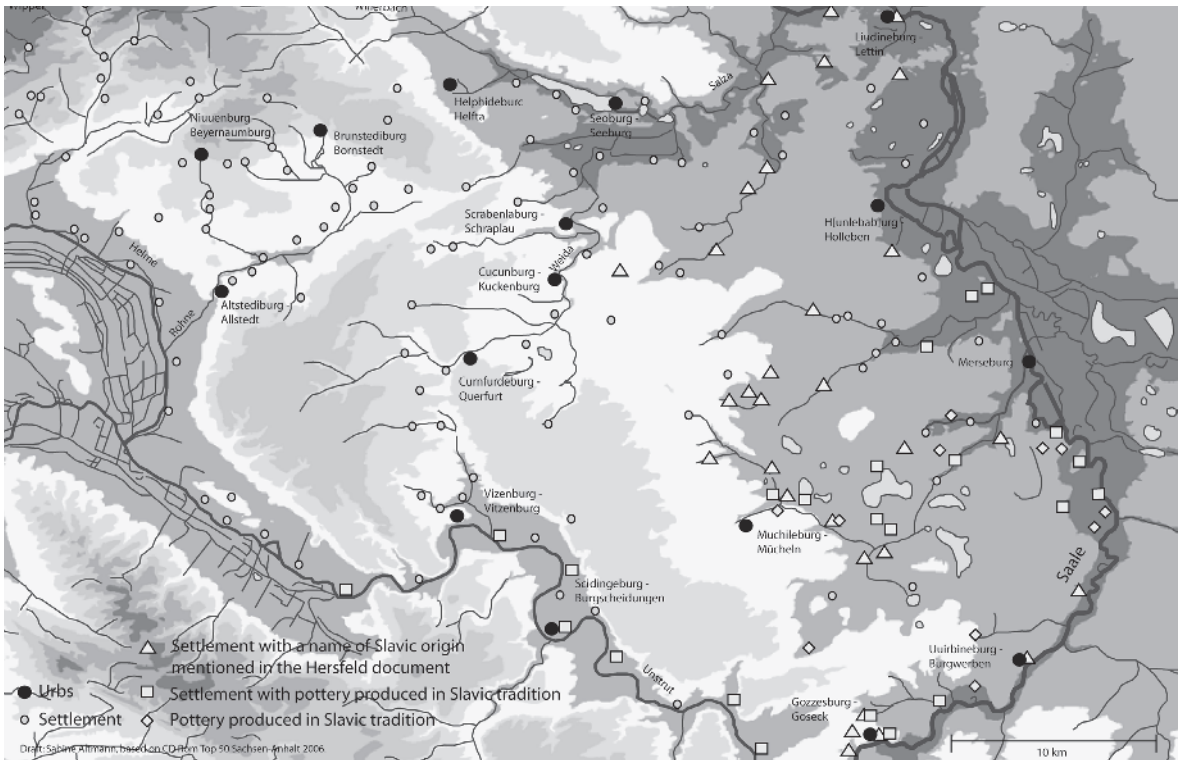

Figure 4. Names of Slav origin mentioned in the Hersfeld document and pottery produced in Slavic tradition in Friesenfeld. By S. Altmann, based on CD Rom Top 50 Sachsen-Anhalt 2006.

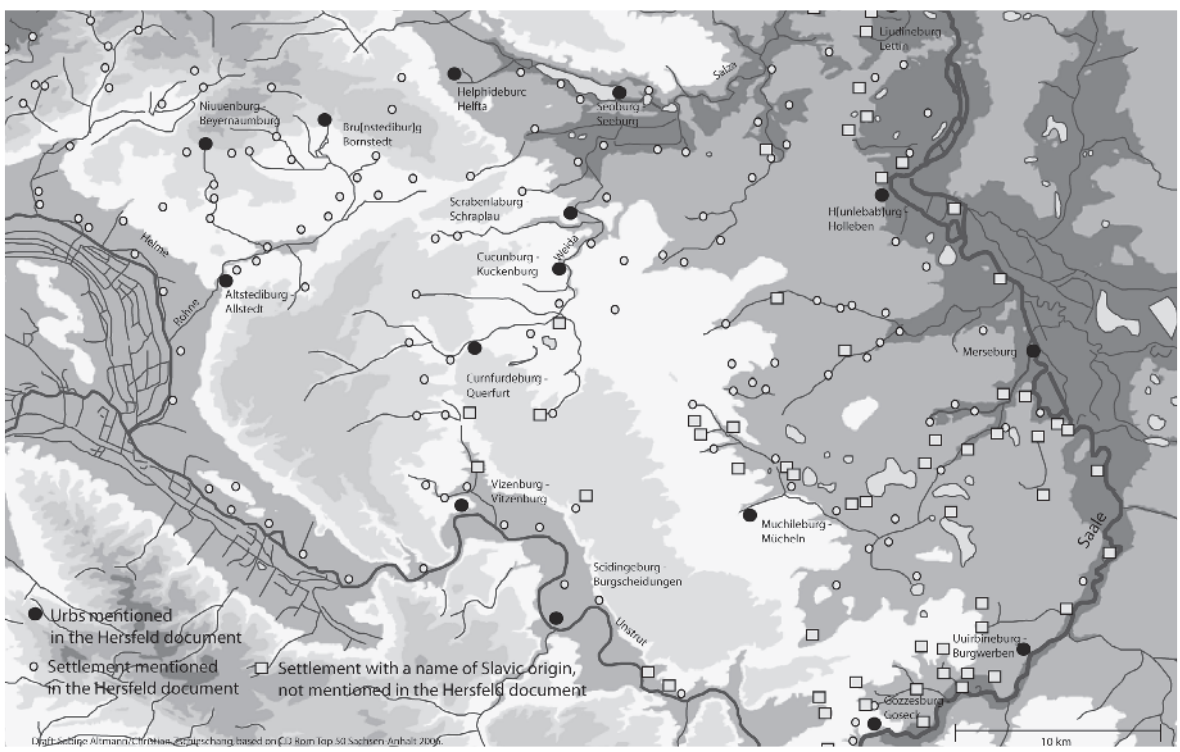

Figure 5. Names of Slav origin mentioned in written sources from the 11th century onwards in Friesenfeld, not mentioned in the Hersfeld document. By S. Altmann, based on CD Rom Top 50 Sachsen-Anhalt 2006.

South-east of Friesenfeld

Written sources from the 11th century onwards also mention settlements with Slavic names which are not listed in the document of the Hersfeld Abbey. These settlements, concentrate on the Saale and its tributaries as well (Fig 5). A higher density of sites can be observed in the south-east of *Friesenfeld*, south-west of the *urbs Uuirbineburg* (now Burgwerben), an area that does not contain a single one of the 9th-century settlements mentioned in the Hersfeld document. This begs an important question: does the later mention of these settlements mean that they were only established in the High Middle Ages, or could these settlements have existed in the 9th century? Linguistic analysis indicates that these place name compounds could have been created in the 9th century. It is certainly unlikely that new settlements established in the 11th, 12th or 13th centuries would have been given names with this kind of etymology (Zschieschang 2014, 1771–3). Some of the settlements are located in the river valley of the Saale (Fig 6) and it is unlikely that they were established in connection with a high medieval colonisation of that area, at a time when people preferred soils which were more suitable for the growth of wheat. If we postulate the contemporaneity of some of these settlements with those of the Hersfeld document, we must consider that 9th-century settlements with names of Slavic origin existed within this zone, but that tithes were not gathered by the Hersfeld Abbey and perhaps not even by the Frankish administration, which probably had donated the tithe to the abbey of Hersfeld. In this south-eastern area, sites were built around an *urbs* with a Slavic name (*Uuirbineburg*), situated directly on the River Saale, close to the Slav settlement area east of the river. In addition, some of these names carry the ending *-ici* and are combined with a personal name, a construction, which is generally translated as 'the people of'. Thus, for instance, the people of *Rogal* (Eichler 1993, 164) might have lived in *Rogalici*, and did not offer tithe to the abbey of Hersfeld. Power structures in the contact zone west of the Saale seem to have been complex and cannot be explained by simply assigning the settlements only to the Frankish Empire.

These examples reveal that the development and character of the *urbes* was not determined solely by their military functions as the establishment of a planned fortification system by the East Frankish administration might suggest. The structure of the region was undoubtedly influenced by the *urbes*, which alongside their definite military function formed the basis for settlement development and provided a centre for an area with a heterogeneous power structure, in which they also took on administrative functions. This region can be characterised through these different sources of evidence as a zone that was strongly influenced by its location at the edge of the Empire, by its status as a border and contact zone between two neighbouring regions, and as a place of cultural transfer and exchange. At least one of the *urbes* seems likely to have been a centre with specific rights. Other aspects such as the social structure, or the perceptions of the foreign, cannot be traced in the written sources of the 9th century, but the sources of the 10th century do offer evidence of this. At this time the character of the region started to change: after the integration of the Slavic settlement areas east of the River Saale into the East Frankish Empire, it lost its immediate border status and 'life at the edge' changed as the region became part of a greater political entity.

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Borderline of an Empire: The Eastern Frontier at the Time of Charlemagne

Matthias Hardt

One of the regions at the eastern periphery of the Frankish kingdom which became an early focus in historiography is the landscape of the lower middle Elbe, where just north of Magdeburg the river changes its direction from running south-north to north-west. In AD 780, in the course of the wars against the Saxons, Charlemagne first reached the Elbe at the mouth of the Ohre near modern day Wolmirstedt, and there ordered affairs pertaining to the Slavs and Frisians (*Annales Regni Francorum* AD 780, in: Kurze 1895, 56f). After the proclamation of Charlemagne as Emperor on Christmas Day in AD 800, this north-eastern edge of what was now an empire brought home the problem of border consolidation. Perhaps it was only as a consequence of their elevation to the status of empire that the Franks had managed to break Saxon resistance by AD 805. With their integration into the empire, the outer edges of the Saxon settlement areas became the borders of Frankish rule (Ernst 1976). This situation seems to be reflected in the control posts listed in the *Diedenhofen Capitulary* of the same year, which were designed to prevent arms trade with Slavs and Avars (Hardt 2005b). With the exception of Magdeburg and Regensburg, these control posts were not located along the large rivers, such as the Elbe or the Danube, but more frequently along smaller rivers on which the territories settled by the Slavs could be reached by boat, for example at Bardowick, Erfurt, Forchheim, Hallstadt, Premberg and Lauriacum/Lorch.

Yet only a little later, we can recognise the attempt by the Frankish Imperial administration to turn the Elbe and Saale into fortified river boundaries of the Empire. In order to control this newly conceptualised boundary against the Polabian Slavs and the Sorbs, two fortifications were erected. They are mentioned a year later in the *Chronicon of Moissac*, according to which in AD 806 Charlemagne's son of the same name Charles, ordered the building of forts on the eastern bank of the Saale in or near Halle (Hardt 2014), as well as *contra Magadaburg*, that is to say on the eastern bank, opposite the border control post mentioned in the previous year (*Chronicon Moissiacense* AD 806, in: Pertz 1826, 308). Two years later, the Frankish Royal annals report the construction of two further castles on the banks of the Elbe. The Imperial administration aimed to use the troops permanently stationed there to act *contra Sclavorum incursiones* and to prevent them (*Annales Regni Francorum* AD 808, in: Kurze 1895, 127; Hardt 1991; Hardt and Schulze 1992, 10; Hardt 2001).

One of these two fortifications on the banks of the Elbe, attested for the year AD 808, can probably be identified with the site bearing the German-Saxon name *Hohbuoki* (Wolf 1963). It is mentioned again two years later, when the castle — at that point the residence of Odo, the Imperial legate for East Saxony — was conquered and destroyed by the Slavic Veleti (*Annales Regni Francorum* AD 810, in: Kurze 1895, 131f). For the year AD 811, we have the report of the reconstruction of the fort by a Frankish army in the course of a campaign against the Linones (*Annales Regni Francorum* AD 811, in: Kurze 1895, 135).

In the Hanovarian Wendland, on the high terrace above the river, lies a Geest island today named *Höhbeck*, on which the so-called Vietzer Schanze is located. The archaeologist Carl Schuchhardt asserted that this strictly rectangular banked enclosure was the fortification of *Hohbuoki* mentioned in the Royal annals (Schuchhardt 1943, 351; cf Sprockhoff 1958; Wachter 1986; Saile 2007a, 111–15). New dendrochronological dates obtained by the Göttingen archaeologist Jens Schneeweiß show that this single phase fort was erected in AD 810 and that the rectangular earth-and-timber construction can be equated with Charlemagne's stronghold (Schneeweiss 2011).

The late antique *limes* as a model?

Thus, alongside a series of written sources (Magdeburg 805/06; Halle 806; super Albiam 808; Höhbeck 810/11), the archaeological data also indicate that the decade after the Roman coronation of Charlemagne as Emperor on Christmas Day in AD 800, saw the beginning of a programme of fortification along the Saale and Elbe rivers. It is particularly because of the forts established on the eastern banks of the Saale (*Halla*) and Elbe (*ad aquilonem partem Albiae contra Magadaburg*), that in recent years the author formulated the hypothesis that the concept behind the building of these border forts by the Frankish Imperial administration was drawn from the late antique *limes* along the Rhine (Fischer 2000, 208–10) and Danube (Mackensen 2000; Visy 1988), whose upstanding remains were still visible at many places in the early 9th century, for instance in Cologne-Deutz or Mainz-Kastel (Clemens 2003, 44–56; Clemens 2006, 12 w.r.t. Köln, Clemens 2003, 56–63 w.r.t. Mainz). In the case of the

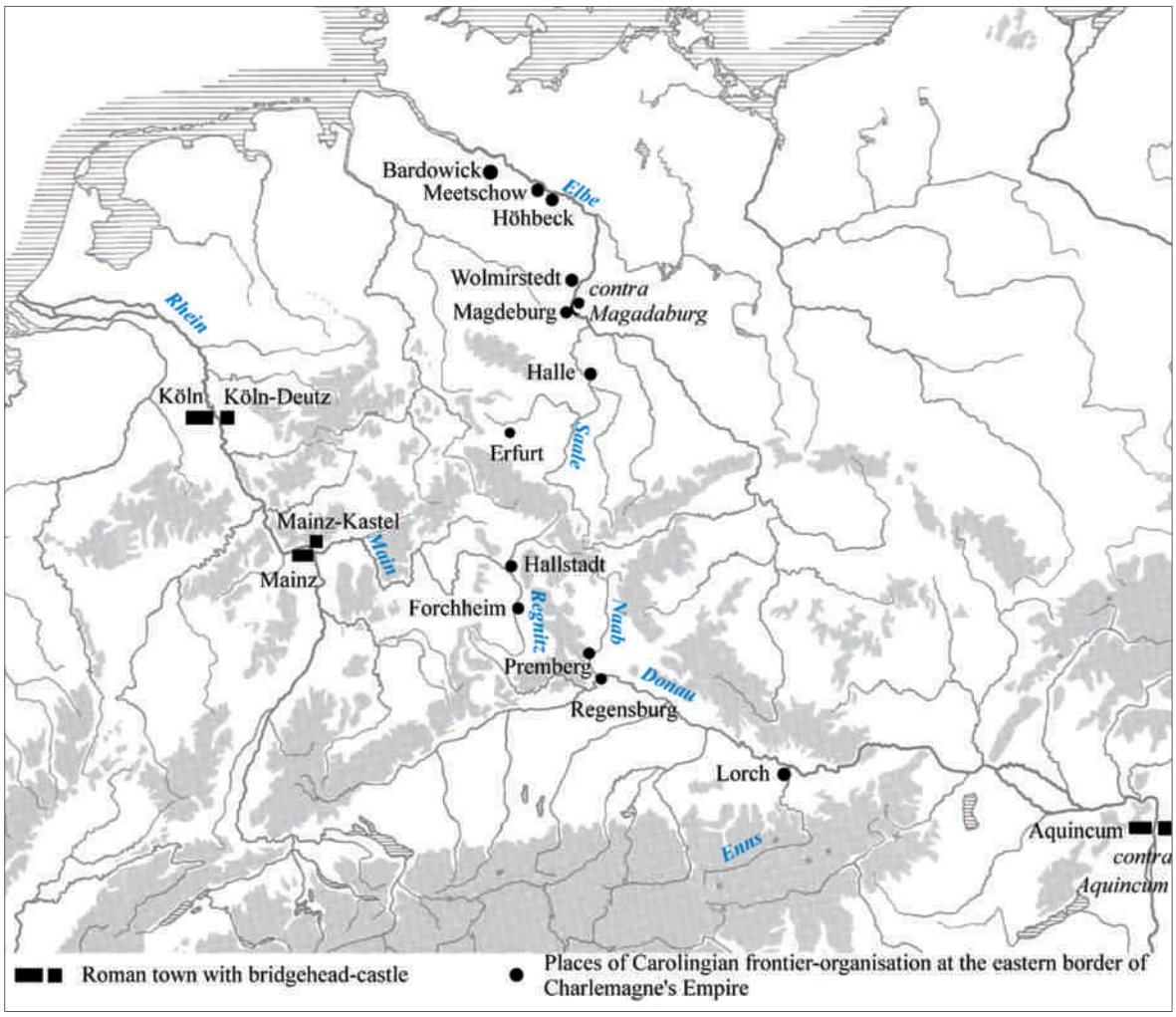

Figure 1. Places of late Roman and Carolingian frontier organisation.

bridgehead fort of Divitia/Deutz at Cologne, whose demolition by the Cologne citizenry is only attested for the year AD 1242 (Gechter 1989, 394f; Carroll-Spillecke 1993, 321), the fortification was most likely still in use in the Carolingian period (Precht 1987, 515; Precht 1988, 8f; Gechter 1989, 377–9; Carroll-Spillecke 1993, 329–34, 339–41, 357–66; Carroll 1998, 49, 54). In addition, the late Augustan and early Tiberian attempts to extend Roman rule from the Rhine to the Elbe were also known about in the Carolingian period (Deininger 1997, 8–41; Johne 2006, 16–19).

Based on an analysis of different kinds of sources, the idea was developed of an attempt by the Frankish Imperial administration to change the organisation of this border. Sustained critique from the archaeological side, however, has ensued: Thomas Saile, previously based at Göttingen and now at Regensburg, has questioned whether 'Rome's political activities in Germany at the time of Augustus really were known about in Carolingian times' and whether 'Roman strategies of border administration were discussed at the court of Charlemagne'. In addition, he doubts that the Elbe could have played any role 'as a geostrategic goal of Roman politics' (Saile 2007a, 185). Partly because the distance between the castles attested in the written sources is too large and 'a systematic control of the Elbe line therefore seems hardly possible', Saile proposes that the Elbe at the time of Charlemagne was 'the approximate boundary between Saxons and Slavs'; 'after the wars against the Saxons it became the eastern strategic horizon of the Carolingian Empire. There is no need' according to Saile 'to draw on Late Antiquity in order to explain this development' (Saile 2007a, 186).

Knowledge of antique texts in times of the Carolingians

The history of transmission of the *Annales* of Tacitus, one of the main sources of information for Augustan and Tiberian politics in Germania (Tacitus, *Annales*, in: Johne 1991), does not exclude the possibility that this work was known among

Charlemagne's circle of advisors. In the mid-9th century, the writings of Tacitus were being read and copied in the monasteries of Fulda, Hersfeld and Monte Cassino (Brunhölzl 1996, 401; Pralle 1952, 11–13; Huth 2008, 630–3), where they had partly arrived from monasteries in the western Frankish Empire (Huth 2008, 637). In his *Historia Romana*, the Langobard scholar Paulus Diaconus, who spent some years at the court of Charlemagne around AD 785, wrote that the Emperor Augustus had pushed back the Germans *trans Alvim fluvium*, to the very river that lay in the *barbaricum* far beyond the Rhine (Paulus Diaconus, *Historia Romana* VII, 9, in: Droysen 1878, 60). In this, Paulus Diaconus was directly copying the words of the late antique historian Eutropius, who, writing in the second half of the 4th century, in turn based himself on Suetonius, where we read *Germanosque ultra Albim fluvium summovit* (Sueton, *De Vita Caesarum*, Aug. 21, 1, in: Krenkel and Labuske 1991, 188f; Eutropius, *Breviarium*, 7, 9, in: Audring 1991; Deininger 1997, 30, 61). Sueton's biographies of Roman emperors existed in 9th-century Fulda as well, and were used by Einhard as model of his *Life of Charlemagne* (cf Huth 2008, 635f). At the very least, the authors of the Royal Frankish Annals (*Annales Regni Francorum*), and of the *Chronicon Moissiacense*, were familiar with the terminology of Roman late antique boundary organisation (Hoffmann 1973, 9), otherwise they would not have described the bridgehead forts lying on the bank opposite the Imperial territory with the preposition *contra*, a characteristic of late antique sources which was also employed in the case of Magdeburg (for example in Carolingian copies of *Notitia Dignitatum* Or. XXXIII, 48, in: Seeck 1876, 194: *contra Acinco* (Aquincum) *in barbarico*; cf Pabst 1993, 1287; Lafitte 2001, 123; Zelzer 2001, 295; Mráv 2003, 330, 335f, 351–3). In addition, the garrisons of the castles erected in AD 808, who were meant to prevent Slavic raids, were termed *praesidia* by our historiographers, the same word which Florus used in the Roman period to describe the troops of Drusus (*Annales Regni Francorum* AD 808, in: Kurze 1895, 127; Florus, *Epitoma* 2, 30, in: Audring 1991, 26, 178; Deininger 1997, 13). On the basis of these reflections, it does not seem entirely outlandish to suggest that the building of forts along the Saale and Elbe in Frankish times was aimed at providing Charlemagne's Empire with a fortified river boundary in the east, built according to a late antique model (Hardt 2005a; 2009) — and at the same time, successfully completing the Roman emperor's goals in Germania. The Frankish forts and bridgeheads, located at points where long-distance routeways crossed the Elbe, served as visual statements of the Carolingian Empire. Just like the military posts of Roman antiquity, the Carolingian castles were to withstand raids from *barbaricum*, although this was now against *incursiones Sclavorum*. We are here dealing with a courtly society which produced the Royal Annals, where Pliny's *Naturalis Historia* was read (*Epistolae Karolini aevi* IV, MGH 1902 [1925], Nr 155, 250; Nr 170, 280; Bischoff 1965, 42), a court that supported ancient learning (Fried 1994, 264–306; Fried 1997, 32–5) and collected books (Bischoff 1965; Fried 1997, 29–32; Zelzer 2001, 311), which arranged the transport of ancient spolia across the Alps in order to serve in the representation of imperial power (Binding 2007, 18–28; Untermann 1999, 155–9), and which, in imperial manner, began the construction of a canal across the watershed between the Rhine and Danube (Ettel 2007, 121–7; Ettel et al. 2014; Koch 2006), and finally a power that organised the spectacle of proclaiming the Frankish king a Roman emperor in Rome, at which point even the striking of gold coinage was revived (Hardt 2004, 297). We must therefore allow that this society could very well have been aware of what the fortified river boundary of an empire should look like, at least at certain selected points, and would emulate this to further advance its Imperial claims.

The failure of the Imperial borderline along the Elbe in the 9th century

This concept of an Imperial frontier at the north-east edge of the Carolingian Empire could not be pursued in earnest for long. After the reign of Charlemagne, the Carolingian Empire was subjected to internal crises and was no longer capable of sustaining a border organisation that exceeded long-established structures on its eastern periphery. For this reason, several of the border forts fell into disrepair and the Elbe lost its short-term character as a boundary. The fort on the Höhbeck is not mentioned again after AD 811. In contrast, place-name analysis shows that in the hilly areas of the Drawehn, south-west of the Elbe, a traditional Slavic kind of boundary organisation, was re-established (Leśny 1981). Saxon place names containing the element 'Mannhagen' (Engel 1951; 1957), as well as Slavic names of the Presieka, Osek or Zasiek kind and their derivatives, which carry connotations of 'felling', 'knocking down', 'entangling' and so on, show that whole forests or forest edges on the inner boundaries of settlement areas were cut at a height of one or two metres above ground, with the trees being jammed together and additionally rendered impassable with brambles and other thorny shrubs (Dickers and Hardt 1998, 191). When, in the course of the expansions of the settled landscape during colonisation episodes in later centuries, these forests were partly or completely cut down to create farmland (Bartlett 1993, 133–66; 1996, 165–204), the names of these natural boundaries remained attached to many places and areas, although their meanings were progressively lost. This shows how in subsequent centuries the Carolingian boundary along the Elbe reverted to a Slavic boundary landscape of the kind we know all too well from the Silesian Preseka and the Bohemian boundary forests (Schich 1991; Hardt 2000). Even in Hungary there were such boundary forests, which were looked after by certain ethnic groups, or 'auxiliary peoples' as Hansgerd Göckenjan has

termed them (Göckenjan 1972). One of the miniatures in a manuscript by Peter of Eboli shows how a crusader army on its way to Palestine tries to fight its way through such an artificially strengthened boundary forest (Petrus de Eboli, *Liber ad honorem Augusti*, in: Kölzer and Stähli 1994, 234f). Boundary forests, which were entangled in this way, could only be crossed at particular points with special passageways. These can be documented archaeologically, for example at the Machnower Krummes Fenn, south-west of Berlin, in what is now the heritage village of Düppel (von Müller 1975, 324; 1998, 6f; Hardt 2000, 53–5).

These reflections on the failed conception of a boundary were intended to show that the Frankish Imperial administration tried to make visible imperial-style claims by erecting castles and bridgeheads along the Elbe and Saale. Just like the Rhine and the Danube in Roman times, the Elbe and Saale were now meant to divide the Carolingian Christian Empire from *barbaricum* which, as Daniel Fraesdorff has shown, was characterised across the entire trans-Elbe area as *Aquilo*, that is to say the 'North', with all its negative cultural connotations of cold and paganism (Fraesdorff 2005). However, the economic and technological potential and capabilities of the Carolingian Empire were not sufficient to sustain such a large-scale project, even just for a few decades.

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Poles, Ruthenes and Saxons on the River Bug in 1018: The Formation of the Polish-Rus Border Zone in the 10th–13th century

Marcin Wołoszyn

In writing about the Kievan intervention of Boleslaus I (1018), Thietmar of Merseburg (VIII 31) described a battle fought on 22 July on an unnamed river. Thietmar's source of information would have been participants in this campaign: natives of Saxony. Polish and Ruthenian chronicles from the early 12th century describe the events of 1018 in greater detail reporting that the battle took place on the River Bug (*Gallus Anonymus* I 7; *Primary Chronicle* a. 6526 [1018]). The *Primary Chronicle* also records that on his way home from Kiev, Boleslaus occupied the Cherven towns now identified tentatively as the earthworks at Czermno and Gródek on the bank of the River Huczwa a tributary of the Bug. The Cherven towns were an area of rivalry between Piast, Riurikid and, from the 12th century, the Arpad princes.

Research on the formation of the eastern border of Poland and of the Polish-Rus has seen recent revival. In the eastern border area of modern Poland there are several small towns and villages with earthworks which are regarded as the remains of important strongholds established during the medieval period (Fig 1; see Buko 2007; Franklin and Shepard 1996; Lübke 2004a; Samsonowicz 2009 and Mühle 2011). This paper reports on the evidence of the written sources, but also the evidence from archaeological finds from Czermno and Gródek. These settlement complexes both lie in eastern Poland on the bank of the Huczwa; both are identified as major centres of the Cherven towns in the principality of Kievan Rus (Ruthenia).

The inadequate status of research on the Cherven region, or more broadly, on the Polish-Rus border zone is a result of Soviet discouragement and disinterest in the 20th century (see Stobiecki 2011; Wołoszyn 2012) and in 1945–89 there was, in addition, only a single centre for archaeology at a university in eastern Poland — in Lublin. Since 1989, study of the formation of Poland's eastern border region and of the Polish-Rus border zone has considerably improved. A pioneering study was undertaken by Michał Parczewski in 1991 (Parczewski 1991; 2007); and during 1999–2003, I worked with Michał Parczewski as my PhD supervisor, on the small finds of Byzantine and/or Rus provenance of 10th–13th-century date from southern Poland. Since 2008, cooperation between the Leipzig Centre for the History and Culture of East Central Europe (GWZO, Leipzig, Germany) and the Institute of Archaeology and Ethnology of Polish Academy of Sciences, Cracow-Warsaw, Institute of Archaeology of University of Rzeszów has facilitated much needed research. The project *Vergleichende Untersuchungen zum sozialen, wirtschaftlichen und kulturellen Wandel in den Grenz- und Kontaktzonen Ostmitteleuropas im Mittelalter* or *Comparing medieval boundary regions* was led by Christian Lübke and Matthias Hardt. Further advances were through successive grant funding in 2011 with an exhibition dedicated to the archaeological heritage of Czermno (see Bagińska et al. 2012) and a programme of conservation and scientific analysis of a series of medieval Rus seals from Czermno, notably, Dorogichin-type seals. Further research was grant aided in 2012 by the Polish Ministry of Science and Higher Education on the stronghold complexes at Czermno and Gródek, focusing on the chronology and function of the Cherven towns (project no 12H 12 0064 81). This multidisciplinary and international venture is implemented by an international team of researchers from Poland, Germany, Russia, Serbia and Ukraine. The results will be published in a Polish-German publication series launched in 2010 and dedicated to early history of East Central Europe: u źródeł europy środkowo-wschodniej / frühzeit ostmitteleuropas.

The present paper summarises past and current research on the Cherven towns. These were significant places, as archaeological artefacts from Czermno and Gródek attest to material evidence on the role of the Byzantine Empire in the formation of eastern parts of Europe. There is no denying that the decades long discussion on the ethnic interpretation of archaeological finds has yet to be resolved (cf Brather 2004; Curta 2011). To speak of 'Polish' belt buckles or 'Rus' arrowheads is an anachronism, but in the present discussion the term 'Polish' is used to denote finds discovered with a greater frequency on the territory of Poland, and much more rarely to the east of Poland. Differences are apparent in the material culture of medieval Poland when compared to medieval Rus, but rather than representing ethnic differences, these can be suggested to stem from the impacts created through the merging of Poland and Rus with Latin and Byzantine power and society.

The Cherven towns: a history

In the summer of 1018 Boleslaus I (†1025), then Duke of Poland, and later its first king, led his troops to his eastern

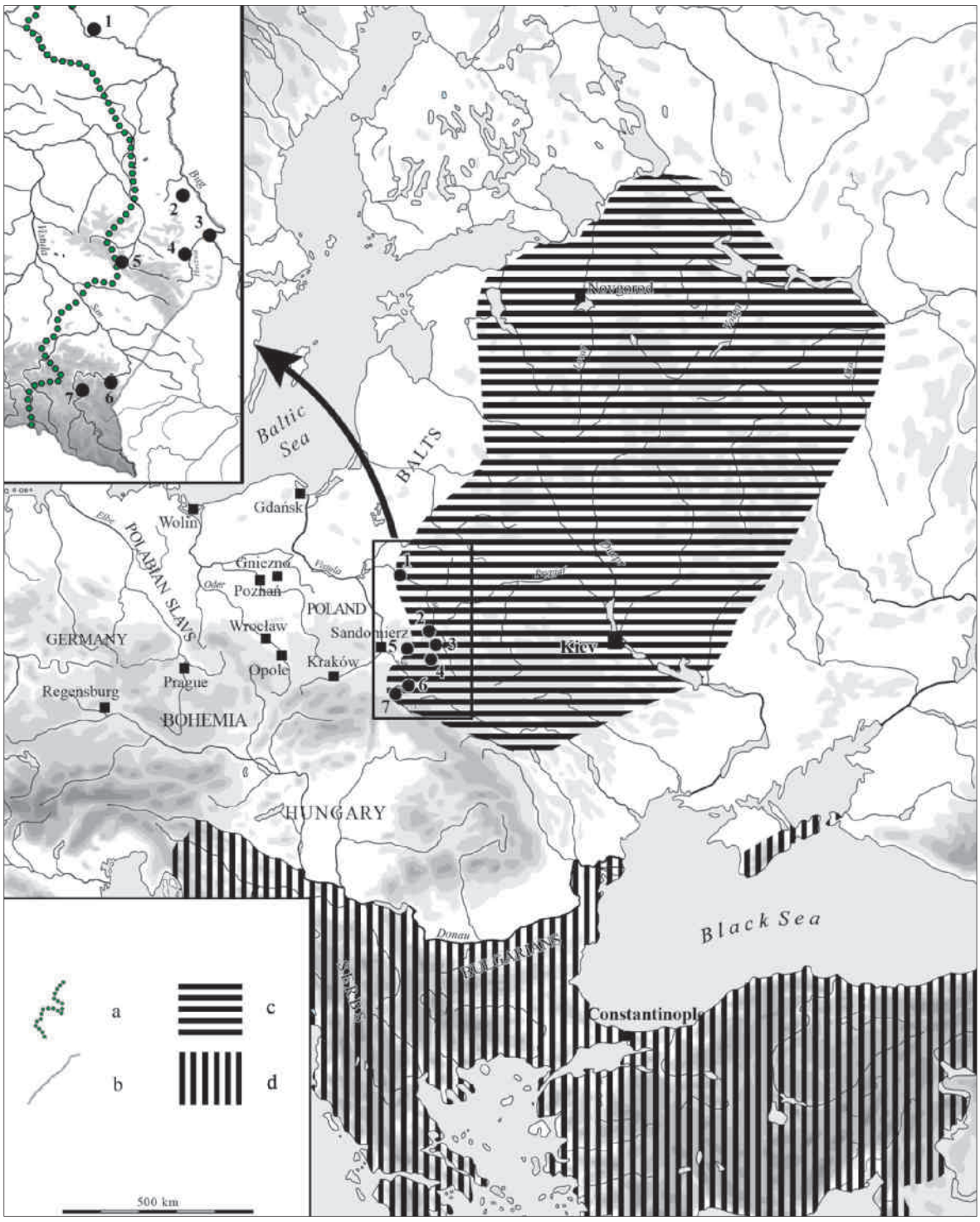

Figure 1. Major early medieval centres in eastern Poland c AD 1000 against the European background. a: medieval border between Poland and Rus (Makarski 1996, map no 5); b: modern eastern boundary of Poland; c: Kievan Rus c 1000 (Obolensky 1971); d: Byzantium c 1025 (Haldon 2010, map no 8:1). 1: Drohiczyn (Dorogichin), district Siemiatycze, Podlaskie Voivodeship; 2: Chełm (Kholm), district Chełm, Lublin Voivodeship; 3: Gródek (Volyn), district Hrubieszów, Lublin Voivodeship; 4: Sąsiadka (Suteysk), district Zamość, Lublin Voivodeship; 5: Czermno (Cherven), district Tomaszów Lubelski, Lublin Voivodeship; 6: Przemyśl (Peremyshl), district Przemyśl, Podkarpackie Voivodeship; 7: Trepcza, district Sanok, Podkarpackie Voivodeship. Drawing: I. Jordan.

border, making his way to Kiev. Thietmar of Merseburg recorded that:

> 'On [the] 22 July, the duke came to a certain river, where he ordered his army to set up camp and prepare the necessary bridges. Also camped near the river, along with his army, was the King of the Russians [Yaroslav (†1054)]. He was anxiously awaiting the outcome of the upcoming battle, for which both rulers had called. Meanwhile, the Poles provoked the enemy into fighting and, with unexpected success, drove them from the river bank which they were supposed to defend. Elated by this news, Boleslav hastily notified his companions and quickly crossed the river although not without effort. In contrast, the hostile army, drawn up in battle formation, vainly attempted to defend its homeland. It collapsed at the first attack, however, and failed to mount any effective resistance. Among those who fled, many were killed, but only a few of the victors were lost. On our [German, Saxon] side, the dead included Erich, an illustrious miles whom our emperor had long held in chains. From that day on, with every success, Boleslav drove his scattered enemies before him; and the whole populace received and honoured him with many gifts' (*Thietmar* VIII 31, 382–3).

In the *Gesta Principum Polonorum* of Gallus Anonymous, and in the Russian *Primary Chronicle*, both early 12th-century sources, the events of 1018 are described in more detail. We are told that the battle took place on the River Bug (*Gallus* I 7, 45), close to the town of Volyn (this would be today's Gródek; see *Primary Chronicle*..., a 6526 [1018], 221; see Poppe 1958). More importantly, the *Primary Chronicle* also reports that on his way home from Kiev, Boleslaus occupied the Cherven towns. In this way the accounts of three early authors provide us with the first reliable record for the formation of the Polish-Rus border zone.

During the second half of the 10th century, the area between Cracow and the western Bug River was controlled by Czech Přemyslids (*CDB*, no 86, 94; see also Cosmas I 34, 88–9) and in AD 981 Vladimir the Great took control of the Cherven towns (*Primary Chronicle* a 6489 [981], 182). We know little of the tribes that inhabited the region. A document dating to mid-9th-century names them Uislane/Vuislane, identified as Vistulans who are known from other records and places them on the Upper Vistula, whereas the Busani are named and located somewhere along the River Bug (*Descriptio civitatum* 221). The latter are also known to the author of the *Primary Chronicle* which names three tribes in the context of the River Bug, the Buzhans, Volhynians, Dulebs (see *Primary Chronicle*, 23–4). The *Decriptio Civitatum* also refers to the Lendizi or Lendians (in Polish: Lędzianie) who are said to have less than 98 civitates or strongholds/stronghold districts, without specific information on their location. If we accept that this group can be identified with the tribe Lendzaninoi/Lendzeninoi mentioned by the Byzantine Emperor Constantine VII Porphyrogenitus (Constantine Porphyrogenitus, IX, 57, XXXVII, 169), it is possible that the Lendians inhabited the area to the east of the territory of the Vistulans, which presumably included also the lands on the River Bug. In East Slavic languages (but also in Lithuanian and in Hungarian) the term Lach (Lyakh, and other variations) refers to ethnic Poles and Poland. Most likely it goes back to the ethnonym Lędzianie, similarly as the name of Germany in French (Allemagne) is derived from the name of the Germanic tribe of the Alemanni who were situated in south-western Germany close to the border with Gaul (see Parczewski 2007).

According to the record entered in the *Primary Chronicle* for the year AD 981, Vladimir had wrested towns of Peremyshl, Cherven and others from the Lyakhs, which territory at the time of writing — as the chronicler was happy to note — still remained under Rurikid rule (*Primary Chronicle* a 6489 [981], 182). At present it is accepted that the Lyakhs should not be read as synonymous with Poles; rather, the name referred to the tribe or confederation of the Lendians, whose territory was in the upper reaches of the Bug, Styr, Dniester rivers, the rim of the Carpathian foothills and the lands on the San and the Wisłoka rivers. During the second half of the 10th century the territory of the Lendians lay within a zone of Czech and Ruthenian influence. In this case Vladimir's campaign would have been prompted by his wish to restore Ruthenian rule over this territory, if only a part of it (see Labuda 1981; 2005, 20). It seems, therefore, that during the second half of the 10th century the border of Poland (the domain of the Piasts) ran west of the River Bug.

Following the death of Vladimir the Great in 1015, the campaign of 1018 added the Cherven towns region to the Piast domain (*Primary Chronicle* a 6526 [1018], 221; see Salamon 1993; Poppe 1995; Labuda 2005, 23). In 1031 the Cherven towns changed hands once again, returned to Riurikid rule (*Primary Chronicle* a 6539 [1031], 225; Labuda 2005, 29), and broadly remained so during the 12th to 14th century (see Kuczyński 1965; Rhode 1955; Lübke 2003, 2004b). Following the alliance made between Casimir the Great (†1370), king of Poland and Lithuania under the Jagiellon dynasty, Poland-Lithuania became the key player in this part of Europe. Around the mid-14th century Casimir the Great captured the Cherven towns (see Wünsch and Janeczek 2004; Janeczek 2011) and they have remained in Polish territory to the modern day.

In the review of the archaeology and history of the Cherven towns and other archaeological sites below, early Rus names are used next to the modern Polish names: Drohiczyn and Dorogichin, Chełm and Kholm, Czermno and Cherven, Gródek and Volyn, Sąsiadka and Suteysk, Przemyśl and Peremyshl. Only the stronghold surviving as a hillfort at the village Trepcza near Sanok must remain nameless.

The Cherven towns: past and current archaeological research

The Cherven towns were subject to excavation in 1940, in 1952–55, in 1976–79, 1985 and finally in 1997, and most findings were not published, but the results of work carried out by Lev Chykalenko at Czermno in summer 1940 were subsequently published during the 1990s (Chykalenko 1998). Only the team of Konrad Jażdżewski who excavated a small area at Czermno in 1952 published a full report (Abramowicz

1959; Jażdżewski 1959; Zbierski 1959). During these decades no major plan of research was developed on the Polish-Rus borderland. Of the material recovered at Gródek (1952–55) only the Neolithic finds were published in monographic form (see Jastrzębski 1991; on Roman finds from Gródek, see Kokowski 1993). The early medieval and medieval stronghold cemetery was acknowledged only in brief reports (Kuśnierz 2012). In 1983 a warrior burial furnished with a sword and a quiver was recovered at Gródek and published soon afterwards (Jastrzębski and Maciejczuk 1988; Kozak-Zychman 1988). The sword, inscribed +INHOMEFECT+ and +INGELII [?] RMEFCIT+ may be dated to the second half of the 12th century or the beginning of the 13th century (see Kuśnierz 2006). At Czermno in the 1970s research, led by Jan Gurba, focused on the earthwork and rampart and adjacent settlements and discovered a system of causeways linking individual parts of the settlement complex (Fig 3), but only selected small finds and several general studies were published although a number of unpublished MA theses have analysed some of the findings (see Gurba 1980/81). Timber samples secured by Jan Gurba and Andrzej Urbański from the causeways and the rampart at Czermno in 1997 were analysed by Marek Krąpiec (Fig 3, points A–D). Dendrochronological dates obtained for the causeways suggest that these were installed not later than in the mid-13th century. But the case of the rampart is different — the earliest dates secured from this structure lead to the conclusion '…that the analysed samples come from trees felled at the end of the first half of the 11th century, possibly later' (Urbański 2000, 242). This implies the stronghold was built after AD 1000 and cannot be the Cherven referred to in the *Primary Chronicle*. Elżbieta Kowalczyk questioned the reliability of the dates (Kowalczyk 2000, 60–2). Others have argued that Czermno is deliberately sited during the final quarter of the 11th century in a move to locate the Cherven towns east of the River Bug (Tyszkiewicz 2004, 195). The location of the samples dated in 1997 remains uncertain and thus may not represent the earliest phase of stronghold fortification system (Urbański 2000, 242). Thus arguments for the chronology of the complex at Czermno remain inconclusive (see Poleski 2011, 353–4). Although unreliable, however, the dates have entered into scientific circulation: to the extent that Czermno was struck off a list of 10th-century sites in a discussion on the fortifications on the Huczwa. In 2010, new investigations were initiated by the Lublin centre by Marcin Piotrowski and Andrzej Kokowski, who started to investigate at Czermno using metal detectors. This is not a method which can replace regular archaeological fieldwork, but the archaeologists from the Lublin centre decided to adopt the method as Czermno was in danger from treasure hunters.

The Cherven towns: the sites

Gródek

The early medieval settlement complex at Gródek, some 15 hectares in area, consists of the relics of a fortified settlement (a stronghold) and a number of open settlements (Fig 2). The ramparts of the medieval stronghold were lost in some places to WWI and WWII ditches and artillery trenches. An inhumation cemetery was identified inside the earthwork, with a total of 466 graves. Forty-two graves contained furnishings: bronze buttons, fragments of textiles, earrings, finger-rings, sheet metal appliqués, crosses and beads. These ornaments



Figure 2. (A) Gródek (Volyn), district Hrubieszów, Lublin Voivodeship, Poland. Photograph: S, Orłowski. (B) The settlement complex; a: the earthwork (with the cemetery within the compound); b: Księżycowa Mogiła barrow; c: marshy area; 1–5: number of archaeological sites (1: Księżycowa Mogiła barrow; 1A: earthwork; 1C: site Bocian). Drawing by J. Ożóg after Kuśnierz 2012, fig 2.



Figure 3. (A) Czermno (Cherven), district Tyszowce, Lublin Voivodeship, Poland. Photograph: S, Orłowski. (B) The settlement complex; a: early medieval settlements; b: medieval causeways; c: the rampart enclosing the settlement complex from the south; d: inhumation cemeteries; e: marshy area; f: reconstructed river channel of the Siniucha prior to the 1960s drainage works. Drawing: J. Ożóg after Florek 2012, fig 1.

are forms which have parallels mostly in finds recorded on the territory of Kievan Rus. The cemetery at Gródek was in use 12th(?)/13th–14th centuries and possibly even through to the 15th century (cf Kuśnierz 2012). The grave pits intruded on features dating from an earlier phase of occupation of the stronghold: the remains of dwellings, settlement pits, ovens and a smithy.

In 2008 the regional museum in Hrubieszów added some 550 archaeological objects that derived from Gródek to its collections, all recovered from illegal metal-detecting. All of them have now been recorded. These include ornaments and dress accessories, weapons and, last but not least, lead seals, including Dorogichin-type seals and devotional objects (encolpia, cross-pendants, small metal icons; see Fig 4). This material dates to the 11th–14th centuries, and possibly the early 15th century.

Czermno

The complex at Czermno consists of the remains of a stronghold, established on a well-drained holm at the confluence of the Huczwa River and its small tributary the Siniucha, and of a group of open settlements lying on the marshy bank of the Huczwa. There are more of these open settlements to the north of the Huczwa River. The area of the entire complex is estimated between approximately 75 and 150 hectares; a part of this area is marshy and waterlogged (Fig 3). To the west of the earthwork, separated by a tract of lower lying ground, is a fortified suburb settlement closest to the stronghold (Czermno site 2). To this day no reliable traces of a cemetery datable to the period from the 6th to 10th century have been identified, but to the west of the earthwork is a cemetery with inhumation burials which remains uninvestigated. In 1985 remains of a timber causeways were recovered north-west of the earthwork which presumably linked open settlements established on the holms rising within the marshy valley of the Huczwa; these were dendro-dated to the 12th to 13th century.

A horizontal stratigraphic survey was undertaken at Czermno in 2010 and 2011, resulting in the recording of some 2500 archaeological objects (see Piotrowski and Wołoszyn 2012), including 404 Dorogichin-type seals which are likely to have been used in commerce. In addition, 20 lead seals, 20 encolpia, 21 metal cross-pendants, 23 axe-heads, 104 arrowheads and several hundred ornaments and dress accessories were recovered, and six glass bracelet fragments. Two extraordinary hoards of early medieval jewellery were also discovered inside the stronghold, about 20 m apart (Fig 5). Hoard no 1 was deposited in a pottery vessel which held: four bracelets (two cuff and two spiral specimens, the latter plain, with tapered terminals), two earrings, two kolts, two rings and 19 complete (and a few fragmented) sheet silver appliqués from a headdress (cap or headband) which survived as a fragment of textile with sewn on miniature glass beads. Hoard no 2 was discovered resting within a layer of turf, presumably buried in haste by its owner, possibly wrapped in a piece of leather, textile or placed in a wooden container which did not survive. This deposit included a plain spiral bracelet with tapered terminals, two kolts, four earrings and a large decorative bead.

The kolts, the richly ornamented cuff bracelets and the earrings (type with 'three baskets'), have many parallels in deposits from the territory of Kievan Rus. It is notable that the bracelets and earrings are very similar to finds from Czermno that were present in a hoard discovered in 1974 at Sokal in Ukraine, only 30 km in a straight line from Czermno (Petegirich 2010). Plain bracelets with tapered terminals appear to be the youngest element in the two hoards from Czermno: analogical forms are known from hoards discovered at Myropil (Korzukhina 1954, 134 [cat no 137], fig 19) and Kiev (Korzukhina 1954, 109 [cat no 71]), from Voineşti (Teodor 1964, 246, fig 1) and Demidiv (Zarubiy 2009, cat nos 10–13). More relevant is the deposit from Demidiv dated by coins of Wenceslaus II of Bohemia (1271–1305) and John of Luxembourg (1296–1346; see Kotlar 1975, cat no 38). An overview of the two hoards from Czermno suggests they may have been deposited largely at the time of the Mongol threat in mid-13th century. These closed assemblages are dated by the youngest forms present in them: plain bracelets with tapered ends place the time of deposition of the two hoards from Czermno to the period between the middle and the end of 13th and possibly early 14th century.

An even more remarkable group of finds are the lead and Dorogichin-type seals. Finds of seals from the Byzantine-Rus environment on the territory of Piast Poland are few (Wołoszyn 2009, fig 1). Lead seals were issued by the Piast only sporadically and when discovered (recently in Greater Poland and Mazovia), they attract considerable attention (see Suchodolski 2011). In the Byzantine-Rus zone (differently from the Latin part of East Central Europe) seals were mass produced: in the collection of Harvard University there are 17,000 Byzantine seals and their total number (in collections across the world) is estimated at around 60,000 (Nesbitt 2008). Byzantine seals were brought to the territory of Kievan Rus in great numbers, and seals were commonly produced for the secular and ecclesiastical authorities in Rus itself (Yanin 1970; Yanin and Gaydukov 1998).

In this context the discoveries at Czermno are no surprise: material culture of the Cherven towns in many aspects has a Rus or a Byzantine-Rus character, and the relatively numerous seal finds confirm this. Two specimens have a Greek obverse inscription: '+K[ύρι]ε βο[ήδει] τω σω δ[ο]ύλω Δα[βι] δ αρχοντι 'Ρωσίας', translated as 'Lord, come to the aid of your servant David the Archon of Rus'. The reverse image is that of Prophet David, a scroll of psalms in his left hand, his right upraised in blessing. Until recently this seal type was known from the earthwork at Sąsiadka and from

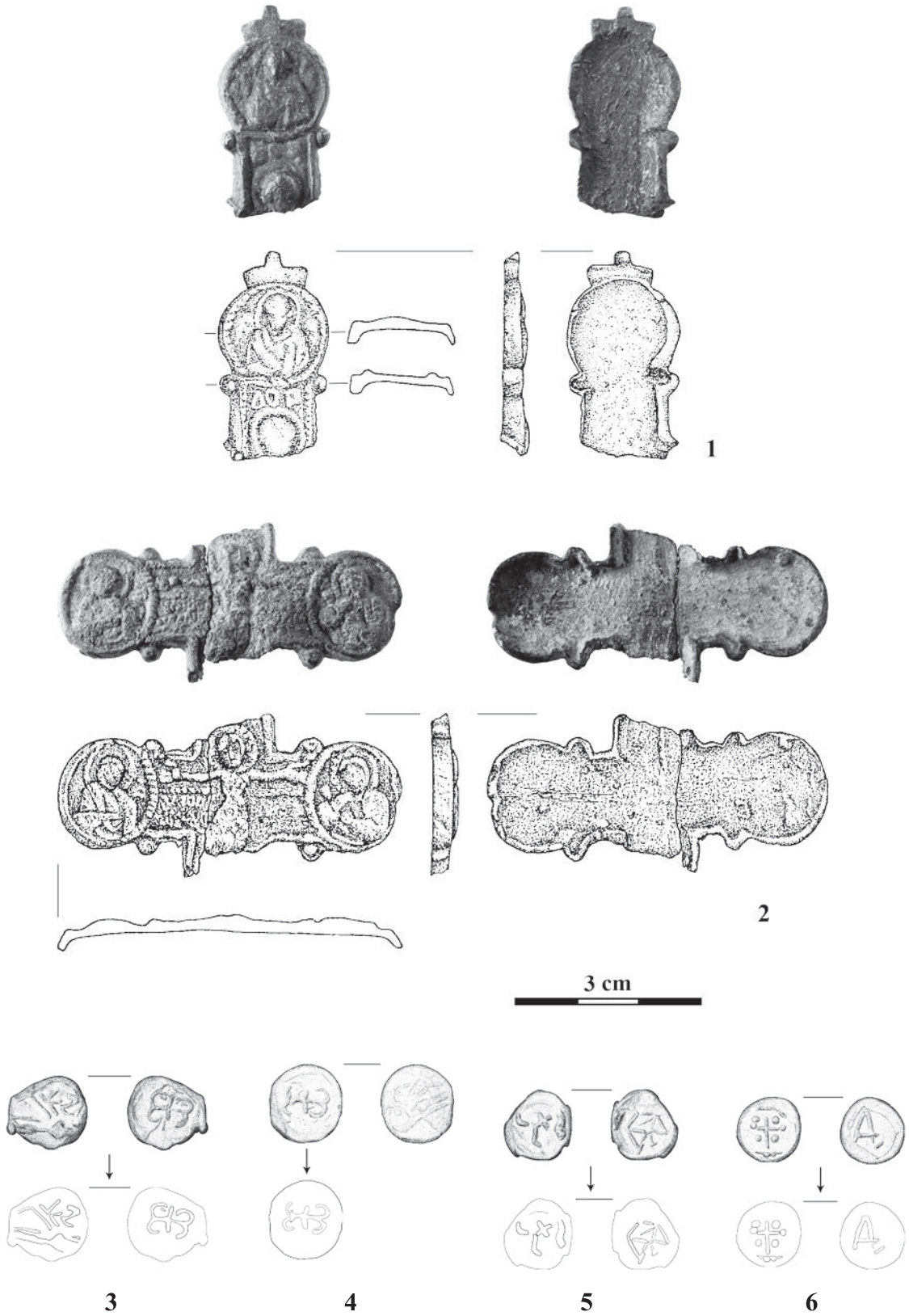

Figure 4. Selected stray finds from Gródek (Volyn), district Hrubieszów, Lublin Voivodeship, Poland. (1–2) Encolpia. (3–6) Dorogichin-type seals. Drawings: R. Janicki, E. Osipowa, J. Ożóg, U. Potyrała; St Staszic Museum, Hurbieszów.



Figure 5. Hoard nos 1 and 2 from Czermno (Cherven), district Tyszowce, Lublin Voivodeship, Poland, after conservation treatment and reconstruction (October 2011). Photograph: K. Wasilczyk.

Volodymyr-Volynskyi. At Czermno at least two such have been discovered (Fig 6.2–3). Two dukes of this name are known from 11th century Rus: Davyd Sviatoslavich († 1123) and Davyd Igorevich. Analysis of their political activity persuades us to attribute the seal from Czermno (and also those from Sąsiadka and Volodymyr-Volynskyi) to Davyd Igorevich which dates them to 1084–1112.

An equally interesting group are Dorogichin-type seals (Fig 7). The function of these small objects (diam c 10 mm) — fashioned from two pieces of lead pressed together, presumably with a string in between — is still unresolved. Both the obverse and the reverse are, with the ducal insignia, schematic depictions of saints or animals, similarly the seals of bulla type. Their most likely interpretation is that of commercial seals. Until recently as much as 80% of this group were specimens from Drohiczyn: 12,000 recovered from the waters of the River Bug between 1864 and the early 20th century. Close details of the site and discovery were lacking, but analysis of 19th/20th-century documentation preserved in Petersburg has brought crucial results: the seals are now known to have been discovered some distance downstream from the castle (Nosov and Musin 2009, 898–9; see also Musin 2012; the same may be said of Beloozero; see Zakharov 2005). Having analysed finds of Dorogichin seals 15 years ago, Valeryj B. Perchavko listed 40 localities with these finds including single finds from Volga Bulgaria and Lithuania and the remainder from the territory of Kievan Rus and its northern region (Perkhavko 1996).

In this context the finds from Czermno take on special meaning. The vast majority of seals surfaced not within the earthwork but in the suburban settlements, in the marshy valley of the Huczwa River, clustering outside the stronghold. The latest studies of seals on Byzantine and Rus territory have demonstrated convincingly that, rather than with the circulation of official documents (letters, etc.), these objects were associated with the functioning of ports (for sealing commodities). In view of Czermno's position on the bank of the Huczwa, on the route running from Kiev to Cracow to Prague and Regensburg, the seals reveal the strategic significance of the site.

Both Czermno and Gródek were bypassed by the process of urbanism of the 14th and 15th centuries and the role of local centres was taken over by Tyszowce and Hrubieszów respectively. Today both Czermno and Gródek are small villages. Archaeological evidence, however, has proved that in the early medieval period these centres were more than military watchtowers: the number of devotionals (Fig 8), lead seals and Dorogichin-type seals persuades us to treat them as local centres of the Polish-Rus border zone, vast settlement complexes of major commercial importance. In view of the



Figure 6. Selected lead seals from Czermno (Cherven), district Tyszowce, Lublin Voivodeship, Poland, after conservation. (1) The seal with obverse inscription +ДЬНЬСЛОВО, and reverse representation of Saint John the Baptist, Yaroslav, ruler in Volhynia (1100–18). (2–3) Seals with the representation of Prophet David, Davyd Igorevich (†1112). (4–5) Seals with reverse representation of St Basil the Great (of Caesarea), or possibly, Archangel Michael or Gabriel, Ryurik Rostislavich (†1215). Photograph: M. Wołoszyn.



Figure 7. Selected Dorogichin-type seals from Czermno (Cherven), district Tyszowce, Lublin Voivodeship, Poland, after conservation. Photograph: M. Wołoszyn.

references to the Cherven towns (and of Czermno itself) found in the *Primary Chronicle*, the matter of the 10th-century chronology of the ramparts at Czermno (and at Gródek too) is fundamental. So far the number of finds dating to the 9th to 11th century is rather small.

The forgotten Cherven towns and the making of Europe

Current understanding of the archaeology and history of the Cherven towns remains partial. Nevertheless, the rich diversity of archaeological objects which have surfaced at Gródek and Czermno demonstrate a preponderance of finds with Rus or Byzantine provenance. In the 11th to 13th centuries, the region under consideration was Rus rather than Polish in character. What is striking in the archaeological record from Czermno and Gródek is the sheer quantity of devotional objects, and seals, including the Dorogichin type. This would suggest that

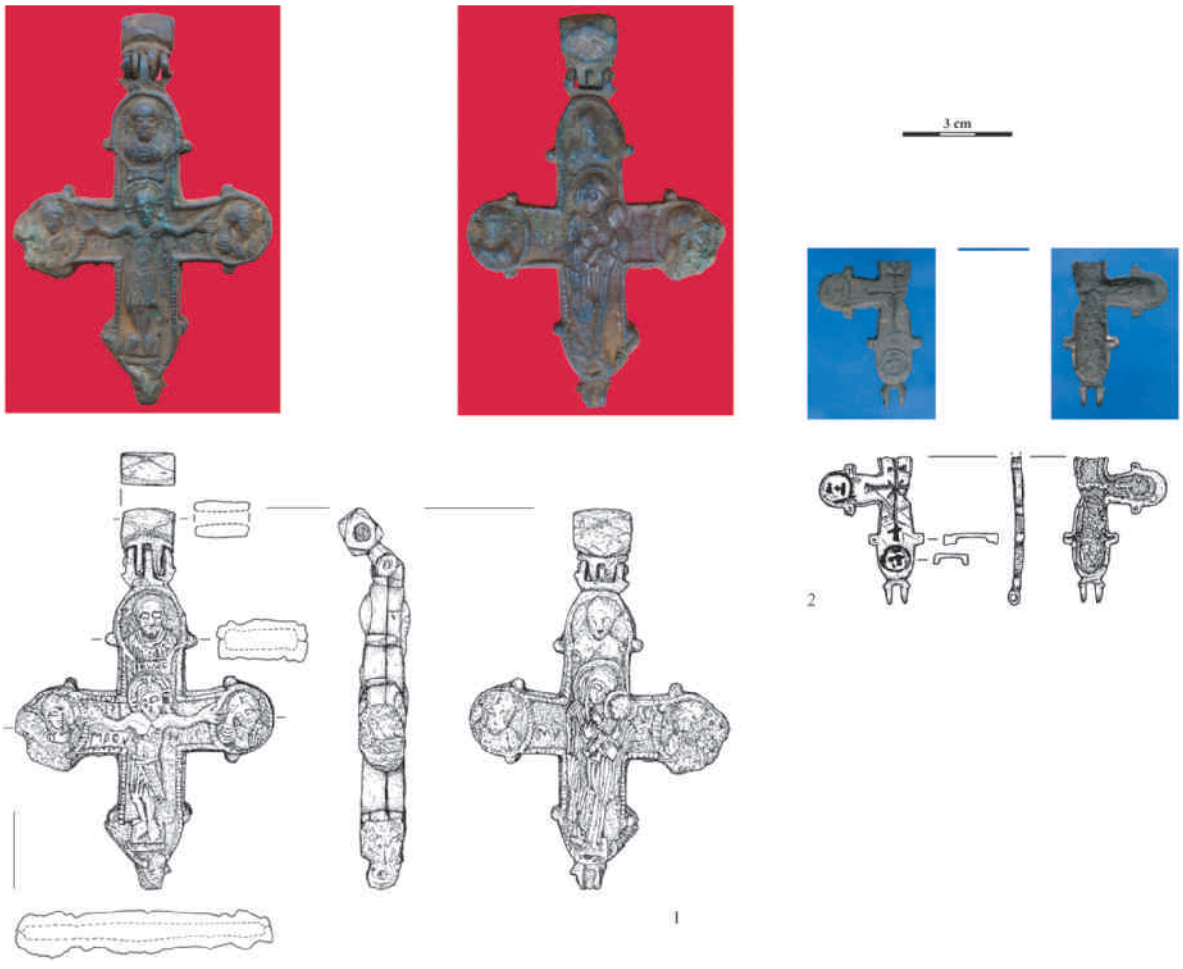

Figure 8. Selected devotional objects (encolpia) from Czermno (Cherven), district Tyszowce, Lublin Voivodeship, Poland. Photograph: M. Wołoszyn; drawing: J. Ożóg.

the Cherven towns played a significant role in commercial exchange between Rus and the countries of Central Europe.

The conversion of Bohemia, Poland and Rus opened the territories of the northern Slav tribes to the influence of lands with a more advanced civilisation. Latin culture was introduced to Bohemia and Poland indirectly, through German ecclesiastics, but Christianity and Romanitas were brought directly to the Rus by the Byzantine Empire. Even if Kievan Rus, unlike the Slav kingdoms in the Balkans (Bulgaria, Serbia), was never a subject of the Byzantine Empire the decision taken by Vladimir the Great in 988/989 to embrace eastern Christianity opened up the area of his Kievan principality to the impact of Byzantine culture, not only spiritually but also materially (see Musin and Wołoszyn 2012). If we consider the adoption in Rus of sophisticated technologies (mostly in art), and the spread and proliferation of objects associated with religious devotion, we can make the claim that Rus had entered the sphere of the Byzantine Commonwealth (for this term see Obolensky 1971; see also Meyendorff 1993; Poppe 1980; for Dymitr Obolensky and his idea of Byzantine Commonwealth, see Shepard 2006). And this means that the Cherven towns were more than just a contact area between the Latin Poles and the Orthodox population of Kievan Rus. They were also a western outlying province of the Byzantine world and owed their prosperity to the influence of this civilisation.

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Gateways, Gates and *gatu*: Liminal Spaces at the Centre of Things

John Baker and Stuart Brookes

In Anglo-Saxon England, many of the processes of governance were carried out at open-air assembly sites. At least from the 10th century, meetings of districts known as hundreds or wapentakes took place every four weeks, commonly at outdoor locations, and involved all freemen of the district (Liebermann 1903, 192–94; Loyn 1984; Whitelock 1979, 429–30). Other kinds of assembly also met periodically and outdoors, such as gatherings of the *witan*, and ecclesiastical councils (Loyn 1974; Cubitt 1995).

There are a number of indications that the locations for Anglo-Saxon assembly sites were very deliberately chosen based on a range of considerations, including grounds of accessibility and natural monumentality (Baker and Brookes 2015). One feature of their positioning is proximity to boundaries. Gelling (1978, 210) noted that a sort of 'no-man's land' was the typical location for such assembly places and Pantos (2003) demonstrated that a statistically significant proportion of the hundred meeting-places in the English midlands were indeed situated within 200 m of modern parish boundaries. In her detailed study, Pantos (2003, 43–48) suggested several possible explanations: the natural neutrality of boundary locations; the ideological importance of sites on the edge of settlement areas and on features such as rivers, which often form divisions between political and administrative units; and the communality of locales through which boundaries now run, but which in earlier times may have been a kind of 'every-man's land' rather than a 'no-man's land'. This paper aims to explore this paradox that might be termed liminal centrality, making use of the results from a three-year research project, *Landscapes of Governance*, which has examined the landscape setting of Anglo-Saxon assembly sites in detail. The project has used a wide range of sources and systematic site visits to identify and characterise sites of assembly, mapping their locations within the hundredal geography of 11th-century England (Baker et al. 2011; Brookes and Reynolds 2011; Baker and Brookes 2013; 2014).

Reconstruction of the administrative districts of Anglo-Saxon England is imperfect — relying, as it does, on a number of retrogressive assumptions; but the existence of territories at a variety of scales by the 10th century indicates that communities were by then separated into a number of definable supra-local political groupings: hundreds or wapentakes, burghal territories and ecclesiastical dioceses, shires and kingdoms. The location of many assembly sites on the borders of these territorial divisions leads to two reasonable assumptions: first, that these places had a crucial role in bringing people from neighbouring territories together, enabling dialogue, mediation, exchange, communication and knowledge transfer; and second, that these neighbouring territories together constituted parts of larger political groupings for whom governance was enabled by such gatherings. Examination of assembly sites within their territories can therefore facilitate the exploration of the cadastre of political groups at a variety of spatial and temporal scales, and be used to propose some interpretation of their functions.

Assembly places and boundaries

The characteristic of being in some way geographically peripheral, but administratively central, is most clearly observed in the occurrence of assembly places on later parish boundaries. Whatever the date at which these parish boundaries became fossilised as linear features, they presumably dissected borderland zones existing between neighbouring communities; those locations furthest from the parish church (say) and/or topographically and economically marginal to places of settlement. Indeed often these zones are recorded later in the medieval period as areas of shared common land, perhaps preserving some form of older relationship. It is clear, however, that marginality was not perceived to be a defining characteristic of assembly sites that coincided with such zones; in no instance is a hundred clearly named from the boundary location of its meeting place. Rather it seems likely that these boundaries divided communities living within larger territories (perhaps constituting some form of political entity) which shared the use of the meeting-place.

The two cases that might be argued to provide onomastic evidence for the liminal location of meeting-places on closer inspection probably do not. The hundred-name *Mersete* in Shropshire might contain Old English (*ge*)*mære* 'boundary', but in a group-name compound with Old English *sæte*, hence 'the border-dwellers'. So it is not a reference to the location of the meeting place on boundaries, but the position of the wider district and its people on the Anglo-Welsh frontier (other interpretations of the name are possible) (Anderson

1934, 155; Baker 2015). The later medieval hundred-name Marden in Kent, might also derive from Old English *(ge)mære*, with *denn* 'woodland pasture'; but the first element could as easily be Old English *mere* 'mare', *mere* 'pool', or a personal name **Mære* (Wallenberg 1934, 314; Anderson 1939b, 125; Ekwall 1960, 314; Watts 2004, 397). In any case, it is clear that peripheral location was not a defining feature of hundred meeting-places in the minds of name-givers.

This observation strengthens Pantos' belief that there was a functional quality to these locations that made them both appropriate for assembly and for the sub-division of communities. The decisions taken at open-air assemblies needed to be consensual and transparent, and therefore a location on neutral ground where unbiased decisions might be reached may have been especially desirable (Pantos 2003, 47). Such a requirement might have been met by land central to the hundred such as on an area of communal pasture, which was only later apportioned between parishes comprising the hundred. Equally it might have led to the positioning of meetings at sites that were off-centre or even peripheral to the district, but were equally accessible to most members due to favourable transportation links. On the other hand, some peripheral meeting-places might have been chosen by central government, for the convenience of officials rather than local people (Baker and Brookes 2015). Even in these cases, at least in the eyes of officials, neighbouring groups were often fiscally or legally united.

There are, however, elements of what might be considered boundary-related vocabulary that do make a significant impression on the nomenclature of the English hundreds. One of these is *geat* (plural *gatu*), which means 'a gap' or 'a gate'. This element occurs eight times in Domesday hundred-names, and a further four times in those first recorded after the 11th century. In other words, the meetings of about 1% of Domesday hundreds could be defined by their proximity to gaps or gates. This is a significant proportion, and it is certainly more than coincidence — something about the location of these gates was clearly appropriate for meeting-places too. At least one other instance of a hundred not named from gates but nevertheless meeting in close proximity to an attested *geat* can be cited. An Old English charter (charter number 794, Sawyer 1968), for instance, records the presence of 'high gates' (*æt ðan hean gatan fram þan gatan*) — presumably a gap in the Fleam Dyke — on or adjacent to Mutlow Hill in Cambridgeshire, which was probably the meeting place of Flendish Hundred and perhaps periodically of a larger territory of three or more hundreds (Anderson 1934, 100–1; Reaney 1943, 114, 129, 138–41; Meaney 1993, 77, 83–5, 1997, 236–8). The *ealden fyrd gat* 'old army gate' of a charter for Micheldever (charter number 374, Sawyer 1968), caput of one of the Hampshire hundreds, is also worth noting (Anderson 1939a, 188; Baker and Brookes 2016, 243).

The locations of gate place-names

That *geat* occurs so frequently in hundred-names is particularly significant when compared with its relative infrequency as the generic in major place-names recorded by the 11th century, where it is found only 20 more times. Even in place-names first recorded in the late-medieval period, *geat* is not common, even though these include the kinds of minor name that are more likely to have been defined by features of local significance only (data based on a search through English Place Name Society county surveys). In general, gates or gaps that gave names to these places seem likely to have been important in some way. These are not, in all likelihood, run-of-the-mill gates; they are, perhaps, gates or gaps that define the transition between one important territory and another. A distribution plot of these names instantly shows their relationship to large territorial units (Fig 1). This discussion makes use primarily of major names (that is to say, names of settlements recorded in or before the Domesday survey), since they are more likely to incorporate references to significant landscape features. Anglo-Saxon charter bounds also preserve a number of instances of *geat*, but these are not treated here systematically since many such gates or gaps were presumably only of local importance — *geat* must also have been used in the Anglo-Saxon period to denote openings in many kinds of fence or small enclosure. Such features may be the points of reference in some minor place-names, even those recorded in late-medieval sources, and for that reason this class of place-name has not been analysed comprehensively here (the element occurs in this context at least 40 times, and it seems likely that further research would reveal many more examples).

At least seven of these major *geat* place-names are located on major political borders: Woodyates (East and West) is 600 m from the Dorset/Hampshire border, Skilgate is 1090 m from the border between Somerset and Devon, Kiftsgate is 1500 m from that of Worcestershire and Gloucestershire; while Biddlesgate (226 m) and Bozeat (1200 m) sit at the junction of three shires — Dorset, Hampshire and Wiltshire, and Northamptonshire, Buckinghamshire and Bedfordshire respectively. Madgett and Wyegate, both in Gloucestershire, stand almost directly on Offa's Dyke. Although first recorded only in the 12th and 13th centuries, Newdigate (Surrey), Rogate (Sussex), Markyate (Hertfordshire), Compton Wyniates (Warwickshire), Symonds Yat (Gloucestershire), and Windgate (Oxfordshire) fall into the same category of *geat* place-names located on or adjacent to shire boundaries. Markyate (Hertfordshire) is close enough to the border with Bedfordshire to suggest that its first element, Old English *mearc* 'boundary' may relate to the shire limits. Of the 55 known *geat* place-names, 12 (22%) lie within 1000 m of a shire boundary.

A number of *geat* place-names are situated at the transition between natural districts, landscapes of markedly differing character, and between land and sea. We should

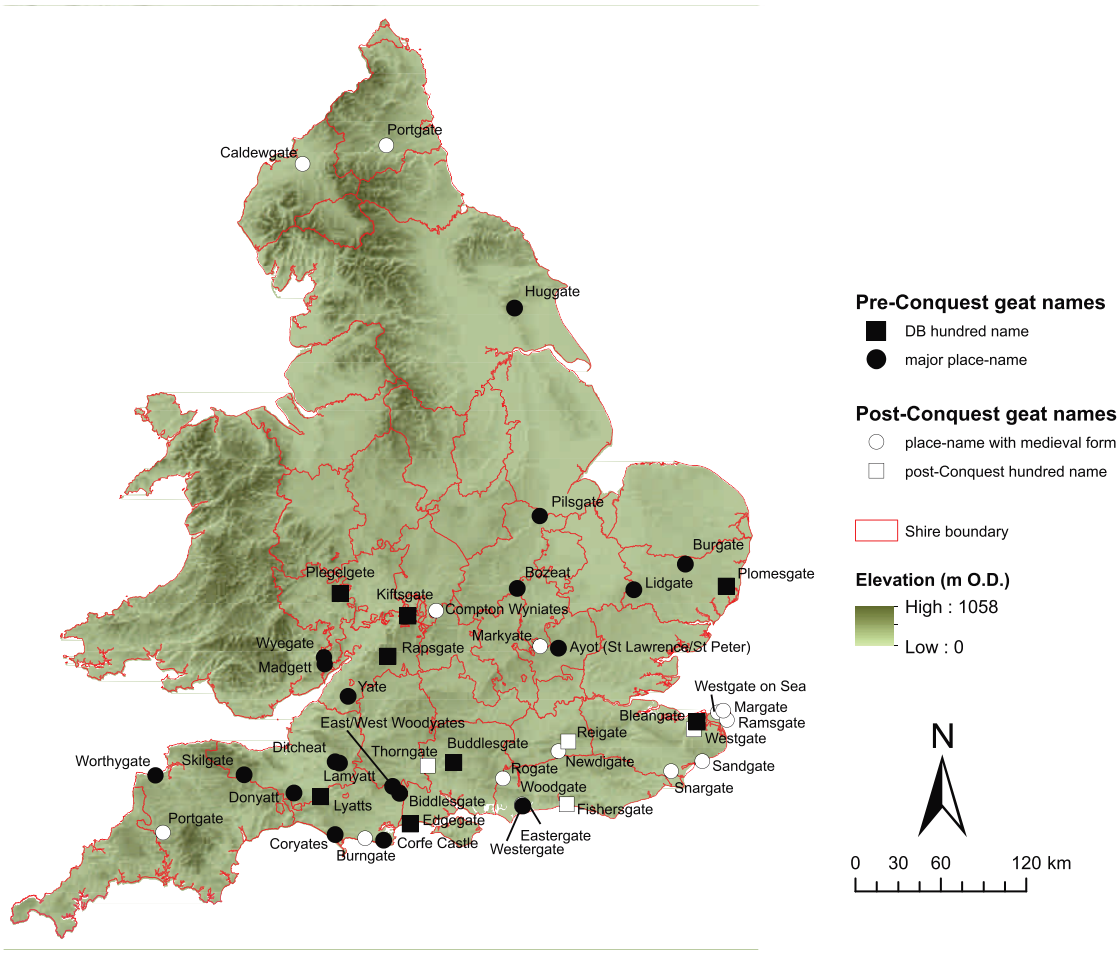

Figure 1. Distribution of *geat* names.

note, for instance, *Corfesgeate* (11 ASC (D); now Corfe Castle), which marks the boundary between Dorset and the Isle of Purbeck. This location is aptly named, marking a distinctive (and dramatic) gap in a long and steep Chalk escarpment, known as the Purbeck Ridge (Fig 2). Similarly Snargate in Kent is on the scarp edge above Romney Marsh and might have been thought of as a portal between marshland resources and the more suitable farmland beyond. Several *geat* names surround the Somerset Levels, including Donyatt, which is right on the margin of Levels and upland, and Lamyatt, whose first element Old English *lamb* 'lamb' suggests a role in the management of pasture (Fig 3). Leziate in Norfolk, the name of which means 'meadow gate', displays similar characteristics, while Warracott in Devon (Old English *weorf* 'cattle'; Gover et al. 1931–32, 200) and Marriotts in Dorset (Old English *mōr* 'moor, marsh'; Mills 2010, 194), have names suggesting that they might have been related to movement of livestock or delineation of different landscape types. Woodyates (Dorset) and Woodgate (Sussex), given the meaning of their names, seem likely to have been on the edges of areas of woodland; Bleangate in Kent was the gate 'leading into the old forest of *Blean*' (Anderson 1939b, 149). These too are gateways between different types of resource. The most striking transition is probably between land and sea, and Ramsgate, Margate, Sandgate (all Kent), Burngate (Dorset), and Worthygate (Devon) all have coastal locations, as does Fishersgate (Sussex). The latter means 'fisherman's gate', and hints that the significant factor here was not the character of the terrain, but the resources within it, and in the case of the sea that would presumably include traded goods. In this case, the *gatu* may have been control points. The Kentish examples correlate well with major maritime routeways: Thanet, location of Ramsgate and Margate, lying on an important pinchpoint of navigation at the junction of the North Sea and English Channel (Brookes 2012).

This trend is not exhibited consistently in minor names, even when recorded in medieval sources. Westgate in Kent was one of the entrances to Canterbury, while two Portgates, one in Devon and the other in Northumberland, have names suggestive of a link with a market town (Old English *port*), although the latter is on Hadrian's Wall and therefore very clearly at a feature delimiting territories. Hanyards in



Figure 2. Corfe Castle. Photograph © Wikipedia Creative Commons.

Staffordshire, was at the entrance to Tixall Park and its name, from Old English *hægena-geat* 'gate of the enclosures' (Smith 1956a, 198; Horovitz *s.n.*), dates back to the 13th century, perhaps reflecting its use as a hunting reserve before the earliest record of the Park itself. In light of Robert Liddiard's theory that some high medieval deer parks may have originated in the pre-Conquest period, use may even extend as far back as the Anglo-Saxon period (Liddiard 2003). Given the first elements of Rogate in Sussex, Old English *rā* (Mawer et al. 1929–30, 38–9), and Reigate in Surrey, Old English *rǣge* (Anderson 1939b, 64–5; Gover et al. 1934, 281–2, 304–5; Mills 2003, 388), which both denote 'roe deer', and of Deritend in Warwickshire, Old English *dēor-geat* 'wild-animal gate' (Gover et al. 1936, 29) a similar function as gateways to hunting areas might be supposed.

The link is, then, more clear with major place-names, although gateways to towns were certainly points of transition between different zones of jurisdiction (cf Baker and Brookes 2014), and gates to hunting grounds may have similarly defined legal territories. In general, however, early-attested place-names seem to contain *geat* not because of physically or visibly distinctive gates, but because the referent was of wider significance. In most cases, such gates must have been important portals of jurisdiction and control.

This general pattern of jurisdictional or topographical transition is matched by the location of *geat* place-names relative to major watershed boundaries, some of which in any case coincide with those of political units (Fig 4). The river catchment of the Great Ouse, for example, is closely respected by Leziate in Norfolk, Burgate and Lidgate in Suffolk, Bozeat in Northamptonshire and, in Hertfordshire, Markyate and arguably also Ayot (St Lawrence and St Peter), all of which lie within 2000 m of the watershed boundary. Skilgate in Somerset lies on the boundary between Somerset and Devon, which at that point follows high ground at the limits of several watersheds; Pilsgate in Northamptonshire is 386 m from the watershed between the Nene and Welland, very close to the borders with Lincolnshire and Rutland. It is not in fact far from the River Welland itself, which is defined by Charles Phythian-Adams as one of the major and enduring cultural frontiers of lowland Britain (2000). In earlier times, watershed boundaries may have coincided with borderlands between polities, and may therefore have held a judicial liminality as well as a topographical one. In Phythian-Adams' assessment, watersheds and the broad patterns of drainage they define 'have always tended to provide the most influential matrices for the creation of human territories' (1993, 12). For example, it has been argued that the eastern limits of the Roman and Iron-Age territory of the *Dumnonii* lay between the Rivers Parrett and Axe and the higher ground of the Quantocks and Blackdown Hills (Higham 2008, 17). Skilgate's location at the western edge of this upland zone, at the precise point where the Exe watershed and Devonshire boundary coincide, appears to fossilise something of this older territorial division. That in many cases the clustering of early Anglo-Saxon cemeteries seems to fall broadly within river-catchment areas serves to emphasise this same geographical tendency for cultural micro-regions largely to respect those defined by the environment (Fig 5). Significantly, many of the *geat* place-names sit between these agglomerations of archaeological evidence, once again reinforcing their importance as markers of territorial transition. Taken together, half (27) of all *geat* place-names lie within 1100 m of either a shire or watershed boundary; a further eight within 2000 m.

Geat is harder to localise when occurring in place-names as the specific (the first element in compounds), since the generic so-defined might not be directly on top of the *geat* defining it. It could also be argued that minor gates, ones with only a local significance, might nonetheless provide a qualifying referent for a settlement — a *tūn* (farm, settlement)

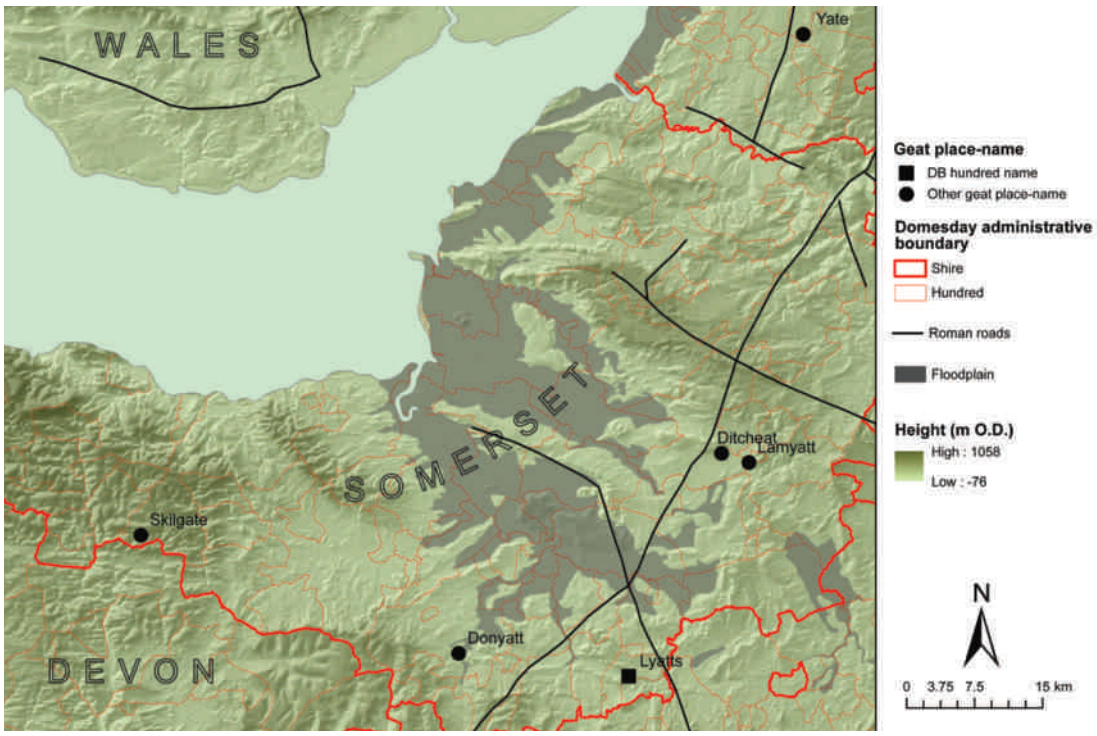

Figure 3. *Geat* names in Somerset.

where the gate into it was visually striking and therefore an especially defining feature. It is noteworthy, nonetheless, that Yatton (*geat-tūn*) in Herefordshire sits on a watershed of the Severn and adjacent to the boundary with Shropshire; that Yateley (*geat-lēah*) in Hampshire is very close to the Berkshire border and not far distant from Surrey; and that Yatesbury (perhaps *geates-burh*) is on a major watershed; but this category of *geat* place-names has been omitted from the figures.

Discussion

It would be easy to point out that gates tend to form parts of boundaries and are therefore bound to turn up in liminal positions. What is significant about the instances discussed here is their location at major points of transition — they are not simply the gates delimiting one settlement from another, but one political entity from another, one major resource from another and perhaps, in essence, one way of life from another. In that regard, the facts that relatively many became hundredal meeting-places, and that those represent a significant proportion of hundredal toponymy as a whole, emphasise the special, focal position they held in the landscape. There are interesting parallels to be made with another potentially boundary-related element of English hundredal nomenclature. References to river-crossings — bridges and fords — are very frequent in hundred-names and rivers or streams can form boundaries between socio-political units. However, waterways often form the foci for territorial groupings, and it is perhaps in this sense that they were appropriate sites of assembly. Meaney (1997, 203) considered features such as fords to be 'natural or archetypal' meeting-places; situated at nodal points of communications networks, 'where traffic from one side of a river would meet traffic from the other'. Gates and gaps perform a similar role on many scales, funnelling bundles of overland routeways between one zone and another. When the gaps in question fulfilled that function on a regional or national level, they must have become very important points of transition and control.

The central role such gate meeting-places played in defining the geography of Anglo-Saxon England can be explored from a number of different directions. That focal position can be detected in their administrative geography, where several meeting-places named from gates may have served more than a single hundred. Kiftsgate in Gloucestershire became the meeting-place of six hundreds (Anderson 1939a, 2), Bleangate in Kent contained three single-manor Domesday hundreds (Jolliffe 1933, 158; Anderson 1939b, 149), Plomesgate became the meeting-place of one and a half hundreds (Anderson 1934, 90), and the post-Conquest hundred of Fishersgate was situated on the boundary of two Sussex Rapes (Mawer et al. 1929–30, 245). The meeting-place at Mutlow, where 'high gates' are recorded in the charter noted above, probably sometimes served the hundreds of Flendish, Staine and Radfield (Reaney

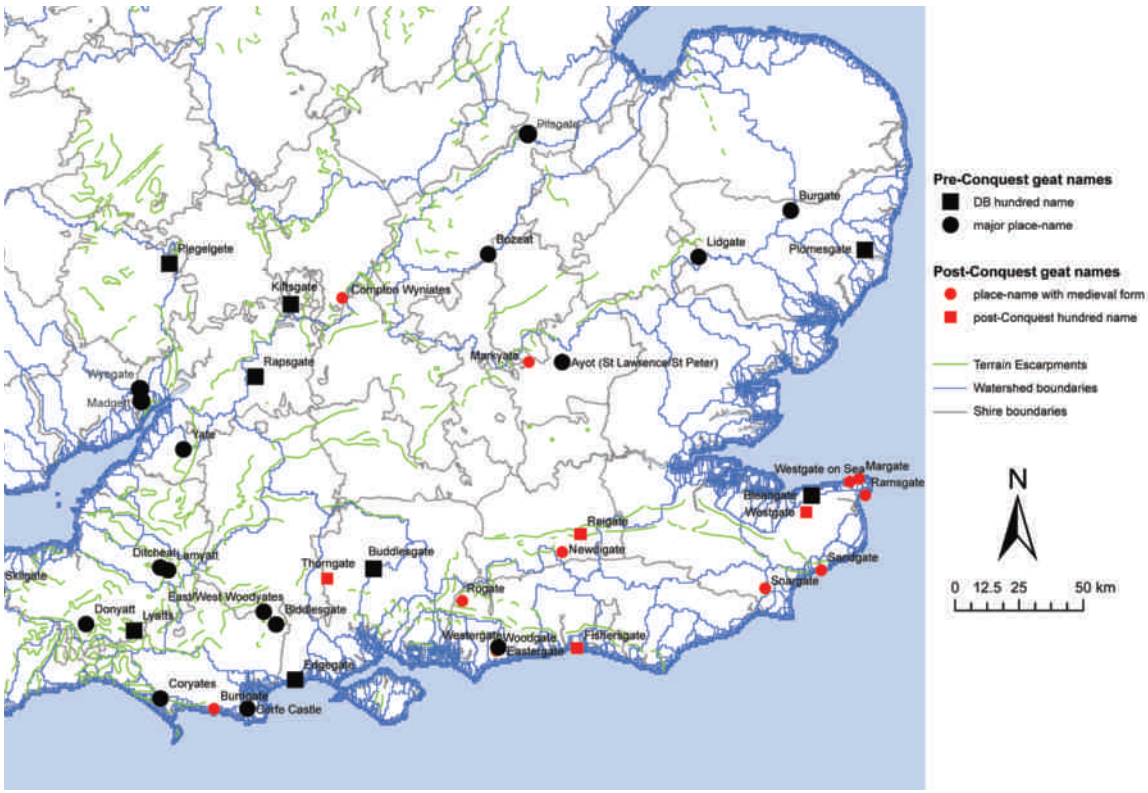

Figure 4. Plot of *geat* names to watershed boundaries and terrain escarpments. After Hydrosheds <http://hydrosheds.cr.usgs.gov/datadownload.php?reqdata=30bass>; Roberts and Wrathmell 2000 <http://www.english-heritage.org.uk/professional/research/archaeology/atlas-of-rural-settlement-gis/>.

1943, 114, 129, 141; Meaney 1993, 77). In each case, the implication is that the activities carried out at these meeting-places were of supra-local significance, above and beyond that of more typical hundredal assemblies.

The potential high-order function of gate meeting-places is further emphasised by their common association with shire boundaries, which they have in common with a special category of assembly places that share physical characteristics including the appearance of 'hanging promontories' (Baker and Brookes 2013). These places are likely to have been of particular significance in the wider regional administration of early kingdoms; *geat* places may similarly have served some wider territorial function. Kiftsgate (Gloucestershire) is both a *geat* place-name and a site of 'hanging promontory' type (Baker and Brookes 2013). Reynolds (2009) has discussed how execution cemeteries are also usually located on boundaries, perhaps motivated in part by the need to place social outcasts at the physical limits of communities, and a simultaneous requirement to signal transitions between legal jurisdictions. The linear earthwork of Bokerley Dyke forms part of the county boundary between Wiltshire and Dorset, and contains eight executed burials in the north-western terminal (Reynolds 2009, 145–7). Just 500 m to the south-west of this location along the Roman road to Dorchester is Woodyates.

Liminal locations used for the settlement of legal disputes, might also be closely related to venues of more violent forms of dispute settlement. Reynolds (2013) has made the case that Woden's Barrow, the substantial Neolithic long barrow now known as Adam's Grave in northern Wiltshire, was once part of a frontier between Wessex and Mercia, and the site of two battles mentioned in the *Anglo-Saxon Chronicle* entries for 592 and 715. An important feature of this landscape was the position of Woden's Barrow on the course of the Great Ridgeway, at a point 1 km south of the linear earthwork of Wansdyke, where the Ridgeway descends dramatically into the Pewsey Vale. The gap in Wansdyke through which the Ridgeway passes is called *Woddes geat* in a charter of AD 825 (charter number 272, Sawyer 1968).

The context for these gates might also be economic. Law-code II Æthelstan 12, implies that at least some judicial assembly places functioned also as venues for trade and exchange, and the development of markets in close proximity to some hundred meeting-places is also suggested by place-name evidence (Baker 2014). Given the distinctive location of some of these gates, it would seem natural that they demarcate transitions between particular landed resources and their related subsistence regimes; perhaps as seasonal gatherings frequented by a large pool of participants.

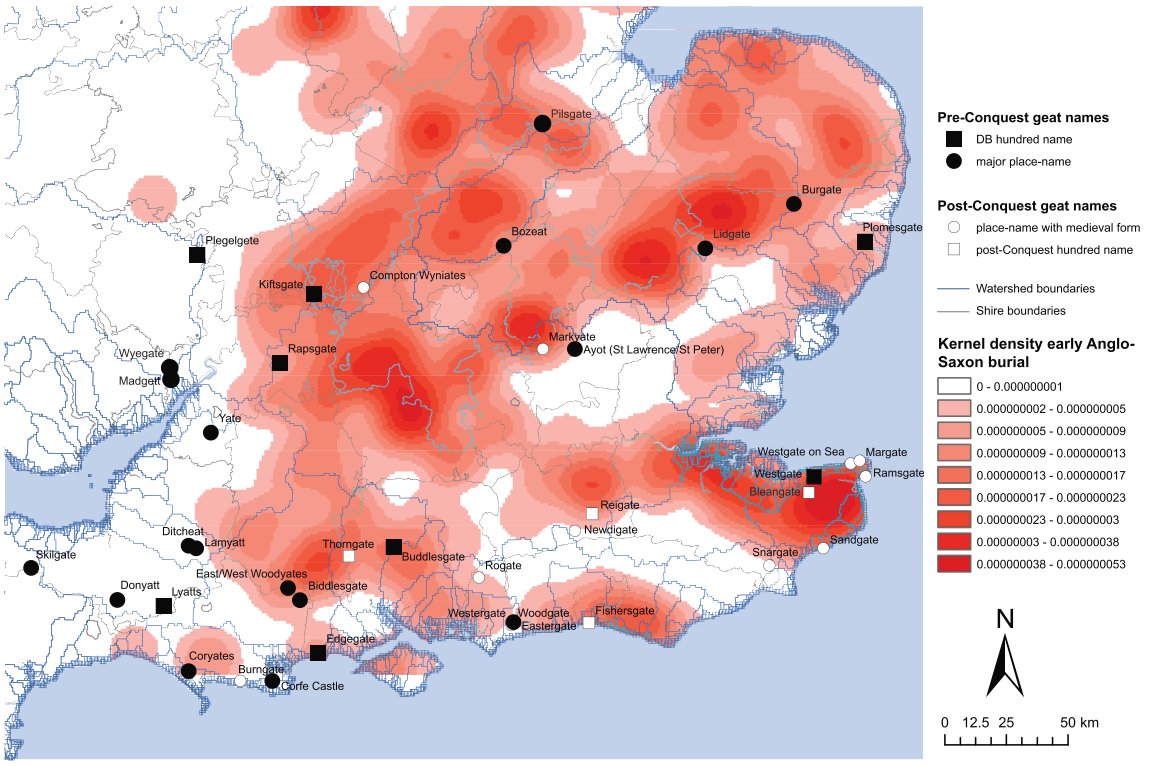

Figure 5. Plot of *geat* names to kernel density plot of early Anglo-Saxon burials.

The strong association of gate names with significant boundaries in the Anglo-Saxon landscape raises the question of whether these may also reflect wider cultural transitions. Several authors have sought to explain patterns in the territorial arrangement of early medieval settlement with respect to the natural topographies of elevation, hydrology and land quality (Davies and Vierck 1974; Brookes 2007; 2010; Williamson 2008; 2010; Harrington and Welch 2014). In one example of this type of historical ecology — Tom Williamson's analysis of the East Anglian shires (2008) — it was argued that a significant cultural boundary existed in most historical periods, running diagonally along the Lark and Gipping valleys (2008, 123–6). This boundary forms the watershed between basins flowing into the North Sea and the English Channel. Williamson went on to suggest that the political dominance of the Wuffingas in the 7th century was partly the result of the location of Sutton Hoo and Rendlesham close to this boundary line — in that it underpinned the asymmetrical growth in the powerbase of the emerging kingdom. It might be suggested that 'gates' on the edges of topographical and archaeological distributions were key locations between spatially differentiated groups.

A similar ecosystemic approach has been advanced by John Blair (2013). In the most comprehensive national survey to date, he observes that the Wash watershed formed the limits of a cultural zone identifiable in a range of early medieval material remains; respected by the limits of early Anglo-Saxon burial traditions, middle Anglo-Saxon settlements, and a range of other cultural distributions. Whatever the group behaviours underpinning these spatial patterns, the evidence clearly indicates the significant structuring influence played by changes in topography and environment. It is highly significant that it is on the very same boundaries between micro-environments that major *geat* names appear.

If regional groups were partly defined by their environment, it is noteworthy that a number of gate names can be associated with the edges of territories defined in both cultural and topographical terms. Of particular interest is a cluster of gate names located in Kent, Surrey and Sussex, surrounding the Weald and corresponding to the limits of early Anglo-Saxon burial in those counties. This region of intractable soils and woodland pasture appears to have been colonised comparatively late in the Anglo-Saxon period; much of it still lay outside administrative jurisdiction at the time of Domesday Book, and its tenurial structure was largely appurtenant to settlements lying outside the Weald (Witney 1976; Everitt 1986; Brookes 2007; Brookes and Harrington 2010). It is conceivable that in these cases gate meeting-places on the boundaries of the Weald acted as venues where the allocation, management, and use of common resources, existing beyond the limits of settlement, were agreed. The gates in question were physically and symbolically the transitions between *pays*, or particular areas of contrasting activity.

While cultural zones may often align with environmental transitions, this is not always obvious. The topography of two gates in south-west Sussex — Woodgate and the gate/gap or gates/gaps referred to in the Domesday place-name *Gate*, later Eastergate and perhaps also Westergate (Mawer et al. 1929–30, 64, 140) — cannot be easily explained either by the proximity of the shire boundary or obvious topographical qualities. But they lie noticeably between two clusters of early Anglo-Saxon burial focused on southern Hampshire and central coastal Sussex. These gates might therefore mark actual cultural transitions: from written sources these two clusters correspond with those of the South Saxons and the Jutes of Hampshire (Welch 1983; Yorke 1995, 36–43; Semple 2008). In the same area as Westergate, and indeed perhaps an earlier name for the same gate, was a place called *Geinstedisgate*, *Genstedegate* (charter numbers 45, 232 and 1291, Sawyer 1968; Mawer et al. 1929–30, 64, fn 1; Tengstrand 1940, 199–200; Sandred 1963, 259–60; Kelly 1998, lxiv, fn 28). This is a difficult place-name, but one suggested interpretation, especially pertinent to the present discussion, is 'meeting-place gate'; while an alternative, which takes the first element to mean 'opposition, hostility', is not entirely irrelevant either.

A final example of this type is provided by Bozeat (Gover et al. 1933, 189; Mills 2003, 69). Located on the corners of three shires Bozeat's location might be regarded as exceptionally significant in administrative terms; an impression further reinforced by its position on the Wash boundary, and in an area of low density burial between two major clusters of early Anglo-Saxon burial.

If the foregoing observations go some way to explaining what functions *geat* meeting-places may have had, it is noteworthy that the distribution of such place-names is largely restricted to southern England. This aspect of the pattern is perhaps in part illusory. In northern England, *geat* can be impossible to separate from Old Norse *gata* 'road', and some place-names interpreted as containing the latter may in fact go back to the former. On the other hand, the absence of *geat* from the names of meeting places may also have a political explanation. If, as many believe, the system of administration of which the hundreds formed an integral part emerged first in the areas controlled by the West Saxon kings, spreading under their influence across southern England in the 10th century (Stenton 1971, 336–8; Loyn 1984, 140–2), there may be differences in the degree to which *geat* sites were used or preserved in different parts of the country; this complex issue is beyond the scope of the present discussion, but perhaps worth further consideration.

Conclusions

If assembly-places can be regarded as decision-making hubs, their recurrent location on the borders of territories reinforces the suggestion that these geographical margins were not always conceived as impermeable limits, but as zones of collaboration and negotiation; perhaps even gateways between separate societies, polities, cultures and so on. This is underlined by the similarly close relationship between *geat* names — especially those clearly connected to administrative units — and borders, which may reflect a sense that such gateways held a special place in the regulation of society and justice. Apart from anything else, this emphasises the complexity of inter-territorial relations. Borders potentially defined and united territories both geographically and administratively, at all levels of Anglo-Saxon society, from local districts, through regional groupings, to kingdoms. It also hints at a complexity, perhaps even a natural flexibility, within the administrative structure. If these gateway locales acted as sites of political, judicial and economic assembly, then their role would be very hard to distinguish from that of territorially central meeting-places. In other words, points of transition between political or legal units or between different terrains could hold a very similar ideological status to spaces set aside for administrative gatherings elsewhere. The potential for assembly sites to change function or scale as territorial geography evolved is clear.

What these examples of gate meeting-places, and their correlates with a range of other archaeological and geographical phenomena, bring to attention, is the strong regional character of Anglo-Saxon England, formed through the conjunction of physical environment, administrative geography and cultural zones. That *geat* meeting-places existed on the boundaries of these distinctive regions suggests on the one hand that geographical difference was understood by contemporary society, and on the other, that mechanisms existed to bring different communities together. One purpose for the location of meeting-places at such places, and the marking of their importance through naming, may well have been to formalise boundaries and regulate conditions of access and use across them. Another may have been to facilitate interactions between discrete neighbouring groups.

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Space, Place and Transition: An Introduction to the Use of Visibility Graph Analysis for Settlement Analysis in North-East England c AD 350–800

Brian Buchanan

Archaeological investigations at sites such as Binchester and Birdoswald Roman forts in North East England have provided evidence of continuity in occupation spanning the end of the Roman period through to the early medieval period c AD 350–800, perhaps indicating that gradual cultural transition, rather than sharp breaks, characterised life in some regions (Ferris and Jones 2000; Higham 1993; Wilmott 2000; Collins this vol). The challenge for the archaeologist is to recognise these slow cultural changes, when evidence for continual occupation is absent. Research focused on household and settlement archaeology has suggested that investigations of space and place can identify how life gradually changed over time, revealing the ways in which the lived environment was altered through imported ideas and influences (Canuto and Yaeger 2000; Steadman 1996; Wilk and Rathje 1982). Changes or continuities in the development and use of space during a transitional period can also reflect the complexities of cultural contact between different groups over time, for example across the Roman and early medieval eras.

'"Space" and "place" are familiar words denoting common experiences' (Tuan 1977, 1). These recognisable, yet abstract and complex terms refer, somewhat simplistically, to where something is or is not located. Space and place are fundamentally intertwined components of the human experience, and have become critical terms in the humanities and social sciences. Studies examining space and place (often referred to as the built environment), have become increasingly common in archaeological research across diverse regions and time periods. As Kevin Fisher describes, the built environment is important for archaeological research because it transforms '…contiguous space into discrete but interconnected units, buildings structure patterns of movement and encounters and therefore directly influence social relations' (Fisher 2009, 439). The growth of geospatial technologies such as geographic information systems (GIS) have aided these efforts, with many studies utilising GIS viewshed analysis to examine how settlements and monuments were positioned within space in the past (see for example Conolly and Lake 2006; Llobera 1996; 2003; Wheatley and Gillings 2002). While archaeology has embraced viewshed analysis to examine space, place and visibility across the landscape; visibility and spatial organisation at household and structural levels remain under-explored.

While researchers have focused upon space and place in early medieval Britain, it has been difficult to quantitatively compare these studies to similar examinations of Roman or Iron-Age settlements and built environments. This paper introduces a methodology that examines visibility within archaeological settlements that can quantifiably compare and contrast the use of space and place between the Iron Age, Roman Iron Age, Roman, and early medieval periods in north-eastern England. This method utilises *Visibility Graph Analysis* (VGA) within, and exterior to, built structures in order to look at space and visibility in archaeological settlements.

Visibility Graph Analysis

Visibility Graph Analysis examines the visual characteristics of space and place within structures and urban environments by integrating space syntax theory and Benedikt's notions of an *isovist* to 'derive a visibility graph of an environment — the graph of mutually visible locations in a spatial layout' (Turner et al. 2001, 104). Bill Hillier and Julienne Hanson's space syntax theory hypotheses that there are underlying rules to confined space that can be mapped and relate to patterns of activity such as movement or practice. The main purpose of the built environment, according to Hillier and Hanson, is to demarcate and bring order to space (Hillier and Hanson 1984, 1–2). This ordering of space influences social interaction and practice (Ferguson 1996, 11). Space syntax has a long history of use in archaeology in discussion of the household and the morphology of the built environment (Bowser and Patton 2004, 170; Fairclough 1992; Ferguson 1996; Foster 1989; Steadman 1996; Van Nes 2009). These studies and others have shown that architectural spaces influenced the practices and behaviours of individuals in the past. The study of the built environment using space syntax, through processes such as the examination of access to structures and internal rooms, can therefore be used to explore cultural practice within and around the built environment over time.

While the theoretical background of VGA derives from space syntax theory, the primary method of producing graph-based representations of architectural space is drawn from the *isovist*. Unlike viewshed analysis in GIS, which focuses upon line of sight visibility and what can be seen or not seen from a given location, VGA examines space by focusing on

the connections between grid points, based on obstructions to visibility in the constructed graph of an environment. Benedikt introduced the use of isovists to measure all the space within structures visible from a single convergence location (Benedikt 1979; Turner et al. 2001, 103). While an attractive and accessible method, isovists are limited in that they concentrate on measurements from a single convergence point and they do not have an associated theoretical framework that describes the links between an isovist and the social use of the space (Turner et al. 2001, 104).

Visibility Graph Analysis improves on this by examining visibility from all parts of structures instead of single convergence points. It links this method to space syntax theory in order to graphically and statistically examine the use of space within structures. In the software program *UCL Depthmap*, a user can import a plan of a structure, or in the case of this paper, an excavation plan of a site, fill the open spaces of a plan with a grid, and then use the program to perform VGA to examine how each grid point is connected or not connected to all of the other grid points (Turner 2004, 1). UCL Depthmap produces colour-shaded images that show the visual connections between the rooms within a structure, as well as yielding statistical data in the form of global and local measurements. Rooms within the structure can then be compared, and different structural designs tested, to show which rooms are more integrated or more permeable, and more public. Here VGA is performed using two-dimensional excavation plans. This pilot does not take into account topography or the unknown height of the structures. Instead, VGA is used as a proxy for the design and use of space within the settlements, as it is assumed that regardless of height, the palisades or structures would have inhibited movement. In addition, because VGA focuses on the connection of each grid point to all of the others, rather than on line of sight, topography does obstruct visibility in VGA as it does in GIS viewshed analysis. Therefore, VGA can be used to understand space within settlements even with unknown variations in structural height or due to the underlying topographic elevation.

Transitional spaces and places

Anglo-Saxon settlements and structures have been examined in a variety of ways including, but not limited to, the investigation of spatial patterning and morphology (Hamerow 2012; 2002; Powlesland 1998; Tipper 2004), the demarcation of space by boundaries and the built environment (see papers in Griffiths et al. 2003), and perceptions of space in the early medieval mind-set (Scheil 2012). It is difficult, however, to make measurable comparisons of uses of space and place across the Iron Age, Roman and early medieval periods. A VGA assessment of the Tate Gallery, however, found that visitation rates to rooms strongly correlated to the visual arrangement of space (Hillier et al. 1996): highly visible areas attracted more visitors and individuals were more attracted in terms of movement to visually connected areas (Turner et al. 2001, 118) signalling the potential of this method for exploring the human use of space in buildings in the past.

While VGA has been successful in archaeological research, in assessment of space within structures, it has not been used to assess settlements. This paper uses VGA to analyse space not only in structures but also across archaeological settlements. To exemplify the how VGA can be applied to late-Roman and early medieval settlement types, two sites are assessed. These are drawn from different time periods and were site-types that functioned in different ways, but analysis using VGA draws out the distinctive differences that lay behind the conception and construction of each site. Three phases of occupation at the early medieval royal centre of Yeavering, and a single composite phase representing the military settlement of Housesteads Roman fort are analysed here (Fig 1). These settlements were selected due to their proximity, their temporal differences, their mostly complete excavation records, and the fact that the structures within each settlement have internal divisions demarcating different uses of space.

Housesteads (Vercovicium)

Housesteads, a fort along Hadrian's Wall, is considered one of the largest and most complete Roman forts in Britain

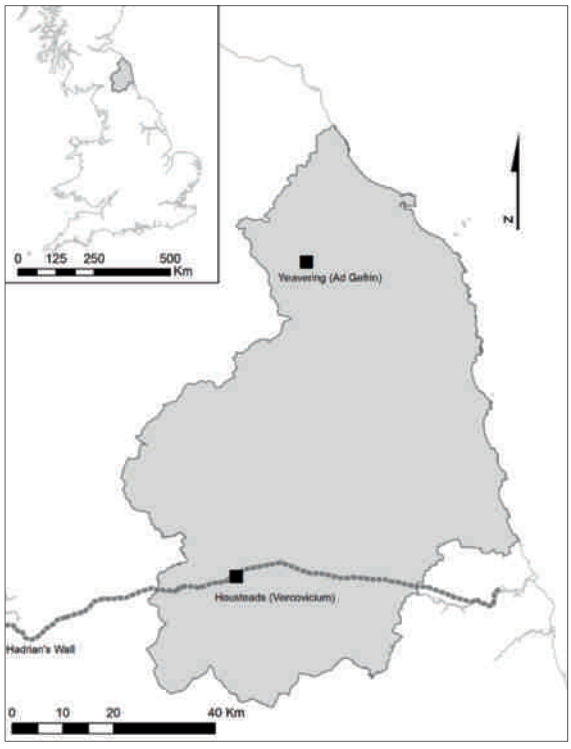

Figure 1. Location of Housesteads and Yeavering.

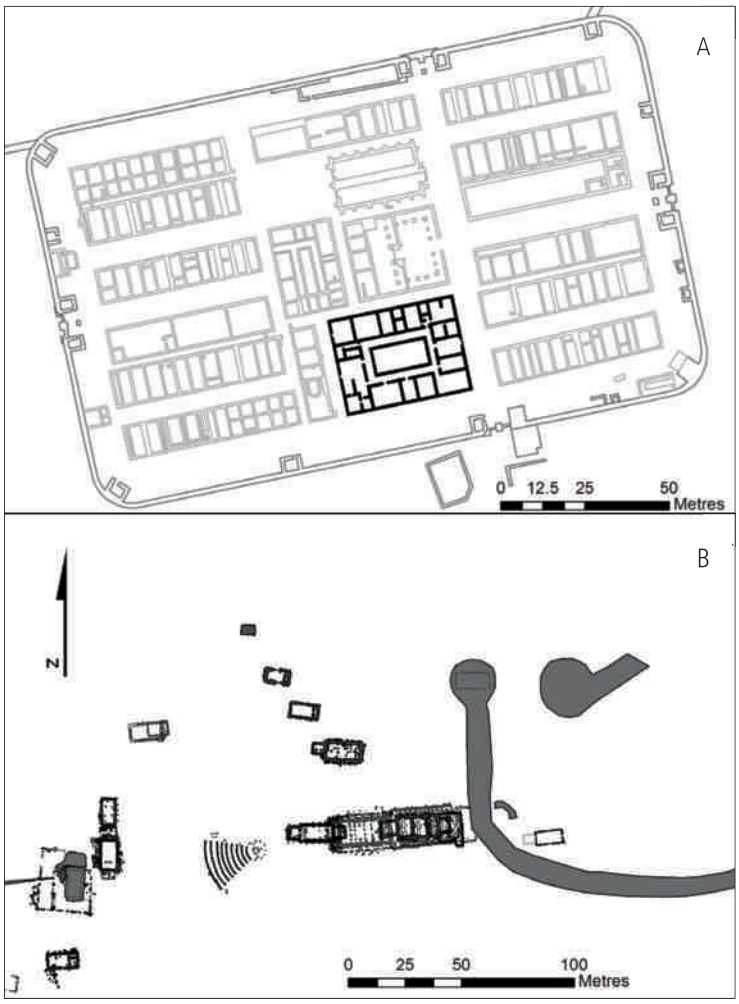

Figure 2. Excavation plans of Housesteads (A) and Yeavering (B). The structures shaded in grey were used in the analysis.

(Crow 2004; Rushworth 2009). Originally designed for an infantry garrison of c 800 men, it was constructed in the 2nd century, and used until the end of the 4th century. Positioned approximately halfway along the wall, this large fort was arranged in a regular plan, with the headquarters (*principia*) and commanding officer's house (*praetorium*), occupying the central portion of the fort surrounded by barracks and granaries (Fig 2). Outside and to the south lay a civilian settlement. The wall ran contiguous to, and was incorporated in to, the northern boundary of the fort.

The fort was subject to extensive antiquarian and archaeological excavations, exposing much of the interior and the associated civilian settlement (Rushworth 2009, 15). The remains of the stone-built structures lying within were excavated, revealing the spatial orientation of the structures. The *praetorium* was one of the largest structures and had the most complex internal divisions of any building on the site. Visibility Graph Analysis was performed on the *praetorium* and the entirety of the fort.

Yeavering

Brian Hope-Taylor's excavations in Northumberland revealed settlement remains interpreted as a royal vill through their association with the documented royal site of *Ad Gefrin* (see Semple et al. this vol). Positioned on the valley floor above the River Glen and below the prominent Iron-Age hillfort on Yeavering Bell, the settlement contains the remains of large halls, a great enclosure and a unique timber grandstand (Hope-Taylor 1977, 119–22) (see Fig 2). Dating from the 6th century, Hope-Taylor argued for six distinct phases of settlement (Hope-Taylor 1977, 151–68). Three of these structural phases are examined here using VGA. In addition, seven of the excavated structures were also analysed and compared to the overall results.

In order to undertake VGA the excavation plans of both settlements were geo-referenced, digitised, and imported into UCL Depthmap. A settlement boundary had to be introduced to allow the program to run properly. The walls of the Roman fort at Housesteads were used as boundaries and an arbitrary

boundary was drawn around the excavation plan at Yeavering following the contour lines of the landform on which the site sits. UCL Depthmap was used to process each phase of settlement and the interiors of the chosen structures. When UCL Depthmap runs VGA, the program attempts to find all of the visible locations in the graph from each grid point (Turner 2001, 3). The analytic measurements produced are split between global and local measurements. Global measurements analyse the shortest path from each point of the grid through the graph to all other grid points, while the local measurements examine the relationship between each grid point to all of the points connected to it (Turner 2004, 14).

Three global measurements were chosen for this analysis based on the previous proven use for analysing space (Turner 2004, 14–15):

- *Integration* examines how visually connected each grid point is to all of the other points, and approximates the relative 'depth' or permeability of a point to all of the other points.
- *Entropy* refers to the overall complexity of a visibility graph.
- *Mean depth* calculates the fewest number of turns required to connect each grid point in the graph to all of the other points.

Fig 3 shows a simple schematic of a structure and the results of the three types of global measurement. Taken together, these global measurements represent the visual integration, spatial ordering, and permeability of a settlement. This provides the archaeologist with a valuable interpretive tool that can assist in the examination of how settlements and structures were developed and used. The average data scores for these global measurements were calculated for each settlement and structure, and the results are discussed below.

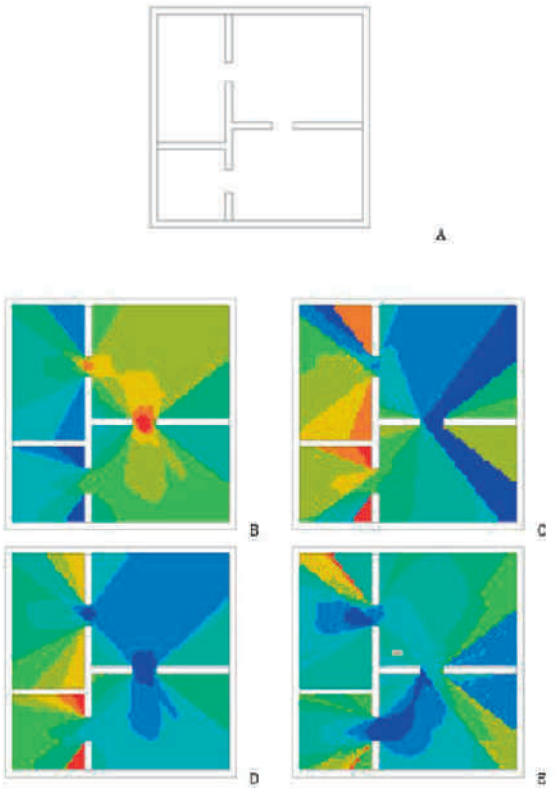

Figure 3. Example structural plan (A) and its global measurement results. Visual Integration (Tek) (B) demonstrates the area that is the most visually integrated as red, and the areas that are the least as dark blue. Visual Entropy (C) and Visual Relativised Entropy (D) examine the overall complexity using different algorithms; with the areas in red considered the most complex and the areas in dark blue the least. Finally, the Visual Mean Depth (E) represents how many turns would be needed to progress from a grid point to all the others, with the red equalling the most and the dark blue the least.

Results

The integration, entropy, and mean depth scores for the settlements and the structures are shown in Table 1. When only one structure was analysed, as in the case of Housesteads and Yeavering Phase IIIab, the VGA measurement was compared to the overall settlement scores. Where more than one structure was analysed, the median score of the global measurements of all structures was compared with the overall settlement scores. UCL Depthmap produces colour-scaled images based on VGA that display areas that are more connected, integrated and/or spatially complex. The illustrative evidence constructed from VGA can be seen in Figure 4, which also shows the visual integration, visual mean depth, and visual entropy measurements. Clear differences in the spatial patterning and use of space can be discerned between Housesteads and Yeavering. Visually, UCL Depthmap and VGA reveal areas of increased or decreased permeability — in other words the most or least private areas. These illustrations are therefore important tools in interpreting how spaces within structures and settlements were ordered on each of these sites.

While the colour-shaded imagery is an important and accessible illustrative component of this method, the global measurement scores provide more distinct insight into the use of space within the settlements. Generally speaking, Housesteads and the *praetorium* display higher scores in entropy and mean depth, and lower integration scores, than any of the phases or halls at Yeavering (Fig 5). These measurements are a reflection of the differences in the morphological layout of the two settlements and their structures. Entropy and mean depth scores relate to the complexity of a settlement or structure. Inevitably Housesteads has higher scores than Yeavering due to the density of structures and the complexity of the Roman military settlement and the interior of the *praetorium*. Likewise, the integration scores are lower at Housesteads, as areas within the fort were less visually accessible due to the density of layout, whereas higher scores at Yeavering result from its more open layout. The socio-cultural formation and division

	Visual Integration (Tek)	Visual Entropy	Visual Relativised Entropy	Visual Mean Depth
Housesteads	0.880636	1.6323	2.39365	2.62638
Housesteads Structure	0.901994	1.77287	2.17489	2.5112
Yeavering Phase IIIab	0.965922	1.39071	1.98952	1.79164
Phase IIIab Structure	1.02116	0.982733	2.06619	1.48915
Yeavering Phase IV	1.02061	0.95463	2.0357	1.41955
Phase IV Structures	0.933958	1.511505	2.12054	2.15142
Yeavering Phase V	1.0625	0.8268295	2.09138	1.349665
Phase V Median	1.08961	0.768156	2.07198	1.301

Table 1. Visibility Graph Analysis Global Measurements from Housesteads and Yeavering.

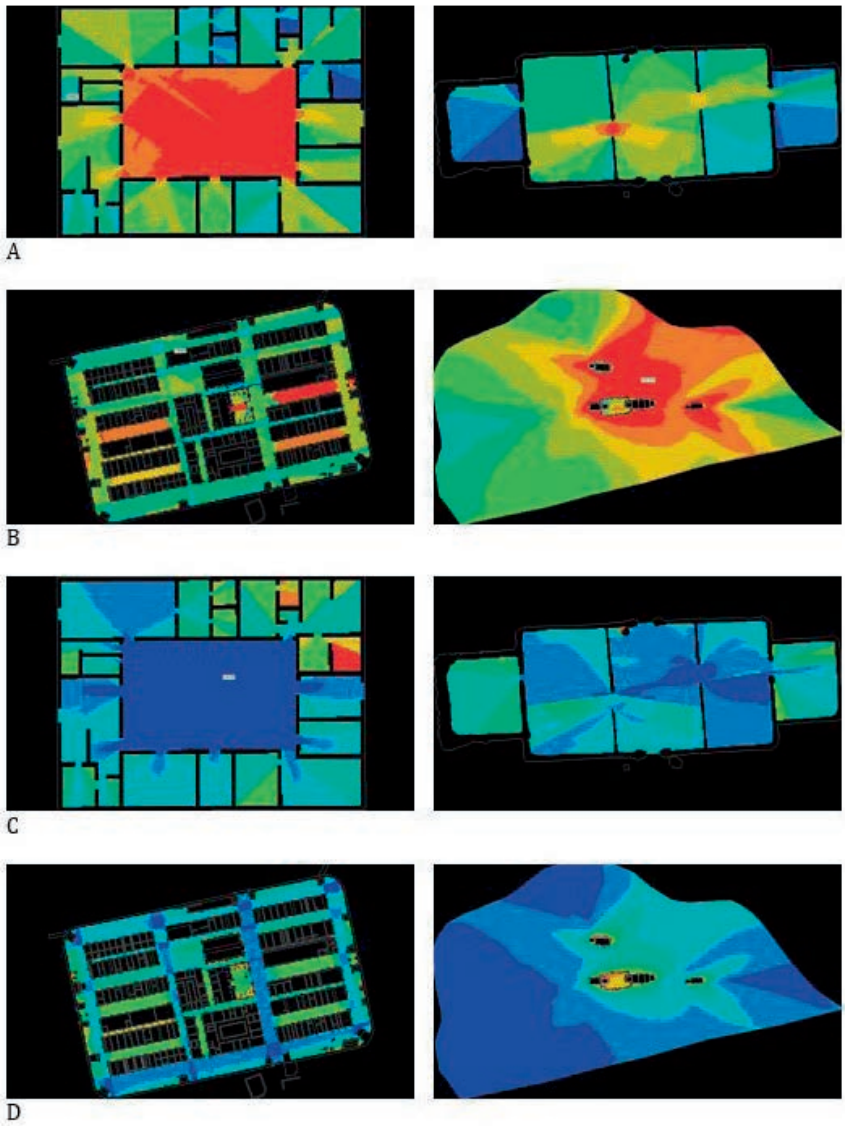

Figure 4. Examples of the Visual Integration (Tek) (A), Visual Entropy (B), Visual Relativised Entropy (C), and Visual Mean Depth (D) measurements from Housesteads (left) (B,D), its *praetorium* (A,C), Yeavering (right) Phase V (B,D), and Building A3B (A,C).

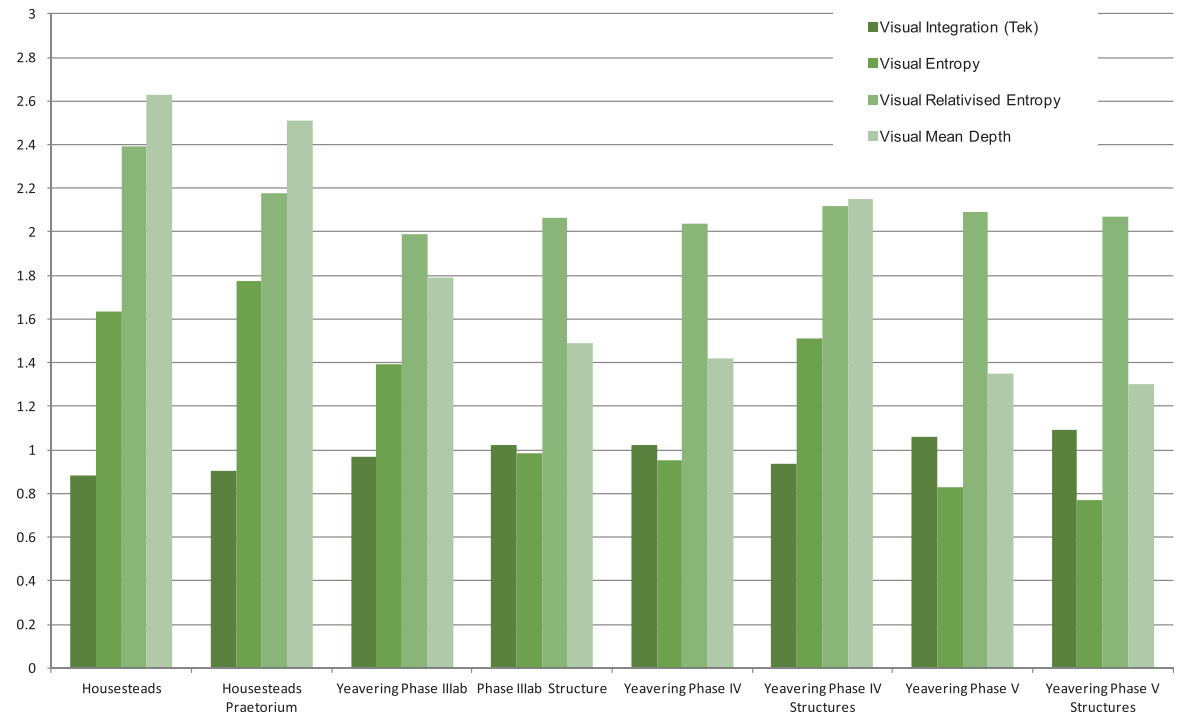

Figure 5. Global measurements from the structural phases at Yeavering, Housesteads, and their associated structures.

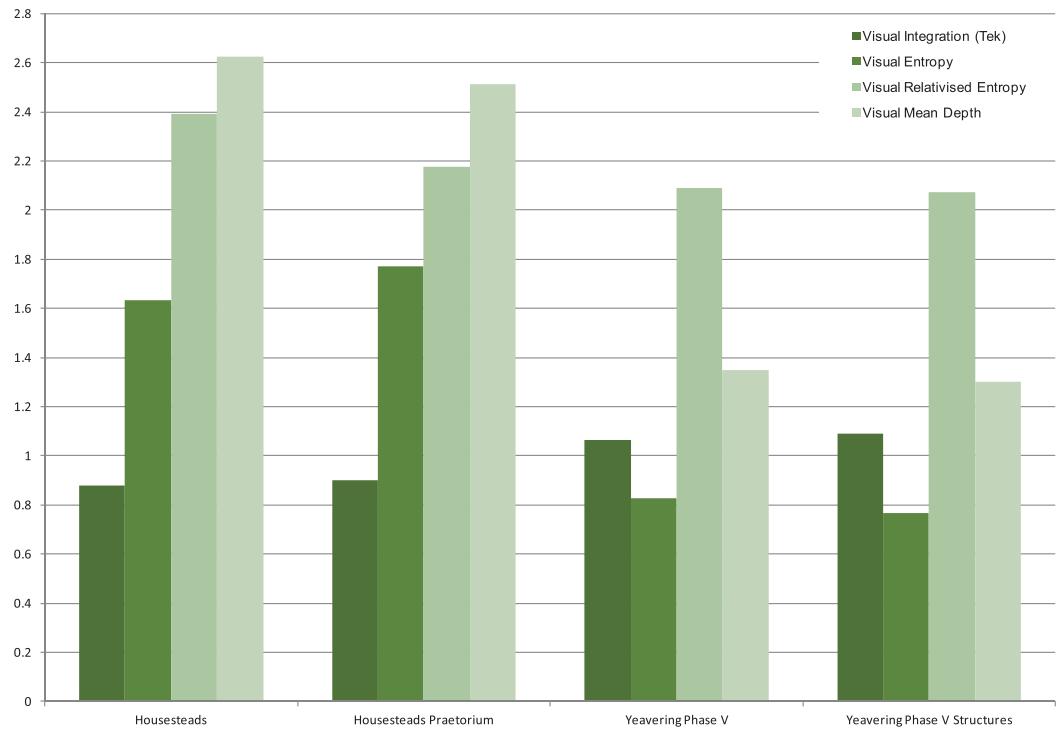

Figure 6. Global measurements from Housesteads and Yeavering Phase V.

of space within each settlement is also reflective of the results from the selected structures: the connectedness and complexity of divided space within the structures reflects the same levels of connectedness and complexity at settlement level (see Figs 5 and 6). At Yeavering there is a much greater degree of connectivity and accessibility. Housesteads is less visibly integrated as a settlement unit and has more complex ordering than Yeavering, reflecting its densely packed layout and of course the very different cultural ideas regarding space and movement on a military fort.

The spatial echoing of the site complexity by the complexity of the space within built structures underscores the idea that distinctions in built space may relate to the inherent socio-cultural distinctiveness of the populations and their ways of life (Canuto and Yaeger 2000; Fairclough 1992, 348; Wilk and Rathje 1982).

What remains intriguing, however, is how remarkably similar the global measurements are. For example, Fig 6 shows the similarity in the VGA scores between Housesteads, its *praetorium* and the Yeavering settlement. The differences in these scores are not statistically significant, but the scores are similar. Despite apparently strikingly different site plans, different dates and different functions, these settlements share similar patterns of low integration/higher entropy and mean depth. In other words, despite marked differences in plan form, there are shared ideas present about how the built environment should constrain or facilitate human experience.

Concluding remarks

The results of this analysis demonstrate the significant potential of VGA as a methodology for understanding space and identity in the settlements of the past. Using VGA allows an archaeologist to make comparisons between not only the internal spaces of structures, but between structures and the overall settlement itself. This technique could allow a greater understanding of how settlements were organised during the Roman and early medieval periods and could be used to explore data on early medieval settlements from different regions.

The overall goal of this paper was to show the utility of VGA for the Roman and early medieval eras. While there are limitations, specifically related to the amount of excavation, preservation and the difficulties of phasing, VGA is shown to be viable as another component in the 'archaeological tool-box' for exploring settlement archaeology of the late Roman and early medieval eras. While it is important to remember that people inhabiting the past would have viewed their world and their built environment in ways much different from how we view space and visibility, this does not disprove the analytical tenet of this analysis as a means of comparing the spatial layout and visual integration of settlements and structures.

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IV. Liminal Spaces

Structure and Function of Landing Places and Riverside Markets along the Lower Weser in the Roman Iron Age

Annette Siegmüller and Kai Mückenberger

The project 'Structure and Function of Landing Places and Riverside Markets of the first millennium AD along the Lower Weser and the Lower Ems Rivers' was initiated in January 2010, with funding provided by the German Research Council (DFG). Its aim is the analysis of the economic focus and related social structures of riparian sites in the region of the Lower Weser. Particular emphasis is placed on investigating the organisation of regional and inter-regional exchange and the routes used for this. The Lower Weser region is well suited as a model region because of numerous older, well-documented large-scale excavations and a large number of more recently investigated sites and finds.

The river has retained its significance as a traffic route to the present day. Distribution maps of goods and finds of provincial Roman origin as well as the location of numerous settlements in close proximity to tributaries of the River Weser, indicate its significance as a major waterway as early as the Roman Iron Age. Riverside and coastal settlements display significant differences in terms of location, structural layout and finds assemblages, making these especially useful as indicators of diverging economic emphases.

Repeated metal-detector surveys carried out in recent years have yielded finds assemblages from some of the sites which suggest some may have held special functions within the transport and exchange system. Located on a shallow ridge close to the present-day confluence of the Rivers Hunte and Weser, the site of Elsfleth-Hogenkamp (Fig 1) is one such location. The analysis of more than 700 metal finds provided evidence for extensive non-ferrous metalworking on site (Mückenberger 2010; 2013a). However, a pedological catena across the site shows a long phase of regular flood events, probably occurring during the winter months, which makes continuous occupation of the site unlikely (Brandt et al. 2012, 312). The combined results of the geophysical survey and the pedological investigations show that during the phases of occupation the shallow ridge had been bounded by watercourses on two sides. The current state of knowledge about this site suggests a role as a seasonal riverside market (cf Ellmers 1999, 118ff; Jöns 2009, 30ff). Apart from this particularly prominent example, several other sites in the Lower Weser region and northern Butjadingen have come into focus in recent years, featuring not only metal assemblages with clear evidence for non-ferrous metalworking, but also a situation on the banks of watercourses. In almost all instances, the sites were not situated on the large rivers or the coast, but rather they were established alongside smaller, calmer watercourses which nevertheless permitted fast access to large rivers (cf Scheschkewitz 2010, 305). Some of the sites, like Iggewarden in the north of Butjadingen (Fig 1), have been shown by augering to be Wurten — artificial settlement mounds with the body of the mounds raised using cattle dung, which in turn provides evidence for on-site farming. Such Wurten, yielding large numbers of metal finds, cannot be interpreted as specialised settlements dedicated solely to the exchange of goods, but rather they would have been agrarian settlements with craft/workshop areas of unknown size, probably also including a landing site which may have been used as a reloading point. Equally, small seasonal markets may have existed on the edges of such settlements, but it seems more likely that such sites became increasingly important because they provided conveniently located, overnight landing places, within a network of inter-regional riverine traffic.

In contrast to this, simple jetties have been found in every Wurt-settlement, as at Feddersen Wierde, Landkreis Cuxhaven, in the 1st century AD (Fig 1). The jetty here had been constructed on the northern bank of a small tidal channel in settlement phase 1c, only to be given up again in phase 1d (Haarnagel 1979, 176). The jetty was 1 m wide and 3–4 m long, and the adjacent area of the bank either side of the construction had been reinforced using wattle mats and 15 cm-wide posts rammed into the ground. Despite its massive construction, the jetty did not form part of the later *Herrenhof* (chief's farmstead; cf Schmid 2010), instead it was located remotely and probably only served local or regional traffic.

It is important, therefore, to distinguish between different types of landing sites, such as simple landing places, reloading points or riverside markets (Fig 2; cf Siegmüller and Jöns 2011, 99, Abb 1), where distinctions are possible based on site structures, palaeo-topography and finds. Reconstruction of the topographical situation is also of particular significance as it provides a basis for recognising (former) waterways. Such reconstructions involving combining various terrain models, aerial photography, historic maps, specialist maps and drilling data. The models of the palaeo-landscapes reconstructed on this basis are augmented/checked by geophysical surveys, augering and small field surveys. Following the localisation

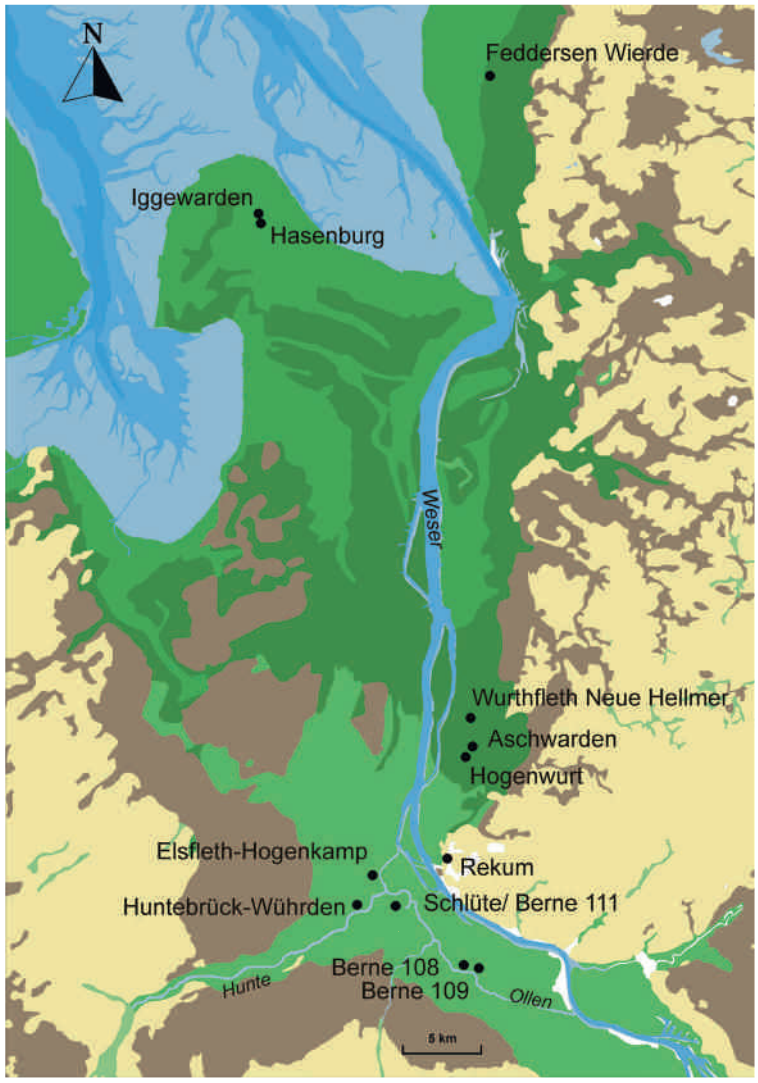

Figure 1. Sites mentioned in the text. Illustration: K. Mückenberger (NIhK).

of the watercourses in the vicinity of a settlement, known features that could hint at human use of the riverbank are examined. The classification of a site as a landing place, reloading point, or even beach/riverside market remains dependent, however, upon the quantitative and qualitative analysis of the finds assemblage and reliable indicators of the site's economic parameters.

The region around the mouth of the River Hunte

The confluence of the Rivers Hunte and Weser has particular significance. Not only do two important waterways converge here, but there were also favourable conditions for the crossing of the River Weser. The confluence of the two rivers was dominated by numerous and sometimes quite large island and sand spits and according to local accounts it was possible to traverse the river on cart at low water levels up until the post-modern period. On the eastern bank of the Weser near Bremen Rekum, immediately opposite the mouth of the Hunte, the Pleistocene sandy area (Geest) reaches as far as the bank of the Weser, thus allowing clear access to the riverbank without the obstruction of a floodplain or bog (Fig 1). Additionally, the elevated terrain provided a flood-proof settlement area in an imposing location, all of which would have favoured the establishment of the Roman Iron-Age settlement of Bremen Rekum at this site (cf Kelm 2008). Not only does the settlement feature some exceptionally large three-aisled buildings, it also includes an extensive area containing burials of large animals which have been considered in terms of ritual practices (Bischop 2000, 55ff; Kelm 2008, 28; Jöns 2009, 32f).

Several settlements of the pre-Roman and Roman Iron Ages are located to the west of the Weser on the elevated



Figure 2. Schematic diagram showing the various facilities controlling the exchange mechanism and the waterways according to frequency and degree of organisation. Illustration: A. Siegmüller (NIhK).

riverbanks along the mouth of the Hunte, including the three, at least partially excavated sites of Elsfleth-Hogenkamp, Huntebrück Wührden and Schlüte/Berne 111 (Fig 1). All three sites were established on the elevated banks of the Hunte and the Ollen, a former tributary of the Weser draining into the Hunte. The region is thus heavily dominated and subdivided by watercourses, with settlement sites predominantly located in proximity to riverbanks, not least because the hinterland was dominated by vast floodplains and bogs.

So far, most attention has been focused on the above mentioned settlement of Elsfleth-Hogenkamp, which has been the centre of scholarly interest because of its exceptionally rich assemblage of surface finds. Even though nothing more than small sondages have been excavated there (Schütte 1937; Scheschkewitz 2006a; 2006b; 2010, 296ff), it has, nevertheless, been possible to demonstrate the existence of a wooden embankment in the shape of a horizontally placed wattle mat. An auger investigation, carried out in 2010, established the existence of accumulations of sand on the riverbank, which had most likely been dumped there to improve access to the area (Brandt et al. 2012, 312f). Among the metal-detected finds there were many items indicative of local non-ferrous metalworking as well as numerous objects of provincial Roman origin (Mückenberger 2010; 2013a). There is, as yet, no evidence of any structural remains. It is possible that frequent flood events periodically prevented the construction of more permanent building structures; this remains to be clarified by future excavations. Based on current knowledge the site may have functioned as a seasonal riverside market, possibly under the control of an elevated group in society residing at Bremen Rekum (Kelm 2008, 33; Jöns 2009, 32f). A.S.

The majority of the pottery and metal objects thus far recovered from the site at Elsfleth — predominantly brooches, coins and fragments of fittings — belongs to the Roman Iron Age or the Migration Period, dating to the 1st–4th/5th centuries AD. Of particular note is the exceptional assemblage of some 180 Roman coins, currently the largest collection from a settlement site in north-west Germany. Contrary to the practice at many other sites, the exact positions of the coins have been recorded from the outset of the investigations, which has enabled identification at an as yet unprecedented scale of different utilisation zones for bronze and silver coins (Mückenberger 2013a, 236ff). It appears that large bronze coins such as *asses* and *sestertii* had been deliberately selected for use in non-ferrous metalworking, while *denarii* and lower-value copper issues can be interpreted as lost coins which are most likely indicative of local exchange or market activity. Equally, the large number of brooches can only be compared with assemblages like that from the spring at Pyrmont (Teegen 1998) or from the Wurt Feddersen Wierde, Landkreis Cuxhaven (Schuster 2006), in terms of its makeup and chronological range covering approximately half a millennium.

A considerable proportion of the non-ferrous metal assemblage consists of fragments of Roman military equipment. So far, 24 bridle fittings have been recovered from the site at Elsfleth-Hogenkamp, which find their closest comparisons in Roman auxiliary forts along the *limes*. Among the fittings there are some that belong to the early phase of Germanic non-ferrous metalwork. One of the fittings found at the Hogenkamp and belonging to a hitherto unknown form, was demonstrated to be a development from Roman models (Mückenberger 2013a, 190f). Furthermore, it was possible to consider aspects of religious history. A Migration-Period buckle pin found at Elsfleth-Hogenkamp was highlighted in a recent article as being one of the few known depictions of the god Woden/Odin (Mückenberger 2013b). At least 13 further metal objects are also of Roman origin and belong in a civilian context. These objects attest to long-lasting contacts with the Roman provinces. Altogether, the makeup and quantity of the finds assemblage demonstrates a combination of metalworking craft and trade/exchange, which has so far been known predominantly from the landing places in the periphery of southern Scandinavian central places (Mückenberger 2013a, 293ff). Elsfleth-Hogenkamp is thus the first site with evidence for a specialised landing place with riverside market along the north-western German coast. K. M.

Huntebrück Wührden (Fig 1), located 2 km to the south-west on the riverbank of the Hunte, displays an entirely different settlement character. The site was destroyed during quarrying in the early 1980s, but volunteers were able to record isolated features and collect a large quantity of indigenous pottery dated to the centuries around the birth of Christ (cf Först 1991, 24ff). The occupation zone covered an area of approximately 10 ha and was divided by several small watercourses with various wooden structures found along the banks (Först 1991, 132ff). Even though the minimally recorded monitoring scheme only targeted clearly visible features, mainly those with preserved wood, it was possible to demonstrate an intensive use of the riverbanks. An artificial bank, reinforced with wattle-work and including a Siel (culvert

with a tidal clapper valve), demonstrates a considerable extent of on-site hydro-engineering activity (Fig 3; Siegmüller and Jöns 2012, 582, Abb 6; cf also de Ridder 2005). The finds and features recorded so far indicate that this settlement had a predominantly agrarian character, yet it participated in the inter-regional network of exchange and contacts. While not all of the numerous wooden structures along the riverbanks have identifiable functions, they are a particularly clear testament to the routine use of the waterways. Additionally, it becomes evident how many resources in terms of man-hours and building material were invested to access and make use of the waterways. The comparative infrequency with which embankments are recorded in settlement excavation in the southern North Sea region is owed primarily to preservation conditions and choice of site rather than a real scarcity, a fact which is also demonstrated by recent research at Jemgum in the marshes along the River Ems (Prison 2011a, 282ff; 2011b, 124ff).

The site of Schlüte/Berne 111 (Fig 1) has only become the target of increased research activity in recent years even though it had been known as a find spot of isolated Roman coins for a long time. Geophysical and metal-detector surveys, carried out prior to construction work planned for the winter of 2010, have yielded unexpectedly good results (Siegmüller and Jöns 2011; Brandt et al. 2012). Not only does the settlement area appear well-defined on the geomagnetic plot, but an adjacent watercourse and its confluence with another stream to the north of the site feature with equal clarity. Occupation was confined to a shallow knoll that had formed on the raised riverbank. The results of the new geophysical survey, augmented by a metal-detector survey which yielded numerous finds of provincial Roman origin, prompted the Archaeological Services of Lower Saxony (Landesamt für Denkmalpflege) to carry out a rescue excavation (Rosenbaum 2010; Fries 2011a; 2011b). The evaluation trench ran across the settlement area and extended as far as the watercourse. Various settlement features dating to the Roman Iron Age were revealed on top of the knoll (Rosenbaum 2010), including large pits and heavily burnt areas of as yet unknown purpose. Due to its width and depth the adjacent watercourse was only partially investigated. It was identified as a palaeochannel of the Ollen. A massive slipway, according to an initial assessment of the pottery, probably of high medieval date, had been constructed on its bank and was resting on a substructure of deeply founded pilings and rubble layers, which is why no earlier features could be observed in this section (Brandt et al. 2012, 303). Initial results of the botanical analysis provided unambiguous evidence, in the form of cereal and threshing residues, for the local agrarian economy (Brandt et al. 2012, 308). This suggests that, at least periodically, the settlement of Schlüte/Berne 111 had not been used exclusively by specialised artisans and other groups of people predominantly concerned with exchange. Based on the analysis of the borehole data of the structural ground investigations, the convergence of waterways seen on the geomagnetic survey to the north of the knoll could be identified as an earlier confluence of the Ollen into the River Hunte (Brandt et al. 2012, 300ff). The site thus occupies a particularly conveniently located position. It remains to be examined in the forthcoming analysis to what extent the recorded settlement features are indicative of

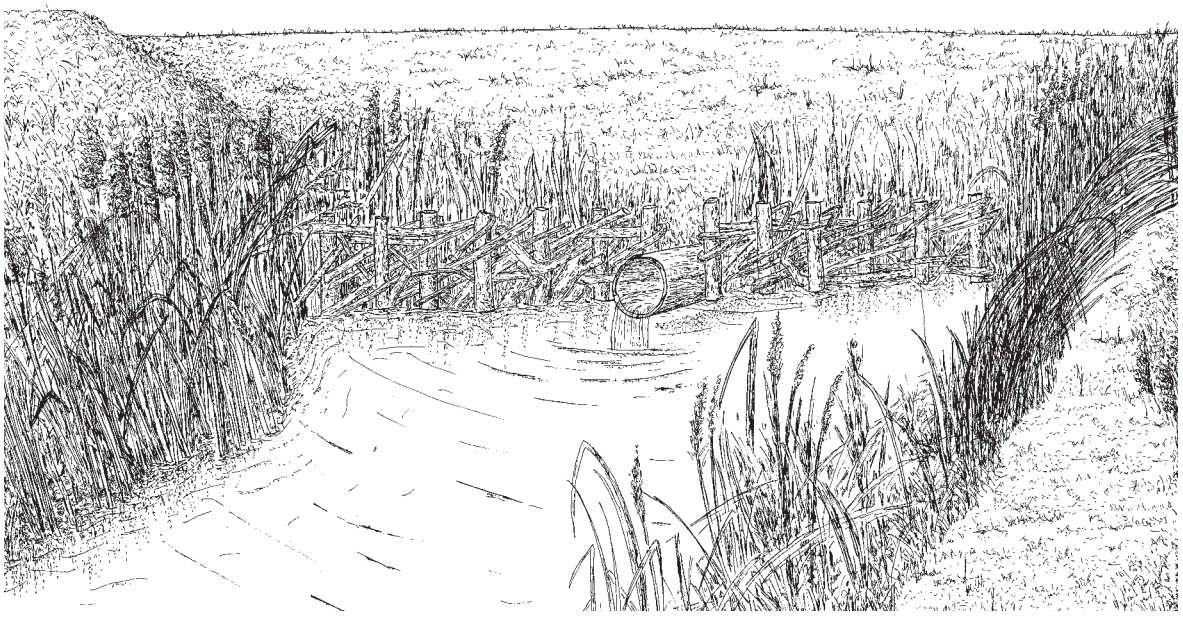

Figure 3. Huntebrück-Wührden. Reconstruction drawing of the artificial bank, with culvert and bank reinforcement. Drawing: T. Peek (Syke).

industrial activities or other forms of specialised subsistence; however, the results so far suggest that the site functioned as a reloading point within the regional exchange network.

Apart from these partly excavated sites, a large number of additional findspots have been recorded at the mouth of the Hunte, almost exclusively through collections of surface finds. Not only do these places reflect the high population density in this landscape criss-crossed by watercourses, but they also demonstrate the widespread distribution of goods of provincial Roman origin. Some of these findspots, among others Berne 108 and Berne 109 (Fig 1), are conspicuous in yielding large numbers high quality objects. In order to further explore the closely intertwined network of different occupation sites within this micro-region, these places will be the focus of future surveys. A. S.

Findspot Schlüte/Berne 111

As was the case at the nearby site of Elsfleth-Hogenkamp, numerous non-ferrous metal finds have been made at Schlüte, recovered in the scope of frequent metal-detector surveys (Fig 4). A total of 90 objects have been recorded to date, with two fragments of silver recovered besides the more usual finds of copper alloy and lead. Morphologically, they appear to be fragments of objects of provincial Roman origin. Together with other bronze melting residues, these fragments document local non-ferrous metalworking similar to the site of Elsfleth-Hogenkamp but probably at a smaller scale. Based on the current finds assemblage, this activity cannot be dated precisely. The datable finds, again comprising brooches, Roman coins and fragments of objects and fittings, suggest that the site was frequented from the early Roman Iron Age and this use continued at least into the 5th century AD.

The range of brooches found at Schlüte appears to have a slight emphasis on the middle and late Roman Iron Age (Fig 4a: 1–4). The illustrated examples belong to types of Almgren Gruppe VI and VII and can be dated respectively to the 2nd/3rd and the 4th century (Almgren 1923, 85ff, Taf VII und IX). Additionally, the assemblage includes bridle fittings which, according to Oldenstein (1977, 187ff), can be identified as Roman imports of 2nd- and 3rd-century date (Fig 4a: 5, 6). An initial assessment of the coin assemblage indicates that it is dominated by 4th-century *folles*, while 2nd-century *denarii*, so common at Elsfleth, appear thus far to be lacking. Despite its much smaller size, the finds assemblage recovered at Schlüte displays a bias towards the middle Roman Iron Age, similar to that noted at Elsfleth.

Findspots Berne 108/109

Metal-detector surveys have been also been carried out at the two findspots Berne 108 and 109, approximately 6 km upstream from Schlüte (Fig 1). They are located about 900 m apart on the eastern riverbank of the Ollen, which at this point extends north in a wide bend. Both sites together have produced an assemblage of 103 metal finds, with the larger contingent (77 finds) recovered from Berne 108. The makeup of the assemblage is comparable to those from the mouth of the Hunte, including various fragments of lead, bronze and silver, the latter exclusively in the form of Roman *denarii*. Again, fragments of provincial Roman objects were also found. Analysis of these objects is ongoing, but based on a selection of examples from Berne 108, it is possible to gain an overview of the assemblage's chronological range (Fig 4b). Early Roman Iron-Age activity at site is indicated by a brooch of Almgren 45-type (Fig 4b: 1; Almgren 1923, 23, Taf III; more recently: Kunow 1998, 104ff). A 'brooch with tall catchplate' of Almgren Group VII 199-type (Fig 4b: 2) belongs to the middle Roman Iron Age (Brandt 1960, 47), while the fragment of a bow brooch (Fig 4b: 3) shows that the area of the site was also frequented during the early Migration Period (Böhme 1986; Brieske 2001). Furthermore, the assemblage also included a cylindrical object with a cruciform mark engraved on one of the circular facing sides; it can be compared to similar objects which according to Grünewald (1997, 211ff) can be identified as divination or oracle rods, i.e. decision-making aids for personal use. Other objects include a horse harness fitting (Fig 4b: 5) that can be dated to the 2nd/3rd century, according to Oldenstein (1977, 171, Taf 47–8, 512–27), and the fragment of a bronze jug with hinged lid (Fig 4b: 6) likely to belong to the same period (Flügel 1994, 211f).

The range of finds from Berne 108, only presented here in a few examples, exhibit clear parallels to the above mentioned findspots of Elsfleth-Hogenkamp and Schlüte. Thus, activity at the site ranged in date from the early Roman Iron Age to at least the Migration Period. From the middle Roman Iron Age onwards finds of provincial Roman origin indicate an intensification of contacts with the Roman Empire. K. M.

Osterstade

Located opposite the mouth of the River Hunte and immediately north from Bremen Rekum, the Osterstade region is a low-lying marsh, bounded on its western side by the riverbank of the Weser, featuring intermittent inland dunes. During the Roman Iron Age various types of settlement sites, exposed to varying levels of flood risk, had been established here in close proximity of each other. Numerous surface finds indicate occupation of the inland dunes, for instance the Hogenwurt near Aschwarden (Fig 1); but Wurten and low-lying settlements existed contemporaneously alongside these. This contemporaneity of different settlement forms is of particular interest as it can most likely be explained by varying economic biases of the settlements. None of these settlements have yet

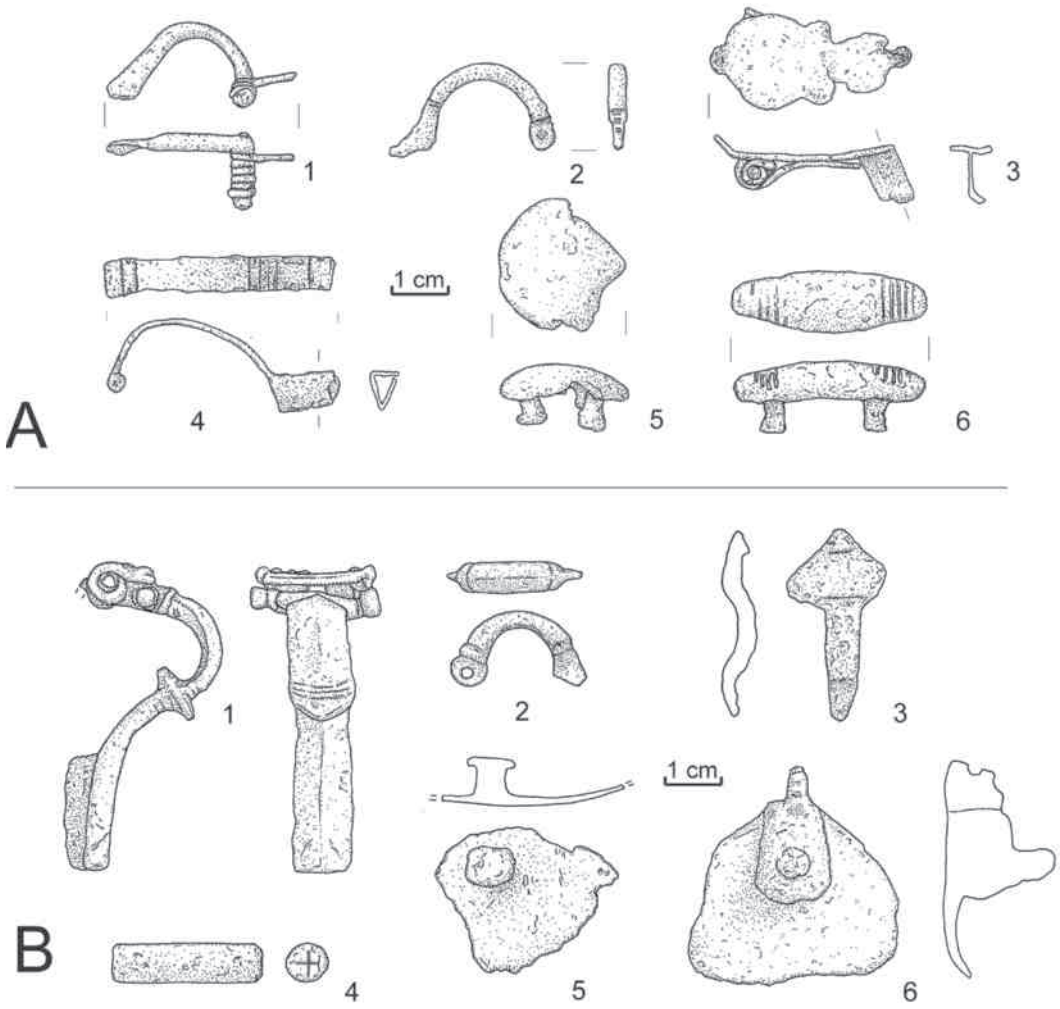

Figure 4. Selected metal-detector finds from (a) Schlüte/Berne 111; and (b) Berne 108. Drawings: K. Hüser (Aurich). Graphics: K. Mückenberger (NIhk).

been subject to excavations or sondages; all information is based solely on field walking surveys and a few descriptions of accidentally exposed features, collected by local amateur historians (e.g. Pieken 1961; 1991), as well as a number of recent geophysical surveys. Another important source is the soil chart of the Lower Saxony marsh area (bodenkundliche Kartierung der Niedersächsischen Marsch 1:5000), which has covered all of the Osterstade region. Occasionally, the geological test pits also uncovered archaeological layers which were duly recorded (cf Lang 1964). At 1.5 m below ground level, the cultural layers of the Roman Iron Age were encountered at significantly lower depths than on the western bank of the Weser, thus explaining the smaller number of surface finds. With the exception of the dune sites, the finds recorded to date have all been recovered from ditching spoil or drainage ditches. Consequently, it is much more difficult to obtain an overview of the settlement structure compared to the opposite side of the Weser, where the preservation conditions can be expected to be much better.

This was shown to be the case during a small sondage north of the Hogenwurt near Aschwarden, undertaken in the course of the preparation of the soil chart of the marsh region. Not only was a well preserved occupation layer exposed there, containing pottery providing secure dating for the period from the 1st century BC to the 2nd century AD (Pieken 1991, 359f), but it was found in direct contextual association with a tidal channel that flowed during the Roman Iron Age and contained wooden structures that were part of a bank reinforcement (Lang 1964, 206, Abb 14; Siegmüller in press, 445, Abb 2). This zone is probably closely associated with the adjoining Hogenwurt whose contemporaneous occupation is demonstrated by numerous surface finds. Large parts of this inland dune, measuring 420 m long by 160 m wide, have been destroyed by sand quarrying. The sections created during sand extraction display a typical dune profile covered by a thin occupation layer (Siegmüller in press, 445, Abb 1); the name Hogenwurt is thus misleading (as it is not an artificially raised Wurt-mound). The widespread distribution of the

predominantly ceramic surface finds indicates that the entire surface of the dune had been occupied, at least periodically. The finds assemblage is dominated by pottery forms belonging to the earlier Roman Iron Age (cf Pieken 1991, 360, n 6). The extent and purpose of the settlement area along the tidal channel to the north of the Hogenwurt is currently unknown. However, the comparatively massive wooden structures along the bank of the tidal channel at least provide evidence for waterside activity. A certain intensity of activity within this area, which is prone to flooding, is furthermore indicated by the relatively extensive finds assemblage recovered during the excavation of the geological test pit. To what extent the destruction of this settlement site can be attributed to a flood disaster, as described by Pieken (1991, 360), remains to be investigated.

About 500 m further to the north, an unusual sunken gap can be observed at the south-eastern base of the present-day Wurt Aschwarden. Based on the soil chart of the marsh region and geomagnetic surveys this can be identified as the terminus of a palaeochannel. This area also produced fragments of pottery with thickened-facetted rims dating to the 1st century AD. However, their exact connection with the beginning of Wurt construction remains as yet unknown. Thus, all that can be said at present is that three settlement- and occupation sites were established in different palaeo-topographical zones within the environs of Aschwarden. Any influencing factors such as traffic topography or economy remain unknown.

The settlement of Wurthfleth Neue Hellmer is situated 1.7 km north of Aschwarden (Fig 1). Once again, a low-lying settlement and a Wurt are found, at a distance of c 450 m, in close proximity of each other. According to the surface finds the low-lying settlement dates to the 1st–4th centuries AD and extends on an E-W alignment along a palaeochannel whose existence was clearly established by both the soil chart of the marsh region as well as a geomagnetic survey (Fig 5). Within the area of the low-lying settlement the palaeochannel ran along a line that is today defined by the slightly sinuous course of the plot boundary and the parallel drainage ditch. Originally, this line defined the course of the main channel of a wide network of smaller watercourses flowing in to the main channel at almost right angles. During the installation of a drainage system in the 1960s rectangular enclosures were identified as dark patches in the cuts within the area at the 'Neue Hellmer'. The enclosures were aligned along and following the watercourse in a way which is comparable to the settlement of Ostermoor in Dithmarschen (Bantelmann 1960). Despite the slight elevation of the channel bank on which the settlement enclosures at the 'Neue Hellmer' had been erected, their situation immediately next to the water meant that they had been built in an area prone to flooding. It is possible that the area had been occupied only seasonally or in short recurring settlement phases. Given that the Wurt-settlement Wurthfleth, probably also originating in the Roman Iron Age, was located in close proximity to the low-lying settlement 'Neue Hellmer', there must have been a reason for accepting the risk posed by flooding of the settlement area. The close connection between the low-lying settlement and the watercourse suggests that the place had been chosen because of the waterway and its significance as a traffic route.

Nordbutjadingen

This settlement region received increased scholarly attention when metal-detector surveys produced numerous new non-ferrous metal finds, including a considerable number of Roman coins. Remarkably few objects of provincial Roman origin had hitherto been known from the region of Nordbutjadingen, even though the Wurt-settlements are located in close proximity along the raised beach ridges (Ey 1991, 80f; Schmid 1992, 29ff). Essentially, two large chains of Wurten of different age can be distinguished (Schmid 1992, 29). The inner, older chain was established as early as the early Roman Iron Age. Initially, the settlements had been established at ground level, but during the course of the 1st century AD they had been heightened rapidly, sometimes by as much as 3 m (Ey 1991, 80f; Schmid 1992, 29; Siegmüller and Jöns 2012, 578). These were almost certainly a reaction to storm surges which also caused the formation of a beach ridge immediately in front of the inner chain of Wurten. On the inner side of the chain, a system of small, relatively calm tidal channels ran along the immediate vicinity of the Wurten. Even though there is as yet no actual archaeological proof, it can be assumed that ideal conditions for landing sites must have existed in this environment. This assumption is supported by the large number of non-ferrous metal finds from the Wurten of the inner, older chain of Wurten, particularly Iggewarden and Hasenburg (Fig 1). Relatively little is known about the buildings or structure of the Wurten, in contrast to their stratigraphy which in most cases only shows thin occupation layers with smaller increases in height, after the massive heightenings during the 1st century AD. The analysis of new surface finds, collected in the course of systematic metal-detector surveys, has enabled the certain identification of individual sites and entire zones which participated in the interregional exchange and communication networks and may even have been involved in their organisation, as demonstrated by the following examples. A. S.

The Wurten Iggewarden and Hasenburg

Based on the range of metal finds the two Wurten of Iggewarden and Hasenburg, located at the northern point of the inner chain of Wurten, are currently of particular interest in Butjadingen (Fig 1). They are located around 600 m apart, in similar proximity of each other as the above mentioned

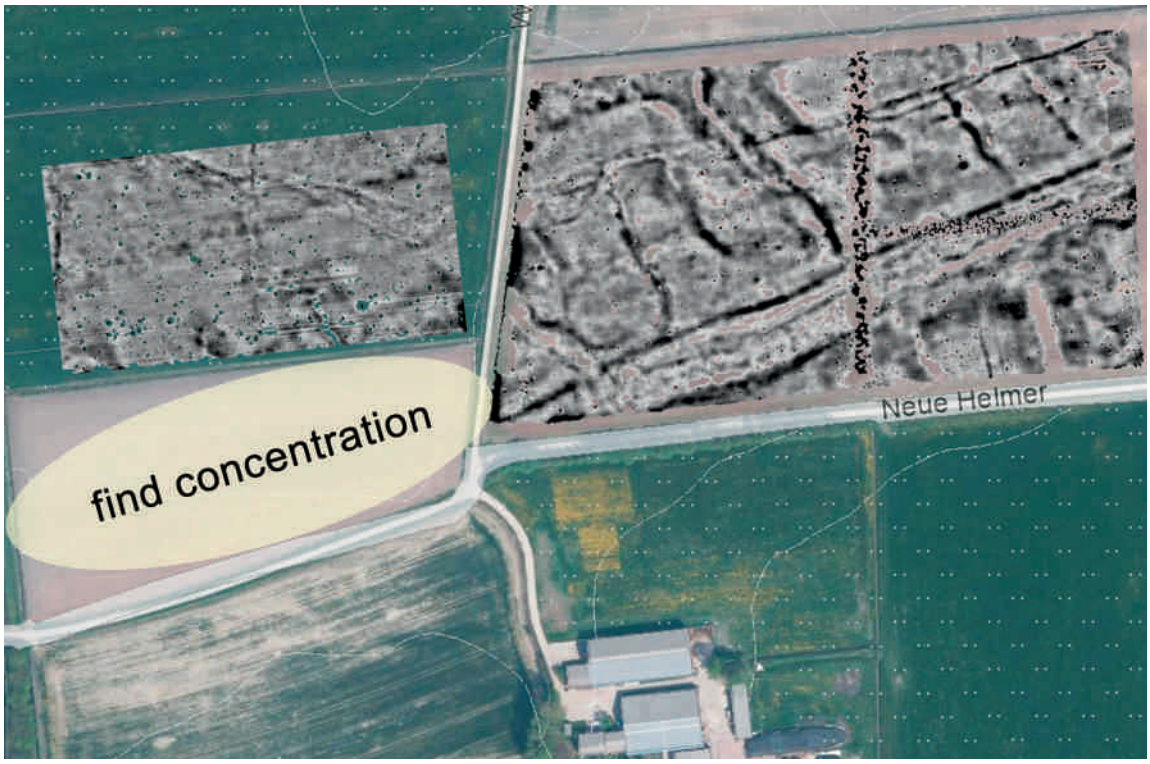

Figure 5. Wurthfleth Neue Hellmer. Results of geomagnetic survey in the surroundings of the site. Illustration: D. Dallaserra (NIhK).

sites of Berne 108 and 109. The metal finds from Iggewarden currently number 128, while 315 have been found at Hasenburg (Fig 6). As was the case at the sites in the region at the mouth of the River Hunte, different types of metal are represented. Apart from the usual finds of lead, bronze and silver, a fragment of gold wire from Iggewarden demonstrates the use of precious metal. Similarly of note is the exceptionally large number of 51 coins recovered at Iggewarden. According to an initial assessment, the coins include six 2nd-century *denarii* as well as 45 late-Roman copper denominations, predominantly *antoniniani* and *folles*. Together with the 24 coins recovered from Hasenburg, which at the last count included nine *denarii*, these coins are currently awaiting further analysis.

For the time being, a chronological overview is dependent on the brooches found at the two sites. One of the oldest among the 14 brooches from Iggewarden can be identified as an early Roman Iron-Age example belonging to Almgren's type 19 (Fig 6c: 1; Almgren 1923, 4, 107). Again, the middle and late Roman Iron Age is represented by examples of his Groups VI and VII (Fig 6c: 2–5), while the youngest item is an early medieval equal-armed brooch (Fig 6c: 6; Wamers 1994, 14f). Among the 44 brooches from Hasenburg, early Roman Iron-Age forms are dominated by brooches with wings above the springs, so-called 'Rollenkappenfibeln' (Fig 6d: 1, 2; Almgren 1923, 11ff, Taf II). These are followed largely by Germanic knee brooches of Almgren's Group V (Fig 6d: 3; Almgren 1923, 62ff, Taf VI) and by brooches with a tall catchplate of Group VII (Fig 6d: 4–5). A 6th-century AD toffee brooch currently marks the end of the local brooch chronology (cf Høilund Nielsen 2011, 307ff).

Even within only initial analysis, it is evident that the Wurten of Iggewarden and Hasenburg cover a chronological range comparable to the sites at the mouth of the River Hunte. According to the finds of datable brooches, they were occupied throughout the first half of the 1st millennium AD, and sometimes even longer. The astonishingly large numbers of middle- and late-Roman Iron-Age coins are indicative of intensive contacts with the Roman provinces during this period. A multitude of metalworking remains shows that non-ferrous metalworking was carried out at almost all of these sites. K. M.

Synthesis and outlook

At the current stage of the project, obvious differences as well as similarities are apparent within the study areas and the sites. The choice of location for settlement sites was clearly influenced by their proximity to the waterways and in many instances these were occupied throughout the first half of the 1st millennium AD and were coupled with specialist industrial activity and close contacts with the Roman Empire. It is particularly at a regional scale of comparison, however, that

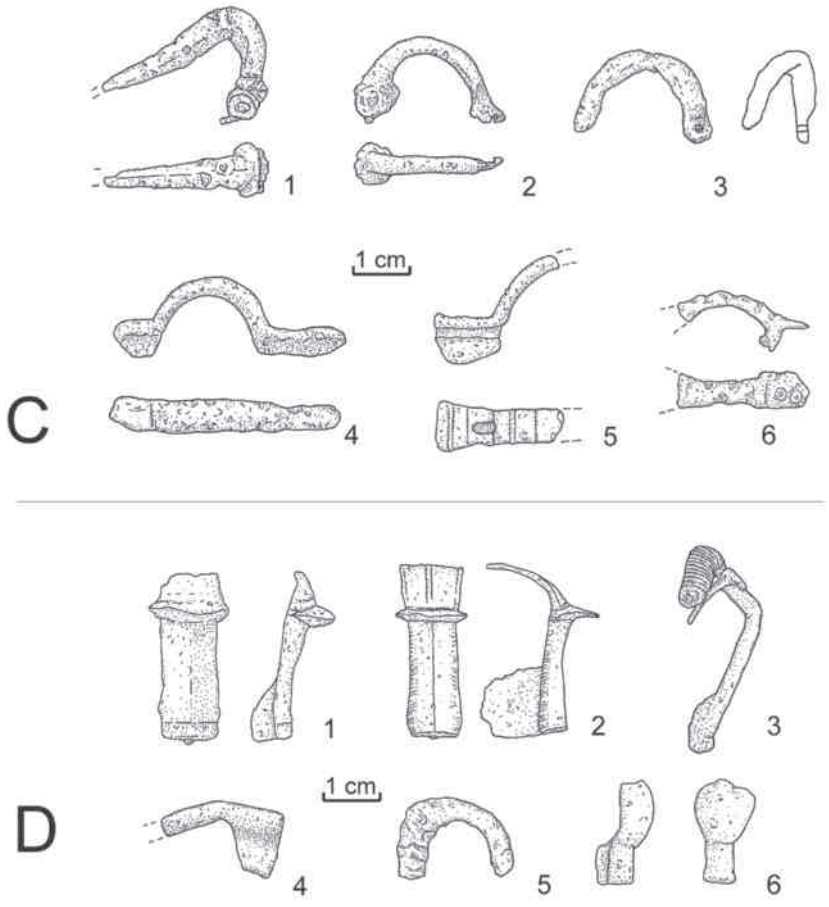

Figure 6. Brooch assemblages from (c) Iggewarden; and (d) Hasenburg. Drawings: K. Hüser (Aurich). Graphics: K. Mückenberger (NIhk).

structural differences become apparent. Thus, the region at the mouth of the River Hunte needs to be considered *with* the opposing eastern side of the Weser and large settlement of Bremen-Rekum and the Osterstade region. Once this is done, a picture emerges of a relatively densely-populated region. There are settlements with a purely agricultural focus, riverside markets and the seat of local elites with an adjacent cult area, all existing contemporaneously. This network offers interesting insights into local socio-economic relationships, with the River Weser acting as a unifying rather than dividing body of water.

The situation in Nordbutjadingen is quite different. The only sites currently known from there are Wurt-settlements. In most cases investigated so far, they were initially established as low-lying settlements with the mounds of the Wurten raised later. A distinctly agricultural component in the economic orientation of the Wurten is demonstrated by the frequently recorded dung layers. Nonetheless, in many instances it was possible to find evidence for specialised craft activities, mainly non-ferrous metalworking. Apparently, in this region different economic concepts were pursued within the Wurt-settlements without introducing recognisable spatial separations. An explanation for this circumstance may be the very exposed topography at great risk of flooding, which might have made the relocation of specialised industrial zones risky or impossible. Targeted research at selected sites is intended to pursue these questions further in order to achieve a closer understanding of regional social structures and inter-regional communication structures. A. S.

Acknowledgements

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On the Origins of Dorestad? Habitation of the Kromme Rijn Area during the Merovingian Period

H. M. van der Velde, J. Dijkstra and S. Heeren

Introduction

This paper investigates the habitation history of the early medieval settlement of De Geer and the Merovingian habitation history of Wijk bij Duurstede. This research is part of a larger project funded by the Dutch science organisation, called *Dorestad, vicus famosus*. The project aims to research the cemeteries of Dorestad, incorporating DNA analysis and digitising the old excavation material and that from the excavations at De Geer.

Wijk bij Duurstede is a small town situated in the Kromme Rijn area in the centre of the Netherlands. During the 8th and 9th centuries the famous trade port of Dorestad was situated in this area. The site of Dorestad is well known in archaeology because from 1969 until the mid-1990s large-scale excavations were carried out by the State Service. Since then on a regular basis, archaeologists have returned to the area to excavate parts of the early medieval port or its surroundings. The main excavators — Prof Dr W A van Es and Dr W H J Verwers — are still processing the data from the extensive excavations of the 1970s and 1980s. The first monograph was published in 1980, the second in 2009 and the last was published recently (Van Es and Verwers 1980; 2009; 2015). These monographs, together with numerous articles, focus on the town itself and until recently, specifically on the so-called harbour area of the town. By comparison, little attention has been paid to the occupation development of the town during the 5th to 7th centuries, with the former excavators interpreting the early Merovingian habitation of the area merely as an early phase in the development of Dorestad. The site, De Geer, situated just north of the Carolingian town is assumed to be an example of the special status of the area before Dorestad was founded (cf Van Es 1994; Van Es and Verwers 2010).

This paper investigates this claim. Was the habitation history really as outstanding as previously supposed? Did the town of Dorestad originate in the early medieval period or was it foremost a Carolingian development? Firstly the available archaeological data is considered — specifically data from the De Geer excavations and the Veilingterrein. The data is then compared and contextualised in relation to other settlement sites in the neighbouring regions.

On the origins of Dorestad

The arrival of the Roman army at the beginning of the first millennium AD brought dramatic changes in the layout of Kromme Rijn area (Vos 2009). As part of the Roman frontier zone, a fort — the castellum at Levefanum — was built at the junction of the Rivers Rhine and Lek (cf. Vos 2009). Unfortunately, the remains of this fort were washed away by the river in later times. The presence of this castellum and the Roman road, which connected the Roman forts along the *limes*, was important for the development of the region during the Roman period through to the early medieval period (Fig 1).

Little research has been undertaken on the development of Roman military forts during the late Roman period through to the 5th and 6th centuries. Most of the excavations at these sites took place some time ago and little attention was paid to the post-Roman levels and remains. In unravelling the early history of the Dorestad region, we lack not only data in relation to the former Roman castellum of Levefanum; there is also a paucity of comparative data from other castella. The data we do have seems to indicate that the Roman infrastructure, especially the castella, had special strategic significance and status for the social framework of the region during the early middle ages (Van Es and Verwers 2010, 6). We know of two high status burials from the early 5th century in the castellum Traiectum (Utrecht, west of Wijk bij Duurstede) and an early medieval grave buried with weapons dating from the 7th century in Valkenburg (De Groot 1991; Dijkstra 2011, 259). From Matillo, near present-day Leiden, occupation in the near vicinity of the castellum has been established (Brandenburg and Hessing 2005).

The Frankish king Dagobert had a church built in Traiectum around AD 630. At the same time a mint (of Madelinus) was active in Dorestad, implying that the Franks ruled the area at this time. The presence of Frankish rulers emphasises the importance of the old Roman infrastructure for the region. Around the middle of the 7th century the area is thought to have been under Frisian rule. At the end of the 7th century in AD 695, the Frankish ruler Pippin II defeated the Frisian king Radbod near Dorestad, possibly near the castellum of Levefanum. It was only after Radbod's death in 719 that the region of Dorestad finally became a Frankish town (Van Es 1990; Van Es et al. 1998). Dorestad probably consisted of three areas: the southern part is thought to have developed

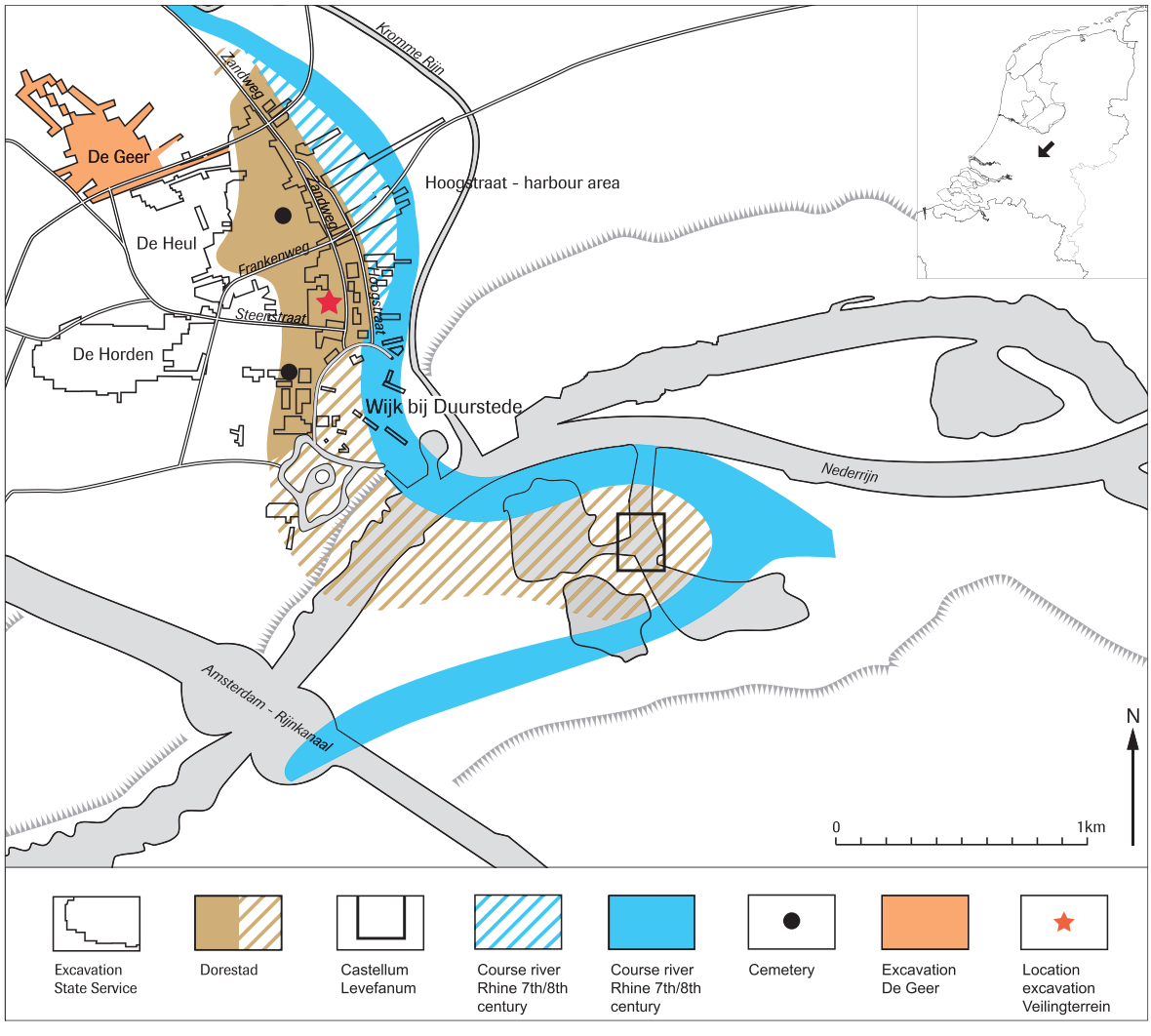

Figure 1. Wijk bij Duurstede: Location of excavations in the early medieval settlement of Dorestad.

from the Roman castellum Levefanum which was situated east of the present town centre of Wijk bij Duurstede. The location of this castellum was only discovered during dredging. As well as Roman finds there were also a number of finds dating to the Merovingian and Carolingian periods from the same area. The church mentioned in historical sources, the upkirka, was probably situated within the castellum along with the mint. There may well have been a central zone as well with a cemetery at the Enk. The third area is the northern zone complete with its own church and cemetery. Finds from the harbour area suggest that this northern zone existed from the middle of the 7th century (Van Es and Verwers 2009). Apart from the major excavations undertaken by the State Service in the northern zone, we know almost nothing about the southern part. We assume the castellum of Lefevanum was of special importance, but we do not know if it was of extraordinary value. In recent years researchers have tended to interpret the archaeological data from the 6th and 7th centuries from the region of Dorestad in relation to the zenith of activity at Dorestad in the second half of the 8th and the beginning of the 9th centuries. The lack of actual evidence for the earlier period, however, makes such assumptions questionable. Apart from the Madelinus mint, we have little evidence to support the idea that the settlement of the castellum of Lefevanum was comparable to those at Matillo, Valkenburg and Utrecht. This tendency for over interpretation resembles the way in which the early years of Utrecht have been treated in relation to the rise of the secular centre at Dorestad during the Carolingian period: was it really Dagoberts intention to establish a new bishopric? Understanding the meaning of the 6th- and 7th-century settlements in the Dorestad region must therefore rely on interpretation based on the archaeological merits of these sites considered alongside close comparison of other known rural settlement excavations in the region of the lower Rhine.

The settlement De Geer during the 6th and 7th centuries

The situation of De Geer, nowadays a modern residential area in Wijk bij Duurstede, is for the large part a former stream ridge of the Rhine (Heeren 2016). The habitation history of this stream ridge dates back to the Bronze Age and with few exceptions, and continued until well into the early middle ages (Fig 2). In an area so rich in archaeological features, it is seldom easy to completely understand the habitation history of the area. Combined with the huge pressure felt by archaeologists in charge of the excavations in the 1980s and 1990s, which regularly conflicted with the archaeological potential of the site, the complexity of the archaeology has provided significant challenges in terms of interpretation. A Roman road is suspected to lie on the stream ridge as well, but was not recognised during the excavations. The top layer usually consisting of gravel was not encountered. On the basis of variations in find densities and in preservation of older features not explained by the local landscape, the researchers now think that part of an elevated dike-like structure on which the road was situated was present. Finds dating to the period of the *limes*-road are lacking. The Iron-Age settlement was discontinued in the early 1st century AD, and the site at De Geer site did not start before the 3rd century. The new 3rd-century structures do not resemble a rural settlement and interestingly, the boundary ditch is rectangular, using the measures of military castella of the same period. Yet no defensive structures have been found, although the small finds do include offensive militaria. A military supply base, installed by the Severan emperors refurbished the Dutch *limes*-stretch in preparation for their British campaigns, is presented as a likely explanation for De Geer in the 3rd century (Heeren 2016b). A large number of metal finds with a military context have also been found at this location. Finds of handmade pottery with a northern origin, together with some house plans built following northern (Germanic) styles, indicate the presence of a Germanic group during the 4th century, probably with a military role (Heeren 2016b; Van Es and Verwers 2010). The presence of Germanic material culture continued into the 5th century, well after the Roman army withdrew its troops from the Rhine frontier, emphasising the strategic importance of the region at this time. The settlement of De Geer is one of the few to witness a continuation of habitation on a considerable scale through the 5th century, but the number of inhabitants must have been a fraction compared to the century before.



Figure 2. Wijk bij Duurstede-De Geer: overview of the settlement features dating to the Merovingian period.

The 6th century, especially the second half, saw a gradual recovery of population density although the settlement evidence remains poor. The hypothesis of an increasing population in this period is based on the number of identified wells (Van der Velde and Van Doesburg 2016). Although no more than two or three contemporary farmsteads functioned during the 7th century, further development of the settlement site is indicated in other ways. A ditch system, comprising an area of 500 m × 280 m was laid out. Although this system cannot be described as monumental, it must have been a huge undertaking for the small community living on the stream ridge. The ditch system does not seem to relate to the settlement. A single farmstead is situated inside and another just outside the system. A solely agrarian explanation does not fit with the size of the ditch system. Neither does this seem to indicate a domain or *demesne* (see below). Another possibility is that the inhabitants wanted to enclose the site of the former Roman military settlement. Another development is a renewed interest in the former Roman road. The inhabitants dug new ditches and moved the renovated road 10 m to the north. The road played an important role in the structuring of the landscape: the farmsteads seem to have been situated along the road spaced out at regular intervals.

The location and layout of the two, possibly three, farmsteads found in the excavated area does not reflect the existence of a complex settlement. In fact the only difference between this site and other settlements comprising single farmsteads, the so-called *Einzelhöfe*, is based on the existence of the system of ditches. The finds from the 6th and 7th settlement consist of both pottery and metal ware. Some of the ceramics were of local handmade origin (*Eitöpfe*) but most were wheel-thrown Rhineland Ware (Jezeer 2016). The number of metal finds is high and there are some interesting discoveries. An important find is a small deposit of golden coin weights of Byzantine origin (Heeren and Botman 2016), dating to the end of the 6th century. Although these finds are sometimes seen as indicators of the existence of cultural high-status networks (Nicolay 2014), a number of settlement sites — Oegstgeest-Rijnfront, Leidsche Rijn-A2, Katwijk-Zanderij, Rijnsburg-cemetery and Wijk bij Duurstede-Veilingterrein — have also yielded golden objects (Jezeer 2011; Nokkert et al. 2009; Van der Velde 2008; Dijkstra 2011; Nooijen 2012). This suggests that during Merovingian times 'high status' objects were more evenly distributed in the Rhine delta. A clay mould and a couple of fibulae from the Domburg type and pieces of wood also provide evidence of craftworking in the settlement at De Geer.

The importance of Dorestad during the 6th and 7th century: settlement traces at Veilingterrein and in the hinterland of Dorestad

Few finds dating from the 6th and early 7th centuries were retrieved during the major excavations in the northern area of Dorestad and until now, little in terms of the settlement structures has been published (Van Es and Verwers 2015). On the basis of the available and largely unpublished data it seems, however, that there are some areas, including at least one adjacent to De Geer, in which 7th-century buildings could be present (Fig 3). Nothing can be said about the nature of these buildings and they do not appear to belong to the impressive settlements. A 1.7 ha area called the Veilingterrein was excavated in 2007 and 2008 (Dijkstra 2012) and is situated just south of the so-called harbour works described by Van Es and Verwers (1980; 2009). The first site here came

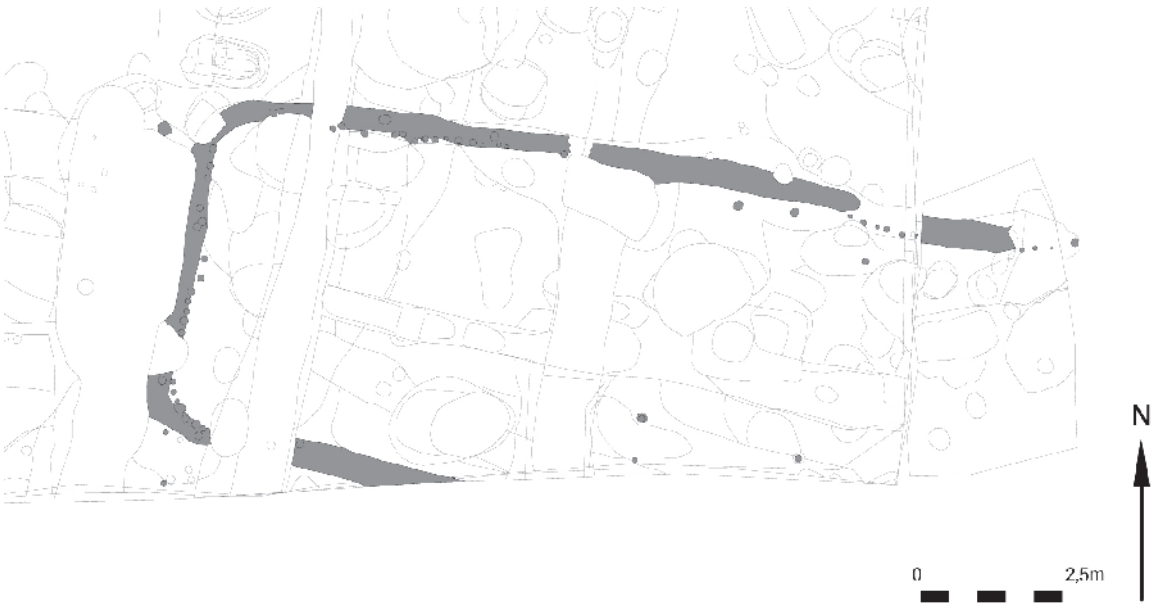

Figure 3. Wijk bij Duurstede-Veilingterrein: houseplan dating in the 7th century.

into use in the middle of the 7th century, during the late Merovingian period (Fig 4).

The oldest finds include farmsteads, several human burials, wells and many rubbish pits. From the orientation of the buildings in respect to the River Kromme Rijn, as well as the distribution of other finds, it seems likely that there were three separate plots although no plot boundaries have been traced. No actual building could be identified on the northernmost plot, but the presence of two graves, three wells in a fairly concentrated area and several pits, led to this being defined as a separate property. At the time it was usual for the dead to be buried on their own land, and the graves here seem to fit that pattern. On the western side of the central plot are the remains of a farmstead similar in layout to others excavated in the western Netherlands (Dijkstra and van der Velde 2011). On its eastern side, a burial site with seven graves was found. Rubbish pits and wells were scattered throughout the rest of the plot. Part of a farmstead has also been uncovered on the most southerly of the three plots. Both the buildings and the refuse found indicate that the residents led an agricultural existence.

There is another location in the northern part of De Heul (unpublished) with remnants of probable 7th-century buildings. Although there are no data available yet, the location and number of buildings does not suggest the presence of a major settlement (Williams 2013). When we examine the data from the so-called harbour zone, the recent reinterpretation of Van Es and Verwers makes it possible to reconstruct its development in more detail (Van Es and Verwers 2009). They state that a small number of early Merovingian finds were present across large parts of the excavated area. Due to some timber dates, combined with finds material, the first stage of the harbour is dated to the last quarter of the 7th century (Van Es and Verwers 2009, 29). It is the final and most monumental phase that is the most striking. This phase, when the quays were enlarged to support timber buildings, is dated mainly to the second half of the 8th century (Van Es and Verwers 2009, 30ff). It is possible that during the first stage of development, the harbour zone was very much like the landing places and simple quay structures that were uncovered at places like Oegstgeest and Valkenburg-De Woerd and during excavations near Utrecht at Leidse Rijn (Dijkstra and Van der Velde 2011; unpublished finds municipality of Utrecht; Jezeer 2011; Dijkstra 2012).

Beside these supposed landing places, there are other similarities between the settlement traces uncovered in 7th-century Dorestad, the settlement at De Geer, and rural settlements in the estuary of the Rhine dating from the same period (Dijkstra and Van der Velde 2011). Settlements at Utrecht-Leidse Rijn, Kouderk, Leiderdorp, Oegsgeest, Rijnsburg and Katwijk all show traces of similar houses. The material culture is rich, comprising mostly wheel-thrown pottery from the Rhineland and an abundance of metal ware from Frankish, Frisian and Anglo-Saxon provenances. At Katwijk a Madelinus coin was found and in the cemetery of Rijnsburg a number of coin weights of Byzantine origin were also uncovered (Dijkstra and Van der Velde 2011). In Katwijk-Zanderij it was possible to plot the locations of several metal finds. Most of them were related to what seemed to be ordinary houses (Van der Velde 2011, 78). In recent years remains of a number of river boats were also uncovered (Waldus 2011; unpublished finds municipality of Utrecht). What is striking about all these sites, including the Veilingterrein and De Geer, is that rural settlements can be identified in which the centre of socio-economic activity, including craftsmanship, lay within the farmstead. The inhabitants of these individual farms had wide-ranging contacts, evident in the material culture found at the sites. Sometimes these contacts allowed them to participate in networks in which high status goods were present. This is a dramatic difference in the way individual farmsteads functioned during the 8th century (see below). In this era of constantly shifting 'central farmsteads', the inhabitants of De Geer definitely played an important role as indicated by the golden pendant and the finds of Byzantine origin. When the position of such finds is considered in terms of the Dorestad region, the known settlement traces and finds do not stand out in relation to other areas along the Lower Rhine delta implying that in the 7th century, it was by no means plainly evident that Dorestad would become the most important trading centre in north-western Europe.

Dorestad and De Geer: the emergence of a domanial landscape during the 8th century

The site of de Veilingterrein witnessed dramatic changes in the way the area was divided into separate plots around the middle of the 8th century (Fig 5). It marks the start of the northern part of Dorestad, dividing the area into the harbour site and the hinterland. A zone of wooden quays, possibly with houses built on them, became the thriving heart of the new urban centre (Van Es and Verwers 2009). It is from this time onwards that the quay structures evolved as massive construction works. Directly behind, small plots with houses and work places were also developed (Van Es 1990; 2015). At the Veilingterrein, a Carolingian brass workshop was uncovered (Dijkstra 2012). Cemeteries were not located next to farmsteads, but located outside the settlement itself. The relative lateness and speed within which the northern part of Dorestad was developed is notable, especially given the increased richness of material culture that emerged between the second half of the 8th and first half of the 9th centuries (Van Es and Verwers 2009). The beads and combs from Scandinavia and mosaic *tesserae* from the Mediterranean as well as large quantities of imported pottery — much of it from the German Rhineland and the Eifel, where millstones discovered during the excavation of the Veilingterrein also originated — all underline the settlement's significance as



Figure 4. Wijk bij Duurstede-Veilingterrein: overview of the late Merovingian period.

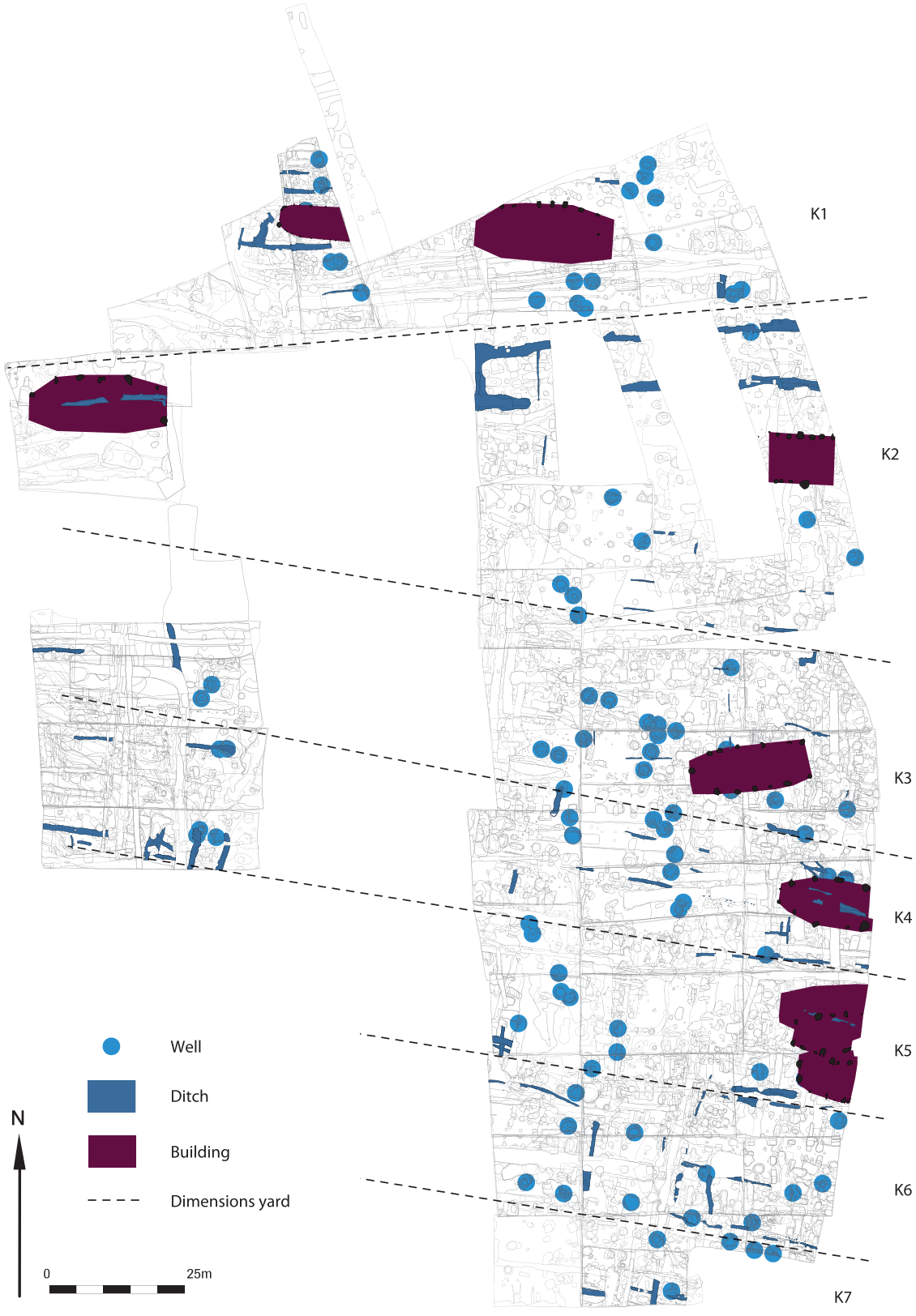

Figure 5. Wijk bij Duurstede-Veilingterrein: overview of the Carolingian period.

an international trading centre in the Carolingian period. The most important commercial wares recovered archaeologically include pottery, glass, wine and millstones. Some of these stayed within in the settlement, while others were shipped on to England and Scandinavia. Dorestad thus played a key role as a trading hub within the Carolingian empire.

The changes in the settlement layout at De Geer are interesting, but the early 8th-century activity is difficult to interpret (Fig 6). It seems likely that single farmsteads remained in use. Another phenomenon is the existence of a severely disturbed cemetery. During excavations, fragments of at least 25 inhumation burials were recovered, but we think the actual number of graves was much higher at c 50. Gravegoods were found only in a single grave. Late-Roman and Merovingian finds were found adjacent to the graves. An 8th-century radiocarbon date has also been obtained although it is rather unreliable. A number of the graves were located above a 7th-century house plan. The lack of gravegoods alongside other evidence implies the cemetery may have come in to use at the end of the 7th century and remained active in the first half of the 8th century, possibly continuing in use until the end of the century, but the nature of the cemetery is difficult to define. It may have resembled small cemeteries such as those at the Veilingterrein, underlining the existence of close relationships between single farmstead and human burials, or it could, by contrast, have functioned as the central cemetery of the settlement at De Geer or even served a wider mid-8th-century territory. Although the context remains unclear, it is interesting that the cemetery was situated in the southern part of the enclosed area providing a focus point for the inhabitants of the stream ridge.

Around the middle of the 8th century a new system of ditches was designed comprising an area of 160 × 80 m. Together with a wall system, this complex must have appeared relatively monumental, although it was probably not a primarily defensive structure. The way the road was incorporated into the system suggests that it no longer functioned as a road and it seems likely that the present Trekweg, the main road to Arnhem until recent times, was constructed at the same juncture (Dekker 1983): De Geer had a direct and individual link to Dorestad. In the interior of the site, probably contemporary with the construction of the ditch system, a large three-aisled boat-shaped building, 26 m × 15 m was erected centrally. Together with a number of smaller outbuildings and wells, this ensemble reflects the emergence of a domanial estate. These remains are unparalleled in the Netherlands. It could be interpreted as a hall building parallel to similar phenomenon known from English and Scandinavian excavations — a central place in which the chief met his *Gefolgschaft* (Bazelmans 1999).

The parallels between the development of the settlement at De Geer and the rapid growth of Dorestad are interesting.

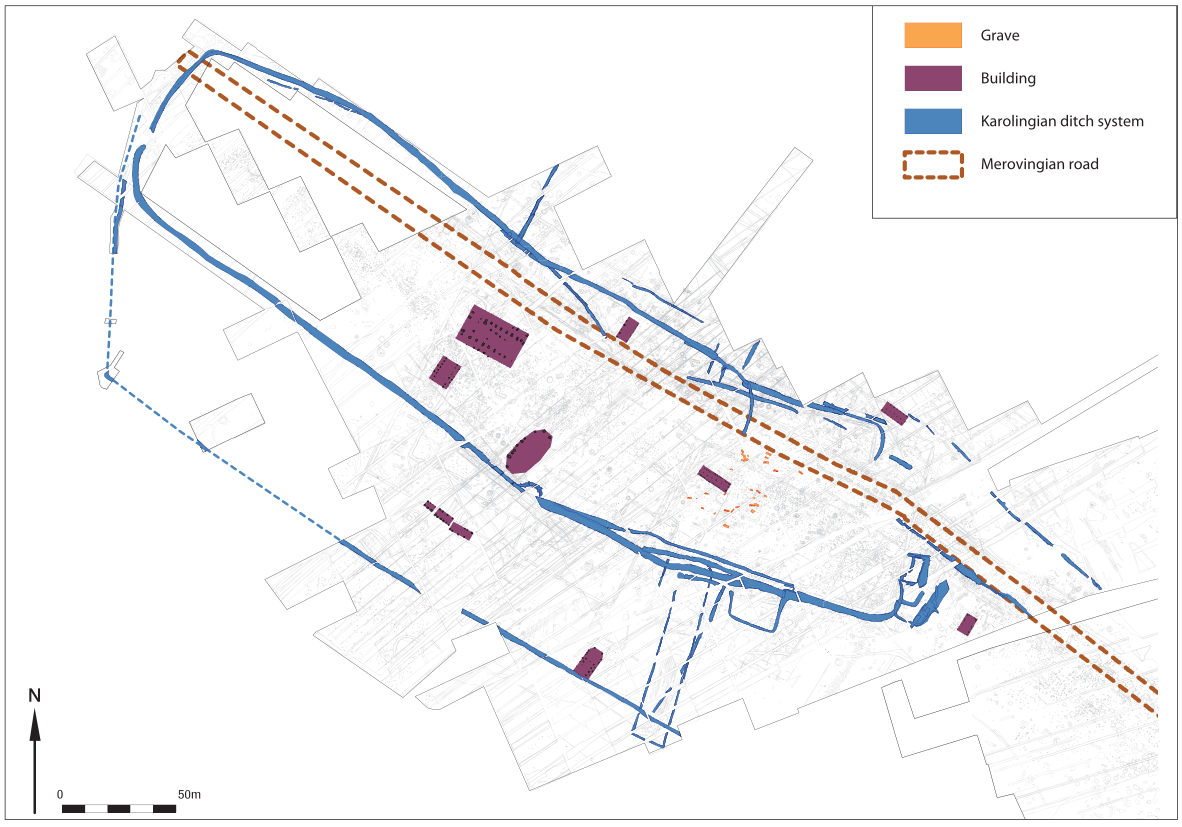

Figure 6. Wijk bij Duurstede-De Geer: presumed domanial estate dating to the Carolingian period.

It seems that the history of both sites intertwined. In fact the material culture, especially the pottery assemblage, from De Geer and Dorestad-Harbour do not differ significantly (Van Es and Verwers 2010, 33; Nooijen 2012). The growth and wealth of these sites are in striking contrast to the development of the settlement sites discussed previously. Sites like Utrecht-Leidsche Rijn, Oegstgeest, Rijnsburg and Katwijk-Zanderij disappeared in the course of the 8th century or changed in character, especially in terms of the wealth of their material culture (Dijkstra and Van der Velde 2011). The dramatic changes in the layout of the settlement landscape and the subsequent socio-economic consequences may well be due to the incorporation of the Dutch delta by the Franks (Van der Velde 2011; Dijkstra 2012; Theuws 2003). The settlement of De Geer is probably one of the few examples of an early domanial centre in the Netherlands (Fig 6). This shift towards a dominial landscape, also prompted by the Franks, is not the only explanation for the growth and prosperity of Dorestad. We assume that the Frankish rulers, in the case of Dorestad the king himself, seized control over the trade networks. The prosperity of Carolingian Dorestad and its rapid growth was due to a royal patronage which stemmed the competition from rural settlements in the Rhine delta.

The prosperity of the estate of De Geer was probably based on agricultural products. The end of the habitation of de Geer is dated in the second half of the 9th century but the monumental phase ended around the mid-9th century together with the rapid decline of Dorestad. Although it cannot be proven by archaeological record, written sources state that inhabitants of Dorestad fled from the Viking attacks in AD 863 to a *villa non modica* (*Annales Bertiniani*; Van Doesburg 2010). Could that *villa* have been situated at De Geer?

Conclusions

The numerous written sources which mention Dorestad, combined with the results of the excavations at Wijk bij Duurstede, emphasise the importance of Dorestad during Carolingian times. The excavations of the site De Geer during the 1990s uncovered settlement traces and numerous finds dating from the Roman to later Carolingian periods. High status finds led the excavators to believe that the region of Wijk bij Duurstede was of special importance even in Merovingian times. The presence of the mint master Madelinus around AD 630 lends support to this argument. If the excavations from the last 15 years are taken into account, however, we have to conclude that the Merovingian and Carolingian landscape in and around Dorestad differed dramatically. Notwithstanding the importance of the region due to its location near the former Roman military infrastructure, it was probably the different Roman castella in which the Merovingian elite took an interest. This was not only the case in Dorestad but also in Utrecht (*Traiectum*), Leiden (*Matillo*) and Valkenburg (*Praetorium Agripinnae*). Due to the poor post-Roman archaeological record of the Roman castella along the Dutch part of the Roman *limes*, we may never know the actual position and importance of these sites during the early middle ages. When we look at the immediate hinterland of the military infrastructure during Merovingian times we find a number of thriving rural settlements, not only at De Geer and the northern part of Carolingian Dorestad, but at numerous sites along the Rhine between Wijk bij Duurstede and Katwijk. These sites have produced not only rural buildings but also evidence of intensive trade networks, river-worthy vessels and even quay structures. In that respect we have to acknowledge that during the 7th and early 8th centuries the region of Dorestad was part of this international network, but not the driving force behind it. This changed around the middle of the 8th century when the Carolingians seized definitive control over the central and northern parts of the Netherlands. Together with the introduction of a Christian-domanial landscape, this lead to the rapid growth of Dorestad and the diminishing of the other rural settlements. From the second half of the 8th century Dorestad came under royal patronage and it controlled the international trade networks in the northern parts of the Frankish kingdom and through its role as a toll station made good money for its rulers. These changes also affected the immediate hinterland of Dorestad, evident in the development of the settlement of De Geer from single farmsteads into a *demesne* with a great hall enclosed by a monumental ditch and wall system.

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Potters and Pottery from Afar: Some Observations on Long-Distance Contacts

Annet Nieuwhof

Introduction

Brooches and other metal artefacts or wheel-thrown pottery have often been used to assess contacts between different places and communities in north-western Europe during the 1st millennium AD (e.g. Effros 2004; Nicolay 2014). The potential of hand-built pottery in this respect has not yet been realised. Only in respect to the migrations of the late 4th–5th century has typical, decorated, hand-built pottery been used to trace the movements and origins of people, but the equation of people with pots has often led to false conclusions (cf Hills and Lucy 2013, 298).

This paper is part of a now completed PhD project on the depositional processes and rituals in the terp region in the northern Netherlands (Nieuwhof 2015). The focus here is the nature of the long-distance contacts that can be traced on the basis of foreign pottery from these settlement contexts. It is argued here that these contacts relate to household practices and to the activities and lives of women, challenging long held concepts of passive female roles (Conkey and Spector 1984; Effros 2004). These insights are drawn from a detailed study of the hand-built ceramics taken from two excavations in the northern Netherlands: Midlaren-De Bloemert and Ezinge. The inland settlement of Midlaren-De Bloemert in the north of the province of Drenthe was excavated in 2003 and 2004 by Johan Nicolay (Nicolay 2008). The famous terp settlement of Ezinge in the province of Groningen was excavated in the 1920s and 1930s but remained largely unpublished bar a small number of preliminary articles (see Van Giffen 1936) until a grant from the Netherlands Organisation for Scientific Research facilitated the study of the material by the author (Nieuwhof 2014). Midlaren and Ezinge are situated in different landscapes (Fig 1): Midlaren in the Pleistocene inland, and Ezinge, a terp settlement, in the Holocene salt marshes of the coastal area of the northern Netherlands (see Bazelmans et al. 2012). Despite this difference, the sites share several similarities and both have a long, continuous habitation history, from the pre-Roman Iron Age until well into the Middle Ages.

Hand-built pottery is by far the largest find category in both excavations, with 718 kg in Midlaren and 1016 kg in Ezinge (Nieuwhof 2008a; 2013a; 2014). On the basis of numerous finds from many terps that were levelled in the 19th and early 20th century, and from later excavations,

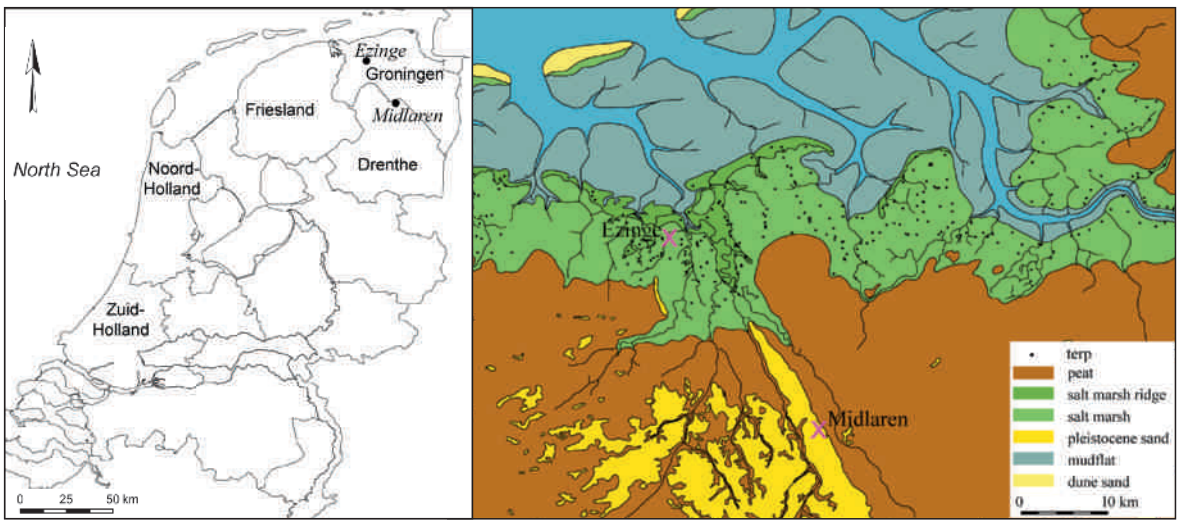

Figure 1. Left: Map of the present Netherlands with places and provinces mentioned in the text. Right: Palaeogeographic map of the situation around AD 100, with the locations of Midlaren and Ezinge. After Vos and Knol 2005.

regional variety and shapes of hand-built pottery from the northern Netherlands have been assembled by Ernst Taayke in a comprehensive four-part typology (Taayke 1990; 1995; 1996a, b, c) with a part for each region: the west and east of the province of Friesland, the province of Groningen, and the north of the province of Drenthe, covering from the beginning of salt marsh habitation, around 600 BC to AD 300. Nearly all indigenous pottery from the northern Netherlands can be reliably identified and dated within this framework.

The typologies of northern Drenthe and central Groningen apply respectively to the material from Midlaren and Ezinge and these show strong resemblances. Although fabrics differ because of available clay and tempers, general shapes, rims and decoration of pottery types in both areas are largely similar and share a close development. From the 1st century AD onwards, pottery from these areas was influenced by the successive styles from neighbouring northern Lower Saxony, the so-called *nordseeküstennahe Fundgruppe*, a term introduced by Von Uslar (1977). Until well into the Middle Ages, both settlements were probably part of the same socio-cultural network, which extended far into north-western Germany (Taayke 1996c, 175–81; Nieuwhof 2011). Inland Midlaren and coastal Ezinge remained inhabited during the 4th century, although the coastal area was largely abandoned at the time. At both Midlaren and Ezinge, an indigenous pottery style developed from older forms, similar to and influenced by the 'Saxon' style from northern and north-western Germany (Nieuwhof 2011; 2013a).

In any assemblage of hand-built pottery, some sherds and vessels will differ from the regional typology. This is the case for the pottery from Midlaren and Ezinge. Some pots and sherds clearly differ from the indigenous pottery and differed from the common local repertoire in shape, fabric or decoration. Experimentation by potters might explain some of these deviating forms but more frequently, these are wares that can be identified in other regions, suggesting the design, pots or potters were transported or travelled from elsewhere. These pots, especially those from Ezinge and Midlaren dating to the 1st–5th centuries AD, thus provide a potential source of information on relations between different communities and regional groups.

Potters

The assemblages from Midlaren and Ezinge provided the opportunity to identify not only pottery types, but sometimes also individual potters. The recognition of individual potters is not easy given the similarities within regional typologies, yet the work of a potter can sometimes be identified on the basis of subtle characteristics. At Ezinge, a special deposit was recovered of nearly 1 kg of potsherds dating to the early 2nd century AD. Intentional breakage is almost impossible to identify unless, as in this case, there is evidence of the use of an iron awl (Nieuwhof 2015). Many of the sherds showed such signs of deliberate breakage, suggestive of a ritual deposit. The sherds all fit the local repertoire but four share such close similarities in shape and fabric that they are most likely made by one potter (Fig 2).

Identification of individual potters is easier when pottery deviates from the ordinary, local types, especially when such pots are found together in the same context. Two such assemblages from Midlaren-De Bloemert illustrate this point. One of them consists of a number of complete pots and some sherds all dating to the 1st century AD, which were found in a pit (Fig 3). The shape of the pots might belong to the local repertoire of Midlaren, but the fabrics do not. Some of them (nos 547, 548 and 1146) are tempered with organic, vegetal material and grog instead of the common tempering materials of stone grit and grog. This combination of organic temper and shape is, however, typical for contemporary terp settlements in the coastal salt marsh area north of Midlaren, suggesting the pots may well have been made by a potter from the coastal region. It should be noted here that the lower weight of organically tempered pottery compared to pottery with a stone grit temper led Skibo et al. (1989) to suggest that organic tempered pottery is better suited to the lifestyle of non-sedentary communities. However, organic temper was not related to mobile communities in the terp region, as suggested for early Anglo-Saxon England (Jervis 2012, 67), or in the eastern United States during the late Archaic phase (Skibo et al. 1989). All communities in the terp region had a sedentary life style.

While the most common pottery in Midlaren is shaped much like the pottery in the northern coastal area, some of

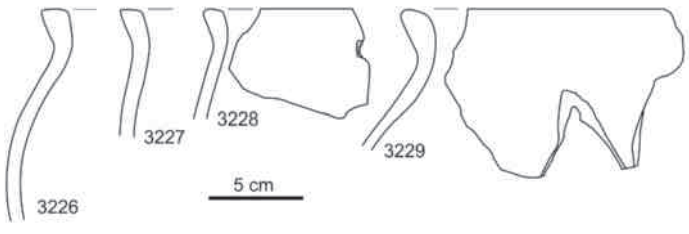

Figure 2. Finds assemblage no 716 from Ezinge, including these sherds made by one potter, with traces of deliberate breaking with the aid of an iron awl. The awl produced the indentations on the two sherds on the right. Drawing: A. Nieuwhof.

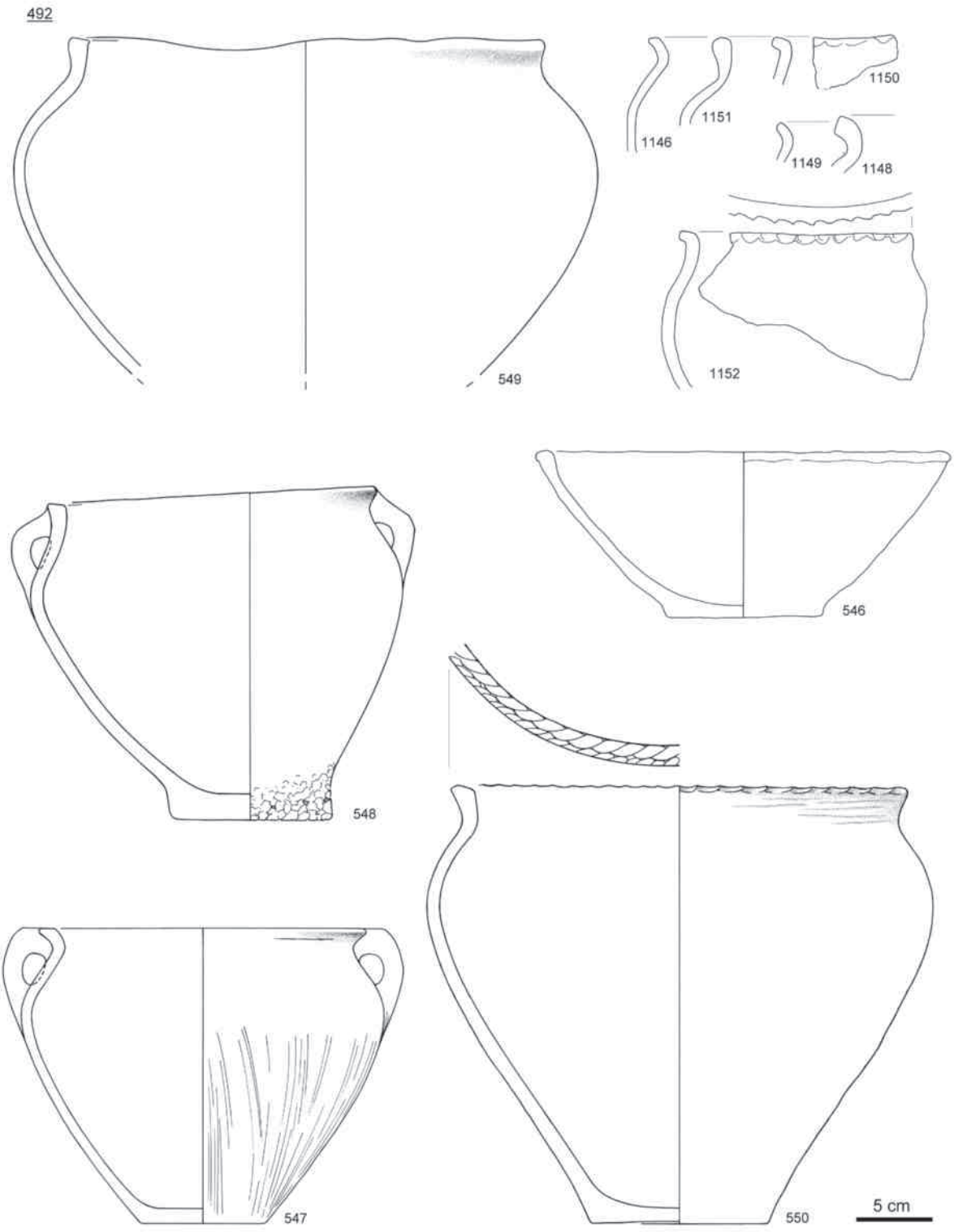

Figure 3. Pottery from a pit in Midlaren (find no 492, trench 13, feature 45a), some with organic fabrics. Shapes might be local, the fabric with organic temper is indigenous in the coastal area. Drawing: J. Smit, S. Boersma, A. Nieuwhof, Groningen Institute of Archaeology, University of Groningen.

the pottery in the settlement is related to pottery more familiar in the eastern Netherlands and neighbouring Germany: so-called Rhine-Weser-Germanic pottery (Von Uslar 1938; Taayke 2013). Pottery in this style is often found together in the same contexts in Midlaren. In one of these contexts, a pit, dated to the 1st or 2nd century AD, most of the pottery is in Rhine-Weser-Germanic style, although the fabrics appear local (Fig 4). Some of these pots have an additional uncommon characteristic: they have outwardly bevelled rims. These must have been made by a potter originating from an area to the south of Midlaren.

These examples underline how pots or potters may have moved between areas. This type of exchange must have influenced local pottery styles and in part might explain the spread of stylistic elements across regions. Thus, characteristics of Rhine-Weser-Germanic pottery such as carination appear during the middle Roman Iron Age in the northern Netherlands (Taayke 1996c, 176), and the *Schalenurnen* and the decoration of Saxon pottery are adopted at the end of the 4th century in Ezinge as well as Midlaren-De Bloemert (Nieuwhof 2013a). Such exchanges in design and decoration point to contacts and the movement of ideas, technologies or people.

It is generally assumed that hand-built pottery used for storing and preparing food was made locally. This type of ceramic is not difficult to manufacture and is usually made with local materials, thus the investment is not high. Such items are often heavy and space-consuming and breakable. It was not worth the effort to trade and transport ordinary hand-built pots. Until well into the Early Middle Ages, only wheel-thrown pottery was imported, but in most settlements in the northern Netherlands this appears only in very small numbers. For instance in Ezinge, only 2.3% of the total pottery assemblage of the the period across AD 100–500 consists of imported, wheel-thrown pottery (Thasing and Nieuwhof 2014, 138)

The hand-built pots that may have come from elsewhere based on their shape, are usually made of the local clay, with local temper, just like indigenous shapes. They were probably made in the settlements, but perhaps by potters who came from elsewhere.

To investigate who these producers were requires further investigation. Ethnographic studies show that making pottery for private use in subsistence economies is nearly always the work of women, while commercial pottery production in workshops is more often men's work (Abbink 1999, 39; Sinopoli 1991, 100; Rice 1987, 184). This might well apply to the past as well. The northern Netherlands during the first half of the 1st millennium AD was a subsistence economy, despite contacts with the Roman Empire. The heterogeneity of the hand-built wares of the northern Netherlands until well

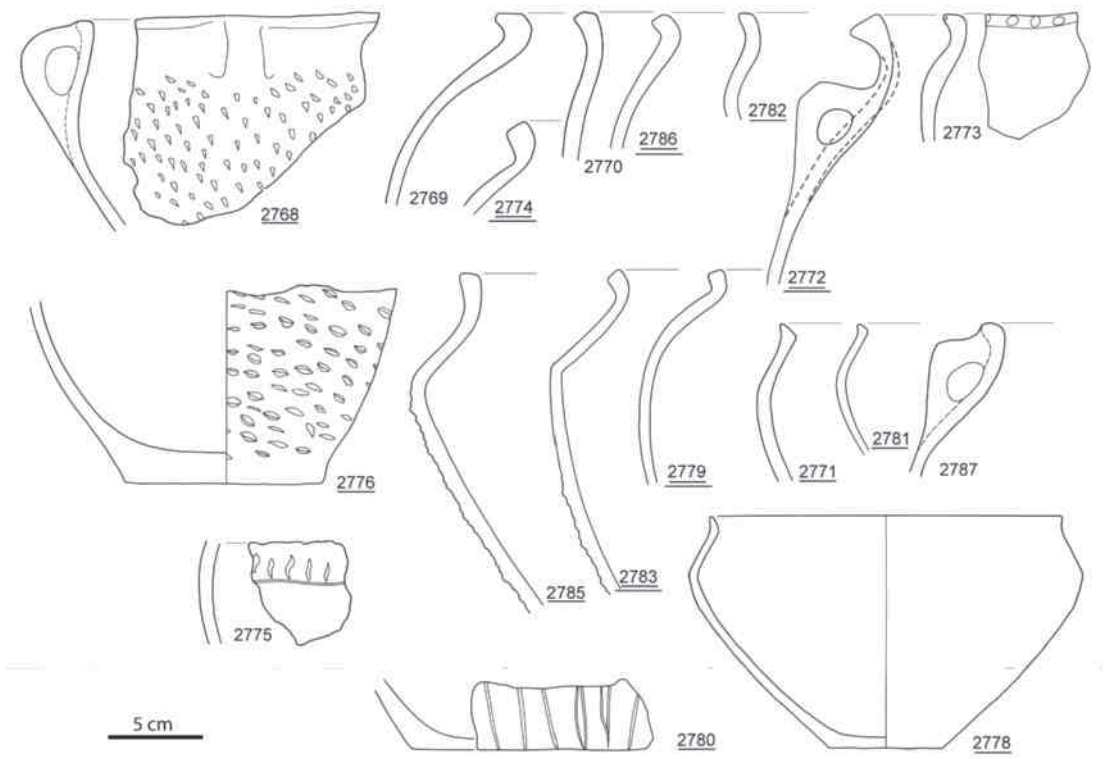

Figure 4. Pottery assemblage from Midlaren, found in a pit (find nos 2649 and 2650, trench 95, feature 70). Id-numbers with underlining indicate pottery in Rhine-Weser-Germanic style, double underlining indicates RWG-pottery with outward bevelled rims. Drawing: A. Nieuwhof.

into the Middle Ages stands out; although we can distinguish a limited number of types, there are no identical pots. There is little to suggest that these wares were manufactured by professional potters, either travelling or in workshops. Pottery production was most likely at household level and it is entirely possible, therefore, that the pottery was produced by women. Although conjectural, this type of scenario may explain the intrusive non-local forms manufactured in local fabrics. Women through marriage or service might travel to new places and introduce new ceramic forms and decorative details.

Pots and sherds

Potters from afar might explain part of the foreign pottery in a settlement, but that may not be the only explanation. Some of the foreign pottery not only has different shapes, but also different fabrics and is clearly not made locally. In Ezinge and Midlaren, imported sherds have been identified from the west of the Netherlands (the present provinces of Noord- and Zuid-Holland), from the province of Friesland, from the south (Rhine-Weser-Germanic pottery), and from several regions in Germany (Figs 5–7). The origin of the pottery from Friesland and the west of the Netherlands can often be established with the aid of published typologies (Taayke 1990; 1996b; Van Heeringen 1992), but most of the pottery from the east cannot be identified more accurately than having an origin in Germany. A number of more or less complete pots derive from elsewhere (Fig 7). These are all isolated unique samples of hand-built vessels and do not represent regular trade. They are relatively small, well-finished and usually decorated and have aesthetic appeal suggesting creative potters. They are also light and relatively easy to transport compared to large and heavy cooking pots and may have been received as gifts during visits to other settlements or from visitors. These unique, non-indigenous pots indicate that people within a large area , from the west of the Netherlands far into Germany, maintained contacts and visited each other on occasion.

In addition there are conspicuous single sherds from foreign, decorated vessels; although they are easy to recognise, the remainder of the pots is usually missing. It is possible that these came to the settlements as sherds, not as vessels. John Chapman (Chapman 2000; Chapman and Gaydarska 2007) has argued on the basis of Neolithic pottery from the Balkans that even in certain closed contexts, fragments can be missing from vessels and sometimes these fragments can be found in remote places suggesting deliberate removal and deposition elsewhere. Chapman and Gaydarska have suggested that fragments might be exchanged as a way of maintaining social relations by *enchainment* and could be passed on again and again, thus creating networks of people who were connected by the possession of a piece of the same object. Following Chapman, it is possible that the finds of single foreign potsherds from Ezinge and other excavations might be fragments of personalised objects or memorabilia, which circulated and were exchanged between individuals and groups.

Deposition of foreign pots and sherds

The way in which some foreign pots and sherds were deposited appears to corroborate their special nature and treatment. The clearest example is represented by a small foreign pot from Ezinge, no 1176-4225 (Fig 7), which was found in the grave of an adult man and dated, on the basis of a calibrated radiocarbon date and stratigraphy, to the 3rd century AD (GrA-47563: 1740 ± 40 BP, cal AD 170–410 (95.4%)). This is one of the few graves found in Ezinge (Nieuwhof 2013b) and gravegoods datable to before the Middle Ages are virtually unknown from the terp region of the northern Netherlands. The pot itself must have come to Ezinge in the 1st century, perhaps as late as AD 100 and thus was kept carefully for several generations. Many other foreign pots and sherds are part of special deposits that are less straightforward. For instance, no 1168-4230 (Fig 7) was deposited complete with nearly 2 kg of potsherds, including two wheel-thrown, *terra nigra*-like sherds (Van Es 1967, pls 82, 11), which date this deposit to the first part of the 2nd century AD, probably some time after this small pot came to Ezinge. A Frisian sherd, no 943-2251 (Fig 5), was buried or left in a house in the 2nd century AD with two pots of local types and the lower half of a pot with a perforated base. Pots with perforated bases were used in a clearly ritual context in the nearby terp of Englum (Nieuwhof 2008b). Another Frisian sherd no 711-3238 was found with 12 different, indigenous, large rim sherds including half a small pot and a piece of flint, right near a house. No 254-2764 and an exceptional pumpkin-shaped spindle whorl come from a partially excavated rectangular pit dated to the middle Roman Iron Age. Among the Migration-Period pottery shown in Fig 7, only find no 695 can be linked to a reliable context. No 695-3206, a partial survival, was found in a sunken hut, together with part of a miniature pot and a complete and usable whetstone.

Although the finds context is not always clear cut, these discoveries do suggest that intentional deposits of foreign pottery could include items that were already old-fashioned at the time of deposition or had already had a biography as circulated fragments. The long survival of some complete pots before deposition also suggests that they were not regularly used prior to deposition.

Conclusion

There is ample evidence from the material culture that groups in the northern Netherlands and neighbouring Germany

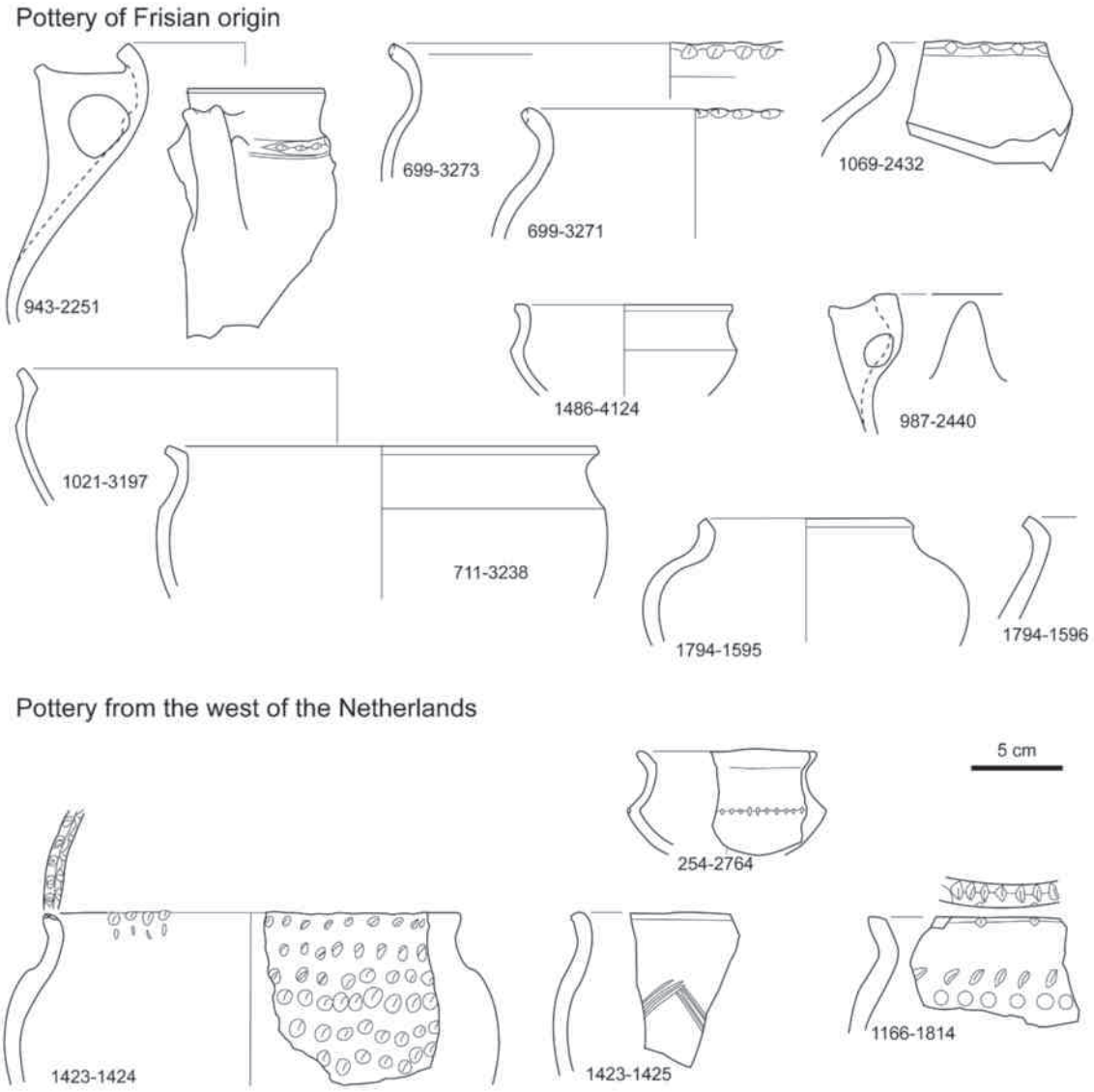

Figure 5. Pottery from different areas in Friesland and the west of the Netherlands (Noord- and Zuid-Holland), found in Ezinge. Drawing: A. Nieuwhof.

maintained contacts during the Roman Iron Age and Migration Period. Contacts seem to have involved the exchange of pottery, potters and even potsherds. Although speculative, it is possible that some of the pots were manufactured by potters who had arrived from other regions, and these may have been women who arrived as a result of marriage or perhaps servitude. Special fine imported pots were used for special purposes and appear in distinct contexts. Pottery sherds also had important value, perhaps as mementos. These types of exchange may have involved neighbouring groups as well, but the close nature of fabrics and forms make this almost impossible to detect.

Hand-built pottery on the basis of ethnographic analogy may have been produced by the women of a household

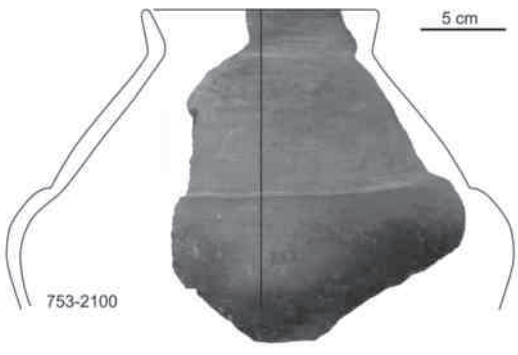

Figure 6. A sherd from Ezinge of unknown date, probably coming from a region in Germany. Illustration: A. Nieuwhof.

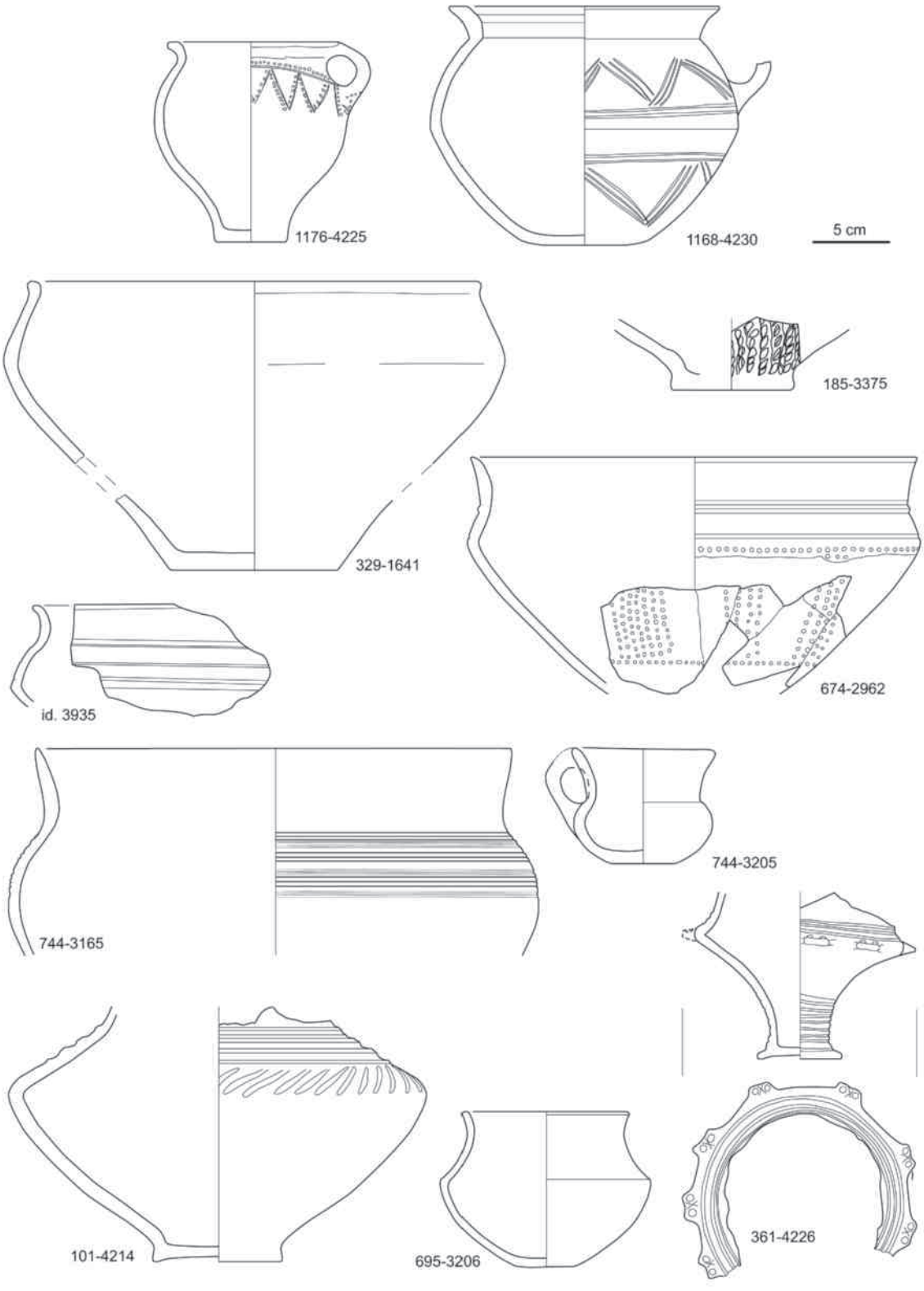

Figure 7. Pottery from north-western Germany from the 1st century AD (find nos 1176 and 1168), Rhine-Weser-Germanic pottery from the Roman Iron Age (find nos 185, 329 and 674), pots and potsherds from unknown areas in Germany, dated to the end of the 3rd, 4th and 5th centuries AD, all found in Ezinge. Drawing: A. Nieuwhof.

and foreign forms of vessel created in local wares might suggest that potters moved, taking their skills to new homes and households. Some of these items were long cherished and treated in special ways and sherds may have served as mementoes of friends and relations in faraway places.

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Anglo-Saxon Oakington: A Central Place on the Edge of the Cambridgeshire Fen

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In this paper, we introduce the Anglo-Saxon settlement and cemetery at Oakington, Cambridgeshire. Oakington presents early medieval scholars with a rare opportunity. While several hundred Anglo-Saxon cemeteries are known in England, many fewer settlements have been excavated, and sites where both are known are rare indeed. Although the ancient core of Anglo-Saxon Oakington lies beneath the modern village making full excavation impossible, there is much that we can learn from a combination of settlement and cemetery evidence. Even without this, the Oakington cemetery is notable in several ways. It is large by Anglo-Saxon standards. It is virtually complete and undisturbed. It is unusual for the large numbers of infants recovered, as well as two horses and a cow burial, the latter a unique find in early Anglo-Saxon England. There are also a large number of prone burials, double graves and a triple grave. This article is a preliminary piece, and will doubtless be much revised in coming years. Excavations on the cemetery site were completed in 2014 and post-excavation analysis of the pottery, faunal and floral remains is underway. This paper highlights hitherto unpublished material from the 2006 excavations at the site.

Archaeological investigations in the village

Oakington is a small village in Cambridgeshire, UK, 7 km north-west of Cambridge (Figs 1a, 1b). It was named *Hochinton* and *Hochintone* in the Domesday Book, where it is described as a large village owned by the Abbots of Ely and Crowland. This name is similar to *Hocingas* the name of a people identified in the 10th-century poem *Widsith* (line 30 of *Widsith*, Exeter Book folio 8.4–8.7). Domesday Book refers to the village as a rural farming community and it remained so for another thousand years (VCH 1989, 192–5). Since the 1950s, Oakington has expanded as a dormitory suburb of Cambridge.

In 1926, three early Anglo-Saxon burials were identified when pastureland was cultivated for the first time (VCH 1989, 192–5; Meaney 1964). Despite the landholder digging 'dozens of holes trying to find something', no further burials or gravegoods were located at the time. The cemetery was rediscovered in 1993, during the construction of a children's playground. In 1994, the Cambridge County Council's Archaeological Field Unit (CCC AFU) excavated an area of 140 sq m, finding 24 human skeletons, along with a series of ditches, which both preceded and post-dated the cemetery (Taylor et al. 1997). In 2006 and 2007, the same group (then known as CAMARC) excavated a further area of 450 sq m, 15 m to the south-east, ahead of construction of the village's Recreation Centre. This investigation confirmed that the cemetery continued to the south and east. The excavators recorded 17 skeletons, as well as further ditches. Since 2010, the cemetery area has been progressively explored in a collaboration between the University of Central Lancaster (UCLan) and Oxford Archaeology East (OAE), with outreach activities supported by Manchester Metropolitan University (MMU). By the end of the 2013 season, 124 skeletons in 113 graves had been excavated in a total area of approximately 1800 sq m. Figure 2 shows a plan of all excavations on the Recreation Ground. Excavations of the cemetery area have been complemented by geophysical surveys undertaken in 2008, 2009 and 2010. These covered much of the Recreation Ground (Sanderson nd a). Geophysical surveys have also been conducted in Pond Field, in the centre of the village (Sanderson nd b). Outside the cemetery area, the UCLan-OAE collaboration also excavated an area off High Street and Mill Road, just north of the church, in 2011 and 2012. The only other full archaeological excavation within the village was at Coles Lane in 2003 and 2005, ahead of housing development (MCB16820, Powell 2010). In addition to full excavations, there have been lesser interventions on the Recreation Ground (MCB17253), in the churchyard of St Andrew's (CHER 05557, Reynolds 2007; MCB18559, Mortimer 2009), and on the Guided Busway north of the village (MCB17966, Jones 2006). There has also been analysis of earthworks (CHER 09220), including areas of ridge and furrow (MCB11018, MCB13452, MCB13467, MCB13468). Since 2009, OAE, UCLan and the Oakington and Westwick Historical Society have excavated 50 1-sq m test-pits in gardens around the village (Fig 1c). The pottery sherds recovered from the test-pits have been spot-dated and plotted on the village layout.

Outside the village, there has been substantial archaeological investigation ahead of a planned 9000-house development north of the village. This development area includes the former Oakington airfield, which lies between Oakington and Longstanton, along with planned approach-ways lying in Oakington Parish. This work has included fieldwalking, test-pits, geophysical surveys, evaluation trenching and full excavations (MCB16854, MCB17668,

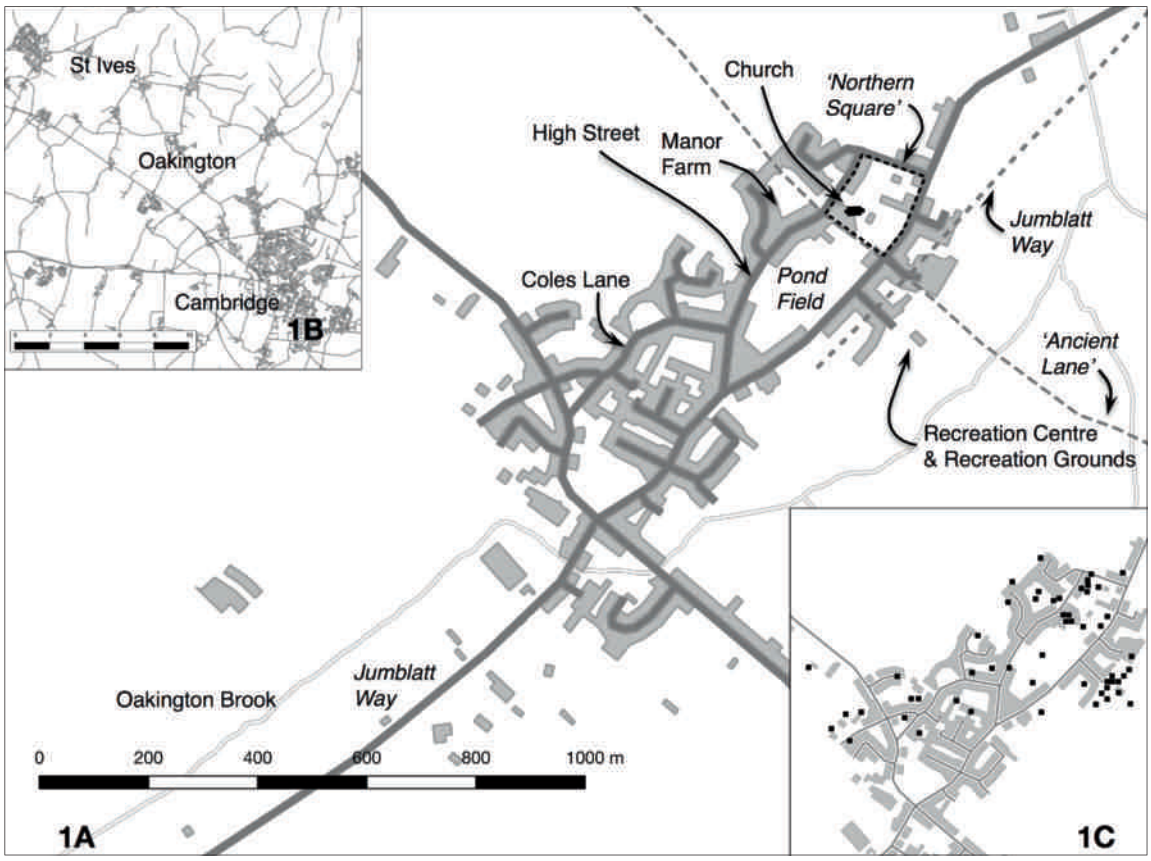

Figure 1. (A) Map of Oakington, showing all place mentioned in the text. Historical names are shown in italics. (B) Regional map. (C) Location of test-pits dug in the village.

MCB17669, MCB16370, MCB17672, MCB17673, Evans et al. 2007).

Early Anglo-Saxon (AD 450–700)

Settlement at Oakington appears to begin in the early Anglo-Saxon period. Evidence comes in three major forms: settlement, excavated on the Recreation Ground and near St Andrews Church, the early Anglo-Saxon cemetery and the distribution of pottery from the test-pits. While the pottery assemblage has yet to be analysed, the material from the cemetery suggests settlement nearby from the late 5th century (Fig 3a). At present, the evidence points to an open, dispersed settlement pattern, with posthole and beam slot buildings, but as yet no *Grubenhäuser*.

The cemetery data allows us to reconstruct something of the size of the community in the vicinity of Oakington. The style of gravegoods recovered suggests the cemetery was in use for c 75–100 years. By the end of the 2013 excavation, a total of 124 individuals had been recorded, and this appears to be almost the whole cemetery (Fig 3b). However, it must be assumed that some burials have been lost to truncating ditches and modern intrusion, and that a few may still lie beneath the road at the west, putting estimates of the original cemetery population nearer 150. There are good signs the entire early Anglo-Saxon population is buried in the cemetery because the numbers of males and females are broadly equal and there are a large number of children and infants. This population would have experienced one or two deaths per year. Assuming the average age at death was around 30 years, with perhaps 40 to 60 people living in each generation, the cemetery population would account for three to five households (Härke 1997, 140–1; Sayer 2010). This would have involved multiple, changing sub-groups or family groups within the community at any one time.

Buildings for at least one of these groups were partially excavated in 2011 and 2012, when three overlapping structures were found 50 m north of the church. The earliest was post-built and the two later structures consisted of beam slots (Fig 3c). Based on initial observation of the pottery assemblages, the buildings date broadly between the 6th and early 8th centuries. While no recognisable middle Saxon pottery was recovered from the buildings themselves, 12 sherds of Ipswich Ware were collected from the overlying garden soils. It seems likely that these structures went out of use before

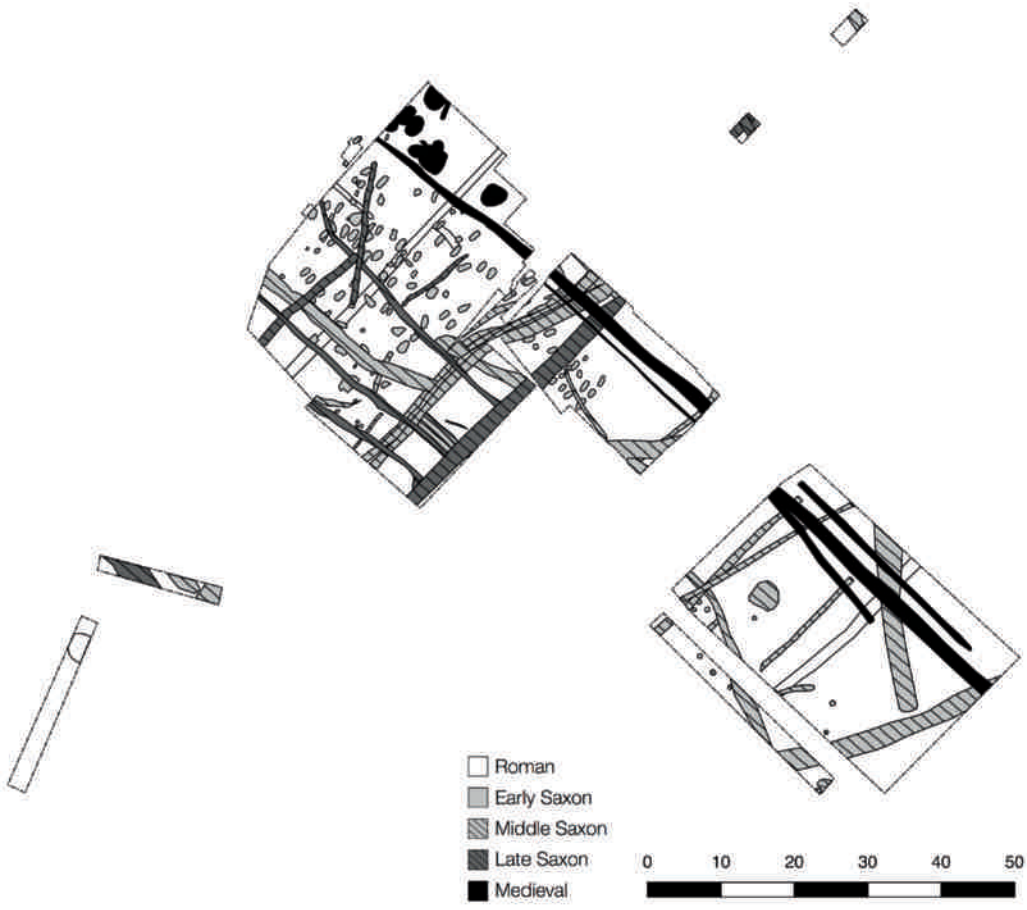

Figure 2. Combined plans of excavations undertaken on the Recreation Grounds, with a broad phasing of activity.

the introduction of Ipswich Ware to the settlement around AD 720 (Blinkhorn 2012) although the area continued to be occupied.

The distribution of early Anglo-Saxon pottery from test-pits around the village (Fig 3a) shows a concentrated area of activity between the 'northern square' around the church and the brook east of the Recreation Ground. This covers an area of approximately 450 m by 150 m, or 6.75 ha. However, the cemetery probably served an area somewhat larger, and further dispersed settlement has yet to be located. The buildings excavated north of the church were separated from the cemetery by some 300 m. This separation of cemetery and settlement is comparable to other late 5th/early-6th-century sites. For example at West Stow, Suffolk, the cemetery was some 350 m from the settlement (West 1985; 2001); at Kilverstone, Norfolk, the distance was almost 500 m (Garrow et al. 2006) and at West Heslerton the gap was around 300 m (Haughton and Powlesland 1999, 10). Equally at some large sites like Mucking (Hamerow 1993, 315) the settlement and cemetery appear to intersect. The cemetery at Oakington was located a few metres from the Roman road (Jumblatt Way) and 60 m from the 'ancient lane' to the north (Figs 3a–b). The cemetery is also located on an easternmost knoll of relatively high, hard ground: to the east and south, the land falls away to soft, silty alluvium along the brook. A Bronze-Age barrowfield nearby would have been visible and may also have influenced its location, as it has for other early Anglo-Saxon cemeteries (Semple 2013).

Middle Saxon (AD 700–850)

Test-pits excavated across the village show middle Saxon activity continuing in much the same locations as the early Saxon period (Fig 4a). However, during the middle Saxon period, the settlement saw major structural change, with the digging of ditches to divide the land into enclosures covering up to 20 ha. Middle Saxon ditches have been excavated to the north and west of the church and across the excavated area on the recreation ground (Fig 4b). They can also be seen on the geophysical plots and on aerial photographs, where they can be seen cutting across the route of the Roman road. Thus far, none of these ditches clearly pre-date the introduction of Ipswich Wares, and at the earliest date to the first half of

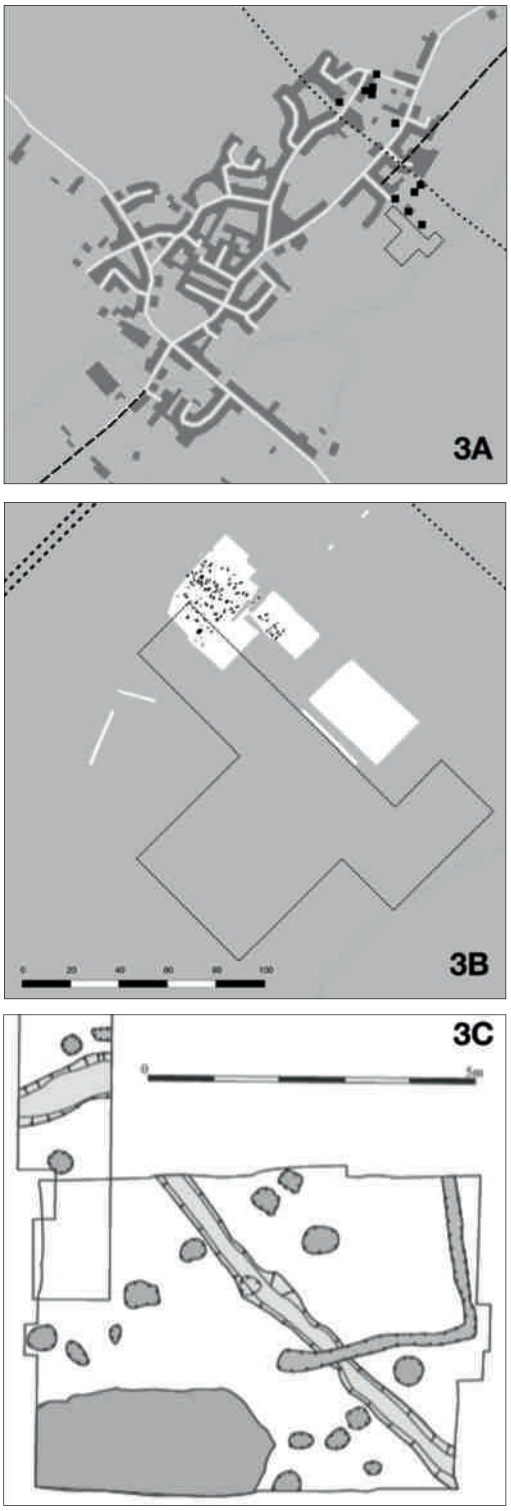

Figure 3. (A) Location of test-pits that produced early Anglo-Saxon pottery, as well as the course of Jumblatt Way and the ancient trackway. (B) The early Anglo-Saxon cemetery on the Recreation Grounds, and the course of Jumblatt Way and the ancient trackway. The area subject to geophysical investigation is outlined with a dashed line. (C) Plan of the three early Anglo-Saxon structures excavated 50 m north of St Andrew's Church.

the 8th century. This transformation from open settlement to complex and enclosed settlement took place in stages, with small enclosure ditches being replaced by progressively larger, deeper versions throughout the 8th and early 9th centuries.

The initial stratigraphic analysis of the excavated area south of the cemetery suggests four phases of middle Saxon activity. In the initial phase, the area was divided into small, roughly-rectangular plots. These ditches were narrow and shallow but some contained relatively large assemblages of Ipswich Ware alongside contemporary handmade pottery. A good local comparison, and a site where these small, occupied plots were evident on a much wider scale, was excavated at West Fen Road, Ely, Cambridgeshire (Mortimer et al. 2005). These ditches were contemporary to those seen at Oakington, evidence for a planned settlement set up by Ely Monastery as a producer site. Some of the small enclosures on the Oakington recreation ground were associated with structures. At both east and west, posthole and beam-slot structures were excavated adjacent to a ditches containing Ipswich Ware, imported wares and contemporary handmade pottery, along with butchered animal bone and fired clay. The quantities of material suggest settlement activity broadly contemporary with the beam slot features found north of the church.

The second phase of activity on the Recreation Ground saw a realignment of the enclosures, with ditches dug wider and deeper. The finds from these were similar, consisting of Ipswich Ware, handmade, and imported ceramics, but at least some of this will represent residual material from the earlier settlement phase. Around the church, however, there may have been more wide-ranging changes. A large square enclosure at the village's northern end was set out at this time. This enclosure measured 150 m by 130 m and the 'current' Norman church is located in its south-west quarter. It seems likely that the old road, Jumblatt Way, was realigned at this stage, to run along the side of this enclosure, presumably to a new crossing point on the Brook at the north.

The third phase of activity saw the re-cutting of ditches from phase two, substantially increasing their scale. The ditches excavated on the Recreation Ground were up to 3 m wide and 1.5 m deep. Although they contained middle Saxon pottery, chiefly Ipswich and imported wares, and some animal bone, it is not clear whether this is residual material. Between the second and third phases (differing only in scale) there was a brief phase in which 'encircling', potentially defensive ditches were excavated on the Recreation Ground site. Two ditches were excavated in 2013 one of which may have had a palisade along its inner (northern) side. Whatever their function, the lifespan of these ditches was short, ending with their deliberate back-filling. The phase one features are considered c AD 725–750 and were open long enough for structures to be built and used and for waste to accumulate. Phase three, when the phase two ditches were reinstated and deepened, took place when Ipswich Ware remained

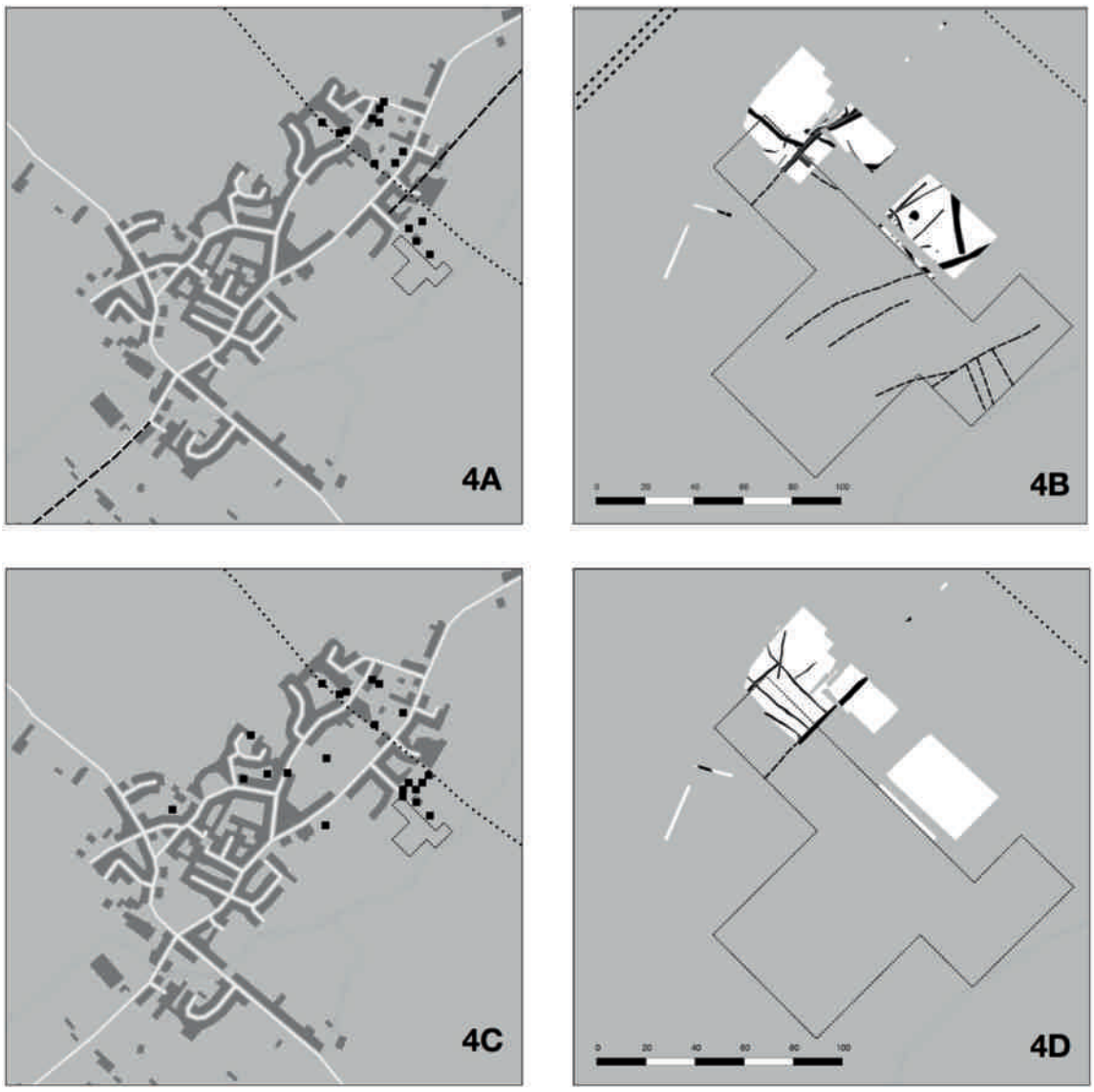

Figure 4 (A) Location of test-pits that produced middle Saxon pottery, as well as Jumblatt Way and the ancient trackway. (B) Middle Saxon ditches, postholes and beam slots excavated on the Recreation Grounds, and the ditches' continuation in the geophysics survey. (C) Location of test-pits which produced late-Saxon pottery. (D) Location of late-Saxon enclosure ditches on the Recreation Grounds, and their continuation in the geophysics survey.

predominant (c AD 720–850). The events which necessitated the construction of these defensive features can thus be placed in the early years of the 9th century.

Late Saxon (AD 850–1100)

The late-Saxon period saw a major reorganisation of the village. The distribution of late-Saxon pottery from the test-pits occupies a larger area than that indicated by the middle Saxon material (Fig 4c). This expansion was not even: spreading south and west from the middle Saxon core, but then contracting westwards at the Recreation Ground, with features concentrated along the Jumblatt Way. No late-Saxon activity was found within the square enclosure to the north of the church (see Fig 1) and the enclosure was not occupied until the 19th century, suggesting it may have remained an ecclesiastical centre. Excavation on the recreation ground uncovered a fundamental reorganisation. The area was divided into strip fields, or plots, perpendicular to Jumblatt Way, separated by narrow ditches with a larger, deeper ditch at the back (Fig 4d). The full widths of two plots — 15 to 18 m wide — were visible with three more possibly falling partially within the excavated area. They are all approximately the same size and orientation and suggest the beginnings of a burgage division. Some of these plots contained what is

often considered backyard evidence including pits, wells and cesspits.

This changing landscape should be seen in the context of the upsurge in activity around the Fens from the middle of the 10th century. After the area was taken from the Danes in AD 917, Edward the Elder created the county of Cambridgeshire as a territorial unit straddling the Cam Valley (Oosthuizen 2001, 52). The Hundreds may also have been created at the same time. From the mid-950s, a major program of monastic reform began around the Fens, seeing the re-establishment of monasteries destroyed by the Vikings. Under Æthelwold, monasteries were rebuilt at Peterborough (AD 966), Crowland (AD 966), Ely (AD 970), Ramsey (AD 971) and Thorney (AD 972). They were also endowed with extensive landholdings. By the time of the Norman Conquest, Ely Abbey controlled land in every village between Cambridge and St Ives — including almost half of Oakington. Crowland Abbey held most of the other half. 11th-century accounts report that Crowland had been gifted Oakington Manor (now Manor Farm, see Fig 1a) sometime around AD 957 (Vitalis 1856, 99). The connection with Crowland might allow us to put a tighter date on Oakington's re-organisation. Sometime between 1017 and 1025, Abbot Brihtner of Crowland Abbey funded the rebuilding of manors in both Oakington and Cottenham (Mortimer 2000). Excavations in Cottenham have shown the village was also remodelled around the same time (Mortimer 2000).

The early Anglo-Saxon cemetery

The cemetery has been excavated in a number of phases, but despite this piecemeal history, many of the graves and human remains were found in a good state of preservation, with only a few graves damaged by recent development. To date the finds are typical of Cambridgeshire's 6th-century cemeteries, with parallels to Barrington Edix Hill, Cambridgeshire (Malim and Hines 1998). Analysis of the cemetery finds is only preliminary, with Table 1 summarising the skeletal finds up to, and including, the 2013 excavation. The location of burials within the cemetery is shown in Fig 5. Most of the burials are single occupancy, inhumation graves, but there are six double burials, and one triple. Table 2 lists all of the types of gravegoods recovered from the cemetery. All of the datable

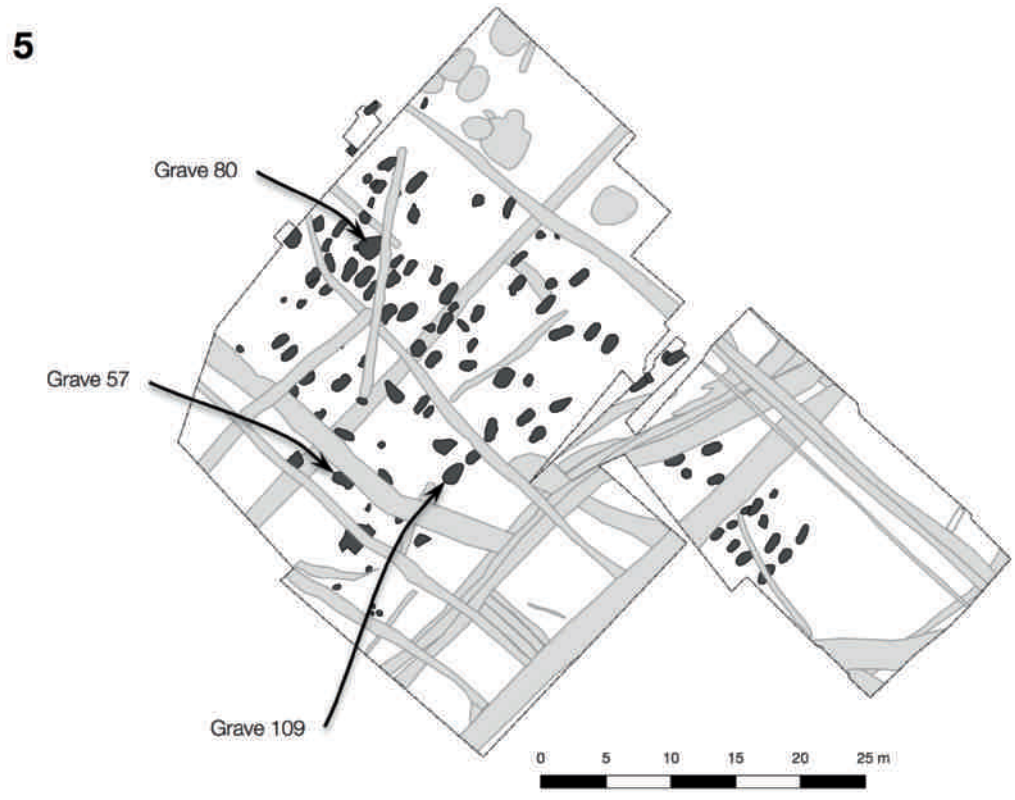

Figure 5 The early Anglo-Saxon cemetery at Oakington at the end of the 2014 season. Graves 57, 80 and 109 are highlighted; note the satellite graves to the west of grave 80.

Adults	female	32
	male	25
	unsexed	7
Sub-adults (aged 6-12 years)		27
Infants (aged 0-5 years)		33
Total		124

Table 1. Age and sex of skeletons.

beads (amber, glass and silver)
belt buckles
belt strap
bag ring (ivory)
'briddle rings' (sic)
brooches (long, saucer, small-long, Great Square Headed)
coin, Roman (pierced)
combs
discs
drinking pot
girdle hanger
horse fittings
knifes
latch lifters
meat bones
nails
pin (dress)
pots
pot sherds
purse ring
ring (hanger?)
rings (finger)
shield bosses
spearheads
spoon (Roman)
strip
toggle
tweezers
wrist clasps

Table 2. Inventory of gravegood types.

objects, apart from a Roman spoon and pierced Roman coin, date between c AD 500 and 575, but a significant programme of radiocarbon dating is planned to better understand the chronological patterns within the cemetery. Although there appears to be a relatively high number of females (32) compared with males (25), this proportion is not statistically significant. While the majority of female graves were furnished with brooches, the male graves included just five weapon burials. Three shields and three spears have been found. What is striking, however, is the high proportion of infants (27%). Infants are normally under-represented in early Anglo-Saxon cemeteries and Crawford (1993) showed that infants made up just 11% of the total mortuary record. There are a number of other Anglo-Saxon cemeteries that have a high proportion of infant burials and all of them are also large burial grounds (Sayer 2014). They include: Great Chesterford, Essex with 40.1%, or 67 of 167 graves (Evison 1994); Blacknall Field, Wiltshire with 25.7%, or 26 of 101 graves (Annable and Eagles 2010); Abingdon, Oxfordshire with 16.8%, or 20 of 119 graves (Leeds and Harden 1936), and Lechlade, Gloucestershire with 17.4%, or 38 of 219 graves (Boyle et al. 1998).

The cemetery is also striking for its animal burials with two horses excavated to date. There are 37 other Anglo-Saxon horse burials known in Britain, with equine inclusion in male graves, adjacent to a male grave, or at the edge of a cemetery, all marginally more common in East Anglia than elsewhere. Locally there are horse finds from the cemeteries at Eriswell, Warren Hill and Icklingham in Suffolk, Little Wilbraham in Cambridgeshire, Great Chesterford and Saffron Walden in Essex, all within 35 km of Oakington (Fern 2007; Cross 2011). Doubtless though, it is not the horse burials for which Oakington will be most known, but the discovery of a cow in the grave of a young woman (Grave 80).

Grave 80 was an important burial for a number of reasons (Fig 6). The woman was young, aged 19–23. She was well adorned and lay in the centre of a dense cluster of burials. She was laid S-N, in a flexed position, facing east. Her right arm was stretched out and back so that her right hand clasped the bottom of a string of beads: 46 amber and 22 glass. The beads were in at least two strings, one of which was draped over her arm with the other close to her body. She had two small, silvered disc brooches, two B7 wrist clasps, and a girdle hanger set which included a copper-alloy chatelaine (visible in X-ray but as yet unidentified), an anchor-shaped latch lifter, and a number of other hook-like latch-lifters. She had an iron ring on which these objects hung, a belt buckle, and pottery fragments that were deliberately placed within the grave. The woman and cow were placed in the same grave, the woman's head resting against the cow's back, in a deliberate staging. Although not particularly early in date (AD c 550), the burial was located at the centre of the densest cluster of burials in the cemetery, and cut an earlier child's grave (92). Later inhumations appear to have been placed in satellite positions enveloping the larger Grave 80 suggesting that a mound had been raised over it to deliberately construct a central place within the cemetery as a focus of activity. Four of the five prone burials excavated at Oakington were adjacent to Grave 80. Prone burials have caused some debate in early medieval archaeology: with scholarship speculating whether individuals were placed prone to prevent them rising again (Williams 2007), as a punishment in life or after death (Reynolds 2009) or for other reasons which remain unexplored. Evidently, this cluster of burials, adjacent to Grave 80, marked the burial of the young woman as significant.

The woman in Grave 80 was not alone in being a notable female burial. Grave 57, to the south, contained an adult female and unborn foetus. Measurements taken from the infant's complete long bones provide an age of 40 weeks gestation (Sayer and Dickinson 2013). Dental wear and staining indicated that the adult woman had used her

teeth for occupational activities, such as chewing leather. Occupational markers were also present in her metacarpal bones, suggesting repeated flexing of the fingers, and squatting facets on her tibia may have resulted from weaving on an upright loom or related activities. She was placed on the edge of a dense cluster of burials and aligned E-W, whereas the majority of burials were S-N. Compared with other graves at Oakington, the adult women from Grave 57 was buried with a rich assemblage: a large Group Three cruciform brooch (Martin 2011), two trefoil small-long brooches, a string of beads, two wrist clasps, an iron purse ring, copper-alloy belt fittings and an iron knife. The cruciform brooch was worn to fasten a cloak over a peplos dress, secured with the small-long brooches at the shoulders. The cruciform brooch has an identical match at Little Wilbraham (Grave 171), Cambridgeshire, 15 km to the south-east. Multiple copies such as these, which may come from the same workshop, are very rare in the non-florid series (Martin 2011), and this may suggest some interconnectedness between these two communities.

A third interesting grave is inhumation 109, a multi-occupancy grave (Fig 7). The most common multiple graves from Anglo-Saxon cemeteries usually combine the burial of a child and a woman (22%); a man and a woman (19%); or an infant and a woman (12%) (Stoodley 2002). Preliminary investigation of Grave 109 suggests that it included an adolescent female on the left, a child on the right and an adult woman in the middle. The woman was accompanied by a number of personal items including two applied saucer brooches, wrist clasps, a knife, purse ring, a metal hinge which may have been part of a box, and over 40 amber beads. The child was found with a single copper-alloy ring resting on the chest area below its chin. The arrangement of the three bodies in Grave 109 was quite deliberate, the adolescent's legs were flexed, with the left knee resting on top of the adult woman, while the woman's right arm touched the child's hip. To lay these three bodies into the grave in this way, members of the funeral party would have had to enter the grave and deliberately position their arms and legs. This position was staged, possibly intended to elicit a specific response from onlookers.



Figure 6. Grave 80: a woman buried with a cow — note the proximity of her head and the cow's spine.



Figure 7. Grave 109: a triple grave including an adolescent female (left) adult woman (middle) and child (right). The bodies interact in a complex arrangement.

In each of these women's graves the staging of the funeral has purpose: to create a dramatic tableau and lasting memories. The placement of objects and limbs was significant to that portrayal. The cow in grave 80, the brooches in grave 57, and the triple burial in grave 109 all deliberately created exhibition.

Discussion

The furnished female burials from Oakington are typical of the Cambridgeshire costume style, with a mixture of brooch types, wrist clasps, belt buckles and hangers (Hines 1994, 52–3). Nevertheless, the people at Oakington seem to have used a series of localised variations that included the use of combs, brooches, pottery sherds and vessels. The reasons for such 'blends' is part of on-going research. Possibly they reflect larger political associations between 'Saxons' to the west and 'Anglians' to the east: identities which developed in the 6th century (Hines 1994). Such 'costumes' may also derive from local practices or traditions, identifying resident groups who prepared the corpse in a way specific to them. The Anglo-Saxon laws indicate that women moved from their natal homes at marriage to join the households of their new husbands (Sayer 2014). Oakington contained some significant female graves and was an important central place for localised female identities. It presents us with an unusual opportunity to tease apart the contributions of regional, local and individual choices. It lies on a borderland. For a long time the Fens were a barrier restricting overland movement from east to west, transforming East Anglia into a peninsula. The 'boundaries' of this geographic area, never precise to the south or west, also became political boundaries or marches. Historical sources, such as the Tribal Hidage, suggest a number of small political groups settled within the area, sandwiched between the larger, more powerful East Anglian and Mercian kingdoms to east and west. This borderland is also apparent in place-names, dress ornaments and dialects.

Oakington's borderland location is apparent in Old English place-names. To the north and east of this boundary, village names end most commonly in *-ham* (Fig 8a). To the west and south there are no *-hams*, and *-ton* is the dominant suffix. The distinction is even clearer in the names recorded in the Domesday Book. As Fig 8b shows, *-hams* (Old English *-hām* and *-hamm*) are particularly concentrated in the northern part of East Anglia. Village names ending with *-ton*, such as Oakington do not appear in any number until the mid-8th century (Gelling and Cole 2000, 237) and were not a significant part of the Migration era linguistic package, showing an accumulation in Wessex, Sussex and the Thames Valley. While village names ending in *-ton* are certainly found in East Anglia, the Domesday Book records them with a distinct accent: typically *-tuna*, rather than the *-tone* used elsewhere. Interestingly, the *-tuna* orthographic boundary dovetails with the *-ham* boundary almost exactly, and coincides with an East Anglian dialect area that survived until the 20th century (Trudgill 2001). This borderland also coincides with other place-name boundaries: for example, modern village names incorporating the element 'Green' are almost a mirror image of the distribution of *-tons*. And the *-ton* place-names alternate with names ending in *-leigh* or *ley*.

This boundary position is evident in the Tribal Hidage, compiled in the 7th or 8th centuries AD. While there is much that is uncertain about this document, what is agreed is that the area from the Fens to the Chilterns was held by small units, sandwiched between the much larger Mercian, East Anglian and East Saxon kingdoms (Lapidge et al. 2014, 474). During the 7th and 8th centuries, political control oscillated between the larger powers, in a series of conquests and counter-conquests. The addition of *-ton* to Oakington probably took place when the Mercians established hegemony over the Fens. If so, this might suggest a date around the mid-8th century when the settlement was recognised by a new cultural authority. This broadly coincides with major changes identified in the archaeological record at Oakington in the



Figure 8 (A) Location of villages around Oakington which are recorded in the Domesday Book ending in *-ham* (black) and *-ton* (white). Other villages recorded are shown in grey. (B) Location of all villages recorded in the Domesday Book ending in *-ham*.

mid-8th century, corresponding with the setting out of the first enclosures and the introduction of middle Saxon pottery types. Being on a major east-west route way, however, and at the very edge of the Mercian kingdom, Oakington continued to trade to the east, evidenced by the large assemblage of Ipswich Ware.

The early medieval era was not a simple time, identities were fluid and landscapes, power, and associations fluctuated. To explore this further, the Oakington Project will be able to bring analytical techniques to bear, impossible even 10 years ago. For example, as we write, samples from adult skeletons are being processed for ancient DNA. This is the first Anglo-Saxon cemetery that we know of to receive this treatment, and we have high hopes for what it might reveal about the origins of the population within the cemetery (see Schiffels et al. 2016). Until this research is complete, and we have the detailed results of the study of the skeletal and artefactual remains from the cemetery and settlement excavations, we can make only preliminary observations about the cemetery's organisation, based on more conventional object typologies and seriations, and on the form and development of the settlement that surrounds it.

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Caves and Rockshelters in Iron-Age Coastal Norway: At the Margins of the Society?

Knut Andreas Bergsvik

During the Roman and Migration periods, farming populations with a focus on husbandry and cultivation occupied the coast of Norway. Central elements for these populations were timber-built long-houses, and burials in cairns and mounds. However, an additional feature was the extensive use of caves and rockshelters, which are often situated in agriculturally marginal areas. It is commonly argued that these shelters were used by people who lived lives on the edge; that they were subordinate, special, and marginal compared to those who lived in agricultural settlements. In this contribution, data on subsistence, seasonality, domestic activities, metallurgy, offering and funerary rituals, and site locations from the two types of site are compared. The analysis indicates that the similarities between these two kinds of settlement clearly exceed the differences, suggesting the people who occupied the shelters were not socially marginalised groups. Instead, it is argued that caves and rockshelters were tightly integrated in the utilisation of local environments, and that they were used on a temporary basis by people from the agricultural settlements.

Introduction

The general perception of caves in Western culture is that they are related to the primitive, to the simple, to the unsophisticated and the raw, as expressed in the words 'caveman' or 'troglodyte'; cavemen belong to the Stone Age, and the ones that used them later share many of the characteristics of Stone-Age people; they are less developed and less privileged (e.g. Moyes 2012, 3). In this matter we are a part of a common and enduring trend among peoples who look upon themselves as civilised. For instance, a Chinese author during the Zhou dynasty included cave living among the many primitive and strange characteristics of the non-Chinese peoples (Pulleyblank 1983, 466) and early writers related to the Roman Empire, such as Strabo and Jordanes scornfully mention that some 'wild' peoples live in caves and rockshelters (*Jordanes* trans. Mierow 1915; *Strabo* trans. Heinemann 1917–1932).

The coast of Norway was definitely outside the regions of Roman civilisation, and a large number of caves and rockshelters have been identified. Many of them were used extensively during the Roman and Migration periods (AD 1–550), and they display traces of habitation as well as offerings and funerals. The image of the barbarians constructed by Strabo and Jordanes might thus have been based on some real observations, but caves were far from the most common type of dwelling among these populations. There was a deep tradition in this region — extending back to the late Neolithic — of building and dwelling in timber longhouses. Architecturally, the timber longhouses in western Norway were of the same general type as in the rest of Scandinavia. They are found at agricultural settlements, which were single farmsteads, and sometimes villages. Close to these farms and villages, there are burial mounds and cairns. The furnishing from excavated graves closely resembles contemporary artefacts found in burials in the Danish and Swedish areas (Solberg 2012). All in all, there are good reasons to believe that the people who occupied the agricultural settlements in Norway, as far north as the county of Troms, associated themselves closely with 'Germanic' identities, and were integrated in 'Germanic'-type power structures.

The topic addressed here is the relationship between the caves and rockshelters and the agricultural settlements. This is not a new theme in Norwegian archaeology; during the 1800s it was argued that the caves during the Iron Age had been used by primitive hunter-gatherers: a relic ethnic group existing alongside and isolated from the 'Germanic' majority (cf. Bergsvik 2005). This discussion has repeatedly engaged new generations of scholars. Since the early 1970s, 'cultural dualism' or isolation has no longer been an important theme, but there have still been discussions on the social identities of the cave users. Scholars such as Bakka (1973) and Solberg (1976) have been in favour of the idea that caves and shelters were used by ordinary (free) farmers who occupied them sporadically during the seasons as shielings or hunting stations. Jansen (1973) has argued instead that they were used throughout the year by hunter-fishers who also practiced husbandry. Odner (1972) has integrated Jansen's viewpoint in a redistributive model of resource-utilisation. He suggests that in order to effectively control the procurement of resources, chiefs deliberately placed subordinates in caves and rockshelters to tend animals and to gather, fish and hunt in the nearby environments. This idea has also been supported by Myhre (1987) in his theory of a territorial political organisation in the late Roman and Migration Periods. During the 1990s and onwards, the research focus has changed from economic and social factors to ideology and cosmology. Referring mainly

to theories of liminality, it has been argued that rockshelters and particularly caves were 'thresholds' or entrances into the mountains and the underworld, and as such, they were particularly suitable for various rituals of transformation connected to experts on metallurgy (Barndon 2009), religious specialists (Hjørungdal 1991; Johansen 1997), members of particular ethnic groups (Dommasnes 2009), or to burials of individuals with deviating social identities (Todnem 1999).

In sum previous research shows that many Scandinavian archaeologists are inclined to perceive the people who used and were buried in the Iron-Age caves and rockshelters as peripheral or special; that they were on the edge of the society. This paper explores this by employing the concept of marginality. The questions asked are whether the caves and rockshelters were situated in marginal landscapes, whether the activities performed in them had marginal significance, and whether the people that used them were considered as marginal in the society. The area of investigation is the west coast of Norway, ranging between the counties Rogaland in the south and Møre og Romsdal in the north (Fig 1).

Marginality

Marginality is a vague and general term and its vagueness has led to some criticism (e.g. Kunst and Sam 2013). Nevertheless, it is hard to abandon precisely because of its general significance and common usage. In archaeology, the term is commonly used without definition and discussion. Below, the term will be applied in relation to two aspects of marginality which are relevant for the understanding of caves and rockshelters. Social marginalisation is perhaps the most common use of this concept. It relates to persons or people that are marginalised in society because of race, religion, profession or other causes. Several social mechanisms of alterity are applied towards these people, such as spatial exclusion, stereotyping, stigmatisation and discrimination. These mechanisms are clearly related to the exercise of power among the dominating peoples in a society, even if marginalised groups are often able to mobilise strong resistance and to find alternative avenues in order to oppose the domination (Gurung and Kollmair 2005; Roberts 2009, 158). The concept of margin-

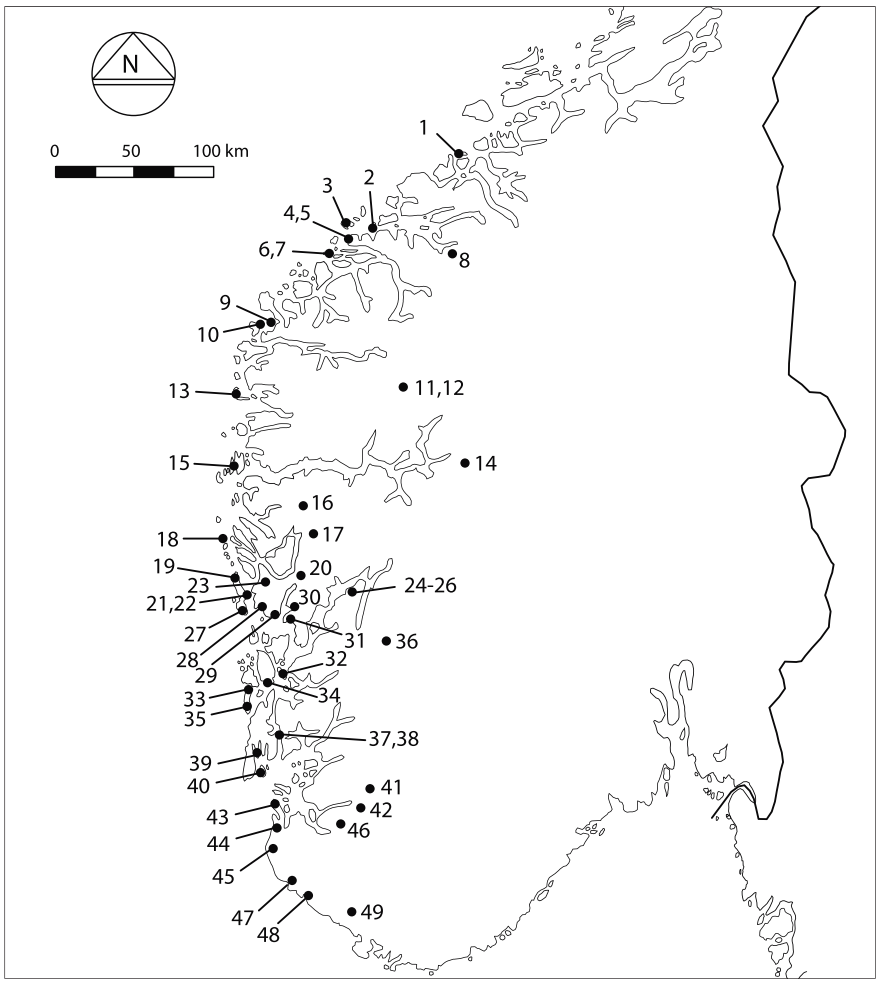

Figure 1. The distribution of caves and rockshelters dated to the Roman and Migration periods in western Norway.

ality is also commonly used in relation to landscapes, often synonymously with 'peripheral landscapes', and it refers to areas of little political or economic importance. The centrality and marginality of landscapes may change over time, but in certain historical and geographical contexts, marshlands, forests or mountain plateaux may be considered as marginal compared to intensively cultivated areas and urban centres (e.g. Harrison 2001; Svensson et al. 2001).

At the outset, one could perhaps expect that socially marginalised people would be characterised by an economy and a material culture that can be distinguished from that of the majority populations, and perhaps that their ritual life would also diverge in various ways from the majority group. Svensson and her colleagues (2001) point out that there may also be a relationship between geographical marginality and social marginality. One might, therefore, hypothesise that marginal people lived in poorer environments compared to dominant groups, and/or that they utilised niches in the natural environment that were different or complementary to the ones used by such groups. Marginality is always used about relative situations; marginalised people presuppose the existence of persons or populations that objectively or subjectively are regarded as central or dominant and marginal landscapes are marginal only relative to central landscapes. This goes for large-scale differences, such as core-periphery models in European perspective, as well as small-scale local differences, such as the ones taken up here. During the last few years, critical evaluations of such core-periphery models have been launched, particularly within the Bronze-Age research in northern Europe (e.g. Damm 2012; Forsberg 2012; Harding 2013). This call for a 'bottom-up' approach is relevant for Iron-Age research as well. In line with this, the theory of marginality will be critically evaluated here in relation to the caves and rockshelters under discussion and the differences and similarities between these places and open-air sites related to agricultural settlement, where supposedly the majority populations lived during this period, in terms of subsistence, seasonality, domestic activities, offerings, metallurgical activities, funerary practices and site locations.

Data and discussions

In western Norway, no karstic caves are present, but there are occasional caves carved out by sea-waves at the coast, particularly in the northern parts of the region. Rockshelters are much more common. These have been created by geological processes such as erosion in fault-zones and fissures, or because of rock-fall. There are also large numbers of boulders with space enough for human occupation. Despite morphological differences defined by modern geology (cf. Bergsvik and Skeates 2012) and possible prehistoric conceptual differences between 'caves' and 'rockshelters' (e.g. Barndon 2009; Moyes 2012), the two terms will be used interchangeably in this discussion. In some cases such differences are clearly relevant for the interpretation of the sites, and will then be specifically mentioned. The quality of the data from the shelters varies significantly. A few of the sites have been subject to modern detailed excavations, but a large number of the excavations were performed before the 1940s, with less detail and control. Some of the sites have only been test-pit surveyed or surface collected, and a large number are unpublished. Most of them have excellent preservation conditions for faunal material, while some have no such material preserved. Altogether 49 sites (eight caves and 41 rockshelters) from the region of western Norway are dated to the Roman or Migration periods on the basis of either typology, mainly on the basis of 'bucket-shaped' pottery (Engevik Jr 2008) or C14-dating. The sites are presented in Tables 1 and 2 and Fig 1. The basic compilation of data has been performed by Storvik (2011) for the county of Rogaland, by Østebø (2008) for Hordaland and by the present author for the sites in the counties Sogn og Fjordane and Møre og Romsdal. Most sites were used before as well as after the Roman and Migration periods. Correlation of stratigraphy, finds and dates has therefore been necessary. Data from the agricultural settlements is also of varying quality and character. Although many such sites in the relevant region have been subject to large-scale excavations, the excavations have applied the method of topsoil stripping by machine (e.g. Diinhoff 2005). Generally, the floors of the houses in these settlements are not preserved because of modern ploughing and have, therefore, produced few artefacts or faunal data. In this article, the main comparative data from the agricultural settlements derives from earlier excavations of sites in which the house-floors were preserved.

Subsistence

As a result of good preservation conditions for faunal material in the shelters, data on food consumption is present at many of the sites. An example of this is Skjonghelleren at Sunnmøre (Solberg 1976, 146; Fig 2). The faunal material from the site is mainly dated to Roman and Migration periods, but cannot be securely distinguished from a pre-Roman Iron-Age phase at the site. This consists of a large variety of bones from marine and terrestrial birds, fish, and marine and terrestrial mammals. The latter assemblages are dominated by sheep/goat (*Ovis aries/Capra hircus*). Good data are available from four different rockshelters in the southern part of Hordaland: Osterbakkjen (Fig 3), Setrehelleren, Kobbehammerskleiva and Kuhidlaren (Bommen 2009). The faunal analyses from these shelters show that birds and a variety of fish were caught while people occupied the sites during the Roman and Migration periods. Wild terrestrial and marine mammals, such as red deer (*Cervus elaphus*) and harbour seal (*Phoca vitulina*) were also present. In both periods, and particularly in the Migration Period — similar to Skjonghelleren — a relative

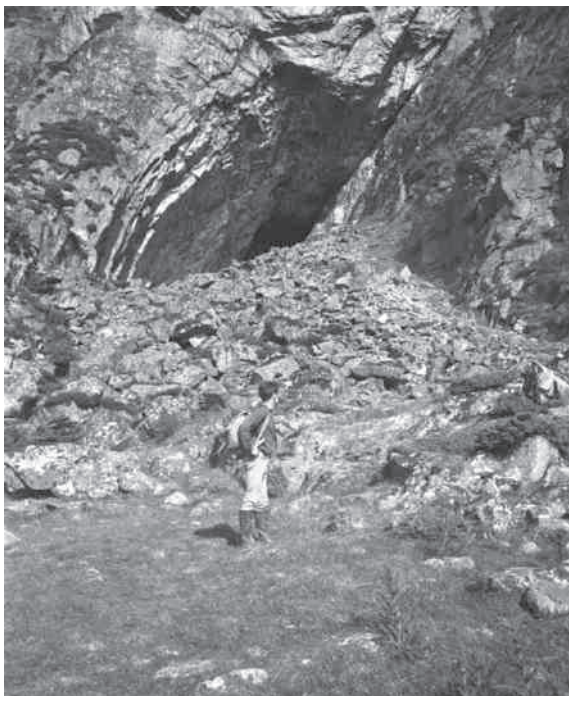

Figure 2. Skjonghelleren at Haram, Sunnmøre. Photograph: A.-M. Olsen, © University Museum of Bergen.

dominance of bones from sheep/goat and cattle (*Bos taurus*) (Bommen 2009, 74ff). A significant portion of bones of domesticated animals is a typical feature of the faunal assemblages at these sites e.g. Laksevågen (Nummedal 1920), Smihelleren (Haug 2012), Sauhelleren (Nummedal 1913), Klubbhelleren (Hougen 1922), Kjerringhaugen I (Larsen 1980, 78) and Ullshelleren (Odner 1969, 31ff). At the open-air agricultural settlement sites, faunal data are more difficult to come by, first of all because of acid soils, but also because of modern methods of excavation. Only a few such sites have provided faunal material. The best example is Modvo in Sogn which shows a marked focus on the consumption of domesticated animals (Lie 1993). Hunting/fishing gear (a harpoon, a net-weight and projectile points) were, however, also found, indicating that wild animals and fish also played a role in the subsistence at the site (Kristoffersen 1993). The differences between the faunal data from the rockshelters and the open-air agricultural settlements are thus not particularly marked. In both types of sites, domesticated species make up a significant share, and the diet was supplied by fish and wild terrestrial and marine mammals.

Seasonality

A question that has received much attention among previous scholars is whether the rockshelters were used on



Figure 3. The rockshelter Osterbakkjen, Bømlo, Hordaland during excavation in 1929. Photograph: J. Bøe, © University Museum of Bergen.

a seasonal basis or if they were occupied all year round. These discussions have, however, mainly been based on circumstantial evidence on whether the sites were fit for use during the wintertime (e.g. Odner 1969; Bakka 1973). The faunal data may provide more conclusive evidence on seasonal indicators, and again, Skjonghelleren at Sunnmøre and the four rockshelters in Sunnhordland provide the best data. The faunal data from Skjonghelleren consist of a large number of bones of little auk (*Plautus alle*) that only occur in these areas during the winter. In the fish assemblages, cod (*Gadus morhua*) dominates clearly, and this species is the most common and rewarding catch during wintertime (Solberg 1976, 69). Furthermore, no typical summer species, such as salmon (*Salmo salar*), mackerel (*Scomber scombrus*), or common eel (*Anguilla anguilla*) are present in the faunal data from this site (Solberg 1976, 146) suggesting that Skjonghelleren was first of all occupied during the winter. The four shelters in Sunnhordland are somewhat different (Bommen 2009). In the assemblages from these shelters, the summer indicators of salmon, common eel and mackerel are present, as well the winter indicator little auk. On the basis of her data, Bommen argues that the site Osterbakkjen was used during the summer, Setrehelleren and Kobbehammerskleiva were used both summer and winter, while Kuhelleren was only used during the winter. One possible interpretation is that the sites Setrehelleren and Kobbehammerskleiva were occupied on a permanent, year-round basis. However, if that was the case, one would expect, considering the excellent conditions for preservation of organic materials at these sites, to find thick cultural layers. Cultural layers are present, but they are generally quite thin (<15 cm for each identified occupational phase, often covering several hundred years). Therefore, instead of being permanent settlements, Bommen convincingly argues that the rockshelters were visited for shorter time periods in different seasons of the year (Bommen 2009, 79). By contrast, the agricultural settlements, often consisting of large buildings, cleared and sometimes fenced areas and cultivated fields nearby (Myhre 2004, 50), were undoubtedly occupied on a permanent basis.

Domestic site activities

Excavations in the rockshelters have produced various kinds of artefacts indicating that a relatively broad spectrum of activities took place (Fig 4). Fishhooks, net-sinkers, harpoon-heads and projectile points of iron and bone indicate hunting and fishing. As pointed out above, the rich and varied faunal material shows that consumption of food took place. Bone spoons, presumably for eating, have been found. Food consumption is also indicated by the common presence of pottery sherds and spindle whorls are present pointing to the processing of wool. Needles and awls of bone and whetstones indicate repairing or production of leather or textiles. Iron fragments and slag occur in a large number of caves and rockshelters, probably stemming from iron forging (see below).

Excavations of house-floors from contemporary agricultural settlements — where machine top-soil stripping has not been employed) — have resulted in larger quantities of finds than the shelters (e.g. Petersen 1933; Grieg 1934; Petersen 1936; Myhre 1980; Bjørgo et al. 1992; Kristoffersen 1993; Haugen et al. 2013). The artefact assemblages are also somewhat more varied. While frequent at agricultural settlements, grinding stones have, for example, not been found in caves and rockshelters. A question is how these differences should be interpreted. The excavated areas are much larger at the open-air sites than in the shelters, leading to a higher rate of artefact recovery and greater variation. Agricultural settlements were also probably occupied for longer periods of time than caves and rockshelters, allowing for a greater variety of activities and thus more varied assemblages.

Based on the study of published photos of the tools from the two kinds of sites there are few differences in the quality of the manufacture of artefacts themselves, which could indicate status differences. As has already been pointed out by Bakka (1973), Jansen (1973, 105) and Odner (1973) there are, therefore, more similarities than differences between the assemblages recovered from agricultural settlements and the caves and rockshelters. In fact, except for some bone implements (combs, spoons, needles, awls, projectile points), which have not been preserved in the open because of acidic soils, there are no artefact categories present in the shelters that have not also been found at open-air residential sites. It can, therefore, be argued that the archaeological material in the caves and rockshelters represent activities that also took place at the open-air sites.

Offerings

A number of artefacts found in the caves and rockshelters are special, either because they were valuable items, or because they would have been important personal equipment. Some of them were clearly deposited intentionally (Fig 5). This is the case with a complete bone comb found deep inside the cave Røynstadhelleren, where it was inserted between three stones (Lorange 1879; Brøgger 1910). In Osterbakkjen, a piece of bronze was found inside a package of textile (Bommen 2009). Other special artefacts were found in the cultural layers, but they were not associated with particular features. This is the case with a golden spiral finger ring found at Klubben (Hougen 1922), two bronze fibulae in Ullshelleren (Odner 1969), keys in Kobbehammerskleiva (Bommen 2009), and a weaving sword and an iron spearhead in Skjonghelleren (Brøgger 1910; Solberg 1976), and a Roman-period iron axe in Fantura (Storvik 2011). The special character of these artefacts, or their find-contexts, suggests these were not

Map no	Site name	C14-dating	Pottery shard	Distaff/spindle whorl	Net /waving weight	Whetstone	Belt stone	Fishing/hunting gear	Bone point	Bone awl	Bone needle	Bone spoon	Iron artefact	Iron Knife	Iron nail	Slag
1	Kvernberghula	X														
2	Sauehelleren		X					X		X						
3	Røynstadhelleren															
4	Hamnsundhelleren	X	X							X	X					X
5	Rocksh. at Bjørnøy		X													
6	Skjonghelleren		X	X	X			X	X	X		X				
7	Skylehammeren		X													X
8	Smiehelleren	X	X					X								
9	Sunnivahulen		X			X										
10	Skongeneshula		X													
11	Høgaloftet	X														
12	Styggevasshelleren		X													
13	Rocksh. by Trollhola		X												X	
14	Skrivarhelleren	X	X													
15	Grønehelleren	X	X					X		X	X		X	X	X	
16	Storsetehilleren													X		
17	Skipshelleren		X					X					X	X		X
18	Kjerringholet		X					X					X			
19	N. Bufjellshelleren		X													
20	Buhelleren		X											X		
21	Tippen		X	X		X									X	X
22	Kjerringhaugen I		X	X		X	X						X			X
23	Ruskeneset (II)		X								X		X	X		
24	Vasselhelleren	X	X										X			X
25	Sævarhelleren	X	X													X
26	Hallgrimshelleren	X	X										X			X
27	Bogjen		X			X							X			
28	Røvarhola															
29	Klubbhelleren		X			X							X			
30	Holmefjordhelleren		X													
31	Ø. Dåvatræhelleren		X													
32	Kuhidleren							X	X							
33	Osterbakkjen	X	X										X			X
34	Kobbehammarskleiva	X											X	X		X
35	Setrehelleren	X	X			X		X					X			
36	Ullshelleren		X	X									X			X
37	Båshidleren		X		X	X										X
38	'Hidleren'		X		X	X										
39	Helleren lok. 2	X	X			X										
40	Trollholo		X													
41	Lonelega I		X													
42	Håheller Ø og V		X													X
43	Vistehola		X													X
44	Heller II Tjora		X													
45	Stangelandshelleren		X		X											
46	Fantura															
47	Dognesteinen		X			X	X	X								
48	Gjellestadvigen	X	X			X										
49	Kjørkjehedlaren		X													

Table 1. Caves and rockshelters from the Roman and Migration periods in western Norway. Artefact types and functions.

Casting mould	Iron spear	Iron axe	Bone comb	Weaving sword	Fibula	Bronze amulet	Golden ring	Key	Faunal material	Human bones	Dwelling	Offering	Smeting/forging	Burial	Site name	Map no
									X		X				Kvernberghula	1
										X	X			X	Sauehelleren	2
			X						X			X			Røynstadhelleren	3
										X	X		X	X	Hamnsundhelleren	4
											X				Rocksh. at Bjørnøy	5
	X		X	X					X	X	X	X		X	Skjonghelleren	6
X									X		X		X		Skylehammeren	7
											X				Smiehelleren	8
											X				Sunnivahulen	9
										X				X	Skongeneshula	10
											X				Høgaloftet	11
											X				Styggevasshelleren	12
									X		X				Rocksh. by Trollhola	13
					X						X	X			Skrivarhelleren	14
									X		X				Grønehelleren	15
									X		X				Storsetehilleren	16
									X		X		X		Skipshelleren	17
									X		X				Kjerringholet	18
									X		X				N. Bufjellshelleren	19
									X		X				Buhelleren	20
									X		X		X		Tippen	21
									X		X		X		Kjerringhaugen I	22
									X		X				Ruskeneset (II)	23
									X		X		X		Vasselhelleren	24
											X		X		Sævarhelleren	25
									X		X		X		Hallgrimshelleren	26
											X				Bogjen	27
	X		X							X				X	Røvarhola	28
							X		X		X	X			Klubbhelleren	29
											X				Holmefjordhelleren	30
									X		X				Ø. Dåvatræhelleren	31
									X		X				Kuhidleren	32
						X			X		X	X	X		Osterbakkjen	33
								X	X		X	X	X		Kobbehammarskleiva	34
			X		X				X		X	X			Setrehelleren	35
			X		X				X		X	X	X		Ullshelleren	36
									X		X		X		Båshidleren	37
									X		X				'Hidleren'	38
X											X		X		Helleren lok. 2	39
									X		X				Trollholo	40
									X		X				Lonelega I	41
									X		X		X		Håheller Ø og V	42
									X		X		X		Vistehola	43
									X		X				Heller II Tjora	44
									X		X				Stangelandshelleren	45
		X										X			Fantura	46
									X		X				Dognesteinen	47
											X				Gjellestadvigen	48
											X				Kjørkjehedlaren	49

Map no	Site name	Site type	County	Location	Excavated/Surveyed year (E/S)	Dating
1	Kvernberghula	Cave	M&R	Coast	E 2006	RP/MP
2	Sauehelleren	Rocksh.	M&R	Coast	E 1912	MP
3	Røynstadhelleren	Cave	M&R	Coast	E 1875	RP/MP
4	Hamnsundhelleren	Cave	M&R	Coast	E 1876, 1992	RP/MP
5	Rocksh. at Bjørnøy	Rocksh.	M&R	Coast	S c 1930	RP/MP
6	Skjonghelleren	Cave	M&R	Coast	E 1875, 1926	RP/MP
7	Skylehammeren	Rocksh.	M&R	Fjord	E 1929	RP/MP
8	Smiehelleren	Rocksh.	M&R	Fjord	E 2005	MP
9	Sunnivahulen	Cave	S&F	Coast	E 1992	MP
10	Skongeneshula	Cave	S&F	Coast	E c 1870	RP/MP
11	Høgaloftet	Rocksh.	S&F	Mountain	E 1986	RP/MP
12	Styggevasshelleren	Rocksh.	S&F	Mountain	E 1986	RP/MP
13	Rocksh. by Trollhola	Rocksh.	S&F	Coast	S 1999	RP/MP
14	Skrivarhelleren	Rocksh.	S&F	Fjord	E 1988–89	RP/MP
15	Grønehelleren	Rocksh.	S&F	Coast	E 1964,66	RP/MP
16	Storsetehilleren	Rocksh.	Hord.	Fjord	E 1914, 85	RP
17	Skipshelleren	Rocksh.	Hord.	Fjord	E 1930–31	RP/MP
18	Kjerringholet	Cave	Hord.	Coast	E 1930	RP/MP
19	N. Bufjellshelleren	Rocksh.	Hord.	Coast	S 1976	RP/MP
20	Buhelleren	Rocksh.	Hord.	Fjord	E 1988	MP
21	Tippen	Rocksh.	Hord.	Coast	S 1957	RP
22	Kjerringhaugen I	Rocksh.	Hord.	Coast	E 1957	RP/MP
23	Ruskeneset (II)	Rocksh.	Hord.	Coast	E 1915–16	RP/MP
24	Vasselhelleren	Rocksh.	Hord.	Fjord	E 2005	RP/MP
25	Sævarhelleren	Rocksh.	Hord.	Fjord	E 2005–06	RP
26	Hallgrimshelleren	Rocksh.	Hord.	Fjord	E 2005–06	RP/MP
27	Bogjen	Rocksh.	Hord.	Coast	E 1917	MP
28	Røvarhola	Rocksh.	Hord.	Coast	E 1917	MP
29	Klubbhelleren	Rocksh.	Hord.	Coast	E 1919	MP
30	Holmefjordhelleren	Rocksh.	Hord.	Fjord	E 1985	RP/MP
31	Ø. Dåvatræhelleren	Rocksh.	Hord.	Fjord	E 1997	RP/MP
32	Kuhidleren	Rocksh.	Hord.	Coast	E 1968	RP/MP
33	Osterbakkjen	Rocksh.	Hord.	Coast	E 1927, 29	RP/MP
34	Kobbehammarskleiva	Rocksh.	Hord.	Coast	E 1995–96	RP/MP
35	Setrehelleren	Rocksh.	Hord.	Fjord	E 1932	RP/MP
36	Ullshelleren	Rocksh.	Hord.	Mountain	E 1962	RP/MP
37	Båshidleren	Rocksh.	Rog.	Fjord	E 1940	RP/MP
38	'Hidleren'	Rocksh.	Rog.	Coast	E 1940	RP/MP
39	Helleren lok. 2	Rocksh.	Rog.	Coast	E 1998, 2006	RP
40	Trollholo	Rocksh.	Rog.	Coast	E 1959	RP/MP
41	Lonelega I	Rocksh.	Rog.	Mountain	E 1972	MP
42	Håheller Ø og V	Rocksh.	Rog.	Fjord	E 1979	MP
43	Vistehola	Cave	Rog.	Coast	E 1907, 38–42	RP/MP
44	Heller II Tjora	Rocksh.	Rog.	Coast	E 1965	RP/MP
45	Stangelandshelleren	Rocksh.	Rog.	Coast	E c 1900	MP
46	Fantura	Rocksh.	Rog.	Fjord	S 1959	RP/MP
47	Dognesteinen	Rocksh.	Rog.	Coast	c 1920	RP/MP
48	Gjellestadvigen	Rocksh.	Rog.	Coast	E 1971, 87	RP
49	Kjørkjehedlaren	Rocksh.	Rog.	Fjord	S 1967	RP/MP

Table 2. Caves and rockshelters from the Roman and Migration periods in western Norway. Site information.

Museum no (T=Trondheim University museum, B=Bergen University Museum, S=Stavanger University Museum) and reference (if published).	Site name	Map no
T24971	Kvernberghula	1
T 9845, T10765–10770, T10772–10781, T12333 (Nummedal 1913)	Sauehelleren	2
B3263, B13380 (Brøgger 1910)	Røynstadhelleren	3
B3265, C21848, B15004 (Barndon 1994; Hufthammer 1994)	Hamnsundhelleren	4
B8499	Rocksh. at Bjørnøy	5
C21834, B3264, T2682, T2684, T2703, T2705, T2728–T2730, B7780, B6978 (Brøgger 1910)	Skjonghelleren	6
B8358, B14197 (Barndon 2009)	Skylehammeren	7
T23210 (Haug 2012)	Smiehelleren	8
B15273 (Hommedal 1997)	Sunnivahulen	9
C13178, C13179, B5740 (Brøgger 1910)	Skongeneshula	10
B14848 (Randers 1986)	Høgaloftet	11
B14849 (Randers 1986)	Styggevasshelleren	12
B15096	Rocksh. by Trollhola	13
B12523, B14186 (Prescott 1991)	Skrivarhelleren	14
B11671 (Jansen 1973)	Grønehelleren	15
B6729, B6755, B13948 (Indrelid 1996)	Storsetehilleren	16
B8600, B14587, B15390 (Bøe 1934)	Skipshelleren	17
B8134 (Østebø 2008)	Kjerringholet	18
B12644	N. Bufjellshelleren	19
B14441 (Østebø 2008)	Buhelleren	20
B11108 (Larsen 1980)	Tippen	21
B10925, B11109 II (østre) (Larsen 1980)	Kjerringhaugen I	22
B6824, B6825, B6864, B12691 (Brinkmann and Shetelig 1920)	Ruskeneset (II)	23
B7723 (Bergsvik et al. 2014)	Vasselhelleren	24
B16283 (Bergsvik et al. 2014)	Sævarhelleren	25
B16280 (Bergsvik et al. 2014)	Hallgrimshelleren	26
B6840 (Østebø 2008)	Bogjen	27
B6873 (Shetelig 1917)	Røvarhola	28
B7081 (Hougen 1922)	Klubbhelleren	29
B14234 (Bjerck 1986)	Holmefjordhelleren	30
B15386, B15424 (Østebø 2008)	Ø. Dåvatræhelleren	31
B11916, B12532 (Østebø 2008)	Kuhidleren	32
B8039 (Bommen 2009)	Osterbakkjen	33
B15176 (Bommen 2009)	Kobbehammarskleiva	34
B7580, B8350 I, B8350 II (Olsen and Shetelig 1933)	Setrehelleren	35
B11675 (Odner 1969)	Ullshelleren	36
S6788 (Lund 1941a)	Båshidleren	37
S6787, S9684 (Lund 1941b)	'Hidleren'	38
S11952, S12173, S12210 (Skjelstad and Midtbø 2011)	Helleren lok. 2	39
S8606, S9011 (Storvik 2011)	Trollholo	40
S9923 (Storvik 2011)	Lonelega I	41
S9942(V), S9943 (ø) (Bang-Andersen 1983)	Håheller Ø og V	42
S2989, S3390, S6700, S6845, S7027 (Lund 1951)	Vistehola	43
S9170 (Storvik 2011)	Heller II Tjora	44
S2848, S2842, S3306-7, S11419 (Gjessing 1920)	Stangelandshelleren	45
S8601 (Storvik 2011)	Fantura	46
S5843 (Storvik 2011)	Dognesteinen	47
S9616 (Storvik 2011)	Gjellestadvigen	48
S9352 (Storvik 2011)	Kjørkjehedlaren	49

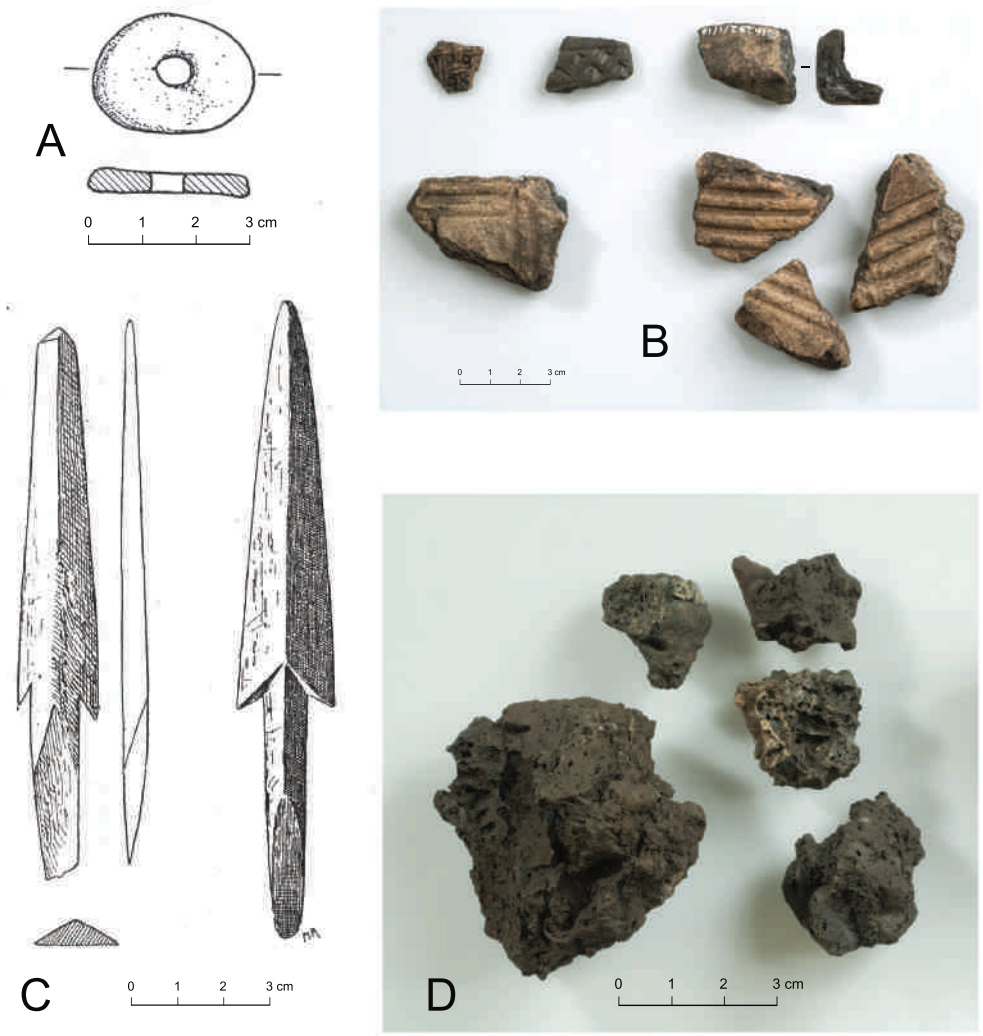

Figure 4. Artefacts from domestic site activities found in rockshelters: (A) Spindle whorl from Ullshelleren. (B) 'Bucket-shaped' pottery from Vasselhelleren. (C) Bone projectile points from Skjonghelleren. (D) Slag from Vasselhelleren. Photographs: S. Skare, © University Museum of Bergen.

ordinary household waste. They may have been lost items, but their sizes (except perhaps for the finger ring) make this less plausible. Finds such as these are common in graves, and a possibility is that they were deposited during funerary rituals in the shelters (see below). However, despite excellent conditions for the preservation of bones at the sites, no human bones have been found together with these artefacts (except possibly at Skjonghelleren), which indicates that this is not a likely option either. A more likely possibility is that they were offerings.

The offering of artefacts was common in Scandinavia in this period, particularly in natural places in the terrain, such as in lakes, bogs, screes and rivers (e.g. Fabech 1991; Ryste 2005). Caves and rockshelters could have been a variant of this phenomenon (Bradley 2000). Many of the relevant shelters, situated in relatively close vicinity to agricultural areas, may have been chosen as offering sites because of their locations at the margins of the agricultural lands, at the boundary between the cultivated land and nature (e.g. Hedeager 1999). The problem with this interpretation is that most of the offered artefacts were found in cultural layers stemming from residential occupations, together with all sorts of other artefacts and faunal material. This does not fit with the idea that the caves and rockshelters were 'natural' offering-sites.

On the open-air sites in western Norway, special artefacts sometimes occur in the cultural layers. At Modvo, two fibulae were found, and also a steatite bear amulet (Kristoffersen 1993, 190). At the farmstead Aure, a spearhead and an iron ingot were found in a posthole and are interpreted as 'house offerings' (Ringstad 2005, 269). Offered artefacts also occur at other agricultural sites in southern Norway (Myhre 1988; Møllerop 1990; Guttormsen 2003), and such 'placed deposits' (Hamerow 2012, 130) are not uncommon in rural

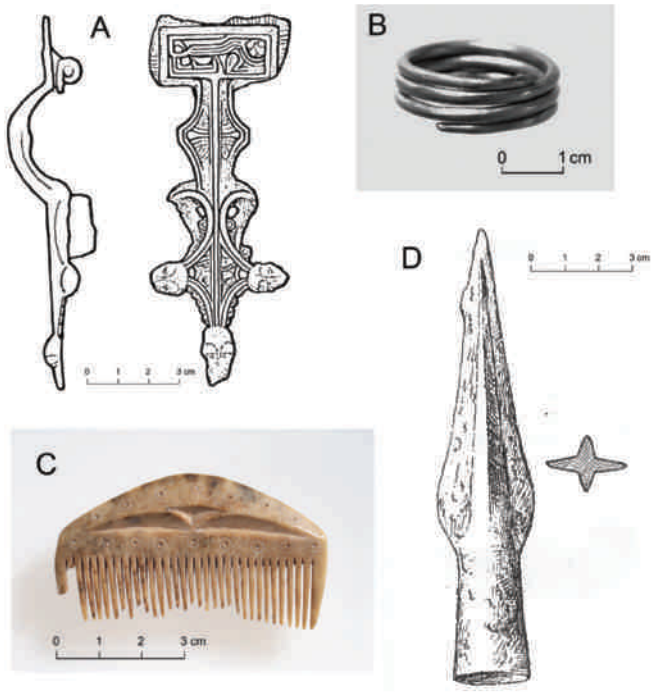

Figure 5. Offered artefacts in rockshelters: (A) Fibula from Ullshelleren. (B) Gold finger ring from Klubbhelleren. (B) Comb from Røynstadhelleren. (D) Spearhead from Skjonghelleren. Photograph C: S Skare, © University Museum of Bergen.

settlements in Sweden, Denmark, northern Germany and England during this period (e.g. Capelle 1987; Paulsson-Holmberg 1997; Hamerow 2012; Soffield this vol).

A few of the artefacts, such as the bone comb in Røynstadhelleren, were most likely deposited because of the immediate ritual context of the cave itself (Dommasnes 2009), but it does not automatically follow that the natural importance and qualities of these places was the sole contributing factor to such offerings. It is important to acknowledge that the domestic and ritual activity that took place at agricultural settlements was paralleled in the cave and rockshelter assemblages; offering was clearly a custom that was performed regardless of whether people dwelt in built houses or under shelters of stone.

Metallurgical activities

Traces of casting and pieces of slag have been found in many of the caves and rockshelters. In the current area, two sites have casting moulds and altogether 14 have slag present (Tab 1, Fig 4d). The majority of the slag stem from the forging of different metals (the precise types of metal are not yet determined), although some pieces may also result from iron extraction (Barndon 2009). Barndon points out that some of the deep caves in western Norway were powerful ritual arenas. Some of the sites, which have large outer rockshelters and inner cave rooms extending from these (Hamnsundhelleren is a case in point), have extensive traces of forging. She argues that the forging carried out at such places was linked to rituals of transformation, and that the smiths in consequence played important social roles. Their positions were ambiguous; they were both feared and admired (Barndon 2009, 58, see also Østigård 2007).

A relevant question then, is how metallurgical activities manifest themselves at the agricultural settlements. The data from western Norway indicates that forging must have been a common practice at such sites, probably in separate buildings, or smithies (e.g. Kristoffersen 1988). Slag in particular, but also casting moulds, iron ingots, and the remains of furnaces, are commonly found at open-air residential settlements (e.g. Petersen 1933; 1936; Myhre 1980; Bjørgo et al. 1992; Kristoffersen 1993; Haugen et al. 2013). The frequent traces of forging suggests that activity was probably carried out on a day-to-day basis. Such activities may have been ritualised, but the craftspeople were not necessarily ritual specialists. As Barndon also points out, many of caves and rockshelters with slag are much smaller and less impressive than Hamnsundhelleren, and are perhaps less suggestive of the symbolic significance and ritual importance of these natural places (Barndon 2009, 58). Although some large and important caves may have been sought out by skilled smiths in order to produce particularly powerful tools or weapons, forging may not have been the main task in most of the

caves and rockshelters. As was the case at the open-air sites, forging could simply have been carried out because there was a need for metal objects during the periods of occupation.

Funerary practices

Burials are present in several caves and rockshelters. Only inhumations have been found and no cremations (Todnem 1999). Most of the skeletons are only indirectly dated by artefacts in the same layers, as C14 dates have only been obtained in a few cases. It is possible to distinguish two categories. In the first, contemporary traces of dwelling have been found in addition to burials. All were excavated before 1940, which means that detailed documentation is often lacking, and they are poorly published. The sites are: Skjonghelleren (Reusch 1877), Hamnsundhelleren (Lorange 1879; Hufthammer 1994), and Sauehelleren (Nummedal 1913). These are all deep caves, and the skeletons have been found in the inner part of the cave room. There is great variation within the bone material from these caves in terms of sex and number of individuals. Only disarticulated human bones seem to have been found and no furnishing is positively identified. It is possible that these bones stem from secondary burials (or offerings of human bones), but this is hard to decide due to a lack of information on context in most relevant cases. It is also difficult to decide if the funerals were performed during the period of residential occupation, or if they took place independent of this. The second category comprises burials in caves and rockshelters that have no traces of dwelling. In the research area, only two sites are published: the cave Skongeneshula (Brøgger 1910) and the rockshelter Røvarhula (Shetelig 1917) (Fig 6). These appear to have been primary burials. In the case of Røvarhula the individual was equipped with a bone comb and fragments of a possible spear. At Skongeneshula, a large sherd of 'bucket-shaped pottery' was found together with the skeletons. In addition, at least four more sites in western Norway with human bones have been found and dated to this period during the last few years that can be placed in this category (Lie 2008).

During the Roman and Migration periods, burials on open-air sites are much more common. It has been argued that burials in caves and rockshelters should be seen as deviant from general trends, and, as such, related to people who stood outside the majority group in society (e.g. Hagen 1967). There are problems with this interpretation. First of all,

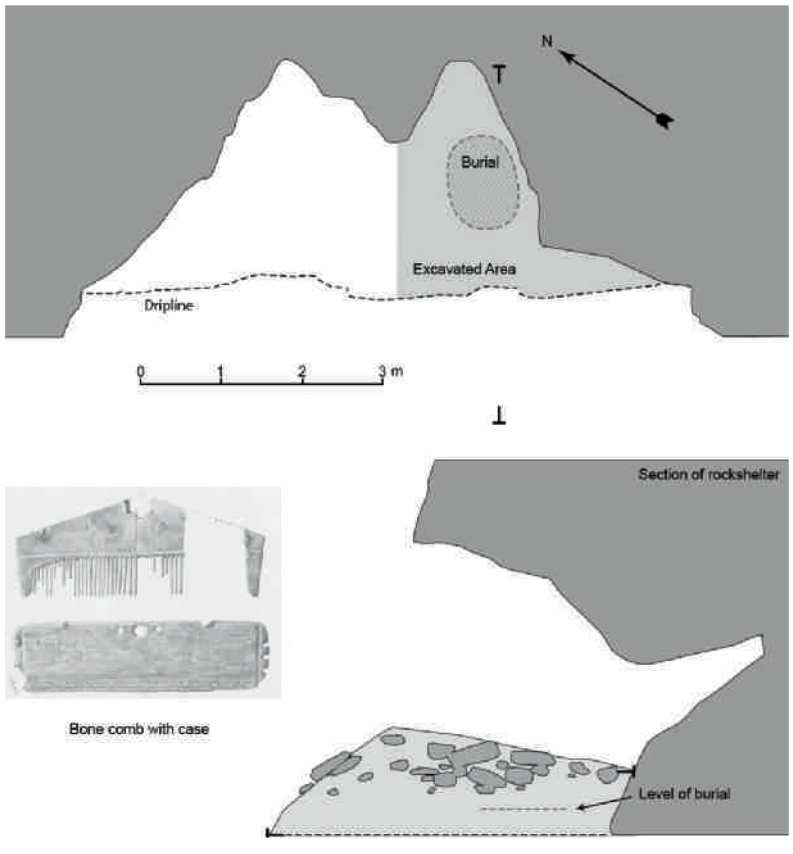

Figure 6. Funeral in the rockshelter Røvarhola, Os Hordaland. Furnishing: a bone comb with case. An iron spearhead was also found. After Shetelig 1917, © University Museum of Bergen.

the furnishing in Røvarhola is in line with artefacts that are common as gravegoods at open-air sites, indicating similarity. Second, it is a question how different cave burials really are. If we look closely at the funerary practices taking place at open-air sites during these periods in Scandinavia, the variation is great. The rituals were complex, in terms of treatment of the dead (both inhumation and cremation were practiced), the type and abundance of furnishing, the construction of the monuments, the number of graves together, and the topographical locations of the graves (Jensen 2003; Solberg 2012). In Denmark, burials also sometimes even occur inside houses from these periods (Nielsen 2000, 75ff). One may ask, therefore, if cave burial was merely a variant of a contemporary suite of flexible funerary customs.

Admittedly, disarticulated human bones in the occupational layers/middens of the caves may be seen as abnormal. As Todnem points out, they may have been related to funerary/offering rituals for particular individuals, and the caves themselves were significant for these rituals (Todnem 1999). While this is a likely interpretation, it should be noted that the phenomenon of disarticulated bones is also documented at open-air residential sites. In western Norway, close to a fireplace, burnt bones of a human child were found during the excavations of a Migration-Period house in Kvinnherad (Valvik 2002). At contemporary agricultural sites in Sweden and England, human bones are also found in the house foundations (Paulsson-Holmberg 1997; Hamerow 2012). As the authors point out, the question is whether such finds should be considered as graves, or if they were 'placed deposits'. The main point here, however, is that the deposition of human disarticulated bones in the caves in western Norway should not be considered as a deviant practice compared to contemporary activity on agricultural sites, particularly when osteological material is almost without exception badly preserved on the open-air settlements.

Site locations

When looking at the general, macro-scale distribution of caves and rockshelters with human use in Norway during the Roman and Migration periods, it appears that they are situated in many different kinds of environments: they clearly dominate at the coast; however, they are also present in the fjords, and on the mountain plateaux (Fig 1). On a macro scale, their geographical locations are, therefore, not very different from the distribution of the contemporary open-air agricultural settlement sites. This means that in areas that show concentrations of agricultural settlements, there are also concentrations of caves and rockshelters. When looking more closely at the data, however, the site locations of the caves and rockshelters show interesting patterns. It is therefore important to evaluate the relationship between caves and rockshelters and arable land. Previously, it has been noted that there is often 'walking distance' between farms and many rockshelters (Hagen 1967; Bakka 1973). Recently, however, Østebø (2008) has carried out more precise measurements of such distances in the county of Hordaland. He measures the distance between rockshelters dated to the Iron Age (altogether 28) and today's farms, which have been argued to be located in the same local areas as the Iron-Age agricultural settlements. His analysis showed that the majority of his rockshelters (19) were situated between 0.5 and 3 km from the closest farm. He also evaluated the potential for cultivation in the close vicinity of the shelters, and found that only 10 shelters were situated close to potentially arable land. In terms of husbandry, all of his 28 shelters were situated in environments that could be used as pastures. The majority of the shelters in his analyses (16) were, on the other hand, situated relatively close to the contemporary shorelines, often less than 20 m distant. Østebø's site location data thus indicates that while cultivation played a less important role for the site occupants, husbandry was very important, as well as fishing and terrestrial and marine hunting.

The site locations of the caves and rockshelters might, therefore, point in the direction of marginality. According to Østebø's analyses these sites are primarily situated in areas that in the Norwegian and Swedish languages are termed 'utmark' or outfield, which means areas outside the fenced and cultivated infield: in other words, in agriculturally marginal environments, such as forests, hills, mountains or barren stretches along the coast. A question is, however, how marginal the outfield actually was during these periods. Early medieval written sources from Norway document that most farms had access to a certain amount of outfield. The economic significance of these environments varied; some provided the agricultural populations with major income from activities such as wool production, big game hunting, stone quarrying, and iron extraction, while others only provided the daily economic security, based on fishing, small game hunting and tending of animals. It is relatively certain that outfields contributed significantly to the overall economy during the Viking Age and early medieval period (Øye 2004, 91), and this was probably also the case during the preceding Roman and Migration periods.

Nevertheless, even if the outfield and the resources there were not marginal, caves and rockshelters might still have been occupied by subordinate people who performed the practical work related to the exploitation of the resources (e.g. Myhre 1987; Odner 1972). There is little indication, however, that these people were subordinate or in any way marginal in the society; instead, their material culture, their subsistence, and their rituals are more or less similar to those at open-air sites. Furthermore, as Bommen (2009) has argued, none of the caves and rockshelters seems to have been used on a permanent basis.

Marginality reconsidered

Most likely, therefore, there were no important social differences between the users of the caves and rockshelters, and those who occupied the open-air settlements. They were probably the same social group. In terms of geographical distance, the sites are near enough to the agricultural settlements to indicate that the people who used them actually had their bases at these settlements. Consequently, the use of the caves and rockshelters should be interpreted in a local, perhaps territorial context, in which the agricultural settlements were the points of departure. This is an important insight, because it enables us to look at the activities performed in caves and shelters as part of the total, long term management of the landscape. This not only included dwelling here during different periods of the year, and the fishing, hunting and the tending of herds which were activities associated with these places. It would, as was the case at the open-air sites, include locally driven ritual activities.

One may argue that this interpretation is not very different from Bakka's suggestion from the 1970s, where he pointed out that the rockshelters should be understood as early versions of shielings related to farms in a seasonal settlement system, i.e. mobility between farms and summer pastures/ hunting grounds (Bakka 1973). However, Bakka's model does not entirely cover the variability demonstrated above. For example, some of the sites seem to have been used during the wintertime and contrary to his conclusion, there are clearly funerary rituals at the sites. What is most puzzling, however, is that some of the rockshelters were also situated in a pure farming environment (Fig 7). This is the case with the shelters in a research project organised by the present author on the rockshelters in the village Herand in Hordaland. In Herand, the three shelters Hallgrimshelleren (Fig 8), Sævarhelleren, and Vasselhelleren are dated to the relevant period (Bergsvik et al. 2014). No Iron-Age open-air house remains are yet identified in Herand, however, extensive botanical investigations indicate that there has been agricultural activity in the area continuously since the late Neolithic (Mehl and Hjelle 2015). This strongly indicates that open-air agricultural settlements were present in Herand during the Roman and Migration periods.

The rockshelters in Herand were probably used as dwelling sites — the data at least indicate a relatively broad spectrum of activities and food consumption. Since these shelters are situated so close to the presumed open-air agricultural sites, it is likely that the people who used the shelters came from these sites. A possible alternative is that the shelters in Herand and perhaps caves and rockshelters in general were part of what Kristoffersen terms a 'decentralised farm structure' (Kristoffersen 1993, 196ff). This means that the different functions of the agricultural settlements and their populations were, in contrast to the somewhat less flexible shieling system, spread out at different locales in the landscape in different seasons of the year. These locales were constructed or modified to fit the different tasks that were performed in



Figure 7. Rockshelters in the village Herand, Jondal, Hordaland. Photograph: K. A. Bergsvik.



Figure 8. The rockshelter Hallgrimshelleren during excavation in 2006. Photograph: K. A. Bergsvik.

them. Sometimes people built wooden constructions and small dwellings at these places, and sometimes, when nature had provided them, they used the rockshelters.

Conclusions

Dogmas and preconceptions are undoubtedly a part of history and archaeology, and one of these dogmas is that people who dwelt in caves and rockshelters in Iron-Age societies were poor, primitive or marginal. An idea that is constantly reappearing in Norwegian archaeology is that the users of caves and rockshelters during the Roman and Migration periods were special or had low social status compared to the inhabitants of the open-air agricultural settlements. This paper has critically addressed these issues by employing data from both caves/rockshelters and open-air sites in western Norway from the Roman and Migration periods. The result of the analysis is that data from these two kinds of sites is surprisingly similar in terms of many different archaeological variables. Since the activities in the shelters do not distinguish themselves markedly from what happened at open-air sites, it is difficult to support a theory of social marginality on the part of the cave-dwellers. The fact that they dwelt in caves and rockshelters is the only real difference, and this is hardly sufficient for categorising them as marginal. In fact, they most likely dwelled in both houses and in stone shelters.

Obviously, this does not mean that marginalised people did not exist during the early Iron Age. The caves and rockshelters, however, may not be the best places to look for them. It is argued here that the shelters were not perceived as unfit for dwelling by people from any stratum in the society. Instead, they were probably tightly integrated in the day-to-day seasonal or specialised exploitation of the variable coastal, alpine (outfield) and also agricultural (infield) landscapes that surrounded most of the rural settlements in this region. Some of the most prominent and impressive caves were surely regarded as powerful and this probably made them attractive for activities such as specialised forging, offerings or burials. The people involved in these activities may have been considered special and even marginal in the society. However, this does not alter the general impression that the majority of the caves and rockshelters were ordinary, convenient, practical and familiar sites for dwelling and working.

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Here is Gold and Witchcraft Under

Bente Magnus

The Witch Stone, Heksesteinen, is a large boulder left by retreating glaciers during the last Ice Age. It sits on the tip of the barren and narrow promontory, called Andanes, in Nordfiord, western Norway. This promontory projects westwards and divides the main fjord into two separate bodies of water. On the west-facing and slanting side of the boulder, runic inscriptions, together with fairly recent letters and signs are to be found, if one knows where to look (Fig 1). There are two runic inscriptions. The longest and by far the best preserved consists of 20 runes and measures c 34 cm in length. Today it is nearly illegible, not only because of moss and lichens, but also because it has weathered significantly since its investigation in 1939 by Professor Håkon Hamre. Then as now, it was covered by vegetation, but after it had been cleaned the worn runes stood out clearly and Hamre read (Hamre 1942, 3–8): *Her er gull ok uilur undir*, 'Here is gold and treasures under [the stone]'.[1]

This article explores the idea of a possible connection between gold and stone. Starting with this inscription, the paper moves backwards in time to consider other runic inscriptions and written sources and artefacts. This paper contends that the well-known traditional connections between gold and the stones as entrances to the supernatural underworld did not emerge until the Viking period.

Stones and runes

The interpretation of the runic inscription on the boulder from Andanes put forward by Hamre was questioned by Aslak Liestøl in 1957 (Liestøl 1957, 247). He interpreted the word villur as a derivation of Old Norse villa f., which means delusion, a state of mind where someone has lost control or hallucinates. His interpretation reads: *Her er gull og hekseri*



Figure 1. The Witch stone at Andanes, Hjelmeland, Eid, Sogn og Fjordane, Norway seen from the north. After Liestøl 1957, 246.

under, 'Here is gold and witchcraft under'. Liestøl considered the sentence to be a mild warning to those who might seek to steal the gold. Both Hamre and Liestøl dated the inscription to c AD 1200. The inscription is literate, executed by someone who was well versed in the runic script. There were also faint traces of another, and originally much longer, runic inscription further down on the stone. Liestøl read the 14 legible runes as Thair Lodin ok Tho…, 'Lodin and Tho…', and suggested this dated some three hundred years earlier than the inscription mentioning gold (Liestøl 1957, 247–29). One cannot help but wonder whether the two men, Lodin and Tho…, were familiar with the tradition about treasure being hidden under the stone.

Liestøl questioned local people, but there existed no tradition about the Witch stone at that time. The archaeologist Ingvald Undset, however, cited information from a civil servant in 1888, recording that according to local information, witches were burnt at the stake close to the boulder, hence the name Heksesteinen, the Witch stone (Liestøl 1957, 246, no 1). Liestøl's interest was roused by investigations he had undertaken elsewhere, at a similar boulder with runic inscriptions lying further west in the fiord system of Nordfiord, on an island called Hennøy. The landscape here is dramatic with an open stretch of the sea, Frøysjøen, giving free path to gales from the south-west. To the north the black rock Hornelen, the highest sea cliff in Europe rises straight up from the island of Bremangerlandet, 860 m above sea level. Hornelen, called Smalsarhorn in the Middle Ages which means something like 'the crumbly horn', is in fact made up of hard sandstones and conglomerates from the Devonian Period. The island Hennøy is less than 2 km long being separated from the mainland with its farms by a small sound running east to west. Among the stones in the bay is a huge boulder, 2 m in height and breadth and 1 m deep, cleaved in two (Fig 2). The two parts are covered in inscribed names, dates and other graffiti. Nine runic inscriptions can be made out which have been cut into the weathered surface. They are dated to the 13th century. Most of the runic messages are personal names or traces of longer inscriptions, and the longest, which has been left more or less untouched by other scribes, consists of three lines: *Hér lágu their menn, er kómu af Risalandi med hloðnu skipi af gulli. Ok that er i thessum steini,* 'Here lay the men, that came from Risaland [the land of giants] with the ship loaded with gold. And that is in this stone'.[2]

The inscriptions of both the Witch stone and the Hennøy stone were carved in the same time period, a time when the sagas were written down particularly in Iceland. In one of the *Fornaldrsogur* ('sagas of ancient times', 'heroic sagas'), the saga of *Orvar-Odd* 'Arrow-Odd', Risaland is a topic (Boer 1892, chapters X–XIV, 19-26). Risaland was a world full of giants and equally dangerous large birds, but was also a place of enormous riches of gold and silver. One could find it 'north in the mists', and it was connected with tales told when men had returned safely from voyages to Bjarmaland, the coastal regions of the White Sea. Othere, according to the narrative given to King Alfred in 875, was the first who ventured to Bjarmaland. Risaland is marked on two Icelandic maps from the 16th century, lying north of Greenland and the

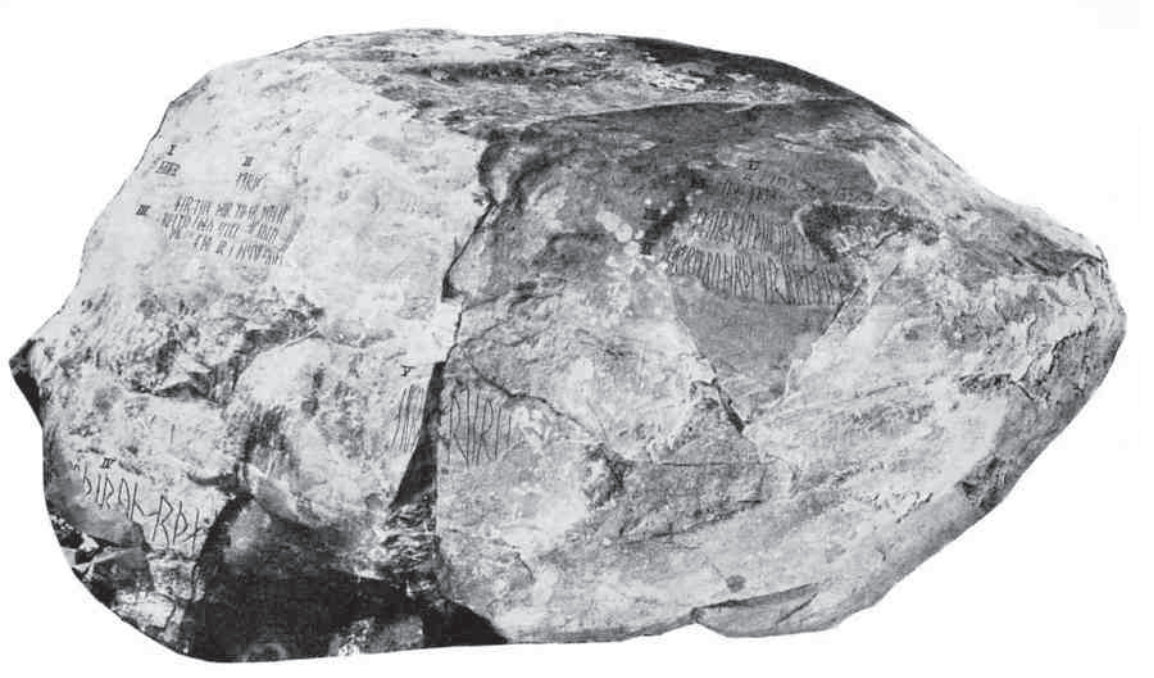

Figure 2. The Hennøy stone, Rugsund, Davik, Sogn og Fjordane, Norway. Photographic montage after Liestøl 1957, 229, fig 4.

furthest location west on the long coast north of the Arctic Ocean (Liestøl 1957, 232).

Both the Andanes inscription referring to gold and particularly that at Hennøy, testify to popular tales of riches that were probably current among the populace and perhaps seafarers especially. Why was gold treasure believed to be concealed under or inside large conspicuous boulders, however, and why carve this information for all to see on the stones themselves? In these respects the inscriptions remind one of Maeshow, Orkney. Here six inscriptions all focus on treasure and communicate the following messages (Barnes 1993, 366–367):

> 'That will be true, which I say, that treasure was carried away. Treasure was carried away three nights before they...'
>
> '… is told to me that treasure is hidden here well enough. Few say as Oddr.'
>
> 'In the north-west is great treasure hidden'
>
> 'That was long ago that great treasure was hidden here'
>
> 'Happy is he who can find the great wealth'
>
> 'Håkon alone carried treasure out of this mound'

The large Neolithic chambered tomb of Maeshowe was broken into around AD 1150 by Norse crusaders. The runic 'graffiti' on lintels and uprights inside the chamber are probably the result of more than one visit but it is interesting that all of these messages reflect the same topic or narratives evident on the inscriptions from the boulders in Norway. The inscriptions suggest there was once an early tradition among the Norsemen of hidden treasure in Maeshowe. Did these intruders really believe that treasure(s) had been hidden in the chambered tomb? Maybe those who first broke it open found human skeletal remains and speculated about dwarfs having lived in the mound, guarding masses of gold and riches?

The link between these different inscriptions is that they all transmit tales about gold, treasure and riches into writings in stone. Such inscriptions may well reflect tales and sayings written down more frequently on parchment or vellum with Latin letters and in a literary form.

We will never know if the runic scribes that chiselled out the messages in stone believed that there was gold underneath the boulder at Andanes, in the boulder at Hennøy or inside Maeshow, but what the inscriptions do imply is a common belief in dwarfs, who were in control of gold, silver, copper and iron, and that gold was their property. The dwarfs were believed to be skilled miners and craftworkers and had supernatural powers (Price 2002, 57). They lived in their own subterranean world. Rocks, boulders and burial cairns were frequently referred to as the entrance to the world of the dwarfs in later sagas and texts. In the *Edda* poem *Voluspá*, the dwarfs are called *veggbergs vísir*, 'the wise ones of the mountains' (Holtsmark 1990, 76). All Nordic languages have words and place-names pointing to a belief in dwarfs (Halvorsen 1958, 378). The inscription of the Witch Stone is a warning that if you try to remove the gold, you will be struck by witchcraft, which we can interpret perhaps as an indication of a belief that the inhabitants of the underworld, i.e. the dwarfs, would throw a curse on you if the gold were disturbed.

The inscriptions on runestones of the Viking and early medieval periods in Scandinavia do not deal with gold and treasure as their main topic. Runic inscriptions are mostly found on upright memorial stones, and the majority of the texts follow the standard formula of 'N erected this stone in memory of XY'. Sometimes this information is followed by a characterisation of the person (see below). There are more than 2300 runestones in Scandinavia and Sweden has the better part with 2057 stones. In Norway there are only 51 runestones, most of which erected in the Viking period, while the custom continued until the 12th century in Uppland, Sweden and Bornholm, Denmark (Sawyer 2000, 10–11). There are only three Scandinavian runestones in total that mention gold, all of them from the Swedish county of Södermanland south of Lake Mälaren. The runestone Sö 163 from Rycksta, Råby, Rönö informs us that 'Thyrik (erected) the stone after his sons, daring young men, for Olev, in Greece he took his share of gold' (Brate and Wessen 1924–1936, 123–124). The memorial stone Sö 165 from Grinda, Spelvik, Rönö states 'Gudrun erected this stone after Hidin, was nephew of Sven. He was in Greece, took his share of gold. Christ help the spirit. Christ he always loved' (Jansson 1987, 44). The third stone (Fig 3) is one of the most famous Swedish examples, Sö 179 from Gripsholm castle, Kärnbo, Selebo: 'Tola let this stone be erected for her son Harald, Ingvar's brother. They travelled manly, far after gold and in the east gave the eagle [feed], died south in Serkland' (Brate and Wessen 1924–1936, 153–156). This is the closest reference to the hero Ingvar the widely travelled, whose adventures and final disastrous expedition to the Caspian Sea in 1041 are narrated in the Icelandic saga *Ingvar viðforla*. Thirty runestones are known in central Sweden raised in memory of men who died 'with Ingvar', the main part from the area south of Lake Mälaren, but quite a few on the north side as well. The analysis of the distribution of this group of memorial stones has led to the conviction that Ingvar must have had his home near the later medieval town of Strängnäs from where the expedition perhaps set out (Larsson 1990, 106–114). In the Viking period (c AD 800–1050), silver was the main currency, and most hoards in Scandinavia from these centuries consist of European or Arabic silver coins, silver jewellery and hacksilver (Von Heijne 2004, 194). According to the Norwegian medieval *Law of the Gulathing*, wergild (payment for manslaughter), was to be paid in gold (Robberstad 1981, 287f), and only a small number of gold hoards from the Viking period have been found in Scandinavia. The largest, from the central farm Hoen, Buskerud, Norway consists of a mixture of coins and jewellery weighing c 2.5 kg. The hoard was found by a smallholder employed to dig drainage channels in wetland of the farm



Figure 3. The Ingvar stone Sö 179 from Gripsholm, Kärnbo, Selebo, Sweden. Photograph: B. Magnus.

in 1824 and is dated to the third or fourth quarter of the 9th century (Fuglesang and Wilson 2006, 16).

The number of runestones from c AD 550–800 with inscriptions in the older futhark, found in Norway and Sweden, mostly carry a very short inscription with an enigmatic message related to the person's death (Düwel 2001, 34–44). Gold or treasure is never mentioned, but wealth is referred to once. The now lost runestone from Gummarp in Blekinge (Jansson 1987, 24) was inscribed: 'Hådulv set three staves fff'. The name of the f-rune was *fehu*, Old Norse *fé*: cattle, wealth (Fritzner 1972, 94). In the *Edda* poetry *fé* is used solely in the figurative sense of opulence (Zachrisson 1998, 33–34).

The gold bracteates from the Migration Period (c AD 400–550) quite often carry simple runic inscriptions. The only one mentioning gold, however, stems from Tjurkö, Blekinge, Sweden (Fig 4). The runes are placed as a border around the C-bracteate and read *wurte runor an walha-kurne Heldar Kunimu(n)diu*, which is generally interpreted as 'Heldar made these runes on the Gallic grain for Kunimund'. 'Gallic grain' is a kenning for gold (Düwel 2001, 51–2). During the late Roman and Migration periods when gold seems to have been plentiful in Scandinavia thanks to the enormous amounts of *solidi* paid by the Roman emperors as tribute to barbarian kings and warlords, gold does not seem to be mentioned in early runic inscriptions, either on memorial stones or on rock.

During the centuries following the Migration Period when gold was scarce, the hunger to obtain the precious and prestigious metal became a source of myths and narratives and made young able-bodied men venture on dangerous voyages. Only the highest leaders wore gold on special occasions and consequently very little gold is found in graves.

Gold in literature

In the epic poem *Voluspá*, 'Sibyl's Prophecy' of the *Poetic Edda*, we are told about the golden age of the Gods. In verses 8 and 9 the gods met at Idavale, building a high temple and altars: 'Set up a forge to smithy treasures, Tongs they fashioned and tools wrought; Played chess in the court and cheerful were; Gold they lacked not, the gleaming metal' (Taylor and Auden 1973, 145). This carefree era ended with the first 'attack' from the giants in the shape of three maidens coming from *Jotunheimr*, the home of the giants. The gods then held counsel whereupon the dwarfs were created: first those dwelling in the subterranean world, and then those living in rocks and mountains. Only finally did the gods create humans. The link between the golden age of the gods, the giant maidens and the creation of dwarfs and humans remain unclear. As soon as dwarfs were created, the gods had to pass on the ability to make gold to them, and thereafter had to turn to the dwarfs for gold (Mundal 2002, 189–190). In Snorri Sturluson's *Prose Edda*, the section *Skáldskaparmál* deals with the elaborate, riddle-like kennings of the skalds. There are several stories explaining kennings for gold.

1. 'Aegir's fire' contains an explanation of the phosphorescence of the sea. Aegir was the god of the sea and with his wife Rán had nine daughters. Gold may then be called 'Aegir's' or Rán's 'fire', 'light' or 'glitter'.

2. Outside the door of Valhalla stood a tree called Glase with reddish golden leaves, the most beautiful of all trees to gods and humans. That is why gold is named *Glase's leafage* or 'Glase's evergreen'.

3. The trickster god Loki had cut Siv's golden plaits and was forced by her furious husband Thor to find dwarfs who could make her hair of gold, which would grow like normal hair. The dwarfs made new hair for Siv and also the ship *Skibladnir* and the spear *Gungnir*. Loki then laid a wager with a dwarf called Brokk, where he put his own head at stake if Brokk could make his brother Sindre create three equally marvellous objects. Sindre asked his brother to work the bellows and created a boar *Gullinborstir*, with golden bristle, a golden ring called *Draupnir*, and an iron hammer called *Mjollnir*. The gods Odin, Thor and Frey were to judge, which of these six objects made by different dwarfs was the best. Loki presented Odin with the spear *Gungnir*, Thor with Siv's new hair and Frey with the ship *Skibladnir*. Brokk handed the gold ring *Draupnir* to Odin explaining that every ninth night,



Figure 4. Gold bracteate from Tjurkö, Augerum, Blekinge, Sweden. © Christer Åhlin/ Statens Historiska Museum, Stockholm.

eight gold rings of equal weight would drip from it. The boar, which could run through air and water, day and night faster than any horse and illuminating nights and darkness with its golden bristle was given to Frey. Thor got the hammer, which never would break and always would return to him when thrown. The gods' judgment went in favour of Thor's hammer since Thor was the best insurance against the *rimthursar*, 'frost giants' (Sturlason 1978, 110–12).

4. Gold could also be called 'the otter fine'. Once the gods Odin, Loki and Hoeni out walking came to a river. By a waterfall sat an otter, having just caught a salmon and Loki found a stone which he hurled at the otter and killed him. The gods carried the dead otter and the salmon to the nearest house and asked the owner, the farmer Reidmar, a magician, if they could spend the night there. When the gods showed him their catch, he called for his sons Fafnir and Regin claiming that the guests had killed Otter, their brother. They bound the gods, planning to kill them, but the gods offered Reidmar as much gold as the unsplit skin of Otter would hold, and would even cover the skin with gold. Reidmar agreed and the deal was concluded with an oath. Loki was sent off to the dwarfs and found one called Andvare, who had transformed himself into a fish. Loki caught him and demanded as ransom for his life, all the gold he had inside his dwelling in the mountain. When there, Andvare carried forth all the gold he had but for a small golden arm ring, which he tried to conceal under his armpit. Loki saw that and demanded the ring. Andvare implored that Loki should let him keep the ring, since only with this he would be able to produce more gold. In spite of this Loki took the ring, Andvare pronounced a curse that whom-so-ever owned the ring would die (Sturlason 1978, 112–14). This is the first in a cycle of myths, collected in the *Poetic Edda*, which became immensely popular during the Viking period and the Middle Ages and in the 19th century, it was made immortal in music by Wagner's: *The Ring of the Niebelung.*

The myth of the master smith Völund or Weland and his gold is known to have existed across a wide Germanic area and scenes from it are illustrated on the Franks Casket (Webster 1991, 101–103 ; see Waxenberger this vol) and on the picture stone VIII from Ardre church, Gotland from the late 8th century (Lamm and Nylen 2003, 71). Weland is not a hero but a hunter and a smith, he is called the lord of the elves and overall the poem gives the impression that he did not quite belong to the human world (Holm-Olsen 1993, 328–30). The Weland myth contains two different narratives, with a golden ring as the common denominator. Weland forged it for his swan wife, while longing and hoping for her return. This special ring that Weland called the bridal ring was selected from more than 700 golden rings threaded on ropes, found by King Nidud's men when they broke into the hall of Weland when the smith was out hunting. Nidud presented his only daughter Bodvild with this ring, and Weland later raped the girl in vengeance for being mutilated, deprived of his sword and his home and forced to work for King Nidud.

An older heroic poem where gold plays a prominent part is *Beowulf*, composed in Old English in England between the 7th and the 10th centuries (Heaney 1999, IX). The hero is a young Geat from southern Scandinavia who rids the land ruled by the Danish king Hrothgar of the monster Grendel and his mother. His courage and strength are rewarded with golden rings and splendid weapons. Later he becomes king of the Geats and reigns for fifty years. His final battle is against a dragon guarding a large golden treasure in a burial mound. The single combat results in the elderly hero killing the dragon, but meeting death himself due to his injuries. The late Irish poet Seamus Heaney has summed up the quest for gold in the poems and myths of the early medieval period: 'Gold is a constant element, gleaming solidly in underground vaults, on the breasts of queens or the arms and regalia of warriors on the mead-benches. It is loaded into boats as spoil, handed out in bent bars as hall-gifts, buried in the earth as treasure, persisting underground as an affirmation of people's glorious past and an elegy for it.' (Heaney 1999, xvii).

Gold in the landscape

In the Danish king *Waldemar Sejr's* Jutish Law from 1241, in chapter 112, it states, 'If someone finds silver or gold either in a barrow or when ploughing or in any other way, the king shall have it. But if he deny that he found it, he must defend himself with his kinsmen's oath.' Similar laws appear in contemporary Scanian and Zealandian law (Jørgensen and Petersen 1998, 9). In the older Norwegian *Law of the Gulathing*, in the amendments made by King Magnus the Good in 1040, in chapter one of the law it is stated that anyone shall have

whatever goods are found on his land even if someone else digs it up (Robberstad 1981, 161). One interpretation of such differing royal attitudes is that potentially, the considerable number of gold and silver hoards found during various agricultural works in Denmark and Scania, then part of Denmark, meant that these finds were significant enough to matter to the royal economy. In West Norway, however, finds of objects of precious metal may have been so rare and so small that they had little impact on the medieval kings.

Most of the gold hoards in Scandinavia stem from the late Roman and the early Migration periods (AD 350–550) when Roman coins of gold (and of silver) found their way into Scandinavia. Already in the 3rd century, graves were furnished with gilded and golden jewellery and weaponry, and in central places like Gudme-Lundeborg on Funen, the island of Helgö in Lake Mälaren, the island Öland in the Baltic, at Sorte Muld on Bornholm, silver and particularly gold were abundant. Large treasures were obviously assembled by the leading families through their contacts with families of equal social standing in south-east Europe. The Roman tributes to Huns and Goths in the 5th century were of inconceivable size; the Huns received 115 kg gold annually from AD 423 to AD 434 when the tribute was doubled, and in all the Huns pressed the Roman Empire for nearly six tons of gold (Kiss 2001, 232–233). After the defeat of the Huns in AD 454, their royal treasure fell to the victors and was spread. The Goths managed to extract 150 kg of gold annually from the Byzantine Empire after AD 461; just a fraction of all this Hunnic and Gothic gold ended up in Scandinavia (Jørgensen and Petersen 1998, 181ff).

More than 100 kg of gold has turned up in Scandinavia as gravegoods and hoards containing coins, gold bracteates, jewellery particularly finger-, neck- and arm rings, relief brooches, sword mounts, spiral rings, ingots and bars (Magnus 1997, 194ff). Some hoards are light, containing just a couple of pieces while others, like the two gold horns from Danish Gallehus, weighed more than 7 kg. Some hoards seem to be personal while others have been interpreted as sacrifices made by the local elite on behalf of the community. There seems, however, to have been no standard deposition context whether in wetland or on dry land (Hedeager 1999, 234). John Hines' selective classification of the deposition contexts of gold bracteates (Hines 1989, 203–4), shows that water and wetland and banks were the preferred landscape features. Wiker's field study of the localities for bracteate depositions in southern Norway and western Sweden led to more or less the same results. The gold had been deposited in border zones in the landscape (Wiker 1999, 20). The 12 kg hoard from the manor Tureholm, Södermanland, Sweden was found as early as in 1774 during building work for a new barn. The majority was melted down, with only a large golden neck ring and three sword mounts decorated with filigree in Style I spared. A similar hoard weighing 7.1 kg was discovered at Timboholm near the town of Skövde, Sweden in 1904. It consisted of two large chains of gold rings and two ingots, which had been concealed about 1 m deep at the end of a gravel ridge (Arne 1906; Lamm 1994; Herschend 2001). The three unique Swedish gold collars from Ålleberg, Möne and Färjestaden, are such magnificent pieces of art that they ought to have been sacral objects displayed in ritual contexts. Their micro-contexts are significant, but are very different. The Ålleberg gold collar seems to have been deposited on the northern slope of the table mountain Ålleberg in the region called Falbygden, Västergötland, Sweden's most fertile sector. The Möne gold collar was recovered from a woodland settlement where it was found by a workhand removing a small cairn and a stone fence in a field. The gold collar from Färjestaden, Öland was spotted from a wagon by a young boy during fieldwork. The collar had obviously been deposited under stones, since it took the strength of three boys to break it loose (Andersson 2011, 119–20).

Why were all these precious objects, which gave people legitimacy, status and power taken out of circulation and hidden in the landscape, or in some cases within the settlements associated with central places during the Migration Period? My suggestion is that the gold was presented to the gods as gifts. Gift-giving was central to how Germanic societies functioned. Prestigious swords with scabbards and handles adorned with golden mounts, neck-, arm- and finger-rings of gold, collers consisting of gold bracteates sporting mythical pictures, relief brooches and large golden beads, could all be used by a powerful leader to forge alliances, secure the loyalty of warriors and even find a wife from an influential family. In the mid-6th century, the same sort of golden objects were presented as gifts to the gods.

Morten Axboe was the first archaeologist who saw a possible connection between the gold depositions of the mid-6th century and a cosmic catastrophe of AD 536–537 suggested by scientific and textual analyses (Axboe 2001, 129–32; 2004, 266–72). He suggested a possible link to the myth of the Fimbulwinter and Ragnarök prophesied in the *Edda* poems *Voluspá* and *Vaftrudnismál* and told by Snorri Sturlason in *Gylfaginning* and *Skáldskaparmál* in his *Edda*. Bo Gräslund elaborated on the climatic and literary material, and found they substantiated the proposition that from early spring 536 to late autumn 537, climatic conditions in Europe were extreme because of the sun being dimmed by a dust veil (Gräslund 2007). Going through all available data again, Gräslund and Price conclude: 'We believe that several categories of independent data combine to suggest that the Old Norse traditions of the Fimbulwinter and Ragnarök may collectively remember terrifying experiences of starvation and collapse as a result of extreme weather phenomena during the years AD 536–550' (Gräslund and Price 2012, 440).

The golden gifts were most often left in liminal areas in the landscape, borders between dry and wet, infield and outfield, in the side of an older burial mound, under a stone fence or in sacral places where perhaps people hoped to come in

contact with the supernatural world. The climatic catastrophe is thought to have left behind a wasteland in northern Europe, with deserted farmsteads and cemeteries and the tilled fields being taken over by woods. Some areas were harder hit than others, like the coastal regions of southern and western Norway. These had been powerful in the Migration Period. The fertile plains of mid-Sweden, however, seem to have recovered fairly quickly and the ruling families at Old Uppsala, Helgö, Vendel, Valsgärde took the lead in Scandinavia (Ljungkvist 2006, 186–188). The narratives about the catastrophe emerged as myths of the Fimbulwinter and Ragnarök, but the time perspective slowly changed from past to future. The sibyl in *Voluspá* prophesies the end of the world and of the old gods, but also a new world that will emerge with the next generation of gods, a prophecy that was most likely based on myths and traditions of what had happened three hundred years earlier. Norse religion in the Viking period was based on myths of the old gods Odin, Thor, Freya, Frey, Niord, Tyr and not their offspring Balder, Hod, Våle, Ve, Mode and Magne.

The gifts for the gods left in the landscape in the Migration Period were left and were not retrieved. During the Viking period and the Early Middle Ages, treasure of mostly silver but including some gold was also deposited in the landscape in the same sort of border areas as in the Migration Period. Due to the restructuring of agriculture, villages and single farms following the late 6th and the 7th centuries, the boundaries had changed and a new cultural and mental landscape was created (Hedeager 1999, 246–7). It could have hardly been a secret act for the local community, when a prosperous man placed his treasure chest (Old Norse *fébyrda*) in a boggy area to secure and mark the border of his *odal* land. The act was surely accompanied by rituals and incantations (Zachrisson 1998, 118–122). In spite of people's knowledge of great wealth buried in the landscape, it was left untouched for centuries. New developments in agriculture and population pressure in the 18th and 19th centuries led to a new wave of discovery of hoards of precious metals by workers on the land.

Concluding remarks

When I began working on this paper, I set out with the idea that much of the deposition of precious metal in the landscape in Scandinavia would be connected with stone and rock, the doors to the realms of the mythical master smiths: the dwarfs. This has been proven not to be the case. The runic inscriptions of the boulders of Andanes and Hennøy and also Maeshow suggest the existence of beliefs that gold was to be found in rocks, cairns and mountains, which acted as entrances to a subterranean world of dwarfs may have been widespread in the Early Middle Ages (the 11th–13th centuries). The earliest myths about dwarfs (Motz 1983) seem to have originated in the early Viking period. The dwarfs play a role in much of the Nordic literature left to us from the 13th and 14th centuries (Carstens 2012, 247–259) and, as Lotte Motz has demonstrated, are characters that are deeply embedded in northern European folklore. The carver who left the inscription on the Witch stone or his/her patron was Christian and literate. He or she hardly believed in dwarfs and gold and witchcraft, but there may have existed local traditions to this effect about the boulder.

In the *Edda* poem *Voluspá* we are told that once in the distant past, the gods had an abundance of gold, which they crafted. Their existence was carefree until three giant maidens broke into their idyllic existence. The next we know from the poem is that gold and the skills to work it were transferred to the dwarfs. How did this happen? Later in the poem we hear the prophecy of the Great Winter, the Fimbulwinter and the end of the world, Ragnarök, which most probably goes back to traditions and myths about the climatic catastrophe of AD 536–537 as shown by Axboe, Gräslund and Price (see above). May it not be that the sequence of events explaining how the gods lost the gold has its background in the same disaster?

Factors such as the recruiting of Germanic warriors in the Roman auxiliary troops, barbarian raids onto Roman territory, and the enormous amount of minted gold, paid particularly by the eastern Roman Empire to stave off barbarians attacks on their borders, led to an abundance of gold in Scandinavia from the 4th century AD. Coins were melted down and were transformed into brooches, finger-, arm- and neck-rings, gold bracteates and the gold was used in the embellishment of swords or left unprocessed in the form of rings with weights adjusted to specific systems (Herschend 2001, 103–18). The altered political situation in Europe and the disastrous climatic conditions of AD 536–537 dried up the stream of gold, and it became very scarce for centuries. During the years following the 'Fimbulwinter' when failed crops, hunger, hardship and death reigned, farms and ancestral burial grounds were deserted, people buried their most precious possessions in liminal places as gifts to the gods hoping that the gods would make returns, namely the sun and the moon, normal seasons with good crops and the social order.

During the late 6th and mainly the 7th centuries the Scandinavian chiefdoms underwent societal changes influenced by the development of the Germanic successor states in Europe. Myths of a past golden era must fairly rapidly have sprung up as the historical facts of the Migration Period sank into oblivion. Historical events from the Migration Period were transformed into a mythical, heroic past. The dwarfs play no role in the historic sagas nor in the heroic sagas, but they appear frequently in the somewhat later *Fornaldersagas* (Holm-Olsen 1958, 376–8). Occasional gold hoards from the Migration Period found during fieldwork etc. in the medieval and even later periods, may have fuelled popular belief in dwarfs and the curse they could inflict on humans trying to bereave them of their gold. The large boulder called Heksesteinen, the Witch stone, situated on the barren promontory of Andanes in Nordfjord on the west coast of

Norway must have spurred local people's imagination and fantasy. Here was a door to the subterranean realm where the mystical but dangerous dwarfs stored and worked their gold: 'Here is gold and witchcraft under'.

Notes

1 Author's translation.

2 Author's translation.

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Mission at the Ends of the World: Was Old Uppsala Really an Outpost of Paganism in the Late 11th century?

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The question of whether Old Uppsala was an outpost of paganism in the late 11th century, as is often suggested, not to say presumed, will be addressed in this paper, using relevant runic monuments and recently excavated burials in Old Uppsala and adjacent parishes as source material.

The image of Old Uppsala as a pagan centre is in many respects due to the church history written in the 1070s by Master Adam, a cleric of Bremen. His obvious aim was to praise the ecclesiastical deeds of the Hamburg-Bremen diocese. His spectacular description of the pagan cult at Old Uppsala is one of the most quoted literary sources for late Viking-Age Svealand. It is an immensely important contribution that feeds the general assumption of a very late date of conversion for this region. He writes about a pagan temple, a sacrificial grove and how a great festival was held for nine days at the vernal equinox every ninth or, as most scholars mean today, every eighth year (Nordberg 2006, 80ff). Everyone in the country had to attend and to send gifts, but following Adam's text, Christians could buy themselves off, so obviously there were Christians in the region. Dogs, horses and men were sacrificed, and the gods were pleased by the blood. The corpses were hung up in trees in the holy grove. Adam even mentions that he had been told this by a Christian, who had himself seen 72 corpses hanging in the trees (Adam of Bremen, *History of the Archbishops of Hamburg-Bremen*, IV, 27), providing, if we can believe his account, important information that a Christian was present at the pagan cult site. Adam uses the Latin word *triclinium* for the temple (*in medio triclinio*; Adam of Bremen, *History*, IV, 26), which in fact means a banquet hall (Dillmann 1997, 65ff), suggesting a feast where people were eating meat from sacrificed animals and drinking strong drinks: a kind of communion with the divinities. It is also an indication that the cult may have occupied a high status hall building.

There is of course a question over whether Adam's account of paganism is true and valid for the second half of the 11th century. Henrik Janson in his discussion of Adam of Bremen argues that Old Uppsala was influenced by a movement of Christianity opposed by the Hamburg-Bremen Church which may have led Adam to present Uppsala as a centre of pagan cult (Janson 1998, 299ff). In Saint Olaf's Saga, chapter 77, Snorre tells about the sacrifice in Uppsala in pagan times. Ander Hultgård has compared this text with Adam's account and argued that the two sources are independent, but also are in accordance in some respects and therefore both are probably to a high degree reliable (Hultgård 1997, 29; cf Nordberg 2006, 90; Sundqvist 2013, 97).

It is obvious that the Christian mission to the north had a special value and meaning for the Church of Hamburg-Bremen, rendering it much more glorious than other missionary enterprises. Ansgar's (AD 801–65) biographer/hagiographer and successor as archbishop in Bremen, Rimbert writes about the mission in Scandinavia as *Dedi te in lucem gentium, ut sis illis in salute usque ad extremum terrae* (Rimbert, *Vita Anskarii*, 25) directed 'to the end of the earth'. He writes explicitly that the ends of the world are in the north, in the land of the *Svear*. In fact the area north of Birka was regarded as the mythical borderland to the ultimate peripheries of the world. This is taken up by Adam, who speaks of amazons, anthropophags and dog-headed human beings far in the north (Adam of Bremen, *History*, IV, 19). Similar to the *Vita Anskarii*, Adam's work is characterised by the Augustinian dualistic view of the opposition between *civitas Dei*, the realm of God, and the *civitas terrena*, the worldly realm. For Rimbert as well as for Adam, the purpose of the Church was to expand *civitas Dei* further and further, to the ends of the world (Hallencreutz 1996, 120).

From the point of view of ecclesiastical organisation, it is notable that the first Swedish archdiocese was founded in Uppsala, in 1164, at a late point in the mission. To all appearances, there was a struggle between Uppsala, at that time a diocesan capital only for 20 years, and the much older cathedral city of Linköping in Östergötland, due to two competing royal families, the houses of Sverker and Erik. In all probability this may account for why Uppsala was considered to lie at the margin of the new Swedish realm, as well as at the edge of the Christianised area. From the period of expansion of Christianity in the 8th century and onwards, several other newly established archdioceses were located at the fringe of newly Christianised areas. This probably had a strategic meaning and represented a program for the advancing mission: Salzburg in Austria, Gran in Hungary, Gnesen in Poland and Hamburg in Sachsen, are all examples of this phenomenon, while York in Deira, in the Anglo-Saxon north, may well have been intentionally situated close to British territories (Hellström 1996, 263f).

During the Nordic mission undertaken by Cardinal Nicholas Breakspear in 1152–53, the papal emissary did not consider the time ripe to establish a new church province in

Sweden. It was not until 1164 that Pope Alexander during the reign of Karl Sverkersson declared Sweden as a new church province with Uppsala as the archiepiscopal see. The first archbishop of Uppsala was Stefan, a monk from the Cistercian monastery in Östergötland, not far from Linköping, and Saint Erik became the patron saint of the new church province (Hallencreutz 2001, 271). The historian Thomas Lindkvist has argued that the location of the archiepiscopal see in (Old) Uppsala could be regarded as an indication or symbol of the definitive victory over paganism (Lindkvist 1996, 228). It may also be regarded as a strategy to involve the fringe area.

The evidence of graves at Old Uppsala

The archaeological evidence does, however, corroborate the idea that Old Uppsala remained a stronghold of paganism in the second half of the 11th century, especially if the archaeology of adjacent parishes is included. In the immediate region of Old Uppsala, cremation was the absolutely dominant burial rite up to the year AD 1000, with only few exceptions such as the graves from Birka, the urban society at Lake Mälaren which had rich international contacts. After the millennium, inhumation became far more common. Various aspects of the burial customs after AD 1000 can be analysed with regards to the degree of Christian influence: the burial rite (cremation or inhumation), remains of coffins or containers, grave orientation (E-W versus N-S), and the deposition of gravegoods. None of these criteria alone is a sign of strong Christian influence, but if they occur concordantly there is every reason to count these as Christian impacts (Gräslund 1985).

In 1944 Viking-Age cremation graves were excavated close to the large 'royal' mounds of the Migration Period at Old Uppsala. In two graves, double-sided combs were retrieved, an indication of a late Viking-Age date in the 11th century or even later. The use of a pagan burial custom so late, is corroborated by excavations in 2012, which revealed a large number of cremation graves, many of them richly equipped. These dated from the Migration Period to the Viking Age and were located in a cemetery to the east of the large mounds. In one of the graves, containing the cremated bones of a child, probably less than six years of age, beads were found, and a bronze needle, as well as a German coin (Sachsenpfennig) (Fig 1, stamped 1015–65) (<www.arkeologigamlauppsala.se> 2012, 11–27). The coin is unlikely to have ended up in the grave until the middle of the 11th century at the earliest. The cross-decorated coin was pierced and had obviously been used as a pendant. In several of the female graves at Birka pendant crosses or pierced cross-decorated coins occurred together with purely pagan pendants, a clear expression of syncretism or mixed religion, attesting to conversion as a gradual process (Gräslund 2005; cf Audy 2011). Late inhumation graves are also now known to have been interred close to the royal mounds. Surface finds of human bones, without signs of cremation, were collected in the 1990s, and a small excavation in 2003 revealed more. A scull fragment has been radiocarbon dated (calibrated) to AD 990–1160 (Ahlström and Duczko 2005, 15).



Figure 1. Sachsenpfennig: a cross-decorated and pierced coin, stamped AD 1015–65, found in a cremation grave in Old Uppsala 2012. Photograph: B. Backlund, Upplandsmuseet, Uppsala.

The evidence of graves and cemeteries in the neighbourhood of Old Uppsala

In the adjacent parishes, recent excavations have yielded interesting results: inhumation graves found at rural cemeteries not in contact with churchyards, have been dated up to the 12th and in some cases even into the 13th century. There was apparently no sudden break, but a gradual transition. This also supports the idea of a slow conversion. The oldest parish churches were probably built in the 12th century and thus before the first Christians had access to a consecrated churchyard they may have continued to use the old cemeteries where earlier generations were buried, accounting for these strongly Christian-influenced graves lying at the fringes of older pagan cemeteries. The external form of the graves was often different: a rectangular, unfilled stone setting often replaced a mound or round setting of stones. Sometimes these rectangular stone settings or cists were built together and had one side in common with the next grave, providing a churchyard-like appearance. In the churchyards in Lund in the 11th century there were graves placed in more or less straight rows (Cinthio 2002, 62). Sometimes the remains of poles can be found at the end of the grave, perhaps marking a fence or border of a grave plot. From Uppland we know from the early 18th century, how rural churchyards were divided using a linear system to differentiate between villages and farms using strips and sections (Jonsson 2009, 43). Perhaps these early graves built together reflect similar divisions: the connected groups

belonging to one farm. There are also several examples of cross-decorated runestones, originally erected on, or close to, such graves. These may have served as a form of consecration (Gräslund 1987, 257).

Such grave forms have been identified in many parishes in Uppland by the nation-wide inventory of all visible ancient monuments (Blennå 1995, appendix 1, tab 1). In some cases they are excavated. Two examples from Sävja in Danmark parish and Hässelby in Börje parish both lie close to Old Uppsala. The Sävja cemetery (Fig 2) was partly investigated at the beginning of the 20th century by Oscar Almgren and his students (Frölund et al. 2002). They excavated four cremation graves and almost 30 inhumation graves and both categories had very few gravegoods. A single inhumation grave and one additional cremation, each contained a double comb datable between the 11th and 13th centuries. The external shape of the graves varied, most inhumation graves were covered by rectangular stone settings, but there were also examples of round stone settings and even some small mounds. Most of the skeletons were orientated in W–E, and traces of coffins (nails, wood) were frequent. The cremation graves were covered by round stone settings except in one case where the stone setting was rectangular. In 2000, three more inhumation graves were excavated: two cases with traces of coffins. Radiocarbon dating from human bone gave a calibrated result of AD 1030–1290; in the third grave a wooden sample was analysed providing a calibrated result of AD 680–990. The large cemetery at Hässeby in Börje parish was partly excavated in 1978–83. Most graves at the cemetery were marked by round stone settings or mounds, but at the western end there were rectangular stone settings, many of them were built together with one side in common. Almost 30 graves were excavated, revealing W-E oriented inhumation graves with traces of coffins, most of them with no gravegoods, with the exception of isolated objects like a penannular brooch or a knife or a purse — objects largely connected to dress (Forsåker 1983; 1984). Obviously this is the youngest phase of the cemetery and it was probably in use up to the time when access became available to a consecrated churchyard, perhaps the site of Börje church, which was constructed at the beginning of the 14th century (DMS 1:2, 68).

Other recently excavated graves at cemeteries also dating from this transition between the Viking Age and early medieval period have been recovered in the neighbourhood of Old Uppsala. These include Enbacken in Vaksala (today Uppsala), Kyrsta in Ärentuna, and Gnista in Danmark. The former two examples resulted from excavation in advance of road building in 2000–2006. These seem to provide evidence that a traditional cemetery situated further from the ecclesiastical

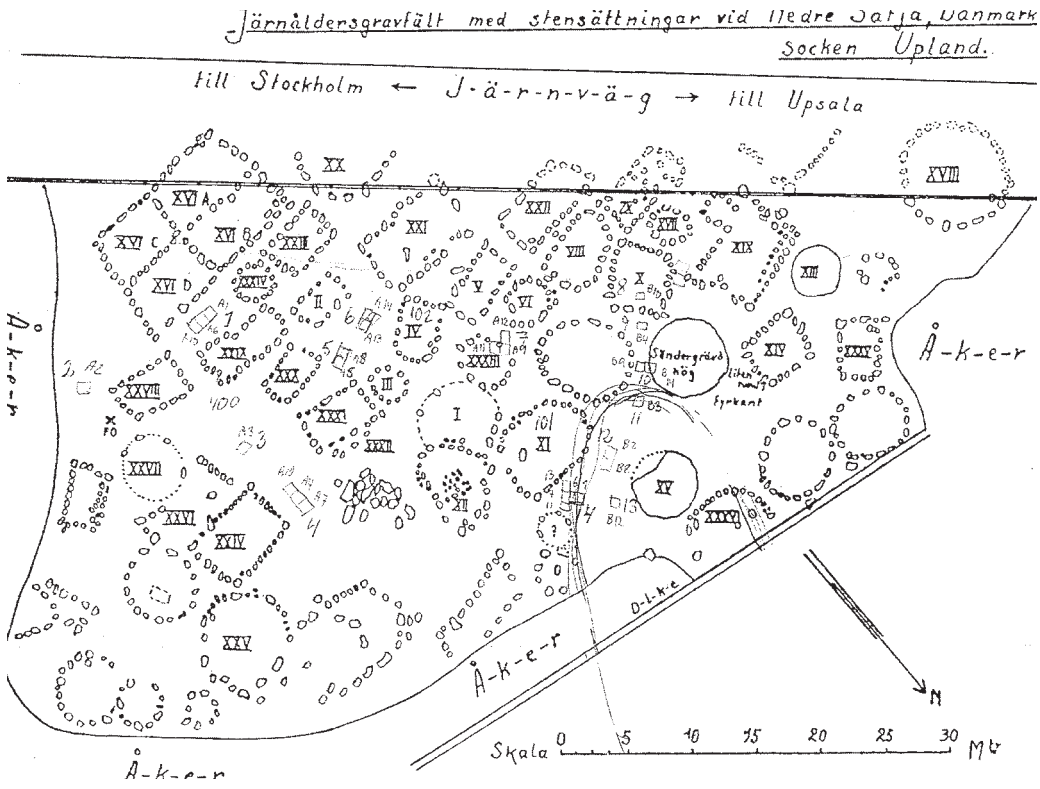

Figure 2. Plan of the cemetery at Sävja, Danmark parish. In the south-eastern part four rectangular stone settings are built together. Drawing: O. Almgren, 1904 (with some later notes). From Frölund et al. 2002.

centre, was used for a longer period of time, even after the conversion. At Enbacken, the earliest calibrated radiocarbon date for a grave is AD 1020–1160. At Kyrsta, a cemetery was partially excavated, with continuity from early Roman Iron Age up to the 13th century; the earliest radiocarbon dated grave is from AD 1215–70. At Enbacken the burial custom of inhumation was introduced in the 10th century, some 100 years before Kyrsta. The excavators suggest that the use of the cemetery at Enbacken came to an end in the late 12th century, while the cemetery in Kyrsta remained in use until the mid-13th century (Sjöling 2006, 45f; Emanuelsson and Sjöling 2007, 385f). The graves at Enbacken are more uniform in type, while those in Kyrsta show significantly more variation. The excavators also characterised the graves at Enbacken as the product of a population with urban contacts, whereas the Kyrsta graves are thought to be connected to a more rural and isolated population. The evidence seems to indicate that the people of Enbacken demonstrated their Christian faith in their funerary rites, about a century earlier than populations at Kyrsta, and they did not cease to bury at their old cemeteries until a parish church with the right to bury had been established. For Enbacken this was the nearby Vaksala church, the oldest part of which may be dated to the end of the 12th century (DMS 1:2, 205). At Kyrsta only the construction of Ärentuna church, built c 1300 (DMS 1:3, 210), seems to have promoted a change in burial location. The processes of Christianisation are evident at Vaksala and Ärentuna in the 11th century, attested by runestones with textual and ornamental Christian elements. This is not specific to these parishes and is apparent in many areas in the province of Uppland and seems to be a domestic way of demonstrating the affiliation to the new faith (cf Lager 2002).

A last example comes from the on-going excavations at Gnista, Danmark parish, on the outskirts of Uppsala (Hennius et al. forthcoming). A large mound from the late 6th century AD was excavated, and close by, several cremation graves dating to the second half of the 1st millennium and inhumation graves of a late Viking Age to early medieval date. About half of the latter were buried with coffins, the rest probably with shrouds but in most cases without gravegoods. There are a notable number of child burials here as well which can be regarded as a typical trait of early medieval churchyards. Test excavations provided calibrated radiocarbon dates for a grave of AD 1040–1260 (Hennius et al. 2012, 35, 41). This late date coincides with the sequence of activity evident at Vaksala and Ärentuna, where the old cemeteries were used even after the conversion until a nearby church with a churchyard became available. The parish of Danmark, earlier a part of Vaksala parish, was established at the end of the 13th century and the earliest Danmark church is mentioned in a diploma from AD 1291. The present brick church is dated to c 1300 (DMS 1:2, 135).

All these examples from neighbouring areas to Old Uppsala show that there was no sudden break but a gradual change in burial rites. Christian, or at least strongly Christian-influenced graves are present at the edges of many older cemeteries. Interesting comparative material can be found in Estonia, a region Christianised in 1208–27 by Germans and Danes (Valk 1992, 203ff). In the Middle Ages, burials were carried out on separate gravefields, some of them carrying the name 'Chapel Mount', indicating that there might have been some form of chapel or religious structure present at these sites, however, burials also took place at churchyards in the same time frame. The reason for choosing a churchyard or a gravefield seems to have been a question of distance: if people lived far from the church, they used a nearby gravefield; if they lived near the church, they buried at the churchyard. The Roman Catholic Church accepted the burials at the gravefields, but when Estonia became a part of the Lutheran Swedish kingdom in the 17th century, the practice was prohibited.

The evidence of the runestones

The runestones in and around Old Uppsala offer a domestic and contemporary indication of the attitude of the inhabitants to the new faith. These monuments can provide us with relevant criteria as pictures with a Christian meaning, cross ornamentation, statements about church buildings and churchyards, Christian prayers, Christian personal names and reference to Christian concepts and deeds promoting the prosperity of the soul etc. (Williams 1996, 60). A problem with runestones in the immediate neighbourhood of Old Uppsala church is that none can be said with certainty to come from there, neither can this possibility be excluded. Runestone U 979 (Fig 3) is now placed outside the entrance to Old Uppsala church. It is a stone without runes but with a picture of a boat/ship with a mast, forming a cross with a small cross inside. At the beginning of the 17th century the



Figure 3. Runestone U 979 now outside Old Uppsala church. Photograph: A-S Gräslund.



Figure 4. Runestone Sö 164, Spånga, Råby-Rönö parish. After Södermanlands runinskrifter.



Figure 5. Runestone U 978, now built into the apse of Old Uppsala church. Photograph: A.-S. Gräslund.

stone was placed in the church floor. Some 20 runestones from Sweden and Denmark are known that carry pictures of ships (Jesch 2001, 120, no 3), some these have crosses as masts. The only instance where the ship is mentioned in the inscription is Sö 164 (Fig 4): 'Gudbjörn and Oddi raised this stone in memory of Gudmar, their father. He who died stood valiantly in the staff of the ship, now lies inhumed in the west'. The mast in the shape of a magnificent cross with coils typical for the Ringerike style indicates a date in the first half of the 11th century. The ship is regarded as a symbol of the Christian individual and the Church in general (Dahlby 1963, 240). In early Christian art, ships occur frequently with Christ as steersman and the apostles as oarsmen. Another interesting stone on stylistic grounds, and datable to the first half of the 11th century, is built into the wall of the apse of the church, U 978 (Fig 5). The oldest records relate that it was used as an altar stone: a slab for the Communion table. As the material of the runestone is sandstone, it is a good possibility that it originally was connected to the church site (cf Hagenfeldt and Palm 1996, 23ff). The picture of a processional cross may also support such an idea.

Several runestones, dating to the first half of the 11th century and located in adjacent parishes, give explicit examples of early Christian activity. Some inscriptions mention bridge building for the deceased's soul. In order to promote the building of roads and bridges, the Catholic Church had, at an early stage, incorporated this in the system of indulgence and in return the Church offered intercession for the soul of the dead and/or absolution (Kinander 1935, 8ff). A good example is stone U 901 (Fig 6), raised by two brothers in memory of their father around 1050. The sons made a bridge for his soul and included a prayer in the inscription: 'Karl and Igulbjörn had these stones erected and this bridge built in memory of Jovur, their father ...May...help his spirit'. A picture scene, earlier interpreted as a fight, has been reinterpreted as the depiction of a funeral (Hult 1992). There are also early stones in the area with elaborate prayers. Formulations like 'May God bless us, the ruler of men, holy Lord' (U 942) or 'May the mighty God help' (U 971) have given rise to the opinion that they reflect the liturgical language and that at least parts of the service were held in the vernacular language.

Concluding remarks

As neither the graves nor the runestones in the vicinity of Old Uppsala seem to corroborate Adam's description of Uppsala as a bastion of pagan cult, the question arises as to whether his account is accurate for the time when he set it down in the 1070s. The date of the runestones with Christianising



Figure 6. Runestone U 901, Håmö, Läby parish. After Upplands runinskrifter.

decorative and textual elements (Gräslund 2006) implies that his account was not correct, even in relation to the years from 1030–50, when Adam's informant, the Danish king Sven Estridsen stayed in the region with his royal Swedish kinsmen. There is a strong possibility that Sven told Adam what he had heard about the Uppsala cult, but related information on activities performed some generations earlier — information that Adam preferred to present as a contemporary account for ecclesiastic and political reasons.

It should be noted, however, that Adam later in book IV mentions that Bishop Adalvard the Younger, at the request of King Stenkil (ruler in Svetjud from c 1060–66), was sent to the new Episcopal see of Sigtuna (Adam of Bremen, *History*, IV, 30). Stenkil dissuaded Adalvard from his plan to pull down or burn 'the famous pagan temple called Ubsola' (*illud templum paganorum, quod Ubsola dicitur*) in fear of a pagan reaction. This may indicate that some kind of separate cult building still existed in the 1060s but this too could be merely hearsay. To date no traces of a separate cult building have been found in Old Uppsala. Whether pagan activity sustained at the site of Old Uppsala in the mid-11th century or not, the archaeological and runological evidence discussed here demonstrates a clear Christian element in the populations residing in Old Uppsala and the neighbouring districts in first half of the 11th century onwards.

Abbreviations

Sö + number: refers to Södermanlands runinskrifter. Granskade och tolkade av E. Brate och E. Wessén. Sveriges runinskrifter 3 (Stockholm 1924–1936).

U + number: refers to Upplands runinskrifter. Granskade och tolkade av E. Wessén och S.B.F. Jansson. Sveriges runinskrifter 6–9 (Stockholm 1940–1958).

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V. Embodied Objects and Material Identities

The Enigmatic Stone Faces: Cult Images from the Iron Age?

Torun Zachrisson

Introduction

The tradition of placing log or branch-shaped human-like wooden figures on cultic sites in the Nordic countries starts in the late Bronze Age and continues through the Iron Age into the Viking Age (Oldeberg 1957; Capelle 1995; van den Sanden and Capelle 2002; Dahl 2007). These wooden images have been preserved in wetlands, where they have often proved to be the focus of a cultic site. Medieval Icelandic sagas mention that wooden anthropomorphic images (Old Norse *tréguð, skurðgoð, trémaðr, líkneski, stafr* and *hlutr*) occurred at cultic sites in Iceland and Norway. These were most often kept indoors in a hof, a pre-Christian cultic building intended for sacrificial feasts. Platforms/altars (Old Norse *stallr*, *stalli*) as well as other ritual objects could also be found inside (Sundqvist 2014, 113; de Vries 1970, 270; and Capelle 1995, 44). Anthropomorhic images of stone, by contrast, are unmentioned in these sources (Capelle 1995, 62) and yet three-dimensional human figures made of stone are part of prehistoric museum collections across Norway, Denmark and Sweden. All but one consist of a head of about the size of a human skull. Although none of the stone images have been discovered during an archaeological excavation, some of the contexts of discovery are highly detailed and open up the possibility that stone heads might have been part of pre-Christian sanctuaries. These artefacts have rarely been mentioned in scholarly literature, perhaps because they are difficult to date. Here Old Norse written sources are used to explore how a pre-Christian human-like image might have appeared, and parallels to these stone images are discussed.

Contexts for stone heads in the Nordic countries

Eight or possibly nine anthropomorphic stone images are known from the Nordic countries. From southern Norway there are three stone heads: from Rossland in Rogaland, Lunde on Lista in Vest-Agder and from somewhere in Sunnmøre (tiny Oddebildet from Setesdal in southern Norway, Birkeli 1943, 172 not included). From Denmark two have been found in Glejbjerg and Bramminge in south-western Jutland. And finally two stone heads have been found in Ravlunda in Scania, in southern Sweden, and possibly an additional example, now lost, from Resmo on Öland (Zachrisson 2013). In addition there is a seated stone figure from Örberga in Västmanland, west of the lake Mälaren that is not discussed further here (see Zachrisson 2007). The stone heads from Ravlunda, as well as the one from Rossland, belong to contexts that can shed light on the milieux where anthropomorphic images might have once appeared.

The two stone heads from Ravlunda in Scania, southern Sweden, are almost totally unknown and have never been published, bar recognition by this author's local historical publication (Zachrisson 2013). The heads were classified as sculpture of unknown date when they were incorporated in the collections of the Swedish History Museum in Stockholm in 1920 and kept among medieval stone sculpture. One of the stone heads is of sandstone, 22 cm in height, and shows a male with marked lips and chin, who seems to be wearing a helmet with cheek guards (Fig 1: inventory no 16525). According to the register it was found in: 'Stigalund's wood', one of the so-called 'groves' in the middle of the wood south of the estuary of Skepparpsån, probably in the western part of the copses. The whole wood is only a few hundred metres in diameter. The other stone head is 27 cm in height and executed in granite and shows a male with marked eyebrows, nose and mouth, rendering it a stern appearance (Fig 2, inventory no 16511). This example was found between Ravlunda Church and the dolmen at Haväng. It could have been recovered somewhere close by the findspot of the first head, since Stigalund lies about half way between the church and Haväng, but this remains unproven. These stone heads were once included in the stone collections, though thought to be missing for the last decade, but have recently been re-found.

Ravlunda, meaning the 'amber-grove', was already in the 18th century renowned for its remarkable finds. According to legends there was once a town called Malestad with a sacred grove at the mouth of the River Skepparpsån. Oral traditions also relate the discovery of five gold bracteates, and two gold foil figures or 'guldgubbar' at Stigalund — items now in the museum collection (Fabech and Näsman 2013, 77; Helgesson 2014, 33f). Charlotte Fabech with Bertil Helgesson has made Ravlunda known as a central place-complex (Fabech 1998; Helgesson 2002; 2013). By metal-detecting and small-scale excavations, they have been able to point to places for possible settlements, workshops, sanctuaries and a large burial ground. The archaeological finds date to the period c AD



Figure 1. Ravlunda, Scania — the stone head found in Stigalund (SHM 16525). Photograph: Ola Myrin, Swedish History Museum.

300–1100 (Fabech and Näsman 2013, 77; Helgesson 2014, 31; Helgesson 2002, 68). Fieldnames on historical maps indicate an assembly site and a landing place at the river mouth. The legal rights (*birkerett*) for the market place were attested in a 15th-century document (Fabech 1998, 160). In AD 1231 Ravlunda was listed in King Valdemar's cadastral as *kongelev* of the Danish king. Altogether this indicates a central place of supra-regional importance (Fig 3, Helgesson 2014, fig 32).

The grove where the first stone head was found is called *Ravlunda* grove or *Stigalund*, which according to Stefan Brink can be interpreted as the 'fenced-in part of the grove' (Fabech 1998, 158). The wood south of the river is called *Lunnane*, 'the groves', and thus may have contained several groves, including the fenced one. The fen directly north-east of Stigalund is marked on historical maps as *Ahlguthkärret*, which can be interpreted as 'the fen of the Algodi'. A *godi* was a chieftain and religious leader of a settlement district, a title still in use in place names and in runic inscriptions from Viking-Age Denmark (Moltke 1976; Fabech 1998, 159). The beginning of the name of the hundred contains the Nordic word element **al* which is most often interpreted as 'sanctuary' and is also connected with 'protected' (Andersson 1992, 88; Vikstrand 2001, 191; Nyman 2014), although this has been questioned (Brink 1992; Elmevik 2004). *Al-* is comparable to Gothic *ahls* 'temple', proto-English *ealh* and proto-Saxon *alah*, and also occurs in old Baltic languages such as proto-Lithuanian *elkas*, *alkas*, with the meaning 'holy grove, holy place, place at a height where sacrifices are made' (Vikstrand 2001, 191). Alsmarc belongs to a group of district names across the Nordic countries referring to units ranging in size from a parish to a hundred that all contain the element *al*. These name types may have referred to a protected or sacred place in the centre of the district (Vikstrand 2001, 196).

One of the stone heads found in Norway has likewise been recovered from a rich Iron-Age context. The 'Rossland-God' is a stone head housed in Dalene Folkemuseum in southern Norway. It can be contextually dated to the late Roman Iron Age to the Migration Period. It is larger than the other examples measuring 58 cm in height. The figure has a stern look with marked eyebrows, eyes, nose, lips and chin (Fig 4). Barbro Dahl provides a thorough analysis of the head and its context (2003, 14f). The stone head was found in Rossland in Sokndal, Rogaland, in the 18th century. Close by were two, perhaps three, stone troughs (1 x 0.43 m and 0.76 x 0.38 m respectively). There was also a base, 0.43 m in height that may have been carved as a support for the head (Dahl 2003, 78f). The stone head, base and troughs are made out of a local rock (labradorit or norrit) and seem to have been manufactured locally. They were found in boulder terrain at the foot of the hill Haugen, which dominates the scenery. On the hill there is a stone table called 'the Altar' or *Skammelen*: a large slab, 1.25 x 0.80 m, placed on two stone legs. Presumably the stone head and troughs once stood there as well, but were thrown down. A right hand blow has damaged the nose on the head: a recognised method used to deprive stone images of their spirit and power (Broby-Johansen 1967, 162). The Rossland-god has been interpreted as a cult image, perhaps especially related to offerings of food (Birkeli 1943, 106).

The stone head was found in the vicinity of a settlement, still visible in the landscape today through its house



Figure 2. The stone head found between Ravlunda church and the Haväng (SHM 16511). Photograph: Ola Myrin, Swedish History Museum.

foundations. These are of well known type, dating roughly to the late Roman Iron Age and the Migration Period (Myhre 2002, 170f). There are also several prehistoric mounds, cairns and long mounds/cairns as well as standing stones. The latter carry names like *Gygro*, 'the giantess' and *Pinkesteinen*, 'the pee stone'. A nearby hill in the surroundings is called *Trollstovo*, 'the troll cottage', because of a deep crack reaching five metres into the rock that forms a shelter (Dahl 2003, 6). There are clearly rich oral traditions in the area. The place name Rossland, derives from Old Norse *hross*: horse and field. In the vicinity there are place names carrying the names of the gods Freyr and Freya: in the south *Frøyjuland* and in the north-east *Frøytlog*, the latter is probably a district name — Freyr's Law — linking the god to the territorial division. To the north-west lie *Frøyholmen, Frøysundet* and *Frøysåkeren*, the islet connected to the goddess Freya, and the sound and field connected with the god Freyr. There is also a settlement called *Bø*, the foremost farm (Dahl 2003, 10f; Sandes and Stemshaug 1976, 118). No archaeological excavations have been undertaken at the site, but the combination of the stone head, altar and troughs, together with the place names and oral traditions, speak in favour of this being a sanctuary, probably from the mid-Iron Age (Lexow 1964, 82). The stone head can only be dated contextually to the same time period

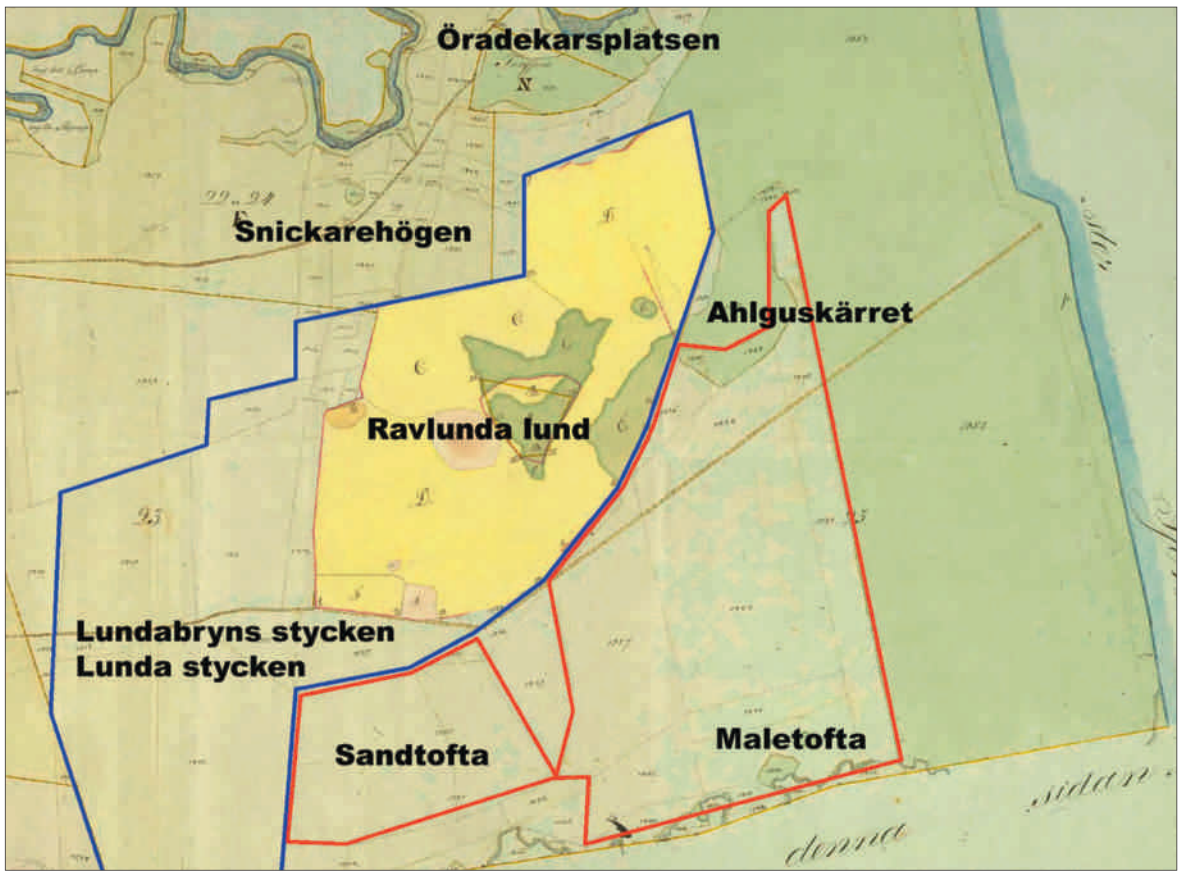

Figure 3. Map of Ravlunda with Ravlunda lund or the grove Stigelund marked close to Ahlgukärret to the right. After Helgesson 2014, fig 32.



Figure 4. The Rossland stone head from Rogaland. After Dahl 2003, fig 34.

as the graves and the house foundations, thus roughly the late Roman Iron Age to the Migration Period.

Another stone head was found further south in Norway in the 1950s in an old stonewall (Stylegar pers comm) on the farm property Lunde nr 6, part 55 by Lundevågen (Fig 5). It is however unclear if *Lunde*, meaning 'the grove', refers to a holy grove or not, but this site lies in an area rich in continental imports from the late Roman Iron Age and the Migration Period at Lista, Vest-Agder (Stylegar 2007, 107, 141). Most of the finds are related to a large coastal burial ground with well-furnished graves situated beside a bay. The finds concentrations around Lundevågen have made researchers suggest that there might have been a trading place in the late Roman Iron Age and the Migration Period (Grieg 1938; Slomann 1961). Traces of a hall building probably from the late Roman Iron Age were discovered some years ago (Stylegar 2006, 426f). A thick cultural layer has also been detected at the site, but not yet excavated (Stylegar and Appel 2004). The stone face is about the size of a human head, round and with oval eyes, a marked nose and a straight mouth. It seems to be furnished with some sort of headgear — a helmet or a special kind of hairstyle.

A third stone head from mid-Norway is on display in the Stone Age exhibition in the Museum of Bergen. This egg-shaped head is 24.5 cm in height and manufactured from porphyry. The eyebrows, eyes and nose are marked, and the lips parted (Fig 6). The stone head has existed since earlier times in the museum, with no other information than the signature: 'Søndmør' (University Museum Bergen, inventory no B7699). Sunnmøre is a large region of over 5000 sq km and the exact find spot remains unknown.

The two stone heads that are known from south-western Jutland in Denmark differ from the rest by having three faces. In the 1950s a stone head that stood in a garden in the village Glejbjerg some 30 km east of the coast of western Jutland was presented in an article in *Kuml* by a local priest Knud Høgsbro Østergaard (1954, 57f). The head is 27 cm in diameter and made of granite; two of the faces are elaborate while the third seems unfinished (Fig 7). The faces have marked eyebrows, round distinct eyes, straight and marked noses, and full lips. One of the faces has a triangular mark on the forehead and a collar/halo/ring that surrounds the face. The other elaborate face has a triangular diadem with an inscribed bead at the forehead. In addition, there is a triangular-shaped stone with a stone face in relief that appears to have functioned as the base of the stone head. The stone head was originally placed close to a spring so rich in water that it formed a small pool (Høgsbro Østergaard 1954, 62). In a neighbouring village Bramminge, situated only 15 km away, there is a similar granite stone head 31 cm in diameter with three faces that have marked eyebrows and eyes, straight noses and full lips. Two of the faces have the same type of triangular ornaments at the foreheads as the Glejbjerg-head: one of them has the triangle with the inscribed bead; the other has a triangular mark together with the collar/halo/ring around the face. At the neck there is an additional ring or neck-ring. Letters have been added later between the faces.

The dating for the Jutish stone heads has been discussed and it has been suggested that they could emanate from the Christian period, but mostly they have been interpreted as Celtic (Høgsbro Østergaard 1954, 62f; Ross 1967). The stone head from Corleck, Co Cavon, Ireland is considered to be the best parallel to the Jutish stone heads (Ross 1967, 114,



Figure 5. The stone head from Lunde in Lista. Photograph: F.-A. Stylegar.



Figure 6. The Sunnmøre stone head. Photograph: T. Zachrisson.

116). The notion of three-headed creatures was present in Jutland in the early Migration Period, however, demonstrated by an image depicted on the smaller of the Gallehus' horns discovered in south-western Jutland (Jensen 2004, 121). Gods with multiple faces are also known from the Slavonic area — an area that Denmark was in close contact with during the Viking Age through intermarriages, migrations and trade (Capelle 1995, 52f; Sanden and Capelle 2002; see also Lamm 1985). Neither the multiple faced gods from the Slavonic region, nor the one depicted on the Gallehus horns, however, carry the halo/ring.



Figure 7. The three-faced stone head from Glejbjerg, Jutland. After Høgsbro Østergaard 1954, 55.

On the island Öland in Sweden, half of a carved human stone face was found in 1911 in a field north of Resmo spring in Resmo parish (Johansson 1955, 17f). Resmo spring is the most famous spring on Öland that once had enough water to power a watermill. According to oral traditions the spring played a role in the Christianisation of Öland. It had been in continued use as a holy spring until the 19th century (Zachrisson 2013). Unfortunately the stone head was soon lost, but the combination of a stone head and a powerful spring is reminiscent of the context of the stone head from Glejbjerg.

Parallels

The human head is reckoned as the most typical of Celtic symbols (Ross 1967, 61). The cult of the head was an important part of the Celtic religion and can be found in iconography and sculpture and is mentioned by classical writers. Heads were thought to be able to act independently on their own, and thus not only represent the whole, but operate as if the full body was not needed (Ross 1967, 156–8; Fredengren forthcoming, 17). A 10th-century Irish written source mentions the Battle of Allen in AD 722, where, after the battle, the decapitated heads of heroes were tended to. One head that was placed on a pillar performed a chant, another was washed and food placed in front of it as if participating in the post-battle feast (Ross 1967, 156f). Human heads that were placed on standing stones were thought to make the stones move and act (Ross 1967, 147, 159; Fredengren forthcoming, 18). Although stone heads are closely associated with Celtic culture, the most numerous depicted heads in Britain and Gaul can be dated to the

Romano-Celtic period (Green 1986, 218). Researchers have therefore suggested that these stone gods may have been a result of the cultural encounter between the abstract Celtic art tradition and the monumental stone carving traditions of the Romans (Toynbee 1962, 16; Green 1986, 224).

Stone heads have sometimes been found in shrines in the British Isles. Recently a carved stone head was found close to an excavated small altar. The altar was placed in a bathhouse at the Roman fort of Binchester, in County Durham. Binchester was one of the largest forts in the region and situated on the Roman road between York and Hadrian's Wall. The carved stone head is c 20 cm in height, made of sandstone and dated to the 2nd or 3rd century AD. The style of the stone head is linked to regional Romano-British traditions. A similar example, with an inscription that identifies the relief as the god Antenociticus, was found in 1862 at Newcastle upon Tyne, not far from Durham. Remains of a forearm and a leg were also recovered, suggesting that the head may have belonged to a life-size statue. Antenociticus was a deity approached in relation to military affairs. This Romano-Celtic male deity is supposed to have been worshipped locally at Hadrian's wall and belongs to a type of divinity associated more broadly with the frontier regions of the Empire (Binchester International Field School 2014).

Discussion

There was strong Roman influence on the Nordic societies: on infrastructure, dress, tableware, religion and burial customs (Lund Hansen 1987; Kaliff and Sundqvist 2004; Andrén 2014; Andersson 2013). We can count stone sculpture among these influences. An indigenous stone sculptural tradition began in the late Roman Iron Age in Sweden when picture stones, inspired by the Roman tombstone tradition, were manufactured in the Mälar Valley and on Gotland (Andrén 2011, 50f; Lindqvist 1941, 91f; Holmqvist 1952). Such innovations are also known from Norway where a similar type of development occurred (cf Myhre 2006, 241f). The stone heads might be part of this tradition, emerging in the late Roman Iron Age. That two of the stone heads appear at the central place Ravlunda seems in many ways logical. Central places were milieus where imported objects, wealth and new lifestyles inspired by the Roman culture emerged, including for example the consumption of bread (Zachrisson 2004; Bergström 2007) and the use of surgical instruments (Frølich 2011). The central places have been divided into two major groups: central places of the first and second generation (Jørgensen 2009). In the first group we find Gudme and Sorte Muld in Denmark and Uppåkra and Helgö in Sweden, which begin in the pre-Roman or Roman Iron Age. To these we can now add Västra Vång in Blekinge. Examples of the second generation sites are Tissø, Lejre and Toftegård on Zealand and Järrestad in Skåne.

The core area of a central place is normally dominated by a short and high hall designed for ritual purposes, in combination with a longer residential building (Jørgensen 2009). Already in the first generation of central places we find this specific building constructed for ritual purposes. It has been highlighted through the excavations in Uppåkra, Sweden, where the structure has been interpreted as a cultic building — a Norse pagan temple. It was erected c AD 200 and rebuilt at least six times on the same spot and was in continuous use until the 950s (Larsson and Lenntorp 2004; Larsson and Söderberg 2012). A central place not only contained buildings where religious rituals took place indoors, but there could also be open-air cultic sites in contemporaneous use, as in Tissø and Helgö (Jørgensen 2009; Zachrisson 2004). At the outdoor cultic site at the central place Helgö there were altars that seem to have been part of the cultic site by the rock (Zachrisson 2004). Whether the fenced in grove at Ravlunda also could have contained altars remains unknown. A central place linked to a territorial district such as Ravlunda in Alsmarc's herred would, however, be the place where we would start to search for Romano-Germanic cultural encounters. The hundreds/herreds were formed early to meet the needs of crews for ships (Andersson 2000; 2004), probably already in the mid-Iron Age. The martial society in the Nordic countries was heavily influenced by the encounter with the Romans at *Limes* (Lund Hansen 1987; Andrén 2014; Andersson 2013).

Should we be surprised that the stone heads presented above have such a crude appearance? Perhaps not: parts of life-size Roman bronze statues have been found in Gudme on Fyn in Denmark (Jensen 2003, 426) and on Gotland, Sweden (Swedish History Museum Inventory no 11375). But indigenous anthropomorphic figures of bronze were made on Öland in Sweden and on Fyn in Denmark during the Roman Iron Age/Migration Period. These statuettes culturally transformed the 'Roman look'. Some of these bronzes have special hairstyles/helmets and their facial expressions and looks can be compared with the stone heads (Lund Hansen 1987, 228; Andersson and Dunér 2004, 77f).

The importance of heads

Boulders in the form of human heads could serve as the foci of cult-sites in wetlands in the Nordic countries and did so at the beginning of the Iron Age in Vendsyssel, northern Jutland, Denmark (Friis 1971, 41). A natural boulder, looking like a head with one eye and grim smile, was found in a bog in Brønderslev, Hjørring amt. It was surrounded by masses of pottery dating from the late pre-Roman and the early Roman Iron Age (Becker 1961, 102; Friis 1971, 49f; Ross 1967, pl 1b–1c). In the vicinity in a bog in Jerslev, pits filled with six human juvenile skulls, a skull of a dog and a skull from an older stallion were found and pots had also been deposited.

The cultic site was in use between AD 1 and 150 (pers comm Vendsyssel Museum). This shows that human heads could represent one of the main sacrificial objects in the early Roman period in Denmark. Another extraordinary find comes from Jæren in south-western Norway where the skulls of four, perhaps five infants were discovered in a 'twin' spring in a bog. The skulls all belonged to the Roman Iron Age (Lillehammer 2011). Human skulls as well as other skeletal parts from the pre-Roman Iron Age/Roman Iron Age have been found in a wetland in Hedmark, Norway (Sellevold 2011; Resi 2011). The human skeletal material from wetlands in Sweden is rich and under analysis and publication by archaeologist Christina Fredengren and osteologist Camilla Löfqvist. Heads have thus played an important part at certain ritual sites in the Roman Iron Age in the Nordic countries.

In Norse mythology the talking head plays a vital role. In *Ynglinga saga*, ch 4, Snorri Sturluson (Snorri Sturluson *Heimskringla*) describes how the wise Mímir was beheaded while a hostage in a war, but Odin tended the head with herbs, chanted over it and gave it powers to speak and reveal secrets to him. In ch 7 we are told that Mímir's head is with Odin where it reveals information from other worlds. In *Gylfaginning* 14 (Snorri Sturluson *Edda*), Snorri relates how Mímir owns the spring of wisdom and that he is full of wisdom because he drinks from the spring. Mímir is closely related to Odin, who gets his knowledge from drinking from Mímir's well, but he has had to pawn his eye for this right. At Ragnarok Odin gets advice from Mímir at the spring (*Gylfaginning* 50). But the relation between Mímir's spring and Mímir's head is nevertheless difficult to define (Simek 1993, 216f).

The historian of religions Anders Hultgård, has pointed to two historical sources from the Viking Age that mention that heads of sacrificial animals were hung in a sacred grove or on placed on poles. Ibn Fadlan describes his encounter with Rûs at Volga in the 9th century. The men thanked their gods by slaughtering animals, the meat they gave away as gifts, but the heads of the sacrificial animals were hung on a large idol (Montgomery 2000, 10f). Adam of Bremen in the late 11th century mentions that sacrifices of animals and humans took place every ninth year in Old Uppsala (Adam of Bremen, Book IV). There is some confusion over what body parts were given to the gods and what were given to the participants of the sacrificial meal. In the text there is an opposition between capita 'whereas the bodies', which can only be explained if 'capita' refers to heads (Hultgård 1997, 32 no 62). It is quite probable that Adam refers to rituals where the meat of the sacrificial animals was consumed, while the heads of the same animals were consecrated to the gods and hung in a sacred grove (Hultgård 1997, 32 no 62). But if humans were sacrificed it was probably whole human bodies that were hung in trees and not solely heads (Hultgård 1997, 36 no 76). The head was a powerful symbol in various ways and connected with the otherworld during the Iron Age and through until the Viking Age.

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Defining and Transcending Boundaries in Style I Animal Art

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Introduction

This paper explores the application of boundaries in Migration-Period Nordic animal art, more precisely in the Style I artistic repertoires of 5th–6th century South West Norway. The concept of boundaries is discussed with regard to motifs and motif elements, the composition and the overall structure of objects. Boundaries are used here as an analytical tool; whether the idea of boundaries had any meaning for the producer of these objects is of minor importance, but the existence of an inherent meaning as an explicit idea or possibility is not ruled out. Style I (AD 450/460–550) developed in Scandinavia after the decline of the Western Roman Empire and was soon found across large parts of Europe (cf Haseloff 1981; for an overview, Ament 2005, 586–94; Høilund Nielsen and Kristoffersen 2002 with further references). The preceding Nydam Style (AD 400–450/460) was influenced by the art of small-scale metalworking found in the northern Roman provinces and, according to Haseloff, was brought to Scandinavia by goldsmiths previously engaged in the workshops within the Empire (Haseloff 1981, 16–17). While the late-Roman connection, with its traces of classical composition and motifs, still can be found within the Nydam Style, Style I developed into an individual artistic expression. In Norway, Style I is placed within the chronological phase D2 (a and b) (AD 450/460–550) (Kristoffersen 1999, 97–8, 109; Kristoffersen and Magnus 2010, 62–82, for English summary see 93–4). The style is characterised by masses of stylised animal figures covering the surface, sometimes mixed with human elements. The high relief, combined with the shining surface shifting in light and shadow, creates an illusion of living, crawling animals (see discussion in Kristoffersen 2000, 267–9 and discusssion on aesthetics in Maquet 1986 and Morphy 1996, 181, and arguments for a 'technology of enchantment' in Gell 1996). In Norway, art forms using stylised animals continued to develop in the Merovingian and Viking periods and can be seen 700 years later in the decorative portals of stave churches that exemplify the Urnes style of the 11th century.

Discussion of borders has been featured in previous discussions of Style I art; for example, general discussions of typology concerning Nydam Style and Style I on relief brooches (e.g. Nissen Meyer 1935; Haseloff 1981; Hines 1997) consider the use of borders due to the structure of the brooches. Concepts of 'boundedness' and 'transformation' are also featured in many explorations of Style I and later animal styles (e.g. Bakka 1959; Danielsson 2007; Capelle 2004; Hed Jakobsson 2002; Hedeager 2004; 2011; Jennbert 2011; Johansen 1997; Lange 2005; Leigh 1984; Lundborg 2006; Martin 2013; Neiss 2009; Roth 1986; Vierck 1967; Zachrisson 1998; as well as by the present author, e.g. Kristoffersen 1995; 2000; 2008; 2010). The principles outlined below are to some extent found in descriptions from the earliest Scandinavian studies of Style I (Müller 1880; Salin 1904; Söderberg 1905). The focus in early discussions is often accuracy in terms of describing the ornaments that in later studies are defined as principles of the style (for a general discussion of similar principles in so called 'primitive' art forms, see Lévi-Strauss 1963, 246–7, discussed in relation to Style I in Kristoffersen 1995). Explanations for distinct motifs or elements have changed over the years. More recently, researchers have explored the idea of boundedness in art and underlined that establishing boundaries necessitates the concept of transcending them, rendering boundaries as 'loci of tension, stress, ambiguity and anxiety' (Conkey 1982, 116–17).

This paper introduces a similar structuring element to the discourse on Style I animal art by arguing that the definition or underlining of boundaries in this art form, at the same time promotes the concept of transcending boundaries. This idea is taken up in relation to the Migration-Period workshops of South West Norway. The objects under scrutiny are relief brooches and clasps adorned with Style I (5th and early 6th century) as well as decorated foils and bracteates. The majority are from the counties of Vest-Agder and Rogaland, which are rich in Migration-Period sites and richly equipped graves. There are c 70 relief brooches, clasps and foils and around the same number of gold bracteates. This metalwork collection attests to outstanding craft traditions: the brooches are decorated with an abundance of distinctive and expressive details and are characterised by their quality, as well as the expression of creativity and innovation.

The typology of brooches of type R256–R262 (Rygh 1885, fig 256–62) has been discussed in depth (see Nissen Meyer 1935; Sjøvold 1993; Shetelig 1906; 1912; 1914; Bakka 1973; 1977; and Hines 1997). Although based on outdated methods Nissen Meyer's classification into two series (*Fibeln mit dachförmigem Fuss* and *Fibeln mit planem Fuss*) and six

'Stadien' or stages is still useful (Nissen Meyer 1935, 99–104). The brooches in the early Stadien are chronologically placed in the phases D1 (AD 400–450) (Stadien 1–2) and D2a (AD 450–500) (Stadien 3–4), whereas the brooches in the later Stadien are placed in D2b (AD 500–550) (Stadien 5–6) (Kristoffersen 1999; Kristoffersen and Magnus 2010). The transition from D1 to D2a marks the shift from Nydam style to Style I which is thought to have taken place c AD 460 (Rau 2010, 360).

It is argued here that a set of structuring principles can be identified in animal art that communicate the boundedness or bounded nature of designs: motifs are kept within strict frames and panels; motifs can be shaped by these panels; frames are emphasised; a strict symmetry is often adhered to; there are bodies of humans, animals and creatures that do not mingle or entangle; and creatures that keep to their species (humans, animals or birds). Alongside this are traits that, in contradistinction, emphasise the transcendence of limits and boundaries: broken or complex symmetry; motifs that change according to perspective e.g. en-face, half en-face and profile; bodies that do mingle or entangle; and hybrid creatures that are not species specific. Finally, concerning the relationship between ornament and object, it is argued that borders can be crossed into the realm of magic.

Frames and panels

The frames serve a purpose in the process of casting (Arrhenius 1973, 27), and in addition they structure the surface of the brooch and emphasise the shape (Fig 1). The frames keep the motifs strictly within their borders and similar motifs, often identically situated, are found within the same panels on several brooches and bracteates. There is a single brooch where the figures appear to be trying to escape; the Ågedal brooch (Ågedal, Audnedal, B3410 – Sjøvold 1993, N29) has figures that are interpreted as small hands gripping the upper edge of the outer frame of the head plate (Fig 3.3) (for a discussion on hands and gestures, see Brundle 2013). The frames also dictate the shape of the panels, which, in turn, strongly influence the form of the motifs, be they human or animal figures in terms of the position of the bodies and organisation of the limbs. This is generally evidenced on many objects: relief brooches, bracteates and decorated foils on glass beakers all display animal and human figures that are restricted and shaped by the panels they are presented within.

The frames themselves are often emphasised and stand out from the gilded surface through the use of a contrasting relief pattern or a contrasting colour, such as silver patterned by niello (see examples on such patterns in Salin 1904, 160, fig 370). There are exquisite examples among the Nydam brooches and also among the Stadium 5-brooches, where elaboration through different techniques is typical. This trait is very dependent on the quality of the workmanship and is also chronologically delimited.



Figure 1. Square-headed relief brooch from Hauge, Klepp, Rogaland. L 160 mm. Photograph © The Archive, University Museum of Bergen.

Strict symmetry and broken or complex symmetry

Symmetry in Nordic Migration-Period animal art is discussed by Holmqvist, in connection with the decorated strip of foils on repaired glass vessels (Holmqvist 1951; later discussion by Hårdh 2004, see also Kristoffersen 1995; 2008). It has also been extensively discussed with regard to the more regular composition of Style II (Holmqvist 1955, 52f; see Ørsnes 1966, 40 for definitions). Most Migration-Period relief brooches are composed with a strict symmetrical order in terms of the overall composition. At first sight, the ornamented surface also evokes an impression of symmetry, but on closer observation the symmetric order can be broken within the structure.

On brooches with complex, interlaced ornamentation, such as the Hauge brooch (Klepp, Rogaland, B4000 – Sjøvold 1993, N34), the organisation of bodies, animal or human, is not symmetrically composed (Fig 1). The impression is, however, of a balanced structure because of the symmetrical structure of the shape, panels and frames. On other brooches where motifs are symmetrically composed, the balance might be disturbed by small details. Examples of such broken symmetry, which is probably deliberate, can be found in the motif of the antithetic animals in the inner/central head plate panel of the Stadium 6 brooch from Syre (Karmøy, county of Rogaland, S9269, Sjøvold 1993, N46; Lindstrøm and Kristoffersen 2001, fig 7). The same is evident on the youngest Kvåle brooch (Sogndal, Sogn and Fjordane, B6516 – Sjøvold 1993, N55) (Figs 2.1–2.2). On the Syre brooch, the balance in the composition is disturbed by the discrepant position of the limbs. On the Kvåle brooch the animals are symmetric and harmonically composed, apart from the extensions on their heads — a curl on the left figure and two ears on the right. The golden scabbard mount from Åmdal (Farsund, Vest-Agder, C25077) (Fig 2.3), has a strict symmetrical composition apart from the hands of the side figures, which have raised thumbs, turned towards different directions. Highly elaborate symmetry with asymmetric detail is a typical aspect within a range of art forms often categorised as 'primitive' (Kristoffersen 1995).

The rectangular panels of decorated foils enable a composition which is different from brooches and bracteates. Complex symmetry of a certain kind is known to develop within this category of objects, namely a composition according to diagonal symmetric principles (discussed in Holmqvist 1951, 37). None of the four glass vessel foils from Jæren are known to be symmetric in their composition (some of them are fragmented), since the figures are presented next to each other and not in facing pairs. However, symmetry seems to be present on the glass vessel foil from Snartemo grave V, in the alternating and fragmented panels with entangled animals, one of which has a fish-like head (Hægebostad, Vest-Agder, C26001v – Hougen 1935, pl V, 2) (Fig 2.4). This type of complex symmetrical composition is also present on the golden sword handle of Snartemo (Hægebostad, Vest-Agder, C26001a – Hougen 1935, pls 1–2), discussed by Holmqvist (1951, 46), which represents an early example. Symmetrical composition is found in various, more or less balanced, versions on the handle, in the pairs of human-to-human, animal-to-animal and human-to-animal motifs on the square panels of both sides (Fig 2.5). Here the smith had total control over his work purposefully employing intricate and creative composition.

Mixed and mingled

The greater portion of figures whether human or animal, are not mingled or entangled. There are, however, within the body of material from South West Norway, examples of

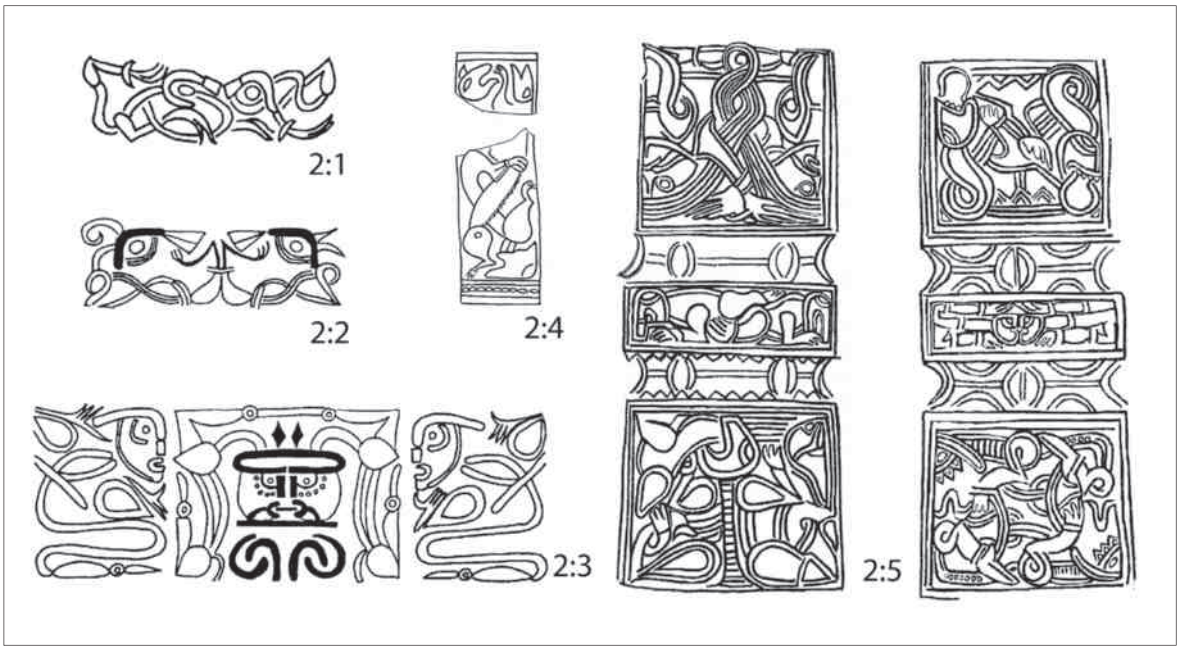

Figure 2. Central motifs on the head plates of the relief brooches from (2.1) Syre, Karmøy, Rogaland and (2.2) Kvåle, Sogndal, Sogn and Fjordane. (2.3) Gold scabbard mount from Åmdal, Farsund, Vest-Agder, all exemplifying symmetry broken by details. (2.4) Motifs on the panels from the Snartemo V, Hægebostad, Vest-Agder, glass vessel foil and (2.5) golden sword handle, both sides, exemplifying complex symmetry. Various scales. Drawings: S. Kristoffersen.

figures that do not keep to the boundaries of their bodies. The large Hauge-brooch (see Fig 1) is an excellent example where human and animal bodies are completely entangled. On a gold bracteate from Holta, Strand in Rogaland (Hauck et al. 1989, IK447) the animal bodies are entwined in a regular and symmetric way. Entwined human hair and hands are also found on the Snartemo sword handle (Fig 2.5). In a more abstract execution, on the central panel of the foot-plate of the mentioned Syre brooch (Fig 3.2), the bodies of two human beings are entangled much in the same way as the animals on the Holta bracteate.

A creative way of mingling figures is represented on some of the most elaborate masks on the largest relief brooches, on the foot-plate, side- or terminal lobes. The preserved mask on the Hauge brooch is composed of five different animal bodies: two pairs of identical animal figures and one sculptured animal on the extension of the nose (Fig 3.4). The pair closest to the eyes and nose of the mask have twisted bodies, with foot and head pointing in different directions. Two slim, birdlike animals make up the outline of the mask. All have extended mouths and only one foot. This mask is composed of animal bodies — or, from a different perspective the mask is fragmented into animal bodies (see discussion on the elusive mask in Gombrich 1984, 264ff, with further references). These five animals keep within the boundaries of their own bodies, and they do not mingle with the human elements of the mask, which are the eyes, eyebrows and nose, but they do mingle with the structure of the mask. Whether this motif represents a crossing of the boundaries between animal and human species is another question.

Crossing the boundaries: hybrids and transformations

Although many figures are either human or animal, there are those that transcend the species boundaries. This seems to be relatively frequent in South West Norway. Themes related to hybridity and transformation have been outlined by a number of scholars (e.g. Bakka 1959; Capelle 2004; Lundborg 2006; Haseloff 1981; Hedeager 2011; Holmqvist 1951; Neiss 2009; Roth 1986; Vierck 1967) and the author has previously discussed a group of figures in Style I where the animal and human elements are mingled in intertwined profiles and en-face figures, which occur on high-quality pieces such as the large square-headed brooches and the golden scabbard mounts (Kristoffersen 1995; 2000; Lindstrøm and Kristoffersen 2001, figs 3, 7) (see Fig 2.3). The definition of different elements in these motifs is, however, a demanding task; a grasp of a large body of material is required, encompassing both more realistic and

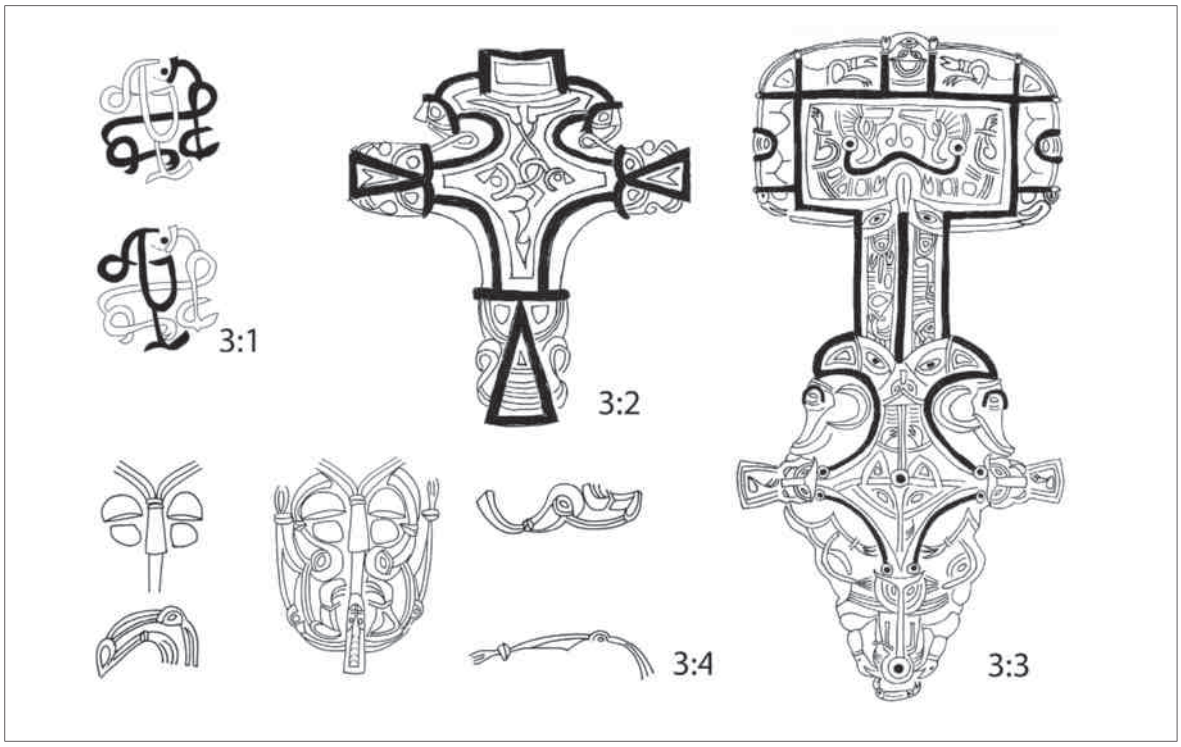

Figure 3. (3.1) The bracteate from Skjørestad, Sandnes, Rogaland, with mingling bodies of a rider and his horse. (3.2) The relief brooch from Syre, Karmøy, Rogaland, foot plate, with a central motif of entangled human bodies. (3.3) The relief brooch from Ågedal, Audnedal, Vest-Agder. (3.4) The mask on the preserved foot-plate side lobe on the relief brooch from Hauge, Klepp, Rogaland, with details. Various scales. Drawings: S. Kristoffersen.



Figure 4. Gilded bronze clasp from Melberg, Strand, Rogaland, with human en face mask changing into to animal profiles. Size 310 × 280 mm. Photograph © Åge Pedersen, Museum of Archaeology, University of Stavanger.

understandable motifs, as well as the ones in different stages of abstraction. Still, concerning the en-face masks, there is no definite indication as to whether they are human or animal. The masks are often associated with human elements, such as long hair, beards, diadems/helmets, human hands with a raised thumb, transverse lines forming bracelets. They might have a nose, sometimes defined as a nose protector on a helmet (discussions in Kendrick 1938). However, whiskers and muzzles are also often present.

The clasp from Melberg (Strand, Rogaland, S7577) (Fig 4) provides an excellent example of a figure changing from man to animal. Furthermore, it transgresses the boundaries between the perspectives of en-face and profile, because its function means that through opening and closing, the perspectives and the figural image actively changes. In a closed position it appears as a human-like en-face head with nose, eyes and beard. In an open position the en-face representation is changed into two animal heads in profile, and the beard is turned into the extended mouths so typical for the animal figures from this region. Figures that change from man to animal or from en-face to profile are also found on relief brooches in South West Norway. There are also examples on golden scabbard mounts such as that from Åmdal (Kristoffersen 1995, figs 10 and 8) (Fig 2.3).

I am no longer entirely convinced that similar changes from man to animal can be observed on gold bracteates. I previously argued in favour of this, for example in the discussion on one of the D-bracteates from Teig (Kristoffersen 2010, pl 1 and fig 1; see also Hauck et al. 1989, IK 536). The proposed hybrid motif is found in the antithetical heads just beneath the triangular field of the suspension loop. Within a single profile with one eye, the human nose and the curved beak are combined. Open to similar interpretations are the two small and identical bracteates from Fure (Hauck et al. 1986, IK 250; Kristoffersen 2012, fig 4b) and the bracteate from Skjørestad (Pesch 2007, IK605) (Fig 3.1) probably locally produced in Rogaland. The motif on the Fure bracteates could be perceived as a human head over two beasts, or as a human figure with limbs mingling, with, and changing into, the bodies of the beasts. If our interpretation of the motif on the Skjørestad-bracteate is correct (Carlsen and Kristoffersen 2003), it would represent a convincing case for a mingling of human and animal bodies, allegedly that between a rider and his horse.

Changing perspectives: en-face, profiles and half en-face?

The previous discussion has highlighted changing perspectives, and discussed and exemplified en-face figures, profiles and the interchange that can occur between them. The half en-face perspective was identified as a motif by Alenstam in her discussion on the relief brooches from Grönby (Alenstam 1949, 203f), where this motif is found on a pair of clasp buttons (Alenstam 1949, figs 8:12–8:13). I have previously argued that this is a deliberate and important motif in the animal art of South West Norway, and interpreted the expression of the half-face and hidden eye as a reference to the one-eyed god Odin (Kristoffersen 2008). This interpretation is based on human faces combined with hands with raised thumbs on the Rimestad glass vessel foil (Hå, Rogaland, S4268 – Kristoffersen 2008, fig 2) and figures in hidden positions underneath the upper guard on the Snartemo V sword. Another compelling example of the deliberate nature of this motif is the representation of two human heads on the head-plate of the small relief brooch from Høyland (Farsund, Vest-Agder, B5037 – Sjøvold 1993, N22) (Fig 5). It has a profile to the left and half en-face to the right, thus forming a motif that transgresses the boundaries between the perspectives of en-face and profile.

Crossing borders into the realm of magic

Our modern conception of an ornament is that it has a decorative function that is firmly located on the surface of the object. Such a distinction between ornament and object might, however, be challenged by an idea put forward by Lévi-Strauss (1963). He argues that an ornament in the shape of an animal, if it is executed in the 'correct' way, acts as a



Figure 5. Head plate from the small relief brooch from Høyland, Farsund, Vest-Agder, with the perspectives of profile (left) and half en face (right). Total length of the brooch 70 mm. Photograph © The Archive, University Museum of Bergen.

force that penetrates the surface and transforms the object into a new entity with the capabilities of an animal. Such an object harnesses qualities such as the strength and alertness of the animal, within the form of the object (see KRISTOFFERSEN 1995; 2000, 269ff; LINDSTRØM and KRISTOFFERSEN 2001). Furthermore, there would be a potential for capturing the transformative force itself in the objects, based on the transcendental qualities of the motifs in this art form. This is an interpretation that must be treated on a hypothetical level. It is, though, an understanding that provides us with an explanation of how an object could be conceived of as magical. It does go some way towards grasping the inexplicability of the animal figures. These figures are not depicted in order to be perceived, and although the object as a whole with its golden surface, with crawling, elusive figures, must have made an impact, and stimulated, caught and kept the attention of the observers (see discussion in KRISTOFFERSEN 2000, 267f), the singular motifs are not of a communicating nature. These are facing the object and not the observers, and arguably may be made to have an effect on the object, such as the infusing of magical force, or the transformation of the object in terms of new qualities. Transformative thinking is argued elsewhere to be traceable in other aspects of the Migration-Period *mentalité* (KRISTOFFERSEN 2010).

Lotte Hedeager (2004, 222ff) argues that the complexity and continuity of animal art and its élite associations indicate that it structurally incorporated overarching principles reflecting the perceived social and cosmic order of the Migration Period. The animal figures are presented in accordance with certain cultural codes and are considered mental representations of animals, integrated into the cognitive structures of the society. The bounded and transgressive motifs discussed here may thus reflect the perceived social and cultural transformations that were considered possible within these belief systems. The process of breaking down categories has been convincingly presented by Hedeager in her discussion on the 'constitution of otherness' (HEDEAGER 2011, 59–98), and the many varied ambiguous motifs bear witness to this, as well as the vitality and creativity invested in their production (KRISTOFFERSEN 2010). They may, however, perhaps be frequent and typical only within certain workshop traditions, such as those of South West Norway. Furthermore, this ambiguity exists within a more complex range of motifs, some of which express the very opposite tendency, thus highlighting the dynamic relationship and potency of bounded definition versus the transgression of defined and bounded areas.

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Abbreviations

B = Accession number, University Museum of Bergen
C = Accession number, Museum of Cultural History, University of Oslo
S = Accession number, Museum of Archaeology, University of Stavanger

All mentioned objects are described in the museum data base: <http://www.unimus.no/arkeologi/forskning/sok.php>.

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The Taplow Drinking Horn: Gripping-arm Gestures and Female Performance in the Migration Period

Lisa Brundle

In the past two decades human representational art in Migration-Period Scandinavia and early Anglo-Saxon England has been recognised as an important research topic, illuminating novel ways to explore performance and enactment (e.g. Gunnell 1995; Simek 2000; Watt 2004; Back Danielsson 2007; Hedeager 2011; Helmbrecht 2011; Brundle 2013). Largely, however, explorative research on bodily postures has been confined to full-bodied human representation. Little is known about gestural expressions in early Anglo-Saxon art. In this paper I investigate the gripping-arm posture: a rare gesture rendered on the large drinking horns from the high-status male barrow burial at Taplow (Buckinghamshire), dating to the early 7th century. Past research has established similarities between contemporary drinking vessels across Scandinavia and continental Europe (Holmqvist 1951; Hårdh 2004). Remarkably, however, this gesture is also portrayed on a small collection of 6th-century relief brooches from Norway; this connection and the potentially meaningful role of this gesture are explored here.

Style I and II

It has long been established that representations on gold bracteates of the Migration Period are probably founded upon long oral traditions; in addition the classical pictorial world of the Romans is thought to have heavily influenced Germanic art resulting in new interpretations (e.g. Roth 1986; Hauck 1992; Axboe 2007). Indeed anthropomorphic style elements may have been transmitted exclusively from the late-Roman world (Holmqvist 1951, 59). While figurative Germanic art seems to acknowledge Roman art styles (Kendrick 1938; Holmqvist 1955), the concealment of the human form is considered particularly 'un-Roman' (Capelle 2003, 41). Roman art was interpreted and reused in a new social world but in very different ways. In this new social context the human form was represented by 'ambiguous' and 'riddling' disarticulated body parts, half-bodied figures and heads and animal-human hybrids that often 'defy instant recognition' (Leigh 1984, 39; Dickinson 2002, 180; Webster 2011). These motifs, categorised as Style I, appear in the second half of the 5th century (Dickinson 2009) and are succeeded by Style II in the late 6th and early 7th centuries, which is characterised by ribbon or interlacing animal and human designs (Dickinson 2009, 1; Speake 1980, 17). Both styles were in use across Europe during the 5th and 6th centuries (Haseloff 1984) and the majority of objects ornamented with these motifs are found in female grave contexts (Dickinson 2009).

Gesture in early Anglo-Saxon art

The study of gestures in the Style I repertoire is limited to research on the raised-hand posture often portrayed with a splayed thumb. Over seven decades ago, this gesture was stylistically paralleled with Emperor Art rendered on medallions (Kendrick 1938, 77). Emperor Art includes a raised hand gesture — the *gestus* — which is considered a communicative symbol reflecting how when the emperor would speak the right hand would be raised (Barasch 1990, 17). Human faces and raised forearms have, as a consequence, long been related to this motif (Holmqvist 1955, 19; Dickinson 2002, 178). Capelle, however, has suggested that there are no clear examples of Roman medallions with a human figure with a splayed thumb (Capelle 2003, 40–1) and additional or contrasting interpretations or suggestions of stylistic influences remain absent in current work. Published literature on figurative motifs is largely focused on full-bodied human figures, relating their bodily postures and paraphernalia to deities from Norse mythology. The male figure, for example, on the belt buckle from Finglesham in Kent is naked (bar a horned helmet and a belt) and grips spears. Spears are attributes that have been linked with the god Odin (Davidson 1965). Recently, however, the convergence of characters from late written sources with early images has received criticism (Wicker 2003; Price 2006). Figural images that are assigned to particular gods from written sources do not always possess all the attributes that characterise the deity and could feasibly represent humans, other gods or supernatural beings (Price 2006).

As a consequence, current scholarship has shied away from 'pinning' down specific gods within the repertoire of early figurative imagery and has turned to exploring the possible significance of gestures. Simek and Ratke, for example, have noted a remarkable connection between gestural expressions rendered on *guldgubber* and medieval law texts, which could potentially provide fresh insights about the social and political dynamics between men and women (Simek 2000; Ratke

and Simek 2006). *Guldgubber* are small portable objects with human or animal forms created by *pressblech* (or stamping) technique or were cut out to form a figure; ranging from 7–8 mm to over 30 mm in height, these were in use c AD 550–800 (Watt 1999, 174). The variety and repeated human representational motifs identified among these tiny figurative portrayals indicate that messages and meaning may be contained in renditions of human gesture, posture and bodily paraphernalia (Watt 1999, 174). A *guldgubber*, for example, with a female figure grasping a man by his wrist is analogous with the symbolic gesture in the medieval Friedel-marriage (i.e. the widow marriage), the woman being the active party selecting her spouse (Ratke and Simek 2006, 261). Just like the written sources that describe deities, there is a considerable time gap between the medieval law texts and the *guldgubber*, but Simek defends this analogy by suggesting that legal procedures have a static and conservative nature (Simek 2002, 107). Scholars working in the social sciences and the humanities have noted that while labels in the common law can change over time, but modifications are often 'embellishments or refinements to an essentially unchanged core' (Kleinberger 2012, 900). In Scandinavia, material culture provides clear evidence that some gestures were in use throughout the Vendel period to the late 11th century, underscoring the potentially pervasive nature of legal and ceremonial gestures (Ratke 2009, 228). In contrast, limited evidence exists for a gestural tradition across the late Roman to the early medieval period in England. Developments in the portrayal of the human form occur apparently concurrently with dramatic social transformations such as the development of kingdoms, the expansion of economic networks, the increased presence and influence of the Christian Church and changes in mortuary practices (Brundle 2013; 2014). By the 7th century, Roman-style accessories were used in furnished burial, perhaps as a secular response to the presence of Christianity in eastern Britain and to aid the assertion and consolidation of kingship (Geake 1997, 295–7). In this era three-dimensional human figurines appear in the archaeological record in England (Brundle 2013; 2014). This may have resulted from connections to other North Sea communities: Scandinavia, for example, by the 7th century had tradition of full figural human representation and so did the Merovingian world (Young 2009; Helmbrecht 2011; Brundle 2013). It is also possible that such imagery marked the re-emergence of a figural tradition rooted in the Romano-British period (Brundle 2014). It is within these stylistic and archaeological contexts that the rare gripping-arm motif emerges in England.

Taplow

The Taplow drinking horns carry both Style I and II imagery: Style I animal-man designs and Style II intermingling zoomorphic creatures, some of which 'bite' their limbs. A rare depiction of a half-human, half-animal hybrid figure has one anthropomorphic hand raised to the face and the other appears to be rendered bending backwards. Perhaps gripping its own forearm or wrist (Fig 1a). The closest parallel in England is a design on a scabbard mount from Cambridgeshire (Fig 1c). Despite being recognised as one of the most noteworthy postures in Migration and Viking Scandinavian art (Haseloff 1970, 29; Watt 1999, 182; Simek 2002; Ratke and Simek 2006), this motif rendered on the Taplow drinking horn remains un-identified and unexplored. The Taplow burial has been considered to date to the early 7th century based on the artefact assemblage and is contemporary with other high-status male graves at Sutton Hoo (Mound One ship burial) and the chamber-grave at Prittlewell, Essex (Webster 2012, 63). The corpse at Taplow was deposited within this chamber-grave with an array of rich objects including a gold buckle, gold thread from a tapestry, six paired drinking horns of different sizes with silver fittings and four glass claw beakers among other objects (Webster 2007; Pollington 2008, 169). Stylistic links between the Taplow drinking vessels and a variety of receptacles from Scandinavia are well recognised (Holmqvist 1951; Hårdh 2004). These are all Migration-Period in date bar Taplow, and are decorated with animal and human designs along the rim mounts, but the contents of the designs are dissimilar. The motif on the Taplow horns carry Style I animal-men motifs, contrasting with the individual zoomorphic *and* anthropomorphic figures sported on the Scandinavian examples. What is more the Taplow motif grips its own forearm, but the human figures on the 6th-century vessel from Uppåkra and the 5th-century drinking horn from Söderby-Karl in Sweden 'seize' animal bodies (Figs 1d–e) (Holmqvist 1951, 59; Capelle 2003, fig 41; Hårdh 2004, 64, 82, figs 14 and 15). Figures that grip their own body or another human figure are rare, but are found on high-status objects such as the gold-leaf crosses from Cividale in Italy which carry several male human figures that appear to grip the ankle of the figure in-front and a B-bracteate from Sletner, Ostfold in Norway that carries a rendering of a male human figure clutching an ankle that is bent backwards (Figs 1f–g) (Haseloff 1986, 76, figs 16 and 17). The gripping-body motif, however, was not restricted to gold crosses and bracteates.

Stylistic parallels

This gesture is found within the Style I repertoire in Scandinavia. A first-hand examination of Migration-Period artefacts of southern and western Norway identified that this motif is carried on a small group of seven relief brooches. A relief brooch (B4000), for example, from Hauge, Klepp in Rogaland in western Norway carries an intricate complex of interlacing human arms and hands. There are two types of gesture: gripping hair (or possibly body parts) and grasping the wrist/forearm (Fig 2a). The inner panel of the head plate



Figure 1. Anthropomorphic designs with gripping-arms from the Migration Period. Drawings by L. Brundle unless otherwise stated. Not to scale. (a) Large drinking horns from Taplow (Buckinghamshire). (b) Bucket mount from Loveden Hill, after L Kerr in POLLINGTON et al. 2010, fig 13.54. (c) Scabbard mount from Great and Little Chishill in Cambridgeshire (PAS BH-A99B35). (d) Drinking vessel from Uppåkra, after B. Nilsson in HÅRDH 2004. (e) Drinking horn from Söderby-Karl, Sweden, after HOLMQVIST 1951. (f) B-bracteate from Sletner, Ostfold in Norway, after Haseloff 1986. (g) Gold leaf crosses from Cividale in Italy, after HASELOFF 1986.

is filled with zoomorphic or anthropomorphic heads and spindly arms that terminate with a four-digit hand. One of these hands has an opposable thumb. The other hands are similar in design and may also be anthropomorphic. Although it cannot be certified that the arms and hands belong to the same entity or which hand grasps which wrist, the headplate is riddled with interwoven arms and hands. Found in a high-status barrow burial and dated to c AD 500, this relief brooch was manufactured with a variety of metalworking techniques including filigree and garnet cloisonné, signalling a high-status piece (Kristoffersen 2000, 315–16). The finding of both an undecorated sword and a brooch in this grave indicates this was probably a male and female double burial (Kristoffersen 2000, 315–16). Other objects with decoration from this grave include the gold bracteate with a profile human face and a bird. Further objects include beads, presumed to be connected with the bracteate, a strike-a-light (stone belt), sandstone, eight small smooth-worn pebbles of red fine-grained rock, and a large oval stone and a grindstone (Kristoffersen 2000, 315–16).

Six other relief brooches from southern and western Norway carry similar designs (Figs 2b–e, g–h), but few details exist for these objects. A relief-brooch from Agedal, Bjelland, Vest-Agder (B3410i) carries an entwined ribbon design on the headplate, which might represent a body or hair (Fig 2b). Three hands are depicted, two of which appear to grip the body or hair. The footplate carries an anthropomorphic head with curved brows or hair, two eyes, a large triangular nose, two hands raised either side of its head (or possibly gripping its brow/hair) and a third hand that grips a limb (or other body part) (Fig 2c). A brooch from Hedmark in eastern Norway (C8154) is decorated with a similar design, implying that this gestural motif is not geographically restricted to western Norway (Fig 2f). These objects are not as ornately decorated, but it is feasible to suggest that not everyone within the community had access to resources to produce or bury their dead with such objects. The rarity of this motif also signals a restricted usage to some or 'special' individuals. It is worthy of note that this motif was not restricted to feminine objects. A comparable design is carried on the sword scabbard from a male grave in Snartemo, Vest-Agder (Fig 2i). This item was recovered from a cist mound burial and dates to c AD 500 (Magnus 2003, 49–50). The locket of the sword scabbard is rendered with elongated, interwoven skinny arms; a hand crosses over or grasps a limb or other bodily part. An examination of possible stylistic influences might illuminate further on this gripping motif and its particular connection to high-status individuals.

Stylistic influences

It is not new to find comparable Roman gestural expressions in the post-Roman world in England (as discussed above). Even though Scandinavia remained free of Imperial authority, items from the classical world were imported into Scandinavia (Jørgensen et al. 2003). During the transition from Late Antiquity to the 6th century there was extensive contact between the Mediterranean and the Nordic people (Grossi 2010, 2–3). Roman objects ended up in Scandinavia as 'war booty' or via ceremonial gift exchange, but by the late 4th century AD Roman goods ceased being used in social transactions (Hedeager 2011). Despite fundamental alterations in material culture, Roman, Gallo-Roman and Byzantine influences such as carving techniques and figural representation were repackaged into a new repertoire of meaning and significance (Hedeager 2011, 193, 195). If the very concept of figural composition derives from the Mediterranean, it is possible that other bodily expressions might stem from this classical world. Comparable 'gripping' gestures can be found in the Roman world. Grasping another person was a legal practice and leading someone by the hand and sometimes the wrist was perceived as a polite way of guiding an individual to the proper location (Barasch 1990, 134). Moreover, it was recognised as a symbolic gesture that implied taking possession of the grasped individual (Barasch 1990, 134). This gesture is represented in various 12th-century Italian illuminated manuscripts and is thought to have been a legal gesticulation (Barasch 1990, 91–95). Barasch has identified that such a gesture was used in scenes that portrayed powerlessness and incapacity — when individuals could not alter a terrible fate or 'avert impending doom' (Barasch 1990, 94).

As noted above, *guldgubber* figures that hold their wrist can, however, be linked to gestural expressions found in the 13th-century *Sachsenspiegel* (Figs 2k, li–iii) (Ratke and Simek 2006). This is the first significant manuscript that accounts German customs, laws and material culture, and influenced much of Europe for 300 years (Dobozy 1999, 1). It contains three types of gesture that involve grasping or covering the wrist or just above the wrist, and crossing wrists. These gestures fall under types 13a, 13b and 14 in Karl von Amira's illustrative catalogue of hand gestures, signifying a wounded person and the concept of incapacity (Figs 2j, li–iii) (Amira 1905). A comparable gesture is also represented in the 13th-century Norwegian *Speculum Regale* (the king's mirror), an educational work, which recounts that it is good manners to approach the king with the right hand grasping the left wrist (Rold 1993, 199, cited in Watt 1999, 182). There is thus a medieval European context for such gestures, which could be linked to the Roman gestural conventions set out above, or to indigenous Migration-Period traditions. What is clear is that such gestural repertoires, rooted in legal conduct, could sustain over exceptionally long time scales.

The figure gripping his forearm on the Taplow horns might be inspired by Roman and Mediterranean art or enduring legal conventions that appear much later in medieval documents. Influences drawn from the Roman world might have underpinned the emergence of this posture, perhaps



Figure 2. Gripping arm designs from Norway. Drawings by L. Brundle unless otherwise stated. Not to scale. (a) B4000 Hauge, headplate and footplate designs. (b) S9181g Eikeland farm no 38, Time. (c–d) B3410 Agedal, Bjelland, Vest-Agder, headplate and footplate design. (e) B6656 Sandal, Jolster, Sogn and Fjordane headplate. (f) C8154 Fonnas, Rendal, Hedmark footplate design. (g) S2276 Eigesund. (h) C7454 Gyland, Bakke, Vest-Agder, headplate design. (i) Sword scabbard from Snartemo, Vest-Agder. (j) Detail from the Sachsenspiegel. (k) Guldgubber 'wraith' from Bornholm Museum. (li–iii) Gestures 13a, 13b and 14 from the Sachsenspiegel, after Amira 1905.

connected to the use of *Romanitas* in displays of authority. On the Taplow horn, this figure raises its other hand to the face, covering its mouth, perhaps touching the cheek and it has a splayed thumb. While this could be an adaptation of Emperor Art (see above), these gestures are also found in Roman and Byzantine art. Grieving men and women were portrayed with a hand raised to the face (Maguire 2007, 139). There are also textual accounts from the Roman world of females 'scratching at their faces' as explicit expression of grief (Corbeill 2004, 83). Indeed expressions of grief were largely the role of women who are described as scratching their cheeks till blood flowed and pulling their hair in sorrow (Šterbenc Erker 2011, 44–46). It is interesting, therefore, that these raised hand motifs in the Migration Period are predominately carried on female objects, although a sword fitting from Great and Little Chishill (Cambridgeshire) carries a similar design showing a figure pulling or gripping its hair or even trying to scratch its body (Figs 2d–f). A similar interpretation has been recently suggested for a broadly contemporary figurine from Tissø, this female figure pulls on her braids and this 'braid-pulling' has been compared with 'gestures known from classical antiquity of people pulling their hair in despair as a gesture of mourning' (Arwill-Nordbladh 2012, 48).

Female gestural performance

If we accept the proposed connections between the motifs rendered on the drinking horn from Taplow, on brooches and on the sword from Chishill, it raises the question of whether such gestures represented a form of formal expression used in socio-political spheres. Figural images such as human figures wearing animal costumes on Migration-Period and Viking metalwork and tapestry have been considered as representations of real-life enactments or perceptions of reality that are based on earlier funerary traditions or mythology (Gunnell 1995; Davidson 1998; Price 2002). It is equally possible that other gestural motifs — such as the raised hand and gripping arm motif — also stem from real-life enactments. The expression of incapacity and the act of guiding or leading someone are not wholly dissimilar, resonating with performative acts within ritualised events — perhaps even the mortuary sphere. This gesture is predominately found on feminine objects. Historical sources illuminate how women were involved in early medieval funerary rituals. In Ibn Fadlan's account of a funeral of a Rus chieftain, he observed that an aged woman was involved in management and preparations of the sacrifice of a human victim and the laying out of the deceased and provisions for them (Davidson 1998, 166). In *Beowulf* there is reference to a woman reciting a dirge after the battle at Finnsburg, Queen Hildburh ordered her husband and brother's dead bodies to be positioned on a pyre and she grieved, 'lamenting in mournful lays' (Davidson 1998, 167). At a later stage in the text, Beowulf is burned at the cremation pyre and 'an aged woman with her hair bound up laments his death, predicting calamities and suffering' (Davidson 1998, 167). Although unproven, high-status or specialist females could have played an essential role in the management and preparation of the dead and mourning performances such as grieving, lamentation and speaking for the dead in this time period (Geake 2005, 262).

Although the drinking horn from Taplow was found in a male context, it does not imply that the objects were restricted to the male elite. Again, Icelandic literature might offer a plausible analogy for an association between female individuals and the drinking horns. Norse sagas describe that some high-status female individuals took on the role as cup-bearers (Enright 1996). Analogous to this, the binding of a contract as symbolised through the act of drinking is also recorded in a medieval legal custom. The drinking of *arrha* was a formal drinking ritual that signified the confirmation of a contract, Ratke and Simek suggest that this practice could also refer to the contract between two humans, e.g. the allegiance to a lord or a deity (Ratke and Simek 2006, 262). Many *guldgubber* of female individuals bear drinking horns and cups (Watt 2004), but the figures may not necessarily be offering liquid. These vessels could have been gifts or perhaps the figures were even drinking from the vessels (Price 2006, 180), perhaps even during special social situations such as a funeral. It should be noted that male figures are also depicted holding drinking vessels on *guldgubber* (Watt 2004), implying a complexity of gestural expressions connected to drink that are associated with male and female individuals in Scandinavia. Although there are no parallel images in early Anglo-Saxon England, the use of both Style I and Style II on the drinking horn could embody notions of gendered usage. The majority of Style I motifs are carried upon feminine objects (Dickinson 2009) and Style II is closely associated with objects found in male graves (Høilund Nielsen 1999). The blending of motifs on the horns could embody drinking traditions involving male and female individuals. While drinking horns are found in male graves, they may have been essential to male-female elite relations as well as male-male dynamics through the medium of women as servers with ceremonial roles (Enright 1996, 85).

Conclusion

This paper has explored the possible significance of a rare bodily gesture — the gripping motif — rendered on the Taplow large drinking horns. Stylistic analysis showed that this motif shares some similarity with drinking vessels in Scandinavia that carry a human gripping a creature; the Anglo-Saxon example grips his own body and is more aligned with a bracteate from Sletner and gold crosses from continental Europe. Despite these similarities, female dress fittings from western and southern Norway are perhaps closer in form to the Anglo-

Saxon gripping motif. These relief brooches carry spindly human arms with hands that appear to grip their own wrist or forearm or perhaps another figure. These bodily gestures are rendered in the *Sachsenspiegel*, a medieval law text, and similar motifs carry the meaning of incapacity and death. A similar meaning is given in the Roman period, gripping another person was a legal practice, as a means to guide an individual to the right location. The figure gripping his forearm or wrist on the large drinking horns from Taplow also raises his other hand to the face, evidently covering his mouth and touching the cheek. In Roman and Byzantine art, the gesture of covering the mouth and touching the cheek was used in expressions of mourning. Some motifs portrayed on relief brooches, which demonstrate similarity with the raised hand motif on the Taplow figure, show the action of gripping or pulling hair, a gestural expression also paralleled in Roman and medieval art in which individuals pulled at their hair and beards in gestures of lamentation. Together these gestures can be associated with concepts of incapacity, death, guiding and mourning suggestive of a connection to 6th-century funerary practices and traditions. The predominance of similar gestures on female dress fittings could imply a connection between the women wearing such motifs and these concepts, perhaps signalling their role as specialist individuals involved in funerary ceremony. The use of Style I and Style II on the Taplow drinking horns which were recovered in a male grave suggests an intentional blending of male and female associated imagery. Although drinking horns are found in male graves, they are crucial to female-male elite dynamics and male-male relations through the medium of female individuals as servers with ceremonial roles. This idea may have bound individuals together at feasts and in marital and martial contexts, and perhaps in funerary ceremony as well.

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Ontological Transitions and Liminality in Early Anglo-Saxon Female Life and Burial

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Deviant burial practices, marginal, boundary or isolated burials are a known phenomenon in early Anglo-Saxon mortuary ritual. Such practices served to negotiate the otherness of suspicious dead who stood outside established social and cosmological structures. Which aspects of the buried individual's life motivated their special burial treatment is often difficult to reconstruct archaeologically. Spatial liminality in the mortuary ritual of individuals with pathologies and trauma, physical anomalies, unusual causes of death or deaths in transitional stages of the life cycle suggests that early Anglo-Saxons conceived of these persons as socially liminal. The status of a liminal or transitional being may also have been acquired over a person's life trajectory through professional occupation, activities and authorities that granted them access to realms of human experience that stood outside the ordinary. However, such life-time occupations are difficult to grasp archaeologically.

Early Anglo-Saxon scholarship knows one group of people who qualify for treatment as 'liminal persons' based on their profession: the so-called *cunning women*. As powerful spiritual specialists and experts in benevolent magic, healing, conjuration and divination, they accessed the realm of the supernatural and mediated between the worlds. With few exceptions (Dickinson 1993; Geake 2003; Meaney 1981; Reynolds 2009), the place of such spiritual specialists within early Anglo-Saxon communities has received limited study.

This paper presents new results from a large-scale investigation of the early Anglo-Saxon girdle-hanger, a key-shaped pendant with an assumed function as a female symbol (Felder 2014). Based on a comparative study of archaeological, historical, ethnographic and folklore data, I argue that girdle-hangers formed a symbolic and amuletic component of the professional equipment of female spiritual specialists in early Anglo-Saxon households and communities. These specialists physically, psychologically and ritually guarded the passage of family members into the world of the living and the dead, through medical knowledge, ritual control, and summoning aids from the supernatural realm. Archaeologically they manifest in distinct costumes that incorporated amulets and collections of girdle items, allowing us to gain new insight into the archaeology of the early Anglo-Saxon *cunning woman*. As mediators between the worlds with access to spheres in which humans were corporeally and cosmologically in-between, these women could themselves evoke perceptions of otherness and liminality among their communities, who negotiated this ambivalence by granting them deviant, liminal or boundary burials.

Defining the girdle-hanger as a female dress item

Formally, girdle-hangers reference the shape of keys with T- or W-shaped terminals. However, they are flat-sectioned pendants cast from copper alloy and typically decorated on the front surface, sharing decorative features with other types of early Anglo-Saxon copper-alloy jewellery (Fig 1). Girdle-hangers are commonly suspended in pairs from a shackle-type construction of hoop and bar. The in situ evidence of the grave contents reveals that they were mostly carried inside girdle bags. Small numbers of girdle-hangers are found in mid- to late-5th-century cremations, but they are a typical phenomenon of late 5th- and 6th-century inhumation burial, dating no later than the later 6th century (Felder 2014, based on chronological evaluation of grave assemblages with girdle-hangers following current schemes by Hills and Lucy 2013, Hines and Bayliss 2013; and Penn and Brugmann 2007). They are exclusively distributed in east and north-east England (Fig 2). Of the individuals that could be sexed (n=21), 90% were identified as female, 83% of those with an assigned age (n=54) were adult (the remaining individuals including five aged 13–16 years and four of 6–12 years). Girdle-hangers are only found with selected adult women across a cemetery (Tab 1).

Girdle-hanger was established as a term for this particular artefact group during the 19th and early 20th century (Baldwin-Brown 1915; Fox 1923; Thomas 1882; Tymms 1853). Terms that describe different early Anglo-Saxon girdle items — girdle-hangers, keys, latch-lifters, chatelaines, openwork discs — are still being used inconsistently, occasionally interchangeably (Lethbridge 1931; Haughton and Powlesland 1999a, 235, 237, 268; Richardson 2005, 152), and some have used *girdle-hanger* as an umbrella term for all things hanging from the girdle (Evison 1987, 117). However, given their material properties and their specific social, spatial and chronological distribution, it is important that girdle-hangers are distinguished from, and not terminologically confused with, other types of girdle items (for a detailed discussion, see Felder 2014). Early Anglo-Saxon iron keys,

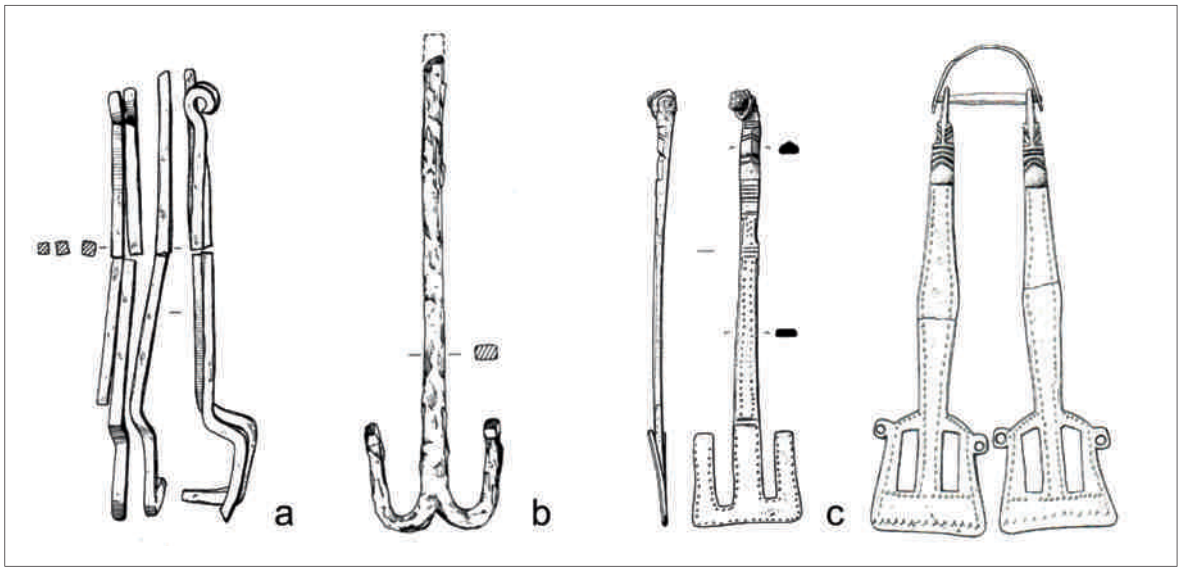

Figure 1. (a) Iron latch-lifters. (b) Iron key with W-terminal. (c) Copper-alloy girdle-hangers from Empingham (Adams and Jackson 1989; Hirst 1985; Timby 1996).

which have their own definition and terminology (*latch-lifters*, *T-keys;* Hines and Bayliss 2013; Malim and Hines 1998, 218) were implements used for lifting or sliding bolts of different lock constructions. A copper-alloy girdle-hanger is unlikely to have withstood the strain if used as a lifting or sliding device. On examination, no girdle-hangers could be shown to carry corresponding traces of material wear (similarly Kristoffersen [2004, 293] on Scandinavian ornamented model keys). Girdle-hangers are also distinctly different from *chatelaines*, which have been defined as 'one or more chains or rings hanging from the waist and carrying a collection of objects' (Geake 1997, 57–8), describing an *ensemble* of objects linked by long suspended, mostly iron-based complexes with several rings, wire or rod elements, which may originate in the 6th, but typically date to the 7th and 8th centuries.

Early Anglo-Saxon scholarship has long viewed the girdle-hanger as a symbol of female household authority and a high-status marker, ideas which began to take shape in the 19th century. The key as a representation of a woman's tasks and responsibilities in the domestic sphere is documented in different historical periods (Pitt-Rivers 1883, 15; Smith 1852, 235; Tymms 1853, 323–324). This was used to formulate an according interpretation of keys in early Anglo-Saxon female graves (Smith 1856, xli). Based on their model key character girdle-hangers were interpreted as a symbolic representation of a woman's household keys (Fox 1923, 271; Lethbridge 1931, 5). Later 20th-century studies of medieval historical sources demonstrated that the key as both physical symbol and metaphor of the married woman's role in managing the household and its material resources was prevalent in the wider western European medieval world by the 11th century (Gräslund 1999; Hines 1997, 263; Kristoffersen 2004;



Figure 2. Distribution of girdle-hangers in early Anglo-Saxon grave contexts. For site numbers see Tab 1. Map: K Felder.

Cemetery/burial site	County	Excavated graves with girdle-hangers	Index Fig 2
Alwalton, Minerva Business Park	Cambs.	1	1
Barrington A, Edix Hill	Cambs.	1	2
Bergh Apton	Norfolk	2	3
Broughton Lodge *	Notts.	5	4
Carlton Colville, Bloodmoor Hill	Suffolk	1	5
Castledyke South	Lincs.	1	6
Cleatham	Lincs.	2 (C)	7
Empingham II *	Leics.	5	8
Eriswell, RAF Lakenheath, site 046	Suffolk	2	9
Eriswell, RAF Lakenheath, site 104	Suffolk	4	10
Eriswell, RAF Lakenheath, site 114	Suffolk	3	11
Fonaby	Lincs.	2	12
Girton College	Cambs.	1 (C)	13
Glen Parva	Leics.	1	14
Great Chesterford	Essex	2	15
Holywell Row	Suffolk	3	16
Icklingham, Mitchell´s Hill	Suffolk	1	17
Ipswich, Boss Hall	Suffolk	1	18
Little Wilbraham	Cambs.	5	19
Londesborough	Yorks.	1	20
Loveden Hill	Lincs.	1 (C)	21
Morningthorpe *	Norfolk	9	22
Norton, Mill Lane	Ct. Durham	1	23
Oakington	Cambs.	1	24
Roxby, Sheffield´s Hill	Lincs.	1	25
Sancton	Yorks.	1 (C)	26
Searby	Lincs.	1	27
Sewerby, Home Farm *	Yorks.	3	28
Sleaford	Lincs.	6	29
Soham	Cambs.	1	30
Spong Hill	Norfolk	2 (I) 5(C)	31
Stapenhill	Staffs.	1?	32
Staxton, Willerby	Yorks.	4	33
Wakerley *	Northants.	2	34
Walesby	Lincs.	2?	35
Welbeck Hill	Lincs.	1	36
Westgarth Gardens, Bury St Edmunds	Suffolk	1	37
West Heslerton *	Yorks.	3	38
Worlaby	Lincs.	1	39

Table 1. Index of burial sites with girdle-hanger graves; see Fig 2 (* Case study; (I) Inhumation, (C) Cremation; all other specimens were found in inhumations)

Steuer 1982). Fell's study of the early 7th-century *Laws of Aethelbert* (Fell 1984) traced this meaning back to the early Anglo-Saxon period.

Modern characterisations of girdle-hangers as insignia of the female head of the Anglo-Saxon household (e.g. Evison 1994; Penn and Brugmann 2007; Haughton and Powlesland 1999a) mostly reference Hirst's discussion of the girdle-hangers found at Sewerby (Hirst 1985), a study that also introduced the idea of an association of girdle-hangers with higher-status individuals into modern discussion. This was based on Sewerby Grave 49 containing the remains of a richly dressed woman with girdle-hangers, who has come to fame for being buried underneath another female 'live burial' (Hirst 1985, 38–43; see below).

Both in Britain (Meaney 1981, 178–81) and Germany (Steuer 1982), a different interpretation of girdle-hangers was suggested, building on another common symbolic connotation linked to keys, which is documented in varying European historical contexts. Both authors alluded to the association of the key with themes around fertility, sexuality, birth and motherhood, implying that girdle-hangers could also have functioned as protective amulets in such life phases. In Anglo-Saxon scholarship this line of enquiry was not followed up more explicitly. Ornamented key-shaped pendants are also known from varying funerary contexts across early medieval Europe (see Steuer 1982 for examples), though nowhere as regularly as in early Anglo-Saxon England. Indeed, in German literature the so-called *Zierschlüssel* (ornamental key) is more often classified as an amulet (Knaut 1993, 100; Steuer 1982; Theune 1997, 62).

Women with girdle-hangers in early Anglo-Saxon communities

To understand the role of girdle-hanger wearers within 5th- and 6th-century communities, graves containing girdle-hangers were systematically examined within their social, spatial and chronological contexts. The evaluation comprised 80 inhumations with girdle-hangers from 34 cemeteries (Tab 1, Fig 2). The six cemeteries of Broughton Lodge (Nottinghamshire), Empingham II (Leicestershire; hereafter Empingham), Morningthorpe (Norfolk), Sewerby (Yorkshire), Wakerley (Northamptonshire) and West Heslerton (Yorkshire) were investigated in detailed case studies.

Early Anglo-Saxon communities negotiated gender-cultural and social norms through the mortuary ritual according to complex, localised rules, using the funerary tableau to communicate local, regional and supra-regional identities (Härke 1992; Lucy 1998; Pader 1982; Stoodley 1999). Each case study site was therefore investigated separately using multivariate cemetery analysis to identify local characteristics of girdle-hanger costume, features of burial practice and the place of girdle-hanger graves within cemetery geography and chronology. For each cemetery, the distribution of parameters of age, sex, gravegoods, body position, orientation, status indicators and chronological data was evaluated to establish the site's spatial organisation in terms of burial plots used by separate household units (Sayer 2009; 2010). This approach was extended to include the analysis of compositions of female girdle groups and their patterned distribution across such plots.

Girdle-hanger wearers show specific spatial distributions across cemeteries. Several sites with sufficient coverage and documentation suggest an association with family or household units. At Empingham (Timby 1996) four of five burial plots identified through a reassessment of the horizontal stratigraphy included women buried with girdle-hangers (Fig 3). At Wakerley, two of three identified burial groups (Adams and Jackson 1989) included girdle-hanger wearers. At West Heslerton (Haughton and Powlesland 1999a), girdle-hanger wearers were found in two of the five grave groups identified by the excavators (groups A and B; Fig 4). The nine girdle-hanger graves found at Morningthorpe (Green et al. 1987) were associated with clusters of women buried with cruciform brooches, which have been interpreted as marking separate social groups (Martin 2014). Associations of girdle-hanger graves with burial plots, or their dispersed distribution across a site, were also observed at Great Chesterford, Bergh Apton, Spong Hill, and the three cemeteries at Eriswell (Caruth and Anderson 2005; Evison 1994; Green and Rogerson 1978; Hills et al. 1984).[1]

Early Anglo-Saxon women: feminine identity and status

To understand girdle-hanger identity *within* the household one needs to consider how early Anglo-Saxon feminine identity and relative status were differentiated through elements of costume and burial ritual. Female costume has been shown to correlate with age thresholds, and also to vary among adult women (Lucy 1998; Stoodley 1999). Additionally, social roles and status were differentiated within smaller socio-economic units. How this was expressed varied regionally. The female head of a household could be the woman with the richest jewellery in a grave group and higher numbers of gravegoods including status markers (Sayer 2010). In other communities she may have been the only one with a full set of dress fasteners and jewellery comprising brooches, beads, wrist-clasps and girdle items (cf. Stoodley's *full feminine kit*; Stoodley 1999, 78–9) or, where several women had this kit, she may have had the most elaborate version. The girdle-hanger graves were investigated against these parameters to elucidate their relationship with other women at each site and examine their assumed high status.

Four graves with girdle-hangers were exceptionally wealthy, and the idea of the girdle-hanger as a high-status symbol has primarily rested on these outstanding burials. The

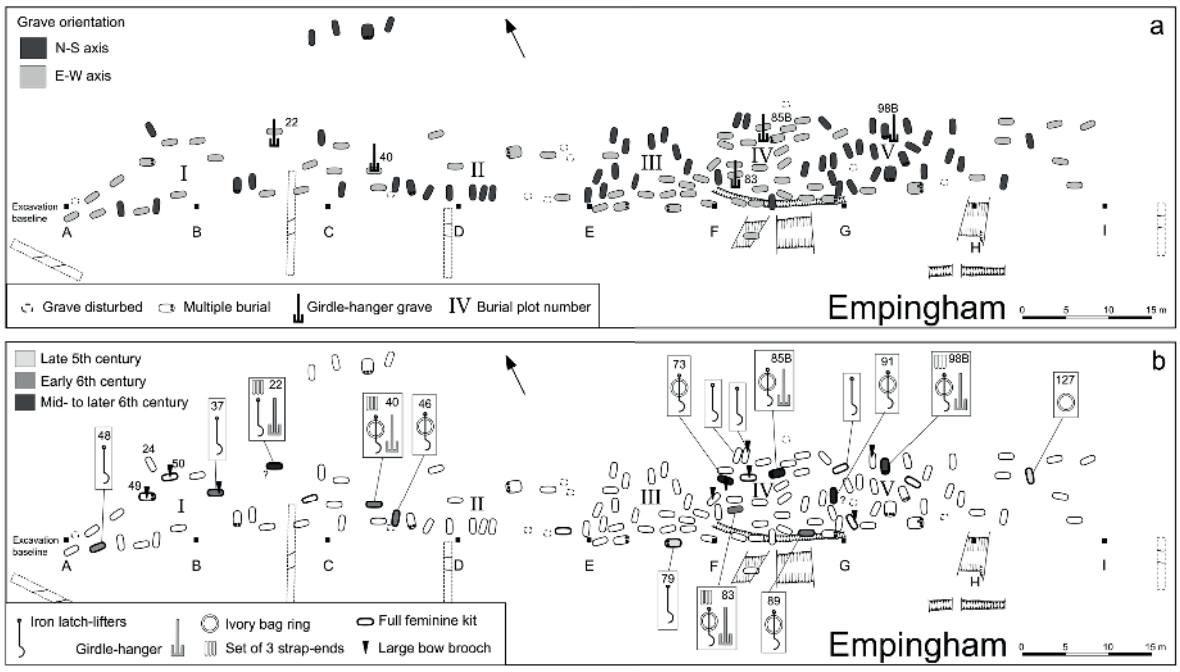

Figure 3. Schematic site plans, Empingham II, Rutland/Leicestershire. (a) Grave orientations. (b) Dated female graves with sets of girdle items. Plans: K. Felder, redrawn after Timby 1996.

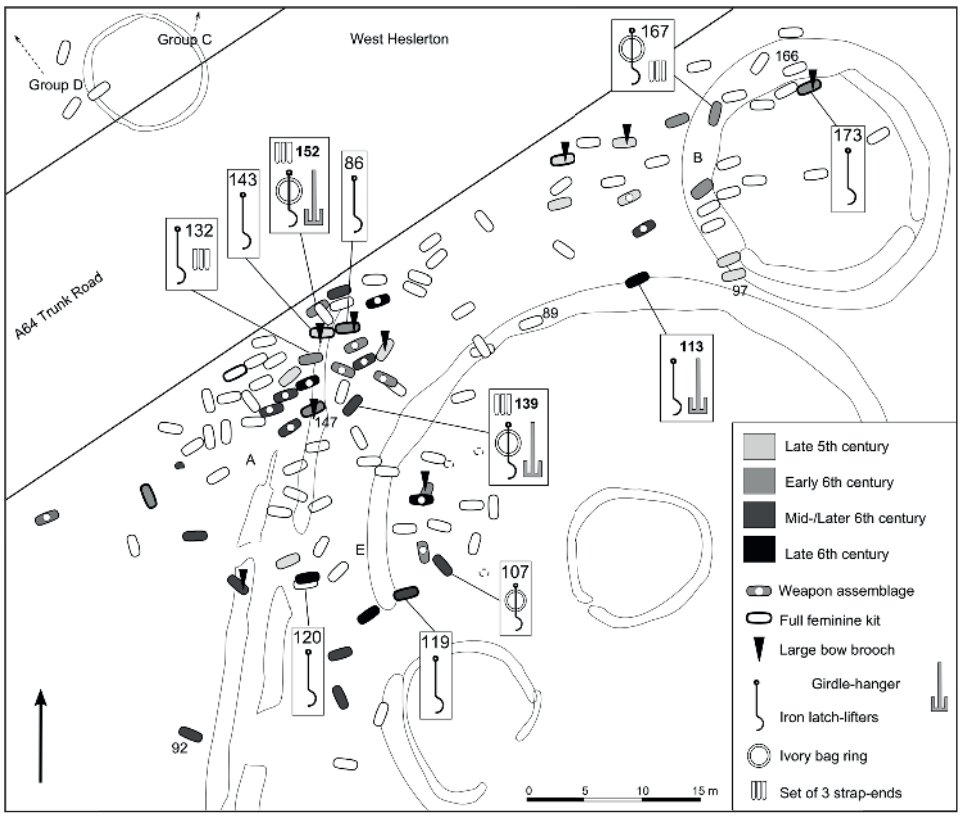

Figure 4. Schematic site plan, West Heslerton, North Yorkshire, southern burial area. Dated graves with weapons and jewellery; sets of girdle items. Plan: K. Felder, redrawn after Haughton and Powlesland 1999a.

woman in Sewerby Grave 49 was buried with two pairs of gilt wrist-clasps, a gilt cruciform brooch and a two-stringed bead necklace comprising 204 beads, a cauldron, a box of wood and shale and a food offering (Hirst 1985, 39, 92). The individual in Sleaford Grave 143 (Thomas 1882) wore a gilt florid cruciform brooch, a necklace of 271 beads, two silver armlets and silver bell beads. Holywell Row Grave 11 was the most impressive grave on site, containing a probable child in a coffin, dressed with a gilt square-headed brooch, textiles with gold threads, silver disc pendants, a silver finger ring, two silver armlets, a fire steel, two bronze vessels and a weaving batten (Lethbridge 1931). It is notably similar to Spong Hill Grave 24, also a coffin burial which contained a gilt square-headed brooch and a weaving batten, the latter apparently placed on top of the coffin wrapped in a fine cloth together with the girdle items (Hills et al. 1984, 72).

In addition, at some sites girdle-hanger wearers were generally found among the women buried with elaborate costumes and status markers (Morningthorpe, Little Wilbraham and Sleaford; Green et al. 1987; Neville 1852; Thomas 1882); some individuals were spatially associated with the graves of wealthier men and women (Eriswell Grave 25 and Spong Hill Grave 38, both buried near wealthy male graves within ring ditches), or found among spatially distinct higher-status groups (Spong Hill Grave 24, Broughton Lodge Graves 6, 56, 58 and 61, and Sewerby Grave 49, all lying within clusters of better-furnished graves).

Although such examples concur with the traditional idea of the girdle-hanger as an item worn by members of the elite, the overall result of the quantitative analysis and comparative study of the sites was revealing. On a broader level, girdle-hangers were clearly not systematically associated with higher-status individuals. In fact, their association with the heads of the household appears rather unlikely.

At Broughton Lodge, Empingham, Great Chesterford, Wakerley and West Heslerton, in cemetery-wide comparison as well as within single household plots women with girdle-hangers were regularly buried in less elaborate costumes than other women. They could have a full set of dress fasteners and jewellery, for instance at Empingham and Broughton Lodge, but with clearly less focus on an ostentatious costume (Figs 3 and 5). At West Heslerton, none of the girdle-hanger wearers even had a *full feminine kit* (Fig 4). Overall, only 35% of all girdle-hanger wearers had a third dress fastener, and the overall frequency of wealthy gravegoods in girdle-hanger graves (Fig 6) shows that status markers do occur but not in high numbers.

Where scoring systems based on counts of artefacts have been applied, grave assemblages with girdle-hangers have commonly scored highly (Timby 1996, 86, 92, tab 39; Penn and Brugmann 2007, 13, tab 7.2). However, some caution is required with inferring high status from the quantity of gravegoods alone, and what exactly is represented by a high score deserves critical consideration (discussions in Malim and Hines 1998, 301; Penn and Brugmann 2007, 12–13. 89). This proved particularly relevant in the case of girdle-hanger graves.

In this study, the RIAC (*Range of Identifiable Artefact Categories*) scoring method was used to evaluate girdle-hanger graves in terms of gravegood quantities. Counting categories instead of single specimens of artefacts, the method avoids over-emphasising artefact types occurring in varying or large quantities (wrist-clasps, brooches, beads). It also allows the investigator to choose categories appropriate for the graves under investigation. Shoulder brooches and third, centrally worn brooches, were counted as separate categories, as the latter served as relative female status markers (cf Malim and Hines 1998, 301–2, tab 8.7). Girdle groups were counted as one category. The importance of this choice becomes clear in assemblages like Alwalton Grave 1364 and Empingham Grave 98B. Had the girdle bags and single girdle items in these graves been counted separately (not even counting the bag *fittings*), they would have scored 10 and 11. This does not make them wealthy graves. On closer examination they contain basic costumes with shoulder brooches, wrist-clasps, beads and a girdle bag plus one or two amulets and/or one grave furnishing, thus scoring 6 based on the counting scheme used here. Most girdle-hanger graves are distributed around these median RIAC scores (Fig 7). Clearly girdle items and bag fittings deserve more consideration in wealth-scoring systems (Malim and Hines 1998, 302, 317). Two graves, Broughton Lodge Grave 58 (score 14) and West Heslerton Grave 113 (score 11), scored very high but were not obviously wealthy either. Their scores derive from extensive amulet collections, which will be subjected to closer inspection below.

In the light of the above results it is problematic to classify girdle-hangers as an independent status marker on account of their occurrence in high-scoring graves. Some girdle-hanger wearers may have belonged to families of relative higher status or influence within their community, but we cannot see a recurring high-status element in the archaeological record of girdle-hanger graves.

Feminine identity and the girdle costume

While less emphasis than expected was put on ostentatious expressions of wealth in girdle-hanger graves, the most prominent feature seemed to be the girdle costume. Girdle-hanger wearers regularly had a pronounced, sometimes locally specific type of girdle bag. 40% of the girdle-hanger graves contained a recurring bag type with an ivory ring as bag frame, often suspended from strap systems fitted with metal fittings and buckles (see reconstruction in Meaney 1998). Four of five graves with girdle-hangers at Empingham, and five of six at Sleaford (Thomas 1882, 386–7) had this type of bag. At Empingham graves with such bags occurred once or twice per household (Fig 3). Not all of them had girdle-hangers, but

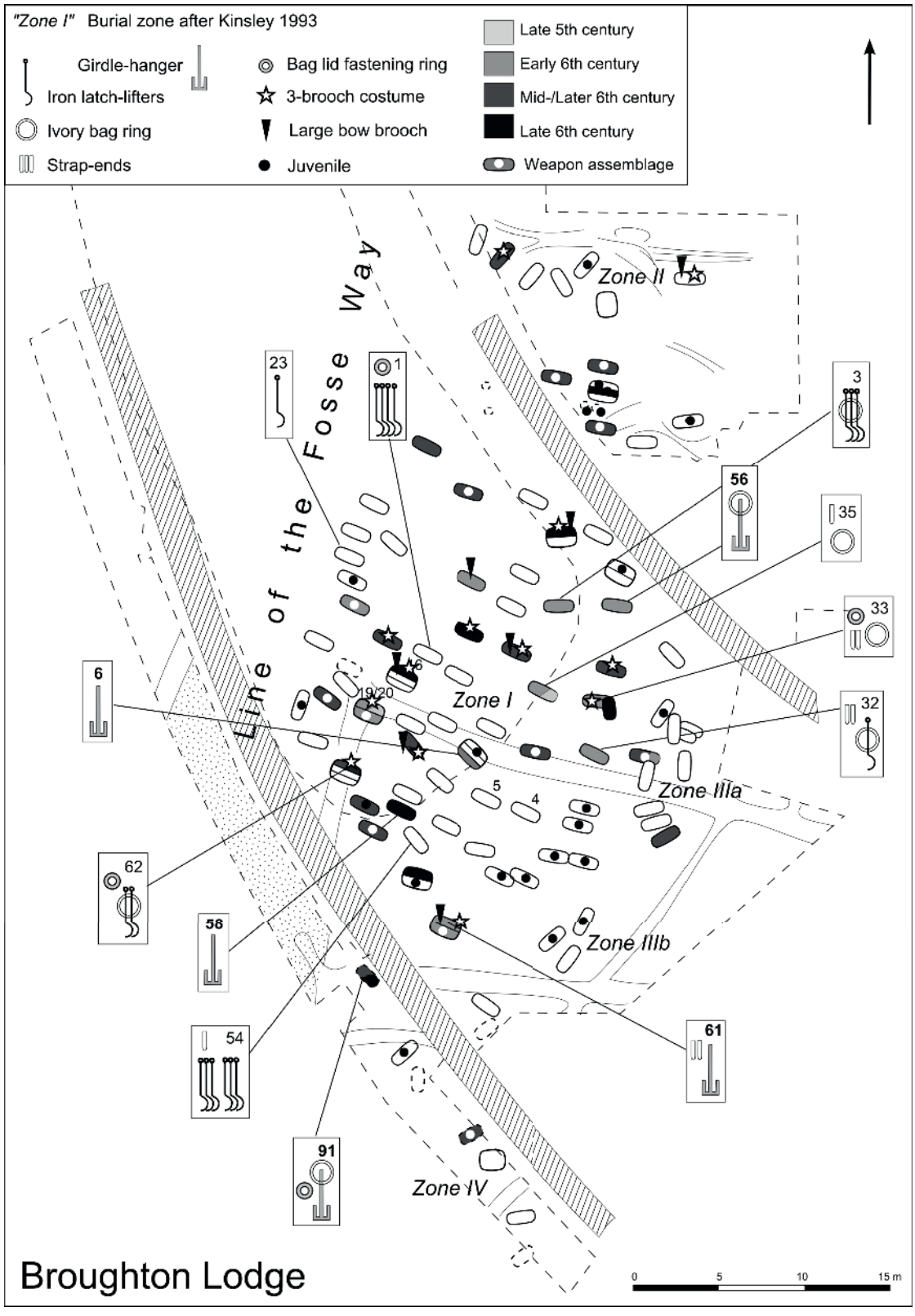

Figure 5. Schematic site plan, Broughton Lodge, Nottinghamshire. Dated graves with weapons and jewellery; sets of girdle items. Plan: K. Felder, redrawn after KINSLEY 1993.

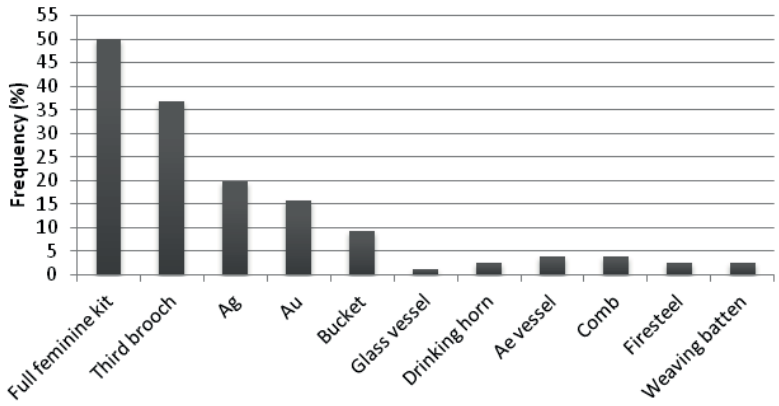

Figure 6. Frequency of markers of relative status in female graves with girdle-hangers (n=79).

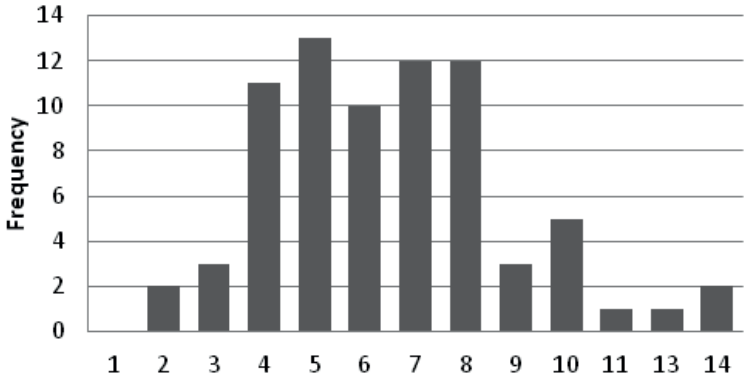

Figure 7. Frequency distribution of RIAC scores of girdle-hanger graves (n=79).

all that did had notably simpler costumes than those without girdle-hangers, a pattern also observed among the three ivory-ring bag wearers at Alwalton, where Grave 1364 had girdle-hangers (Gibson 2007). At West Heslerton, four ivory ring bags were distributed across the grave groups A, B and E. All of them had average costumes, and two of them (Graves 139 and 152) had girdle-hangers (Fig 4). Another local type of girdle bag involved a cast copper-alloy fastening ring, found once in each grave group at Wakerley, here twice associated with girdle-hangers, and also in Sewerby Grave 38, the only grave on site with bag fittings at all (Fig 8).

Iron keys such as latch-lifters (Fig 1a) occurred in 44% of all girdle-hanger graves. The patterns of burial with keys and girdle-hangers respectively varied greatly between sites. Barrington/Edix Hill (Malim and Hines 1998), Empingham, Morningthorpe, Wakerley and West Heslerton had girdle-hanger graves with and without keys, at other sites (Great Chesterford, Sleaford, Broughton Lodge; Fig 5), girdle-hanger graves did not contain keys. Keys in girdle-hanger graves may have marked the owners as *key holders* and persons of a certain authority. However, it becomes increasingly unlikely that both artefact groups had entirely analogous symbolic meanings, and keys will need to be studied as symbolic dress items and gravegoods in their own right (see Meaney 1998).

In sum, in various early Anglo-Saxon communities a group of women had a recognisable type of girdle bag, while ostentatious sets of jewellery appeared to play a less significant role in their physical appearance. This girdle bag, and girdle-hangers as part of their equipment, formed a defining component of their costume. The identity linked to this costume appears to have been rooted in the household.

Defining roles: a different kind of female authority

In addition to complex girdle bags, girdle-hanger graves recurrently contained amulets, objects worn within the necklace or in the girdle bags for their assumed magical, protective or power-enhancing qualities (Capelle et al. 1973; Meaney 1981, 3–4, fig 9). Meaney (1981) still provides the most extensive compilation and interpretation of amulets of the Anglo-Saxon period. Amulets in girdle-hanger graves include pendants of metal, animal or plant substance (scutiform pendants, bucket pendants, spangles, iron discs,

metal-fitted nuts, seeds and animal teeth, claws and carved bone), collected (often antique) objects, coins and beads of specific materials or manufacture including rock crystal, jet, bone, iron, chalk, silver and single larger glass beads of certain design and colour (Meaney 1981, 192–210).

Sixty-eight % of the girdle-hanger graves contained at least one type of amulet, 28% had at least two types. Women with girdle-hangers incorporated amulets into their costume more regularly than other women (Fig 9). They also had higher numbers of amulets than other women; at every case study site except Morningthorpe where amulets generally occurred less frequently and in lower numbers, the woman with the highest number of amulets at the site was a girdle-hanger wearer.

The apotropaic element visible in girdle-hanger graves has continental parallels, where types of ornamented model keys similar to girdle-hangers are distributed. The early 5th-century graves at Zweeloo, NL, and Bad Lippspringe, Westfalia (Steuer 1982, fig 8; van Es and Ypey 1977) which contained decorated bronze latch-lifters — a continental predecessor to Anglo-Saxon girdle-hangers (Felder 2014, 275, fig 5.8; Steuer 1982) — contained several types of amulets. Amulets are also frequently found associated with 6th-century continental *Zierschlüssel* graves, so in Oberwerschen Grave 2, Fridingen Grave 150, Junkersdorf Grave 30 (all Germany) and Hegykö Grave 18, Hungary (Bóna 1976; La Baume 1967; von Schnurbein 1987; Schmidt 1961, pl 77).

Medieval female graves with this apotropaic component have been the subject of previous study. Anglo-Saxon scholarship has appropriated the early modern concept of the *cunning woman*, a wise woman and folk healer who practised benevolent, healing and protective magic and divination in her community (Meaney 1981, 249; 1989); a *psychosomatic specialist* (Carver 2010, 2) who united the roles of physician, spiritual healer and mediator between the worlds. Dickinson's (1993) description of Grave HB2 from Bidford-on-Avon suggested how an early Anglo-Saxon *cunning woman* may be identified archaeologically. The graves of Scandinavian Viking

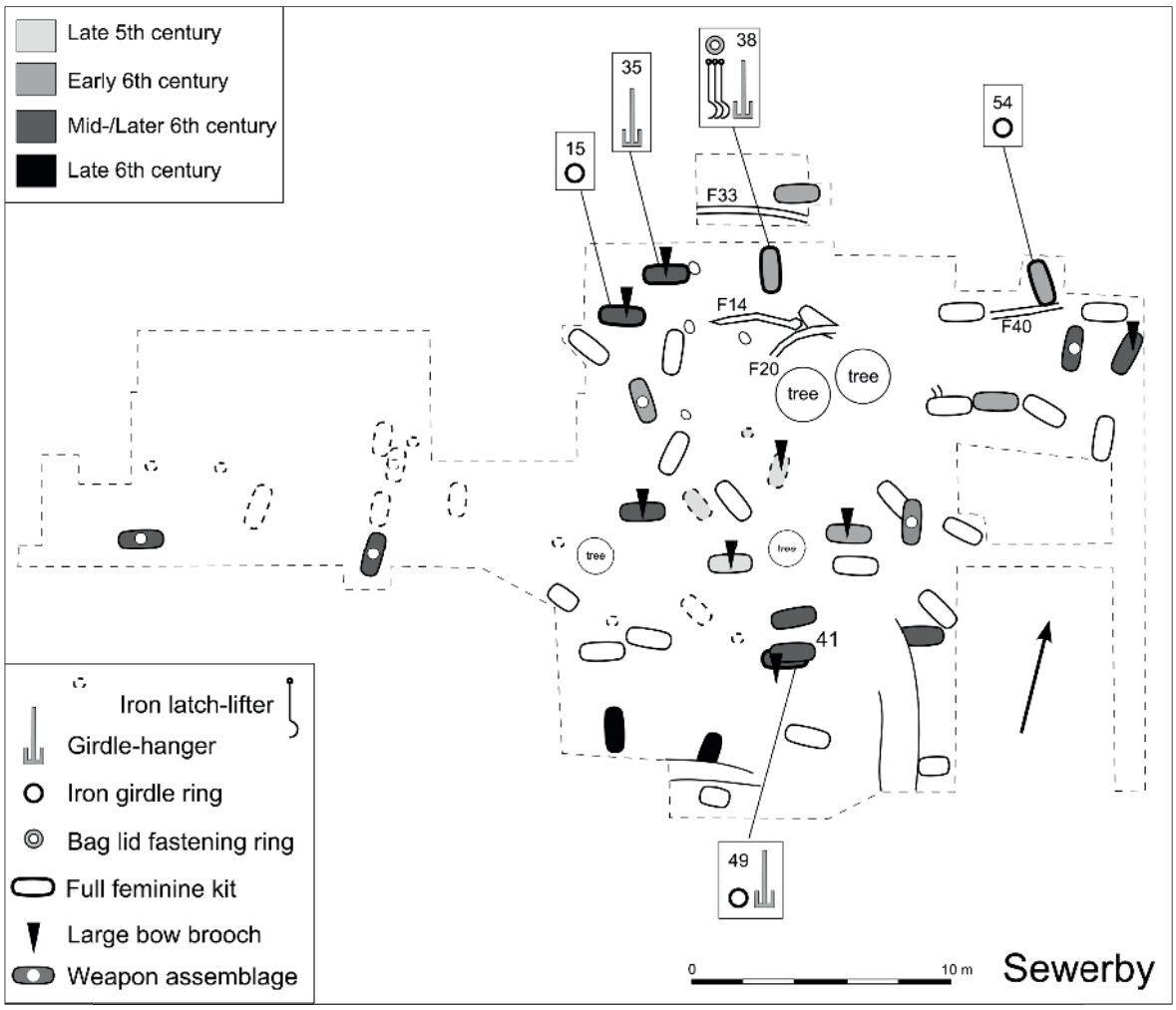

Figure 8. Schematic site plan, Sewerby, Yorkshire. Dated graves with weapons and jewellery; sets of girdle items. Plan: K. Felder, redrawn after Hirst 1985.

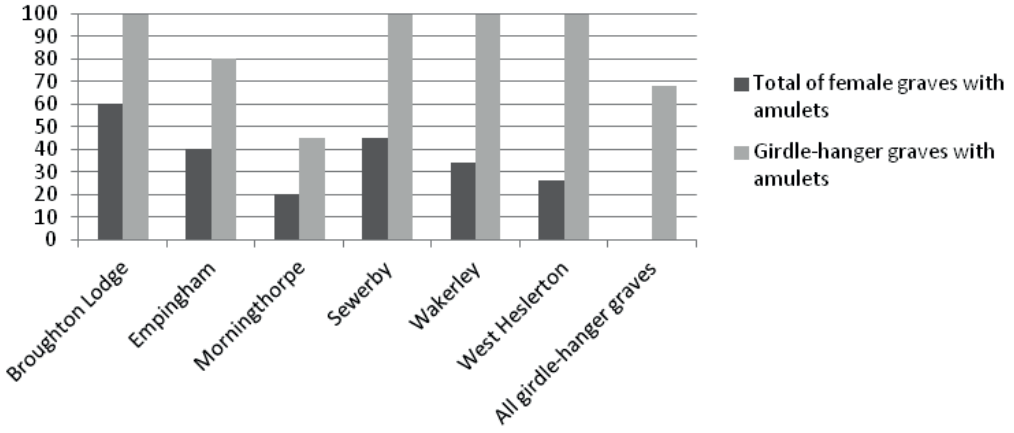

Figure 9. Frequency (%) of amulets: girdle-hanger graves against all graves with female jewellery at a site.

female practitioners of *seiðr*, a complex of Norse sorcery practices involving clairvoyance, healing, summoning and controlling supernatural spirits (Price 2002, 64, 112), also show notable similarities with early Anglo-Saxon *cunning women*'s graves.

A central component of the graves of these female specialists are girdle bags serving as a container for remedial substances, amulets and presumable ritual objects; pouches or strings with amulets worn around the neck; and vessels including caskets, buckets and drinking horns (Dickinson 1993; Meaney 1989, 10; Price 2002, figs 3.4–3.8). Some especially outstanding graves include an elaborate layout of the body in a coffin or chamber, and/or deviant burial practice (Reynolds 2009, 185–95). These features are recurrently found in graves of girdle-hanger wearers, and it can be argued that they are linked with the early medieval tradition of the female spiritual healing specialist.

The most impressive amulet collections in the dataset were found with the woman in Broughton Lodge Grave 58, who also had two small yew buckets, tweezers and a fire steel, and with the person buried in West Heslerton Grave 113, who received a prone burial in a too small grave pit in the bank of a prehistoric ring ditch (Fig 10; see below).

Another impressive grave assemblage was granted to the woman buried in Wakerley Grave 17, including a large drinking horn, a ceramic vessel, a bone comb, three amulet pendants, and binding rings of a possible wooden staff. Staffs are also frequently found in Viking *seiðr*-worker graves (Price 2002). Like the *cunning woman* from Bidford-on-Avon (Dickinson 1993), women buried in Sleaford Grave 158, Eriswell Grave 350 and Grave 422 wore necklaces with several bucket pendants, in Grave 422 combined with seven ringed spangles. The woman in Little Wilbraham Grave 3 had three perforated Roman coins probably sewn onto a belt; her girdle-hangers were suspended together with a bronze-fitted wooden egg and a Roman spoon bowl, reminiscent of Kentish crystal ball-and-sieve sets (Lethbridge 1931, 73; Meaney 1981, 61).

Reverting to magical practice was essential to an Anglo-Saxon woman's fulfilment of her role as guardian of the health of the family (Meaney 1981, 96; 1989, 29). It can be argued that the woman buried in a household plot with amulet necklace and a girdle bag with collections of odd little things was the female healing specialist and spiritual authority of the early Anglo-Saxon family. In the east and north-east of England, girdle-hangers formed part of the equipment of these women. We also find them in graves which, due to their locally exceptional character, may have belonged to community healers (Broughton Lodge Grave 58 and West Heslerton Grave 113).

Guardians of birth and death rites of passage

The medicinal and magical skill of the early Anglo-Saxon female healer was most certainly needed in connection with childbirth. This event threatened the life of several household members — mother, unborn child and other living children — and represented both a physical and psychological crisis for the family. A peak in female mortality in the early Anglo-Saxon period in the 20s has recently been linked to maternal mortality (Sayer and Dickinson 2013, 291–3; see also here Fig 4). Data from rural areas in modern developing countries show that at this age women were especially vulnerable to the dangers of pregnancy and childbirth. Additionally, high maternal mortality rates were found to correlate with increased infant mortality in the first year. Even in these modern contexts, maternal mortality increased where no antenatal care was taken or a delivery assisted by an untrained attendant (Sayer and Dickinson 2013, 292). This underlines the importance of, and places great responsibility on, skilled midwives in securing the survival of mother and child, whole families and communities. The medical expertise of a family healer thus certainly extended to the area of midwifery, which is already documented as an independent branch of female

medical practice in antiquity (Rowland 1981, 2). Recently it has been suggested that in the early Anglo-Saxon period expectant mothers left their husbands' communities to seek the assistance and comfort of experienced women in their maternal home (Sayer 2014). If female fertility was even controlled and regulated to avoid the imminent threats of an early pregnancy and birth (Sayer and Dickinson 2013, 293–4), the family midwife may have not only had the skill to guide women through pregnancy but also to advise them how to postpone it, and to assist with magical lore.

A healer's care for the family members may have also extended to the dead. It has been suggested that early Anglo-Saxon *cunning women* were also burial specialists or *death-midwives* who controlled the arrangement and performance of the burial ritual in accordance with ruling cultural conventions (Geake 2003, 262–5; Brundle this vol). Women are linked to rites of death and mourning in many cultural contexts, fulfilling an important role in negotiating and psychologically cushioning the grief and uncertainty caused by the death of a family member (Geake 2003, 264; Gilchrist 2008a, 43). Evidence from 12th- to 16th-century Britain suggests that it was women, being regularly confronted with the corporeal processes of birth and death as mothers, healers and midwives, who prepared the dead for burial in the home, extending their motherly care to caring for, healing and nurturing the dead (Gilchrist 2008a, 44–5). In this light, the burial of a woman with ornamental model keys in Grave 30 at Köln-Junkersdorf, Germany, in close vicinity to a structure interpreted as a *House of the Dead* (La Baume 1967) seems to gain a new dimension.

The use of magic is linked to both early medieval medical practice including midwifery and to funerary practice. Medieval medical handbooks were simultaneously compendia of common charms, spells and rituals, many of which were related to obstetric affairs (Gilchrist 2008b, 122; Meaney 1989, 22–6). The use of incantations, healing charms, amulets and potions by a midwife formed part of a deep-rooted folk magic tradition, which required magical practices to be explicitly prohibited when midwifery was institutionalised as a profession in the 15th to 17th centuries (Chamberlain 2006, 54–5; Forbes 1966). Likewise, the placing of protective or healing amulets with the dead was still practised in the 11th to 16th centuries (Gilchrist 2008b).

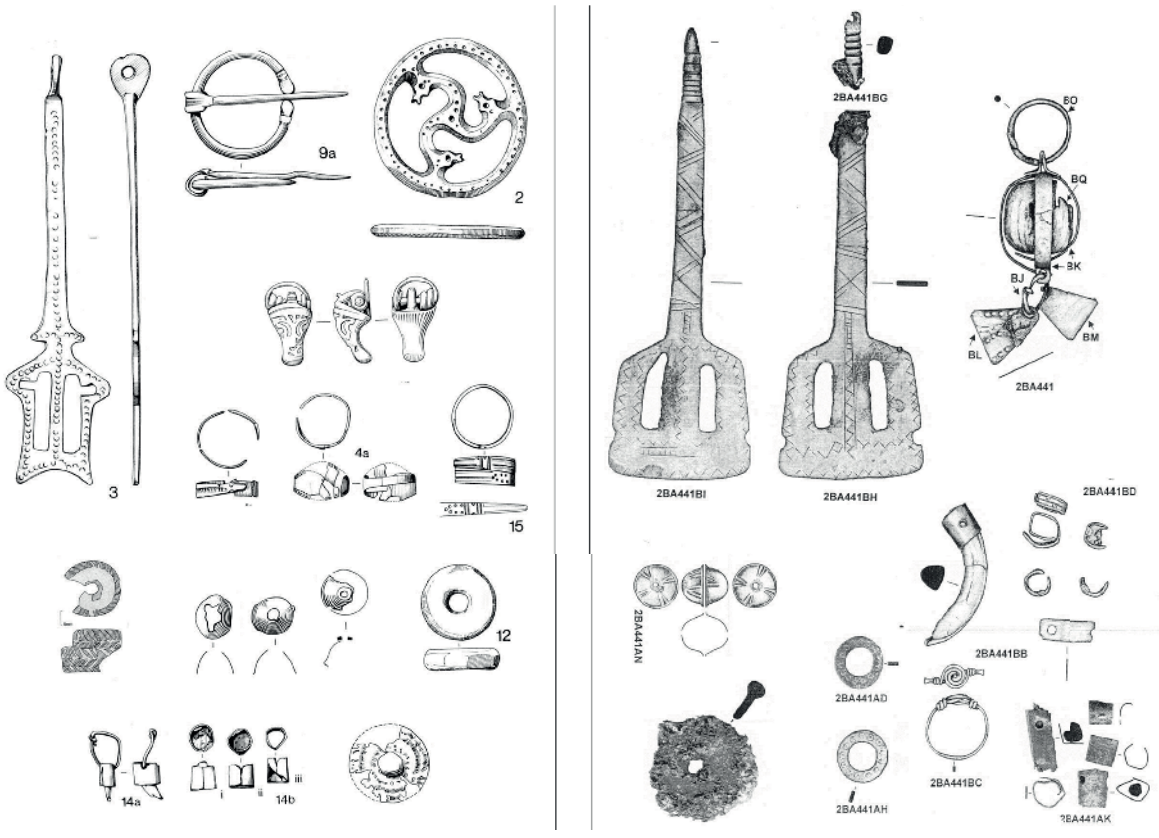

Figure 10. Girdle-hanger graves with the largest amulet assemblages. Left: Broughton Lodge Grave 58. Girdle-hanger; Celtic penannular brooch; trefoil openwork disc; Romano-British brooch fragment; three silver finger rings; large reticella bead; silver bell beads; chalk bead; mounted animal claw; bucket pendants; silver scutiform pendant with gold boss. Right: West Heslerton Grave 113. Pair of girdle-hangers; mounted walnut amulet with spangles; silver bell beads; mounted boar's tooth; bucket pendants; large iron disc pendant; bronze ring washers; silver wire bezel ring. After Kinsley 1993; Haughton and Powlesland 1999b.

According to a concept first articulated by van Gennep (1960 [1908]) each person passes through a succession of different states of being over their life course, beginning with birth and ending with death. The transition from one state to another is experienced as critical and uncertain. *Rites of passage* (van Gennep 1960 [1908], 10) are a ritual strategy of human societies to alleviate this uncertainty by ritually structuring the passage of a person over to the next stage. The family healer not only guarded the *passengers* (women in labour or childbed, the unborn and newborn, the dying and the dead) physically, psychologically and spiritually, but probably also oversaw the safe passage through ritual control.

Rites of passage, liminality and ambivalence in the treatment of the dead

Rites of passage follow a dynamic that is constituted by the stages of *separation*, *transition* and *incorporation*, each of which is linked to specific sub-rites (van Gennep 1960 [1908], 11). The individual is separated from the realm of normal order, passes through a phase of being in-between, where this order is suspended, and is reintegrated into a new order, such as a new age group, occupation, or level of knowledge. Each sub-rite receives more or less emphasis in different ceremonies. In specific life situations, *transition* stands in the foreground. It has an especial resonance, for instance, with pregnancy or initiation (van Gennep 1960 [1908], 11).

Transition rites are also *liminal rites* or *threshold rites* (van Gennep 1960 [1908], 21), as being in transition means existing in a liminal space, a neutral zone *betwixt and between* in which established structures are broken up and the passengers become socially and corporeally undefinable (Turner 1967, 95; van Gennep 1960 [1908], 18). Newborns and infants, the dead, but also pregnant and birthing women (Finlay 2000; Gilchrist 2008a; Sayer and Dickinson 2013) are considered to be liminal in many different cultural and historical contexts based on their standing on the threshold to another corporeal state of being. I propose that this notion of the *liminal being* also extended to the persons who were most closely in touch with the expectant and birthing mothers, the unborn, the young, the sick and the dead, and who guided these *in-betweeners* through their passage. The female healer and ritual specialist had access to the space outside normal order, where people hung in limbo, not being one or the other. This social seclusion also had a physical dimension. Both women in the late stages of pregnancy, in labour and in childbed, and the dead, in preparation for the funeral, were separated from the community and taken to certain places (Gilchrist 2008a, 42). Only those entrusted with caring for the individuals thus separated had access to these socially and physically secluded places. The women to which this responsibility fell moved in *liminal space*.

This could evoke feelings of ambivalence, uncertainty and potential danger towards the attending woman. The evidence from graves of girdle-hanger wearers and other women with healing and magical equipment indicates that specific mortuary practices were employed to negotiate this ambivalence in their burial. Early Anglo-Saxon ways of dealing with those dead perceived as suspicious or potentially threatening included a specific treatment of the body before or during burial, and choices of specific locales within the cemetery space. Prone burial, decapitation, amputation and stoning have been defined as deviant burial practices (Reynolds 2009, 63). Their meaning is culturally and regionally specific, but they have a clear connotation of *otherness* when combined with additional unusual grave features. Spatial pronunciation included burial in liminal places, i.e. at the edges of cemeteries or of burial clusters, on boundaries or in secluded locations, which sometimes but not always overlapped with deviant burial. Identifying a liminal burial depends on how well the limits of a cemetery are established, but in cases it is possible even when burial groups and sites are only part-excavated (Reynolds 2009, 181–2).

Burial on the margins of cemeteries is known for children and women who died pregnant or after birth (Sayer and Dickinson 2013), and deviant burial in general can be combined with spatial liminality or seclusion (Reynolds 2009, 201–3). Burial in liminal locations, both at the edge of cemeteries and of burial groups, was also given to girdle-hanger wearers. The *cunning woman* in West Heslerton Grave 113 was buried prone in the bank of a Neolithic enclosure which had served the closest burial group in this area as a southern limit of burial (Fig 4). In addition, Grave 113 dates to a period when this part of the cemetery was not used anymore. The burial was therefore liminal in a double sense. At Empingham, Grave 22 lay isolated at the northwestern edge of the main burial area (Timby 1996; this paper Fig 3). Peripheral locations for girdle-hanger wearers are also known from partially excavated sites such as Bergh Apton (Grave 29; Green and Rogerson 1978), Morningthorpe (Grave 108; Green et al. 1987), Soham (Grave 7; Lethbridge 1933) and Westgarth Gardens (Grave 9; West 1988). At the largest of the three cemeteries at Eriswell, site 104, Grave 242 of a girdle-hanger wearer was located in the north-east of the site in some eight metres distance from the remaining burial area (Caruth and Anderson 2005). At Castledyke, Grave 112 appears isolated in the north-east when mapped with other contemporary burials (Drinkall and Foreman 1998, fig 142). Broughton Lodge Grave 61 is located at the southern edge of the area with the densest burial activity, in some distance from contemporary burials and in vicinity to an area reserved for ungendered graves and graves of children (Fig 5). At Sewerby, the two girdle-hanger Graves 35 and 38 belonged to a group of four graves with girdle items buried at the northern edge of the excavated area,

beyond a line of ditches which possibly formed an enclosure (Hirst 1985, 25–6, fig 7; see here Fig 8). At Wakerley, all women with girdle bag rings, including the two girdle-hanger Graves 17 and 44, were buried at the margins of the grave groups.

Outside the area of girdle-hanger distribution, burial at the edges of cemeteries is also known for women with other types of model keys. Grave 884 at Mucking, Essex, with decorated copper-alloy latch-lifters was buried at the eastern end of the cemetery in the early 5th century, in a sparsely used area which remained marginal throughout the later usage of the site (Hirst and Clark 2009, fig 11). Marginal locations were also chosen for the individuals with continental *Zierschlüssel* types in Kösingen Grave 37 (Knaut 1993, plates 70–1) and Köln-Junkersdorf Grave 30 (see above). West Heslerton Grave 113 was also a boundary burial (Reynolds 2009, 202). Another example is Broughton Lodge Grave 6 which was interred in a pre-existing ditch which may have functioned as a delineating feature that separated off the graves of children, and was respected as a southern boundary for adult burial at the time when Grave 6 was dug (Fig 5).

The prone burial in West Heslerton Grave 113 was the only clear deviant burial with girdle-hangers. The woman buried in Oakington Grave 80 with a cow and a girdle group including a girdle-hanger formed a focus for five prone burials (Mortimer et al. this vol). At Morningthorpe, in Grave 253 the skull was found dislocated in the centre of the grave; since no signs for disturbance were discovered, it was assumed that it had been redeposited (Green et al. 1987, 105). The woman in Sewerby Grave 49 was buried below another woman who had been buried prone, possibly alive, right above her (Grave 41; see Hirst 1985 and Reynolds 2009, 70–1 for discussions). Grave 49 was the deepest grave at Sewerby, and both interments were sealed by a stone pavement. With regard to Grave 49 this treatment has mainly been associated with its assumed high-status connection, but it may also be derived from a role of the woman as a spiritual authority. Another *sealing* of a burial with girdle-hangers may have been the treatment of Spong Hill Grave 38, which was cut along its length by a rectangular structure erected above it, most likely at a time when the location of this grave would have still been known (Hills and Lucy 2013, 229).

Keys as symbols and material agents: crossing boundaries and passing thresholds

It remains to be explained why in some areas of early Anglo-Saxon England female spiritual specialists carried girdle-hangers. In the later 5th and 6th centuries AD, larger Anglo-Saxon cultural affiliation zones crystallised, manifesting in the adoption of selected, regionally specific elements of female dress by increasing numbers of communities (Hills and Lucy 2013, 321–7; Hines 1993, 92; Martin 2014). Girdle-hangers gradually spread across emerging *Anglian* England, becoming part of its defining repertoire of jewellery during the later 5th and 6th centuries (Felder 2014, 273–4). But why a *key-shaped* pendant?

Keys are documented across different historical and cultural contexts as symbolising the crossing of boundaries and the passing of thresholds, the holder's initiation into arcane knowledge, their access to supernatural realms and role as mediator between the worlds. Keys have a deep history in connection with beliefs and rituals relating to birth and death, immanent in the *key to life* and the *key to the afterlife.* A series of Graeco-Egyptian birth amulets depicts a key *unlocking* the womb (Bonner 1950, 79–87). The late Anglo-Saxon Exeter Riddles play with lock and key as a metaphor for male and female genitals (Meaney 1981, 179). In modern folklore, women have been known to carry keys as amulets to ease conception, to protect from sickness and complications during pregnancy and during labour, or to use locks in rituals to prevent conception; house doors are unlocked when a woman gives birth, keys are placed into newborn's cradles, or under the pillows of sick children (Goldmann 1935/1936, 1225; Jobes 1962, 920–1). Women among the Romanian Padureni wear belts with *key-shaped pendants* from the onset of puberty until the first signs of age (Petrescu and Secoşan 1985). Keys as an *opening* amulet work with sympathetic magic, the curing of like with like, and can be seen in one context with *passing-through rituals* linked with pregnancy (Hand 1980, 160), and the *seed of life* symbolised in eggs, seeds and nuts placed in graves and carried as amulets (Black 1893; Knaut 1993, 330; see the walnut amulet in West Heslerton Grave 113, Fig 10). In symbolising the *key to the afterlife*, keys are also placed on the breast of the dead to release them into the underworld (Jobes 1962, 921).

If certain individuals were initiated in the knowledge and powers to help people through the passage into life and over the threshold to the afterlife, easing their physical and cosmological transformation, then keys, and their use in rituals, were powerful symbolic and magic agents. Girdle-hangers as symbolic keys in the hands of the early Anglo-Saxon healer, midwife and carer for the dead may have served several overlying functions: as symbols of the holder's initiation, as amulets, or as objects used in ritual, to allow a person to enter and leave life safely. They may have even symbolised the authority of the holder to access the physically *locked places* from which mothers and newborns were re-incorporated into the community of the living, or the dead into the community of ancestors. In their capacity to open and close, keys also embody antithetic principles. This is a common characteristic of symbols related to transition rites of passage, and represents the nature of the liminal (Turner 1967, 99): the in-between, being *neither/nor* and *both* at the same time.

Conclusion

Early Anglo-Saxon scholarship knows the *cunning woman* as a medical and spiritual specialist of the early Anglo-Saxon community who practised protective and healing magic and divination. Archaeologically, *cunning women*'s graves are identified by a costume with a marked apotropaic component, including a girdle bag and amulet necklace, personal equipment including vessels, and repeatedly unusual treatment in the burial including deviant practices. An investigation of the girdle-hanger, a key-shaped pendant found in selected women's graves in east and north-east England in the 5th and 6th centuries AD, now sheds new light on the place of such individuals within the early Anglo-Saxon community. Graves with girdle-hangers often have the characteristics of *cunning women*'s graves and are found distributed across several household burial plots at a cemetery. It is argued here that these individuals represented the *cunning woman* of the family, who tended to other women at their most vulnerable, when pregnant, birthing and in childbed, to the young and the sick, and to the dead, preparing them for their journey to another realm. They secured people's safe passage across transitional life phases and their incorporation into the community of the living and the ancestors.

Which women took on this role, and how their death was experienced and negotiated, depended on the individual perceptions and agency of the mourning community. The social and psychological significance of specialists who secured the survival of families and communities pervaded all social strata. Whether this responsibility fell to the highest-positioned woman in the household (Sayer 2010), the female head of a local elite, the main carrier of the cultural identity of the group (Martin 2014), or to a healer by profession, a *cunning woman*, was based on many different factors. Any of these women may have acquired the social authority, the professional skill and experience, or have been especially gifted, to provide medicinal, psychological and spiritual assistance.

In their engagement with pregnancy, childbirth, illness, disease and death, early Anglo-Saxon healers and spiritual authorities were in touch with spheres where human life was in limbo and normal order was suspended. Their closeness to liminal realms of existence could evoke ambivalent feelings among early Anglo-Saxon communities, who sometimes negotiated and communicated this through the employment of deviant, liminal or boundary burial. However, there were no straight-forward rules in the burial treatment of the suspicious dead (Reynolds 2009; Sayer and Dickinson 2013). Family healers may have been perceived as dangerous dead, but they were also respected among their communities. While one family deemed it necessary to bury them at the margins of the family burial place, another buried them in the midst of their ancestors, next to the most important family members. Finally, material wealth placed in their graves need not have been founded on their socio-economic status. It may have reflected their relatives' acknowledgement of the significant, much honoured role they had played in family and community life.

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Identity and Difference in Scandinavian Funerary Fashions at Home and Overseas, AD 700–1000

Frans-Arne Stylegar

As the First World War drew to a close, work began in the Scandinavian countries to try and position the Nordic region as a 'central area for international science'. The argument was that since scientific cooperation between the European countries had been interrupted by the war, the Scandinavian countries ought to take on the task of mending the broken threads. In 1919, both Norway and Denmark established substantial government research funds and Norway also contributed a scientific institute for international cultural research. From its inauguration, the Scientific Research Fund of 1919 promoted the study and investigation of Viking remains in the British Isles and on the Continent.

The actual task of collecting the materials was undertaken by well-respected Norwegian archaeologists during journeys in Britain and Ireland during the 1920s. Starting in 1940, six volumes of *Viking Antiquities in Great Britain and Ireland* were published, with Haakon Shetelig in Bergen as the editor. There were separate volumes on finds and monuments in England, in Ireland, and in Scotland, as well as a volume presenting the Insular metal finds from Scandinavia (Bjørn and Shetelig 1940; Bøe 1940; Grieg 1940; Petersen 1940; Shetelig 1940; Curle et al. 1954). These finds were, more often than not, grave finds, and many of the monuments were barrows. During the same period the archaeologist A. W. Brøgger followed suit with studies of the Scandinavian settlement of Iceland, Greenland, Orkneys, Shetland and Vinland, utilising both archaeological and written or saga evidence (Brøgger 1929; 1930; 1937).

Today, 70 years on, Shetelig's volumes are still standard references, but burial archaeology has moved on considerably since the mid-20th century. What were once thought to be certain Viking burials are now under scrutiny. From the viewpoint of archaeology, many have tried to establish some ground rules regarding the burials of an intrusive group of people. First, such burials should be revealed by their rite. Second, there should be a direct link between the 'intrusive' rite and that of the supposed migrants' homeland. Third, the use of this rite in the homeland should occur earlier than, and then overlap chronologically with, its appearance in the host country. Fourth and finally, the intrusive rite should differ significantly from that of the host country (Halsall 2000, 262). In practice, however, these are difficult objectives. After all, mortuary customs in late Iron-Age Scandinavia are varied in the extreme. They are 'kaleidoscopic', in the words of Johannes Brøndsted, who goes on to declare that 'there is hardly a more complex and confusing situation than the one in which scholars of Nordic Viking graves find themselves. There is no end to the variations' (Brøndsted 1960, 269). Given this background some have argued that 'just about every known Western European rite from the first millennium AD could have a Scandinavian near analogy' (Halsall 2000, 260). This paper contends that the situation is less complex than these authors allow.

Regional traditions

Special rituals are evident in Scandinavia on island communities like Gotland, Bornholm, Öland, and Åland (Beskow Sjöberg et al. 1987–2001; Thunmark-Nylén 1995–2006; Rundkvist 2003). The same can be said for topographically 'isolated' areas, for example many settlement districts on Norway's western coast, as well as in Sweden (Svanberg 2003). Just to take one example, the special angling hooks known from Viking-Age cemeteries are only known from Finnveden, in southern Sweden (Svanberg 2003). There are differences, however, that cannot be explained by 'isolation' alone. In some cases where there must have been extensive contact between two areas, marked differences in burial rites are still apparent. The Oslofjord area in Norway is a case in point. In Vestfold, which comprises the settlement districts on the western side of the fjord, the characteristic oval brooches are common in women's graves. But in Østfold, across the Oslofjord, they are relatively rare, and there female burials are characterised by beads instead. This may relate to real differences between the *Tracht* in these two areas, of course, but it seems more likely that the reason is symbolic and related to perceived, rather than real, differences between these groups. This is also the case when it comes to the custom of depositing weapons with the dead. Looking at weapon combinations alone, a single axe is by far the most common weapon in Denmark (Näsman 1991), as well as in most of Norway (Stylegar 2005). However, in the Oslofjord area, swords are far more common, and in the regions of Oslo, Hedmark, Romerike, and Østfold, a single sword actually replaces the single axe as the most typical weapon grave associated with males (Pedersen et al. 2003; Stylegar 2005). Several more recent studies of burials in Scandinavia have stressed this heterogeneity, and

focused on exploring localised and small regional identities (Mokkelbost 2007; Svanberg 2003; Urbanczyk 2003).

While the idea of a single 'Norse' or 'Scandinavian' identity is a fallacy, a regional or local focus risks missing or downplaying the common denominators running through these regional variations (cf Price 2008). In other words, there are little and big ritual traditions (compare McLeod 2008, who argues from Othere's and Wulfstan's itineraries in the Old English Orosius, that large areas, each with their common culture existed in Scandinavia in the late 9th century).

Connecting factors do become visible when mortuary practices in different parts of northern Europe are compared, especially in regions that can be defined as contact zones between different groups. Cremation, burial mounds and furnished burial rites stand out strongly. In a western European context it may seem that we are dealing with the basic difference between Christian and heathen burial rites, but even these differences are not absolute, as many have pointed out (Young 1977).

Despite these shared rites at a supra-regional level, regional variations in funerary rite in Scandinavia are real enough, but sometimes they can be 'cross-cut'. Looking at the orientation of inhumation graves, for instance; Denmark is characterised by two different traditions. In East Denmark — North Zealand and Scania — the dominant orientation is N-S with the head to the north. However, two cemeteries stand out by having graves with a different, E-W orientation: Lejre and Trelleborg near Slagelse (Ulriksen 2011, 184). At Trelleborg, only two of 135 graves have a diverging orientation from that common to the surrounding area. In the case of Trelleborg, the cemetery is different from regular rural or urban cemeteries of this period, in that there are few female burials, few elderly individuals and few sub-adults, and recently DNA analyses have documented that many of the buried men were not from Denmark at all (Price et al. 2011). An E-W orientation is however common in Jutland and Funen, as well as in South Schleswig (Ulriksen 2011, 184). A major exception is the large cemetery of Lindholm Høje in North Jutland, where 86 percent of the inhumations are N-S in orientation (Ulriksen 2011; cf Ramskou 1976). Most of the Lindholm Høje graves are cremations: the site's bi-ritualism, the orientation of the graves and stone settings of different types, show obvious affinities with areas further east and north. N-S orientation is the rule, not only in East Denmark, but also in most of Norway.

Dead strangers

The local and regional distribution of specific rites will also sometimes highlight diverging ritual traditions. For instance, most of the cremations at Lindholm Høje are cremation layers, which is the normal type of cremation in most of Scandinavia. Urned cremations are less frequently met with in the Viking Age, and only in three areas do we meet with this form of interment in Viking-Age Scandinavia: Jutland, Åland, and, to a lesser extent, parts of East Norway and adjoining areas in present-day Sweden (for Jutland, see Ramskou 1950). In Jutland, the cinerary urns are household pottery, in East Norway soap stone vessels. Outside of these areas there are very few urned cremations. An example from Spangereid, South Norway, stands isolated in its local area and utilises a clay pot of a type which has parallels in Jutland, for instance at Lindholm Høje; it seems likely that the rite in this case comes from Jutland and the burial might even be that of a Jutish woman.

What, then, about the parts of Europe that were visited or settled by people of Scandinavian origin? Johan Callmer has made an interesting contribution regarding the Scandinavian eastward expansion (Callmer 1994). His point of departure is a particular ritual tradition found only in the Åland islands between Sweden and Finland and to some extent in the southern part of the Mälar Lake basin in Sweden. Here, the ashes of the dead were buried in pottery vessels, on the top of which was placed a miniature clay animal paw. The paws, which were not on the funeral pyre, have been identified as characteristic of either beaver or bear. Similar paws are found in clusters on the Volga and Klyazma rivers in Russia, and Callmer makes a convincing case for interpreting the deceased as travelling Ålanders (Callmer 1994).

On a somewhat similar note, it has been argued that a handful of burials excavated at the emporium of Kaupang in Vestfold near the Oslofjord belonged to women of foreign origin, based on the types and combination of jewellery in these graves (Stylegar 2007, 85). Three graves did not contain the usual pair of oval brooches, which would otherwise characterise a gendered female grave in Vestfold. Another Kaupang grave has a quite obvious eastern character, but does include a pair of oval brooches. In a similar vein, Andres Dobat suggests that axes of Slavonic origin found in 10th-century graves in Denmark are the insignia of high-ranking warriors from south of the Baltic who were buried following the tradition of the southern Scandinavian warrior elite (Dobat 2009; cf Pedersen 2009).

I would also like to mention the ship grave excavated in Isle de Groix off the coast of Brittany in 1906. A large ship had been buried with many other objects; on top of the cremation layer a big mound was raised. Bones from two men, as well as from several species of animals, were also found. The burial probably dates to the early 10th century. While it is usually accepted that the men in the Isle de Groix grave were from Scandinavia (Müller-Wille 1978), I would like to point out the similarities between this burial and a small, but important group of burials in Nordfjord, western Norway. First, the ship grave from Myklebost in Nordfjord is the only parallel to a burnt ship (as opposed to a smaller boat) that we know of from archaeology. Both of them consist of cremation layers under large barrows. There are also similarities between a number of the objects found in the Isle de Groix grave and

finds from Nordfjord, not all of which are the result of general similarities between aristocratic burials and aristocratic material culture in this period. For instance, one of the two swords in Isle de Groix is of Petersen's type O, and has its closest parallel in a burial at Myklebost. The other sword is of Petersen's type R and of the Norwegian specimens of this type, half can be found in the county of Sogn og Fjordane, where Nordfjord is located. The Celtic bronze bowl in the Isle de Groix burial also has a parallel in a find from a farm located only 10 km from Myklebost.

Settler graves in Iceland

In terms of the Scandinavian expansion westwards, in the North Atlantic most of the material comes from Iceland. There are no 'Viking' burials, in the sense of furnished burials outside of a churchyard in Greenland and the material from the Faroese Islands is scant indeed (Arge and Hartmann 1992; Gjerland and Keller 2010). In Iceland c 330 burials dated to the Viking Age are known. These seemingly differ from all of Scandinavia, and all of them are with one possible exception, inhumations (Eldjárn 2000; Friðriksson 2009, cf Byock et al. 2005). The graves are either flat graves or covered with small mounds, and no real monumental burials are known (Friðriksson 2009, 12). A characteristic feature of the Icelandic material is the large number of burials containing a horse. The distribution of burials is also worth noticing; while most settlement districts have Viking-Age burials, there are very few graves in the west. In standard literature it often suggested that there are no real parallels to the almost complete dominance of inhumations in Iceland, since bi-ritualism is supposed to be the norm in Scandinavia (Eldjárn 2000).

This is not entirely true. Even if we exclude Denmark and Scania, where inhumation is predominant (Eisenschmidt 2004; Kleiminger 1993), there are differing regional traditions even within Scandinavia. In the east in Sweden and in the Oslofjord area of Norway, cremation — in the form of cremation layers under mounds, not urned cremations — is the dominant rite. Further west, inhumation increases in importance, and in the coastal districts of western Norway it is slightly more common than cremation. In the north, on the north Norwegian coast, inhumation is as dominant as it is in Iceland (Sjøvold 1974). There is also a chronological dimension: inhumation becomes more important as a rite in all of Norway's coastal districts in the course of the Viking Age; in a district like Vestfold in East Norway cremation still dominates in the 9th century, but there are more inhumations than cremations in the 10th century. Another connection between the rites of populations in northern Norway and those of settlers in Iceland, is the number of flat graves evident in northern Norway; the further north one travels, the frequent flat graves are within burial tradition. Most burial mounds in these parts are also relatively small and not monumental, again, similar in tradition to Iceland. Differences of course are present as well; primarily the absence of horse burials from northern Norway.

In the Icelandic district of Norðurland eystra several cemeteries stand out in terms of traditions. The cemetery in Dalvík was excavated by Daniel Bruun in 1909. Along the beach were 13 graves in total although only two of these were visible above ground at the time of excavation. All graves had originally been covered by beach pebbles and turf and all were inhumations and in most the bodies lay in a supine position. However, four graves stood out: In these, the deceased had been placed in a crouched position in small pits (Bjørlo 2010). A similar type of burial was found at Gautland south-west of Myvatn in the same general area (Kålund 1882, 70). This is a very peculiar rite; 'seated' burial is one of the characteristics of Neil Price's völva graves, and the few known examples are mostly from chamber graves in central Sweden, as well as in present-day Russia (Price 2002, 127–40). There are also a handful of examples from boat graves, including at Kaupang (Stylegar 2007, 96). The only thing connecting the Dalvík graves with these examples is the position of the body; otherwise, they are very different. There is one cemetery in northern Norway, however, at the island of Jøa in the district of Namdalen, which compares very well with this Icelandic site (Bjørlo 2010, cf Mokkelbost 2007). Here, as in Dalvík, we have dead bodies placed in a crouched position in pits near a beach. All 24 burials are flat graves, and they date from the mid-7th century to the Viking Age. As in Dalvík, the graves were covered by a layer of stones. Other possible finds of this type can be traced in the region (Mokkelbost 2007). In this case it seems that Halsall's four criteria are fulfilled, especially since Iceland was not inhabited by the Norse until the late 9th century.

Vikings in the West

What about the British Isles, then? Unlike the Icelandic example, a Viking burial in England, Ireland and Scotland must be the burial of someone with a non-Anglo-Saxon, non-Celtic, non-Pictish and non-Christian identity (but see Harrison 2008; Halstad-McGuire 2010; Lerwick 2012 for a more critical approach). The question of 'otherness' in this context is important. In England, furnished burials of course disappeared for good during the 'final phase' in the 8th century (Geake 1997). For most scholars, then, a Viking burial tends to be a furnished burial, and sometimes this is the only criteria. Relatively few finds in the British Isles can be attributed to an intruding Scandinavian population. In England, in particular, furnished burials are rare. For the Viking Age there are fewer than 25 burial sites which have been described as Scandinavian, and the majority of those are single burials (Hadley 2008; Richards 2004). Many of the

finds from the English mainland are from churchyards, and it is the same in the Isle of Man. All of them are adult graves, and apparently mostly of adult males. The majority of the graves date from the decades around AD 900. The situation in Ireland is somewhat similar, in that outside the main sites of Kilmainham and Islandbridge in Dublin, only a dozen of sites are known. Scotland's Western and Northern Isles are of course very different; here, furnished burial is much more common in our period (Armit 1996; Graham-Campbell and Batey 1998). There is also a more equal distribution between female and male graves in Scotland, and boat graves and chamber graves, which are not represented by indigenous traditions, also occur. More than correspondence seems to connect the island graves to Norway's western coast, for instance specific artefact types (like the carved whalebone plaque from the Scar boat burial and other sites; these plaques are otherwise clearly linked to northern Norway, see Isaksen 2012) and weapon combinations characteristic of this region.

Moving now to England, churchyard finds in the Danelaw are problematic — indeed this is mildly put when it comes to finds like Repton (see Richards 2003; see also Biddle and Kjølbye-Biddle 1992). For chronological reasons, there are no real parallels to these graves in Scandinavia. Furnished burials at churchyards are a well-known phenomenon in parts of Scandinavia, primarily, but not exclusively in Gotland; however, these graves are from the late Viking Age and early medieval period, and thus substantially younger than the ones in England, and none of them contain weapons (Rundkvist 2003; Thunmark-Nylén 1995; 1995–2006; see also Kieffer-Olsen 2002; 2004). Halsall argues that many of those identified as Scandinavian in England, simply on the basis of objects from the grave, may have been misidentified and could well have been Anglo-Saxon (Halsall 2000). Recently, Dawn Hadley has commented on the gendered dimension of furnished burials discovered in the Danelaw, pointing out that most burials were prepared for men and contained 'items of strong masculine associations' (Hadley 2008, 271). According to Hadley, this masculine emphasis contrasts with the situation in other regions of Scandinavian settlement, such as the Western and Northern Isles (Hadley 2008). She concludes that 'weapon burials were constructed for a select group of elite Scandinavian men who conquered and settled in parts of northern and eastern England', but that the burials of the majority of the settlers must be found among the many unfurnished burials known from England in this period (Hadley 2008, 281). In fact a comparable emphasis on weapons and masculinity can be observed in Norway too in broadly the same time frame that such investments may have taken place in the Danelaw: in the decades around AD 900 and after (Stylegar 2010). In at least one area of Scandinavia, the Setesdal region in South Norway, furnished burial — including burial with weapons — even seems to reappear at the very end of the Viking Age, after decades without any recognisable furnished burial (Larsen 1984). Thus there are correspondences for these traditions of male investment, but not from churchyard contexts. The churchyard finds in England are also in tune within another respect with the Norwegian material: an overwhelming dominance of male graves. In Norway, several regional studies of gendered burials have concluded over the years that there are disproportionally more male than female graves represented in the Viking-Age material. In some districts, the male to female ratio is as high as 10:1. This seems to separate the burials in Norway — and in England — from those in Denmark, Sweden and Germany. On the other hand, there are also cemeteries with a much higher proportion of women's graves, and material from these cemeteries are typically the result of modern systematic archaeological excavation.

A large proportion of the Viking-Age material from Norway consists of loose finds or finds resulting from amateur excavations. The districts with most male graves are also the ones with fewest excavations. The burial finds resulting from professional excavations have a more equal distribution of male and female graves on site — and thus a sex ratio more similar to that found across southern Scandinavia. Areas with higher numbers of female graves also have a greater proportion of excavated cemeteries. It is not obvious why chance finds prejudice against female artefacts, but it seems likely that big iron objects like swords are more conspicuous than the few beads and bronze pieces that are often left with a female inhumation. The relevance of finds from England and Ireland seem obvious: some of the more recent Viking-Age finds — from sites like Cumwhitton, Adwick-le-Street and Fingals — have a much more pronounced female element, thanks to an increase in metal-detecting activity and better excavation methods (Speed and Walton Rogers 2004; Sikora 2010; Watson 2010).

As Hadley argues, Vikings were quick to adopt indigenous practices, and it soon became inappropriate to display 'otherness' in any form (Hadley 2008), making the identification of truly distinctive imported traditions difficult to really ascertain in terms of inhumation evidence, but one short-lived and highly distinct practice must without question offer evidence of Viking presence. In a 9th-century context in northern England, this means cremations. It also means that there is very little evidence to choose from.

An old find (1822) from Hesket-in-the-Forest (Cumbria) was probably a cremation burial under a large cairn; judging from 19th-century descriptions many objects were found in a cremation layer, including a bent iron sword and other weapons. Bent weapons are never found in inhumations in Scandinavia. An interesting observation is that a bone comb salvaged from the cairn seems not to have been on the funeral pyre; there are several parallels to this from western Norway, again primarily in Sogn og Fjordane. The Hesket burial may more reasonably be compared with Viking finds in the Irish Sea, rather than in the Danelaw. This is the case also with two other possible cremation burials from western

England — Claughton Hall and Crossmor in Inskip, both in Lancashire. These are both 'antiquarian' finds, and they seem to have been urned cremations in clay pots (Richards 1991, 113; 2004, 99). The Claughton Hall grave had both male and female artefacts. The female items comprised two oval brooches of Scandinavian type put together so as to function as a container. Only two instances exist where oval brooches have been used in a similar way, both in South East Norway. As stated earlier, urned cremations are mainly found in north Jutland and Åland, and to some extent in the Oslofjord area of Norway in the Viking Age, and either of these areas may have been the land of origin of the cremated individuals in Lancashire. The documentation is not detailed enough to come any closer than this.

Thankfully, this is not the case with my final example. The cemetery at Heath Wood, Ingleby in Derbyshire, is the only known cremation cemetery in Britain (Richards 1991; 2004). It has been published *in extensio* by Julian Richards, and I will only reiterate a few major points. The Heath Wood cemetery comprises at least 60 burials; partly cremation layers with charcoal, ash and bone from humans and animals, and partly cremation patches with redeposited charcoal and bone. There are no inhumations. The cremations are covered by low and relatively small barrows. Many burials contained weapons, including swords. It is an intriguing fact that several barrows had ring ditches and causeways. Richards concludes his study of the Heath Wood cemetery by stating that these burials 'represent a deliberate and physically imposing allusion to the pagan homeland of those who produced them; a statement of religious, political and military affiliation in unfamiliar and inhospitable surroundings' (Richards 2004, 104).

The question, once again, is whether the specific rites at Heath Wood give any indication of where this 'pagan homeland' was? Richards mentions Jutland, but adds that cremation was common in parts of Sweden and Norway, as well. The closest parallel to a barrow cemetery with only cremations, cremation layers as well as cremation patches, and with a predominance of weapons, including swords, is Kaupang in Vestfold. The cemetery at Nordre Kaupang was excavated in 1867 by Nicolaysen. He opened 71 barrows, of which 63 contained layers or patches of charcoal. Cremated bone was observed in 39 of these. Many burials had weapons, not least swords. The single axe, so common in many Viking-Age cemeteries in Norway, barely registers at Nordre Kaupang. The peculiar causeways at Heath Wood also have close parallels in Vestfold too — not at Kaupang itself, but at nearby Gulli, where several mounds had ring ditches with 'openings' to the north and south (Gjerpe 2005). Similar causeways are known from cemeteries in southernmost Norway, like Oddernes and Spangereid and the only real parallel to the causeways outside this part of the Norwegian coast is at Lindholm Høje in Jutland (Ramskou 1976, cat no 1668 and 1698).

In sum then, it seems the highly varied nature of Viking-Age burial rites in Scandinavia and in Norway extended to colonised lands as well; where distinctive new traditions were established that shared ritual elements with regions in the homeland and yet could also demonstrate striking regional variations too. This paper, through numerous examples, has shown how distinct traditions can be identified at very local and at supra-regional levels, underscoring the multiplicities of funerary rite evident in southern Scandinavia. On occasion highly distinct traditions can be identified in several places suggesting the sharing of a specific set of ideas between groups or the movement and settlement of distinct communities. Such evidence is rare, however, and this suggests that there is no easy way to identify the origin of settlers from burials in colonised territories, but this evidence of Viking colonised lands, nevertheless demonstrates the striking need, at least initially, for these settlers to demonstrate a distinct identity through burial traditions, signalling their presence as newcomers pressing forward in new frontiers.

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Crossing Edges? 'Person-like' Swords in Anglo-Saxon England

Sue Brunning

Prized above all other weapons, the two-edged sword looms large in Anglo-Saxon literature. Many accounts of extraordinary swords survive, some so vivid that the frontier between weapon and person seems indistinct. Swords are depicted with person-like attributes: they possess characters, visual identities, and life histories; they perform as active members of social networks, linking people via gifts, rewards, loans and bequests; and sometimes they even bear names, such as Nægling and Hrunting in the epic poem *Beowulf*, or Mimming in *Waldere* (Ellis Davidson 1962, 98–103; Cherniss 1973; Liuzza 2005, 98). Since most of these descriptions appear in poetry, should they be interpreted as reflecting no more than a poetic conceit? Or was this permeable boundary between human and artefact a genuine aspect of Anglo-Saxon thought?

A theoretical approach known as 'object biography' provides a way to interrogate these ideas archaeologically. Originating in anthropological research (e.g. Kopytoff 1986), its basic principle is that artefacts have life-histories that create (and help us to fully understand) their social and cultural significance. Processes like an object's manufacture, ownership, circulation, use, damage, repair, modification, eventual end and potential resurrection (e.g. by rediscovery, theft or excavation) determined its biography, infusing it with meanings and memories that resonated with those who interacted with it. Archaeologists have deployed this approach fruitfully in recent decades (a useful synthesis and critique in Joy 2010, 8–13; other key studies include Gosden and Marshall 1999; Hallam and Hockey 2001; and Lillios 1999).

Early medievalists have long recognised that heirlooms and ancient objects held special relevance in this period. This is clear from written sources (Cramp 1957), art (Carver 1986) and archaeology, such as the presence of recycled Roman artefacts in post-Roman contexts (White 1990) and 'old' objects buried with the dead — an ostentatious example being the Byzantine 'Anastasius' platter in the Sutton Hoo Mound 1 ship burial (Evans 1986, 57). Crucially for this study, antique swords seem to have been particularly significant (discussed early on by Ellis Davidson 1962). Early medieval archaeologists are expanding upon this earlier work by applying the newer 'object biography' approach. Important work has been undertaken, for instance, by Foster and Jones (2008) and Hall (2011) on sculpture; and King (2004), Eckardt and Williams (2003), Williams (2010) and Swift (2012) on more portable artefacts. In studies of early medieval weaponry, Härke (2000), Bazelmans (1999) and Williams (2005) have incorporated elements of the biographical approach, as have Theuws and Alkemade (2000), Fischer (2007) and Androshchuk (2010) for swords specifically. Recently, Reynolds and Semple (2011) considered whether swords were thought to absorb their owner's personal qualities which, when those qualities were negative or too powerful, may have influenced the 'safe' deposition of weapons in liminal places after their owner's death. The present study focuses upon how interactions between swords and their owner(s) helped construct a sword's biography and if this may have shaped perceptions of swords as 'person-like' in Anglo-Saxon England. The similarities between an artefact's 'biography' and a human life — birth, social interactions, ageing, injury, recuperation, death, the generation and storage of memories — are plain. Such an approach therefore provides a useful springboard into a study of this nature.

This paper attempts to partially reconstruct the biographies of several early Anglo-Saxon swords by examining physical traces of wear and modification left behind by the processes through which those biographies were acquired. The results are interrogated for evidence of how far, if at all, this basic 'person-like' attribute crossed into something more dramatic in Anglo-Saxon thought: for instance, swords with perceived personalities, identities or intense social relationships. Wear and modifications are sought on metal hilt- and scabbard-fittings (Fig 1) since these tend to survive well enough for close examination, unlike perishable organic fittings or iron blades, which corrode severely. Moreover, hilt- and scabbard-fittings were also the parts of a sword that were most susceptible to such changes over time, as this paper will demonstrate. While scholars have remarked upon worn or modified sword-fittings in the past, they have yet to be analysed in detail along these lines.

Most surviving Anglo-Saxon swords derive from furnished inhumation burials, practised between the later 5th to early 8th centuries (Williams 2011). This period therefore provides the chronological parameters of this study. The geographical focus is Kent in south-east England (Fig 2), because this region has yielded the highest frequency of early Anglo-Saxon swords with extant metal fittings (Gilmour 2010, 59). Typically the fittings in question are pommels, and less frequently the

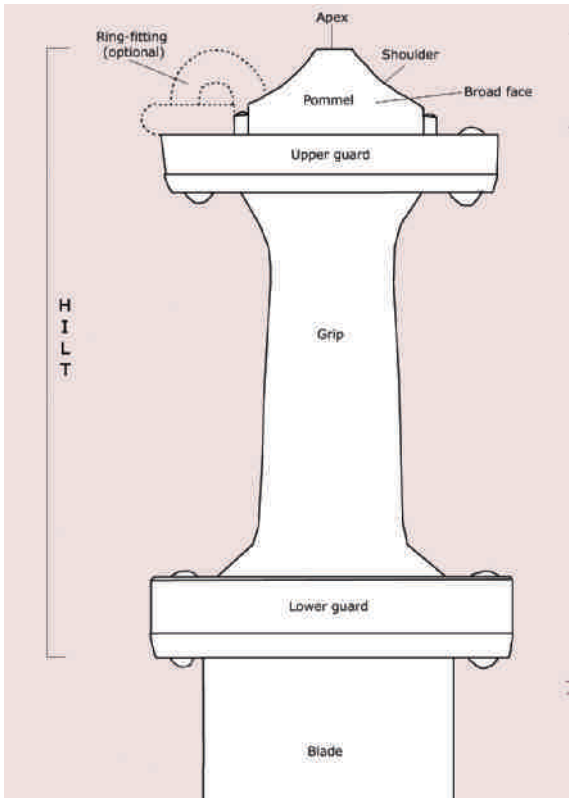

Figure 1. Diagram of metal hilt-fittings on an early Anglo-Saxon sword. Illustration: Sue Brunning.

upper or lower guard or a scabbard-fitting. From a corpus of 198 swords collected for this study (largely collated from HARRINGTON and BROOKS 2008), 43 were adjudged to have some form of surviving metal fitting. Not all were available for first-hand examination, but those that were demonstrated signs of wear and/or modification. This short paper presents several representative examples from this study, which was undertaken as part of doctoral research conducted at the Institute of Archaeology, University College London.

Wear

Wear manifests on metal sword-fittings as the smoothing of relief ornament (cast, chip-carved, etc); a loss of definition or crispness in recessed ornament (punches, incised motifs, etc); the flattening and merging of beaded or twisted wire; abrasion marks; and the loss of gilding, niello or inlaid gemstones or glass. Signs of wear must be interpreted with a strong consideration of context, since certain metals and types of decoration are more prone to wear than others. Early Anglo-Saxon metal sword-fittings were made from gold, silver and copper alloy. Gold, the softest of these, would wear more quickly than silver with copper alloy being the least prone. In terms of ornament, relief decoration standing proud of the surface was more susceptible to wear than recessed designs. Most prone of all was gold filigree, with the combination of soft metal, relief ornament and fineness

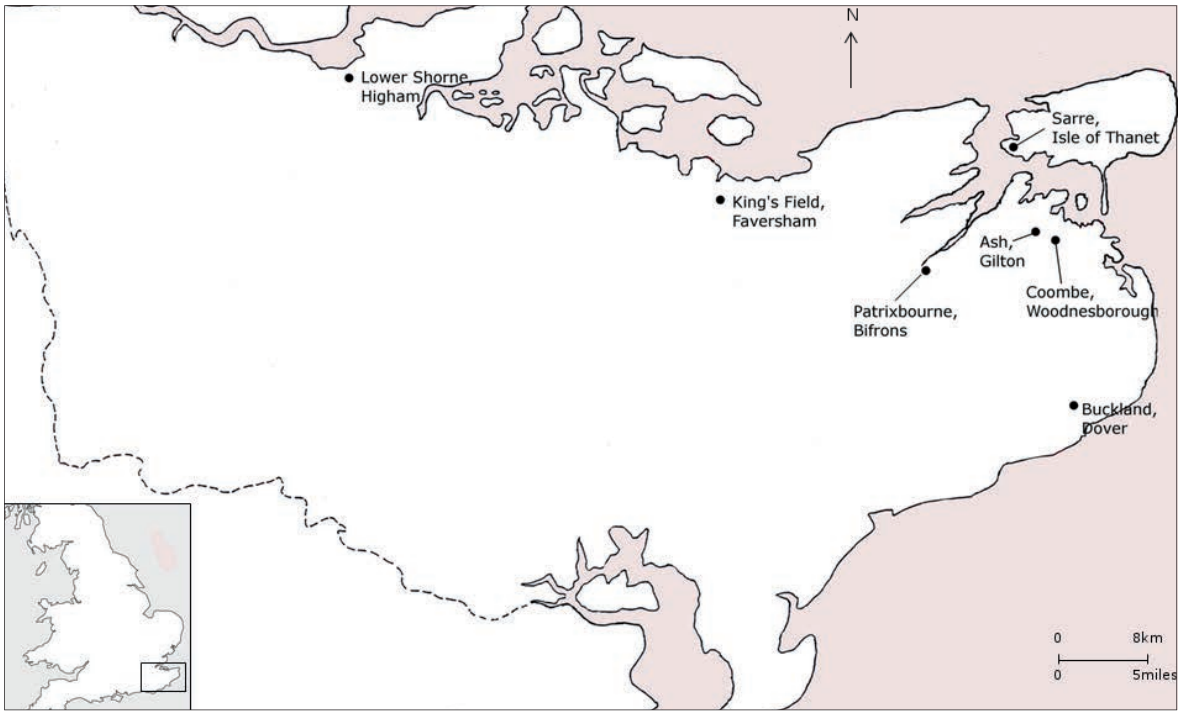

Figure 2. Map of early Anglo-Saxon Kent with sites mentioned in the text. Illustration: S. Brunning, base map adapted from RICHARDSON 2005, map 2.

making it especially vulnerable to deterioration. Another factor is that certain metals corrode more than others, with gold and silver surviving well but copper alloy more variable in its preservation, depending on the conditions in which it was deposited. As a result, wear is more readily observed upon gold and silver than on copper-alloy fittings, where corrosion can obscure it or make it difficult to determine whether a patch of deterioration was caused by corrosion or wear. A largely-unknowable factor is how long it would have taken for a sword-fitting to reach the level of deterioration observable today, since we cannot know how often or robustly the sword's owner(s) handled it. Scientific analysis of metal composition may provide rough clues, but unfortunately the influence these factors had remains elusive.

The Kentish sword-fittings analysed for this study demonstrated that wear was more likely to occur in certain locations. On pommels, wear was found most frequently upon the broad faces, apex and one or both of the shoulders (Fig 1). Ring-fittings (associated with a number of swords from certain regions at this time: Fischer 2007; Steuer 1987; Evison 1967; 1976) typically became worn on the top of the ring's bracket and the circumference of the ring itself. In several cases the pattern of wear was asymmetrical: one side of the fitting was more degraded than the other.

Grave C at Buckland, Dover, yielded a fine mid-6th-century sword with an iron pattern-welded blade and well-preserved silver hilt- and scabbard-fittings (British Museum, BEP 1963,1108.751; Evison 1987, 214–15, figs 1–3 and 66; Cameron 2000, no 102; Fischer 2007, no 5, 53–7, figs 20–1). The pommel, of Menghin's Bifrons-Gilton type (Menghin 1983, 313), has a free-running ring-fitting. One broad face is decorated with three ring-and-dot motifs linked in a triangular arrangement by incised lines, while the other is largely plain except for two incised lines. Only the ring-and-dot face could be examined as the sword is too fragile to turn over. The uppermost dot in the triple ring-and-dot design is clearly degraded where the top of the pommel has become worn down (Fig 3a). Half of the inlaid niello is lost, although it is not clear whether this occurred in antiquity, after deposition, or during excavation. Another ring-and-dot probably decorated the pommel's apex, evidenced by a tiny circular depression resembling the 'dot' part of the motif (Evison 1987, 214). Other contemporary silver pommels have this design on their apexes, such as that from Grave 56 at Ash, Gilton (Liverpool World Museum, M.6061; Fischer 2007, no 14, 83–4, fig 44). If the Buckland sword had something similar, the motif had virtually worn away before it was buried. Silver strip-like scabbard-fittings along the blade's edges also show signs of wear (Fig 3b–c). Each strip is embellished with four groups of five incised and gilded horizontal lines. On one fitting, these lines are severely worn on the outermost edge, while those on the innermost edges (closest to the blade) are better preserved. The surface of the same fitting also has some abrasion marks. The other silver scabbard-fitting is far less abraded and its incised decoration is crisper with little loss of gilding within the recessed lines.

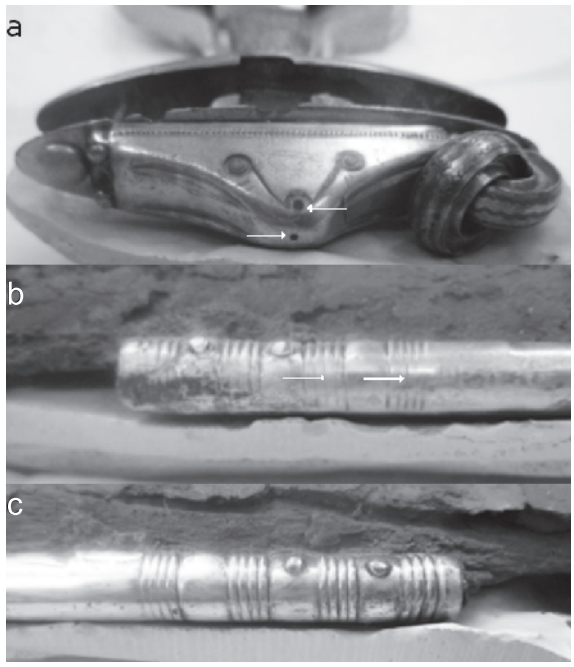

Figure 3. Buckland, Dover Grave C sword fittings with areas of wear marked. (a) Pommel. (b–c) scabbard-fittings. Photographs: S. Brunning, © Trustees of the British Museum.

Grave 39 at Patrixbourne, Bifrons, contained a mid-6th-century sword with an iron pattern-welded blade. Its hilt has silver-gilt fittings and a free-running ring attachment (Maidstone Museum, Kent Archaeological Society 39; Hawkes 2000, 24–5; Fischer 2007, no 1, 42–4, figs 10–11). The pommel, also of Menghin's Bifrons-Gilton type (Menghin 1983, 312), has an incised central swastika motif on one broad face and a design of alternating vertical straight and zigzag lines on the other. Both faces have a border of punched triangles.

This punched border deteriorates towards the top of the pommel on both broad faces, but particularly on the swastika-incised face. The pommel apex shows extremely faint traces of punched and nielloed ornament, but so faint that it is difficult to ascertain whether this area was once decorated at all. It seems likely, since many other surviving pommels have decorated apexes — in which case the Patrixbourne pommel would be exceptionally worn. The gilding on the pommel's surfaces has worn off in patches; while the incised zigzag line and punched triangles decorating the circumference of the free-running ring are somewhat eroded, probably exacerbated by the ring's action through its bracket. The punched triangles on top of the bracket are partially lost, suggesting that their depth depleted as the metal wore down during the sword's life (Fig 4a).

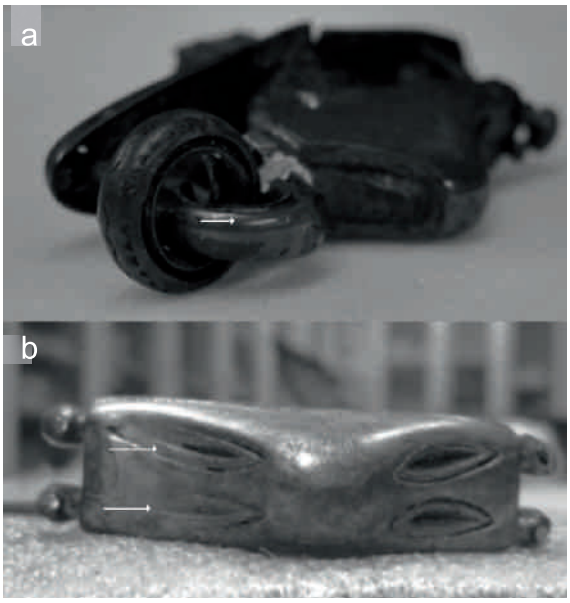

Figure 4. Pommels with areas of wear marked. (a) Patrixbourne, Bifrons Grave 39. Photograph: S. Brunning, © Kent Archaeological Society. (b) King's Field, Faversham. Photograph: S. Brunning, © Trustees of the British Museum.

Although exact time-scales are sadly irrecoverable, these clear signs of wear hint that these particular swords had been in circulation for some time before they were buried. During this time, we might infer that they built a varied biography, participating in different conflicts, passing through different hands as gifts or bequests, thereby functioning as active participants in a family or broader social network and becoming familiar 'figures' in those circles. In this basic sense it is possible to appreciate how a sword might become perceived as 'person-like', in that its life-course was similar to the humans who interacted with it. However, a closer look at wear patterns on these swords implies that the parallels went further than this. Worn areas were chiefly located on parts of fittings that were most susceptible to touching, resting of the hand or rubbing against clothing and body when the sword was worn sheathed at the hip. This implies that owners wore and interacted with their swords outside of combat too, which in turn implies that they believed their weapons were an important part of their identity. In this reading, swords were not only 'person-like' but perhaps functioned like an 'extension of self' for their owners (a point returned to below). Asymmetrical wear patterns on several fittings broaden the picture.

A 6th-century silver-gilt pommel of Menghin's Bifrons-Gilton type (Menghin 1983, 314) from Lower Shorne, Higham (Maidstone Museum, Kent Archaeological Society 4682; Fischer 2007, no 20, 95–6, fig 52) features a zoomorphic design on one broad face and a simpler incised geometric motif on the other. The upper edges of both faces are bordered by punched triangles. On the zoomorphic face these punches are crisp for the entire length of the border, while those on the geometric face become increasingly worn towards the top of the pommel: some have even disappeared. The geometric motif has also lost definition in the same area (Fig 5a), giving the overall impression that the geometric face is more worn than the other.

A pommel from Grave 104 at Sarre, Isle of Thanet (Maidstone Museum; Brent 1866, 175) is a more dramatic example. Both broad faces are incised with nielloed designs that imitate the garnet cloisonné inlay technique used on very high-status jewellery and sword-fittings, like those from the Sutton Hoo Mound 1 ship burial and Staffordshire Hoard (see below). One broad face is set with a circular red stone, possibly a garnet, surrounded by concentric circles that have been incised to mimic the gold beaded-wire collars that often encircled garnet cabochon settings. The top part of this mock collar is visibly degraded, as are the imitation cloisonné cells nearer the top of the pommel. However, the opposite broad face is in far worse condition: the gilding and niello are largely lost while the incised cell-work deteriorates markedly not only towards the top of the pommel but more broadly across the face (Fig 5b).

A pattern-welded sword from the cemetery at King's Field, Faversham has a silver-gilt pommel of Menghin's Bifrons-Gilton type (Menghin 1983, 313) with a very distinctive wear pattern (British Museum, BEP 952.'70; Fischer 2007, no 6, 57–60, figs 22–3). Viewed from the top, it is plain that the gilded almond-shaped recesses decorating both shoulders are fairly crisp on one side but virtually worn away on the other (Fig 4b).

One explanation for these differential wear patterns is that the sword's owner always wore his weapon in its scabbard the same way round every time, meaning that the same parts of the fittings always rubbed against the body while the opposite parts did not. The fact that the two faces of pommels were often decorated differently could support this idea: typically, the plainer of the two faces is more worn, implying that owners chose to display the fancier, more distinctive 'face' of their swords when wearing them – meaning that the plainer face was always inwards and rubbing against the body. For example, the glitzier, stone-set face of the pommel from Sarre is less degraded than the plainer side, as is the more ornate zoomorphic face on the Lower Shorne pommel. This raises the possibility that swords were thought to have a 'public face', a persona even, which its owner wished to display so that it could be admired and recognised. It is feasible that a sword became familiar to those who saw it regularly, acquiring a visual identity based on its distinctive characteristics.

Modification

Early medieval swords, especially their hilts, were multipartite objects and therefore highly customisable. Owners with

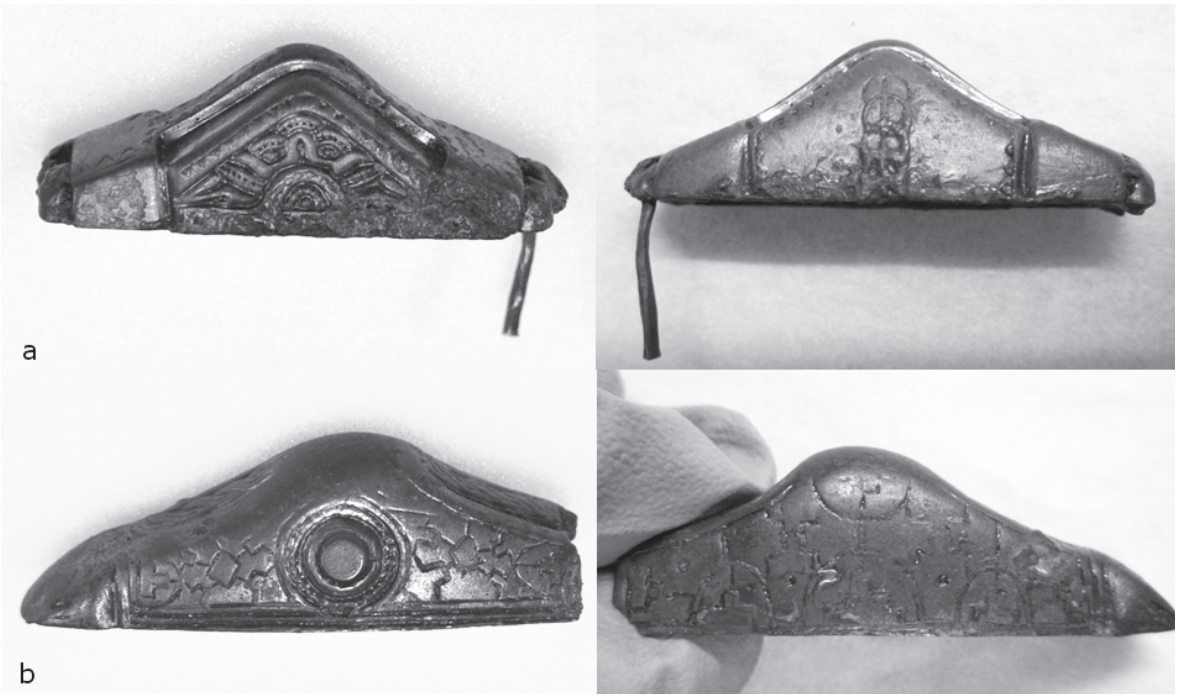

Figure 5. Asymmetrically-worn sword pommels. (a) Lower Shorne, Higham. (b) Sarre, Isle of Thanet Grave 104. Photographs: S. Brunning, © Kent Archaeological Society.

the resources could personalise their weapons by adding, removing or augmenting fittings over time to create a visually-distinctive sword with components of different type, date and ornamental style. A 7th-century sword from Vallstenarum, on Gotland, Sweden (Arrhenius 1970; Nerman 1975, no 160; Nørgård Jørgensen 1999, no 333) is a dramatic example. Its gold and garnet-inlaid pommel is fitted with a large gilt-copper-alloy ring-fitting that is clearly a secondary addition: the pommel's cloisonné cell-work was partly destroyed in order to accommodate it (Arrhenius 1970, 194). In this way, owners could invest their swords with a unique visual identity. Indeed, anyone who studies early medieval swords quickly comes to recognise specific weapons by their fittings: while pommels, guards, grip-mounts and scabbard-fittings might be the same type or shape, their decoration or combination differs between swords so that they become familiar by sight, their features working something like those of a human face. There is no reason to doubt that Anglo-Saxons came to recognise swords they saw regularly in the same way.

Kentish swords were also modified with ring-fittings, like those from Buckland and Patrixbourne described earlier. Evidence suggests that rings were both added to and subtracted from sword-hilts over time. Several pommels have shoulders pierced with a hole that probably represents an adaptation made to accommodate a ring-fitting, which was subsequently removed before the sword was buried. Examples include the weapons from Ash, Gilton (World Museum, Liverpool, M.6402; Menghin 1983, 314; Fischer 2007, no 17, 87–90) and Grave 91 at Sarre (Maidstone Museum, Kent Archaeological Society 838; Brent 1866, 173; Menghin 1983, 311; Fischer 2007, no 26, 116–7).

Scratches, gouges and filed-down areas on pommel terminals may be evidence for a removed ring-fitting, as observed on pommels from Sarre, Grave 91 and Lower Shorne (Evison 1967, 69–70). Similarly, a fine sword from a cremation burial at Coombe, Woodnesborough may once have had a cast ring-knob fitting signified by a headless rivet on the upper guard and a plain ledge on one of the pommel's shoulders (Saffron Walden Museum; Ellis Davidson and Webster 1967; Menghin 1983, 313; Fischer 2007, no 4, 51–2). Indeed, early records of the sword's 19th-century excavation claim that a ring-fitting was found in the burial, but its whereabouts are now unknown (Ellis Davidson and Webster 1967, 2–3).

Like wear patterns, modifications to a sword's original configuration suggest that it had been in circulation for some time, acquiring a chequered biography that can be partially reconstructed. Ring-fittings also hint at a stronger parallel between persons and swords. They have been interpreted as representing oaths of loyalty sworn by warriors to their lords: the ring's addition perhaps marking the initial swearing of the oath and their removal occurring if that oath was broken, or the person who made it died. In this reading, the use of ring-fittings mirrored the stages of a warrior's career (Steuer 1987, 203–5; Fischer 2007, 25; Evison 1967, 63–4). In such a way, swords could become a physical record of their owner

or owners' life-histories: their successes, failures, victories and defeats. This returns us to the notion of swords becoming an extension of their wielders, their identities intertwining and the boundary between them blurring. Perhaps this helped to fuel perceptions of swords as 'person-like' entities in the minds of those around them.

In light of this, it is important to query whether other modifications made to swords occurred in conjunction with stages in their owners' lives. A small number of swords from Kent have fittings that seem to have been fresh when the sword was buried. For instance, the fittings on the Coombe sword were described by Ellis Davidson and Webster in 1967 as 'pristine' — an assertion confirmed by first-hand examination for this research. Its gilding and niello are thick in places most prone to wear, namely the upper broad faces, apex and shoulders of the pommel; but there are small hints that the sword was not necessarily brand new when interred. A modern Perspex block sandwiched between the two metal plates of the upper guard reveals how the pommel and guard fit together. One of the rivets fixing the pommel to the upper guard is bent in order to make the connection, whereas the rivet on the other side is straight. Moreover, the pommel's position on the guard is slightly off-centre: the distance between the edge of the upper guard and the pommel terminal is 15.8 mm on one side and 17.6 mm on the other. This, together with the pommel's generally-fresh appearance, raises suspicion that the pommel and upper guard did not originally belong together. The pommel may have been added to the hilt at a later stage in the sword's life. Fresh fittings could represent replacements for damaged or decrepit parts, the changing tastes of an owner or even a change of owner; but it is just possible that they, like ring-fittings, marked a particular phase in their owner's career: a coming of age; a success, victory or rise in status that enabled him to upgrade his weapon; inheritance of a sword that he personalised with a new fitting; or even perhaps his death. Were some favourite swords primped for the mortuary ritual, just as their owners' bodies were (John Worley pers comm)? These possibilities demonstrate again the ways by which the boundary between sword and its owner — a person and an object — could become indistinct in Anglo-Saxon England.

Conclusion: 'person-like' or 'extension of self'?

Archaeological evidence from early Anglo-Saxon Kent suggests that swords could build chequered biographies that can be partially reconstructed today by interpreting physical marks left upon them. Their form and features changed over time, showing signs of age or they were given a new lease of life through modifications. The customisability of fittings, together with the way in which they were decorated, enabled owners to give their swords a distinctive visual identity so that they became familiar on sight, like a human face. By such means, it is possible that Anglo-Saxons came to interpret swords as 'person-like'; but there are also clues that swords might, in certain circumstances, have been seen not just as *like* a person, but as *part* of a person. Wear patterns and modifications suggest that swords could become 'extensions of self', developing in tandem with their owners until their identities grew indivisible (Hedeager 2011, 13–16).

The idea that swords and owners shared identities opens tantalising interpretive avenues for the most spectacular Anglo-Saxon discovery since the Sutton Hoo ship burial in 1939: the Staffordshire Hoard, a cache of 6th- to 8th-century fragmentary precious metal artefacts unearthed in the West Midlands whose contents is dominated by sword-fittings (Webster et al. 2011; Leahy and Bland 2009; Fern this vol). The hoard is still undergoing research and analyses but the few pommels that were available to view for this study share features with the Kentish pommels that indicate, importantly, that they too may have been perceived as extensions of their owners.

Two representative gold pommels, numbered K352 and K680, are significantly worn. One broad face of K352 is decorated with garnet cloisonné inlay surrounding small gold filigree panels with minor signs of wear, characterised by merged individual beads on the beaded wire. The opposite face is decorated with a filigree interlace design that is clearly worn in several places. Similarly, K680 has one broad face decorated with cells containing an as-yet unidentified greenish substance (Susan La Niece pers comm) surrounded by a partially-worn border of beaded wire, while the other features interlacing filigree that is severely worn across much of its surface (Fig 6). Indeed, a British Museum scientist remarked that it was difficult to measure the size of the individual gold beads because they are so merged and flattened (Aude Mongiatti pers comm).

Asymmetrical wear patterns may be present on both pommels too. Superficially, the more ornate inlaid faces appear to be less worn than the (comparatively) plainer filigree-only faces; but it is important to note that the two faces do not present a wholly-fair comparison. As discussed in the introduction to this paper, gold filigree is especially prone to wear so it is possible that the signs are simply easier to identify on the filigree face than they are on the inlaid face. An asymmetrical wear pattern would, however, correlate with the Kentish swords, supporting an argument that the glitzier faces of these pommels were probably on show when the sword was worn at its owner's hip. In this way its distinctive visual identity could become familiar to observers, associating it inextricably with a particular owner or, if passed on, string of owners.

If some Anglo-Saxons did perceive swords as an extension of their owners, the destruction of swords represented by the Staffordshire Hoard takes on a very potent dimension. A compelling interpretation of the hoard, supported by what is known of the contemporary historical context from written sources like Bede's *Historia Ecclesiastica*, contends that it



Figure 6. Staffordshire Hoard: pommel with severely-worn filigree decoration. Photograph: S. Brunning, © Birmingham City Council and Stoke-on-Trent City Council.

comprises battle spoils looted by Mercian warriors from enemies hailing from another kingdom — most likely Kent or East Anglia, where high-status metalwork similar to that in the hoard is more typically found. In this reading the obliteration of these swords may have echoed that of their owners — an idea proposed for Bronze-Age swords (Quilliec 2008). If the assistance of a craft specialist was required (Quilliec 2008, 67), we might speculate that the dismantling occurred in a public setting: a ritual re-enactment or reaffirmation of a battlefield victory, disfiguring and dishonouring the swords as their owners themselves had been in battle — the act symbolising total mastery over one's foe. This would work because distinctive hilt- and scabbard-fittings were the means by which most people would come to associate specific swords with specific owners who, as wear patterns reveal, probably wore them outside of combat too. Blades, by contrast, were hidden in their scabbards much of the time and were unlikely to become so readily associated with specific owners: their idiosyncratic pattern-welded designs (Gilmour 2007; 2010) were familiar only to those who saw them unsheathed regularly (Gareth Williams pers comm). This may help to explain why no blades were buried in the Staffordshire Hoard: perhaps they were less charged with the identities and memories of their defeated owners, and as such were less controversially redistributed. They could begin new chapters in their biographies with owners who gave them new fittings and visual identities relevant to their own circumstances and careers. The stripped fittings, meanwhile, embodied their previous owners and had become a symbol of their defeat.

While this is speculation, an echo of this attitude appears in the Old English epic poem *Beowulf*. The poem's date has been a perennial point of debate with no consensus yet reached: despite surviving in one manuscript dating to around AD 1000, some have argued that it was composed during the period in which the Kentish and Staffordshire Hoard swords were used (Fulk et al. 2008, clxii-clxxxvii; Orchard 2003, 5–8; Liuzza 2000; Bradley 1982, 407). In a prophetic moment, Beowulf predicts a scenario in which an elderly warrior goads a young comrade to break a peace-treaty by drawing his attention to a sword once owned by his father, and now worn in front of him by his father's killer. Sure enough, the sight of the sword and the memories it provokes inspires the son to bloody vengeance (lines 2036–66). While we should be cautious about interpreting too broadly from a single literary reference, the idea it raises is worth considering. Perhaps the old warrior's provocation is successful because the son is able to recognise the sword by its distinctive fittings, and is powerfully moved by the cognitive association between the weapon and his father. In this reading, it is just possible that the sword-fittings examined here, and those of the Staffordshire Hoard in particular, mark a most startling expression of the permeable boundary between person and sword in early Anglo-Saxon England.

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Treasure at the Frontier: Key Artefacts from the Staffordshire Hoard

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Introduction

This article details several key artefacts from the Staffordshire hoard, an extraordinary find of Anglo-Saxon gold and silver, discovered by a metal-detectorist in July 2009, near Hammerwich (Ogley Hay), north of Birmingham.[1] Befitting the theme of the 63rd Internationales Sachsensymposion, this location was a frontier with the British West for much of the period, though by the later 7th century it had become the centre of the kingdom of Mercia (Fig 1). The artefacts are two pommels (K358 and K711), a large zoomorphic mount (K652/1249), and a suite of cloisonné fittings from the hilt of a large knife or seax (K354/370/376/449/690). One (K711) is an import, and one of the hoard's earliest pieces. The others are 'princely' items of Anglo-Saxon manufacture that stand out even among the gold, garnet and silver wealth as a whole. Their examination will show that they were probably made far from where they were found.

Accounts of interregional warfare dominate the historical record for the period, including notable Mercian victories against the kingdoms of the West Saxons, Northumbrians and East Anglians, before a major defeat in AD 655. Against this background, the hoard has been interpreted as battle loot, as it comprises mainly war-gear: the possessions of defeated warriors and perhaps even kings (Leahy and Bland 2009, 12). However, more fundamentally it asks questions about the nature of power in this crucial era of political formation, explicitly its articulation through material wealth, at a key Anglo-Saxon frontier context and beyond.

The hoard and its location

Many hundreds of objects are represented in the hoard, in some 3900 fragments (Tab 1). The majority are gold, many set with garnets, with a combined mass of c 5 kg, several times that of the gold found at 'royal' Sutton Hoo, in Suffolk (Bruce-Mitford 1975–1983). To this is added around 1 kg of silver. Fittings from swords dominate, including remains of a minimum of 79 pommels, but there is also at least one helmet. In contrast, there are no female-type objects, no coins and only a few buckles, though there is a small and significant assemblage of Christian items. As a mass deposit of war-gear it is unique in early England (see Hills 2011 for European parallels). Early interpretations have been split as to what it represents: a cache of bullion — a Mercian royal treasure, perhaps (Behr 2010; Halsall 2010) — or a scattered pagan offering (Périn 2011). The condition of the metalwork is crucial to this understanding. The sword fittings show damage consistent with crude and systematic removal. There are cut-marks on many and some pommels bear marks that suggest smithing tongs were used to pull them from their swords. In sum, the gold and silver seems to have been harvested — no blades were included and very little base material (see also Brunning this volume). A coordinating hand is suggested. The damage to the Christian items may be interpreted differently. The folding of the large gold cross (K655) and the gold strip (K550) with its biblical inscription[2] could have been done to fit these larger items into a small box or bag with the rest of the collection (Leahy and Bland 2009, 16, 36–9). It need not have been iconoclastic in intent, although this remains a possibility. However, the injury done to the only definite pectoral cross (K303) is less ambiguous: one of its arms was snapped off with some effort.[2]

If the hoard's martial character makes it difficult to resist the 'battle loot' interpretation, it must nevertheless be understood that the objects are not all immediately contemporary, but span a considerable timeframe from the mid-/late 6th to mid-/late 7th centuries. Also the range of decoration and forms in the assemblage strongly suggests different origins. The overall impression, therefore, is not out of keeping with war trophies accreted over 'a long military career' (Leahy and Bland 2009, 12). Likewise, Webster (2011; 2012, 125) has suggested the Christian items could have been the talismans of defeated armies. Even so, coins and at least some non-military paraphernalia (e.g. brooches) might have been expected in any maintained treasury.

The enigma of the hoard is further enhanced by its setting (Fig 1; Härke 2011). An excavation at the site shortly after its discovery by Birmingham Archaeology recorded finds scattered over a roughly 20 sq m area, but no other Anglo-Saxon activity (except for a harness mount found up to 100 m away). If the plough-dispersed assemblage had been buried in a shallow pit, no trace survived (Dean et al. 2010, 144). Hooke's study of the local context has concluded this locality was probably remote, wooded and thinly populated (in Dean et al. 2010, 148), but its placement remains significant. It was located on a ridge of ground beside Roman Watling Street

Object type	Gold	Silver	Copper alloy	Garnet (loose)	Glass	Stone	Total
Buckle	2	2					4
Cloisonné mounts (incl. filigree panels)	63						63
Cloisonné roundel	8						8
Cross (pectoral)	2						2
Cross (processional)	6	1					7
Edging (C-section)		55					55
Helmet: crest(s) and cheek-pieces	2	31					33
?Helmet: strip		c 750					c 750
?Helmet: sheet		c 750					c 750
Mount (hilt and non-hilt)	148	22	5				175
Mounts with niello		76					76
Hilt-collar	125	49					174
Hilt-plate	164	111					275
Hilt-ring	44	26	37				107
Pommel	77	73					150
Pyramid fitting	8	6					14
Scabbard-button	2					1 (bead)	3
Sword-ring		3					3
Cross-hatched foil	39						39
Garnet				72			72
Rivets, nails, washers and bosses	98	146	4				248
Other sheet metal	23	707	6				736
Miscellaneous	28	66	75		1		170
Total	839	(c) 2874	127	72	1	1	(c) 3914

Table 1. Object types in the hoard by fragment count.

(now the A5), doubtless a major thoroughfare, and in time this landscape was to become the royal heartland of the kingdom of Mercia. However, in the early 7th century the region's patchwork of folk territories of the *Miercan*, or 'border dwellers', probably remained to be unified (Brooks 1989, 160–2; Hooke 2010). This is without doubt an incongruous spot for the hoard's hundreds of awe-inspiring artefacts, the like of which are ordinarily rare and most often associated with the kingdom aristocracies of East Anglia and Kent, in south-east England (Bruce-Mitford 1975–1983; Speake 1980).

The finds

The selected finds in this paper all have animal ornament of Salin's Style II (1904; Speake 1980), an art style that features on around 130 objects in the hoard (Fern 2015; Fern and Speake 2014). Understanding of the chronological development and regional distribution of the style offers potentially the best means, currently, of dating and provenancing this portion of the collection (Høilund Nielsen 2010). In the first instance, therefore, the selected artefacts have been analysed according to the animal-element method of Høilund Nielsen (1999). The results are shown in Tab 2. Her study used correspondence analysis to create date-phases for the two regional versions of the ornament in England, so-called 'Anglian' and 'Kentish' Style II. All four objects belong to her Anglian phases: one is of Phase SC ('Scandinavian'), the third quarter of the 6th century; one is of Phase A2, the late 6th to early 7th century; two are of Phase MS ('Manuscript'), beginning c AD 620.[4] It should be noted that her phases predate the recent re-examination of early Anglo-Saxon chronology, in *Anglo-Saxon Graves and Grave Goods of the 6th and 7th Centuries AD* (Bayliss et al. 2013).

Pommel K711

Pommel K711 (Fig 2a; L 49 mm; W 16 mm; H 18 mm) is perhaps the most important of a small number of silver fittings



Figure 1. Map showing the hoard location, the major territories of 7th-century England, and the distribution of pommels of Hoard – Market Rasen type in relation to major Roman roads and the River Trent.

in the hoard that could have come from 'heirloom' swords: weapons that were in circulation for a considerable period. This is demonstrated by the heavy wear to the pommel's top and edges, where the relief decoration has been worn smooth. Originally it would have had gilding and contrasting black niello inlay, only traces of which survive. Its form and ornament suggest it was made in Scandinavia.

It combines attributes of two of Menghin's groups (1983, 312–17): *Typ Bifrons – Gilton* and *Typ Beckum – Vallstenarum*. The unequal number of rivet-housings at the ends (two/three) and their low profile are features of the former group, but in its shape and use of Style II it is closer overall to the character of the latter group. One of its sides has been slightly bowed out, possibly caused by levering. The breakage at its end could have been caused by this same act, though it might also represent a deliberate modification, perhaps to add a sword-ring (Evison 1967; Menghin 1983). One sword-ring (K543) in the hoard demonstrates an approximate fit with the pommel, but there is nothing else to confirm the match, such as a contact mark.

The cast decoration is striking and significant (Fig 2b). A bearded head stares out from one side with captivating, ecstatic eyes — an 'all-seeing' godhead. It is flanked by detached animal legs, each with a spread foot and pear-shaped hip. The other side shows two creatures centrally with ribbon-like bodies, and a single leg and backward-turned head each. In the corners are the heads of boars, with tusks and blunt snouts. Rhythmic, geometric interlace decorates the shoulders. It is likely this symbolism had deep mythological or religious meaning originally (Høilund Nielsen 1998; Gaimster 1998).

The composition of a human head between animal legs is derived ultimately from the popular motif, continued from the Roman period, of a head or figure between two beasts (Haseloff 1986, 95–101). The reduction of the beasts to a single leg only, as in this case, agrees broadly with other Germanic versions of the motif. In other instances the human head was merged with the animal bodies, to create what Haseloff termed the *tiermensch* ('animal-man'). Early Anglo-Saxon versions occur, for example, on button brooches and scabbard-mouth fittings (Evison 1967, 75, fig 15g; 1976, 311–12, pl LXVa; Avent and Evison 1982, 95). However, few have the personality of the K711 head. It contrasts especially with the only other examples of face-masks on pommels from England, from Coombe and Lower Shorne, in Kent (Davidson and Webster 1967, 18, 25, figs 3–4). Nor is it like mask designs on pommels from the Upper Rhine region and Finland, of the 7th century, though they serve to demonstrate the far-flung currency of the device (Davidson and Webster 1967, 25, n 93; Menghin 1983, 325–6). Rather, the closest parallel to the pommel head is the moustachioed figure on the famous buckle from Åker (Hedmark), Norway (Figs 2c and 2f). The buckle's Style II decoration is cast in a similar depth of relief, in silver with gilding, and has niello patterning that is akin also. In particular, the kindred heads share the unusual detail of a nose-bar, as well as stippled hair and wide

Object		Head	Body	Legs	Feet	Phase
Pommel	K711			A3, C3	A2, C3	Phase SC
Pommel	K358a	B2, D1	C2	B2	A2	Phase MS
Mount	K652/K1249	B2	B1	A1, A3	A2, C3	Phase A2
Seax	K370/K449	D1	?A10/E1, ?C6	A2, B5		Phase MS

Table 2. The animal-elements on the artefacts, according to the method of Høilund Nielsen (1999). Phase SC (third-quarter 6th century); Phase A2 (late 6th–early 7th); Phase MS (c AD 620+).



Figure 2. (a–b) Pommel K711. c) Buckle from Åker, Norway. d–g) Male heads: d) Sjælland buckle; e) K711; f) Åker buckle; g) Kölked buckle. h) 'Horses' on the Sutton Hoo shield-boss. i) Pommel from Endrebacke (Gotland), Sweden. j) Pommel from Hög Edsten, Sweden. k) Buckle from Sjælland, Denmark. (Scale 1/1, except: (f) less than 1/1; (h) 2/3)

ecstatic eyes (Figs 2e–f). This suggests a common origin, and the buckle shows too how brilliant pommel K711 once was.

The much-debated origin of the Åker buckle is of significance to pommel K711, therefore. It is now thought to have been part of a hoard of belt and weapon fittings (Nybruget 1992; see also Slomann and Christensen 1984). Most agree it was not made in Norway, though there is no consensus as to its origin. Roth (1986, 123) argued it was an import from east of the Upper Rhine, where buckles with ornamented plates were popular. Also the device of a man or head between beasts is found on several continental buckle types (e.g. Lorren 2001, 316–19, pl xliv, 6). One particularly comparable visage is on the tongue-plate of a buckle from Kölked-Feketakapu, Hungary (Fig 2g; Kiss 2001, 293–4). Nevertheless, the Åker buckle has not been accepted as Frankish by others. Cleve (1943, 22) proposed long ago that the Åker finds were of 'east Scandinavian workmanship', while Fett (1945, 12) favoured a south Scandinavian origin. Likewise the character of the Kölked-Feketakapu buckle could point to this region, based on its affinities with a buckle from grave XIV at Tuna, Sweden (Arne 1934).

K711's decoration, I suggest, now strengthens the case for the Nordic origin of the Åker buckle. Its scheme of animal-human symbolism and geometric interlace may be compared, for instance, with the well-known buckle from Sjælland, Denmark (Figs 2e and 2l). Other details confirm the link. The animal legs either side of the head with their distinctive hip decoration are a Scandinavian type (Tab 2: leg form C3; Høilund Nielsen 1999, 187). For example, the same hip form was used for the 'horses' that circle the iron boss on the imported Sutton Hoo shield (Fig 2i; Bruce-Mitford 1978, esp 91–9, fig 36). The composition on the pommel's other side, of the back-to-back creatures with boar heads, is comparable, furthermore, with the Style II design on a pommel from Endrebacke, Gotland (Fig 2j). Lastly, cornered boar heads occur on two more pommels from Sweden, both in garnet cloisonné, from Hög Edsten (Fig 2k) and Vallstenarum (Speake 1980, figs 3e–f).

Dating

The pommel's hybrid *Typ Bifrons – Gilton/Typ Beckum – Vallstenarum* form indicates a date of manufacture in the second half of the 6th century. Fischer and Soulat (2009) have suggested the bracket of 520/30–560/70 for Menghin's *Typ Bifrons – Gilton*, a Kentish-Frankish form. *Typ Beckum – Vallstenarum* developed towards the end of this range, very probably in Scandinavia (Menghin 1983, 69–70, Kart 2–3). The Beckum exemplar, an outlier in Lower Saxony, is from a coin-dated burial of Siegmund's Lower Rhine Phase 6, c AD 570–585 (1998, 204, 526). It has Style II ornament like many of the type.

The ornament on K711 can be considered an inchoate form of Style II: its animal elements do not interlace, as came to define the aesthetic, but its stylistic parallels show it should be considered in the same class. Furthermore, the character of its shoulder interlace suggests derivation from Byzantine forms of the ornament, also supporting an early date during the formation of the style (see Haseloff 1981, 645, fig 452c). Currently, the view prevails that Style II emerged first in south Scandinavia, with influence from Mediterranean art, around or possibly before the mid-6th century (Høilund Nielsen 1998, 4–10).

In sum, K711 represents an early example of a pommel with *Typ Beckum –Vallstenarum* characteristics and formative Style II, and was probably produced in east or south Scandinavia. This and its close relationship to the Åker buckle in particular combine to suggest a date for production around the third quarter of the 6th century.

Pommel K358

The animal iconography of pommel K358 (Fig 3a) looks towards Scandinavia also, but unlike pommel K711 it is a definite, if singular, Anglo-Saxon product. It stands out in the hoard for its cast gold manufacture and decoration, and it is also one of the collection's largest pommels (L 60 mm; H 27 mm). Moreover, it is the greatest of the pommels by mass (44 g), and analysis of its metal alloy (see below) has shown it to be of an unusually high gold fineness (over 90%: Blakelock 2014). It is unmatched, too, across the corpus of sword fittings from England and the Continent, albeit its animal-head ends feature among several of Menghin's (1983) pommel forms. Doubtless it was made for a pre-eminent patron.

A sprue scar from the casting remains at one end, filed smooth (Fig 3b). The object was cast as one, except for the trapezoidal panels decorated with black niello lines, which were separately inserted. The line pattern differs each side; on the side not visible in Fig 3a the lines are curved at 45 degrees. This creates a deliberate asymmetry to the piece, in contrast with the balanced zoomorphic decoration that is essentially the same on both sides and at the ends (except for the direction of interlace of the central Style II motif). Exaggerated imitation filigree wires run along the spine and frame the panelled ornament. At removal the pommel was cut along one bottom edge and one end was torn open. In the hollow interior the stubs of two cast-in rivets are visible each end (one is also cut).

For an Anglo-Saxon object, the ornament has a rare sculptural quality and zoomorphic richness, unquestionably loaded with meaning. There are 14 creatures in all, of different species. The heads at the ends have carnivorous jaws that may identify them as wolves or perhaps bears (Fig 3b). Flanking these, but visible only from above, are pairs of eagle heads with curved beaks (Fig 3c). But most fascinating of all is the boar head wearing a helmet that repeats each side of



Figure 3. (a–f) Pommel K358. (g) Pommel from Snartemo, Norway. (h) Inscribed strip K550. (i–j) Pommel K514/1684 and its Style II ornament. (k–l) Fragment K814 and its Style II ornament. Photos G. Evans © Barbican Research Associates, (g) photo E. Johnsen © Kulturhistorisk Museum, Oslo (Scale 1/1, except: (b–d) 2/1; (f) 3/2)

the apex (Fig 3d). Very possibly this was meant to reference the famous boar-crested helmets of the period (e.g. the Benty Grange helmet: Webster and Backhouse 1991, 59–60). In addition, viewed from above, the boar heads terminate the short arms of a cross, formed by the *faux* wire (Fig 3e). The long arms end in spoon-billed heads, which in turn form nasal guards to the 'wolf' heads, thus making them also helmeted. Centrally, below the boar head each side is a flat, incised Style II motif, showing a pair of quadrupeds in profile with forelimbs and necks intertwined (Figs 3f and 7e-i). Relations to these creatures, in the 'Anglian' tradition, include the pair on the well-known pommel from Crundale Down, Kent (Figs 7b and 7e-ii), and those of more-developed form on folio 192v in the Book of Durrow (Fig 7e-iii). Albeit heavily stylised, these animals might have been meant to represent horses (Speake 1980, 43; Fern 2010, 138–40).

In contrast, the 'wolf' heads are not typical of Anglo-Saxon Style II, but point to probable Scandinavian influence. The jagged-maw they demonstrate is an attribute seen frequently on Style II artefacts from the region, including on the 'dragon' from the Sutton Hoo shield (Dickinson 2005, 135, 156–7, fig 13a–b). Also, the pommel's overall programme of wolf–boar–eagle is most akin with Nordic tradition, as the Sjælland buckle demonstrates (Fig 2l). Furthermore, a striking parallel for the pommel is provided by one from Snartemo (Vest-Agder), Norway (Fig 3g). It is a century older, with Style I animal ornament, but it has the same essential form of a trapezoidal centre with moulded wolf-head ends (Menghin 1983, 199–200, no 25). Perhaps, ultimately, K358 might be considered an English descendant.

Lastly, one pommel (K514/K1684) in the hoard may be compared, as it too has a pair of sculpted animal heads spanning its apex (Fig 3i). It is very different in other ways, though, being of cast silver and hemispherical in form. It may be from the hilt of a seax, together with collar fragments (Fig 3k).

Dating

Fischer and Soulat (2010) dated the pommel to the 8th century (before it was cleaned). The now revealed Style II decoration shows a date in the 7th century is certain (Tab 2). However, since the bird-head form (B2) used is a relic of earlier Style II, its manufacture much beyond the 630s seems doubtful.

Mount K652

The mount shows a fish between birds (Fig 4a). It was fashioned out of sheet gold, formed into a double thickness (L 120 mm; W 55 mm; Th 1–2 mm). This is visible in places where the layers have separated from damage. Into the top layer was incised the zoomorphic detail. Although now bent and torn, with the head of the fish detached (K1249), it was probably fixed to a flat or flattish surface originally, at four points, through the eye of each bird and the centre of each wing-coil. Its large size and use of 62 g of gold makes it a further object without parallel. A reconstruction is shown in Fig 4c.

The birds have the curved beaks and taloned feet of raptors, deeply-grooved coiled wings and fantails, and feathered bodies. To contrast, the body of the fish is filled with angular 'scales' that imitate cloisonné (see Dating below). The composition is more complex than it first appears, however. The fish is actually double headed; or rather two sides of one head are depicted, and a line also divides the body. Likewise, the birds can be understood as representing two sides of a single creature. This artistic mode is known as 'split representation' (Lévi-Strauss 1963). It has been observed in many different cultures worldwide, including in Germanic ornament (Leigh 1984; Kristoffersen 1995). It challenges the viewer to imagine otherwise flat designs in three dimensions, thus animating them. In this case, the intended motif was probably that of a sea eagle with its prey (Fig 4d). In addition, two small Style II familiars crouch at either side of the fish's tail (Fig 4e).

Bird-with-fish imagery was current in Europe from the late Roman period onwards (Cigleneći 1994, 320–3), but in the Anglo-Saxon period fish are rarely depicted before the 7th century, when they occur on objects including buckle-plates, pendants and mounts (Speake 1980, figs 6n, 10e, pl 2c; Dickinson 2005, 155–6, n 112). Further examples in the hoard include a set of fish and bird fittings in gold and garnet cloisonné (Figs 5a–b), and a miniature gold bird-with-fish, also with incised feather and scale detail (Fig 5c). However, in terms of their posture and wing-form combined, the birds of K652 are most comparable to a bird pair on a mount from Asthall, Oxon, although it is without a fish (Fig 5d; Dickinson and Speake 1992). More alike, in showing a fish between birds, are three examples from East Anglia. Two gilded copper-alloy fittings, probably both from horse-gear, come from Gunthorpe, Norfolk (Fig 5e), and Coddenham, Suffolk (Martin et al. 2000, 500, fig 154c; PAS: NMS-7B86F1). The position of the attachment loop on the Coddenham pendant (not illustrated) means the birds would have appeared 'rampant', and this was possibly the intended orientation for all (Figs 5e and 5g). The third example is in filigree on the famous Sutton Hoo shoulder clasps (Fig 5f; Cigleneći 1994, Abb 1.2). In addition, the motif can be seen on a mount from Ebbsfleet, Kent (Wessex 2004, pl 2).

It has been suggested mount K652 came from a shield (Leahy and Bland 2009, 40; Leahy 2010). Certainly bird-of-prey mounts have been found repeatedly on shields, some with fish (Dickinson 2005, fig 12, 133–5). Nevertheless, the mirrored composition of the hoard mount is unparalleled, and the practice of applying decorative fittings to shields is not currently evidenced beyond the 6th century in England (Dickinson 2005, 139). As an alternative, I propose, the

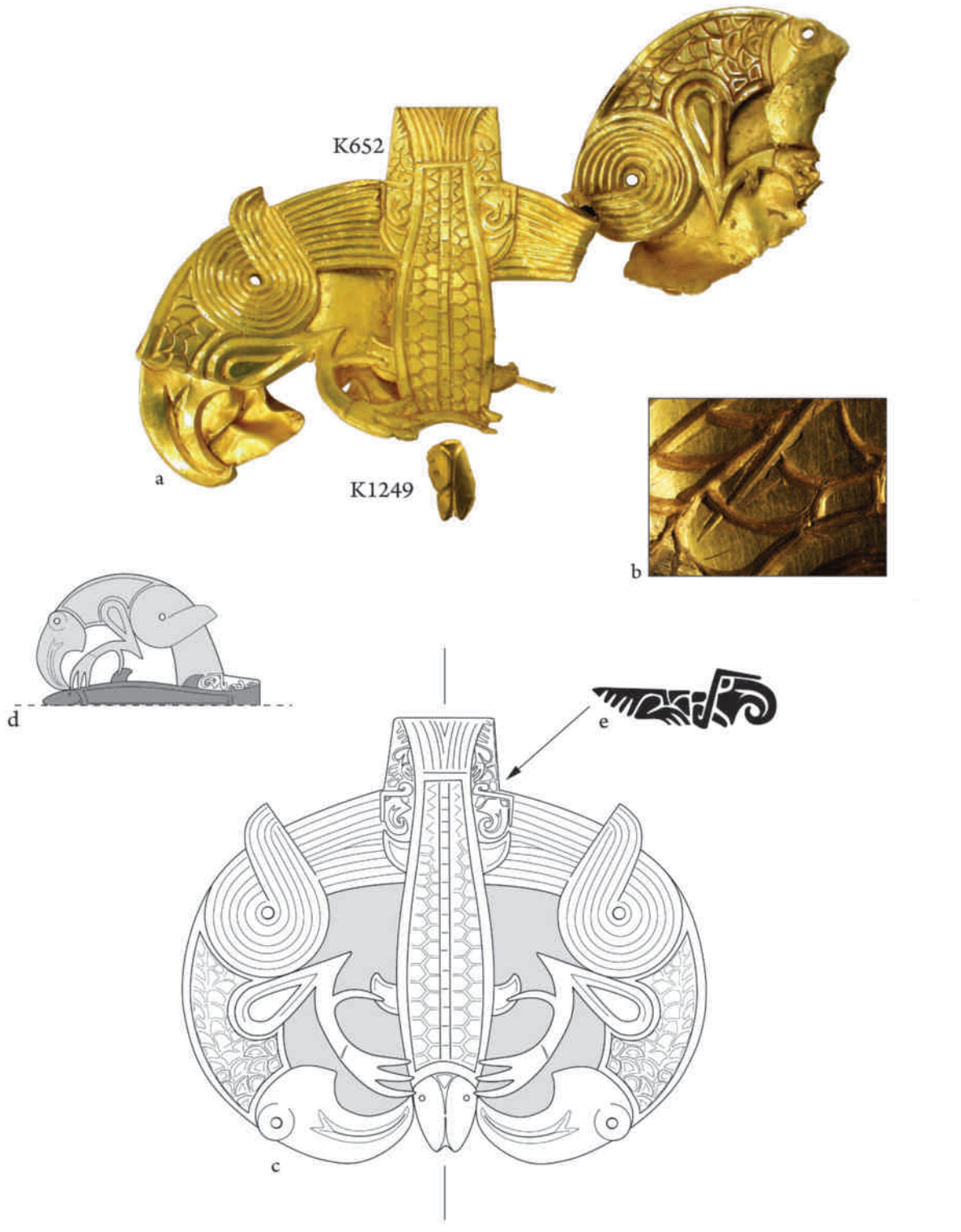

Figure 4. (a) Mount K652/1249. (b) Detail of feather ornament and cut-mark. (c) Reconstruction of the mount. (d) Motif possibly of a sea-eagle with fish in profile. (e) Bird-headed zoomorph. (b) Photo N. Harratt, courtesy of The Potteries Museum and Art Gallery, Stoke-on-Trent, (k) © Birmingham Museums Trust (Scale 1/1, except: (b) 5/1; (e) 3/2; (d) 1/2)

mount may have come from a saddle (Fig 5g). Its size and composition can be compared to ornamental fittings from continental *Prunksätteln* (saddles with high front-boards), with fish and birds among the subjects seen (Figs 5h–i; Pasqui 1918, figs 14–17; Oexle 1992, Taf 172). In England, it must be admitted, no confirmed examples of the saddle type have been demonstrated, to date, but it was in use in Ireland by the 7th century, making an early Anglo-Saxon tradition possible, if not likely (Kelly 2001; Evans 2004; Fern 2005, 57–61).

The treatment of the mount prior to deposition is notable. The break at the head of the fish is old, and, since it is not close to a point of structural weakness (i.e. a rivet hole), this strongly suggests the decapitation was deliberate. It is tempting to see this as an attack on the creature's oft-cited Christian symbolism, but caution is necessary; the known application of fish symbolism in pre-Conversion England, and the fish's combination in this case with another animal, makes a pre-Christian narrative at least equally possible (Dickinson 2005, 154–60). In addition, the mount bears an old cut-mark, possibly caused during use (Fig 4b).

Lastly, the feather detail on the birds, seen also on fitting K42 (Fig 5c), is otherwise unparalleled in Anglo-Saxon Style II. It is, however, seen in early manuscript art. Particularly similar is the shaded leg plumage on the eagle of St John (MS 197b) in the Otho-Corpus Gospels (Webster and Backhouse 1991, 117–18, no 83b).

Dating

Fish imagery appears relatively late in Style II (Speake 1989, 80). The feathering and perhaps the lack of head-surrounds to the birds might support such dating in this case, too, but the mount is certainly not as late as the Otho-Corpus Gospels. It displays definite vestiges of earlier Style II (Tab 2): the body form (B1) of the birds and the head form (B2) of the tail creatures (Høilund Nielsen 1999, Phases KA and A2). It may be significant, though, that the diminutive tail creatures appear almost hidden. The 'honeycomb' *faux* cloisonné on the fish body (seen also on the seax hilt suite, see below) is also significant, linking the mount with the latest examples of composite disc brooches (Avent 1975, 63, pls 71, 73–4: Classes 4.1, 4.2). In sum, a manufacture date in the second quarter of the 7th century seems most appropriate (contemporary with pommel K358).

Hilt suite in cloisonné (K354/370/376/449/690)

This suite of fittings in gold and garnet cloisonné (Fig 6a), from the hilt of a knife or seax, in the quality of their execution have been compared with the techniques and achievement of the regalia of Sutton Hoo (Webster 2012, 123–4).

Three of the five fittings slot neatly together and would have fitted at the top of the weapon grip (combined: L 33 mm; W 22 mm; H 26 mm): a cap fitting (K354), plain ring (K690) and collar (K370). The tang end of the blade would have projected through the top of K354, to which attached the small pommel (K376). This arrangement is confirmed by the fact that K354 bears a scratched outline of the pommel, as well as a dent left by its forced removal, which had also ripped open the enclosed base of the pommel. Its broadened width had housed a pin to secure it to the tang, the siting visible in the revealed interior (Fig 6b). Possibly the pin would have been removable to allow the hilt to be disassembled, should the blade need repair, for example. The remaining collar (K449: L 31 mm; W 16.5 mm; H 22.5 mm) fitted separately at the bottom of the grip (the blade end). It has the slot for a single-edged weapon, together with a contact mark left by the actual blade (L 28 mm). In total, the fittings weigh 84 g (for comparison, the Sutton Hoo gold and garnet shoulder clasps weigh 385 g).

The same cloisonné pattern decorates both sides of the pommel (Fig 7a: K376). It appears at first purely geometric, but concealed within it are two profiled creatures with jagged jaws. This is a version of the confronted 'horses' motif seen on other pommels (Figs 3f and 7b–c). Similar 'hidden' zoomorphic patterns occur on cloisonné objects elsewhere in Europe, perhaps most notably on pommels from Scandinavia (e.g. Fig 2k; Speake 1980, figs 3e–f). But it is the 'Anglian' Style II on the collar fittings that dominates the suite (Fig 7a): K370 has two panels per side, each containing an identical creature with limbs wrapping a ribbon body; K449 has two creatures per side, which interlace together. Parallels for these include the zoomorphs on a triangular-plated buckle from Faversham (Fig 7f-ii), Kent, and ultimately those of folio 192v in the Book of Durrow (Fig 7f-iii).

In England, the zoomorphic-cloisonné style was, prior to the hoard, above all a feature of the metalwork of Sutton Hoo. The character of the garnet-inlaid Style II on the famous shoulder clasps is especially comparable to the hilt suite, to the extent that it is possible they are products of the same milieu (Speake 1980, pl 3a; Webster 2012, 123–4). A rare, shared detail is the use of glass for the eyes of the zoomorphs, though this was executed differently in each case: the eyes of the clasp creatures contain flat blue inlays (Fig 8a); the hoard beasts have tiny, beady eyes formed of spherical granules (Fig 8b). Notably, the same type of eye occurs on other hoard items, including the bird mount illustrated (Fig 5a).

The application of the garnets and their gold backing foils is also notable (Fig 8b). Stones of subtly different hues, rose and red, were used for the limbs/heads *versus* the body sections, and two types of cross-hatched foil were employed correspondingly, as illustrated for hilt-collar K370 (Fig 7a): Avent and Leigh's (1977) 'standard' and '3 x 3 boxed' foils. The same foil combination is found on artefacts both from Sutton Hoo (Fig 8a) and Kent, and the line count (4–5 lines/ mm) for

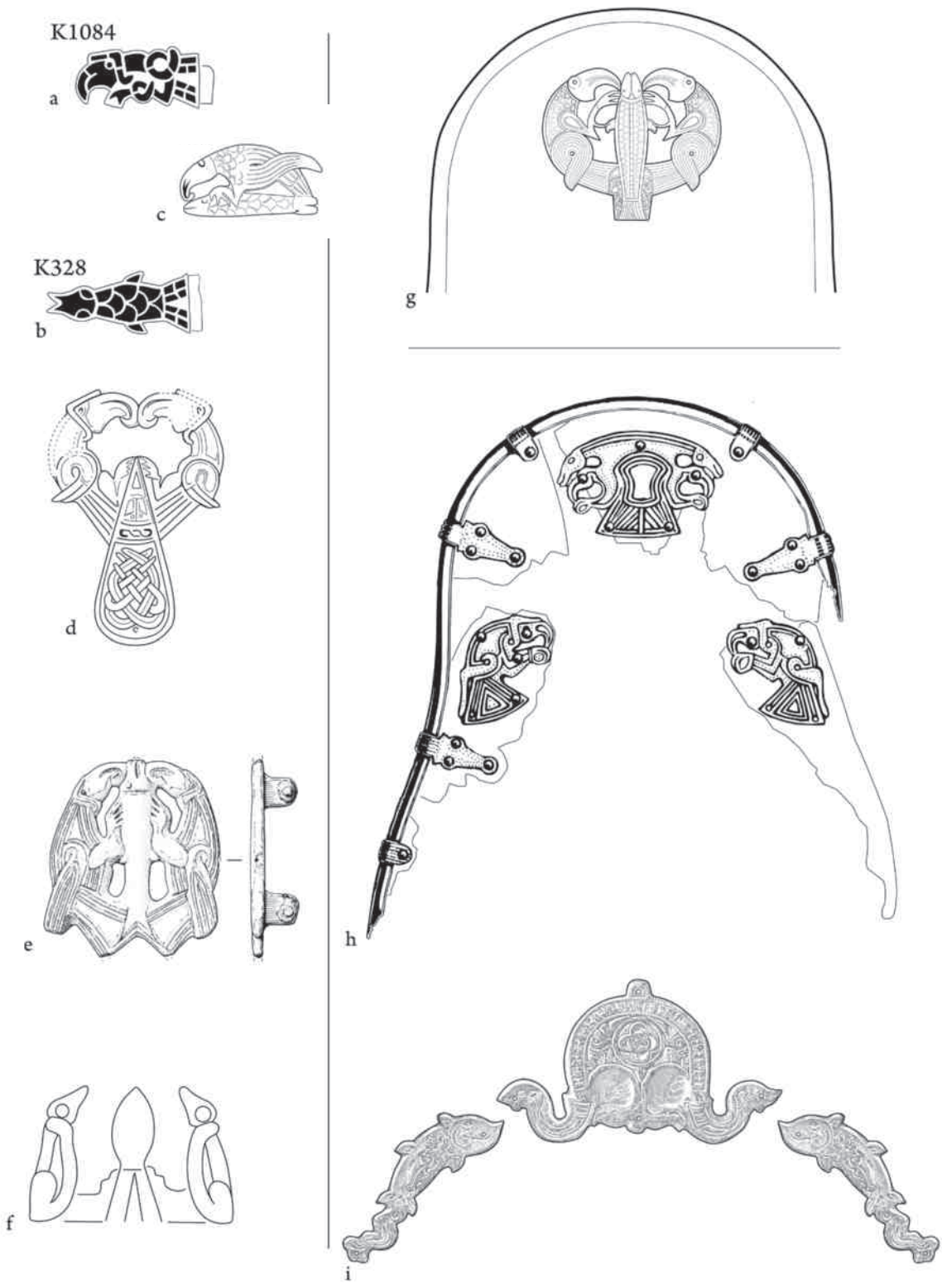

Figure 5. (a) Mount K16 (pair with K1084). (b) Mount K328 (set with K16/K1084). (c) Mount K42. (d) Mount from Asthall. (e) Mount from Gunthorpe. (f) Birds and fish in filigree from one of the Sutton Hoo shoulder clasps. (g) Mount K652/1249 as a saddle mount. (h) Saddle board with zoomorphic mounts from Wesel Bislich, grave 446, Germany (after Oexle 1992, Taf 172). (i) Saddle mounts from Nocera Umbra, grave 5, Italy (after Pasqui 1918, figs 14–17). (e) Drawing J. Gibbons, © Norfolk Historic Environment Service. (Scale 1/1, except: (f) 2/1; (g–i) 1/3)

the standard foils on K370/K449 is comparable with the finest foils seen (Avent and Leigh 1977; East 1985, 137).

The suite presents a rare equal to examples of ostentatious knives and seaxes from western Europe, like the cloisonné seax fittings from King Childeric's grave, Tournai, or the pair of 'princely' knives with golden grips from Planig, Germany (Menghin 1983, 180–1; Hilgner 2010). More ordinary seaxes with small pommels are attested on the Frankish Continent from the late 6th century (e.g. Legoux et al. 2004, type 59). However, closer parallels for the hoard fittings are offered by two Anglo-Saxon seaxes and ultimately by more numerous Scandinavian examples (Figs 9a–c). The Anglo-Saxon examples are the seax from Ford (Laverstock), Wilts, with Style II decoration on its silver pommel and scabbard fittings (Fig 9c; Musty 1969), and that from Oliver's Battery, Hants (Geake 1997, 74, fig 4.25). But the form of the hoard hilt assembly with its deep collars is above all similar to that seen repeatedly on Scandinavian seaxes, even if, by comparison, these typically have fittings of copper alloy. The type is especially well evidenced on Gotland (Fig 9b; Nerman 1969/1975), but occurs also on the Swedish mainland (Fig 9a) and on the Danish island of Bornholm (Stolpe and Arne 1927, pl 43: fig 13; Nørgård Jørgensen 1991, 221). Very possibly, therefore, the hoard hilt represents an enriched borrowing from east Scandinavia.

In Fig 9d a reconstruction is offered. The slot and blade 'scar' on fitting K449 indicate a blade width of 28 mm. This is within the range of a large knife or 'narrow' seax, though the latter is perhaps more likely. For comparison, the Ford weapon (Fig 9c) is an English 'broad' seax with a wider blade and long hilt (Evison in Musty 1969, 114–16), but the Oliver's Battery weapon is of narrow type. The grip and blade in the reconstruction are copied from Gotlandic narrow seaxes (i.e. Nerman 1969, Taf 204: no 1688, Taf 205: no 1694). Lastly, also from the hoard is a seax hilt-plate in gold with cast Style II decoration (K567), which is without parallel in England (Fig 7d). It has a blade-slot of 36 mm, very close to the broad seax from Ford.

Dating

The Ford grave has been dated to cal AD 620–650 (95% probability) in the recent *Anglo-Saxon Graves and Grave Goods of the 6th and 7th Centuries AD*, on the basis of a radiocarbon date refined by Bayesian modelling (Bayliss et al. 2013, fig 6.53). So a date for the hilt form in England in the first half of the 7th century may be broadly concluded, which is also the upper date-range of the narrow-seax type in burials on the Continent and in Scandinavia (Nørgård Jørgensen 1999, 50, Abb 116; Müssemeier et al. 2003, 44–5, 334). However, the Style II (Tab 2) of the suite does suggest some refinement within this bracket. Like the 'horses' centrally on pommel K358, the collar creatures must pre-date the art of the Book of Durrow (Fig 7f), but they need not be more than a decade or so later than the Style II on the Sutton Hoo clasps (c AD 620).

Dating the hoard: an interim statement

A full assessment of the hoard was completed in March 2014, allowing a better appreciation of the object quantities, forms and decoration (Fern 2015). This was accompanied by an analysis of the gold alloys of almost 100 objects, undertaken at the British Museum using SEM-EDX (Blakelock 2014). A decline in gold fineness, relative to an increasing silver content, is apparent in early Anglo-Saxon coinage during the 7th century (Williams and Hook 2013), and it was thought possible that identifying a related change in the hoard alloys could assist with dating. However, while the results of the metal study are important, they show no significant decline in gold fineness across the sample studied (Blakelock 2014). Dating, for the moment, therefore, remains based on typological and stylistic judgements. Provisionally these suggest a shift in the material makeup of the hoard through time. A small group of silver sword fittings are probably the earliest objects. This appears to be followed by a 'gold phase' that comprises the majority of the finds. Then, among the latest objects is a second group of silver sword fittings, including unique and rare types.

The early silver fittings probably date to the mid- to late 6th century. Included are several pommels (e.g. pommel K711), as well as a fragmentary hilt-collar pair with Style I animal ornament that might be earlier still.

The filigree and cloisonné decoration characteristic of the bulk of the gold objects points to a late 6th- to mid-7th-century date. Both early and late Style II is represented. To Høilund Nielsen's (1999) latest Phase MS belongs pommel K358, the hilt suite, and certain other finds illustrated (Figs 3a–f, 3i–l, 7a and 7c–d). However, the hoard's many filigree decorated pommels and hilt-collars include examples with earlier Style II (e.g. Fig 10a), corresponding with Høilund Nielsen's Phase KB (late 6th to early 7th century). In addition, there are numerous other small fittings, decorated with filigree scroll ornament that is largely without Style II content. These are best paralleled by mounts on a preserved horn sword hilt in the British Museum, the so-called 'Cumberland' hilt (Fern 2015; BM 1923, pl VII; Davidson 1962, pl X.63). Unfortunately, it is an antiquarian find without an accurate provenance.

The hoard's latest Phase MS Style II and some interlace ornament appears to anticipate, or is contemporary with, the art of the earliest Insular manuscripts, which date to the third-quarter of the 7th century (e.g. Henderson 1987, 54–5; Brown 2010; Webster 2012, 76). The Style II in the Book of Durrow is especially notable for comparison (Figs 7e–f). Certainly among the latest animal art in the hoard is that on the great gold cross (K655). However, it too was possibly made prior to the middle of the century, as it bears a design

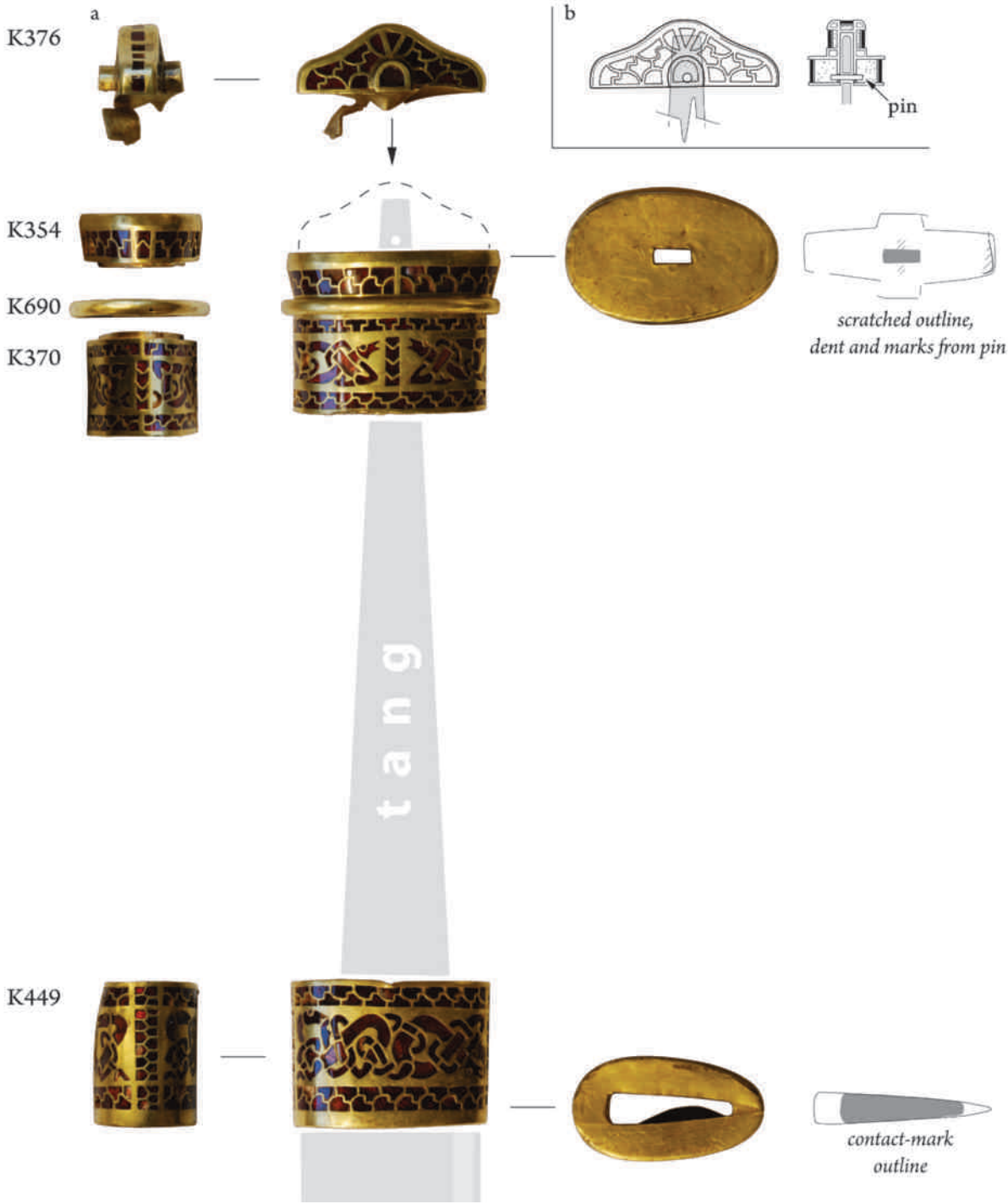

Figure 6. (a) Cloisonné hilt suite K354/370/376/449/690. (b) Schematic showing how a pin was housed inside the pommel. (Scale 1/1)

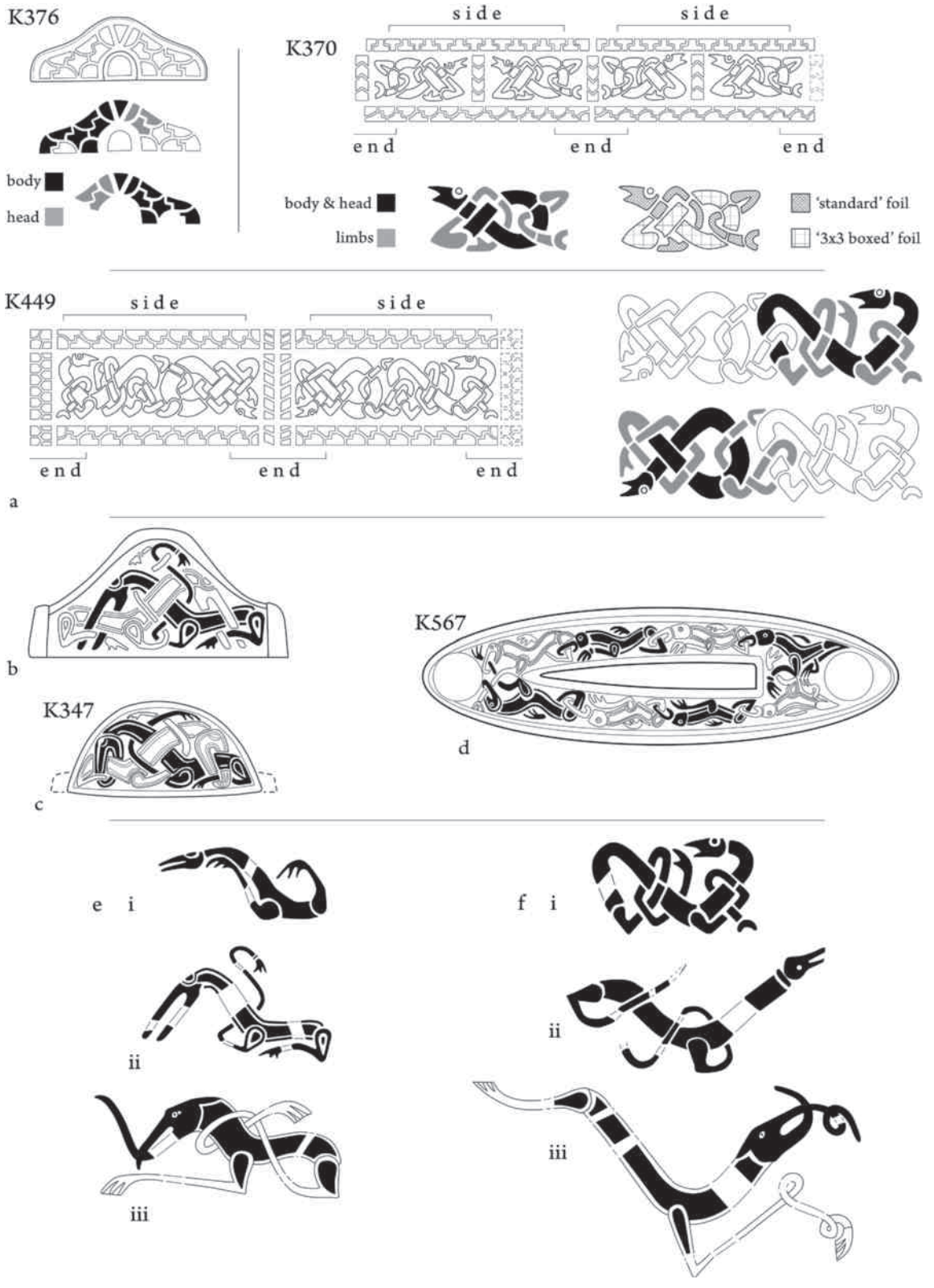

Figure 7. (a) The animal art of the hilt suite: pommel K376 and hilt-collars K370 and K449. (b) Pommel from Crundale Down. (c) Pommel K347. (d) Seax hilt-plate K567. (e) zoomorphs — i) K358; ii) Crundale Down; iii) Book of Durrow, folio 192v. (f) zoomorphs — i) K449; ii) Faversham, Kent; iii) Book of Durrow, folio 192v. (Scale 1/1, except: K370 and K449 detail 3/2; (e-i) and (f-i) 3/2)

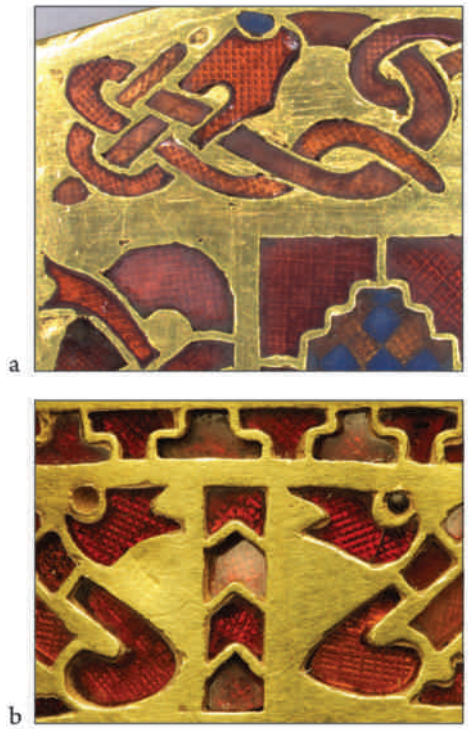

Figure 8. (a) Detail from the Sutton Hoo shoulder clasps, photo A. Mongiatti © Trustees of the British Museum. (b) Detail of K370, photo N. Harratt, © Image courtesy of The Potteries Museum and Art Gallery, Stoke-on-Trent. (Scale 4/1)

that matches one from mound 1 at Sutton Hoo (Høilund Nielsen 2010; Fern and Speake 2014, 38–9). In the famous burial the design occurs on the set of maplewood cups, with the most likely date of the grave still held as c AD 625 (Bruce-Mitford 1983, 347–60; Bayliss et al. 2013, 326–7).

The later group of silver fittings is distinctive for several reasons. Several of the pommels have gold-sheet panels, applied separately on one side only, with filigree decoration and sometimes cloisonné (perhaps the side that faced outwards when worn). Fine-cast and gilded interlace typically decorates the other side (Figs 10f and 10h), and some mounts from the collection bear related ornament (Fig 10g). This type of interlace has been considered late in date elsewhere (Speake 1989, 76–80). Objects with similar decoration include the mould fragments from the Mote of Mark, in south-west Scotland (Graham-Campbell 1976; Laing and Longley 2006, figs 56–7). The pommel forms of this group are also unusual, including multiple round-backed examples with few external parallels (Fig 3i). Most significant, however, are three pommels (found in 56 fragments) of a form never seen before, and only fully recognised during the post-excavation process. Two are large 'cocked-hat' forms (L estimate 80 mm; H 27–30 mm), and all three have the unique feature of double sword-rings, one each shoulder, an attribution unique in Europe. The illustrated example has a silver triquetra centrally on one side, formed of three fish-tailed serpents, against a triangular field of niello. On the other side are multiple gold panels decorated with filigree and cloisonné. The panels follow Anglo-Saxon jewellery practice, but the triquetra and also the triskelion on the sword-ring, the same side, are altogether more unusual, suggesting very possibly British or Irish influence.

Ultimately, these finds coming after the 'gold phase' could suggest a switch in production to sword fittings of silver with more limited use of gold. This might correlate with the known decline in the supply of gold to western Europe around the mid-7th century — though the simultaneous increase of coinage production in parts of England from AD 630/40s could also have been a further, or the main factor, limiting the amount of bullion available for prestige metalworking.

The most controversial piece for dating is the inscribed strip, which was possibly part of another large cross (K550: Fig 3h). The earliest date proposed for its Latin inscription is c AD 650/70–700/25 (Brown 2010; see also Ganz 2010), though Okasha (2010) has suggested a later date, into the 8th or even 9th centuries. This later dating does not fit with the rest of the hoard, however, and the strip's relationship with other hoard objects also suggests an earlier date is more likely. The moulded surround with animal heads, framing its empty boss, can be compared with pommel K358's decoration (Fig 3h). Moreover, its D-form boss with a filigree collar is closely related to the bosses of the great gold cross (K655–659). Lastly, as Klein (2013, 69–71) has recently shown, the most comparable sample of handwritten script is that in the Book of Durrow.

To summarise, the majority of the hoard appears consistent with a date in the first half of the 7th century, with material from both the century's first and second quarters well represented. Therefore, in terms of a date of deposition for the assemblage, for now a point in time somewhere within the already suggested range of the second half of the 7th century remains most credible (Leahy and Bland 2009, 11; Webster 2011, 223–4).

Anglian, Kentish, Northumbrian or Mercian?

The kingdoms of Kent and East Anglia were centres of production for prestige metalwork from the later 6th century (Speake 1980; Høilund Nielsen 1999). Finds from both regions show cloisonné, filigree and Style II manufacture, and both enjoyed periods of political imperium in the early 7th century, during the reigns of Æthelberht of Kent (d AD 616) and Rædwald (d AD 624/25) of East Anglia (Bede, *HE*, II, 5, in McClure and Collins 1994). Control of the manufacture and distribution of high-status metalwork was probably crucial to the establishment of such power, for securing internal and external relations, and for the creation of kingdom identities. Finds outside of south-east England strongly suggest production in other early polities also, to which the

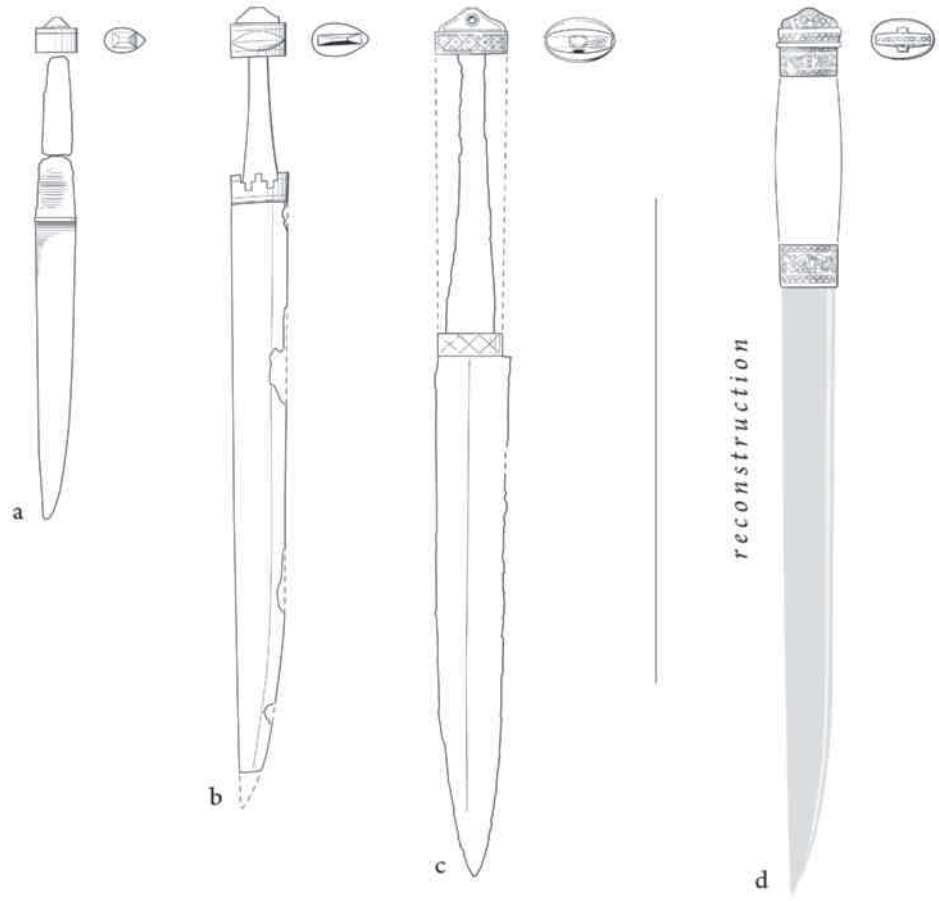

Figure 9. (a) Knife from Vendel grave XIV, Sweden (after Stolpe and Arne 1927, Pl XLIII: fig 13). (b) Seax from Gotland, Sweden (after Nerman 1969, no 1688, Taf 204). (c) Seax from Ford. (d) Reconstruction of the hilt suite as a narrow seax with a short grip. (Scale 1/4)

hoard now gives new emphasis. Nonetheless, it is probably mistaken to assume that every ruler commanded prestige metalworking in the early 7th century, or that there was an appetite for these styles in all territories. In particular, the Mercian frontier must have been disadvantaged with regard to cultural and economic exchange across the North Sea and Channel, the likely catalyst to kingdom development along England's eastern and southern seaboards, and the origin of the metalworking techniques and styles of the period.

In the analysis above, connections with East Anglian metalworking and motifs have been shown to be possible for the hilt suite (K354/370/376/449/690) and the bird-fish mount (K652/1249). To this can be added a particular detail seen on the mount — the Y-shaped groove dividing the beaks of the birds (Fig 4). It also features on pommel K358, the great gold cross (K655) and other illustrated items (Figs 3c, 5a and 5c). In his study of Style II, Speake (1980, 42) noted this as specifically a trait of the Sutton Hoo workshop of south-east Suffolk. Since then more finds with the feature have been added locally, including a pelta-shaped mount from Barham (Webster and Backhouse 1991, 56, no 39), and two objects from 'royal' Rendlesham, a site now with confirmed high-status metalworking (Scull pers comm).[5] In addition, there is the other, already noted link with Sutton Hoo demonstrated by the great gold cross/maplewood cup motif.

When and where pommel K711 was imported can only be speculated, though the contact with Scandinavia it indicates could fit too with the character of the East Anglian elite (Bruce-Mitford 1975, 693). Doubtless it was valued for its Nordic heritage, and a claim to the same region seems possible from the form of the cloisonné hilt suite (Fig 9) and the animal iconography of pommel K358 (Fig 3). In sum, an East Anglian origin for some of the collection's most important objects must be seriously considered.

Other items suggest, possibly, a different origin. This includes the hoard's pommels with filigree decoration, the predominant type with over forty examples, and the even more numerous hilt-collars in the same style. The pommel illustrated in Figure 10a–b shows two Style II zoomorphs on one side and four snakes on the other. Outside the hoard, only a small group of related pommels is known (Fig 1). All are discoveries made since the early 1990s by metal-detectorists.

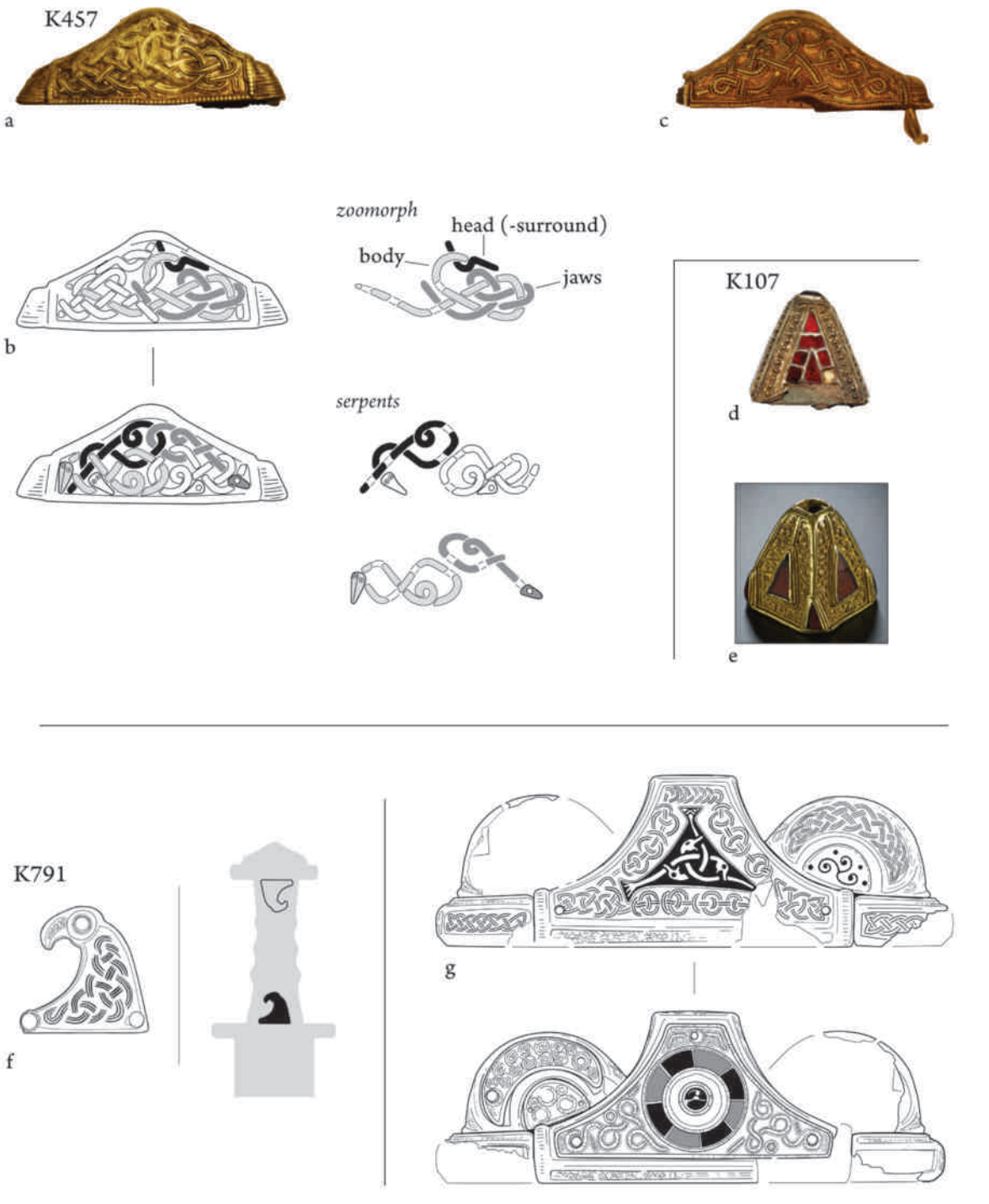

Figure 10. (a–b) Pommel K457. (c) Pommel from Market Rasen. (d) Pyramid fitting K107. (e) Pyramid fitting from Dalmeny, Scotland. (f) Fitting K791. (g) Pommel reconstructed from twenty-six fragments. (c) Photo C. Fern, courtesy of the British Museum, (e) © National Museums of Scotland (Scale 1/1)

One from Market Rasen (Fig 10c), Lincolnshire, was found with its pair of hilt-collars and two of its hilt-plates, and is so similar to examples in the hoard it could have come from the same workshop (TAR 2002, 68–70). Its findspot lies within what was the Anglo-Saxon kingdom of Lindsey. Overall these pommels demonstrate a thin distribution, but a number show a general proximity to Roman roads in the Middle Anglian and Lindsey regions, the territories fiercely contested by Mercia, East Anglia and Northumbria. In addition, several have damage similar to the hoard pommels, and possibly these were also dismantled from swords and deliberately deposited.

The filigree Style II on the pommels is very similar to that seen on Kentish metalwork, though the findspots do not agree with an origin in that kingdom. The most recent find from Middleham, North Yorkshire (PAS: BM-7C4457), is the only example discovered with its sword-blade, as well as other objects indicative of a grave context, including a spearhead, knife, remains of a hanging bowl, and a gold shilling of the 'York Group' (c AD 625–640). With the others from Lincolnshire and Yorkshire, therefore, this might instead support a case for manufacture of the filigree pommel type in northern England. High status metalwork production has long been suspected in the Northumbrian sphere, not least on the evidence of the pectoral cross of St Cuthbert (Bruce-Mitford 1956, 316–25). Recently added were the finds from the cemetery at Street House, North Yorkshire, including a pendant with Style II filigree (Sherlock 2012, 45–50, esp pl 3.6; see too Sherlock this vol). In addition, links with the north may be indicated by other hoard items, including the many fittings of 'Cumberland' type; a pair of pyramid fittings (K107/1201) closely parallel a single example from Dalmeny, Scotland (Figs 10d–e); and as already stated, the style of interlace on the later silver objects has associations with the same broad region.

There remains the obvious question of whether any of the hoard could have been manufactured in Mercia. The general distribution of Anglo-Saxon high-status metalwork extends into the frontier region, including a gold and garnet pendant from the local Hammerwich parish (TAR 2004, 82, fig 115; Leahy 2010), but overall the evidence for actual Anglo-Saxon settlement and material culture is sparse into the 7th century (Meaney 1964, 220–3; Losco-Bradley and Kinsley 2002, 23–7). Indeed, it may be mistaken to see Mercian identity at this time in the glow of the 'Anglian' identity later claimed. Much of the area of the Upper Trent seems still to have been aceramic at the time of the hoard, like the British West, and at the nearby settlement of Catholme, a largely indigenous population has been interpreted from archaeological evidence (Hamerow in Losco-Bradley and Kinsley 2002, 123–9). Likewise, a probably native community of monks is documented in the Lichfield area as late as the 630s (Blair 1999). In this setting, filigree, cloisonné and Style II effects were very possibly outlandish fashions. Nevertheless, the precious-metal of the hoard could have served a hack-metal economy, crucial to the maintenance of personal warlord rule.

Without doubt the most important early ruler of the border region was Penda of Mercia (c AD 626/32–655), and it cannot be avoided that the duration of his reign is coincident with the date-range of much of the hoard. His wide-ranging and successful wars, chiefly against East Anglia and Northumbria, began the unification of middle England (Brooks 1989, 164–70). However, two details of Penda's early biography are notable: his name suggests Brittonic derivation, perhaps from *Pendevic*, meaning 'ruler' (Padel 1999, 363), and in his first campaign against Northumbria in AD 633 fought in alliance with the Welsh it is possible the Mercian firebrand was the junior partner (Brooks 1989, 167; see also Charles-Edwards 2001, 91–4). These observations further suggest an affinity locally for the culture and politics of the West. Furthermore, Penda was possibly of the *Tomsæte*, the folk of the River Tame, within whose territory the hoard was buried, and where later were founded a palace at Tamworth and bishopric at Lichfield (Dean et al. 2010, 148; Hooke 2010; Yorke 1990, 102). His rule ended in crisis with his defeat and death at the battle of *Winwaed* in 655. Could this horizon, close to the earliest possible date for the hoard's deposition, have triggered the hasty concealment of the treasure, to prevent its capture by a vengeful army of Northumbria?

Conclusion

The hoard takes us to the frontier of early England, an unexpected setting for such an extraordinary discovery that proves for the first time the true nature of the capital culture of the early 7th century. In particular, it attests the significance of gold-decorated war-gear to the maintenance of the warrior society of the day. But the ornament and object forms reflect also a society responsive to new influences. Traditional 'pagan' and Christian symbols combine on many objects, and British or Irish influence is seen in the ornament of a small group of fittings. The finds cannot tell us who used, collected and ultimately buried them, though certainly many were manufactured and in use in the period of Penda of Mercia, and it seems beyond coincidence also that the hoard was buried in the dynastic heartland of that kingdom-to-be. At the very least, the collection must be seen as representing a fossil of significant personal power there, even if crucially the origins of a significant part of the metalwork (if not all) very likely lie outside the Mercian region. It has been argued, key items show links with East Anglian elite culture and metalwork: the seax/knife hilt suite (K354/370/376/449/690), the wolf pommel (K358) and the bird-fish mount (K652/1249). All are 'princely' effects. If the last adorned a saddle, it must have been akin to the richly wrought *hildesetl heahcyninges* described in *Beowulf*.[6] East Anglian elites were certainly

among the slain of Mercian victories in the 640/50s, most notably several rulers: Sigebert, Ecgric and Anna (Bede, *HE*, III, 18, in McClure and Collins 1994). Likewise, the potential for objects of Northumbrian origin is tantalising.

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Notes

1 The hoard is jointly owned by Birmingham City Council and Stoke-on-Trent City Council; it is jointly curated by Birmingham Museums Trust and The Potteries Museum and Art Gallery, Stoke-on-Trent. The research and object examination undertaken for this article was via The Staffordshire Hoard Project (Cool 2011/2014). The project (no 5892) is funded by English Heritage with contributions from the owners and the wider regional Mercian Trail Partnership. Newsletter updates are viewable at <http://www.barbicanra.co.uk> [accessed 30.09.15].

A further survey at the findspot in November 2012 by Archaeology Warwickshire recovered c 80 more fragments, most of which relate to finds in the original collection (Palmer 2013).

2 The quantities given herein were correct when the paper was finalised in 2014, representing understanding of the collections as it progressed through conservation. By the time of checking the final proof of the paper in 2016, the quantities had considered altered as the result of the re-weighing of finds following the completion of the conservation process, and from the recovery of many small fragments during cleaning. The count is now c 4600 fragments, with c 600 objects recognised in total. The weight of the gold is c 4 kg and the silver c 1.7 kg. Furthermore, the original K-number system for the objects, used throughout this article, has now been replaced with a new catalogue numbering system.

3 The Latin inscription is from Numbers 10.35: 'Rise up, O Lord, and may thy enemies be dispersed and those who hate thee be driven from thy face' (trans Brown 2010).

4 The date c AD 620 for the start of Phase MS, given by Høilund Nielsen, approximates (±10 years) with the manufacture of the latest Style II objects in the mound 1 burial at Sutton Hoo (e.g. the shoulder clasps and maplewood-cup mounts).

5 The beak detail is known outside East Anglia, but the instances are dispersed and few, and most appear derivative. One instance occurs on a work-box from Burwell, Cambs, a close outlier (Speake 1980, fig 60). It is also seen, more intriguingly, on three annular/penannular brooches with bird-headed terminals, from East and North Yorkshire, and Wales (Hirst 1985, 56–7, fig 41; Drinkall and Foreman 1998, 256, fig 84; Hinton 2005, fig 2.2).

6 Line 1039a: trans. 'high-king's war-seat'.

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