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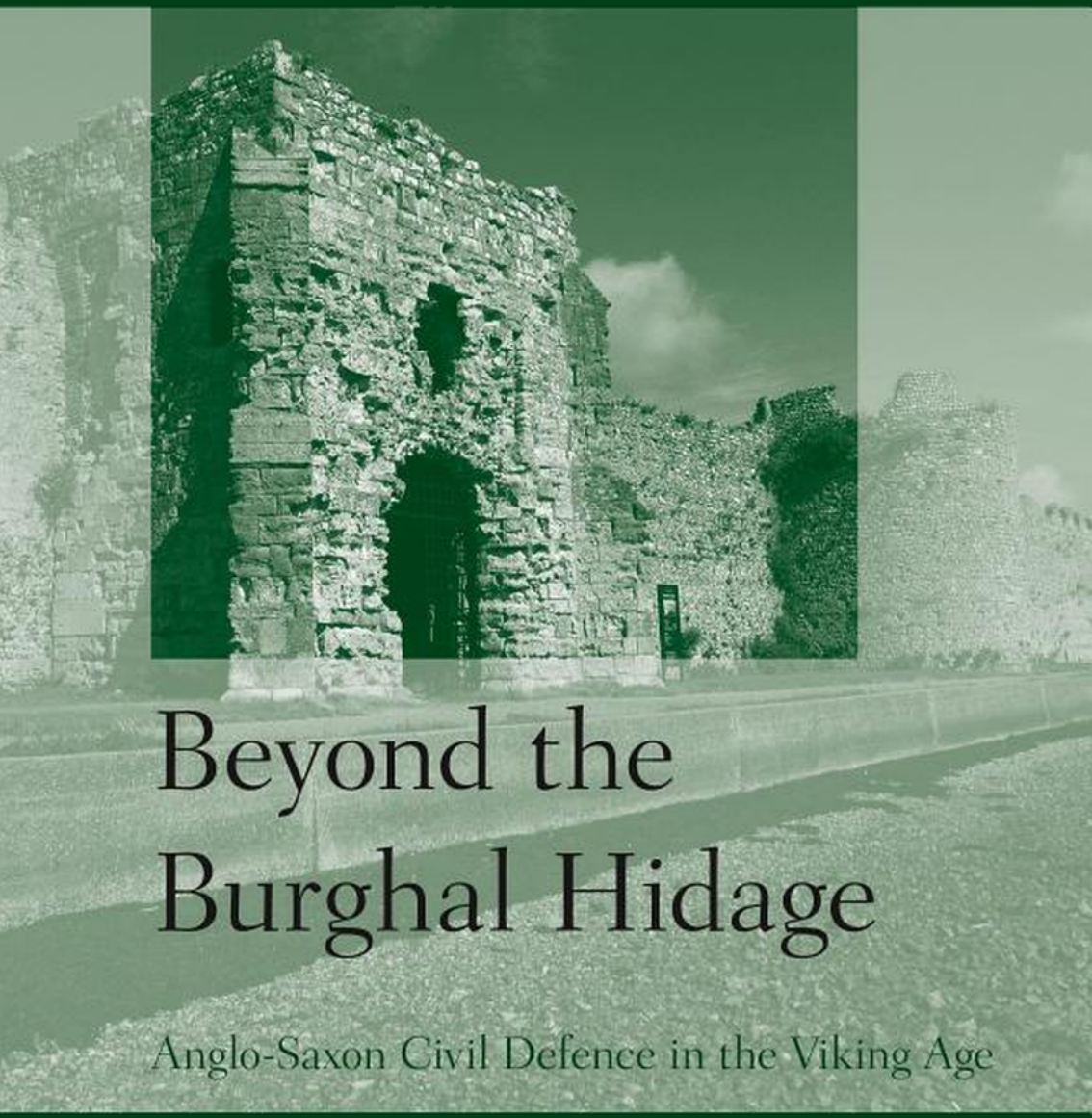

Beyond the Burghal Hidage

Anglo-Saxon Civil Defence in the Viking Age

John Baker and Stuart Brookes

BRILL

Beyond the Burghal Hidage

History of Warfare

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By

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PREFACE

This book is one of the outcomes of a project funded by the Leverhulme Trust for three years from 2005. The principal aim of that project—one which is reflected throughout this text—was to add detail to the military landscapes of later Anglo-Saxon England, in particular the period of the "First Viking Age" (c. AD 793–900). It was our intention to bring a multidisciplinary and landscape-focused approach to this subject, which has for a long time been dominated by documentary historians (particularly those with military interests) and by urban archaeologists. We felt, and still do, that a landscape perspective has the potential to add substance to many of the disparate finds, phenomena, and events, that characterize this dynamic and momentous period.

In attempting to make sense of this large corpus of data, and to reconcile the testimony of the various sources, we have tried to maintain an awareness of strategic and logistical considerations, and to recognize that differences of landscape, terrain, political, and military aims, and the degree and nature of the threat, impose varying requirements on military planners, and result in diverse responses. Throughout this book we have sought to reveal something of the "grand strategy" of early medieval Wessex, that is to say, its "allocation of resources among various military and policy goals" (Kagan 2006, 333). To that end, we have attempted to explain why fortifications and their logistical support systems were sited where they were, what their character was, and what we can deduce from this about their strategic purpose and the plan of civil defences.

This idea of "grand strategy" formed the basis of an approach championed by Edward Luttwak in his *Grand Strategy of the Roman Empire* (1976). Although Luttwak's analysis of Roman military landscapes itself is now largely discredited (Gruen 1978; Wells 1978; Lendon 2002; Whittaker 2004; Kagan 2006), "grand strategy" nevertheless strikes us as a useful way by which the full breadth and range of early medieval military phenomena can be placed into an interpretative framework. The arrangement of military forces, the organization of defensive edifices, and the investment in logistical support systems (and the interrelationship between these elements) can reveal a great deal about a polity's overarching military strategy, even though contemporary written sources may not spell such things out in detail. In a sense then, the historical landscape of military activity,

to the extent that it can be read, represents a kind of strategic policy document, in some senses as clear as any textual equivalent might be, had such a thing survived—and indeed, perhaps a more accurate reflection of the practical realities of defence rather than its theoretical ideals. By attempting to identify these physical expressions of military activity—as their traceable remnants which survive today or as they were recorded by contemporaries in place-names and written sources—our hope is to reconstruct the strategic landscape of Anglo-Saxon warfare, and to understand how early medieval military planners came to terms with the varied and changing threats with which they were confronted.

It is our belief that the landscape in question can be read in some detail if approached with an appropriate methodology, and that methodology is necessarily multi-disciplinary. The aim has been to avoid creating a hierarchy of sources, or subordinating one form of evidence to another. Instead, we have attempted to evaluate each form of evidence through its own interpretational framework; to identify corroborative elements, to explore ways in which one form of data can complement the evidence of another, and sometimes to use the evidence of one or more disciplines to provide a context in which to understand and interpret the implications of the evidence from another. The different disciplines after all deal with separate outcomes of social and cultural activity as often as they overlap. Nevertheless, we have made an attempt to integrate the evidence as much as possible, and we recognize of course that in bringing the evidence together some subjectivity, conscious or subconscious, will have been unavoidable. Readers will no doubt take issue at times with our emphasis, and with the degree of significance we discern in a particular interpretation. We make no apology for this: some will see alternative and perhaps equally valid ways of interpreting the same data, but we hope to have set out a methodology and dataset that permits refinement of our models, and we hope also to have provided a firm footing for future re-evaluation.

Others will feel that written sources are given too little weight in comparison to archaeology, topography, and toponymy. This is not our intention, but we are aware that the documentary background to Anglo-Saxon warfare has received considerable treatment, recently and comprehensively by Ryan Lavelle (2010), and we have not wished to retread the same ground. This book is, after all, a study of civil defence, not the methods of drawing up military personnel for battle, operational tactics, or the moveable equipment and trappings of a martial society. We are interested in the sources—documentary or otherwise—only inasmuch as they comment

or throw light on the landscape-based mechanisms that underpinned Anglo-Saxon military effort. As one becomes aware of the landscapes of civil defence, we would argue, the events that characterized Viking-age England begin to look different: the actions of its protagonists less unpredictable; the archaeological remains and place-names more coherent as a whole. As T. Miller Maguire pointed out so appropriately more than a hundred years ago: "War never leaves a country as it found it" (1899, 11)—it is our hope that this book sheds light on some of these changes.

We would like to thank the Leverhulme Trust for funding the project from which this book results. Andrew Reynolds was the Principal Investigator, and has been both diligent and generous in his advice and suggestions throughout its development. David Parsons was the Co-Investigator, and provided important advice at various stages of the project. His detailed comments on a draft of the manuscript were influential in refining and correcting many aspects of our analysis—too many to note individually. Jayne Carroll also gave unstinting support and valuable input on significant parts of the work.

Our thanks go to the many HERs and the NMR which provided so much data for this project, in particular Steve Ellwood, Lindsay Jones, Ingrid Peckham, Virginia Baddeley, as well as Glenn Foard, who kindly shared data regarding early medieval battlefields, and Mark Draisey and Karen Rogers of the Royal Institution of Chartered Surveyors who helped us with beacons. We are also grateful to Joy Jenkins and Peter Stokes (Langscape: Language of Anglo-Saxon Landscape Project), the late David Hill, and Colin Berks, for providing us with unpublished material, and helping us with our research.

Many people kindly offered suggestions, ideas, and advice that were incorporated into this book, and our thanks go to these colleagues: Steven Bassett, Andy Bevan, Keith Briggs, Terry Burke, Paul Cavill, Paul Cullen, Gill Draper, Geoff Fairclough, Glenn Foard, Sue Harrington, Jeremy Haslam, Frode Iversen, Joy Jenkins, Ryan Lavelle, Gus Milne, Nick Powell, Alexandra Sanmark, Michael Shapland, and the anonymous reviewer of the first draft of this manuscript. We also benefited from discussions with the delegates—too many to list—who attended our conference at UCL in November 2007, the proceedings of which are in press as a separate volume entitled *Landscapes of Defence in Early Medieval Europe* Studies in the Early Middle Ages 28 (Tourhout: Brepols).

We have received much support and encouragement from Barbara Yorke and Nicholas Brooks, who along with Richard Abels, John Blair, Hele-

na Hamerow, Alex Langlands, Tim Tatton-Brown, and Gareth Williams read parts of the first draft and offered immeasurably helpful advice and criticism.

We are fortunate to have had many volunteers work for us on the *Beyond the Burghal Hidage* project, including students who helped assemble data on many of the burghal towns: Chris Taylor, Linda Proud, John Sharrock, Guy Taylor; and digitizing base-maps and town plans: Andy Agate, Laurie Elvin, Deborah Nadal, Claire Bretin, Lauren Harvey, Brigid Geist. In this regard, special thanks go to Martin Williams and his unstinting commitment and attention to detail.

We are also grateful to the following for giving us permission to reproduce figures, fully credited in accompanying captions: Pat Day, Alexander Langlands, Gustav Milne, Oxford Archaeology, Andrew Reynolds, South Staffordshire Archaeological and Historical Society.

Marcella Mulder at Brill was both helpful and patient during the final months and weeks before completion of the book.

Most of all, heartfelt thanks to our families for their love and encouragement: Lis, Jerry, Evie, Ted, and Sam. This book is dedicated to them.

ABBREVIATIONS

ME	Middle English
Mod.E	Modern English
OD	Ordnance Datum
OE	Old English
OS	Ordnance Survey
OFr	Old French
OHG	Old High German
OScan.	Old Scandinavian
PIE	Proto-Indo-European

List of Counties

Note that pre-1974 divisions are used throughout the text.

Bd.	Bedfordshire	Mx.	Middlesex
Be.	Berkshire	Nb.	Northumberland
Bu.	Buckinghamshire	Nf.	Norfolk
Ca.	Cambridgeshire	Np.	Northamptonshire
Ch.	Cheshire	Nt.	Nottinghamshire
Co.	Cornwall	Ox.	Oxfordshire
Cu.	Cumberland	Ru.	Rutland
Db.	Derbyshire	Sf.	Suffolk
De.	Devon	Sh.	Shropshire
Do.	Dorset	So.	Somerset
Du.	Durham	Sr.	Surrey
Ex.	Essex	St.	Staffordshire
Gl.	Gloucestershire	Sx.	Sussex
Ha.	Hampshire	Wa.	Warwickshire
He.	Herefordshire	We.	Westmorland
Ht.	Hertfordshire	Wt.	Isle of Wight
Hu.	Huntingdonshire	Wi.	Wiltshire
Ke.	Kent	Wo.	Worcestershire
La.	Lancashire	YoE	Yorkshire, East Riding
Le.	Leicestershire	YoN	Yorkshire, North Riding
Li.	Lincolnshire	YoW	Yorkshire, West Riding
Mo.	Montgomeryshire		

CHAPTER ONE

ANGLO-SAXON CIVIL DEFENCE: THEORY AND HISTORICAL CONTEXT

Introduction: Why Study Civil Defence?

In his enormously influential *Anglo-Saxon England*, first published in 1943, Sir Frank Stenton considered the legacy of King Alfred the Great: as the saviour of English culture and learning, he had given a new unity of command to the forces available for their defence; he was the architect of a system of national defence; and the greatest sponsor of urban development (1971, 269). All these achievements could be regarded as part of a unified programme. In Stenton's view, Alfred—alone amongst early medieval kings—provided a moral teleology of human betterment, and a doctrine on how to realize it. It could be seen in the *Domboc* in which Alfred unified law, in his preface to Gregory's *Pastoral Care* where he advocated learning and modelled himself as a leading example, and his overhaul of government through which he sought to strengthen the effectiveness of the state; but this whole ideology was only achievable through, and inseparable from, a heightened militarization of society. Against the backdrop of Scandinavian incursion into the British Isles, Alfred's first and foremost concern was the defence of a kingdom he had won by persistence, enterprise and no small measure of luck. It was the legacy of civil defence, relying on an extraordinarily intrusive state system, which provided the context for the social and cultural life of later Anglo-Saxon England. In all respects these military and non-military spheres of Alfred's kingdom were linked together to form a unique constitutional identity affecting the political, social, economic, and cultural foundations of England.

Notwithstanding the fact that the first edition of *Anglo-Saxon England* appeared in a context of increased militarization, at the height of World War Two, this "military" model of Anglo-Saxon state formation has rarely been challenged subsequently. The period of the Viking incursions of the late eighth to eleventh centuries is still regarded by many theorists as the key moment in the consolidation of the English nation-state, with war against the Vikings remaining *the* catalyst to political evolution in the later first millennium AD. In these writings there exists a core belief that

it was strong external influences of the Vikings on politics and culture which precipitated the final emergency conversion of social and military institutions, with the formation of the English nation-state an eventual corollary (e.g. Maitland 1897; Hollister 1962; Stenton 1971; Brooks 1979; Abels 1988; 1997). Ultimately, defence of the kingdom was the prime mover for military, economic, and civil reforms, and these in turn encouraged national consolidation and the emergence of a new political order in England.

Can state formation and warfare be linked in this way? A number of previous commentators believed so. Just as reciprocal associations have been sought between Viking aggression and West Saxon expansion, so too have conflicts been used to explain the emergence of Anglo-Saxon kingdoms in the pre-Viking age (e.g. Bassett 1989a; Scull 1999), and feudal hierarchization in the post-Viking age (e.g. Pounds 1990; Bisson 1994). In these descriptions warfare and military responses are viewed as drivers of social change. Thus in Francois Ganshof's (1952) influential schemata of the development of feudalism, not only are civil violence and conflict seen as causal factors in the first emergence of "feudal" relations in the seventh century, but warfare between states became the mechanism by which aristocratic vassalage was aligned with kingship in the eighth. Rightly or wrongly, consensuses such as these appear to implicate warfare in the creation of kingdoms over a longer continuum, even if the effects on society, economics, and political and cultural institutions varied greatly. It is surprising, therefore, to find few studies, outside castleology, that have attempted to explore Anglo-Saxon warfare from an archaeological perspective, and war in general has remained outside the central focus, sometimes even at the margins, of much early medieval research (a major exception being Halsall 2003). Perhaps this oversight reflects the difficulties of dealing with so complex a phenomenon in archaeological terms. Military accounts focus on the campaigns, battles, and strategic outcomes of conflict, which largely leave only an ephemeral physical trace, whilst history often concerns itself more with the political and cultural outcomes of war rather than its actual practice.

Warfare may be difficult, but this does not explain why it is largely lacking from recent state formation models, which—this oversight aside—otherwise demonstrate considerable theoretical ambition in drawing together historical and archaeological evidence (cf. e.g. Haldon 1993; Saunders 1995; Wickham 2005). It may simply be the effect of paradigmatical orientations. Principally these syntheses adopt structural Marxist

perspectives in which economic articulation is seen as the main dynamic of early medieval state development. It is a feature of this perspective that warfare and political economy are epiphenomenal to economic (class) or social (group) conflicts. Current global concerns, however, emphasize at least two issues at variance with these characterizations. Firstly, the spectacular re-emergence (since the 9/11 attack on the Twin Towers) of military issues in contemporary thought, influencing international policy, national law-making and budgetary considerations. Secondly, a wider awareness of non-class based forms of collective action (themselves sometimes military in nature) linked to a range of positions, associations, and ideas. Both emphasize the close link between military power and the emergence and operation of the nation-state. In times of war, it is military groups that gain the most through expanding membership and an increased influence in decision-making. They do this by organizing the armed response, and operating a system that can maximize the potential for victories. It follows that through warfare the internal and external of the "state" are defined, with the limits of any such military arrangement fixed territorially (Weber 1978). Military power may be focussed externally upon perceived threats, but it is simultaneously oriented internally towards the maintenance and expansion of military institutions. It is this dualism of function which, it can be argued, helps both to create and define states.

Certainly, it is undeniable that the Anglo-Saxons were warmaking people.[1] Heroic poetry, narrative chronicles, law codes, and—particularly from the early period—burial evidence, all combine to emphasize the role of the warrior in Anglo-Saxon culture, even if warfare itself was little discussed in contemporary written sources (Halsall 2003, 1–5). War was deeply imprinted on early medieval men. In Eric John's estimation, "Anglo-Saxon society was so violent that a central fact of its politics, its way of life, even, was fighting and making war" (1966, 132). If interred weapons and military paraphernalia can be taken to indicate some form of military responsibility, approximately half of all adult and adolescent men recovered from pagan Anglo-Saxon inhumation cemeteries assumed warrior identity, at least in death (Härke 1989; 1990; 1992). Whether these weapons can be correlated directly with social status or not (Samson 1987; Brookes 2007a, 125–30) they at least symbolized a right to partake in violent endeavours (cf. Halsall 1998, 30–31). Changes in burial patterns in the seventh century suggest that this right may have become monopolized by the

[1] A term used by Turney-High (1971) and Keegan (1993) to stress the embededness of warfare in some preindustrial societies.

upper echelons of society around this time.[2] Nevertheless, warrior values and practices continued to suffuse Anglo-Saxon consciousness. In Bazelmans' (1999) reading of *Beowulf*, for example, the poem works to define a complex ritual-cosmological web of social relationships radiating outwards from warrior-lords to enclose the rest of society. This was paralleled in law. *Fyrd*, or army service, was an obligation affecting all men of the rank of *ceorl* (free peasant) or above, at least from the time of King Ine of Wessex (according to the law-code attributed to him), probably around 694 (Charles-Edwards 1976; Abels 1988, 11–9). Freemen were tied to their lords, and they to their king, and by this set of relationships political power imposed itself from top-down to affect all members of society, both before and after Ganshof's "feudal revolution".

It is not surprising, therefore, to see warfare closely tied to political evolution during this period. The *Anglo-Saxon Chronicle*, a series of annals compiled from Alfred's reign onwards, documents a seemingly unrelenting list of military engagements as a backdrop to dynastic successions, political intrigues, and the fusion and fission of kingdoms. Partly this reflects the twin role of kings as war-leaders and policy-makers (Chaney 1970), but at the same time it is an indication of how closely military and political power were considered to be related. Throughout, martial strength was used to seize and defend economic and ideological authority. Thus in most of the narratives of earlier Anglo-Saxon state formation (such as those collected in Bassett 1989b) there exists a link between charismatic leaders and territorial expansion. Transformations in the political geography, accordingly, could be abrupt and profound, with change affected horizontally between hegemons (peer polity competition) and vertically through the aggregation of smaller units under paramount leaders. Centralization of this kind could also be resisted. Armed conflict was often the route through which central control was usurped and contested. Warfare may have provided opportunities for leaders, but it was also the cost of political prominence. Kingdoms emerged through the ability of kings to impose military force, but were correspondingly supported by the warrior land-owners who were awarded tenure for loyalty. The states that resulted from this process were consequently both structured by, and preoccupied with, military authority.

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[2] This monopolization may help to reconcile the apparently opposing interpretations of early medieval warfare, either as the occupation of all freemen (Stenton 1971, 290–1) or as the preserve of the select aristocratic few (Chadwick 1907; John 1966, 128–53).

The effects of warfare are clear when we regard the establishment of a Mercian hegemony in the eighth century, and the West Saxon state that emerged over the ninth to eleventh centuries. For Mercian rulers such as Æthelbald and Offa, use of military aggression was a central plank in their political strategy. The impressive expansion of the Mercian kingdom during this period, extending direct rule over much of the midlands and suzerainty far beyond, was achieved in great part through military endeavour (ASC; *Annales Cambriae*; Stenton 1971, 205–10; Yorke 1990, 112–14; Wormald 1991a, 110–11; Halsall 2003, 161), and the integrity of Mercian royal power depended on the maintenance of military capacity. Halsall (2003, 29) links Æthelbald's bloody demise at the hands of his retainers to his failure in battle,[3] and the next years saw Offa forced to rebuild Mercian royal power through a series of campaigns (Kirby 2000, 135–36). That eighth-century Mercian kings were prepared to make impressive investment in defensive organization is testified by the construction of massive linear earthworks along its western frontier, and may be reflected in the appearance of military reservations in royal diplomas (Brooks 1971; Chapter 2). Moreover, analysis of defensive enclosures surrounding Mercian towns may place their origins before the great investment in strongholds of Alfredian-period Wessex (Haslam 1983; 1984a; Bassett 2007; 2008; 2011); but the evidence set out in Chapter 2 makes an early eighth-century origin unlikely. In general, military power, and therefore political stability, were still very much invested in the person of the king (Williams 2001, 304).

If warfare was institutionalized from an early date, by the later ninth and tenth centuries it had come to be a fundamental component of state power. Warriors supported their king in service of the realm, and the terms of their obligations were calculated on the land they were deemed to protect (Hollister 1962, 38–58). Two important documents of the time, the so-called Burghal Hidage (see p. 6–8 and Fig.1) and Domesday Book, both outline specific calculations for the levying of troops from tenure. In the Domesday entry for Berkshire (DB, i, 56b), for example, we are told:

> If the king sent out an army anywhere only one soldier [*miles*] went out from [each] five hides [a unit of taxation], and for his sustenance or pay 4s for two months was given him from each hide. This money, however, was not sent to the king but given to the soldiers [*militibus*].

[3] Although internal feuds may have had other stimuli (Stenton 1971, 205; Kirby 2000, 115).

In all respects, military organization was welded to economic productivity. By these calculations all communities were horizontally segmented, with some able-bodied men called upon to do military service, and others retained in the roles of producers. This division of society is also hinted at in Alfred's translation of Boethius' *Consolation of Philosophy* (ch. 17), in which a king, so "that he have his land well peopled...he must have prayer-men, and soldiers, and workmen" (Cardale 1829, 91). The arrangement was also hierarchical: the *Rectitudines Singularum Personarum*, a document of the early eleventh century, defines many of the roles relating to social ranks in relation to military duty.

Warfare may have been an elite enterprise, initiated from the top down to serve elite purposes, but its organization impacted on common people great and small. Under the threat of Viking incursions the primary motivation for recruitment remained what in contemporary terms might be called "homeland security". Work in recent decades by both historians and archaeologists has illuminated our understanding on the thirty-three major fortifications (burhs), listed in the early tenth-century Burghal Hidage, which were designed as part of a strategic system of defence to safeguard West Saxon hegemony (and populations) in southern Britain (e.g. Brooks 1964; Hill 1969; Hill and Rumble 1996b; see Fig. 1).

Supporting the impression gained from written sources, archaeological evidence from these sites suggests that they were subject to significant activity during the later Anglo-Saxon period. Excavations at Winchester have demonstrated that the Roman city was substantially reorganized around a new, more regular street plan, with intra-mural roads providing easy access to the city walls (Biddle and Hill 1971). Similar reorganization has also been seen at Bath and Chichester, and at Winchester and Bath a new second ditch was dug around part of the circuit (ibid.; Haslam 1984b, 31–37). At Wareham, Wallingford, and Cricklade, new burhs were built adopting an innovative design imitating Roman towns. These sites were based on a similar, regular geometric plan, comprising a central road crossing, long rectangular *insulae* and a series of earth and timber defences, with double and sometimes triple ditches. In addition to these major works several sites appear to have been refurbished for use within the defensive system, including the Roman fort of Portchester (Ha.) and the Iron Age hillforts of Burpham (Sx.), Chisbury (Wi.), and Pilton (De.) among others.

Drawing on these data, previous research has argued that the Burghal Hidage list represents a systematic approach to defence, incorporating centralized planning, significant communal investment of labour and

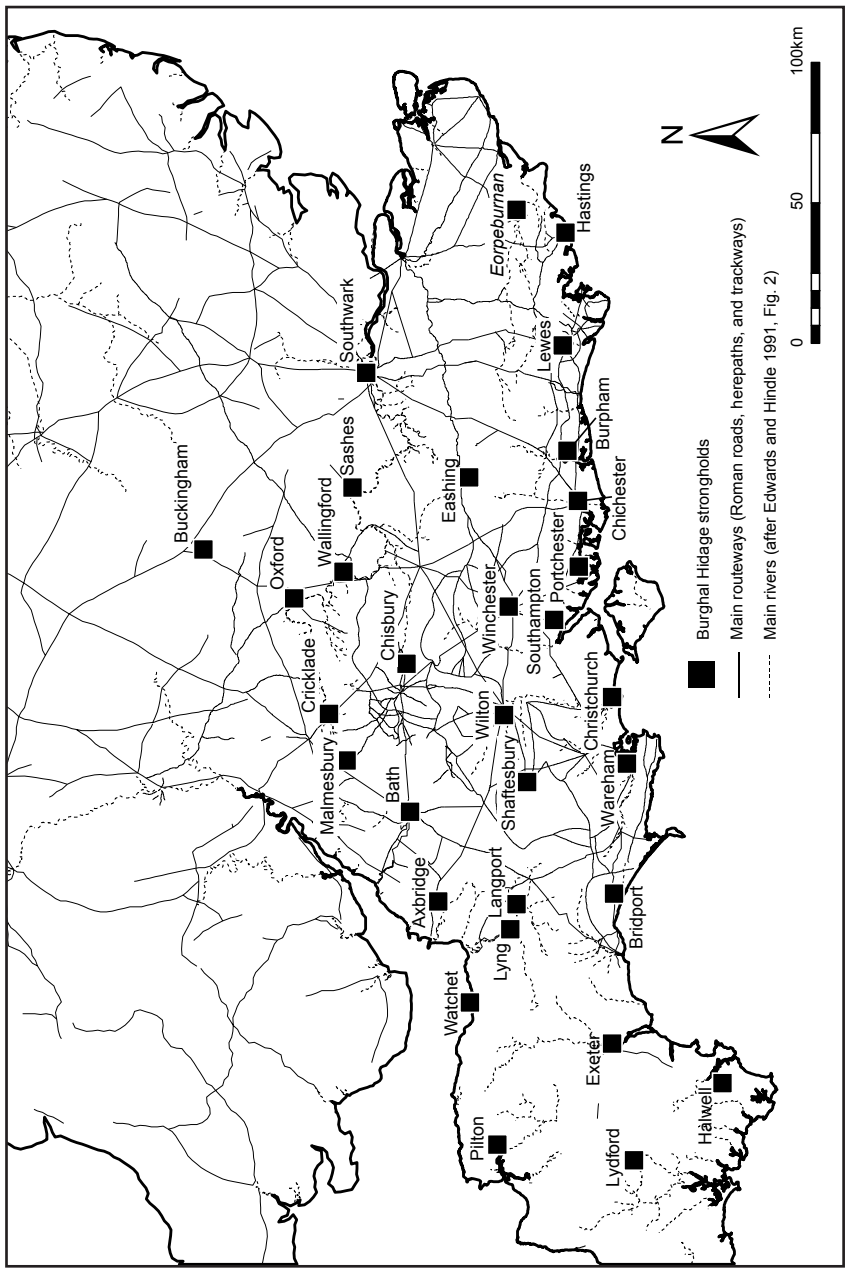

Fig. 1. Map of the strongholds listed in the Burghal Hidage.

resources, and an overarching military strategy (Hill 1980; Haslam 2006). Strongholds were located no more than forty miles from one another, and could therefore be relieved by neighbouring garrisons and supplies within two days. Many were sited to protect the entrances to navigable waterways and sheltered landing places, whilst others commanded positions astride major inland routes and waterways. In total this system comprised an arrangement whereby no fewer than 27,000 men were assigned to the defence and maintenance of what has been described by one author as "Fortress Wessex" (Peddie 1999).

Such military apparatus was only achievable through an efficient taxation system and no small amount of ideological persuasion. In order to centralize and consolidate power in this way leaders "must have a nationalistic vision, a symbolic matrix that mobilizes support, legitimizes rule, and, ostensibly, binds the people of the country together" (Ferguson and Whitehead 2000, xix). If this is true, it follows that leadership, particularly under Alfred, became a formalized ideology of control in which the role of kings was, among other things, to defend the kingdom against the Vikings. Indeed, Alfred's skill in establishing around his person a mythology of righteous resistance was so effective that aspects of it persist to this day (Keynes 1999). Such an ideology provided the means by which domination (economic, political, and military) could be legitimized, and simultaneously reinforced the military orientation within society. Moreover, it created a banner under which a new societal collectivity could be expressed. Instead of Kentish, West Saxon, or Mercian provincialism, James Campbell (1995a; 1995b) has argued, there is an emergence in the sources after Alfred, particularly evident in the eleventh century, of an emotional and ideological commitment to an English state. How this commitment was tied to a territorially-bounded kingdom, and the physical manner in which it found expression, that is to say in the civil defence of the realm, is a central theme of this book.

A Place for Civil Defence in State-Formation Theory

Cross-cultural comparisons between Anglo-Saxon England and other archaic states serve to emphasize the centrality of military power in social evolution (Carneiro 1970; 1978; 1992; Haas 1990; 2001; Earle 1997, 105–42; Johnson and Earle 1987). The early medieval period witnessed a transition, depending on the terms of reference, from chiefdom to state (as characterized by social evolutionist theory); from tributary to stratified social rela-

tions (substantivist); or from peasant- to feudal-modes of production (Marxist). Whatever the perspective, all view this transition as reflecting the changing relations of power, in its various economic, social and political forms, particularly relative to the structures of leadership.[4] Powerful rulers—such as Alfred—emerge in the historical record, precisely because they came to dominate resources, labour, and coercive forces, as well as the ideology of state. There are, however, also questions of scale. Significant individuals could already centralize authority in "chiefdoms" (such as existed during the fifth and sixth centuries), but the size of later larger hegemons was such that they required a centralized political structure, including local administrators, in order to govern over regionally-dispersed territories and resources (Carneiro 1981; Wright 1984). A fundamental characteristic of early states, therefore, is the appearance of semi-autonomous, hierarchically-organized social groups, differentially engaged in production, exchange, military or religious pursuits (Crumley 2003; Yoffee 2005). It is just such social and economic differentiation that Alfred appears to be observing in his commentary to *Consolations of Philosophy*.

Crucially, in Norman Yoffee's analysis (2005), these areas of power are mutually reinforcing: change in one requires reciprocal development in another (see also Earle 1991). Evolution in political power, including the imposition of force through military organization, requires the co-evolution of other spheres for states to emerge, particularly in agricultural production (Yoffee 2005, 38). The trick of states—and it seems that it was just that—was how to bind these divergent social units together in a cohesive and integrated manner. John Baines and Norman Yoffee (1998; 2000) have drawn attention to order, legitimacy, and wealth as areas through which stratified social groups were aligned under centralized leadership. The inner elite, in this reading, employed high culture, an ideology of the collective society, including a defined role for the elite, and a monopolization of wealth, as ways of drawing the disparate groups of society towards a cultural and administrative centre. The key, and novel aspect of this concept of state, is that all constituent elements of society remain subject to their own hierarchical and overlapping dynamics, but are simultaneously ordered within a universal, all encompassing, civilization. The entire society,

[4] Some of the problems of using "chiefdoms" as a way of characterising pre-state societies have been recently discussed in some depth by Yoffee (2005). Whilst there are problems with this characterization, early Anglo-Saxon "chiefdoms" can simply be regarded, for the purposes of this argument, as those pre-state constructs from which middle Anglo-Saxon kingdoms emerged.

following Baines and Yoffee (2000, 14), is subject to an ideology "by which we mean the ascribed set of meanings about social, political, and economic relations and events, and specifically about who has power and how it is got".

This persuasive and influential approach has focussed attention in a number of studies on the production and uses of "high culture" in the development of archaic states (many of which are collected in Richards and Van Buren 2000). These studies have included the examination of symbols of wealth and status, literature, and monumental architecture in the construction of ideologies of state, but also of the interrelations between agricultural surplus production and urbanization; a further distinctive feature of state formation. However, one aspect has so far failed to be considered as part of this kind of unifying cosmology: civil defence.

Civil defence describes the range of emergency measures societies take to protect the state from natural disasters or enemy attacks. In this regard it is primarily concerned with what Guy Halsall (1998, 29) following Keith Otterbein (1968) defines as "external warfare": conflict between culturally dissimilar groups. As the effects of such emergencies are felt to greater or lesser degree by all, civil defence strategies include the organization of military and non-military operations aimed at protecting populations and maintaining the civil and economic structures of the state. The development of collective action, notions of citizenship and nationalism are intimately bound up in this, and have a direct relationship with centralized political authority. Ostensibly civil defence describes practices and policies that are in the general interest of society, but, particularly in peace-time, also work to support the sectional interests of military authorities charged with organizing it.

Unlike early medieval warfare, which (as already noted) was primarily an elite pursuit, civil defence involved all members of society, either directly through their participation in preventative actions (in civil militia, manning warning systems, or offering emergency assistance), or indirectly as the subjects of evacuation or protection, and the source of taxed revenues for civil defence constructions. In this respect the study of civil defence goes beyond that of preindustrial warfare to consider not only the types of confrontations that took place, but also the ways in which attempts to manage warfare impacted on other social and economic spheres. Civil defence, in this reading, is a physical expression of "state ideology", in Yoffee's (2005) sense, or "nationalism" in Anthony Giddens' (1985, 209–21). It is an articulation of "general interests": practices, programmes, and pol-

icies designed to appeal to all members of the state, not simply the sectional interests of groups or classes (ibid., 212); and in the case of Viking-age defences, it is tied also to a common experience anchoring people together.

Until at least the ninth century power rested primarily on the organization of people, and through people the basic resources of a polity. It follows that competition between kings (such as Mercian and Welsh, West Saxon and Danish, or West Saxon and Mercian) revolved around those same concerns. Typically, aggressors would harry enemy lands in order to draw the opposition to battle. Harrying was both logistical and tactical. It fed and thereby maintained the integrity of the standing force, and it provided booty as rewards for duty; but it also provoked an aristocratic response if demesne was threatened. Significantly, this kind of warfare affected non-combatants in severe and devastating ways. To Marc Bloch (1962, 39–41) the psychological basis for this coming together was therefore clear: the destruction of cultivated land through continuous warfare had driven the peasantry to despair, with a united armed response their only choice. To his mind, the "walls and palisades with which Europe then began to bristle were the visible symbol of a great anguish" (ibid., 41). Bloch's views were tempered by his own experiences of war-torn Europe, but the insight is telling. In instances of endemic and unpredictable warfare individual agency is subsumed by practical considerations around cooperative fight/flight decision making. Not only can this serve to mobilize non-combatants in support of war (militia), it can prompt various forms of resistance (e.g. fortress building, frontier formation, armed retaliation, retreat into the interior; von Clausewitz 1997, 279–318). Furthermore, it can serve to align individuals to common ideals and values of "nationalistic" content, enhanced through experience (Giddens 1985, 214–5).

By these definitions civil defence, civil identity, and state development are rooted in territory. "Homeland" is not merely a symbolic concept, but also a physical entity that is the subject of defence, and civil taxation, and is "home" to settled populations. That is not to say that archaic states exist behind clearly-defined boundary lines. In preindustrial contexts it is more common for territorial dominion to be loosely demarcated behind permeable frontier zones, or borderlands, in which political authority is diffuse (Prescott 1987; Chapter 4). However, in the sense that civil defence is paid for through a landed rental economy (financially and in terms of manpower), it can be said to correlate to a defined territory.

This issue warrants emphasis. The relationship between state formation and the landscape character of civil defence is, in a sense, that of independ-

ent and dependent variables: our interest is in explaining the latter, but as a prerequisite it is necessary to develop an understanding also of the processes of the former, to clarify how it is that states evolve in spatial terms. In this regard a cogent model of Anglo-Saxon state formation has been proposed by Tom Saunders (1991; 1995; 2002). According to this model the Viking period witnesses a fundamental shift in social relations as tributary economic structures were replaced by feudal tenure. This involved a transition from older social structures, based on the control and distribution of people's subsistence, the so-called *feorm* or food rent, to a tiered structure of land and service. Warfare is regarded as the principal driver of change. Kings, through grants of land and tenure, may have ceded economic power to lords, certainly with regards to the redistribution of staple, but they did so whilst simultaneously tightening control over military force. Not until the transition to feudalism was fully completed, could this military might be said to have been replaced by aristocratic rent production. In a model of eloquent simplicity, warfare is not simply seen as a device for explaining state formation, but also provides a way of understanding the social context of change, in which political developments led to economic evolution. What it fails to explain, is the simultaneous emergence of territoriality, citizenship, and nationalism; concepts of collective action and group identity of the kind predicted by Giddens (1985). This growth of a common sense of civil identity is dependent on the development of effective internal communications (Deutsch 1966); ways of spreading and promoting cultural unity. It also relies on an administrative bureaucracy affecting most local groups to some extent. It is often remarked at how passively Anglo-Saxon society apparently acquiesced to phenomenally oppressive obligations and taxes. Answers to this question must be sought in the organization of civil defence structures and personnel, the nature and mechanisms of military institutions at a variety of scales, and the impact of warfare on the daily life of people. Archaeology and place-name studies can make a distinctive contribution to these debates.

Previous Work

Concerned as it is with the geographical organization of communities and the measures taken to defend them, civil defence research draws attention not only to the spatial manifestations of society (limits, structures, and hierarchies), but also diachronic patterns in their evolution. Aspects of this

material have received variable treatment in the literature, and are discussed thematically in chapters 2 and 3. Beyond the physical relicts of civil defence structures, this research draws on a range of literature from archaeology, history, anthropology, and place-name studies. As in this book, some of that previous work is avowedly multi-disciplinary: seeking to reconcile the disparate sources to construct a narrative of socio-political, military, and economic development. However, unlike these works, we have used landscape—rather than historical sources—as our principal point of departure.

By and large relevant research from a military-historical perspective has concentrated on the operation of early medieval warfare. Topics such as the scale and organization of English and Viking armies (Sawyer 1962, 118–36; John 1966, 128–53; Stenton 1971, 243; Brooks 1979; Bachrach 1997; Halsall 2003, 119–33; Lavelle 2010a), strategy, tactics, and battles (Peddie 1999; Haslam 2006) in historical discourse find parallels in archaeological writings on the morphology and construction of burh defences (Radford 1970; 1980; Biddle and Hill 1971; Griffiths 1995), weapons and armour (Underwood 1999; Hawkes 1989; Pollington 1996; Manley 1985), and the identification of historically-attested battlefields and events (Burne 1953; 1996; Marren 2006). To these can be added extensive literature on the excavation of individual locations. Primarily, archaeologists have focused on the major documented sites (e.g. Radford 1970; 1980; Biddle and Hill 1971; Wilson 1976; Hill 1996). These specialized, and often very detailed, studies provide a huge wealth of information on the organization of local civil defence structures. However, additional material on potentially relevant sites exists also in the excavation of undocumented (or poorly documented) monuments and in place-names. Recent work has highlighted the importance these minor sites and place-names can play in revealing the extent and complexity of late Anglo-Saxon defensive organization within the wider landscape (Hill and Sharp 1997; Reynolds 2000).

A second strand in the literature treats warfare as an adjunct to historical process. Several previous authors have concentrated on the institutional background to major late Anglo-Saxon fortifications (e.g. Brooks 1964; Bachrach and Aris 1990; Schoenfeld 1995), whilst others have examined the development of military obligation (Abels 1988; Brooks 1971; Williams 1992). The conduct of Alfred's Viking wars has received extended treatment in the literature (e.g. Abels 1998; Peddie 1999; Reuter 2003; Lavelle 2010a) as has, to a lesser degree, that of his descendants Edward the Elder (Higham and Hill 2001); Æthelstan (Wood 1980; 1983); Æthelred (Hill

1978; Lavelle 2002). These works exist within a larger debate on the scale and nature of the later Anglo-Saxon state (Campbell 1995a; Foot 1996; Wormald 1999).

A third strand in the literature deals with the theoretical aspects of civil defence and state formation. Given that early medieval warfare has not been a central concern, the extant literature on this topic is meagre. Some authors have sought to identify the underlying social uses of violence in Anglo-Saxon society (Halsall 1989; 1998; 2003; Fletcher 2003; Hyams 2001), whilst others have explicitly linked warfare with kingdom formation (p. 8–12 above). Beyond the confines of early medieval Europe, the study of Anglo-Saxon civil defence exists in a broader context of research on war and society in preindustrial states, and it is from some of these anthropological debates that this research draws inspiration (e.g. Carneiro 1970; 1978; 1992; Ferguson 1984; 1990; Haas 1990; 2001). However, in surveying these works it is remarkable that civil defence remains a largely unexplored aspect of military activity (one volume on the effects of war on society does not mention it at all (Ausenda 1992)) and it is primarily in geographical literature that civil defence is considered as a manifestation of state formation processes (e.g. Ratzel 1897; Prescott 1987).

Taken in combination geography, landscape archaeology, and place-name studies represent an important avenue by which to advance the understanding of Anglo-Saxon civil defence. As an institution civil defence is tied to the conduct of warfare and thus anchored within its terrain; it is closely linked to the groups of people engaged and affected by it and also to the scale of warfare; and it is governed by the political stratagems influencing the theatres of war, which change through time. In this sense, landscape underpins all military institutions in a real and profound way. Terrain, mobility, resources, and the location of settlement all work to limit, channel, and facilitate warfare. Contested landscapes, it follows, have an archaeological presence. Fortifications (refuges, strategic defences, regional strongholds) exist as physical monuments, whilst military terms enshrined in the names of features such as route-ways, crossings, and sites associated with the conduct of war provide evidence of a wider landscape of military action. A focus on the ways in which defensive institutions are materialized in landscape, therefore, offers the best means by which to assess the contested spaces of Viking-age England.

Historical Overview

The *Anglo-Saxon Chronicle*—a collection of annals probably first compiled and disseminated in Wessex in 890–92 during the reign of Alfred the Great, at least in their earliest surviving form—provides the main source for the events of the Viking Age in England (Dumville 1992b, 56–95; Bately 1980; 1986, xxi, xxv–xxxiv). For much of the ninth and early tenth centuries, its main focus is on the struggle against the Vikings, sometimes perhaps to the exclusion of other events, and giving the impression that most, if not all, of the political and social upheaval of the period was the direct result of Viking raids, conquests, and settlement. Clearly, this concentration on Viking exploits underlines their perceived significance to contemporaries—or at least to the literati of the time—but political and military conflict within and between Anglo-Saxon kingdoms and their Celtic neighbours was far from rare before the first Viking raids, and continued in spite of them.[5] It would certainly be wrong to view the first half of the ninth century as completely free from the sort of turmoil inflicted by the Viking armies of the second half of that century. From the later 840s, Northumbria may have descended into a situation approaching civil war, and there seems to have been political turmoil in Mercia too from the 820s (Wormald 1991c, 135–40; Higham 1993; Rollason 2003). Much the same can be said of contemporary western Europe, and it is important not to view England in isolation. During the Viking wars, periods of peace in England were often balanced by increased activity in Francia by the same Viking war bands, and Anglo-Saxon chroniclers show a keen interest in Viking movements whether in England or abroad (ASC A s.a. 880–4; John 1996, 76–7). Indeed, comparative study of contemporary Frankish sources has much to reveal about the conduct of Viking warfare in England in the mid-ninth century. It is clear, for example, that by the 860s a precedent had already been set in Francia whereby the Vikings pursued payments in bullion and food

[5] See, for example, Roger of Wendover's description of Egbert's Northumbrian campaign of 829 (Whitelock 1979, 281), and the complaints of the kings of Gwent against Æthelred of Mercia in the 880s, outlined by Asser (Keynes and Lapidge 1983, 96). Internal politics could turn violent too, as illustrated by Simeon of Durham (*s.a.* 750), who claims that an eighth-century king of Northumbria took a bishop prisoner and besieged Lindisfarne (Whitelock 1979, 265), or by the Cynewulf and Cyneheard episode in Wessex (ASC *s.a.* 755). Bede's account of warfare between the Northumbrians, the Mercians, and the men of Gwynedd in the 630s is equally vivid: "[Cædwalla of Gwynedd] was set upon exterminating the entire English race in Britain, and spared neither women nor innocent children, putting them all to horrible deaths with ruthless savagery, and continuously ravaging their whole country" (Bede *HE* II, 20).

renders as the price for peace; a strategy about which English sources are silent until the tenth century (Smyth 1995, 23–24).

Use of the term "Viking" can have a decontextualizing effect on the study of Scandinavian interaction with the rest of Europe in this period. As the previous paragraph hints, the peoples of the area that has become modern Norway, Denmark, and Sweden were not the only dangerous warbands engaged in acts of brutality and despoliation and nor should their actions be taken in isolation from the contemporary politics of the Frankish world and its satellites (e.g. Reuter 1985; Searle 1986; Coupland 1998; Hedeager 1992; 2008; Lund 1989; Nelson 1997). At the same time, it would probably be wrong to view the "Vikings" as a single, homogeneous entity (Eldjarn 1982; Fell 1986; 1987; Hodnebo 1987), rather than as disparate and often unrelated groups whose personnel and leadership evolved, and whose aims and activities differed from one region to another and from one period to the next. In the present work, the term "Viking" is used as a short-hand for raiders, invaders, and settlers whose provenance was traced by contemporary writers to Scandinavia and who were referred to in the sources as "Norsemen" or "Danes", sometimes simply as "pagans" and, very occasionally, "vikings". The broader history of their interaction with the Anglo-Saxon kingdoms has been written many times (e.g. Brøndsted 1965, 45–87; Stenton 1971, 239–69, 319–63; Sawyer 1978, 114–31; Wormald 1991c; Abels 1998, 102–68) and does not need to be repeated here in detail. It will nevertheless be useful to address, in some depth, its military character and impact.

Seafaring Scandinavian marauders are first reported by the *Chronicle* under the year 787 (ASC AEF), although the events described may have taken place in subsequent years. According to Ealdorman Æthelweard (*Chronicon* III.1), writing two centuries later, a small fleet "of the Danes" (the term employed is *Danorum*) landed in Dorset and slew the Ealdorman Beaduheard when he instructed them to make their presence known at the royal manor. When in 793 a Viking party operating in the North Sea plundered the monastery of Lindisfarne in Northumbria, the *Chronicle* adds to the sense of impending doom with a portentous account of strong winds, exceptional lightening, flights of dragons, and famine (ASC DEF). There is no way of knowing how many similar raids went unrecorded in these years, but the fact that raiders were active at opposite ends of England, and indeed within a few years also in Ireland (AC *s.a.* 796; AU *s.a.* 795), must suggest that all the Anglo-Saxon kingdoms were under threat, if not actually under attack. Exposed coastal areas must have required particular

vigilance, and it is notable that the obligation to work on strongholds appears in Kentish charters during Offa's reign (Brooks 1971).

The increasing military menace is evident from the near contemporary account provided by the *Anglo-Saxon Chronicle*. In broad outline, after a hiatus in reported Viking raids during the first three decades of the ninth century, the *Chronicle* describes a renewed and apparently more vigorous onslaught in the 830s and 840s; and from 850 onwards, some Viking armies began to remain in England between raiding seasons. The establishment of bases in England was certainly an ominous development, as was the arrival in 865 of the Viking *micel here* or "great army". From the 850s, not only would it prove difficult to dislodge Vikings from fortified sites in places such as Thanet, Nottingham, and Reading (ASC *s.a.* 853, 868, 871; Asser § 43), but their increasing military success would also lead to major changes in the Anglo-Saxon political landscape.

The size of Viking armies and the numbers involved in the settlement of conquered territories have been matters of considerable controversy over many years. Argument has centred especially on the accuracy or otherwise of contemporary accounts (e.g. Sawyer 1957, 3–6; Sawyer 1962, 193–96; Brooks 1979), the interpretation of manoeuvres and military success as an index of numerical strength (e.g. Gillmor 1988b; Abels 1991, 148, n25; Clarke 1999, 47), and the degree of linguistic impact on areas of settlement (e.g. Fellows-Jensen 1972; 1978; 1985; Cameron 1973; 1996c; Sawyer 1982a, 102; 1982b; Hadley 1997; Abrams and Parsons 2004). Many would now accept that the size of Viking war bands could vary and at times such forces were sizeable and destructive (*pace* Sawyer 1962, 123–7; Wormald 1982, 134–7; Brooks 1989; John 1996, 66–7; Abels 2003; Lavelle 2010a, 41–6). Even if the size of some early Viking raiding parties has been overstated, the *micel here* of the 860s must have been extremely large, and once the Vikings had bases in England it seems quite possible that they were able to welcome reinforcements and put very substantial forces into the field on a regular basis, without facing all of the logistical issues outlined by Carroll Gillmor (1988b). Indeed, the location of their encampments in England may have taken account of the need for supplies (Abels 1998, 115, 125–26). During the 860s and 870s Viking armies were clearly large enough to fight a succession of pitched battles with mixed outcomes, and to sustain the losses this entailed. It could be argued that the appearance of the Viking *here* in the vicinity of important meeting-places and royal estate centres like Basing, Wilton, and Edington, was tantamount to issuing a challenge to the West Saxons to join battle, much as Halsall (2003, 156) suggests in connection with Cuckhamsley in the eleventh century. This is a clear sign

that Viking hosts were large enough to take on opposing forces with confidence.

An important consideration in analysing Viking warfare is its position within the wider context of early medieval organized violence. In this regard, Sawyer's judgement that the actions of the Vikings were (in key respects) entirely normal within the wider context of violence in early medieval society is still influential (Sawyer 1962, 194).[6] Timothy Reuter (1985; 1990) argued that the need to obtain plunder was a driving force behind early Carolingian military policy and, with some modification (Nelson 1996, xxviii–xxxi; Halsall 2003, 90; Airlie 2005, 94–97), this view has been widely accepted, and extended to other parts of western Christendom, including Anglo-Saxon England (e.g. Abels 1992, 25–26; Potts 1997, 16; Wood 1998, 391–94; Nicholson 2004, 2, 3; Costambeys, Innes, and MacLean 2011, 159–60, 171–72). The supposed difference between Viking acts of war and those perpetrated by Christian rulers in Francia, Britain, and Ireland was probably less significant than some earlier histories implied.

Importantly but controversially, Bjorn Myhre (1993; 1998) goes further. Arguing that the archaeological record in Scandinavia does not support traditional explanations for the start of the Viking Age in the late eighth century (population pressure, increased competition for resources, changes within Scandinavian society, the development of the sailing ship), he suggests that the outbreak of Viking raids was a response in kind to what was perceived as an aggressive Christianizing policy from continental neighbours—one that had already brutally subdued the continental Saxons and was threatening southern Scandinavia. This interpretation is problematic, since some of the earliest Viking raiders originated in the more distant parts of Scandinavia from Francia, and many early assaults were directed against England (Williams 2008, 193; and cf. Wamers 1998; 789 ASC EF), but Myhre (1998, 27) considers the intensification of Anglo-Saxon missions to the continent around this time to have contributed to the provocation.

This interpretation is relevant to the present discussion. One implication of Reuter's and Myhre's work is that the format of Viking raids on late eighth-century and early ninth-century Anglo-Saxon England—rapid campaigns targeted at extracting plunder—was not, on the whole, uncharacteristic of insular warfare at that time. In other words, the Vikings were expressing themselves militarily in terms that would have been clearly

[6] Janet Nelson (2003) argues that the whole concept of the "otherness" of the Vikings should now be abandoned.

understood by their opponents, and were initiating a very familiar type of violent interaction; one that represented an entirely normal response to the prevailing socio-political relations between Christendom and Scandinavia. The key differences were symbolic, in that Vikings chose to attack the types of religious institutions held sacred by Christians,[7] and tactical: the efficient use of ships and a keen appreciation of the importance of mobility (Halsall 1992; Williams 2008, 197). This will have made effective military ripostes difficult for Anglo-Saxon rulers, but need not have undermined existing defence mechanisms, which were perhaps already set up to provide refuge from raiding parties, however terrifying the Viking attacks were, and however great their nuisance value.

While such an interpretation has considerable appeal, and might explain the capacity of Anglo-Saxon kingdoms to survive the extended phase of Viking raiding intact—even to continue the pursuit of traditional rivalries—it can only be part of the picture. At least from the second quarter of the ninth century, Anglo-Saxon military planners must have been aware of the wider landscape of Viking activity. To have viewed Vikings only as raiders would have required a relatively simplistic interpretation of the aims and strategies of the Viking groups operating around the North Sea. As Gareth Williams (2008, 194) argues, these were always more complex than they might superficially appear. While attacks in England seem to show a progression from sporadic and small-scale seasonal raiding, to large-scale raids, to over-wintering, and finally to attempts at conquest, Williams points out that elsewhere Vikings were already conquering and settling territories from the 820s (RFA *s.a.* 826; ASB *s.a.* 841; AF *s.a.* 850). The admixture of means and ends may have differed, but the range and variety of Viking military practices were very similar to and followed the same basic principles as those of the Franks or Anglo-Saxons. So even if plunder was less central to the aims of Frankish and other Christian kings than it was to Viking raiders, to some extent Viking warlords also shared (at least from early in the ninth century) the wider aspirations of exploitation of tribute and territorial acquisition.

A corollary of this is that Anglo-Saxon rulers must have been aware, even during the 830s when their direct experience was principally of raiding, that Vikings were capable of much more than the mere extraction of plunder and tribute. Indeed, evidence of this was close at hand. During the

[7] Although as Myhre points out, this was not necessarily a distinction non-Christians would have recognized—Carolingian attacks on the Saxons had after all targeted religious symbols and practices.

830s, for example, the *Chronicle* outlines a concerted attempt by the Vikings to interfere in Anglo-Saxon politics, by exploiting Cornish animosity towards their recent West Saxon conquerors. According to the same source, Viking war bands operating in England in the 830s and 840s were far from invincible, and it is probably noteworthy that Mercia showed as much concern about the threat from the Welsh as from the Danes at that time (ASC A s.a. 853). However, even though raiding seems to have remained the principal aim of Scandinavian marauders in England between the 830s and 850s (e.g. ASC A s.a. 839 (for 842) and 851), Vikings nevertheless proved very astute at exploiting political instability and power vacuums in the various Anglo-Saxon kingdoms (Abels 1998, 116).

The start of the phase of over-wintering, followed in 865 by the arrival of a *micel here* or "great army" changed the nature of Anglo-Viking conflict in England, and the advent of the *micel here* in particular can be seen as a decisive moment (Abels 1998, 112); but it is likely that the need for new defensive policies was already apparent before the 850s, even if their implementation occurred later. It is clear that all the Anglo-Saxon kingdoms struggled to counter the early assaults of the Viking hosts of the 860s and 870s. Even Wessex, which appears to have dealt with Viking-provoked crises better than its rivals, was forced to consolidate its military alliance with Mercia—a traditional foe with whom relations had steadily thawed since the 830s (Keynes 1998, 2–11)—in order to meet the contemporary threats, including that of the *micel here* of 865 (ASC A s.a. 868). During this time the Anglo-Saxon kingdoms were subjected to a terrific onslaught, which notably involved the defeat of Northumbria and the overrunning of East Anglia, bringing an end to its ruling house with the defeat and slaying of King Edmund, late in 869 (ASC s.a. 870). In Wessex, between the autumns of 870 and 871, Æthelred I and his brother Alfred (who succeeded him during the course of the year) fought a series of battles to hold off the Vikings. Victories such as Ashdown notwithstanding, they were unable decisively to defeat the Viking army, and Alfred was compelled finally to make peace with them, perhaps by buying them off (Stenton 1971, 250). The Mercians also made peace with the host in the following year, but it was not long before their king Burgred was deposed, replaced by a candidate with Viking backing, and his kingdom divided up. The fate of Mercia has similarities with that of Northumbria, which the Vikings had also divided between themselves and a collaborator king (Abels 1998, 116–7). Wessex was granted a brief breathing space following the events of 871, while the Vikings defeated Mercia and consolidated their control of Northumbria, but in 875

Alfred was again forced to confront the host. Late in 878, Wessex itself was temporarily occupied by Guthrum's Viking army and Alfred driven into hiding. Although Alfred was victorious at Edington the following spring, saving Wessex from a fate similar to those suffered by the other Anglo-Saxon kingdoms, the Scandinavian armies were able to consolidate their control over large tracts of lowland Britain and, the *Chronicle* tells us, begin to settle and farm the land.

At this point, with the establishment of Scandinavian kingdoms in England, the Vikings clearly became an even more significant part of Anglo-Saxon politics, and the wars of Edward the Elder in the east midlands should perhaps be characterized more subtly than simply a struggle with alien, Scandinavian rulers. Following the Treaty of Wedmore, until his death in the 890s, Guthrum remained Alfred's subject king. At the turn of the tenth century, Æthelwald made use of the Viking kingdoms in his rising against Edward the Elder (ASC A s.a. 901 (for 899) and 905 (for 902), Stenton 1971, 322), and dissident West Saxons therefore fought alongside Vikings and Mercians at the battle of the Holm (ASC AD s.a. 905 (for 902); Keynes 1998, 39–40, n.168; Campbell 2001, 20–1). Archaeological support for the reliability of the *Anglo-Saxon Chronicle* account is provided by coins of Æthelwald, minted in the Danelaw, and found in Viking hoards, such as that from Silverdale, Lancashire, discovered in 2011. This perhaps confirms the Viking kingdoms as an accepted part of the political scene, although the depiction of the ætheling consorting with Scandinavian factions might also have been a device for questioning his suitability to rule (Yorke 2010, 148–9).

By the 910s, East Anglia and eastern Mercia had been under Danish rule for at least a generation. Much of the native nobility may have been killed during the wars of the 860s and 870s (Abrams 2001, 135) or the subsequent Danish land-sharing, or may have fought in a resistance, unrecorded by the sources but not entirely unlikely. It seems possible, however, that distinctions between ethnically Scandinavian and English inhabitants rapidly became blurred, except where it was socially or politically convenient to stress different cultural origins (Hadley 2002, 51–2), and even after only 30 or 40 years, it is hard to imagine that all the native East Anglian and east Mercian thegns continued to oppose the Danish regimes or to adopt a stance of conscientious objection to military service—a position that would have been incompatible with their social status. Ultimately they may well have fought alongside Scandinavian warriors in the armies of East Anglia or the Five Boroughs (Sawyer 1957, 16–17), and against the West

Saxons, who in some cases were a traditional enemy. This may have been made easier by Guthrum's conversion to Christianity; it may also have been facilitated by existing systems of military mobilization; but given the lack of evidence for the nature of the social, administrative, and tenurial organization of the Danelaw in this period (Abrams 2001, 132–3), little can be said with certainty. There are at least superficial similarities between a shire *fyrd* and a *here* based on one of the Viking borough territories (Sawyer 1978, 118 ; but see Baker and Brookes forthcoming d). Against this suggestion may be the *Chronicle*'s description of Edward's occupation of Colchester in 917, after which a number of people "both from East Anglia and from Essex, who had previously been under Danish domination, submitted to him: and the entire Danish host in East Anglia swore union with him" (ASC A s.a. 921, translation from Garmonsway 1972, 103). The implication of the passage seems to be that ethnically English people living in East Anglia and Essex took the opportunity to switch their allegiance to Edward and away from their former Danish lords; but this does not mean they had not, previously, fought with the Danes, only that it was now expedient to cease so doing.

In the aftermath of victory at Edington, Alfred was able to reinforce his position in Wessex and, by the middle of the 880s, achieve some kind of dominion over the western half of Mercia, with which he perhaps already had strong ties (Keynes 1998; 2001b). In the following years the relationship was further strengthened with the marriage of Alfred's daughter Æthelflæd to Ealdorman Æthelred, an increasingly important player and perhaps already the leading figure in Mercia (Keynes 1998, 19–21; Walker 2000, 69–75). The two decades following Edington also witnessed a series of innovative military reforms, which allowed Alfred to garrison strongholds across his kingdom, to keep his army in the field for longer periods of time, and to engage the enemy by sea as well as by land. The increased effectiveness with which new Viking challenges were met reflect these changes (Abels 1998, 304), which perhaps also made possible the renegotiation of the West Saxon role relative to other major potentates of southern Britain, including Hywel ap Rhys of Glywysing and Hyfaidd of Dyfed, who accepted Alfred's overlordship in 885 (Asser § 80). At the same time, new additions to Alfred's royal circle created a more cosmopolitan court at which a spirit of learning was fostered and a new and inclusive "Anglo-Saxon" identity was cultivated and propagated, emphasizing existing elements of commonality and overcoming others by focusing on the notion of *Angelcyn*, (John 1966; Wormald 1983, 123–9; Campbell 1995a, 40–2; Foot 1996; 1999, 197–200; Keynes 2001b, 327–8; but see the important critique of this idea by

Molyneaux 2011). This ideological innovation must have formed a useful and perhaps crucial counterpart to the more tangible extension of West Saxon military and political power into regions where it had no traditional roots: the rump of Mercia under Alfred; the west and southeast midlands under Æthelflæd and Edward the Elder; the northeast midlands, Suffolk, Norfolk, and the north under Edward's sons.

The role of military activity in state formation has been discussed earlier in this chapter. Certainly, Alfred's reign is seen as a pivotal moment in the creation of the foundations of a united England, a view endorsed by the focus of much recent literature (e.g. Peddie 1989; 1999; Smyth 1995; Abels 1998). In one of the pre-eminent works on Anglo-Saxon England, Frank Stenton (1971) dedicated a chapter to "The Age of Alfred", and Alfred's prestige was also emphasized by Henry Loyn (1984), who singled him out from kings up to 871 and after 899. It is important nonetheless not to overstate the degree of English unity achieved under Alfred, and perhaps by the same token the extent to which military reforms were successfully completed by him. Of course, to argue that Mercia operated entirely independently of Wessex in the late ninth and early tenth centuries would be to ignore the sources. Numismatic and charter evidence seem to underline the strength of West Saxon control over Mercian affairs (Lyon 2001, 67, Keynes 2001a, 48–58). Ian Walker (2000, 78–9) downplays the implications of the Mercian coinage, seeing the convergence of minting practices as part of a long trend of similarly patterned coins, but the fact that Edward was named as king on Mercian coins (Lyon 2001) suggests at least that the supremacy of the West Saxon king was accepted in Mercia too. Nevertheless, Mercia may well have retained some political independence from Wessex (Stafford 1989, 25–26; Yorke 1995, 96–97; Walker 2000, 76–78; Keynes 2001b, 328; Davidson 2001, 204), and some sources even give royal titles to Æthelred and Æthelflæd (Stafford 1989, 25–6; 2001, 45–7; Keynes 2001a, 42–3). Northumbria seems to have retained an even greater degree of autonomy (John 1991, 164), and came under West Saxon overlordship only intermittently in the ninth century. Even in Æthelstan's and Edgar's reigns, West Saxon rule over much of northern England—let alone Welsh and Scottish peoples who had apparently accepted them as overlords—is better characterized as "extensive" rather than "intensive" (Molyneaux 2011).

The extent to which unification was a result of Alfred's innovations might also be questioned. While warfare, as discussed above, can be a significant factor in state formation, the underlying institutions that allow the prosecution of war, and the ability to resolve disputes are also important

(Cohen 1984, 337). Crucial elements of the legal and administrative infrastructure and of the governmental organization that allowed Alfred to succeed were perhaps implemented by earlier rulers (e.g. Campbell 1995a, 39–47; John 1996, 71–4; Brooks 2003; Reynolds and Langlands 2007, 39–41), and not just in Wessex (Brooks 1971, 76; Wormald 1991a, 119–22). At the same time, the effective unification of Mercia and Wessex may have been the culmination of a long-term process of mutually-beneficial rapprochement. Improved relations between the two kingdoms stretched back at least to the reign of Æthelred I if not further. The military alliance against the Welsh is notable (ASC A *s.a.* 853), as is the retention of the Mercian ealdorman of Berkshire after the shire's transfer to West Saxon control in the middle of the ninth century (Stenton 1971, 234). Cooperation between Wessex and Mercia is attested in other spheres from at latest the 860s (Abels 1998, 145–6; Keynes 1998, 2–11, 44–5; Walker 2000, 78–9; Woolf 2001, 96–9), and the considerable ties between Mercia and Wessex by the end of the ninth century, not least the large number of Mercians at Alfred's court, suggest that *angelcyn* was not a uniquely West Saxon construct (Keynes 1998, 39–45).

Although Alfred exercised supremacy over Mercia and extended direct West Saxon rule to some areas north of the Thames (Blackburn 1998; Keynes 1998, 21–24), it was under his offspring that much of the work of conquest—in some instances re-conquest—of southern England took place. Alfred's daughter Æthelflæd and son-in-law Æthelred were vigorous in their wars with the recently-established Viking-ruled territories and were active in commissioning a series of strongholds from 907 if not earlier (Wainwright 1948; 1959, 55–56; Stenton 1971, 323–26; Stafford 2001, 48). In this process they were joined after Alfred's death by Æthelflæd's brother, Edward the Elder, once he had overcome initial opposition to his rule from his cousin Æthelwald. Edward too was tireless in fortifying sites at the edges of his realm, firstly in the southeast midlands and Essex, and after the death of Æthelflæd in 918 also in northern Mercia.[8] By these means, the three rulers secured the north-western frontier of Mercia and extended English control into the east midlands and Essex (Stenton 1971, 323–39; Stafford 1985, 112–14; Griffiths 1995). It may be from Edward's reign that the exemplar behind the texts known collectively as the Burghal Hidage originates (Maitland 1897, 187–88, 502–4; Stenton 1971, 264–5; Wormald 1991b; Hill and Rumble 1996a, 2), even if it outlines one stage in an evolving defensive system initiated in the ninth century (Baker and Brookes 2011).

[8] Æthelflæd's husband predeceased her by seven years.

Whether or not the phase of military activity under Edward and Æthelflæd should be viewed as a continuation of Alfredian policy is moot. Alfred's activities were largely confined within the boundaries of Wessex and, superficially at least, his campaigns look defensive. Edward's operations, on the other hand, took place in hostile territory, at or beyond the limits of established West Saxon authority, and might be viewed as offensive. His actions might more easily be interpreted as a return to the military environment of Egbert or even Offa—the use of aggressive campaigns to achieve the subjugation of neighbouring polities.

A number of points are worth making in this regard. On the one hand, while Alfred's wars may have been predominantly defensive, the tripartite division of his manpower that proved so effective defensively also laid a foundation that could be used offensively. By the 890s he was clearly able to operate in the upper Lea Valley,[9] and this may mark a first stage in the evolution of military strategy taken on by Edward. On the other hand, the line between defence and offence should not always be assumed to coincide with notions of home and away. In a successful military system based on Luttwak's (1976, 142–43, fig. 3.3) "Forward Defence", for instance, the defending army attempts to intercept and if possible head off hostile forces before they pass into the defended territory. A central aspect of this is control of strongholds within a territorial salient beyond the notional frontier. The defensive action, therefore, takes place externally, while the offensive action occurs internally or at best on militarily "neutral" ground. While Edward was operating in the 910s in areas that had probably never been part of the West Saxon kingdom, his activities consisted primarily in the construction and manning of strongholds—a policy common both to his sister and father. If the Burghal Hidage does belong to this period, it suggests that defensive priorities were still very much focussed on Wessex itself. His actions might therefore be interpreted as the implementation of a forward defensive system, rather than an offensive one, and in that sense a natural evolutionary continuation of his father's work. Once again, the benefit of hindsight might distort our interpretation of the contemporary outlook. Edward's activity now resembles the beginning of a process of conquest, because we know that was the end result. It should not be forgotten that only a decade or so had passed since the last invasion of Wessex; the threat must still have seemed very real. The following chapters will

[9] This was at the limit of Alfred's sphere by the terms of his treaty with Guthrum, and an area he is unlikely to have held uninterrupted in anything other than nominal terms (Davis 1982).

attempt to shed light on the changing strategic policy of the House of Wessex, and to place their recorded actions within a landscape context.

If subsequent events show that the immediate threat of Viking invasion had passed, Edward's successors—his sons Æthelstan (924–39), Edmund (939–46), and Eadred (946–55)—still faced major challenges from rival powers, and were no less energetic in confronting them. Within three years of his accession, Æthelstan had made a treaty with Sihtric of York, invaded Northumbria to drive out Sihtric's successor, and had his supremacy recognized by a number of northern rulers. Within another ten years he had imposed himself on the Welsh and Cornish, found it necessary (and within his compass) to harry Scotland, and decisively defeated a dangerous alliance of disaffected rulers from Northumbria, Scotland, and Dublin at *Brunanburh* (ASC; *Gesta Regum* II.6; Stenton 1971, 339–43; Foot 2011, 169–83). This set something of a pattern for the next 18 years. Edmund's conquest of the Five Boroughs is celebrated by the *Chronicle* (942 ASC AD), but the following year he had to confront a Viking invasion of Mercia, and both he and Eadred used their military force for harrying campaigns north of the Humber.

The 960s and early 970s, under King Edgar (959–75), are portrayed as a time of peace between the Anglo-Saxon kingdom and external powers, a hiatus perhaps implicitly achieved because of his father's and uncles' remorseless exercise of violent authority and demonstrations of military superiority. Yet, Edgar's slaughter of the inhabitants of Thanet in 969 as a reprisal for the mistreatment of some merchants (969 ASC DEF) demonstrates that he too was not restrained in making a show of force.

It is in the later tenth century that many of the sophisticated apparatus of later West Saxon administration come more clearly into view. From the "hundred ordinance", produced during or soon after the reign of King Edmund (939–46), we learn of the framework of local and regional government. This legislation presupposes that the kingdom was divided into shires, and below these, hundreds (wapentakes in some areas), served by a hundred court, or moot. At each, the freemen of the hundred were compelled to meet every four weeks in order to settle disputes, regulate social interactions and execute legislative decrees (Liebermann 1903, 3, 10, 192; Whitelock 1979, 391, 395, 429–30; and e.g. Chadwick 1905, 228–62; Stenton 1971, 292–301; Loyn 1974; Wormald 1986; 1999). Further state-level intrusion in the everyday lives of people was made in the realm of trade and economy. Edward and Æthelstan both sought to restrict trade to central-places (*ports*) under the supervision of a port-reeve (I Ew, 1–1.1; II As, 12, 13); by

Edgar's reign this had been extended to every borough and wapentake (IV Eg 6.1). Edgar's universal reform of the coinage, datable to around 973, standardizing the type and design of pennies, reducing the number of mints, and implementing a system of periodic recoinage, placed yet more tight controls over currency and exchange (Blunt, Stewart, and Lyon 1989).

In contrast to the relatively peaceful reign of Edgar, that of Æthelred II (978–1016) saw an upsurge in military confrontations culminating in defeat and invasion by Kings Swein and Cnut of Denmark. Traditional judgement, led by the writer of the C-text of the *Chronicle*, has condemned his leadership, and while recent work provides a more sympathetic picture (Keynes 1986; Higham 1997, 1–71; Lavelle 2002; Williams 2003), an assessment of the impact of the evolving West Saxon strategy on Æthelred's ability to confront the Danes is needed.

The pattern of the phase of warfare under Æthelstan and his successors takes a distinctly different form from that of the reigns of Edward and Alfred. Most obviously, it is aggressive: consisting of repeated campaigns to harry and subdue the north; major set-piece battles and moments of conquest, such as *Brunanburh* and the taking of the Five Boroughs; and public demonstrations of authority over multiple neighbours (Stenton 1971, 339–63). In these regards, the wars of Edward's sons may certainly be cast as offensive rather than defensive.

These superficial points are worth exploring in more detail. Alfred, Æthelflæd, and Edward were energetic in the construction or fortification of strongholds, and are seldom seen operating at any great distance from such bases. There is no contemporary account of the continuation of such a policy under Æthelstan, but this should not be taken as evidence that strongholds were abandoned—indeed, William of Malmesbury's account suggests that Æthelstan improved the defences of Exeter at some time before 931 (*Gesta Regum* II.6; Stenton 1971, 341), and there is archaeological evidence that the defences of Oxford (Haslam 2010b) and Southampton were redeveloped during the tenth century. Nevertheless, the *Chronicle* does not provide an inventory of newly refurbished fortifications to accompany the campaigns of Æthelstan and his brothers in the north of England, in the way that it does for Æthelflæd's and Edward's wars, and this might not simply be scribal omission. The construction of a stronghold is mentioned during this period, but the fortification of *Medeshamstede* in 963 was an apparently private initiative carried out by Abbot Cenwulf (ASC E). Indeed, far from strengthening and garrisoning hard-points in hostile territory, William of Malmesbury has Æthelstan razing the fortifications at York in 927 (*Gesta Regum* II.6; Stenton 1971, 340).

Though fleeting, this may afford some glimpse of defensive strategy under Edward's successors. Investment in civil defence may have remained Wessex-centred, a recognition that the powerbase of the royal house remained the south and west midlands, and south of the Thames. As Chapter 2 will demonstrate, the dating of parts of the defensive works at centres such as Bedford and Cambridge is problematic, and there is no reason to suppose that this was not carried out under Edward's successors; but even these are located within that southern sphere of activity. Outside these regions, the Anglo-Saxon kings were using the strength of their field-armies, founded on the system operating in Wessex, to intimidate and destroy potential opponents, and to extend their overlordship. That the institutionalization of military power was by this time well advanced in Wessex may be further demonstrated by the speed with which each of these kings was able to assert himself in the northeast midlands and northern England after accession to the throne. In other words, military might could now be passed on from one ruler to the next in a way that personal military prowess could not; and this military might could be used to dominate new territories and create a series of client polities. The system to some extent obviated the need for a new king to establish his military credentials, in the way that earlier rulers such as Æthelbald and Offa had had to. Nevertheless, the strategy of Æthelstan and his brothers seems more akin to Offa's than to Alfred's—the use of raiding and set-piece battle to break the resistance of adjoining territories and assert authority over neighbouring kingdoms.

This impression of Anglo-Saxon defensive organization in the second quarter of the tenth century seems remarkably to gain support from two sources. Firstly, royal itineraries of this period (Stenton 1971, 349–51; Hill 1981, 85–91), and in particular the locations of meetings of the royal witan (Roach pers.comm.) indicate a continued focus (or confinement) of royal political activity in southern England. Secondly, in her analysis of concepts of power in the verse that emanated from Æthelstan's court circles, Jayne Carroll (2007) notes that work intended for a wide Mercian and West Saxon audience portrays the king's power as very much Wessex-based, while that meant for a Scandinavian aristocratic audience stresses the strength of his military machine; systematic and unstoppable. We may see here two elements of the same policy: an inward focus on traditional core patrimony, and an outward display of military might.

The implication of this is that Anglo-Saxon military organization may have been moving towards an overreliance on the real and threatened force

of large field armies, and away from the multifaceted defensive framework of an earlier generation. With the major threats seen as land-based, emanating from organized polities that could be dealt with diplomatically and militarily, and generally situated well beyond the northern borders of Wessex, earlier strongholds were perhaps developing into primarily commercial centres. A system modified in such a way would have been set up for aggressive external campaigns, and to counter the threat from the hostile field armies raised by neighbouring kingdoms. Under Edgar as under his father and uncles, such a strategy may have been sufficiently successful and impressive to impose a degree of Anglo-Saxon authority over neighbouring kingdoms (Higham 1997, 2), but it was not adequate to deal with a mobile army able to focus its attack on one locality and then another, as Swein's forces were during Æthelred's reign. It is notable that the *Chronicle* lists occasions when local forces chose not to fight against the invading army (998, 999 ASC E), presumably because the custom of organizing defence in this manner had been lost, or because of a recognition that the opposing forces were simply too massive. In contrast, when Byrhtnoth had the opportunity of confronting the Vikings at Maldon, even on unfriendly terms, he was compelled to take it.[10] The apparent superiority of the raiding force over the local levies might be seen as a return to the situation faced in the 860s and 870s, and it is striking that Æthelred's response has similarities to that of earlier times: the reoccupation of defensive enclosures such as Old Sarum (Wi.), South Cadbury (So.), and Cissbury (Sx.; Lavelle 2002, 78). The similarities between Æthelred's responses to Scandinavian raids and those of Alfred may then go further than their shared use of tribute payments (Keynes 1986, 199–200, 203–204).

The unfavourable comparison between Æthelred and Alfred, so convincingly countered by Simon Keynes, is a good point to draw this consideration of the historical context of Anglo-Saxon civil defence to a conclusion. The importance of Alfred's reign should not be diminished, but the fact that many of our sources emanate from Alfred's court circles may have partially obscured our view of his immediate predecessors and successors who, unlike Alfred, did not have their own biographers. The significance of their reigns also deserves consideration. The challenges they faced differed from those with which Alfred was confronted. Their triumphs may receive less detailed description in our sources, but as far as we know their defeats at the hands of external powers were, with the ex-

[10] The Maldon poem should not perhaps be taken at face value, but it implies that Byrhtnoth's force was more than just a local militia (e.g. *Battle of Maldon* 216–19, 265–67).

ception of Æthelred II's, never as extreme as Alfred's in 878. Alfred's military success was key to his establishment of a powerful Wessex, and has helped to secure his reputation; but, for example, it is under Æthelstan that we see an increased participation in continental affairs, perhaps in part due to the reputation of his military machinery (Stenton 1971, 344–48; Ortenberg 2010, 221–22); and may only have been under Edgar that a coherent and cohesive Anglo-Saxon state emerged (Campbell 1995a; 2000, 31–53; Wormald 1983). What the sources objectively reveal, if nothing else, is that the Anglo-Saxon kingdoms of the ninth and tenth centuries faced serious external attack from their English and Welsh neighbours, and perhaps most seriously from Scandinavian warbands and armies. Through means that are outlined in the written sources, but still require considerable fleshing out, the heads of the house of Wessex were able to confront these threats and emerge as strong rulers of a militarily powerful kingdom.

Beyond the Burghal Hidage

The contours of the foregoing story are familiar, but essential questions still remain. Alfred was clearly an original thinker, who played his difficult hand with skill; he also understood the importance of the written word in creating an ideological context for his political aims. His innovative strategic approach and his successes in war were therefore emphasized in contemporary West Saxon literature, and have been widely discussed; but the wider military context of his successes remains less clear. How radical were his military innovations within the parameters of earlier and contemporary West Saxon military thinking? How lasting was his long-term vision in the practical terms of the inhabited landscape of war? A key to understanding this issue is to shift the emphasis of analysis away from the conduct of the Viking wars (the decisions, victories, and losses) towards a deeper understanding of late Anglo-Saxon civil defence—or *militarism*. This term, coined by modern geographers (Thee 1980, 15; Woodward 2004, 3) to explain the continued preparations made by states for war, can in many regards be seen as the leitmotif for this book. Militarism extends beyond the activities of military forces, affecting also economic, social, and political spheres. It combines society (military obligations, fiscal responsibilities, practices, and concepts including political identity, nationalism, statehood, and citizenship) with strategic concerns, policymaking, and infrastructural investments. Fuller appreciation of all these geographies is

required to assess not only how warfare was conducted, but how military control was linked to sovereignty and state formation.

Some of the geographies of militarism are particularly accessible to landscape analysis. External aggression of the type exhibited by the Vikings of the late ninth century necessitated an organized and coordinated response at a regional and local level. In previous research the role and organization of networks of local forts and strongholds, beacon sites and lookouts and routes of communication has been largely neglected, yet, to take a recent parallel, the remains of such locations from the Second World War are amongst the most tangible remnants of an extensive insular system of civil defence maintained in the localities.

Archaeology and place-names combine to provide important sources of evidence from which to reconstruct the landscapes of Anglo-Saxon civil defence. They provide a geographical context for military activity by describing local networks of defence, including the organization of lookouts and beacon sites, routes of communication and settlement, and topographical attributes underlying their location. Archaeological evidence comprises a range of monuments of varying size and function, the best known of which are major strongholds, whose defences, plan-forms, and internal areas have been studied to varying degrees since the 1960s (Chapter 2). At a more local level, a series of excavations has revealed evidence for lookouts and beacon platforms, in some cases demonstrating a link between archaeological evidence and place-names (Chapter 3).

Beyond excavated evidence, recent work has highlighted the important role place-names can play in revealing the extent and complexity of late Anglo-Saxon defensive organization within the wider landscape (Hill & Sharp 1997; Reynolds 1995; 2000). Place-names provide a vital corollary to archaeological and historical work, as a means of identifying, and providing a wider context for, sites with possible military associations. Of fundamental importance is the opportunity to study and to test existing place-name interpretations against authoritative archaeological and historical research and vice versa. Multi-disciplinary approaches of this kind, provide a more holistic view of landscape construction, and form the basis of the comparative assessment of land-forms and features.

Several components of the military landscape require analysis. In the following chapter, the evidence for static defences, such as strongholds, refuges, and barriers is examined. This subject has been largely dominated by sites mentioned in the Burghal Hidage. This text, first named by F. W. Maitland in 1897, and surviving in two versions of medieval and early mod-

ern date (Rumble 1996a; 1996b), provides a list of thirty-three fortified places (burhs) in Wessex and the hides (and thus the number of men) assigned for their maintenance. Its value to our understanding of late Anglo-Saxon civil defence is, therefore, significant. Not only does it describe the location of fortifications designed to defend the West Saxon kingdom from the Vikings, but also the relative size of burghal defences and their garrisons. More contentiously, it also contains datable evidence for when such defensive measures were put in place.

Alternative dates for the Burghal Hidage have been put forward based upon a comparison between it and other contemporary sources and the political and military context in which it was produced. For historians attempting to triangulate the evidence, certain chronological markers anchor the list. Portchester is included, though according to charter S 372 the site only passed into royal hands in 904, thereby providing a *terminus post quem* for its inclusion in the list. Moreover, according to the *Anglo-Saxon Chronicle* (ASC 912 A) it was only with the death of Æthelred (of Mercia) that London and Oxford came under the control of the West Saxon kings. To Hector Chadwick (1905, 206–7) it was this political context which provided the most likely date of the Burghal Hidage. "So far as I'm aware", he wrote, "there was only one period in early English history when these districts [i.e. Oxford and Buckingham and the region south of the Thames] were grouped together to the exclusion of Essex, Worcestershire and Warwickshire, viz. the few years (911–918) immediately following the death of Earl Æthelred [and before Edward assumed full control in Mercia after the death of Æthelflaed in 919]." This date range was subsequently refined by Nicholas Brooks (1964, 87–8; 1996b, 90–2) who argued that Warwick and Worcester, which only appear as an appendix to the B version, were not part of the Burghal Hidage, but originated in a twelfth-century antiquarian compilation on the number of hides of England. The inclusion of Buckingham, however, was likely to have been an early insertion to the list, and a burh here, we learn independently from the *Chronicle* (ASC 914 A), was built in 914, thereby bracketing the likely production of the list to the few years between 914 and 919.

Whilst the broad consensus of opinion supports this early tenth-century dating, many authors have nevertheless suggested on grounds of military strategy that the Burghal Hidage must describe a system largely implemented in the last quarter of the ninth century (Brooks 1964; Radford 1970; Biddle 1976a). In a detailed discussion of the evidence, Jeremy Haslam (2006) has outlined the most clearly-articulated expression of this argu-

ment. Haslam suggests there was a specific, strategic goal as the impetus for the construction of these fortifications. In his opinion, the Burghal Hidage list is a contemporary record of a single, coherent system implemented over a short period in response to the positioning of Viking armies at Cirencester and Fulham, which it successfully dislodged. Although he allows the possibility that certain of the sites incorporated into the system had been used "in an organized way by the local populations" since the 860s or earlier, and that the process of fortifying settlements or creating new fortified sites continued after the compilation of the Burghal Hidage, he considers this system to have been laid out by royal command in a fifteen-month period in 878–79 (ibid., 138). While such an interpretation challenges the general orthodoxy, and may be open to detailed critique (Baker and Brookes 2011), the general point that the list reflects in some way the grand strategy of West Saxon defence in the years around 900 requires further consideration, and is returned to in Chapter 7 below.

Ultimately, whether an early tenth- or late ninth-century list, palaeographical and topographical analyses both suggest that the core of the list and the system it details are likely to represent a near complete survival (Hill 1969, 88; 1996b, 79–80; Fig. 1).[11] The thirty-one listed burhs can be reconstructed to form a spatially coherent system of fortifications aimed at securing the whole West Saxon kingdom south of the Thames, as well as parts of southern Mercia. Each of the strongholds is located no more than forty miles from the next, with several of the largest garrisons positioned strategically along the Thames frontier. The unity of the list is further reinforced by the format of the text itself, which lists sites in a clockwise geographical order, mimicking a charter boundary, but clearly not skipping or including anomalous sites as part of its perambulation (Hill 1996c, 79–80).

After listing the series of forts Version A of the Burghal Hidage includes a note describing how:

> For the maintenance and defence of an acre's breadth of wall sixteen hides are required. If every hide is represented by one man, then every pole [*an Anglo-Saxon system of measurement equating to 16.5 ft or c.5.03m*] of wall can be manned by four men. Then for the maintenance of twenty poles of wall eighty hides are required

[11] Chadwick (1905, 206) suggested that portions of the Burghal Hidage text containing the assessment for Kent (beginning) and Gloucester and Hereford, etc (end) may be missing, however, David Hill (1969, 88; 1996b, 79–80) has argued convincingly that the text is complete on grounds of internal consistency in the figures of the assessments, and the formula of the beginning and ending of the document.

Taking this formula it is possible to calculate the length of burghal defences at each of the named sites as provided for in the scheme at least; an interest several authors have extended to archaeological evidence at burh sites (e.g. Hill, 1969; 1996). This evidence and its implications for understanding Anglo-Saxon civil defence are discussed in Chapter 2.

Documented burhs provide a contextualized body of comparative data with which to assess the undocumented sites that form the second category of archaeological data. A number of fortified sites have recently been recognized independently of the Burghal Hidage list. Foremost amongst these are a series of strongholds in Mercia which may have influenced the development of the Burghal Hidage system. Comparative study of these strongholds by Stephen Bassett (2007; 2008) has linked their emergence to the appearance of military reservations in charters from the reign of Offa (757–96), thereby emphasizing the need to broaden the time frame within which to situate archaeological correlates for military development (Chapter 2).

Alongside static defences military geographers emphasize the significance of communications. In comparison with strongholds and fortifications, systems of surveillance and warning, mobilization and mustering, movement and engagement, have however, left a more elusive archaeological trace. Yet, their significance cannot be doubted. Roads, for example, served a double purpose, as corridors of movement for armies, and for the provision of adequate supplies. As characterized by both Halsall (1989) and Cathers (2002), early medieval battles were the product of both strategic (and sometimes symbolic) objectives. Pitched battles were orchestrated, not only because opposing armies had to find each other, but also because early medieval kings could not support large-scale, professional armies; they had to be mustered for a purpose. As a consequence, armies could not be kept at field for any significant length of time and needed therefore to move to pre-determined sites quickly. Lines of communication were key to these manoeuvres, linking together sites of mustering and engagement; but as John Haldon (2006) and others have noted (e.g. Clapham 1910) there were also a number of logistical considerations. Armies in the field depended on the collection of supplies from the catchment of neighbouring districts. As adequate supply lines enabled the effective provisioning of forces, the value of roads depended not only on the resources they provided access to, but also their length, number, and condition (von Clausewitz 1997, 274–5). The existence of just such a well-defined landscape of military movement is supported by a range of evidence discussed in Chapter 3.

Finally, landscape approaches to warfare necessitate an understanding of "territory". Territories define the bounded area over which sovereignty is claimed and the frontiers that define the limits of dominion. In conflict between early medieval kings it was people and resources that needed defending, not state borders in the modern understanding of the word. Territory was therefore physically defined by the existence of stable social and economic relations linked to regularized authority. The location of land tenure upon which *fyrd* service was due is therefore a key aspect of territoriality. So too, is the existence of physical border installations, although these did not necessarily represent clearly defined political divisions between states. It is characteristic of preindustrial states that frontiers could be contested areas; border installations merely represented the first (or last) line of in-depth defensive systems (Giddens 1985, 51; Prescott 1987, 45–6). In Chapters 4 to 6 three regional case-studies are presented that examine the topographical and chronological context of civil defence development within specific territories.

In Chapter 4 a case-study is presented which explores key issues in the formation of territorial boundaries. It examines the Kennet valley in northern Wiltshire, an area measuring c. 60km from east to west and 40km north to south (Fig. 2). This was the northern extent of the West Saxon heartlands in the ninth century, including lands which had been annexed from Mercia

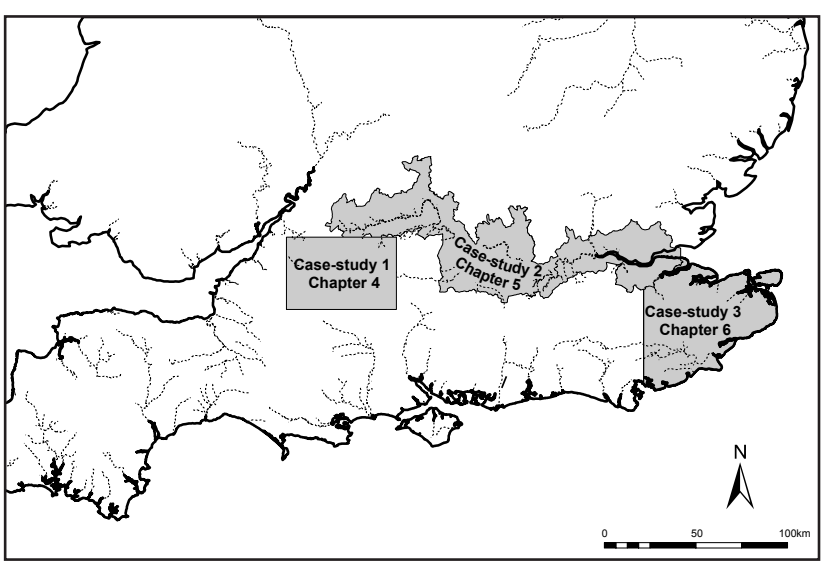

Fig. 2. Map of the case-study areas.

in the late eighth century, and containing important late Anglo-Saxon centres such as Marlborough and the Burghal Hidage strongholds of Malmesbury and Chisbury, and the site of the Viking encampment at Chippenham. The area also formed an important nodal point for land and riverine communication across Wessex, the River Kennet helping to link the rivers and route-ways of the south coast with the Thames and the Bristol Channel (Sherratt 1996, 219, fig.3). The chapter argues that defensive arrangements were constantly changing according to prevailing strategic requirements. It starts by discussing frontier formation and the evidence for Middle Anglo-Saxon civil defence, before examining the evidence for individual late Anglo-Saxon sites. The case study is used to forward a model of how linear frontiers, established perhaps for the first time during the pre-Viking period, became the basis of later Viking-age military establishments. It further explores the ways in which concepts of movement and logistics can be used to establish likely military scenarios and *ipso facto* the range and form of defensive counter-measures.

The whole length of the River Thames, from Canvey Island (Ex.) at its mouth, to its source near Kemble (Gl.), is explored in Chapter 5. As such an important thoroughfare for mercantile and Viking activity in this period, and forming, in its upper and central stretches, a frontier between Anglo-Saxon polities, the military arrangements for the control of movement along and across the Thames and connected waterways and route-ways may have been significantly different from those for other parts of the West Saxon kingdom. The case study is used to examine late Anglo-Saxon territoriality, in particular the drawing, defence, and surveillance of boundaries, the control of movement over a geographical area. Comparative analysis of Viking strategy in Francia and Ireland suggests that the use of the Thames was part of a deliberate policy aimed at exploiting military and political fault-lines (Smyth 1995, 31); with Viking camps set up at Fulham and Reading on the Thames and at Cirencester just to the north of the river in the late ninth century. The location of strongholds and associated sites along the banks of the Thames is likely to provide a considerable insight to the efficiency and priorities of late Anglo-Saxon defence, while no fewer than five Burghal Hidage strongholds lined its banks, at Southwark, Sashes, Wallingford, Oxford, and Cricklade.

The third and final case-study, outlined in Chapter 6, examines coastal defence by focusing on Kent and Sussex east of a line stretching approximately from Beachy Head in the south to the Dartford crossing on the Thames in the north. This was a region to some extent isolated from the

rest of Wessex by the Weald, with very few land-routes connecting the two regions, although they were linked by the Thames and coastal landings. This region comprises the former kingdom of Kent, which was absorbed into the territory of the West Saxon kings in the ninth century. Kent's history, as an independent polity and a former region of Mercia, meant it already had its own internal system of administration and defence, and so was managed as a more or less discrete province, ruled by a junior sibling of the reigning West Saxon king (Stenton 1971, 233, n1; Keynes 1993). Yet Kent's position between the Thames estuary and the English Channel placed it in the front line against the Viking attacks of the later ninth and early tenth century. According to the *Chronicle*, Scandinavian forces were active in Kent in the 860s, the 880s, and again in the 890s, while it was the men of Kent who seemingly put an end to Æthelwald's rebellion (ASC A *s.a.* 905 for 902). Kent's situation therefore provides an opportunity to examine in close detail civil defence policy in territories outside direct West Saxon control, as well as key issues of coastal defence.

In the final Chapter, conclusions are made about the chronology, morphology, and strategic concerns of West Saxon civil defences in the ninth and tenth centuries. The landscape imprint of Viking Age war is examined to make an overall assessment of militarism in the reign of King Alfred and beyond. By way of summary for the book as a whole, an implicit theme is that it is no longer sufficient to study civil defences divorced from their landscape, which is fundamental to their political, socio-economic, and military contexts.

Terminology

The following chapters aim to discuss a wide range of site-types and place-name elements potentially relevant to a discussion of Anglo-Saxon warfare and civil defence. It is essential from the outset, therefore, to establish a rigorous use of terminology. A key aim of this study is to demonstrate the potential for inter-disciplinary research to achieve a better understanding of the early medieval landscape, but the merging of disciplines naturally encompasses a terminological cross-over that at best could be misleading, and at worst contradictory. It is desirable, for example, to avoid giving the impression that a major road considered to be of "herepath" type, based on its characteristics as established by cartographic retrogression or archaeological observation, is indeed a *herepæð* unless it is so-named in ear-

lier documents. For that reason, an attempt is made here to set out a clear delineation of vocabulary and terminological usage.

A considerable number of terms exist to describe fortified sites, reflecting the wide range of functions such places can hold. Von Clausewitz identified nine different uses of "fortresses", ranging from secure depots, through tactical points of support and refuges for weak or defeated units, to cover for an unoccupied province; and this was without including more temporary defensive positions and entrenchments (von Clausewitz 1993, 473–79, 485–97). John Keegan (1993, 139–42) provides a slightly simpler break-down of the various uses of fortified sites, differentiating between three types of fortification, a *refuge*, providing an army or population with security from attack; a *stronghold*, providing the security of a refuge combined with a base from which to launch attacks or impose military control; and *strategic defences*, a continuous linear or strategically spaced network of strongholds, closing down the enemy's lines of attack. Individual strongholds not forming part of strategic defences, in Keegan's analysis, are the product of small or divided polities, where central authority is not fully established. Nevertheless, many of the basic functions of such strongholds were fulfilled by the individual elements of a strategic defensive network, and a terminology must be used to describe these fortified sites.

Some words for defended places have specific or unhelpful connotations. David Hill and Alexander Rumble, for example, make a conscious decision to avoid using the term burh wherever possible, preferring "fortification" (Hill and Rumble 1996a, 3). Bassett, on the other hand, adopts the more circumspect "fortified place", so as to avoid the sense of impermanence and military exclusivity implied by the use of "fort", "fortification", or "fortress" when referring to individual sites (Bassett 2007, 58, n. 14). Although "defended place" or "defended site" are occasionally used in the present discussion, "stronghold" is perhaps a more useful general term to describe fortified sites and is preferred in most cases. The defended places of ninth- and tenth-century England varied greatly in size and function. Some became permanent strong points and developed into towns (although to what degree this was envisaged when they were built is unknown, cf. Hill 1988, 202), others had short-term strategic value and were used only temporarily in a defensive capacity. Most, if not all, of the definitions outlined by von Clausewitz and Keegan, can apply to a number of the many fortified places discussed here, and "stronghold" seems the best label to cover this range of meanings, in recognition also of the fact that a single site's function might change over time. A stronghold implies security from

attack, but also strategic defensive and offensive capacities; it can be a more or less permanent construction, or a temporary creation for a specific military requirement; and it can stand alone or be part of a well-ordered system of fortifications. A defended town could serve as a stronghold, but so too could an abandoned hillfort, an aristocratic residence, or a new, purpose-built military encampment. Essentially, this usage differs from Keegan in treating refuges as another type of "stronghold", and in using the term "stronghold" whether or not the sites concerned were part of a strategic defensive network. "Stronghold" arguably best translates OE *burh*, a term used in some contemporary sources to describe fortifications, and is the translation preferred by the editors of *The Vocabulary of English Place-Names* (Parsons and Styles 2000, 74–85); recent reassessment of its range of possible meanings notwithstanding (see Chapter 2).

In spite of its problematic usage, the modern term burh has not been discarded in the present volume, but is used with a specific meaning. In the century since Maitland (1897, 187) coined the name "Burghal Hidage" for the text outlining defensive arrangements in Wessex, it has become commonplace to use burh to describe the places recorded there, and, by extension, other fortified sites known or assumed to have been erected by Alfred and his descendants. Since these very often developed urban characteristics, burh is sometimes also used in describing late Anglo-Saxon towns or boroughs, even in the absence of clear evidence that they were ever fortified in the late Anglo-Saxon period. In this way the archaeology of burhs is often conflated with that of urban studies more generally with many of the characteristics of burhs used as criteria for defining "urbanism" and *vice versa* (cf. e.g. Biddle 1976a). This orthodoxy has gained further momentum in the recognition of several common archaeological traits amongst some of the major sites, such as planned street systems and characteristic defensive circuits, propagating a belief in a coherent category of "burhs", as distinct from "open settlements", "wics" (another potentially hazardous transferred use of an item of Old English toponymic vocabulary in a specialized modern sense) or "minsters" (Biddle and Hill 1971). Recent archaeological research on many of the type sites for these classes (see below pp. 64–90) suggest that these analytical categories may be somewhat unhelpful, on the one hand blending together sites of diverse scale, form, and function, and on the other distinguishing between sites that may be very similar at particular chronological phases. In the case-studies outlined in Section II we aim to take this diversity into account by examining social and military processes at regional scales exploring the functional relation-

ships between settlements of all kinds. However, mindful that the modern burh remains a problematic concept, the present discussion confines its use simply to those sites for which there is documentary or archaeological evidence for fortification during the late Anglo-Saxon period. "Stronghold", then is used as a catch-all term for any fortified enclosure, while burh here denotes fortified enclosures constructed, refortified, or occupied on a more permanent basis during the ninth, tenth, or eleventh centuries.

An attempt has been made here to distinguish this historical and archaeological use of burh from the OE term proper, especially in discussion of place-names. Again Bassett (2011, 10, fn. 24) has been careful to acknowledge the difficulties this encompasses, not least in the complex inflexional history of the word. He opts for a plural form burhs, more readily recognizable to the modern reader, but grammatically unsatisfactory. However, this compromise allows him to use burh as an Old English word with a modern application (ibid., 16, fn. 57). In the present study an alternative and, it is hoped, liberating position is adopted, separating use of the term in its modern historical and archaeological contexts from its use in a linguistic context. Where the intention is to describe a historically or archaeologically attested site, the word is treated as an entirely modern English term, rendered in normal type and pluralized as burhs. In linguistic contexts, it is treated as an item of OE vocabulary, given in italics and pluralized as *byrig* (following Campbell 1959, 253, §627). Both forms need some explanation. The *-h* of *burh* represents the voiceless spirant [x] that developed finally during the Anglo-Saxon period, and this was an increasingly common spelling after the late ninth century (Wright and Wright 1925, 140 (§262); Campbell 1959, 173–74 (§426–28), 180–81 (§446–47)). Arguably, then, *burg* is a closer orthographic representation of the earlier voiced velar fricative [ɣ], but here we stick with the established form, since this is employed by most of the standard works of reference, including DOE and VEPN, and will avoid confusion. Similarly, the nominative plural of *burh* in earlier OE was *byrg*, the *-i-* being a parasitic vowel found increasingly from the reign of Alfred onwards, especially in West Saxon texts (Wright and Wright 1925, 101–2 (§220); Campbell 1959, 152 (§365)). Since the grammatically correct pluralized forms of *burh* are not commonly found in historical discourse, and since the usage here makes a conscious break from established but rather loose employment of "burh" and (frequently) "burhs", there is less constraint on choice of plural form. The spelling *byrg* should perhaps therefore have been preferred, but since *burh* is the later form, it seems more consistent to adopt the later plural *byrig*, with which

readers may in any case be more familiar. If the approach to the terminology adopted here proves helpful, it may ultimately be sensible to make the distinction clearer by use of *burg* and *byrg*.

A similar approach will be adopted with other awkward terms, so that, for instance, *burh-geat* will be used in toponymic discussions (plural *burh-gatu*), while the term burgate will be used in archaeological and historical discourse to denote the "fortified gate" of thegnly residences. The form *herepæð* is used of routes specifically referred to as such in charters or place-names, and distinguished from routes designated *here-weg*, *here-strēt*, *fyrd-weg*, *þēod-weg*, and so on; while herepath is used of routes thought to have been similar in character to a *herepæð* (the difficulties of defining *herepæð* notwithstanding, see Chapter 3), whether or not they are recorded as such. On the other hand, *fyrd* and *here* are always italicized, partly because modern use of these terms echoes that of the *Chronicle*, but principally because to treat *here* as a modern English word in normal type would cause confusion with the word "here". A summary of the terminological distinctions adopted in the present study is set out in Table 1.

Table 1. Modern English and old English terminology

Archaeological terms	*Old English terms*
Burgate	*Burh-geat* (pl. *–gatu*)
Burh	*Burh* (pl. *byrig*)
Fyrd	*Fyrd*
Here	*Here*
Herepath	*Herepæð* (pl. *–paðas*)
Wic	*Wīc*

CHAPTER TWO

CHARACTERIZING ANGLO-SAXON CIVIL DEFENCE (FORTIFICATIONS)

Introduction: Archaeological Correlates for Militarism

A characteristic feature of pre-Viking-age warfare was the aristocratic "retinue" (Latin *Comitatus*, German *Gefolgschaft*), a core of chosen warrior-followers whose loyalty could be depended upon and who would fight on demand. The existence of the retinue depended on personal relationships between lords and their subordinates, which were long-term, reciprocal, and socially-binding (Schlesinger 1953; Bazelmans 1999). However, over the seventh to ninth centuries, first in Francia, and then in England, a series of social and military reforms took place that would increasingly tie this warband to land-tenure. The process by which this transformation took place is best discussed in other texts (e.g. Abels 1988, 11–57; Lavelle 2010a, 47–140; Halsall 2003, 71–110), but its implications in landscape terms would prove to be profound. By binding landownership and military service together warfare became rooted in territory and with it the rationale of warfare became foremost, in Clausewitzian terms, focused on preservation and keeping possession. This development in turn manifested itself in a variety of defensive constructions known archaeologically. The seventh to ninth centuries witnessed the acquisition of boundary features by previously unbounded settlements, such as West Stow (Sf.) and Pennyland (Bu.); an appearance of enclosures around newly-planned settlements and minsters; and the emergence of large territorial perimeter defences (Reynolds 2003). All emphasize a new concern with bounding and defining the social and legal spaces over which ownership and obligation were exercised, and as a corollary, the relationships between aristocratic landholding and military service.

The link between ownership of land and military obligation is made explicit in the appearance in charters, from the mid-eighth century, of the "three common burdens" (*trinoda necessitas*). These burdens were the military duties of bridge-building and repair, the defence of fortifications, and service in the king's army, which, unlike other secular dues, were usually reserved for the king (Stevenson 1914; Brooks 1971). According to

Brooks' (1971) reading of the evidence, fortress- and bridge-work may have been added to the earlier requirements of army-service around the time that the earliest *trinoda* clauses appeared, first as an extension of Mercian military hegemony, and then as a response to Viking attacks. In this development he traces their increasing appearance as a gradual refinement of royal defence policy. The earliest of the immunity clauses are all Mercian, with the first recorded reference in Kent dating to AD 792 (S 134; Kelly 1995, 60–63). However, until the later ninth century fortress- and bridge-work remain infrequent additions, particularly in West Saxon charters, and in Wessex it may not have been until the reign of Æthelbald in the late 850s, that all three obligations became customary (Brooks 1971, 81). By the tenth century they formed a common clause in the majority of royal grants, with some 80% of general immunities explicitly naming military service the exception.

Archaeological support for this process might be seen in the emergence of "military" field monuments during the eighth, ninth, and early tenth centuries. At the top end of this scale existed large linear borders, which appear to have demarcated rival political territories, defining the place where royal ownership and jurisdiction began and ended. Examples of such features include the still-substantial banks and ditches of Offa's Dyke and Wat's Dyke on the western edge of the midlands plain, and those of Wansdyke in northern Wiltshire (Fig. 3). Such features are morphologically similar to a large number of other linear earthworks found across both prehistoric and medieval Britain, but the scale of these endeavours marks them out as exceptional constructions. Many smaller dykes and linear defences ranging from 1km to 10km in length have been attributed to the immediate sub-Roman period (Alcock 1987, 310–1; Malim et al. 1998; Hankinson and Caseldine 2006). Taken as single unified boundaries, by contrast, Offa's Dyke stretches over 103km, Wat's Dyke 65km, and the Wansdyke border (discussed in Chapter 4), 104km. By implication the territories that these monuments helped to define are likely to have been significant regional polities. It is this scale change in monumentalization that conceivably places larger exemplars of this kind in the context of a later period of large-scale kingdom formation.

Certainly Offa's Dyke and Wat's Dyke on the Mercian-Welsh border, and Wandsdyke, on the Mercian-West Saxon border can be related to the geographical limits of Mercian hegemony during the eighth and ninth centuries, and some dating evidence can be cited to support this view. Offa's Dyke is generally attributed to King Offa's reign (AD 757–97) not least as it

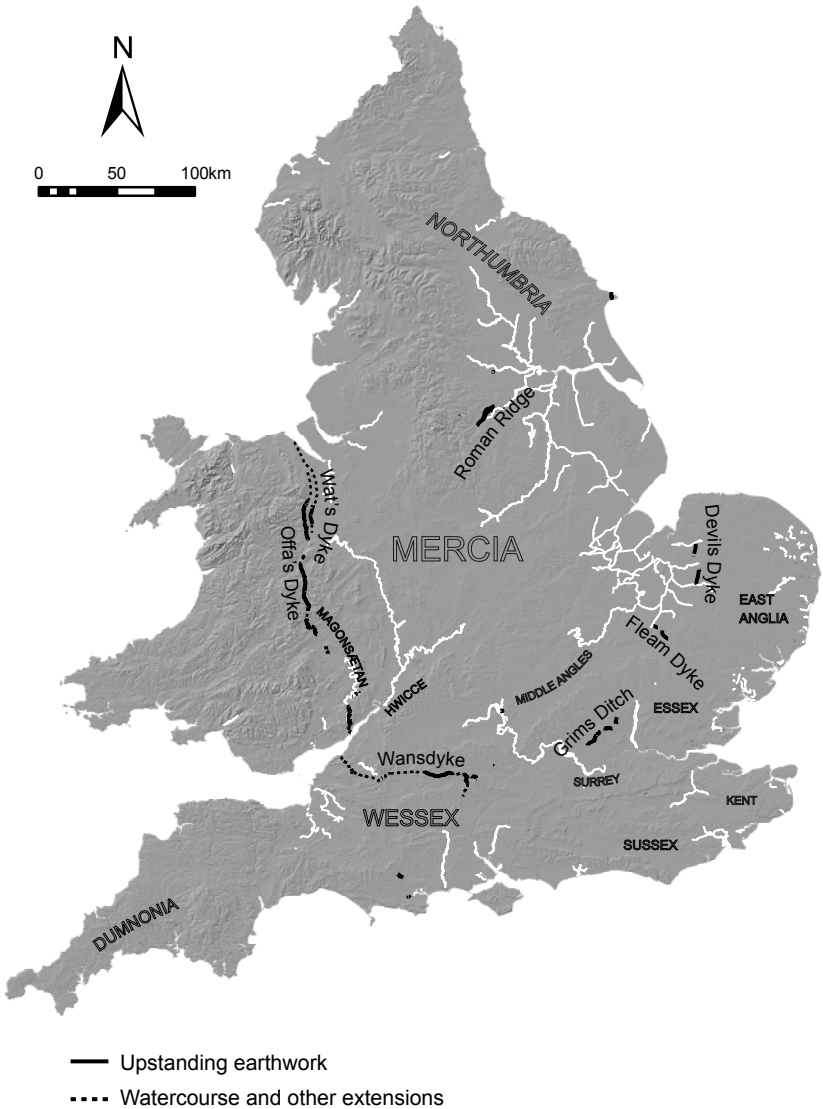

Fig. 3. Map of large linear earthworks of the middle Anglo-Saxon period, and the location of the major political regions.

bears his name, but also because Asser credits the king with building a dyke between Wales and Mercia from sea to sea (Asser *VitAlfredi* §14). Furthermore, recent archaeological work on Wat's Dyke (Malim and Hayes 2008)

has provided optically simulated luminescence dates for the infill sequence and buried soil of the monument, suggesting a date range for its construction of 792–852, which in combination with an analysis of the likely political context of its construction might be narrowed to the reigns of Cenwulf and Ceolwulf (AD 796–823), or Wiglaf during the 830s. The dating for Wansdyke is less clear (see Chapter 4 below), however a single radiocarbon determination from a section across the dyke provided a date of cal. AD 890–1160 at 2 sigma, and the topology of the monument relative to late Anglo-Saxon estate boundaries conceivably places its construction in this same late eighth-/early ninth-century time-frame (Reynolds and Langlands 2007).

Whenever their origins, these monuments are never likely to have been coherent linear structures; these strategic border defences were clearly not early medieval Maginot Lines. They often survive in apparently piecemeal fashion, and there is no evidence to suppose they were designed to be impregnable. Nevertheless they did serve a prosaic role. As monumental landscape features these linear earthworks displayed considerable territorial ambitions, deliberately evoking Roman imperialism, and the concentration of military power. Furthermore, in addition to earthen banks and ditches these boundaries incorporate natural features such as woodland, major watercourses, and roads, to define clearly bounded territories. Much as the boundary of the Danelaw described in the treaty of Alfred and Guthrum names both the River Lea and Watling Street as features used to demarcate areas of rival jurisdiction (Davis 1982, 803–10; Dumville 1992c, 1–14; Wormald 1999, 285–86; Kershaw 2000, 45–46), these boundaries established the limits of core territorial authority along very precise dividing lines.

Functionally, the consensus of current research on Offa's Dyke—the largest and most impressive of early medieval strategic defences—suggests that the line was primarily intended to control movement across this boundary and to provide a finite barrier against small-scale trans-border raiding, with the protection of border herding a primary concern (Hill and Worthington 2003, 113–28; Lavelle 2003, 11; Fig. 4). The physical barrier with its controlled points in and out of Mercia simultaneously regulated movement across the border and limited the impact of unregulated border crossings in those areas which required policing. In this view it is likely that these defences, like the Roman *limes* they imitated, were designed to operate in tandem with mobile forces who could intercept would-be interlop-

Fig. 4. Photo of Offa's Dyke.

ers.[1] Archaeological investigations along these earthworks have so far failed to identify evidence for either fixed garrisons or watchtowers built into the barrier elements (Noble 1983; Hill and Worthington 2003). The implication is that these fixed lines of defence served primarily to dissuade, or at least impede, infiltration across the border. Instead of being able to penetrate settled areas freely, strategic defences ensured that persons were channelled towards regulated gaps in the barrier, or—in the case of more opportunistic crossings— that raiders were slowed down enough to negate the element of surprise on which small-scale incursions relied (Luttwak 1976, 69; Kemkes, Scheuerbrandt, and Willburger 2002, 171). This enabled mobile forces based close to the frontier to meet the threat, whilst using the linear defences to contain hit-and-run raiders, whose swift exit depended on being able to return to the original breach (Luttwak 1976, 69). In such circumstances, major rivers, marsh, and dense woodland served

[1] Although Luttwak's (1976) interpretation of Roman defensive organization was controversial in its assessment of Roman policy and practice, and has been widely and severely criticized (especially Whittaker 2004; Kagan 2006), the strategic theorizing that underpins his approach retains considerable value in attempting to define military strategy, and has informed a number of the key ideas in this chapter.

just as well as frontier obstacles impeding the movement of livestock. However, in the case of large-scale invasion, these barriers also served a purpose, buying time for the mobilization of larger forces to counter the threat, and for the withdrawal of non-combatants to refuges.

Territorial defence of this kind therefore presupposes a number of further strategic elements: systems of military duty linked to the defence of territory; lookouts providing surveillance against infiltration and early warning of large-scale attack; communication systems for the raising and mobilization of forces; and fortresses that could act as refuges and foci for armed responses (Luttwak 1976, 66–67; Fig. 5). In other circumstances linear defences could also provide the supporting infrastructure for offensive operations beyond the border, providing they were furnished with troop bases and forward routes of communication (Luttwak 1976, 66–67). Grand strategies of this kind were therefore linked to a wide military landscape of inter-relating defensive elements. It follows that a critical understanding of the form of these elements and the chronology of their development is crucial to assessing late Anglo-Saxon military organization and strategy.

With these concepts in mind this chapter aims to examine the archaeological and place-name evidence for the various elements of the early medieval landscape of civil defence, summarizing the current state of knowledge. Earlier work by both historians and archaeologists has focussed almost without exception on the last of these elements—strongholds—and in particular the thirty-three major fortifications (burhs) listed in the Burghal Hidage (e.g. Brooks 1964; Hill 1969; Hill and Rumble 1996), and it is this data which forms the largest and most complex to analyse comparatively. The following chapter will deal with the less well studied elements as they are known from archaeological or place-name evidence, as a precursor to the more detailed regional analyses outlined in Chapters 4–6.

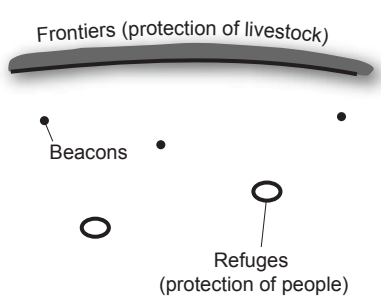

Fig. 5. Model of the principal components of middle Anglo-Saxon "frontier defence" as known from archaeological and place-name evidence.

Middle Anglo-Saxon Defensive Sites

The centrality of strongholds to Anglo-Saxon military strategy is made clear by late Anglo-Saxon texts, such as the Burghal Hidage, the *Anglo-Saxon Chronicle* (especially the passages known as the Mercian Register, with entries covering the years 902 to 924), and Asser's *Life of Alfred*. Documents of this type demonstrate that fortified sites were the basis not only of a successful defensive network, such as apparently existed in Wessex itself by the beginning of the tenth century, but could be used in an offensive capacity to consolidate territorial gains made during a military campaign. This latter use of strongholds is revealed in outline by the *Chronicle*, particularly in its entries for the reign of Edward the Elder and its accounts of his campaigns in Essex and the east midlands, where the West Saxons were operating in a frontier or even essentially hostile environment (Haslam 1997; 2006, 130). It is clear, however, that fortified places were an important means of extending royal control over large kingdoms. This fact was not lost on Alfred and his successors but may have been learned from their earlier Mercian counterparts, who required a means of holding their kingdom together after its rapid expansion in the late seventh and eighth centuries (Bassett 2007; 2008).

In Mercia the existence of late eighth-/early ninth-century strongholds has been demonstrated by a number of excavations. At Hereford a gravel and clay bank and ditch was found lying below the later "Saxon" timber-faced turf and clay rampart and larger ditch (Shoesmith 1982; 1985); whilst at Tamworth (Gould 1968; 1969) and Winchcombe (Ellis 1986) earlier defensive ditches have been found beneath the late ninth-/early tenth-century Anglo-Saxon fortifications (Fig. 6). Although the evidence from all three sites is very fragmentary, morphological similarities in the construction of these defence works has been used to suggest they existed—alongside the "Five Boroughs" and other midland sites—in a network of fortified central places, akin to that described by the Burghal Hidage (Rahtz 1977; Bassett 2007; 2008). [2]

Given the evidence for the construction of large-scale linear earthworks in Mercia at this time, there is little doubt that the Mercians were able to

[2] Bassett states: "the period of its [Mercia's] king's greatest power in the eighth and early ninth centuries…provides an obvious context for the building of the first-stage defences at Hereford, Tamworth and Winchcombe—ones for which there is as yet no West Saxon analogue" (2008, 231). In our 2011 paper (Baker and Brookes 2011, 120, n. 20) we erroneously suggested that Bassett dated this fortification work to the mid-ninth century.

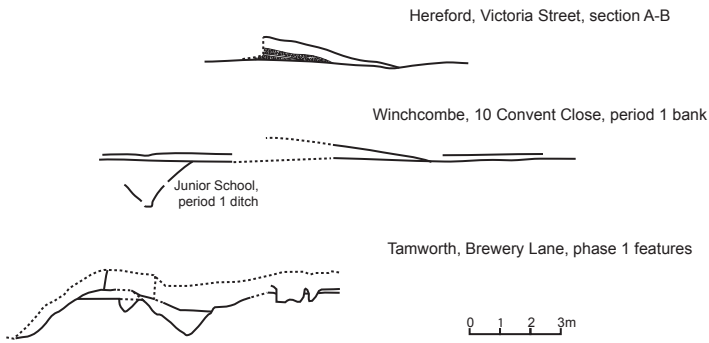

Fig. 6. Comparative sections across the defences of Mercian burhs.

mobilize sufficient resources to undertake such fortification work, however some doubts remain whether these amounted to a comprehensive strategic defensive system in Keegan's sense, or merely isolated strongholds. There is considerable variation in the character of the archaeological evidence from Mercian sites, discussed further below (pp. 64–90), which potentially supports the latter view. So too does the fact that it has been notoriously hard to ascertain the precise date and shape of the earliest Mercian burghal plan (Fig. 7). The rectilinear planform of Hereford's bank and ditch defences has in the most recent publication been dated to the mid-ninth century (Thomas and Boucher 2002, 1–12). At Tamworth, a detailed contour survey and study of the property boundaries suggested that a (potentially earlier) trapezoidal "palace enclosure" existed around the area of St Editha's church set inside the larger perimeter identified by Gould (Rahtz and Meeson 1992, 4–5); whilst at Winchcombe both sections that have positively identified earthwork defences come from a short stretch on the northwestern boundary of a presumably curvilinear planform of unknown size, tentatively dated to "some time before the early tenth century" (Ellis 1986, 133). At Stafford, a number of targeted excavations in the 1970s and 80s failed to recognize evidence for fifth- to tenth-century occupation, let alone fortification (Carver 2010, 61–66). A similar absence of pre-Viking militarization has also been noted at Lincoln (Jones, Stocker, and Vince 2003, 141–56) and York (Carver 1995, 177–85).

A final comparison might be made between the grand strategies underlying Mercian defence and that recorded in the Burghal Hidage. The former emphasis seems to be on perimeter defence behind which some militarized hardpoints existed; the latter on a system of mutually-supportive

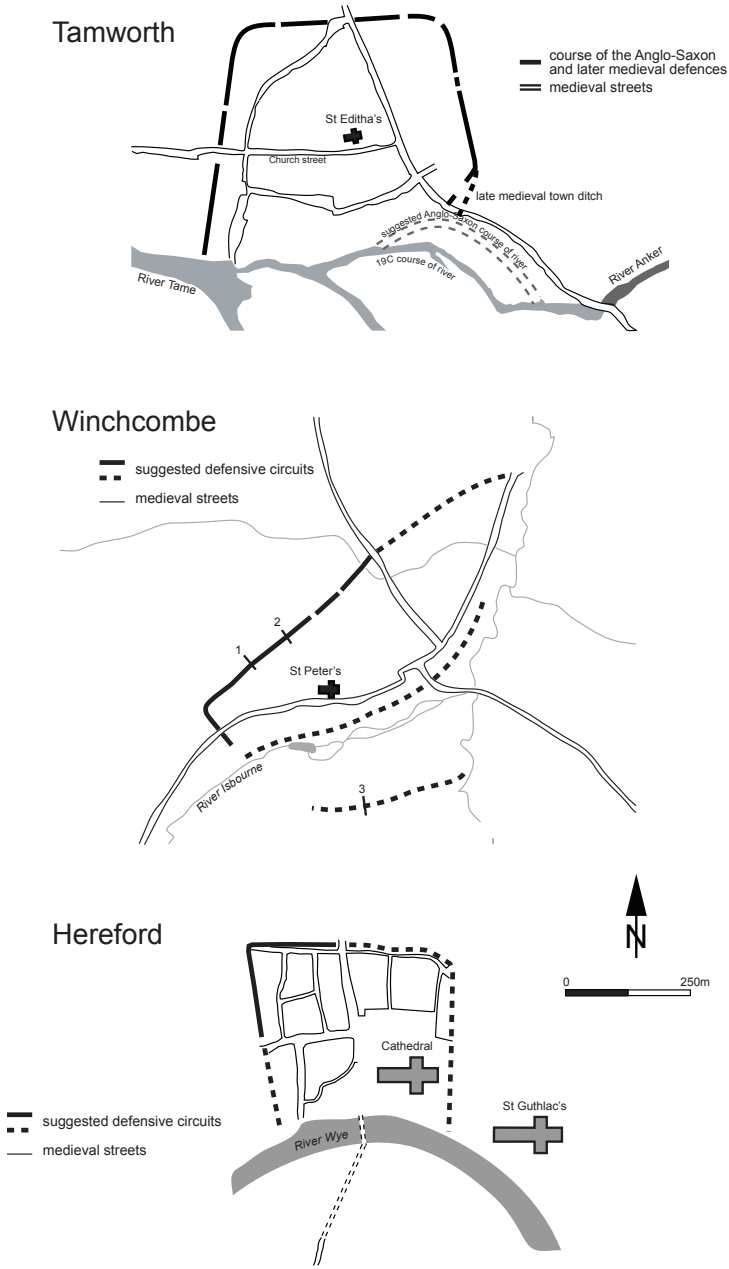

Fig. 7. Comparative plans of the Mercian burhs of Tamworth, Winchcombe, and Hereford. The evidence for the planform of defensive circuits at both Tamworth and Winchcombe remains highly speculative.

strongholds and garrisons (Brookes 2012, figure 3.7). Most tellingly this difference in defensive strategy is apparently highlighted by the distances between known Mercian and West Saxon burhs. It is a well known feature of the Anglo-Saxon burghal network that nobody in Wessex east of the Tamar was more than 20 miles (32.2km)—or a day's journey—away from the nearest burh (Stenton 1971, 264–65; Biddle 1976, 124; Hill 1981, 85–86; Halsall 2003, 220). Hereford, by contrast, lies some 129.7km from Tamworth and 72.3km from Winchcombe; Tamworth and Winchcombe are 95.6km, or three day's ride apart. These last points must be balanced against the differential documentary survival from Mercia and Wessex. There is no Mercian equivalent to the Burghal Hidage, and it may be that future archaeological work will considerably change the picture outlined here.

The emergence of high-status defended sites in Mercia during the later eighth and early ninth centuries can be set alongside evidence for other kinds of fortifications dating to the middle Anglo-Saxon period. Piecemeal evidence suggests some prehistoric hillforts were re-used during this period, though it is unlikely that they served as significant military foci.[3] So far all sites reveal few traces of occupation and it is likely that they served a variety of purposes including agricultural uses (such as corralling of livestock), as meeting places, and as temporary refuges. Sixth- to seventh-century pottery is known from the hillfort of Whitsbury Castle (Ha.; Ellison and Rahtz 1987, 65, 75, 80) and just outside the entrance to Irthlingborough, Crow Hill (Np.) where Offa attested a charter (Gaimster, Margeson, and Barry 1989, 203), to which can be added seventh-/eighth-century *sceatta* finds from the Iron age settlement of Barham (Sf.) and the hillforts of Aylesbury (Bu.), Breedon-on-the-Hill (Le.), Hod Hill (Do.), Hunsbury (Np.), Old Sarum (Wi.), St Catherine's Hill (Ha.), and Walbury Camp (Bu.; Rigold and Metcalf 1984) (Fig. 8). Of these, Aylesbury (Bu.) and Breedon-on-the-Hill (Le.) were sites of middle Anglo-Saxon minsters, as was Malmesbury (Wi.). It is therefore likely that they operated as important estate centres during the period, and similar functions have also been suggested for the hillforts of Uffington Castle (as *Æscebyrig*), Alfred's Castle (*Asshedoune*), and Blewburton Hill in Berkshire (Gelling 1973–76, 823–33),[4] and Amesbury, Chisbury, and Old Sarum in Wiltshire (Haslam 1984d). Yarborough Camp in Lincolnshire, an undated sub-rectangular enclosure, has been suggested

[3] This contrasts with the evidence from the Southwest and Wales during the sub-Roman period, where hillforts appear to have operated as regional strongholds (Fowler 1971; Dark 2000).

[4] Blewburton hillfort was also the hundred meeting-place.

Fig. 8. Photo of Old Sarum; a possible predecessor to the Burghal Hidage stronghold of Wilton?

as the meeting-place of Yarborough wapentake, in use certainly by Domesday (Anderson 1934, 50); a witan is also recorded at Whittlebury hillfort in Northamptonshire;[5] and several Iron Age hillforts in southwest England similarly give their names to Domesday hundreds, including Eggardon Hill (*Giochresdone hundreto* c.1084) and Badbury Rings (901 ASC (A); *Bedeberie hundret* 1086), both in Dorset (Fig. 9).

The link between these hillfort settlements and aristocratic landholding, including possibly administrative functions, suggests that they were part of a wider middle Anglo-Saxon phenomenon of enclosed settlements, witnessed archaeologically from the seventh/eighth century at sites such as West Stow (Sf.), Yarnton (Ox.), and Bramford (Sf.; Reynolds 2003). However, these were not high-order proto-urban sites, only a minority emerged as central-places during the Viking Age, and generally they appear to have existed within a wider "dispersed" landscape of administrative, religious, and economic institutions. Contemporary trading settlements often grew up without any fortifications (e.g. Ipswich and *Hamwic*) or outside existing

[5] Æthelstan Laws VI

Fig. 9. Distribution of known middle Anglo-Saxon strongholds. By way of comparison the main distribution of Iron Age hillforts is also shown (darker shading).

ones (e.g. York and *Lundenwic*).[6] Similarly, while excavation of many large rural settlements, such as the early eighth- to mid-ninth-century phase of

[6] Certain emporia may have been fortified with defensive ditches during the ninth century. *Lundenwic* has produced evidence for large ditches in Maiden Lane and the Royal Opera House sites, probably dating to the early ninth century, although there is some

West Fen Road, Ely (Ca.; Mortimer, Regan, and Lucy 2005) and the late seventh- to mid-ninth-century phase of Riby Cross Roads (Li.; Steedman 1994, 224–8) exhibit a variety of boundary features, few of these are convincingly defensive in nature.

This is not to say that middle Anglo-Saxon fortifications could not fulfil a military function if so required. Alongside *de novo* foundations the Burghal Hidage includes a range of fortified sites that may have been pressed into service, including the masonry circuits of former Roman towns (Winchester (Ha.), Chichester (Sx.), Exeter (De.), Bath (So.)) and forts (Portchester (Ha.)), and earthen ramparts of Iron Age hillforts (Burpham (Sx.), Pilton (De.), Halwell (De.), Chisbury (Wi.) and Malmesbury (Wi.; Hill 1996a). In certain cases there are archaeological and topographical grounds for suggesting that these sites were periodically reoccupied as early as the seventh century, and this raises at least the possibility that they had functioned as archaic refuges for local populations, staples, and livestock since the middle Anglo-Saxon period.

Early refuges of this type might be expected to have evolved as the strongholds of smaller individual polities or tribal groupings, whose territorial integrity was still in some way respected by the extent of existing administrative units, or whose earlier independence was reflected in the name of a later sub-kingdom, shire, or region. It may be significant, in this respect, that some *burh* place-names are qualified by tribal names. In these instances, it is conceivable that the strongholds in question served as defended foci within the heartland of the tribal groups so named. The place-name Denbury (De.), for example, recorded in Domesday as *Devenaberia*, seems to derive from OE *Defna-burh*, "the stronghold of the men of Devon" (Gover, Mawer, and Stenton 1931–32, 523 and xiv, fn.).[7] Gover, Mawer, and Stenton noted the difficulty in explaining the origin of the name, but suggested, not unreasonably, that "at some period in the Saxon advance this strongly fortified post held out for a long time against the invaders". It is also possible, however, that the name commemorates use of the stronghold in later times as a focal point for the men of Devon, or a stronghold for

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uncertainty about the context of their construction (Malcolm, Bowsher, and Cowie 2003, 118–20).

[7] Eilert Ekwall (1936a, 178–79) thought it more likely to denote a stronghold "dating from Dumnonian time", citing as a parallel *Brettestret* "road of the Britons", the old name of a Roman road in Lancashire, which "the Anglo-Saxons evidently supposed…to have been built by Britons". An alternative possibility, overlooked by Ekwall, is that both road and stronghold were named because of association with extant British and Dumnonian or Devon communities.

which the men of Devon were primarily responsible. The presence of *-v-* rather than *-m-* in the first element, reflecting a broadly datable change in the Brittonic sound-system, may suggest that the name was not coined before the late seventh century at the earliest (Probert 2007, 237–40; cf. Jackson 1953, 480–95, 560–1). The survival of this stronghold as a British bulwark against the West Saxon advance, and its subsequent use as the central refuge of a regional division of the West Saxon kingdom whose inhabitants were thought of as *Defnas*, need not be mutually exclusive; either way, the name was given by Old English speakers. Some 25km to the south-west of Denbury, the place-name Okenbury (De.; *Ocheneberia* 1086; Gover, Mawer, and Stenton 1931–32, 283–84) may also have been a tribal stronghold, associated with a group called the **Woccan*. Given the location of and distance between these two places, it is not impossible to see them as central places of refuge for two regional, perhaps semi-autonomous groupings to the south and east of Dartmoor, although of course the evidence for this is circumstantial.

In the case of Canterbury, "the *burh* of the *Cantwara* or people of Kent" and therefore perhaps another tribal refuge (Ekwall 1936a, 178; Brooks 1971, 83, fn.3; Cullen 1997, 557; Carroll and Parsons 2007, 69–82), the name may have arisen as a functional label alongside the earlier Romano-British name for the city, which seems to have persisted through the Anglo-Saxon period (Watts 2004, 114). However, there is doubt about the late form *Dorwitceastre* (ASC A, E, *s.a.* 604), and nothing in the other spellings to suggest that the Romano-British name survived in Anglo-Saxon England other than as a learned (rather than vernacular) name (Jackson 1953, 259–60; Carroll and Parsons, 2007, 80). The plethora of local toponymic references to Canterbury, in which it is called simply *burh* and its inhabitants *burhwara* (Wallenberg 1931, 204, 270; Ekwall 1960, *sub* Burmarsh; Cullen 1997, 60, 149–50, 216–17, 291, 561, 586, 598–99; Watts 2004, *sub* Burmarsh), may serve as further confirmation of the local pre-eminence of Canterbury as the central refuge of the Kentish people—the stronghold (*burh*) requiring no further qualification, at least among the people of Kent.[8] Canterbury is unusual among the capitals of the established kingdoms of the seventh and eighth centuries in taking its name from its people.[9] The scarcity of

[8] It is conceivable that the numerous simplex major place-names in *burh*, especially typical of the northwest, north-east midlands, and East Anglia, also originated as local references to tribal refuges, although their distribution and individual development needs more detailed consideration.

[9] It is also one of the rare examples of a former Roman site with a name in OE *burh* rather than *cæster*.

similar formations among tribal capitals is not surprising, since defining a stronghold by the kingdom in which it was located would be of little practical use to the inhabitants of that kingdom. Such a feature is more common among smaller polities—for example, the probably eighth-century document known as the Tribal Hidage lists a people known as the *Hicca* who gave their name to Hitchin (Ht.; Gover, Mawer, and Stenton 1938, 8) and another known as the *Spalda*, who gave their name to Spalding (Watts 2004, *s.n.*). In an example more closely parallel to that of Canterbury, it seems likely that the central defended place of the Tribal Hidage *Wihtgara*, or more properly *Wihtwara* (Yorke 1989, 85–86; Rumble 1996a, 21, fn. 22; Mills 1996) the "people of Wight", was the *Wihtgarabyrg* mentioned in the *Chronicle* (ASC *s.a.* 530, 544), and perhaps situated in the vicinity of Carisbrooke (Kökeritz 1940, xlvii–lvi; Mills 1996, *sub* Carisbrooke; but cf. Sims-Williams 1983, 30, fn. 130).[10] The context of this reference, however, might suggest that the place was no longer, in the ninth century, understood to have taken its name from a tribal group, even if it was understood as being a tribal refuge.[11] This would perhaps support the idea that such place-names originated at a much earlier stage of kingdom building in Anglo-Saxon England, and it may be that the description of Canterbury as the stronghold of the Kentish people also originated in the early or middle Anglo-Saxon period, in reference to a more limited territory thought of as pertaining to the people of Kent. The possible existence of central refuges in Kent and Wight, still known in the ninth century by names indicative of their role as tribal strongholds, is particularly significant in view of the exclusion of these two regions from the Burghal Hidage.

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[10] On this point it is significant that the Lower Enclosure at Carisbrooke Castle is an irregular rectangular monument which is argued on archaeological grounds to have predated the Norman castle built on this site (Young 2000). Two phases are discernable: an initial chalk bank, c. 1.5m in height, and a second phase in which the front of the bank was faced in stone, at least 3m in width. So far only one entrance to the enclosure has been discovered. Internal structures to the enclosure comprise two phases of a major wooden structure near the centre of the fortification.

[11] ASC A *s.a.* 544 *Her Uuihtgar forþferde, 7 hiene mon bebyrgde on Wihtgarabyrg*, "in this year Wihtgar died and was buried at *Wihtgaraburg*". The substitution of *Wihtgara* for *Wihtwara* in the Tribal Hidage is likely to result from a palaeographical error in copying the letter p, which stands for w (Rumble 1996a, 21, fn. 23). The *Chronicle* seems to perpetuate this error. Whether, having misread *Wihtwara* as *Wihtgara*, the compiler of this annal then invented the character Wihtgar, or made a connection between the name of the stronghold and an existing mythological figure named Wihtgar is unclear, but such association of place-names with figures of dubious historicity is well attested elsewhere in the *Chronicle* (e.g. *s.a.* 501).

Like Canterbury, Wychbury in Hagley (Wo.) makes reference to a kingdom of considerable size, if its first element is indeed the tribal name Hwicce.[12] Unlike Canterbury or *Wihtgaraburh*, however, Wychbury is not central to the supposed territory of the Hwicce, which may have been approximately coterminous with the Anglo-Saxon diocese of Worcester. Indeed, Wychbury is located right on the edge of the diocese, bisected by the border between Worcestershire and Staffordshire. This liminal position does not, in itself, lessen the probability that the first element of this placename is the tribal name Hwicce—indeed, such a location is very appropriate for the formation of a toponymic label of this kind, since land in this area was most likely to be in dispute and in need of clear indications of ownership or administrative affiliation, and it was in border areas that the Hwicce would most obviously have been different from other folk groups.[13] Wychbury may have been named from a Mercian point of view, as the first stronghold in Hwiccian territory, and although its geographical position relative to the territory of the Hwicce distinguishes it from Canterbury and *Wihtgaraburh*, it is conceivable that the tribal qualifier of Canterbury at least was applied by Mercian outsiders, perhaps during their period of dominance in the eighth century (Carroll and Parsons 2007, 81 n.127; David Parsons pers.comm.).

Winklebury in Basingstoke (Ha.) also poses difficulties. Again, it seems to be a stronghold associated with a particular tribal group, in this case the people of Wiltshire or Wilton (*Wiltenischebury* c.1290; Gover 1958, 125). Paradoxically, the stronghold is located in northern Hampshire, some 30km from the Wiltshire border. The location of a "people of Wiltshire or Wilton" name here makes sense, if it is assumed that a specific episode of migration resulted in the settlement of a substantial group of people from Wiltshire in the midst of a population otherwise made up of Hampshire (or at least non-Wiltshire) people. An alternative would be that maintenance or manning of the stronghold was somehow the responsibility of the men of Wiltshire, but given the location of Winklebury so far away from Wiltshire, this would suggest that it was part of a national West Saxon

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[12] The earliest forms are very late ones—*Wychbury Hill Camp* 1885 (OS County Series, 1, 10560; Mawer, Stenton, and Houghton 1927, 293).

[13] Indeed, other toponymic references to the Hwicce share this geographically marginal position: Wichenford (Wo.) is near the boundary with Herefordshire (Mawer, Stenton, and Houghton 1927, 179), Wychwood (Ox.) is just to the east of the border between Gloucestershire and Oxfordshire (Ekwall 1936a, 179; Gelling 1953–54, 386); Whichford (Wa.; Ekwall 1936a, 179) is also possibly relevant, but the first element might be *wice* "wych-elm" (Gover et al 1936, 301–302).

defensive strategy, that the people of Wiltshire did not have strongholds of their own to look after (or that the men of Hampshire had too many), and that military arrangements were so far removed from administrative geography as to cause serious inconvenience; or that the shire geography was radically different, with northern Hampshire forming part of Wiltshire. The latter is feasible if the original *Hamtunscir* covered only the Jutish province centred on the Solent (Yorke 1989, 96). At any rate, the name Winklebury probably implies that naming took place sometime after the establishment of Wiltshire as a shire, at a time when belonging to that shire had become a strong social marker.

Not all place-names of this type necessarily indicate strongholds or refuges used by early or middle Anglo-Saxon tribal groups. Welshbury in Flaxley (Gl.) appears to be *Welisc-burh* "the Welsh stronghold" (*Walsebery, -bury* c.1275; Smith 1964c, 232; 1965, 27, fn. 3).[14] This example may be analogous with Denbury (De.), as a stronghold of the native British population in this area, that held out against the Anglo-Saxon advance, or it may be the result of immigration from Wales into England in the late Anglo-Saxon period (Smith 1965, 27, fn.3). Either way, the Welsh people concerned may have come to form a distinct group within this part of Mercia, and to have used this stronghold as their central defended place.[15]

Many Old English tribal or territorial groups had names ending in *–ingas*, such as the *Stoppingas* of the Wootton Wawen charter (S 94). Names of this kind usually imply association with a named individual, in this case a certain *Stoppa*, who presumably was, or was perceived to have been, an early leader of the tribal group; but the first element is not always a personal name, and some groups clearly identified themselves with a predominant feature of the local landscape or a pre-existing settlement.[16] It

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[14] Cf. also the field-name Welchbury recorded in neighbouring Westbury-on-Severn (Gl.), *Welchbery field* 1639 (Smith 1964c, 207).

[15] Other interpretations are possible. The adjective *welisc* "Welsh" might have been descriptive of, for instance, the physical character of the site—we may note the Welsh monk Asser's comment that the defences of *Cynuit* were erected "in our fashion" (*nisi quod moenia nostro more erecta solummodo haberet*; *VitAlfredi* §54; Stephenson 1959, 43; Keynes and Lapidge 1983, 84). Alternatively, the word might have had a transferred sense, as indeed do Welsh and other modern ethnic adjectives in Modern English. It is worth noting, for instance, Mod.E *Welsh ambassador* as a synonym for the cuckoo, or the pejorative connotations of *Welsh comb* (thumb and forefingers used as a comb) or *Dutch courage* (courage instilled by alcohol; OED).

[16] For example, the *Beningas* who gave their name to Bengeo (Ht.; *Belingehou* 1086, *Benyngeh'* 1155–8; Gover, Mawer, and Stenton 1938, 215) appear to have taken their name from the River Beane, while Stockbury (Ke.) preserves the name of "the people of (the settlement called) Stoke" (Wallenberg 1934, 166, 230; Watts 2004, *s.n.*).

is reasonably common for such tribal names to survive in place-names, and a number of them are used (in the genitive form *-inga-*) to qualify *burh*, the possible significance of which is noted by Cox (1994, 47, 51–53). It is conceivable that these too were early or middle Anglo-Saxon tribal refuges. They have a distinctive distribution, predominantly biased towards the midlands and the southeast. In the north and east midlands, examples include Birdingbury (Wa.),[17] Kislingbury and perhaps Wellingborough (Np.),[18] Stallingborough, Billingborough, and Washingborough (Li.),[19] and possibly Dalbury (Db.).[20] There are two instances in Essex—Danbury and Hallingbury[21]—and one in Hertfordshire.[22] In Kent are Cobhambury, Pembury and also perhaps Stockbury,[23] if its second element can be derived from *burh* rather than *bǣr* "swine pasture" (Wallenberg 1934, 166, 230; Watts 2004, *s.n.*). Other minor names such as Brandenbury in Yalding (Wallenberg 1934, 169) and Stokenbury in East Peckham (ibid., 166) may add to the Kentish examples, which form quite a distinct group running more or less in a line from Stockbury south-south-west to Pembury, and with Cobhambury further to the west. Chisenbury in Enford (Wi.) and Hiltingbury in Chandler's Ford (Ha.) are rare possible examples of this kind of formation away from the main groupings of the southeast and the east and north-east midlands.[24]

Also relevant to this discussion are other terms for defended or easily defensible sites used as the generic with group names, and it is significant that a number of place-names of this type occur in the Burghal Hidage list. The stronghold usually associated with Southwark, for instance, is noted

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[17] *Berdingeberie, Derbingerie* (*sic*) 1086 (Gover et al 1936, 126–7).

[18] *Cifelingeberie, Ceselingeberie* 1086 and *Wendle*(*s*)*berie, Wedlingeberie* 1086 (Gover, Mawer, and Stenton 1933, 86, 140).

[19] *Stalingeburg* 1086 (Cameron 1991, 268–9), *Bilingeburg, Bellingeburg, Bolinburg* 1086 and *Washingeburg* 1086 (Payling 1936, 44, 175), and see also Cox (1994, 47, 51–53).

[20] *Delbebi* (*sic*), *Dellingeberie* 1086, *Dalebiry* c.1141 (Cameron 1959, 548).

[21] *Halingeb*(*er*)*iam, Halingheberia, Hallingeberiam* 1086 and *Danengeberiam* 1086 (Reaney 1935, 34, 248).

[22] This is Hertingfordbury, recorded as *Herefordingberie* 1086, *Hertfordingber'* 1212, *Hertfordingeberi* 1220 (Gover, Mawer, and Stenton 1938, 227) and interpreted as "the stronghold of the people of Hertford". David Parsons and Tania Styles (VEPN:2, 77) associate this with the northern stronghold built at Hertford by Edward the Elder.

[23] *Cobbingeb'y* 1232, *Peppingeberia* c.1100 and *Stochingeberge* 1086 (Wallenberg 1934, 73, 185–86, 166, 230).

[24] Chisenbury is *Chesigeberie* 1086 (Gover, Mawer, and Stenton 1939, 328), perhaps "the *burh* of *Cissa*'s people" or "of the people who live on the gravel" (Ekwall 1960, *s.n.*; Watts 2004, *s.n.*), and Hiltingbury is *Hiltyngebury* 1233 (Gover 1958, 37; Coates 1989, 92–93), "dwellers at the woodland".

in that document as (*to*) *suþrigana*(*ge*)[*w*]*eorce*, the "(*ge*)*weorc* or fortification of the men of Surrey". Given the limited physical evidence for late Anglo-Saxon occupation at Southwark, it is difficult to say whether this was a *de novo* fortification manned by the inhabitants of Surrey, but it is at least possible that the name reflects the existence of an earlier stronghold, perhaps making use of earlier Romano-British remains, used as a refuge by the local population.

The place-name Hastings preserves the name of an apparently once-powerful tribal group that seems to have retained a degree of regional identity into the eleventh century.[25] The stronghold presumed to have been at Hastings is described in various sources as *Hæstingaceastre*, "the (Roman) walled town or fortification of the *Hæstingas* or followers of *Hæsta*" (Mawer, Stenton, and Gover 1929–30, 534).[26] John Dodgson (1996a, 99) noted the lack of evidence for a Roman fort here and suggested that OE *ceaster* was being used in a sense "city, important town". Such a sense is not apparently evidenced as a rule in place-names (VEPN:2, 158–62), and it is reasonable to suggest the existence of a Roman fort as an early refuge for the *Hæstingas*. It has been proposed that *Hæstingaceastre* was not in fact on the site of modern Hastings, but instead at the Saxon Shore Fort of Pevensey (Combes and Lyne 1995); but as Carroll and Parsons (2007, 156–57) point out, Pevensey was known to the Anglo-Saxons as *Andredesceaster*, perhaps counting against this proposal. It is, moreover, possible that a former Roman fort at modern Hastings remains to be identified or, given the degree of coastal erosion in the area, has disappeared into the sea (ibid.).

Worcester, another site mentioned in the Burghal Hidage, again consists of a tribal name *Wiogoran*, perhaps meaning "the dwellers on the River *Wigor*" (Mawer, Stenton, and Houghton 1927, 1, 19–20; Watts 2004 *s.n.*), with OE *cæster*. In this case, the existence of a Roman town is more certain, and it seems to have had a defensive circuit of some kind, although evidence of a stone wall is lacking (Burnham and Wacher 1990, 232–34). Though not Burghal Hidage forts, Leicester (Le.) and Roman *Verulamium* (now part of St Albans (Ht.)), should also be mentioned here. Leicester, another *cæster* place-name, has a tribal name *Ligore*, analogous with that of Worcester and meaning "the dwellers by the River *Ligor*" (Cox 1998, 1–3; Watts 2004, *s.n.*),

[25] The *Hæstingas* tribe is discussed in Mawer, Stenton, and Gover 1929–30, xxiii–xxiv. See also Simeon of Durham's *Historia Regum s.a.* 771 (Whitelock 1979, 243) and ASC *s.a.* 1011, 1052.

[26] John Blair (pers. comm.) points out that the Bayeux Tapestry also uses the form *Hastingaceaster* when naming the site at which William constructed a castle in 1066.

while *Verulamium* seems in the eighth century to have had an alternative name recorded by Bede as *Uaeclingacaestir* "the Roman fort of the *Wæclingas* or people of *Wæcel*" (Bede *EH*, 1.7 (p.34); Gover, Mawer, and Stenton 1938, 86–87; Watts 2004, *sub* Watling Street). It was still apparently known as *Wætlingaceaster* in the eleventh century, when it was the subject of a grant by King Æthelred (S 912). Since this appears as an alternative to *Uerlamacaestir*, a name derived from the Romano-British place-name, there may be a further parallel with Canterbury. Both Leicester and *Verulamium* had stone walls, parts of which survive to this day (Wacher 1975, 213–15, 351–52), and which could have provided a degree of protection to a local population in Anglo-Saxon times.[27]

One clear example of an archaic refuge given further defences in the late Anglo-Saxon period, the Burghal Hidage site of Malmesbury, occupies a steep-sided promontory on the north bank of a loop of the Bristol Avon in a border zone between the kingdoms of Mercia, the West Saxons, and the Hwicce (Fig. 10). Excavations on the eastern flank of the promontory between 1998 and 2000 demonstrated the existence of an Iron Age multivalate hillfort covering the area later enclosed by Anglo-Saxon and medieval defences, which themselves incorporated the prehistoric inner bank (Longman 2006). During the middle Anglo-Saxon period, the area of the hillfort appears to have been part of a densely-settled landscape. Documentary allusions suggest there was an ecclesiastical settlement at Malmesbury within the hillfort certainly by the seventh century (S 1245; S 231, S 1170), with a contemporary estate centre 3km southwest close to the Foss Way at Cowage Farm, Norton, and possibly also to the north at Brokenborough, claimed in later tradition to have been a palace of Æthelstan (Haslam 1984d, 111; Hinchliffe 1986; Freeman and Watkins 1999, 147; Kelly 2005, 2–10). Although archaeological evidence for the minster is scanty, written sources attest to an active community throughout the remaining Anglo-Saxon period (Kelly 2005, 1–29). A single-celled chapel dedicated to St Helen of tenth or early eleventh-century origin is located c.800m northwest of the hillfort; whilst close to the medieval abbey radiocarbon dated eleventh-century burials (1050±50, unpublished accuracy), a contemporary wall foundation, and a coin-hoard of c.1074, attest to the existence of an ecclesiastical presence near the centre of the hilltop, around which further settlement clustered (Haslam 1984d, 115; Blackburn

[27] The possibility that Roman *Verulamium* later served as an Anglo-Saxon royal stronghold known as Kingsbury is discussed in Niblett (2001, 11) and in Niblett and Thompson (2005, 178–95).

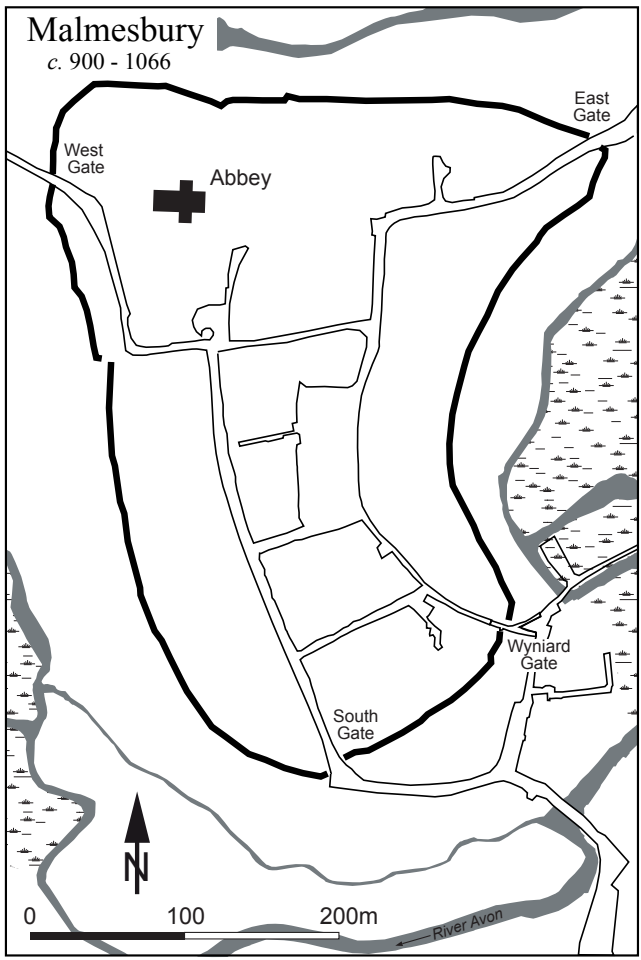

Fig. 10. Anglo-Saxon Malmesbury.

and Pagan 1986, no.281; English Heritage 2004). It was this defended settlement which was to prove attractive both to the Great Army in 877–78 and to Alfred's and Edward's burghal policy of the late ninth/early tenth century. Significantly the 1998–2000 excavations revealed no evidence of a construction phase corresponding to Alfred's burghal programme—the earliest medieval defences sealing the Iron Age stratigraphic sequence date on the basis of associated pottery finds to the late tenth/early eleventh century (Longman 2006, 127, 161)—suggesting both the pre-existing defences and central-place functions were adequate enough to qualify the site for inclusion within the burghal system.

Archaeological Evidence for Burghal Hidage Sites

In this middle Anglo-Saxon dispersed landscape of poorly defended settlements, regional garrisoned strongholds stand out as a major strategic innovation. As described in the Burghal Hidage, such sites represented a systematic approach to defence, incorporating centralized planning, significant communal investment of labour and resources, and an overarching military strategy.

Firstly, these fortifications were capable of sustained resistance. The importance of properly defended and garrisoned places is made clear by the ease with which captured settlements, whether or not already provided with defences, could be fortified by the Vikings against the Anglo-Saxons. Such a ploy was used repeatedly during the Viking campaigns, and once inside a fortified place, an army was very difficult to dislodge, as the West Saxons were to discover at Reading (870–71), Exeter (876–77), and alongside the Mercians at Nottingham (868). Long sieges were impractical, since they meant keeping an army in the field for a prolonged period, and potentially dangerous if disease broke out in the camps of the besiegers (Halsall 2003, 154–56, 222–27 and cf. AF *s.a.* 882).[28] By putting in place an effective system for the fortifying and manning of regional strongholds the West Saxon kings created a number of strategically placed hard-points of military control. Instead of *ad hoc* defensive strategies, relying on the physical character of strong-places, permanent and reliable garrisons represented a major improvement in the defence of populations and economic resources and surpluses. At Pilton in 893, Chichester in 894, and Bedford and *Wigingamere* in 917, garrisons successfully drove off Viking raiding parties (Abels 1988, 73). Garrisons transformed fortresses into virtually impregnable sites from which detachments could operate in the surrounding area.

Secondly, these defended sites provided refuges for civilians. In 1976 Martin Biddle made the much-reiterated comment that in the Wessex heartlands in the late ninth and tenth centuries one was never further than

[28] The annals describe a campaign led by Charles the Fat against the Vikings based in the stronghold of *Ascloha* on the Meuse, probably Asselt, near Swalmen, Netherlands. "Because the siege had gone on for so many days in the summer, the great army (i.e. Charles's forces) began to fall ill and be nauseated by the putrefaction of the many corpses." The Vikings defending the stronghold were apparently "no less oppressed" (Reuter 1992, 105 and cf. 92, fn. 7).

20 miles from the nearest fortified settlement.[29] Such knowledge can hardly have consoled or indeed helped those who found themselves under sudden threat of Viking attack. This should not be overlooked, since the rural population provided the basic means by which the aristocratic military elite could exist, and their capacity to carry out their labouring obligations was economically important, regardless of humanitarian considerations. Twenty miles, or a day's walk, is a considerable distance to travel, particularly if burdened with property or livestock, and with a hostile force approaching at pace,[30] but burhs at least served to frame the territory in which non-combatants could live in a measure of security, by blocking or hindering entry into a kingdom by water or road. Furthermore, to rural people it meant that a detachment from the nearby burh could also be within a day's ride, thus slighter local defences could—if required—offer short-term security provided relief was imminent.

Thirdly, strongholds could also have wider military uses as bases from which to launch large-scale attacks or counter-attacks, as perhaps at Chichester in 894 (ASC A), to regroup during a battle in the way that the West Saxons seem to have at *Cynuit* (Asser.*VitAlfredi*, §54), or even to trap and slaughter sections of an opposing army, as happened at York in 867 and perhaps at Chester forty years later (ASC, Halsall 2003, 206–207; Wainwright 1948, 151–52, 167–68). Abels stresses such a proactive role for the Burghal Hidage sites, as staging posts for campaigns against the enemy, and, in close conjunction with the *fyrd*, denying the Vikings the advantages of surprise and mobility (Abels 1988, 71–72). Extending this view, Jeremy Haslam (2006) has suggested that the specific, strategic goal for the Burghal Hidage system was an offensive response to the positioning of Viking armies at Cirencester and Fulham in late 878–79. In creating this system, Alfred gained "a degree of power and leverage which was more radical and far-reaching than that which had allowed him to dictate terms to Guthrum alone in mid 878" (*ibid.*, 126).

Whilst these general points about the use of systems of strongholds as a grand strategy provide an important framework for understanding the changing approach to civil defence in the later ninth and early tenth cen-

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[29] Abels makes the further point that, on the basis that royal food rents were stored at the burhs, Anglo-Saxon armies were never more than a day's march from supplies (Abels 1998, 204).

[30] Depending on the weather conditions, the directness of the route, and the state of the roads, travel through England in medieval times could be much slower than this (Stenton 1936, 18–20), but presumably the same considerations applied to invading force and refugee alike.

turies, it is very difficult to attribute them to specific events during these decades. Central to Haslam's argument is a belief that the sites listed in the Burghal Hidage constitute a rational, spatially-defined whole, the only logical context for which must be the events of 878–79. However, to concatenate the construction of this system into so small a window of time, Haslam has meticulously (and controversially) reanalysed much of the available archaeological and documentary evidence to fit his thesis, particularly the dating of fortification-work at Buckingham (which is recorded in the *Anglo-Saxon Chronicle* as occurring in 914)[31] and the grant of the Portchester estate in 904 (S372). Whilst these contemporary sources have been used by others to date the Burghal Hidage system to the early tenth century (above, pp. 32–3), in Haslam's view both references must relate to fortifications already in use by 879.[32]

Aside from the difficulties in accepting this use of documentary evidence, other problems with Haslam's revisionist view of the Burghal Hidage system have been raised (Baker and Brookes 2011, and Chapter 7 below). Most significant amongst them is Haslam's inference that all the Burghal Hidage strongholds were from the outset conceived as part of a single system. In this regard he makes no distinction between sites in the list that might be understood alternatively as "forts" or "towns" (Hill 1981, 143), or between the process of garrisoning older defensible places and the construction of new strongholds—that is to say, between an essentially logistical problem and one of significant infrastructural investment.

Whatever the precise dating of the Burghal Hidage text, cost and expediency appear to have been factors contributing to the pattern of West Saxon defence. The appearance of prehistoric hillforts and Roman walled towns amongst the list argues that at least some of the sites chosen were to protect key institutions or to provide temporary refuges; these were not fortifications strategically sited to provide tactical dominance. Burghal Hidage provisions in these cases are likely to have been primarily concerned with garrisoning pre-existing strongholds, rather than constructing them. In other cases there is evidence to suggest a more concerted outlay. Some of the named burhs display remarkable morphological similarities in their plan and defensive installations. This uniformity in the layout of intra-site units, regardless of topography, has been regarded as indicative of a single act of planned settlement, with correspondingly overarching

[31] ASC 914 A, 915 BCD, 918 G

[32] The suggestion that Portchester was already utilized in the defence of Wessex under Alfred has also been made previously by Tait (1936, 18).

lordship. These characteristics were first discussed in an influential paper by Martin Biddle and David Hill (1971), which outlined, among other observations, the form of regular burh-type plans (see p. 6 above). Such features are clearly recognizable at Wareham, Wallingford, Oxford, and Cricklade, where *de novo* burhs were raised adopting a design apparently imitating Roman towns. These burhs were based on a similar regular geometric plan, comprising a central road crossing, long rectangular *insulae* set perpendicularly to a major central thoroughfare, and a series of earth and timber defences, with multiple ditches, and intra-mural roads providing easy access to the city walls. Elements of the regular plan have also been recognized at other Burghal Hidage sites, most noticeably Winchester which Biddle and Hill regard as the principal type-site (Fig. 11). Here they

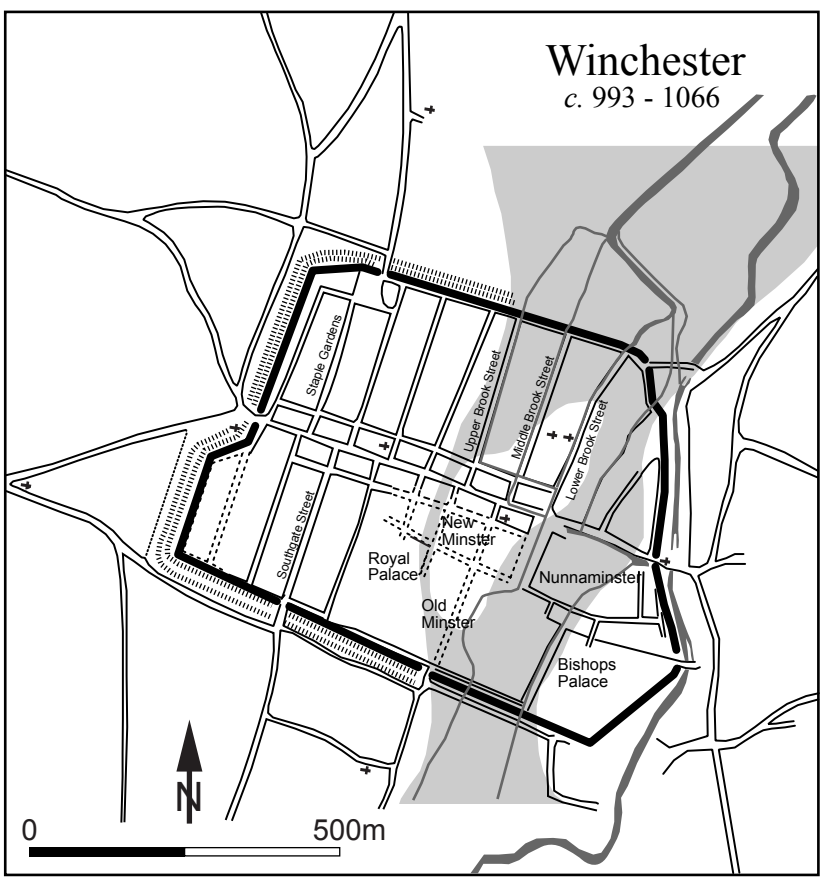

Fig. 11. Anglo-Saxon Winchester.

argue the Roman city was substantially reorganized around a regular street plan with an intra-mural street and back-streets parallel to the main thoroughfare, the whole constituting a major modification of the original Roman urban layout. Similar reorganization has also been suggested at the former Roman towns of Bath, Chichester, and Exeter (Biddle and Hill 1971, 79–82) and aspects of the plan have been identified at burghal sites such as Christchurch, Lewes, Lydford, Lyng, Malmesbury, Oxford, and Barnstaple (Radford 1970; Hill 1996a), and indeed elsewhere (e.g. Reynolds 2001; Haslam 1984d; Milne 1990).

It is probable that some form of authority organized the (re)modelling of these settlements, and certain authors—citing Asser (*VitAlfredi* § 91)—have reasonably fixed on Alfred as the architect for this defensive model. Using the same logic a commonly-observed secondary stone phase of defences has been linked with the reign of Æthelred (Radford 1970, 102).[33] However, close dating evidence for earthen rampart phases, and indeed their stone successors, is lacking. One tantalizing exception is a now lost fragment from Shaftesbury that may have been part of an inscription described in full by William of Malmesbury as stating "King Alfred built this city [*urbs*] in the 880th year of the Lord's incarnation and the eighth [or ninth] of his own reign" (Cramp 2006, 111–12).[34] This might corroborate the existence of Shaftesbury by the reign of Alfred, as is suggested also by Asser (*VitAlfredi* §98), who states that he founded there a nunnery for one of his daughters; but Shaftesbury, although arranged around a regular plan, does not otherwise exhibit any of the morphological characteristics defined by Biddle and Hill.

Perhaps further complicating the correlation between the archaeological burh and Alfred, excavation is slowly revealing a longer chronological sequence of construction and a greater variety between and within sites than predicted by Biddle and Hill. Considerable excavation has taken place in Winchester since the 1970s, notably on the Brooks area in the late 1980s, Northgate and Staple Gardens in the 1990s and 2000s. Consideration of some of this material led Graham Scobie in a series of articles in 1995–96 to outline the factors in the topographical development of Winchester's streetplan (Scobie 1995a; 1995b; 1995c; 1996). Key to his analysis was the

[33] Outside Wessex, a similar phase of stone defence construction at Hereford and Towcester has been linked by written sources to the activities of Ealdorman Æthelred or Edward the Elder in the early tenth century (Shoesmith 1982, 82, 94), and this theory has been further developed within Wessex by Haslam (2003).

[34] *Anno Dominicæ incarnationis Elfredus rex fecit hanc urbem .DCCC.octogesimo,regni sui .viii.*

appreciation of the drainage pattern and environmental conditions of Anglo-Saxon Winchester. These suggest that much of the eastern part of the town lay in a floodplain of braided streams in which lay a low island occupied by Old Minster and after c.903 also New Minster (Fig. 11). The creation of streets to the north and south of this island—such as Lower and Middle Brook Street—could only have taken place in parallel with that of urban watercourses; which some charter evidence suggests only took on their current regular form in the later tenth century (S 1449; Keene 1985, 59–63; Scobie 1996, 3–4). On drier ground in the western part of the town the regular pattern of streets may similarly have taken some time to fossilize. Excavations on the line of the road lying parallel and to the north of the High Street (St George's Street) suggest that it developed in an organic fashion, possibly only in the mid-tenth to eleventh centuries (Scobie 1991, 4–7; 1996, 4; Teague 1991, 1–3). By contrast, investigations along Staple Gardens—one of the north-south routes of Biddle and Hill's street plan—identified buildings and tenements laid out at right angles to Staple Gardens (Kipling and Scobie 1990; Teague 1990; Moore and Preston 2008; Ford and Teague 2011), which argues that this element of the street plan, at least, could conceivably be part of a reorganization of the urban layout. Bayesian modelling, based on recovered radiocarbon and archaeomagnetic samples concluded that this probably occurred between 840 and 880 (Ford and Teague 2011, 34, 225–36). However, at the north end of Staple Gardens two masonry buildings dating to the twelfth century have been found aligned north-south, ignoring the prevailing street-grid (Cunliffe 1964, 162–70), perhaps indicating that, as at London and Wallingford, Winchester retained large undeveloped intra-mural areas into the high medieval period.

Evidence for Winchester's defences is similarly unclear. Biddle (1975, 109–19) has argued that modifications may already have been made to the Roman city wall as early as the seventh century, when the South Gate was blocked first by a ditch and later by a stone wall; and the same may also have occurred at the North Gate (Biddle 1976b, 261; Biddle 1983, 121–22; Keene 1985, 43). At this time, the Iron Age defences of Oram's Arbour could also have been used to defend the western approaches of the city; for at New Road the ditch was still a significant feature of 1.2–1.6m depth (Serjeantson and Rees 2009, 9–10). Biddle (1983, 120–23) has suggested that Winchester may have been provided with defences in 860, when the town came under Viking attack (ASC A). Perhaps supporting this idea Mercian-style reservations of three burdens first appear in West Saxon charters dur-

ing the reign of Æthelbald (855–60; Brooks 1971, 81). Adjacent to Oram's Arbour in Sussex Street upcast from the digging of the city defences suggests that the systematic refurbishment of the western defences took place during the late Anglo-Saxon period; however, already by the late ninth or early tenth centuries this upcast was found to have been overlain by intensive occupation deposits (Rees et al. 2008, 16). Perhaps in keeping with this early date, excavations in Gar Street and Castle Yard have suggested the existence of an intra-mural road by the mid-ninth century, and certainly by 901; a date also claimed on the basis of radiocarbon dating (cal. 902±60; Biddle 1975, 103; Biddle 1976b, 130; Biddle 1983, 119–21; Ford and Teague 2011, 12). The combined evidence presented by Scobie, Ford and Teague, and others suggests that while Winchester did witness significant development before or during Alfred's reign, the overall plan-form appears to have been the product of several discrete phases of construction taking place over the course of the ninth and tenth centuries.[35]

A similar conclusion has been reached from recent excavations in Bedford (Edgeworth 2004), which appear to have identified the northern boundary ditch (L3) of the ninth-century burh. Although the ditch was not fully excavated, finds from the upper fill, including a ninth-century or earlier key, and proto-St Neots wares of the ninth/tenth century provide a *terminus post quem* (ibid., 197). Significantly, this ditch underlies and is co-linear with a major east-west thoroughfare previously believed to have formed a main axis of the central road crossing as predicted by Biddle and Hill's regular street plan (Hill 1970; Haslam 1983). Datable material from the ditch fill suggests this road may not have been laid out until the twelfth or thirteenth century, by which time the boundary of the town had moved further northwards to enclose an expanded settlement area. Of the "regular" street plan, only the main north-south High Street oriented on the Ouse crossing appears to be an original feature, with planned street grids laid out in modular fashion over subsequent centuries.[36] Several phases of this expansion are hinted at by piecemeal evidence for the urban defences. To the north of the primary burh part of the western extension may have been identified as a large ditch, *c*.4m across and 1.8m deep, with vestiges

[35] This interpretation goes some way towards explaining how the construction of the streets of Winchester was manageable, given the enormous estimates in raw materials and labour suggested by Biddle (1976, 124–34)

[36] A similar gradual evolution of the central crossing component may also have occurred at Northampton, where the main east-west thoroughfare, the present Green Street, appears to have been established only during the second phase of burghal defence works (Chapman 1999, 36).

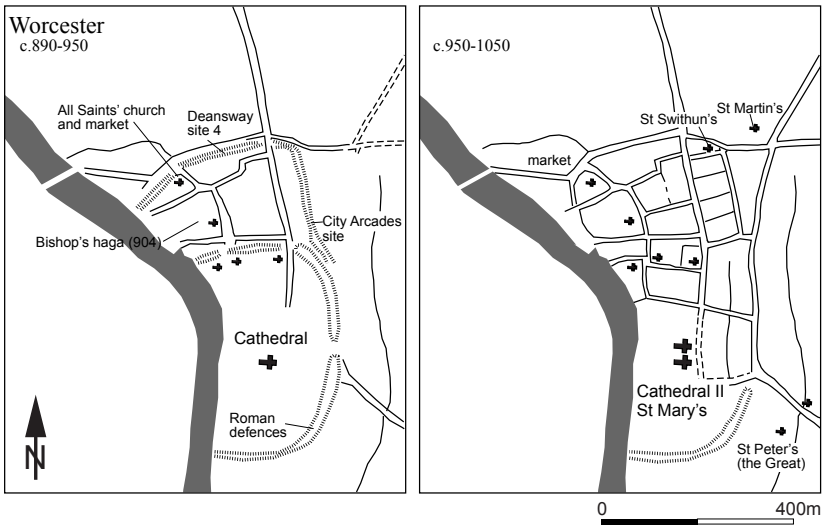

Fig. 12. Schematic reconstruction of the development of late Anglo-Saxon Worcester.

of a stone-lined bank on the eastern side, whilst a large east-west ditch to the north of and parallel with L3 was excavated in the 1920s and 1930s (Edgeworth 2004, 199). On the southern bank of the Ouse a large curvilinear bank, known as the King's Ditch, has often been associated with the southern burh constructed by Edward the Elder in 915 (Haslam 1983).[37]

Finally, evidence from Worcester also demonstrates a long chronology of burh development. Extensive excavations across the city have suggested that the two characteristics of the Biddle and Hill plan-form—the defensive circuit and planned internal street-grid—belonged in this case to two different phases of urban development (Baker and Holt 2004; Holt 2009). The burghal defences, datable by a charter of 889–899 (S 223), appear to have comprised an irregular enclosure of c.6.9ha extending northwards from the existing D-shaped Roman earthworks surrounding the cathedral (Baker and Holt 2004, 143–47, 165–68, 349, fig. 14.1; above, Fig. 12). Excavations in 1999 at the City Arcades site clearly showed that the defences of this northern circuit lay inside the primary plan-unit formed from tenements on the High Street and The Shambles (ibid., 170–72). Indeed, the laying of the regular street-grid in this area appears to have been accompanied by the infilling of the substantial north-south defensive ditch. Ar-

[37] ASC (A) 915 A, 919 G

chaeological dating for when this remodelling of the Worcester townscape occurred has not, so-far, been possible; material recovered from the ditch suggests it was infilled sometime between the fourth and eleventh or twelfth centuries (ibid.). But in the absence of further evidence for a defensive circuit enclosing The Shambles, the excavators have argued that the remodelling of the street-plan probably represents an urbanizing initiative of the 960s or early eleventh century (Holt 2009, 65).

The Structure of Burh Defences—Earth and Timber

In contrast to the evidence for urban planning, excavations of burghal defences themselves have revealed a more coherent picture. Setting aside temporarily the issue of the refurbishment of Roman stone defensive circuits, the primary excavated phase of defended Anglo-Saxon sites mentioned in the Burghal Hidage and *Chronicle* all attest to the construction of major defensive circuits. Sections of these defences have been recovered from a number of sites, in Mercia at Hereford (Shoesmith 1982; Bassett 2007; 2008); Tamworth (Gould 1968; Bassett 2007; 2008); Winchcombe (Davison 1986; Hinchcliffe 1986; Bassett 2007; 2008); at the Burghal Hidage sites of Christchurch (Davies 1983); Cricklade (Haslam 2003); Lydford (Addyman 1966; Wilson and Hurst 1966, 168); Lyng (Croft and Adkins 1988); Oxford (Durham, Halpin, and Palmer 1983; Munby and Wilkinson 2003); Wallingford (Durham *et al.* 1972); Wareham (RCHME 1959); Wilton (Andrews, Mepham, and Seagar Smith 2000); Worcester (Hirst 1980; Dalwood and Edwards 2004); but also in the Danelaw at Thetford (Rogerson and Dallas 1984; Andrews and Penn 1999) and Northampton (Chapman 1999; Fig. 13). In all cases the structural sequence demonstrates the construction of substantial earthen ramparts, which in nearly every case are enhanced by a second phase of construction. Despite minor variations of constructional detail, sometimes due to the standard of the excavated evidence, burghal defences display striking similarity in form and size. Accordingly, it has become commonplace in excavation reports to discuss defences in relation to West Saxon—specifically Alfredian—burh-building, although there is a paucity of datable evidence from every known example. The second phase of construction, by contrast, has divided opinion, with suggested dates ranging from the early tenth century (Haslam 2003, period 2a) to the medieval period (Davies 1983, 29), with a majority, following C.A. Ralegh Radford (1970) favouring the late tenth/early eleventh century.

Comparisons between excavated examples reveal a number of morphological similarities. There is possible evidence from several sites that

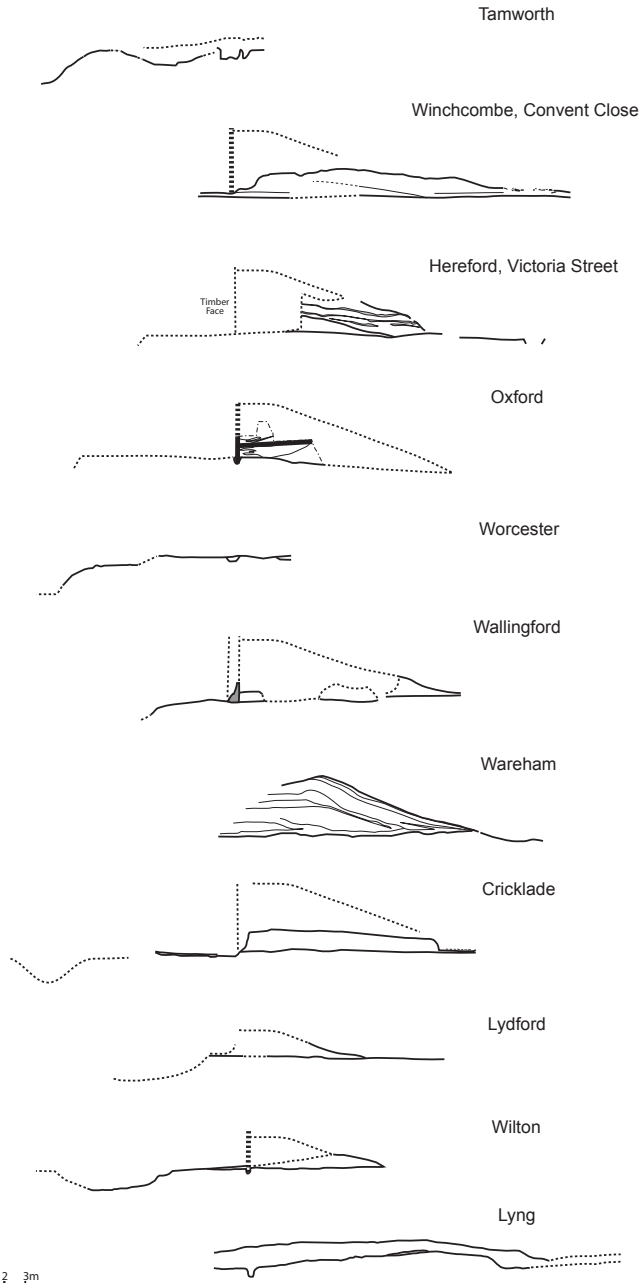

Fig. 13. Comparative sections across the late ninth-/early tenth-century defences of the West Saxon and Mercian burhs.

defences were carefully marked out. At Oxford (24A St Michael's St) a large earthen bank comprising layers of clay and loam was laid over a clean spill of yellow gravel forming the core of the rampart (Munby and Wilkinson 2003, 149–50). A similar limestone rubble spread has been identified as the primary deposit of the bank at Lyng (Croft and Adkins 1988, 224). At Hereford Victoria Street (Shoesmith 1982, 76–77) the tail of a low bank of rammed gravel and clay is interpreted as the first-phase Mercian rampart (see pp. 49–50 above), while a similar suggestion has been made in relation to a low turf bank (layer 45) at Winchcombe Convent Close, and a gravel-filled v-sectioned ditch (F64) at Winchcombe Junior School (Ellis 1986; Bassett 2007; 2008). The latter feature may find a parallel at Worcester Deansway where a shallow ditch was suggested by the excavators to have preceded the construction of the ramparts (Dalwood and Edwards 2004, 219; but see Bassett 2008, 228 for an alternative interpretation), and at Christchurch Site W10 where three small gullies (88, 89, 44) appear to demarcate the later line of the bank (Davies 1983, 28–30).

In a recent survey of the archaeological evidence from four Mercian sites—Hereford, Tamworth, Winchcombe, and Worcester—Steven Bassett (2007; 2008) has argued that these earliest features may relate to an earlier (i.e. eighth-/early ninth-century) phase of defensive works. The evidence as it currently exists remains, however, somewhat opaque, and it is possible in light of the findings elsewhere that the "defences" attributed to a Mercian phase of construction could also be features relating to the laying out of the late Anglo-Saxon circuit.[38] Hereford's Victoria Street Stage 1 gravel rampart, at an—albeit truncated—1m in height, is very slight, although when added to a 1.5m deep ditch, identified but not recorded in a contractor trench, might have formed a more significant obstacle (Shoesmith 1982, 77; Fig. 6)). At Winchcombe the phasing suggested by the excavators finds direct analogy with that identified from other sites. Furthermore, using Peter Ellis' (1986) original identification of Period 1 (i.e. middle Anglo-Saxon or earlier) features, the bank [F48], excavated at Convent Close, represented an obstacle of around 1m in height, and the silted-up ditch from Junior School [F11], which was not associated with a bank, one of around 1.5m in depth. As such these too represent only small-scale defences relative to those attributed to the later ninth century. Unfortunately, the dating evidence of the earliest features from these Merican burhs provides little further clarification. All that can be safely derived from Bassett's compre-

[38] A similar point has recently been made by Carver (2010, 131).

hensive analysis of the available evidence is that the defensive works at Hereford overlay an oven, the fill of which produced radiocarbon dates of cal. AD 668–992 at 2 sigma (Bassett 2008; BIRM 111).

This is not to deny the possibility that Mercian sites may well have had defensive capabilities in the earlier ninth century. Aside from the foregoing examples, it is clear that the fortifications of late Roman date at Worcester continued in use from the foundation of the cathedral in c. 680 through to the later tenth century; and indeed, appear to have formed part of the Alfredian defensive circuit (see below; Baker and Holt 2004, 349). Similar re-use of Roman defences in the ninth century has also been argued for Cambridge (Haslam 1984a) and Chester (Griffiths 1995, 75; Thacker 2003, 16–17).

Leaving aside the unresolved question regarding these earliest features, the primary phase of rampart construction proper at sites excavated to date takes the form of an earth bank of mixed deposits and an associated ditch. Banks average between 7.4m and 10m in width, with the majority clustering around 8m. With the exception of laying-out features banks appear to have been laid directly on top of contemporary ground surfaces, with horizontal deposits of varying thickness evident sloping gently away from the ditch. At both Christchurch and Lydford the primary bank deposit appears to have been laid onto a brushwood/bone base. The majority of banks are truncated or partly levelled, but estimations of original height tend towards 2–2.5m, with the most complete bank at Wareham 2.7m high (RCHME 1959, page facing 130; Shoesmith 1982, fig. 133; Munby and Wilkinson 2003, 150). Banks comprise dumps of clay, loam, and sometimes gravel; deposits likely derived as upcast from associated ditches, and surface clearing in the area of the bank. At Oxford St Michael's Street, however, it was suggested that clay may have been transported to the site from the nearby floodplain (Munby and Wilkinson 2003, 150). Individual turves have been recorded at many of the sites (Hereford, Cricklade, Wallingford, Lydford, Oxford New College, Tamworth), and it has been suggested that stacked turves formed the rampart face at Hereford, Wallingford, Cricklade, and Lydford. In many cases there is also evidence for timber facing and horizontal supports to the structure (Oxford St Michael's Street, Hereford, Tamworth, Wilton, Lydford), but in other cases evidence for timber revetment has been destroyed by a subsequent stone wall and its existence is suggested only by the horizontality of existing layers. Post-holes running along the front of the bank indicate that the revetment consisted of vertical earth-fast posts supporting horizontal planking. At Hereford uprights

were split half-round timbers spaced approximately 1m apart, an arrangement paralleled at Oxford St Michael's Street (average 1m), Wilton (80cm), and Lydford (not recorded). At Cricklade, Lyng, and Northampton by contrast, the timber uprights appear to have been placed in a trench, although at the last of these evidence for uprights was also recovered at intervals of *c*.0.75m (Radford 1972, 101; Croft and Adkins 1988, 224; Chapman 1999, 33). Recorded timber thicknesses suggest that uprights were generally slight and designed more to create a vertical obstacle than to offer structural support to the bank. Internal horizontal "lacing" timbers and branches running through the thickness of the bank and laid at right angles to the axis of the bank are commonly recovered, sometimes attached to the uprights, adding a measure of internal rigidity to the structure. A similar purpose may also have been intended with a post-hole from the back of the bank recorded at Worcester Deansway (Dalwood and Edwards 2004, 219). At Tamworth, by contrast, a much more substantial timber framework was recovered with large frontal timber uprights placed *c*.3m apart, and two further rows of slighter post-holes running parallel through the centre and back of the bank, suggesting the existence of a large timber palisade surmounting the bank (Gould 1968).

Between rampart and ditch edge lay a berm often between 2m and 4m in width, although sometimes considerably wider, as at Oxford Northgate (6m; Durham, Halpin, and Palmer 1983, fig. 2), Winchcombe (6.5m; Gould 1968, 22) and probably also Wallingford.[39] Few ditches have been excavated, or survived subsequent recutting or abrading. At Wilton the berm is likely to have been c.5–6m wide and the ditch approximately 1m in depth. At Tamworth the excavated ditch was about 4m wide at the top and c.2m deep. Similar dimensions (5m × 2m) are indicated by the earthworks at Wareham. At Cricklade three shallow ditches were separated by berms. Although a similar arrangement has been suggested for Wallingford, excavations at 16 St Georges Rd in the north-western corner of the burh suggest only a single ditch, some 3m wide and 1.5m deep (Gaimster and O'Connor 2005, 405). A large ditch c.3.6m wide and 1.9m deep has also been argued for Southampton from a number of archaeological observations, possibly with two ditches identified in French Street (Southampton HER Monument Record MSH346).

[39] The smallest berm at Northampton was only 0.8m wide.

The Structure of the Burh Defences: Stone and Timber

In nearly every excavated case the original earth and timber rampart was enhanced with a stone wall and only at Worcester Deansway is it argued that this feature was part of the original defences.[40] In most instances walls took the form of stone revetting replacing original wooden frontage (Hereford, Christchurch, Cricklade, Lydford, Oxford, Wilton, Winchcombe; Worcester; Fig. 14). At Wallingford and Wareham, however, the wall was built on the crest of the rampart. In the latter cases, and also at Cricklade, and Wilton, the construction of the wall appears to have been part of a major phase of building which included the reinforcement of the earthen bank by a mass of deposits dumped on the back of the earlier ramparts. At Hereford and Cricklade the bank was further strengthened by a small stone wall part way up the tail of the bank, possibly to support a breastwork. At Northampton the excavators argued that this phase had included the systematic dismantling of the earlier timber revetment. Evidence for a wall road, generally a hard-packed metalled surface at the rear of the bank, has been identified at Oxford St Michael's Street, Winchcombe, and Hereford, but was missing from Worcester Deansway and also (South) Cadbury Castle. At Hereford it is argued that the road is contemporary with the stone wall phase although the stratigraphical relationship is ambiguous (Shoesmith 1982, 78). This was not the case at Winchcombe, where the metalled surface was partially overlain by the phase 2 rampart and was therefore clearly contemporary with the primary earth and timber phase.

Stone walls facing the rampart are constructed of dry-stone or poorly-mortared courses, with and without evidence for internal timber binding. At Oxford 24A St Michael's St, Cricklade, and Lydford, preparation for the wall base involved a shallow construction cut into the berm or rampart face. The width of the wall from Oxford St Michael's St, Lydford, Christchurch, Cricklade, and Wilton was 1m-1.5m, with that from Hereford closer to 2m. At Oxford and Hereford, a rubble core was encased at the front by a more carefully-constructed mortared face.

Discussion

The close coincidence of these defensive works in earth, timber, and stone phases reinforces an impression of a coordinated strategy with a high de-

[40] Although this interpretation was based on a single narrow trench across the ramparts, and evidence for multiple phases may yet be forthcoming. The case for two phases of construction on this same evidence has been put forward by Bassett (2008, 227–30).

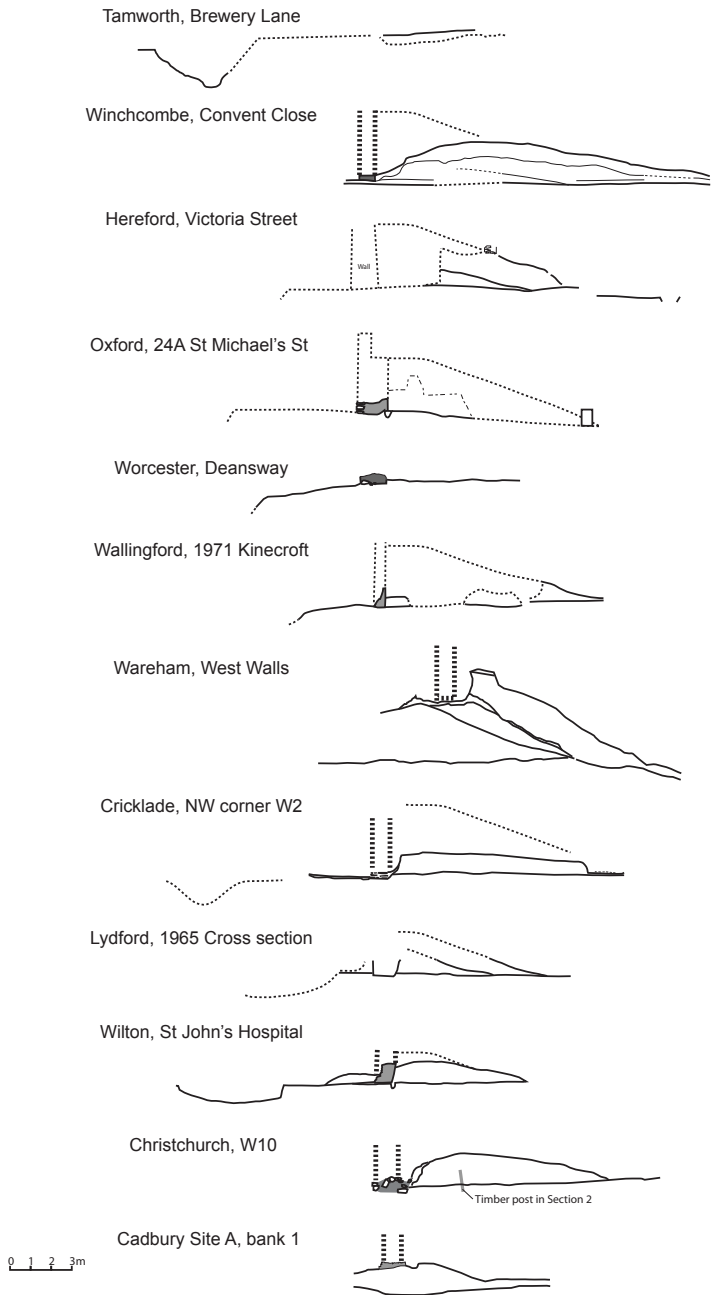

Fig. 14. Comparative sections across the late tenth-/early eleventh-century burghal defences.

gree of predetermined specification. Minor variations in construction, for example the placement of stone walls, or in the precise execution of rampart erection, can be explained as local responses to particular conditions and circumstances. However, these variations cannot detract from the overriding similarities in design and constructional details. Furthermore, on archaeological grounds there is little to distinguish Mercian from West Saxon burh-work, the defences of Hereford's stage 2 and Winchcombe are directly analogous to excavated Burghal Hidage installations. By implication, a suitable context for these works is likely to have been the decades to either side of AD 900 when the building of burhs is attested by Alfred, Edward, and the Mercians Æthelred and Æthelflæd (Biddle 1976, 124–37). This date range is supported (albeit rather weakly) by the little available archaeological evidence. Besides residual Roman material and occasional middle Anglo-Saxon wares recovered from many of the bank cuttings, ramparts are uniformly sterile,[41] although association with other features has provided some indication of a tenth-century *terminus ante quem*. At Winchcombe the intramural road included a layer containing late tenth- or early eleventh-century pottery (i.e. defining its period of use), whilst at Worcester Deansway pits containing tenth-century material, represented the earliest settlement evidence in the area of the defences. As is so often the case, the dating for the defences relies on the Hereford sequence. A branch used as lacing for the second-stage rampart at Hereford Victoria Street originally radiocarbon dated to AD 441–709, has recently been recalibrated to AD 592–870 at 2 sigma (Bassett 2008, 188–89; BIRM 110), which when viewed in combination with that ascertained from the underlying oven fill (see above) suggests a mid- to late ninth-century period of construction for the defences.[42]

In plan, excavated burh defences generally align as straight linear features making up rectilinear circuits of varying kinds, although topographical features, such as rivers and steep slopes may also have been respected (Hill 1996a). Circuits were provided with multiple entrances, frequently aligned with each other on opposite sides, and linked by major thorough-

[41] Four late Anglo-Saxon sherds were recovered from the primary Wilton bank deposit, and at Lyng pottery recovered from above the timber slot suggested a *terminus ante quem* of the eleventh century. At Northampton, small quantities of Northampton Ware and some St Neots Ware recovered from the bank suggest a date of c.900–75.

[42] A human skeleton has been recovered from the Southampton ditch (Southampton HER Monument Record MSH2780). It was securely sealed between the two main infills of the ditch, and apparently yielded calibrated radiocarbon dates of 780–940 at 68.2% probability, and 775–960 at 95.4% probability.

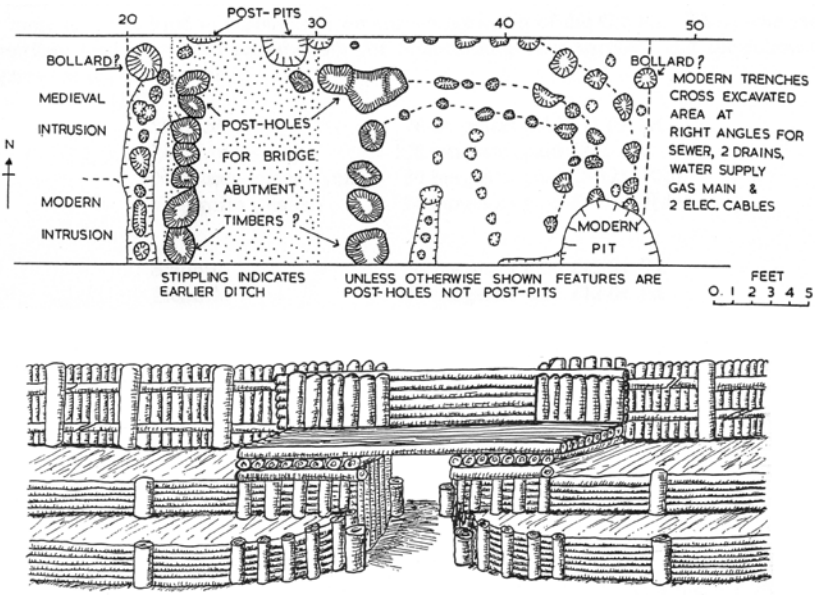

Fig. 15. Archaeological evidence from the 1968 excavations and imaginative reconstruction drawing of the Tamworth gatehouse.

fares through the burh. Gateways, such as have been sampled at Tamworth (Gould 1969), Cadbury, and Northampton suggest a considerable additional investment in fortification, but wider inferences cannot be drawn at present (Fig. 15). A potentially significant exception to the pattern of rectilinear planning is Thetford, where the town defences appear as two curvilinear circuits on either side of the River Thet (see pp. 152–53 below). During the course of the tenth century many defensive circuits were already being modified; Oxford was extended eastwards, as, possibly, was Hereford.

Two inconsistencies in the archaeological sequence may provide evidence for the chronological development of these defences. Both Worcester, likely to have been founded as a burh in the last decade of the ninth century, and Tamworth, an Æthelflædan burh of 913, witnessed a greater investment in primary defences than is recognizable elsewhere, but with very different outputs; the construction of a stone revetment at Worcester, and a timber-framed rampart at Tamworth. On the basis of the Worcester evidence these foundations possibly mark the transition from earlier earth and timber to stone construction; however, two points argue against this interpretation. Firstly, the continuity of the tradition of timber and earth

burhs demonstrated at Tamworth (913) is implied also by the curvilinear defences of Edward's reign at Bedford (915), Stamford (918), and Witham (912) where there is no clear evidence for stone walls.[43] Secondly, the evidence from Worcester is equivocal, the published plan and section clearly show a post-hole surmounting the revetment wall. This could indicate either the existence of timber lacing or a timber frontage sitting on a dwarf wall, rather than a substantial stone revetment such as is known from other sites (Dalwood and Edwards 2004, figs. 136–37). Equally, the elaborate timber defences of Tamworth exist within the wider tradition of rampart building known elsewhere, and also provide an explanation for the lack of a subsequent stone phase at this site.

Alternatively the variability in building techniques may be a reflection of the local availability of stone and/or the speed and convenience of construction. Comparisons drawn with later medieval castle building emphasize the contrast between timber and stone fortification (McNeill 1992). A medium-size motte and bailey, such as that built in 1211 at Clones in Ireland cost about £20 in labour (half on diggers and a little over a quarter on carpentry) and £50 on the wages and supplies of the garrison and the cost of transporting them to the castle, and took around 80 working days to construct. By contrast, a small stone tower, such as the one built over thirty-four years from 1155 at Bridgnorth (Sh.), cost closer to £400. Medieval examples also highlight underlying issues concerning the availability of building timber. At Hen Domen (Mo.) construction phases in good quality timber can be correlated with periods when the castle was under the control of the king or earl of Shrewsbury, whilst at other times, under lesser aristocracy, building was in poorer quality timber clad in clay (Higham and Barker 1992, 135). Fortification-work in later centuries required sufficient endowment with access to timber resources, without which, it seems, other local alternatives were sought out.

In addition to these named sites, stone wall defences are also known archaeologically from the late Anglo-Saxon burh of (South) Cadbury (Alcock 1995). In a cutting across the prehistoric, Roman, and early medieval bank, a mortared stone wall of c.0.9–1.4m width was found backed by a bank of upcast material. To the rear of the bank, approximately 4.7m from the front, the remains of a smaller rear revetment wall were identified. In an exhaustive discussion of these findings Leslie Alcock has drawn com-

[43] As such it remains possible, in light of the present evidence, that Worcester's stone revetment is also secondary. The *Chronicle*'s use of different verbs—(*ge*)*wyrcan*, (*ge*)*timbran*, and *ātimbran*—when describing the construction of strongholds is unlikely to imply different methods of construction, but may well be worth further analysis.

parisons between Cadbury and the features identified at other burghal sites, finding meaningful parallels to the construction of the stone revetment and associated deposits (ibid., 154–6).

Unlike the aforementioned burhs there is no documentary evidence to suggest occupation of Cadbury before the eleventh century and it is reasonably certain that the late Anglo-Saxon occupation levels are restricted to a brief period when the hillfort operated as an "emergency mint" replacing Ilchester between c.1009 and c. 1017 (Dolley 1958). In light of the similarities between Cadbury and other burhs, a general consensus has therefore emerged in the literature interpreting the stone wall phase as a response to the renewed Danish threats of the early eleventh century (Radford 1970; Hinton 1977, 69–71). At Cricklade a painted pottery sherd found embedded in the mortar of the stone wall and dated to the late tenth/early eleventh century appears to provide archaeological support for this view (Radford 1982, 106), although at Hereford tenth-century pottery in the decay levels of the stone-wall bank were argued to be evidence for an early tenth-century origin for this phase (Shoesmith 1982, 73). At Oldaport, accelerator mass spectrometry dating of the masonry remains of the stone-wall circuit provided a date of between AD 873 and 1020 at 91.9% certainty (Rainbird and Druce 2004). At Tamworth Albert Road a silver cut halfpenny of Edward the Martyr was found between the stones of a putative road associated with the earth and timber revetment and below those relating to its refurbishment in stone, thereby providing a *terminus post quem* of 975–78 for the stone phase (Sheridan 1973, 35; Bassett 2008, 232).

It remains possible that the Cadbury defences are an example of a longer experiment in stone wall construction emerging over the course of the tenth century, evidenced first with the Worcester dwarf wall of the late ninth century.[44] In this regard much has been made of a *Chronicle* entry for 917, in which Edward is said to have firstly built a burh at Towcester and, following an unsuccessful Danish raid shortly thereafter, reinforced it with a stone wall (ASC (A) 917 A, 921 G; Radford 1978, 150); an apparently clear example of the two structural phases recognized archaeologically. However, despite a large number of excavations in Towcester (Roman *Lactodorum*) this sequence has so far remained elusive, although several minor archaeological observations may provide an alternative interpretation of the *Chronicle* entry. At the Texaco Filling Station site the excavators suggested that the late Roman Great Ditch may have been recut and reinforced

[44] See fn 40 and fn 43.

during the late Anglo-Saxon period by a turf revetment (Woodfield 1992, 23–24), and a similar ditch re-cutting the Roman defences was identified also at the GPO Telephone Exchange Site (ibid., 19). There was no evidence for a stone wall; but at the Grammar School, the 158 Watling Street, the Masonic Yard, and the Bury Mount sites it was suggested that a trench forward of the Roman wall may represent robbing of a re-facing of the earlier wall, perhaps dating to the late Anglo-Saxon period (ibid., 25).[45] Relating these findings to the *Chronicle* entry, it might be possible that the re-cutting of the Roman town ditch represented Edward's first attempt at defending Towcester, and the re-facing of the Roman wall his second. Arguably, this interpretation offers a good fit of the historical and archaeological data; moreover, it reinforces the impression that despite the common re-use of pre-existing stone walls, stone revetment proper is unknown before the later tenth century.

Re-use of Roman Defences

The re-use of Roman town walls is a recognized feature of many of the burhs, although it is difficult to determine on archaeological grounds whether or when these walls were refurbished. The former Roman Saxon Shore fort of Portchester is known to have passed into royal hands only in 904 as the result of an exchange between the king and the bishop of Winchester for an estate at Bishop's Waltham (S 372), and it is likely that the burghal defences here post-date this acquisition (Stenton 1971, 265).[46] Much of the 3.4ha site is still extant today, the outer walls of the Roman fort stand to a height of up to 6.1m and 3.05m wide, and twelve semicircular bastions survive (Fig. 16). Some patching and localized rebuilding of these walls and gates has been identified (Cunliffe 1976). It seems that the entire Roman Landgate tower was removed and replaced by reset greensand doorjambs and a timber gatehouse. Stratigraphically the event could have occurred any time between the fifth and twelfth centuries; the only datable artefact is a single piece of chaff-tempered ware, but an eleventh-century event seems likely. The towers of the Roman Watergate may also have been removed at the close of the Anglo-Saxon period and replaced

[45] Although reference to it had disappeared by the time of the final publication, the original short note to the 166 Watling Street site records that a wall forward of the Roman town wall was indeed identified, however, its description "three courses of herringbone foundations" suggests that it may be a later eleventh-century feature rather than a 10th-century one (cf. Woodfield 1978, 183).

[46] This indeed is one of the reasons for the traditional dating of the Burghal Hidage to the tenth century.

Fig. 16. Photo of Portchester Watergate.

by a stone gatehouse (much of which still survives to a height of c.1.8m). Although comparisons have been drawn between the Watergate and the porch of Titchfield church on stylistic grounds, the Watergate is likely to date to the late eleventh century (Hare 1984).

At Bath, by contrast, the Roman town walls were reinforced in timber. The defences were partially revealed in the excavations of 1980 at Upper Borough Walls (O'Leary 1981). These appear to have comprised an Anglo-Saxon outwork lying in front of the Roman walls, reconstructed as a timber revetment or palisade on the lip of the silted Roman ditch. A small ditch (without palisading) was also uncovered under the Empire Hotel in 1995 (Davenport 2002, 42), but not identified on the west side of town in 1990. An interpretation of these findings is that the Roman walls were in a parlous state, requiring the timber forework to render them practicable. In support of this view, Tim O'Leary (1981) has suggested that this forework, if continued around the whole circuit, would equate to 1257.3m, which is almost exactly the length predicted by its Burghal Hidage assessment. Similar enhancements of the Roman town defences have also been identified in London and Winchester, where Saxo-Norman ditches appear to have been cut outside the city walls (Butler 2001), in the latter case possibly

also using the Iron Age and Roman enclosure ditch of Oram's Arbour as an additional defence on the western approaches (Qualmann et al. 2004, 95).

Functions and Dating

It is worth summarising the main observations so far. The available archaeological evidence for eighth-century Mercian burhs—certainly on anything approaching the scale of later West Saxon ones—is slender. All of the features excavated to date fit within the range of enclosed settlements known from elsewhere for the eighth or ninth centuries (e.g. West Fen Road, Ely (Ca.) or Riby Cross Roads (Li.)). Given their size, they are unlikely to have provided sustained resistance against any large concentrated force, and are probably to be regarded as part of a regional system of security in which the principal defensive effort was focused on frontier installations such as Offa's Dyke. There are striking differences in the archaeological signature for these early defended sites and those of the late ninth to early tenth centuries. The latter are far more substantial barriers, are more homogeneous in form, character and pattern across Wessex, Mercia, and elsewhere, and are likely to represent a systematic policy of burghal foundation almost certainly attributable to the sons of Æthelwulf, perhaps especially King Alfred, and to Alfred's children. Indeed, despite nearly forty years of further excavation on these sites, Ralegh Radford's original analysis of the Anglo-Saxon burghal sequence stands up to close archaeological scrutiny. The first phase of significant fortification involved the raising of substantial earth and timber defences to a similar specification, a regular planned central thoroughfare, and in many cases an intra-mural road. Potentially, slight variations in the execution of this plan (e.g. individual post-hole or in-trench timber revetting; width of berm; etc.) may yet prove to have a chronological significance, but the overriding impression is of an astonishingly regular scheme that must represent broadly contemporary foundations. The same is true of the second phase in which many earlier defences were reinforced in stone; a measure which can probably be dated to the reign of Æthelræd II (975–1016).

These findings have some relevance to the discussion of other minor or undocumented sites of the late Anglo-Saxon period, and their relationship with systems of civil defence at different times. Firstly, they provide a relative sequence of morphological attributes with which to compare other sites known archaeologically (e.g. Avebury, Oldaport). Secondly, they allow for an analysis of the tactical relationships that may have existed between contemporary sites. A clear difference between the policies of ninth-

century Mercia and tenth-century Wessex suggested by this evidence is a shift from frontier defence to defence-in-depth, based on self-contained strongholds with mobile forces deployed between them (Luttwak 1976, 127–90). This policy, and the elements that comprised it, form a crucial component of the discussion below. Thirdly, these findings provide some evidence for the contrasting functions of individual burhs. Sites such as Lyng, which do not bear evidence of a second stone phase, may have been designed merely as small temporary installations, which had dropped out of military use by the later tenth century when later burhs, such as Cadbury, had come to reflect the realpolitik of Æthelræd's reign. In other cases, the success or failure of sites through the tenth century depended on their ability to grow beyond their military origins.

Scholars of the Burghal Hidage have often drawn the distinction in the list between "forts" and "major boroughs", with evidence for wider economic functions such as a planned street grid, evidence for coin minting, and so on, as critical indicators that the latter were designed as fully urban places. To this may be added scale. In Hill's (1981, 143) analysis it was demonstrated that most small sites, founded before *c*.950 with less than 16 acres (6.47ha), failed to emerge as boroughs in Domesday, whilst forts and towns founded after this date could range in size (Fig. 17). In his attempt to explain this pattern Hill suggested that early sites were founded with two clearly differentiated purposes, with forts installed to fulfil a purely military, rather than economic, function. By contrast sites founded after *c*.950 might represent either secondary small-scale urban enclaves or significant large military installations, with distinctions between the two more blurred. Certainly, some of the sites listed in the Burghal Hidage were in unsuitable locations to have become economic centres, and had disappeared, or been replaced by commercially more viable settlements, by Domesday. In Devon, the Burghal Hidage sites of Pilton and Halwell—small, isolated, possibly prehistoric enclosures—were superseded by larger planned settlements, Barnstaple and Totnes respectively, close to major watercourses and with mints from the reign of Edmund or Edgar, at least by the early eleventh century. Similarly in Kent *Eorpeburnan* (probably the earthwork at Castle Toll) and Burpham (and its replacement Cissbury) failed at the expense of emerging nearby boroughs at Rye and Arundel. Other replacements are also likely: Chisbury by Great Bedwyn, Bredy by Bridport, Sashes by Cookham, Eashing by Guildford, and, potentially, Southwark by London.

The temporary rationale of some fort assessments is further reinforced by Peter Sawyer's important comparison of Burghal Hidage and Domesday

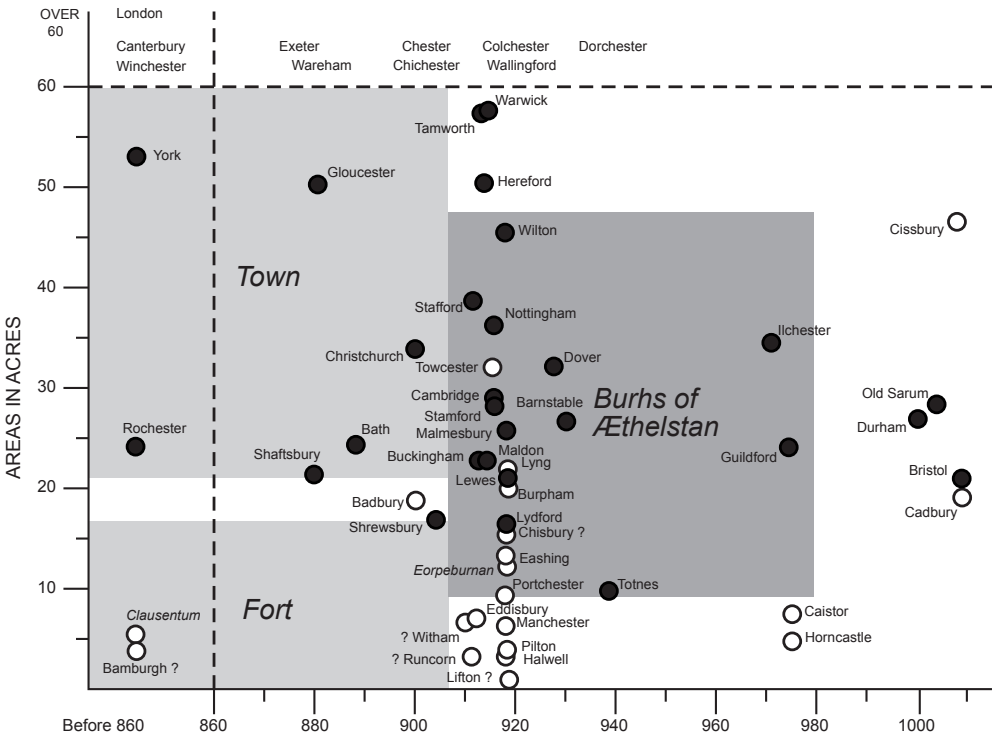

Fig. 17. The areas of burhs.

shire assessments (1978, 227–28). Sawyer suggests that the two figures find close correlation if the class of temporary forts such as *Eorpeburnan* and Burpham in Sussex, Christchurch and Portchester in Hampshire, Bredy/Bridport in Dorset, Chisbury in Wiltshire, Sashes in Berkshire, and Eashing in Surrey are omitted.[47] The implication is that these forts, and their allocated assessment, represented measures responding to the specific military threat of Alfred's and Edward's reigns, and were never intended to develop into more long-lasting centres of power. Certainly there is an evident continuity between the core Burghal Hidage obligations and the Domesday shire assessment, but Brooks (1996a; 2003, 160–62) has persuasively argued for an alternative interpretation to explain this correlation.

[47] Amongst this list the settlement of Christchurch is somewhat anomalous. A failed borough in Sawyer's estimation, Christchurch (at 460 hides) appears as a minor borough and mint in Domesday, as well as a significant, if small, urban centre throughout the later medieval period.

He suggests that the similarities reflect the origin of both assessments as archaic burdens calculated at the level of the shire which included, but were not confined to, military service. In this view fort-allocations might be either an increase in the overall military burden of the shires as envisaged by Sawyer, or in other cases temporary emergency duties imposed on existing warland peasants normally tied to major centres (1996a, 137).[48] Instead of seeing the assessments of the Burghal Hidage as a coherent representation of systematic military obligation, they represent therefore a range of long- and short-term measures of varying antiquity, compiled together as a single document.

The interpretation of the Burghal Hidage offered by Brooks has a number of important corollaries. Firstly, it suggests that the overall military capacity of the shires did not witness a general exponential increase over the course of the late Anglo-Saxon period. The construction and manning of new forts in some areas, it follows, could only have taken place at the expense of pre-existing strongholds by "spreading the effort more thinly" (ibid., 138). Instead of increasing the overall burden of military service Alfred and his successors had to make do with rationalizing existing defensive arrangements by allocating resources to counter specific threats. This view carries with it the further implication that contemporary phases of burh-work might correlate with identifiable tenurial divisions; an argument which Brooks has applied to Devon and Cornwall to good effect (ibid., 138–41). Secondly, this view challenges the straightforward identification of Burghal Hidage sites on the basis of hidage figures and manning calculations as advocated particularly by David Hill (1996a). On the one hand, some correlations between hidage assessments and burghal defences might be expected, particularly when applied to old shire strongholds such as Winchester or Bath,[49] but by the same token the allocation to established strongholds might factor in resources distributed to implement new burh-work (as may be the case for Exeter and Chichester). On the other hand, good matches with *de novo* sites might reflect a concerted switch to new operational theatres. Both cases emphasize the need to see the listed sites as "forts" as distinct from "towns". If Brooks is correct in his assessment,

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[48] "Warland" was land which was liable for tax, in contrast to "inland" which was free from paying tax. The latter was land owned and often farmed by the lord himself (Faith 1997).

[49] There is a good match between the Burghal Hidage assessment for Winchester (2400 hides, i.e. 3018m using the standard medieval perch) and the actual wall length of 3034m (Robertson 1939, 495). A similarly good fit has been identified for the defences at Bath (O'Leary 1981).

strongholds are the more sensitive indicators of contemporary military imperatives, and are particularly susceptible to changing circumstance. As their construction and garrisoning depended upon the reallocation of obligations, it should not come as a surprise that many were apparently under-garrisoned (as appears to have been the case with promontory sites such as Burpham, Lydford or Lyng) or indeed only half built (as was apparently *Eorpeburnan*; ibid., 144).

In other instances sites may have been deliberately chosen as central places from the outset, they were already distinctive places, usually centres of authority, which thus had the potential for economic development (Hill 1988). How quickly this potential was realized is, however, unclear. In contrast to the evidence for military innovations which can be related closely to historical events, excavations within the burghal sites reinforce the view that urban development over the later Anglo-Saxon period took a more circuitous route. At the heart of the argument is the belief that burhs provided a natural incentive to marketing and trade. As a central precondition of mercantile exchange is the establishment of a safe setting in which peaceful transactions can take place, the protective environment of the burhs, the royal guarantee of enforcement of law and peace, as well as the formularization of known, secure, and easily accessible places could act as a catalyst to market expansion. But these conditions in themselves did not necessarily ensure economic success. Certainly, political and economic regulation during the tenth century appears to have been aimed at channelling mercantile activity towards the burhs. During Athelstan's reign legislation was passed demanding that all trade should take place within towns, and no coins were to be minted without. There were measures combating disorder, social violence and localism, and coin reforms guaranteeing a coinage in which one could be confident. By defining these safe spaces for peaceful transactions between strangers, and by lubricating mercantile activity with regulated media of exchange, kings encouraged urban living and the development of the economy as a natural corollary, and by the eleventh century inhabitants paid a profitable rent to the king for their burgages.

However, archaeological evidence, such as that from Worcester (discussed above), suggests that burghal "towns" may not have achieved this status immediately—and indeed some sites never did. This issue has been recently explored by Grenville Astill (2000; 2006), who along with other authors has focused on the economic motives of burh creation. He argues that in several burhs there are large areas that remained undeveloped

throughout the tenth century; Gloucester, Cricklade, and Wallingford had large open spaces, as indeed did London and Canterbury. Single coin finds, a good indicator of the amount of coin in circulation, also suggest that burh foundation did not prompt an immediate explosion in economic growth; if anything, the first third of the tenth century suggests economic stagnation (Astill 2000, 37). This pattern seems also to be paralleled by evidence for international trade: there is a general lack of imported pottery from tenth-century sites, and there is little evidence for economic specialization. Archaeologically, there is a question-mark over how urban burhs were in the tenth century, and it has been suggested by some authors that a significant shift was taking place from the internationalizing trading connections that existed during the middle Anglo-Saxon period to a focus on local exchange. This contrasts markedly the evidence from the northern and eastern towns of York, Chester, Lincoln, Stamford, and Thetford; those places that existed outside the main area of burh foundation. Here archaeology is able to illustrate vibrant economic growth in the tenth century, with densely packed occupation, a range of industrial activities, and overseas contacts. Perhaps, as Astill concludes (2000, 38), this evidence indicates a shift away from the traditional trading axis between southern England and the Low Countries and towards one between northern England and Scandinavian settlement across the North and Irish Seas.

Naming Anglo-Saxon Strongholds

At face value, place-names provide a potentially indispensable means of identifying Anglo-Saxon strongholds. Three key Old English terms are used to describe strongholds in Old English texts. The most important of these is *burh*, which has a range of meanings including "fortified enclosure" and "town" (DOE). The term is used frequently in the *Chronicle* to describe the construction of forts. Place-names in *burh* can have either of these meanings or a later sense "manor", but it seems that the term in place-names denotes a site with an outer wall, rampart, or fence (VEPN: 2, 74). OE *fæsten* and (*ge*)*weorc* are also used of strongholds in the *Chronicle* and other texts, the former also having an array of uses in Old English literature, among them "strong place, place made fast to resist attack or intrusion" and "place which can be shut fast, (strong) enclosure" (DOE). OE (*ge*)*weorc* refers more to constructed works, such as buildings or forts (ASD), and both *fæsten* and (*ge*)*weorc* may indicate strongholds of some kind where they occur in place-names. The occurrence of these elements in place-names

has raised the tantalizing possibility of identifying elements of Anglo-Saxon defensive systems.

Previous Work

Fortifications have, of course, been the focus of a vast amount of historical work, but the identification and dating of systematically constructed networks of defensive sites is a complicated matter. There has been much discussion of prehistoric and Romano-British strongholds, including the late Romano-British system of coastal defences known as the Saxon Shore forts (e.g. Johnson 1979; Maxfield 1989), and, as discussed above, much scholarly debate has centred on the network of fortified sites outlined in the Burghal Hidage. Defensive networks of the early Anglo-Saxon period have proved harder to detect, but individual strongholds have been identified.

The issues relating to the correlation between places with names implying the presence of a stronghold, and actual, historically or archaeologically identified strongholds, underline the importance of a multi-disciplinary approach to the subject of late Anglo-Saxon civil defence. Place-names can, of course, identify sites of possible or even probable military relevance, but without archaeological work little more than this can be achieved. Nonetheless, careful consideration of the location of relevant place-names, and their relationship to each other can lead to potentially significant findings, and previous work has attempted to use place-names in such a way.

A very loose coalition of defensive strongholds was proposed in 1931, by Gover, Mawer, and Stenton (1931–32, xxiii). They put forward the idea that places called *burh*, with a pre-English place-name as first element, might represent fortified sites that "successfully resisted the Saxon advance for a sufficiently long period for their native names to become known to the invaders".[50] This is a sensible suggestion, but our knowledge of the conquest of Devon and of the process by which pre-English place-names survived into Anglo-Saxon times, is probably insufficient to allow much further hypothesizing (Probert 2002, chapter 4; 2007). If the explanation put forward by Gover, Mawer, and Stenton is accepted, then presumably these forts would have belonged more or less to a single period of time and

[50] It was also suggested that names such as Membury (*Maaberia* (sic), *Manberia* 1086; Gover, Mawer, and Stenton 1931–32, 644) perhaps replaced earlier, though unrecorded, British names such as *Caer Maen*.

therefore would have formed a network of sorts, but beyond this little can be said. The names that have been preserved in this way may only represent part of any network, since less successful forts might be expected to have succumbed to the Anglo-Saxons before their names were learnt and thus preserved. Any other features of this putative military network would have had a British toponymy, and this does not seem to have survived. A similar suggestion, of defensive sites resisting the Anglo-Saxon advance, was put forward to explain the place-name Denbury (Gover, Mawer, and Stenton 1931–32, xiv, fn. 1), discussed above (pp. 55–56), but this should probably be taken together with place-names such as Welshbury, Winklebury, and Canterbury.

In 1962, Albert Smith briefly discussed the location of seven places called *burh* in the Don and Dearne valleys of West Yorkshire,[51] noting that they seemed to form part of an organized system (Smith 1962, 46, fn. 2). This group of apparent strongholds had earlier been noticed by Goodall (1914, 106), who seemed to associate them with the submission of Northumbria to the West Saxon king Egbert in 829. While admitting the impossibility of precisely dating them without independent evidence, Smith felt they probably belonged to a later period than this.[52] Although two of the *byrig* were on prehistoric sites, four possibly contained Old Norse elements or personal names,[53] which were unlikely to have appeared in local toponymy until the end of the ninth century or later. On the other hand, Conisbrough, the first element of which seems to be ON *konungr* (perhaps replacing earlier OE *cyning* "king"), was in the hands of Harold in 1066, but had not been a royal possession at the start of the eleventh century, so presumably the "king" referred to in the name belonged to an earlier period (Smith 1961a, 126). This really only leaves the late ninth or tenth centuries as a suitable context for the creation of this putative system, or at least the creation of some of the names, and Smith tentatively suggested that it might have been an Anglo-Danish extension to the Cheshire forts

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[51] Sprotbrough, Mexborough, Conisbrough, Masbrough, Worsborough, Stainborough, and Kexbrough (Smith 1961a, 64, 77, 125, 186, 292, 312, 318).

[52] Goodall in particular seems to have associated Conisborough "the king's *burh*" with Egbert.

[53] The first element of Mexborough (*Mechesburg* 1086; Smith 1961a, 77) seems to be a personal name OE **Mēoc* or ON *Mīuk*; Kexbrough (*Ceze-, Chizeburg* 1086; ibid., 319) seems also to contain an ON personal name *Keptr*; Stainborough (*Stanburg* 1086; ibid., 312) and Conisbrough (*æt Cunugesburh* 1002–4 (c.1100); ibid., 125) both show, as a minimum, Scandinavian influence on OE *stān-burh* "stone stronghold" and *cyninges-burh* "king's stronghold" respectively, and may have wholly ON first elements *steinn* and *konungr*.

constructed against new Viking attacks. A suitable chronological context for such a programme of fortification would be the strengthening of northern defences by Æthelflæd just before her death in 918. Questions remain regarding the likelihood of a fortified frontier on this line and at this point in time (even if one of the place-names refers to a border),[54] especially in view of *Chronicle* references for 827 and 942 suggestive of a frontier nearer to Dore on the northern border of Derbyshire (Higham 2006, 407–408). There is no way, without archaeological intervention, to establish whether any of these forts were founded or reused in the early tenth century. The dating of these forts as a group works only if we accept that they were parts of a single system, set up at one time, but without independent evidence such a theory cannot be maintained. Only one of the place-names was recorded earlier than Domesday Book, and Masbrough does not appear on record until the start of the thirteenth century.

In the 1990s, Barrie Cox attempted to outline two systems of territorial fortification apparently in use in the early Anglo-Saxon period. The first of these was for Rutland, which he considered to have been an independent Anglian territory with very ancient borders, based on a *caput* at Hambleton; the second was for Anglo-Saxon Lindsey. Treating Rutland as an early Anglo-Saxon territorial unit, Cox (1994b, PNRu, xxxiii–xxxvii) discerned an encircling network of forts and lookouts covering those parts of the Rutland borders not already protected by marshland and rivers. Some of his identifications were admittedly speculative—his proposed Anglo-Saxon forts at *Moorhall* in Whissendine and at Castle Dyke in Pickworth, for example, lack archaeological confirmation of anything of Anglo-Saxon date.[55] Cox noted, however, a number of potentially significant place-names around the Rutland border. The place-name *Burstall' medewe* (13th) in Teigh parish may preserve the memory of an early stronghold, as may Bussack Barn in Barrow, if it comes from *Burghsyk'* (1294) "stronghold ditch". In the same parish was *Wakehull* (1363), from OE *wacu-hyll*, perhaps a "hill where watch was kept". In Barrowden are Turtle Bridge, which may

[54] Masbrough is *Morkisburg* 1202 (Smith 1961a, 186–87), probably OE *mearc* "border" with *burh*.

[55] The surviving earthworks at *Moorhall* for instance, are traditionally interpreted as part of a medieval moated manor house site. Cox (1994b, xxxiii–xxxiv) considers this "an odd place for a late domestic site to be positioned", standing, as it does, on low-lying ground near to marshland. If the earthwork in question is the one at 483800,315100, then a late medieval date seems appropriate; the implication of Cox's assertion is that the location of the site was influenced by the positioning of an Anglo-Saxon enclosure that was subsequently modified in the later medieval period or hidden by a later structure.

be derived from OE *tōt-hyll* "lookout hill",[56] and Arberry Gate, a possible instance of OE *eorð-burh* "earth stronghold". Another possible lookout-name is preserved in the name Twitch Hill in Ridlington (*Toteshulgate* 1332, *Great Tutshill'* 1670; Cox 1994b, 207), and the name of the parish of Wardley is from OE *weard-lēah* "woodland-clearing associated with a watch". Finally, Belton, on the Rutland border with Leicestershire, may contain OE *bēl* "funeral pyre", whose ON cognate *bál* was used in northern Middle English to mean "a beacon fire"—by implication, perhaps the OE word was too. The occurrence of this element in English place-names has, however, been disputed (Ekwall 1936b, 159–63; 1957, 139; cf. also VEPN: 1, 26–27 concerning Belton names).

In Lincolnshire, Cox (1994a; 1995–96) again identified a pattern of place-names in *burh*, which he believed represented an early system of territorial defence established by the Anglo-Saxon kingdom of Lindsey. Here again, *burh* names were identified at what may have been the territorial limits of the kingdom, and apparently protecting the seaborne approaches, where the coast was not separated by marshland from central areas of Lindsey. Many of these *burh* place-names seemed to relate to important route-ways, one of which may have been called *here pæð* "army path" (Cox 1994).[57] The location of another possible (but unidentified) fort was associated with a place called Toot Hill, from OE *tōt-hyll* "lookout hill" (Cox 1995–96, 53–58). The variety of *burh* names in question, some apparently referring to Roman or prehistoric sites, others perhaps coined to describe Anglo-Saxon forts, made it very difficult to provide a date for the system on toponymic evidence alone, although Cox felt it belonged to the early Anglo-Saxon period. In reconsidering the proposed system, Cox found earthworks at Yarborough, Alkborough, and near Grimsby, which he felt combined knowledge of Roman design and British building techniques, and suggested that the location of at least one fort only made sense in terms of the post-Roman rise in sea level (Cox 1996). All of this led Cox to put forward a pre-Anglo-Saxon but post-Roman date for parts of the system, later incorporated into the defences of early Anglo-Saxon Lindsey. Sawyer (1998, 84–86), on the other hand, has argued that the origins and location of the Lindsey *burh* place-names, and in some cases their meanings, make better sense if they

[56] The forms for Turtle Bridge, however, require a considerable amount of corruption to have take place, and in the individual discussion of this name Cox derives the first element from an ON personal name *Þorketill* (Cox 1994b, 233).

[57] This identification of a *here pæð* rests on the interpretation of the place-name Harpswell (situated on the road in question).

belonged to different periods of military necessity, rather than forming part of a single defensive network.

Defining burh*,* (ge)weorc*, and* fæsten

One of the crucial problems in toponymic discussions of systems of strongholds is the difficulty of defining the usage of *burh*, (*ge*)*weorc*, and *fæsten* in place-names. The significance of Old English *burh*, for instance, has attracted considerable discussion in recent years. In literary use, *burh* had a wide range of meanings, covering both fortified sites (real, figurative, or spiritual), and towns (DOE). In place-names it may have a similarly varied usage. Analysing a large body of place-name data, Parsons and Styles (VEPN:2, 74–85) have reviewed the evidence for the various senses of the term and conclude that "[i]f there is a single characteristic shared by most, and perhaps all, of the applications [of *burh*]—at least before the Norman Conquest—it may be the presence of an outer wall, rampart or fence". They note that the element occurs in place-names likely to refer to prehistoric hill-forts such as Badbury (Do.), Roman fortified towns such as Aldborough (YoW), a variety of Anglo-Saxon enclosures—Prestbury, Bibury (both Gl.)—and post-Conquest manors, such as Bloomsbury (Mx.) and Flamstead Bury (Ht.). Significantly, they also note the difficulty of identifying instances of Anglo-Saxon military use of the term, at least in specific reference to strongholds constructed during or after the reign of Alfred (ibid., 76–77).

Particular interest attaches to the association of *burh* place-names with ecclesiastical foundations. Stenton (1943, 8–9) noted the possible substitution of *monasterium* for *burh* in the Latin rendering of Tetbury, and the apparent interchange with *Westmynster* "west monastery" in early records of Westbury on Trym (both Gl.). He suggested that *burh* was also especially likely to signify a monastic foundation in place-names where the first element was a woman's name. Although Margaret Gelling (1997, 182) has cautioned against this last very specific suggestion, James Campbell (1979, 42–43) and John Blair (2005, 249–51, 269–70, 285–9) have drawn further attention to the possible association of *burh* with monastic sites, and Blair suggests that "before the mid eighth century it had a distinct and (in terms of elite settlements) perhaps even dominant sense of 'minster'" (ibid. 250). He draws attention to the list of ten *burh* place-names in early English texts,[58] seven of which were minster sites.

[58] *Hebureahg* (Ke.) is a very doubtful occurrence, probably consisting of a personal name *Hēahburh* and the generic *ēg* rather than being a triple compound of *hēah*, *burh*, and *ēg* (Cox 1976, 22, 47).

In two related papers, Simon Draper (2008; 2009) uses an archaeological approach to attempt a unified assessment of the toponymic and documentary usage of *burh* and of its semantic development. The adoption of the term burh in archaeological discourse may have led to the occasional tacit assumption that place-names in *burh* are likely to be significant in an organized military and socio-economic context, and a rebuttal of this assumption lies at the heart of Draper's discussion. He, like Parsons and Styles, notes the occurrence of the element in place-names denoting prehistoric ditched enclosures, Roman defensive circuits, and Anglo-Saxon enclosed secular and monastic sites, concluding that the term *burh* was used to describe a very wide range of "ditched, fenced, hedged or even walled enclosures" (2008, 249). Of particular relevance to the present study is a warning sounded independently by Parsons and Styles, Blair, and Draper: namely that there is a danger in assuming that places with names in *burh* had anything to do with the major planned defensive sites of the later Anglo-Saxon period. It is clear from their analyses that *burh* had a potentially wide range of referents in place-names, a number of which were non-military sites, at least by late ninth- and tenth-century definitions.

Although these surveys are meticulous and valuable, they are not comprehensive;[59] they reveal the range of site-types to which *burh* place-names were attached, and demonstrate that many of these sites were private or ecclesiastical enclosures rather than purpose-built military fortifications. They undermine the idea that OE *burh* in place-names indicates use of the site in an organized military context, but they do not rule out the possibility that some places were called *burh* because of their defensibility in time of war or civil unrest. Both Blair and Draper compare the use of *burh* in major place-names with its occurrence in what are effectively different registers: written sources and microtoponymy. These approaches add important layers of understanding to the discussion, but also involve consideration as a single entity of uses of the term *burh* in contexts that may be chronologically, socially, or culturally distanced from one another. The sense followed by the literate, for example, may differ significantly from that employed by illiterate or semiliterate communities, the one being narrowly defined by reference to literary descriptions and

[59] This is not surprising given the vast corpus of place-names it would involve—even to analyse the archaeological and historical evidence for those *burh* names recorded before the end of the eleventh century (only a small proportion of all *burh* place-names), would involve work on several hundred sites.

learned glosses, the other conditioned by the need for clarity within a local or regional administrative context. Moreover, place-name usage may sometimes demonstrate the development of specific applications of terms that differ from those evidenced in written texts.[60] Aylesbury and Limbury, *burh* place-names both, are called *tūnas* in one section of the *Chronicle* (ASC A *s.a.* 571), while Pilton and Wilton, *tūn* place-names, are included in the Burghal Hidage list of strongholds, and may therefore have been thought of at one time, locally or administratively, as strongholds or *byrig*.

Campbell (1979) and Parsons and Styles (VEPN:2, 74–79) note that the distinction between some of the apparently separate applications of *burh* may not have been evident to contemporaries. Presumably the terminological paradoxes cited above reflect the variation in what was thought to be the most distinctive characteristic of the place viewed from different chronological, social, and geographical perspectives. *Westmynster* and *Uuestburg* are not perhaps alternative realizations of the same semantic concept, but names denoting alternative aspects or functions of the same place. In that sense, any place that existed in or was characterized by a defensible enclosure might be thought of as a *burh*, regardless of whether strategic planning (as opposed to say jurisdictional, ideological, or procedural demarcation) played a significant role in the design of that enclosure, or whether military defence (as opposed to administrative, commercial, or religious activities) was the principal role of the site. Similarly, Draper deals with some sites that fit the "*burh*" type physically, and which are shown by local (often much later-recorded) microtoponymy to have been thought of as *byrig*, but which do not themselves have *burh* place-names. For example, that local people considered Barton upon Humber a *burh*, at least from the fourteenth century, is perhaps demonstrated by local names such as Burgate Street (Cameron 1991, 36–37; Draper 2008, 243–45). Such a perception, however, may stem from a time or viewpoint that differs from the one at which the place-name itself was coined, and means only that the settlement had characteristics that fitted such a description at that date, and in the minds of those who coined the name Burgate Street. Barton itself is not a *burh* place-name.

While the semantic evolution of *burh* may be tracked chronologically from textual sources, place-names are of course hard to date. If the written word *burh* can be equated with monastic sites at an early date, and a num-

[60] Compare, for example, the meanings of topographical terms in Gelling and Cole (2000) with those in DOE and ASD, and cf. Kitson's (2008) discussion of Gelling's work on place-names in the landscape.

ber of early *burh* place-names also denote minsters, then such a usage should be considered to have developed early on. An early defensive sense, however, should also be reckoned with. The philologically reconstructable prehistory of OE *burh* is also very challenging, but must not be overlooked. The element is sometimes explained as the falling together of two originally separate words, one related to OE *beorg* "hill, mound", the other a loan from late Latin *burgus* "a castle, fort, fortress", itself borrowed from Greek *púrgos* "fortification" (of unknown origin; Lewis and Short 1879; Pokorny 1959, 140–41; De Vries 1977, 50; Seebold 1999, 145). However, **burgs* could directly represent a substratum word in Germanic, related to Greek *púrgos*, or a paradigmatic ablaut form generalized in Germanic, of the same Proto-Indo-European root that gives OE *beorg* (Boutkan and Siebinga, 65–66; Ringe 2006, 82). The Germanic cognates of OE *burh* include Gothic *baurgs* "city, tower", OScand *borg* "city, castle, height, wall, fortified place", and OHG *bur*(*u*)*g*, "fortified place, castle, city". While the notion of a "town, civil community" is clearly present at an early date, these cognates all encompass a sense of fortification (Onions, Friedrichsen, and Burchfield 1966, 108; Seebold 1999, 145; Boutkan and Siebinga 2005, 65–66); and the related OE *beorgan* means "to protect, defend, preserve, save" (DOE). Given that the Proto-Indo-European root meant something like "high", a semantic development from "hill", to "hilltop site", to "fortified place", to "town" has been envisaged (De Vries 1977, 50), and the potential influence of continental Iron Age *oppida* on this evolution should not be overlooked. In that case, hillforts were potential referents in OE *burh* place-names from the time such names were first coined in England. References in early West Saxon annals to battles at Old Sarum and Barbury Castle (552, 556 ASC A), and the clear importance of promontory strongholds such as Bamburgh as early Anglo-Saxon powerbases (547 ASC A), provide possible evidence of this insular context.

As Blair proposes, the term *burh*, like *urbs*, may well have denoted minster sites from an early date, but reference to strongholds or defensible sites that could be used in a military context if required should also be taken into account. While seven of the *byrig* recorded in Cox's survey were sites of minsters, at least five were also probably pre-English strongholds. They are not necessarily royal strongholds of the type encountered in the later Anglo-Saxon period, but in an early or middle Anglo-Saxon context of temporary refuges, they may have had an occasional defensive role. The presence of literate record-keepers at many ecclesiastical sites, not to mention the probable ecclesiastical origin of most early written texts, may have

enhanced the chances of monastic sites called *burh* appearing in the record (Whitelock 1951, 19–21; 1967; 1968, 38; Cox 1976, 58). Many Iron Age enclosures periodically used during the early Anglo-Saxon period and already given names in *burh* may simply not have been recorded, since they were not permanent seats of royal or ecclesiastical power.

Above all, however, it is clear that places called *burh* do not necessarily signify organized military strongholds, and OE (*ge*)*weorc* and *fæsten* present similar problems of their own. While both are commonly used with reference to strongholds in late Anglo-Saxon texts, it is far from clear that this was their only, or indeed primary, use in place-names. OE (*ge*)*weorc* seems to denote a range of site-types perhaps as varied as those signified by *burh* in place-names: prehistoric, Roman, and Anglo-Saxon strongholds, and post-Conquest structures associated with castles, hospitals, and religious houses (Baker 2012b, 322–27). The small corpus of such names is dominated by three recurrent compounds—*nīwe-*(*ge*)*weorc*, *alde-*(*ge*)*weorc*, and *hyll-*(*ge*)*weorc*—and there is seldom anything in the specifics with which it is compounded to indicate use in an Anglo-Saxon military context. Southwark (discussed above) and Basingwerk on Dee (Flintshire; Johnston 1915, 130; Charles 1938, 225; Davies 1959, 7) could fall into the category of tribal refuge.

In most of the thirty or so place-names and charter instances in which it occurs, Old English *fæsten* also seems unlikely to denote military strongholds (Baker 2008; 2012b, 317–19). Certainly, the element is qualified too frequently with references to livestock (direct or indirect) for this to be universally the case, and the recurrence of compounds with OE *holegn* "holly" suggest that inaccessibility is more characteristic of such sites than defensibility. Strongholds of a figurative kind might therefore be envisaged, except in a small number of very specific cases, where the first element suggests something more solid. However, the recurrent compound *fæsten-dīc* (S 175; S 820; Mawer and Stenton 1925, 207; Gover, Mawer, and Stenton 1931–32, 1; Armstrong et al. 1950–52 (3), lxiv; Cullen 1997, 244; Baker 2008), where *fæsten* is the specific rather than the generic, may have described a "securing dyke" offering refuge to humans. It might equally have meant "dyke associated with an inaccessible place". It cannot, therefore, be said that *burh*, (*ge*)*weorc*, or *fæsten* place-names never indicate Anglo-Saxon strongholds, but used independently they are not definitive evidence of such sites.

Stronghold-names

An alternative approach is to analyse the place-names of Anglo-Saxon strongholds known from written sources. In addition to the sites named in the Burghal Hidage list, narrative and administrative accounts record many late Anglo-Saxon strongholds. Of about 70 such place-names containing 133 elements (Table 2), fewer than one fifth of the elements explicitly denote strongholds, and among those that do OE *cæster* is the most common, constituting about 10% of the corpus, while OE *burh* makes up about 8%. At least five of the *byrig* in question (Cadbury, Chisbury, Eddisbury, Malmesbury, Burpham) are references to pre-English earthworks,[61] and together with the recurrence of *cæster* this highlights a tendency among Anglo-Saxon military planners to refortify existing strongholds, rather than constructing *de novo* ones. OE (*ge*)*weorc* occurs just once, and *fæsten* is absent. By comparison, *ford* is about as well represented as *burh*, and about a third of all the elements (spread across more than half of the place-names) contain direct or indirect references to watery features: islands, rivers, river-crossings, lakes and pools, islands or dry-lands in wetland areas, river-names. Although about half of the *cæster* names contain a river-name in some form, only one *burh* place-name makes any reference to a wetland feature, and this may emphasize the fact that many of them denote Iron Age hill-forts.

There are several conclusions to be drawn from this data. Firstly, many late Anglo-Saxon strongholds were refortifications of earlier enclosures. Secondly, a very common aspect of the toponymy of these sites is association with wetlands, suggesting that proximity to waterways was a primary concern of their builders, and specifically proximity to river-crossings. Since most of the reused sites are not associated with water-related elements, it might be assumed that their employment within a military system was often expedient rather than desirable, and that fortification of a number of sites closer to rivers and their crossings was an eventual necessity. On the other hand, river crossings and waterways are natural places for the evolution of important settlements, so place-names of this kind are not necessarily evidence of a systematic process of selecting sites of strategic importance for *de novo* strongholds. Indeed, in many cases, for example Winchester, Southampton, and Sashes, strongholds fortified in the late Anglo-Saxon period were already of considerable importance, or

[61] Chirbury and Tisbury are also located very close to the *Caerbre* and Castle Ditches Iron Age earthwork enclosures.

Table 2. Strongholds recorded in late Anglo-Saxon sources.

	Generic element	*Specific element*
Strongholds/Defensible sites		
burh "stronghold"	Chisbury, Shaftesbury, (South) Cadbury, Malmesbury, *Searoburg*, *Lundenburg*, Canterbury, Cissbury	Burpham
cæster "city, walled town, fortification" (often Roman)	Chester (ASC *Ligceaster*), Colchester, Gloucester, Leicester, Towcester, *Hæstingaceaster*, Portchester, Exeter, Bath (*Bathancestre*), Rochester, Worcester, Chichester, Winchester	
(*ge*)*weorc* "stronghold"	Southwark	
Water: River crossings		
ford "ford"	Bedford, Hereford, Hertford, Stafford, Stamford, Thetford, Lydford, Oxford, Wallingford	
(*ge*)*lād* "difficult crossing"	Cricklade	
brycg "bridge"	Cambridge, Axbridge	
stæþ "landing-place"		Stafford
Water: Rivers, islands, and pools		
River-name	Bridian (Bridport)	Axbridge, Cambridge, ?Colchester, Leicester, Tamworth, Towcester, Lydford, Cledemutha, ?Worcester, Wilton
burna "stream"	*Eorpeburnan*	
ēa "river"	Twynam	
ēg "island"	Sashes	
hamm "land hemmed in (by water/marsh)"	Burpham, Buckingham, Wareham	*Hamtun* (Southampton)
mere "pool"	*Wigingamere*	
muþa "(river) mouth"	Cledemutha	
pyll "creek"		Pilton
wær "weir"		Wareham
welle "spring, stream"	Halwell	

Table 2. Continued.

	Generic element	*Specific element*
?**wiht* "bend (in a river)"		Witham
Habitative terms		
býr "village"	Derby	
hām "settlement"	Nottingham, Witham	
hāmtūn "settlement"	*Hamtun* (Northampton)	
port "(market) town"	Langport	
tūn "farm, settlement"	Repton, *Hamtun* (Southampton), Pilton, Wilton	
wīc "dependent settlement"	York, Warwick	
worð "enclosure"	Tamworth	
Groups of people		
-ingas (gen. *-inga-*)	Eashing	Nottingham, *Wigingamere*, *Hæstingaceaster*, Buckingham, Wallingford
here "army"		Hereford
þēod "people"		Thetford
Tribal name		Leicester, Repton (*Hrype*), Worcester, Southwark, Canterbury
Miscellaneous		
Pre-English (but in some cases reanalysed as an OE element, e.g. York)	Lincoln, Watchet	Chester (ASC *Ligceaster*), Watchet, ?Colchester, Gloucester, Lincoln, York, ?Portchester, Exeter, Old Sarum (*Searoburg*), Rochester, *Lundenburg*, (South) Cadbury
OE topographical or descriptive	Lyng, Maldon, Winchcombe	Bath (*Bathancestre*), Bedford, Chichester, Chisbury, Maldon, Winchcombe, Stamford, *Eorpeburnan*, Halwell, Langport, Shaftesbury, Bath, Sashes, Cricklade
Personal name		Malmesbury
Uncertain	Lewes	
Animals		Derby, Hertford, Oxford
Other		Twynam

NB: the first element of Colchester is unresolved, and could be either a reduced form of the pre-English name of the settlement, or the river-name Colne. The first elements of Leicester and perhaps Worcester refer to both tribal groups and river-names. The element *South* in South Cadbury is a later affix and is not counted here.

adjacent to very important sites, before the late ninth century. It is worth noting, however, that while terms denoting river-crossings form the generic in nearly a fifth of all Anglo-Saxon strongholds, references to landing-places by contrast do not occur in that position. Only Stafford contains such a term (OE *stæþ*), and in this case as the specific element, qualifying a river-crossing (OE *ford*). If proximity to water indicates a concern with controlling traffic, overland route-ways may have been more of a priority than waterways. Thirdly, it is very hard to define a single generic that typically characterizes late Anglo-Saxon strongholds. Though good numbers contain references to strongholds, most do not, and while *ford* is a recurrent generic, it is by no means common enough for the element to qualify as evidence of an Anglo-Saxon stronghold.

Identifying Strongholds

The foregoing discussions demonstrate the difficulty of using place-names to locate sections of a coherent defensive network on a national or regional scale. In broad terms, and relying on rigorously obtained etymologies,[62] identifying groups of place-names that may connote strongholds of some kind is a relatively straightforward exercise. Such place-names can be catalogued and mapped as far as existing data permits, but it is clear that the significance of individual place-names within the context of Anglo-Saxon military arrangements can rarely be ascertained by reference to the name alone, and has more broadly been questioned.

A maximalist view of the potential of place-names to identify Anglo-Saxon strongholds might point out that middle Anglo-Saxon defensive practice seems to have been founded on the re-use of a wide range of pre-existing enclosures rather than the construction of new, purpose-built strongholds. In that sense, any place-name denoting a site with a defensible enceinte—whether an Iron Age hill-fort, a Roman walled settlement, a monastic precinct, or a high-status Anglo-Saxon enclosure—is potentially relevant to a discussion of early medieval military organization in England. In that respect, the administrative function of places called *burh* might not be relevant: a place-name can presumably mean "stronghold", in recognition of the physical appearance of the site, whilst denoting what was functionally a "monastery". On the other hand, it is possible that names

[62] F.M. Griffith highlights the specific problem of differentiating *burh* from *beorg* where late forms only are known, and uses evidence from aerial photography to help inform interpretations in some such cases (Griffith 1986).

in which *burh* had the meaning "manor" were already being coined as early as the late Anglo-Saxon period (Gelling 1997, 182), so even within this maximalist approach not all *burh* names need be significant.

A minimalist approach is perhaps sounder in the circumstances. A small number of *burh* compounds might be tentatively identified as denoting strongholds used during the Anglo-Saxon period. Apart from the posited tribal strongholds, discussed above (pp. 55–63), the lost name *Weardburh* (ASC C s.a. 915), which can be translated as "watch or lookout stronghold", is of particular note among documented fortifications called *burh*. This is very suggestive of a site set up for specifically military purposes.[63] Perhaps analogous to *Weardburh* are the place-names Todber (Do.) and Tutbury (St.; Baker 2012a),[64] if they can both be taken to derive from OE *tōt*(*e*)*-burh* "lookout-stronghold", and *Warborow* discussed in association with Sashes below (Chapter 5) might be an exact parallel. The latter is potentially of particular interest, since it looks like an appellative attached to a Burghal Hidage stronghold that went by a separate name in administrative documents. The potential significance of place-names compounding a term for stronghold with an element denoting construction in timber has been discussed elsewhere (Baker 2011, 259–61; 2012b, pp. 320–23). It is possible that such names sometimes reflect strongholds constructed or kept in repair during the Anglo-Saxon period, and therefore relevant to the present discussion. However, the fact that they were in use during the Anglo-Saxon period does not explicitly reveal what that use was, and this must be borne in mind.

That Vikings in England also constructed fortifications –Tempsford in Bedfordshire (ASC A s.a. 917), and Benfleet and Shoebury in Essex (ASC C, D s.a. 893) for example—should not be overlooked. The most famous example of this kind of fortification is the D-shaped enclosure at Repton, Derbyshire, used as a winter-camp by the Great Army in 873–74 (Biddle and Kjølbye-Biddle 1992; 2001). This earthwork encloses an area of c.1.46ha on the former riverbank of the Trent and comprises a large bank and v-shaped ditch dug to incorporate the Anglo-Saxon minster (now parish church of St Wystan) as part of its circuit. Similar D-shaped enclosures

[63] The name and possible identification of *Weardburh* with both the lost *Wæstbyrig* (ASC C *s.a.* 1053) and Gwespyr in Llanasa (Flint, north Wales), is discussed by Coates (1998); Carroll (2010, 251–54) makes a case for Whitchurch (Sh.).

[64] Todber is *Todeberie* 1086, *Toteberg*(*a*) 1177-–94 (Mills 1989, 82–83) and Tutbury is *Toteberie* 1086, *Tuttesbir'*, *Tutteburie*, *Tuttesbur'* 1087 × 1100 (Horovitz 2005, 548). The second element in Todber could alternatively be OE *beorg*, as suggested by Mills (Mills 1989, 3.82–83).

attached to a riverbank have been identified elsewhere in England suggesting the widespread use of this type of fortification by the Vikings (Spurrell 1885, 293–95; Allcroft 1908, 379–99; Dyer 1972; Richards 1991, 22–23; 2000, 38–40; Baker and Brookes forthcoming c); indeed they may have been the archetype for West Saxon "double burhs" in the early tenth century. It is certainly possible that Viking fortifications have also left a toponymic mark on the landscape. In part, though built at the behest of Scandinavians, they may be commemorated by wholly English words, but by the same token, some Anglo-Saxon forts may have been given Scandinavian names if constructed in areas where Viking settlement was intense. The most relevant term is ON *borg* "fortified place" (VEPN:1, 128–29), which may interchange with its OE cognate *burh*, at least in later forms, but seems to be present in a handful of place-names in northern England, such as Borrowdale (We.; Smith 1967a, 138).

Some of these sites may be worth further archaeological examination.[65] Other compounds may also be relevant. In this context, OE *burh-tūn* and its variants have been considered in some depth (Gelling 1989; 1990, 38–41; VEPN:2, 87–89). The precise meaning of the compound in its single literary use is of some uncertainty (DOE), but the context probably rules out a sense "settlement near a *burh*". Instead, Parsons and Styles (VEPN:2, 87) prefer two alternative possibilities to cover its use in place-names. Firstly, names in *burh-tūn* may denote settlements with an administrative link to a *burh*, either through proximity or ownership; or secondly they may indicate settlements that were functionally or visibly similar to *byrig*, perhaps farms surrounded by defences of some kind.

The second of these possibilities fits well with Gelling's suggestion (based on the distribution of *burh-tūn* and on the status of the sites in question) that these were, in Mercia at least, part of an organized system of defence that was in use until the late ninth century. She noted the large number of Burton-type place-names which survived as Domesday manors or parishes or townships, and the concentration of these major Burton names in Mercia and southern Northumbria. There was also a notable concentration of Burtons in Wiltshire and Dorset, but they tended to be "subsidiary settlements" often recorded for the first time in thirteenth-century documents, and there was a marked absence of *burh-tūn* place-names in the rest of Wessex, Kent, Sussex, and East Anglia. In particular, Gelling (1989, 145–47) noted a dense clustering of this place-name type in

[65] A curvilinear relict field boundary delimiting an area of marshy ground on the eastern side of Derwent Water overlooking the mouth of Borrowdale, for example, is an enigmatic feature that remains to be tested archaeologically (National Trust SMR-MNA123168).

the Welsh Marches, suggesting a system of defence against Welsh intruders. This does not mean that other Anglo-Saxon kingdoms, such as East Anglia, felt secure enough not to have such strongholds, and in fact Gelling stressed that different (but possibly semantically equivalent) compounds might have been used in non-Mercian areas. Compounds such as *burh-weard*, *burh-stede*, and *burh-stall* might be relevant. Burpham, one of the Burghal Hidage forts, has *burh* as its first element, probably with the generic *hamm* "hemmed-in land", and may represent a pre-Viking Age fortification, re-used by Alfred and his successors (Gelling 1989, 147–48). Gelling (ibid., 146) has also highlighted the apparently regular spacing of places called *burh-ēg* "fort island" along the Thames, and while these too might have belonged to the pre-Viking period, the strategic importance of their positions would perhaps have survived into the later ninth century, possibly enhanced by the appearance of Viking raiders. On the other hand, defensive toponymy outside Mercia could have been significantly different, perhaps not involving the use of *burh* as the first part of a compound at all.

The possible significance of *burh-tūn* is clear, but it presents difficulties. Without close archaeological examination of a number of such places, it is probably impossible to dismiss the theory that they were fortified settlements, but in a recent discussion, Draper (2008, 249) finds little support for a military connection, preferring a sense "farm dependent on a *burh*", with *burh* denoting a monastic or manorial site. A detailed landscape-historical analysis of all known instances of *burh-tūn* is currently being undertaken by John Blair, whose initial findings suggest an administrative role in association with a central place of burh-type, such as a royal centre or minster, though not necessarily with a central place bearing a name in *burh* (John Blair, research in progress). Given the range of place-names associated with known Anglo-Saxon strongholds, and the wide range of meanings inherent in the Old English vocabulary of strongholds, it seems that the chance of identifying late Anglo-Saxon strongholds by toponymic means alone is slim, and this once more emphasizes the need for an interdisciplinary approach to civil defence.

Minor Defended Sites, Burgates, Turriform Churches, and Anglo-Saxon Towers

Open spaces have been identified inside the defensive circuits of many large burhs. At Wallingford the Kinecroft and Bullcroft areas furthest removed from the waterfront remained undeveloped areas throughout the

tenth and early eleventh centuries (Christie, Creighton, and O'Sullivan 2003; Christie et al. 2004; Creighton et al. 2009; Christie, Creighton, and Edgeworth 2013). Similarly *Lundenburh* comprised a core planned settlement on the Thames front as well as large areas of apparently open ground leading to the Roman town walls (Milne 2003, 42–43; Fig. 18). Several possible interpretations might be offered for these urban spaces, as secure depots for livestock and rural surpluses during periods of warfare; as defendable agricultural lands in their own right; as mustering points for military forces; or places of refuge for displaced rural populations (cf. also Creighton et al. 2009, 74–75). Whatever their purpose—and it is likely that urban spaces were utilized for all of these—the concept of West Saxon defence cannot have been simply to provide refuge, while allowing the enemy to rampage at will. The effect on national morale, not to mention the extra encouragement this would have given to opponents, is unthinkable. Indeed, it is notable that, from the time that the Burghal Hidage system was instigated, Viking armies found it much harder to enter, plunder, and leave Wessex without considerable losses (Abels 1988, 71–72; 1998, 203–4, 294–96). In part, this must have been due to a system of communications permitting armies to be assembled and put on the battlefield, and it is reasonable to assume that some of the observation and signal points were fortified in their own right. Given also the need to protect local populations, it seems likely that other forts existed at a local level.

It is clear that small, individual residences could be used in a defensive manner in necessity, as revealed by the events surrounding the death of Cynewulf in 786 (ASC A s.a. 755 (for 757)). Halsall draws a distinction between defended sites and defensible ones, suggesting that very few of the former existed in the fifth to ninth centuries, but that many settlements and dwellings were effectively defensible to all but the most determined attackers (Halsall 2003, 215–16). The implication is that, up to the ninth century at least, there were few, if any, organized defensive sites below the level of the major fortified places,[66] but that many noble residences were adequately defensible for the needs of the time. These sites hint at security rather than defence; designed perhaps to deter thieves or brigand bands. Of course, the Vikings were more determined attackers than these, and it is unlikely that such an informal system would have been sufficient to provide security against them.

[66] Such as those discussed in Bassett (2007), or those outlined in the Burghal Hidage.

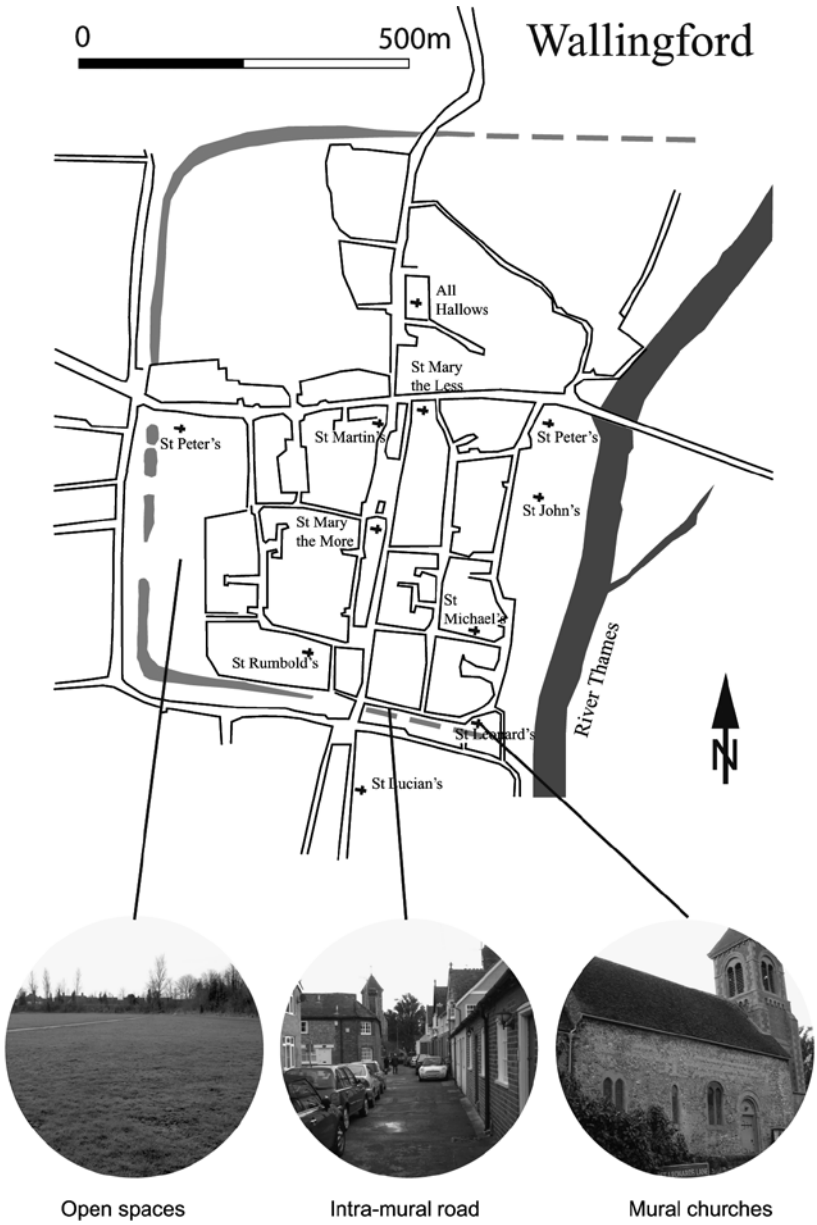

Fig. 18. Many of the characteristic features of *de novo* burhs are still visible at Wallingford, including the substatial intra-mural open spaces of Bullcroft and Kinecroft in the western part of the town, the intra-mural road, and mural churches (in this case the pre-burh foundation of St Leonard's).

The sources are, nevertheless, less clear on the existence of forts of an intermediate size, but where they provide detail of defensive systems being constructed, it is clear that fortified sites could be erected in clusters, without conforming to Biddle's 20 mile rule—or rather surpassing it in a concentrated provision of strongholds. For example, Edward the Elder constructed a stronghold at Towcester (Np.; ASC A s.a. 917), within 10 miles of Buckingham (Bu.; Fig. 19). When he came to reinforce this stronghold later in the same year, the *Chronicle* tells us that he stayed at Passenham (Np.), even closer to Buckingham. Passenham is close to Watling Street's crossing of the Ouse, and it may be that Edward's army was encamped here for the whole duration of the upgrading of Towcester's defences, as a deterrent to any who might try to take advantage of its temporary vulnerability. In that case, they must at least have constructed a temporary fort here.

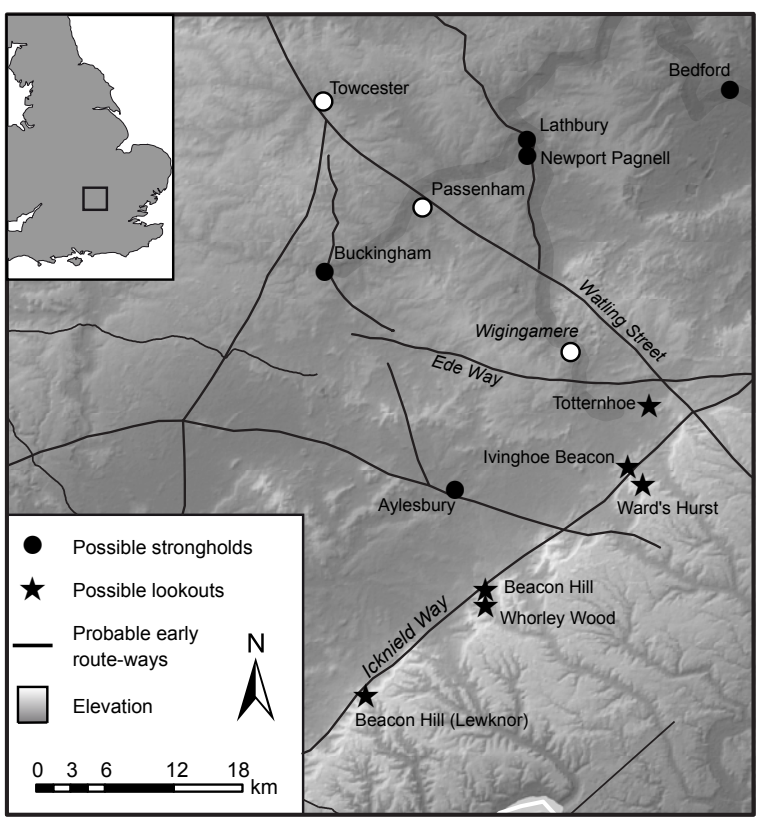

Fig. 19. The context of the stronghold at Buckingham, showing the different fortifications of Edward the Elder.

It is even feasible that the exact site of the camp was chosen because a minor, but useable fortified site already existed, in this instance well within 10 miles of Buckingham. There is strong evidence that the fortified site of *Wigingamere* (ASC A s.a. 917) was located in the vicinity of Old Linslade (Bu.; Dodgson 1997; Haslam 1997; cf. Haslam 1988), less than 15 miles from Buckingham and even closer to Passenham; and further military activity has been proposed at the Iron Age stronghold of Aylesbury (Farley 1974; Farley and Jones 2012) as well as Newport Pagnell (Haslam 1988). Perhaps here, in more obviously hostile territory, the requirements differed, and these fortified sites had more to do with dominating and controlling captured land than providing refuge. On the other hand, it is doubtful that a West Saxon king would have provided less protection or craved less control in Wessex itself, or that individual West Saxon thegns would have left their local landscape unprotected. It is also worth noting that Æthelflæd's and Edward's fortification of Mercia's north-western frontier (ASC s.a. 907–22) involved the construction of a series of similarly closely spaced forts.

Archaeology has revealed a number of sites that have been claimed as fortified manors; the principal physical characteristic of which is the presence of a defensible structure, such as a tower or bank and ditch. These identifications rely on an understanding of the attributes of thegnly status as outlined in the Promotion Law (*Geþyncðo*), a late Anglo-Saxon legal document specifying the ways in which to elevate one's rank. The *Geþyncðo* states that, "if a ceorl prospered, that he possessed fully five hides of land of his own, a bell-house (*bellhus*) and a burh-gate (*burhgeat*), a seat and a special office in the king's hall, then he was henceforth entitled to the rights of a thegn" (Liebermann 1903, 456). Although the precise meaning of *burhgeat* remains unclear, and the *Geþyncðo* is certainly not explicit in this, it may represent a private fortification of some kind, and has certainly been linked to a range of edifices including free-standing stone or timber towers, ringworks, as well as turriform (tower-like) churches of the tenth and eleventh centuries (Cunliffe 1976, 49–52; Hinton 1990, 108–9; Audouy, Dix, and Parsons 1995, 89; Shapland 2008). In most cases the excavators give good reasons for accepting the ascription, and it may be that all of these structures represented thegnly status of some kind.

Excavations in the south-central part of the Burghal Hidage fort of Portchester have revealed a sequence of buildings suggestive of a thegnly-type residence (Cunliffe 1977; Reynolds 1999; Fig. 20). During the tenth century this comprised a range of tightly-arranged buildings, including a large—possibly communal—hall (S15). To the south of this building lay a

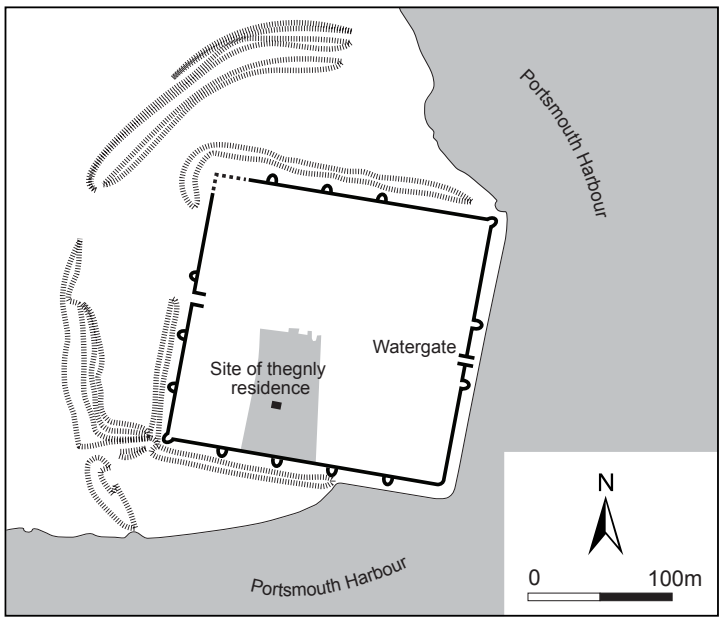

Fig. 20. Plan of Anglo-Saxon Portchester.

second, long-lived, timber hall (S13) which survived into the eleventh century. Inside S13 fragments of a structure were interpreted as the remains of a stepladder, potentially indicating a second storey. During the late tenth- to early eleventh-century phase a flint-built tower-like structure (S18), measuring 4m × 5m was constructed to the side of S13 (Cunliffe 1977, 60). This structure had two phases of construction, the second of which survived the abandonment of remaining timber buildings in the mid-eleventh century. At this time the building was rebuilt on a more substantial scale to about 6m square externally, and appeared to have been contemporary with a small adjacent cemetery of 22 burials, possibly denoting a religious function.

To the excavator this sequence suggested that expected of a thegnly establishment, possibly to be equated with the post-Conquest *halla* mentioned in Domesday Book; starting as a secular hall complex, with the construction of an attached patronal chapel/bell-tower as a secondary development, which in turn continued as a focus for a small burial ground following the removal of the Anglo-Saxon aristocratic focus after the Norman Conquest (ibid., 240). Key to this interpretation was the presence of a masonry tower, which Cunliffe related to the *burhgeat* of the Promotion

Law. Although not a "gate" as such, the tower commanded good views over the principal entrances to the burghal fort, in particular a direct line-of-sight through (possibly over) the western gate and along the main landward approach. Thus, to people approaching the fort, the Portchester tower may well have appeared through and above the burh gateway.

A similar example of a tower beside a town gate is that of St Michael at the Northgate, Oxford (Fig. 21). This was originally a free-standing tower, which seems to have formed part of the north gate of the late Anglo-Saxon burh (Durham 2003). It is 5.85 × 6m square with walls 1.2m thick at the base, and is currently 19.2m high divided into 5 stages. It has been suggested that St George's Tower on the south-western edge of Oxford Castle bailey is also

Fig. 21. Photo of St Michael at the Northgate, Oxford.

of mid-11th-century date. Again, this is a substantial free-standing tower of 4 stories, measuring 6 × 5m with walls 2.7m thick. Anne Dodd (2003) suggests that it may have been the detached bell-tower of the church of St George in the Castle founded in 1074, but both Derek Renn (1994) and Michael Shapland (2007) suggest that it might have been associated with the west gate of the burh, perhaps as the townhouse or the official residence of the Anglo-Saxon Earl of Mercia and his reeve.

Other late Anglo-Saxon towers are less-clearly related to known burhs, but may well have functioned in a similar capacity. Excavations of the manorial site of Sulgrave (Np.) have revealed a comparable sequence to that seen at Portchester (Davison 1977). During the late tenth century a timber hall was constructed on the same alignment and co-linear with a small late Anglo-Saxon parish church. In about 1000 this hall was altered and repaired. Although it retained the same plan, it had a mortared limestone wall at the eastern end, which served perhaps as an annexe, or the base of a tower. Perhaps at the same time a substantial earthen ringwork enclosing the complex was constructed. During the eleventh century another stone building was built to the north of the hall, and the defences were further heightened by a rampart of clay and limestone brash.

Similarly, excavations at Bishopstone (Sx.) have revealed a planned complex of ninth/early tenth-century buildings, built in post-in-trench style, arranged around a compact central courtyard (Thomas 2005; 2010). Included in the complex was a substantial cellared structure (Structure W), comprising a circular pit, 5m in diameter and nearly 2m deep, containing a squared chamber with sides of 2.7m, accessed by a step in the pit-wall. Each corner of the chamber had a curved recess to receive large timber posts, suggesting the existence of a substantial timber superstructure, a tower being the likeliest interpretation.

Analogous to these arrangements can be regarded the earthen enclosures and monumental turriform churches of All Saints, Earls Barton, and St Peter, Barton-on-Humber. In the mid-tenth century Earls Barton was a free-standing tower rising to 19m height in four decreasing stages, measuring 7.3 × 7.3m at the base with walls c.1.2m thick reducing to 0.8m at the top (Audouy, Dix, and Parsons 1995, 85–86; Fig. 22). The base of the tower formed the nave of the church, perhaps with a small chancel to the east, whilst the upper stages of the tower, accessed by a separate first-floor level doorway, may have had a more secular function (Audouy, Dix, and Parsons 1995, 89). It appears to be related to a sub-circular earthwork directly to the north, although no clear stratigraphic relationship exists between the two

Fig. 22. Photo of All Saints, Earls Barton.

features. St Peter, Barton-on-Humber originated during the late tenth century as a small three-celled structure of a narrow eastern chancel, central tower-nave, and western baptistery (Rodwell and Rodwell 1982). The tower is 7.2m square externally with walls 0.8m thick, and rose in two stages to 15.25m; the level of its Norman upper belfry. The church is adjacent to a large manorial enclosure of *c*.5ha defined by a sub-circular bank and ditch (ibid., 308)

The purpose of turriform churches is likely to have been multi-facetted. In addition to a variety of potential allegorical meanings (such as those recently discussed by Stocker and Everson (2006) in a late eleventh-century context), these towers exemplified a structural functionality suitable also to a range of secular uses. Certainly, building in stone could be regarded as a potentially significant way of demonstrating social distance from the less well-to-do. A leading part of this programme of church-building was taken by local lords, who founded churches on their estates; and the association between manor and church is visibly strong in a number of such cases. To patrons who commissioned their construction these buildings served both to glorify God, and to reinforce their asymmetrical position in society (Senecal 2000).

However, towers were not simply evidence of status-seeking lords, but had also a practical purpose. Those self-same individual aristocrats who commissioned these buildings were also responsible for raising the *fyrd*, and it is likely that the visibility and audibility of tower bells afforded by tower-like buildings influenced the physical character these structures took. There is often a clear association between towers and turriform churches and entrances to defensible enclosures. When built into gateways themselves, masonry towers are likely to have operated as significant military obstacles, but in other cases towers accentuated visibility over major route-ways, passes and waterways, whilst simultaneously providing monumental and highly visible statements of military authority.

It might be expected that towers would leave a significant trace in the toponymic record, but few elements have been identified as indicative of such features. The term *stēpel* "a steeple, a tower", may sometimes have been used in reference to watch towers as well as church towers or steeples, but in many place-names it may have denoted "a steep place" rather than any man-made structure (Reaney 1935, 227; Smith 1956b, 151; Gelling 1990, 278–80). Though often used as a later affix for an existing place-name, the element is not common. In a few instances, such as Stapleton (Sh.), known as *Hundeslit* in Domesday Book and first recorded as *Stepeltone* in 1166 (Gelling 1990, 278–79), and Steepleton Iwerne (Do.), which is *Werne* 1086, *Stepelton*(*e*) 1210–12 (Mills 1980, 114–15), an argument could be made for a late Anglo-Saxon or early post-Conquest tower causing a change of name.

More promising is the place-name compound *burh-geat*, which occurs in a number of instances. In place-names, this has not necessarily been associated specifically with thegnly enclosures, Gover *et al* (1934, 202) taking it to mean "a gate in or near an old *burh*' , while Smith (1956a, 62) gives "a town-gate, a manor gate". Parsons and Styles (VEPN:2, 85) consider it possible for the *burh* in such place-names to refer to a fortification, town or manor, and provide instances where the compound may refer to an entrance to Canterbury,[67] to a possible manor gate,[68] or where the meaning is unclear.[69] Percy Reaney (1935, xxix, 263), however, makes more firmly

[67] From the bounds of a charter for Canterbury *meridie uia oþ burhgat* (S 2; Cullen 1997, 574).

[68] From the bounds of a charter for Nackington (Ke.) *æt his burhgatan* (Cullen 1997, 410).

[69] Burgate (Ha.) which is *Borgate* 1086, *Burgat*(*e*) 1227, 1256 and might refer either to the town of Fordingbridge or *Godmanes Ca*(*m*)*p* (Coates 1989, 44). Burgate is very close to the Wiltshire border, in an elevated location (coincidentaly close to a "Nomansland").

the link between *burh-geat* in place-names and the symbol of thegnly status set out in the *Geþyncðo*.

Apart from charter instances, the earliest record of *burh-geat* in place-names dates to the Domesday survey, and in most cases the earliest record is late medieval or modern. This makes it difficult to differentiate from compounds of OE *burh* with ON *gata* "street", which is generally assumed in more northerly instances of Burgate, Boroughgate and the like (Smith 1928, 85, 145; 1967b, 92; 1961d, 203–4; Armstrong et al. 1950–52, 230;). South of the Humber, *burh-geat* is particularly well evidenced in Essex, with eleven known instances. In part, this figure is undoubtedly inflated by Reaney's evident interest in the compound, and many *burh-geat* place-names preserved in medieval or early modern street- and field-names probably remain to be noted. On the other hand, the compound is known six times in Kent (Wallenberg 1931, 4; 1934, 124; Cullen 1997, 31, 128, 359, 410, 574) and twice each in Suffolk (Skeat 1913, 40; Arnott 1946, 43; Baron 1952, 163) and Surrey (Gover et al. 1934, 202, 222), suggesting a predominantly south-eastern distribution. In turn, this may suggest that equivalent place-name compounds describing more or less the same type of feature existed to the west, and *burh-tūn* immediately springs to mind, a compound very widespread in the midlands, Wiltshire, and Dorset, but rare or absent from large areas of Essex, Kent, Middlesex, and Surrey. This, however, probably implies that both compounds essentially refer to thegnly residences, but by different distinguishing features—*burh-tūn* identifying them as defended compounds or estates, *burh-geat* taking the existence of a gate-house to be the most significant distinguishing feature. It is important to note, however, that a large proportion of *burh-tūn* place-names are first recorded in eleventh-century or earlier documents, while this is true of only a few *burh-gatu*. It seems unlikely that a reference to one aspect of thegnly status, presumably visible at numerous sites across the country in the Anglo-Saxon period, would develop into a major place-name. The true significance of places called *burh-tūn* is not yet clear (see above; and John Blair, research in progress), and without careful consideration of individual sites, there is certainly no guarantee that *burh-geat* in place-names refers to thegnly residences rather than "town-gates".[70]

[70] An interesting place-name in this context is Yatesbury (Wi.), the site of a probable late Anglo-Saxon beacon (Reynolds 1995; 2000). The second element of this place-name is OE *burh*. Traditional explanations of the first element derive it either from a personal name (Ekwall 1960; Mills 2003; Watts 2004) or OE *geat* "gate", in a topographical sense "gap, pass"

From a place-name perspective, Reaney (1935, 263) noted that possession of a bell-house was another of the necessary qualifications by which a ceorl could become a thegn, and suggested that place-names containing the compound *bell-hūs* might therefore be relevant. The two examples he cited, Belstead Hall (Ex.) and Belstead (Sf.), which he took to derive from a triple compound *bell-hūs-stede* (Reaney 1935, 241), may actually have different origins (Ekwall 1936b, 159–63; VEPN:1, 78; see also below), but the compound may be more confidently identified in two West Yorkshire place-names, Bell House (Smith 1961c, 159) and Bellhouses (VEPN:1, 80). Again, whether the compound, where it occurs in place-names, has anything to do with the attainment or demonstration of thegnly status, and therefore of defensive enclosures, is open to question.

In all likelihood aristocratic status was expressed through a suite of social signifiers and there was never one single clearly identifiable version of the *burh-geat*. Whilst some apparently combined status, piety, and civil roles in a single composite building, many additional structures were of potential use in systems of civil defence. Beyond the list of turriform churches compiled by Audouy, Dix, and Parsons (1995), late Anglo-Saxon urban mural churches such as St Mary (above the Northgate) and Holy Cross (above Westgate) in Canterbury (Brooks 1984, 35), or St Alphege (on the wall), London (Westman 1987) may well have played a role outside the church in civil defence activities.

Discussion

The study of fortifications during the late Anglo-Saxon period has emphasized the need to understand the nature of warfare, power, and military organization in Anglo-Saxon England as a way of exploring the emergence of an English state during and immediately following the first Viking Age.

(Ekwall 1960; Gover, Mawer, and Stenton 1939, 264). Doubt has been cast on the latter explanation because of its apparent inappropriateness topographically, but Reynolds suggests *geat* in this case could refer to the prehistoric enclosure around the beacon platform, which he suggests may have served as a *burh-geat*. It is certainly not the case that Yatesbury preserves a version of OE *burh-geat* (*pace* Reynolds 1999, 63), but it is possible that *geat* refers to a notable gap in the prehistoric enclosure surrounding the stronghold. A further and perhaps more likely alternative is to identify the *geat* with a gap in Wansdyke, through which movement could be controlled (see above, pp. 44–48). Such a gap—*Woddes geat*—existed to the south-east of Yatesbury, with which it was connected by a stretch of herepath and the Ridgeway (Reynolds 2005, 169, fig. 16, 3B). If Yatesbury held a special role in regulating movement through this gap, then it may well have been named from it.

Fortress-building—both great and small—linked together territoriality, landholding, status and military obligation to the crown in ways that would underpin the fabric of late Anglo-Saxon social life (Abels 1997, 259; 1998, 208). However, it is clear from this preliminary survey that there are a number of chronological issues to consider in assessing the emergence of these military institutions. Whilst the limits of kingdoms may well have been demarcated very precisely before the Viking incursions, the forms which defensive systems took appear to have undergone considerable change over the ninth to eleventh centuries.

Luttwak's discussion of Roman "Grand Strategy" has not found favour with most historians of the period (see preface and footnote 1 above), but his suggestion that these systems can be evaluated in terms relative to the military threat they were designed to counter, ranging from low-density hit-and-run raids to the maximal threat of invasion, has merit. "Each should be evaluated accordingly, for defensive systems are normally intended to provide a *finite* barrier only against a particular kind of threat, while absorbing, deflecting, or at least filtering other threats greater or lesser in intensity than those against which the system is designed" (Luttwak 1976, 61). At the time of Offa this system operated on the principle of frontier defences, working in tandem with mobile forces and comparatively poorly-defended settlement, where the principal focus of high-order activities remained in the main extra-mural (Haslam 1987b, 87–88). All indications suggest that they were designed to combat low-intensity threats, not maximal invasion. The defences of major sites, coastal trading centres, ecclesiastical and rural settlements alike, did not represent significant obstacles to organized opposition, and the main active element of this policy was the deployment of mobile forces along defensive frontiers, behind which dispersed institutions could operate in relative security.

Although the archaeological evidence for it is weak, the possibility remains that alongside this system existed a network of emergency strongholds, often in isolated hillfort locations, which could operate as refuges in the event of higher-level warfare. Occasional findspots from these sites suggest that they may have witnessed intermittent use throughout the early medieval period, most probably during periods of large-scale offensives. The transient and sporadic nature of this suggested occupation is unlikely to have left a stronger or more permanent archaeological signature.

Potentially, this model down-plays the role of Mercia in the development of the earliest fortified towns. Whilst regional central places do

appear to have emerged during this period the evidence for their military capabilities fits more closely with the theatre of small-scale endemic warfare of the kind described by Halsall (2003), rather than with higher levels of open conflict. This characterization is supported by the events of the *Chronicle*—before the time of Alfred, defenders rarely held out in fortifications against Viking aggression. Their defences simply were not designed for it.

Significant advances in military strategy are recognized in the archaeological record of the late ninth and early tenth centuries. The pre-existence of Mercian strongholds, including an established convention of boroughwork, could conceivably have been used as a prototype for Alfred's burghal system, facilitating its swift and strategic implementation across Wessex; although a Frankish model might also have been followed (Vercauteren 1936; Brooks 1971, 81; Wallace-Hadrill 1975; Sawyer 1982a, 88–90; Carver 2010, 130–2). Significantly, unlike the Mercian model of defence, there was a systematic approach to organizing the landscape for defence-in-depth, based on high-order defended regional strongholds built to a common strategy, and supported by a hierarchy of lesser defence works (Fig. 23). Although archaeological evidence shows a wide variety in the size and complexity of these strongholds, the defensive circuits themselves apparently followed a standard scheme, either utilizing or enhancing pre-existing defences, or constructing earth-and-timber ramparts to a common design. It was a scheme calculated to meet the threat of major incursions. At its heart this system, covering most of southern England, relied not on frontier defences, but on self-contained strongholds able to survive attack without additional support, but also able to provide mobile forces for the relief of other besieged places. This was not preclusive frontier defence, but was far more resilient, providing even coverage against incursions from any direction. Furthermore, it denied the Vikings the luxury of time. "Sooner or later," as Luttwak (1976, 131) succinctly emphasizes, "the offense will be faced by the superior strength of both fixed and mobile elements acting in combination". It was Alfred's concern to ensure the smooth operation of these two elements; by dividing his forces into two rotating contingents, he ensured that he was always able to field an army whilst maintaining enough *fyrd*-men for the defence of the localities (ASC s.a. 893; Abels 1998, 196).

Evidence that burhs were constructed to a coordinated and planned system has often been argued from an observation linking the length of a settlement's defences with its relative military burden. David Hill's (1969;

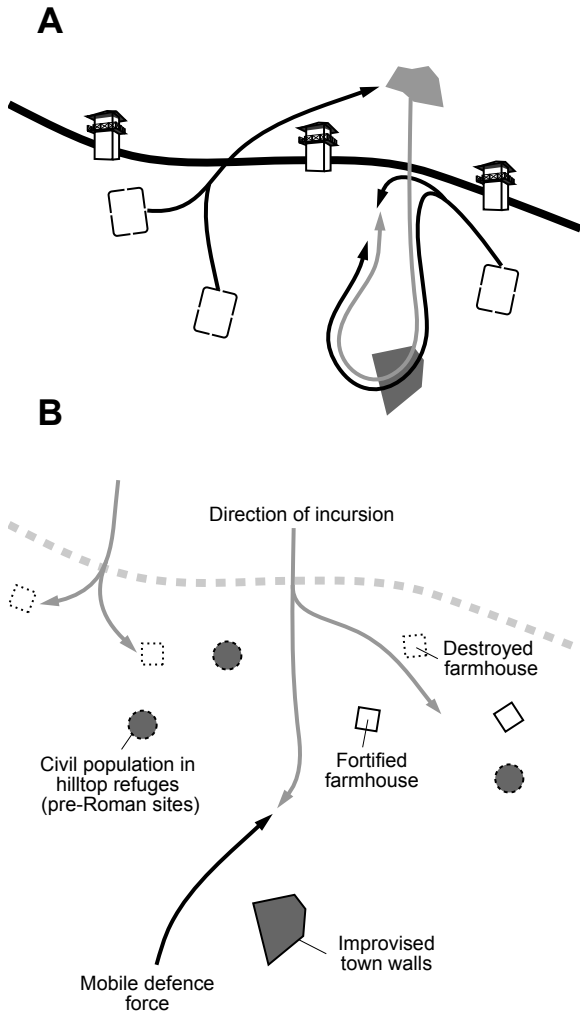

Fig. 23. Models of warfare after Luttwak, showing A) Linear defence, B) Defence-in-Depth.

1981, 85) influential thesis suggested that the length of the burghal defences correlates in many cases with the hidage assessment figure in the Burghal Hidage when using the formula in the Nowell transcript.[71] Some correlations are indeed very close: Winchester's 3033m of Roman walled

[71] The attached formula reads: "For the establishment of a wall (*weal-stilling*) of one acre's breadth, and for its defence (*waru*) sixteen hides are required. If each hide is represented by one man, then each pole (of wall) can be furnished with four men" (Rumble 1996a,

defences (the equivalent of 2446 hides) are assessed at 2400 hides by the Burghal Hidage; Wareham's 1993m (1607 hides) of bank and ditch at 1600 hides (Hill 1969). However, examination of all the dimensions ascertained archaeologically and their Burghal Hidage equivalent demonstrates few genuinely close correlations, except, perhaps significantly, amongst *de novo* burhs, where approximately half have less than a 10% discrepancy.

Martin Carver, in discussing the planform of *de novo* burhs, has likened the regular grid pattern of streets and *insulae* to that of a Roman military camp (2010, 133). He suggests that: "originally these quarters were places to pitch tents, but as the territory came under control they became built-up and began to trade...It is not impossible that the occupation of tenements ultimately derived from rewards for military service, in the Roman manner". Support for this model might be provided by the hidation of *de novo* burhs when good correlations with wall lengths are found, however to suggest that promontory burhs may also have started out as rectilinear forts in imitation of Roman camps (ibid., 134) surely stretches the evidence too far. Indeed, the wider influence of Roman prototypes on burghal plans, as expressed by Carver, may be overstated. For many, if not most, of the sites listed in the Burghal Hidage there is no evidence for a regular planform, nor is there an obvious umbilical link between Roman camps in earth and wood of the first and second centuries AD and the burghal defences of the late ninth or early tenth centuries. Far closer analogues are surely to be found amongst the orthogonal street plans of eighth-century Hamwih and the defensive ramparts of Wessex's Iron Age multivallate hillforts. For Carver, the influence of Rome is ideological as much as strategic—a corollary of Alfred's innovative vision for his kingdom and its position within Christendom. It denies, therefore, the ability of West Saxon military planners to learn from the landscape in which they operated and to make choices based on the range of defensible sites already available. Whatever the inspiration for individual strongholds we have seen that the revolution in civil defence under Alfred and his successors was not in military engineering but in the creation of a strategic network of defences: permanently garrisoned, mutually-supporting, and providing regional coverage.

This policy was reinforced and elaborated at the beginning of the second millennium when renewed Viking incursions again threatened to overrun the major late Anglo-Saxon institutions. As during the earlier phase, the great cost of re-fortifying burhs (whilst simultaneously building ships and

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34). As one pole can be reckoned as 5½ yards—or 5.03m—one hide is therefore equivalent to 1.26m of wall (Hill 1969, 90).

raising Danegeld) made it convenient to utilize existing strongholds within this system, often replacing earlier fortifications that had fallen out of use. However, the tenth century had also witnessed a growth in the variety and scale of minor defences, paralleling the expansion of an aristocratic military culture. Although relatively little is known about the administrative activities these thegns undertook, it is likely that they included the maintenance of local justice and taxation, as well as military service. Structures of a martial flavour—the physical manifestation of thegnly culture—certainly betokened prestige, but also had a very real purpose in the civil defence of the localities and were linked with one another in organic networks suited to local conditions. Moreover the increased emphasis on mobile forces in civil defence of the tenth and eleventh centuries may conversely have strengthened the public role of king's thegns and their retainers.

The evident link with aristocratic control should make us mindful of some of the non-military functions of burh and minor defended sites. Besides military functions, the construction of fortified enclosures may have been connected as much with status as defence. The regularity of enclosed spaces, the arrangement and outward symmetry and uniformity of fortification works great and small indicate that the display of power was also important. The wish to monitor access to markets, commercial outlets and trade, or the desire to control communications and participation in civil assembly, are amongst many factors which may equally have contributed to the shape, location, and success of sites.

Clearly this broad-brush characterization of early medieval military strategy necessitates closer and more detailed analysis. Nevertheless, it raises a number of themes for further research as well as highlighting significant gaps in our knowledge of later Anglo-Saxon society. The comparative assessment of archaeological evidence in relation to overarching military strategies has stressed the interrelationships that existed between diverse functioning elements at different times. Whilst it is important to gain understanding of the development of individual sites, this approach has highlighted the need to appreciate regional groupings of sites, and how major fortifications functioned as part of more complex defensive networks. Such a study of systems of sites facilitates not just the assessment of the comparative origins of military structures, but also the complexities of developmental dynamics (how and why systems change over time) and reflexive settlement interaction (the effect emergent burhs have on each other). It also serves to widen the discussion of military organization be-

yond major sites, to include all of the features recorded archaeologically, for which documents such as the *Rectitudines singularum personarum* hint at a martial use. Only by studying sites comparatively in this way, can the palimpsest of military features be teased apart to form coherent and logical strategies.

One of the caveats to this approach comes in the form of the system listed in the Burghal Hidage itself. Detailed source criticism of the text, as has been carried out by Brooks (1971; 1996) and others, reminds us that the list compiled in Nowell's sixteenth-century transcript may have been subject to numerous additions, deletions, and corruptions, whether by royal clerks or by monastic copyists or scholars. Nor (should the list indeed be relatively complete) does the system it details need either to have been built at one point or to a single purpose. In contrast to some interpretations of the Burghal Hidage, burh-building during the early tenth century under Edward, Æthelred, and Æthelflæd is documented in the *Chronicle* as a piecemeal accumulation of strongholds forming no clear network of military contact with one another. Discrete elements may nonetheless have operated to a similar rationale, the group of north-west Mercian burhs fortified by Æthelred and Æthelflæd appear to represent a coherent in-depth system of territorial control put together over a period of some fourteen years between 907 and 921 (D. Griffiths 1995). In each case the web of relationships which existed between different elements of the system require detailed analysis; examples of which are presented in the following case-studies.

"Systems" Thinking

Two issues in late Anglo-Saxon civil defence can be used to illustrate the idea of systemization: the treatment of frontiers and the administration of strongholds. As modelled above, the change from preclusive perimeter defence to defence-in-depth carries with it a number of attendant implications. It meant that warfare and military organization shifted from being a frontier concern to affect a much deeper territory. In contrast to perimeter defence, defence-in-depth assumes incursions will eventually take place, so the frontier frequently receives only minimal infrastructure; the emphasis is entirely on the establishment of fortified islands supported by mobile forces. Unlike frontier defences, in which the entire threatened perimeter needs careful demarcation, such a system can be laid out in piecemeal fashion across parts of a territory and utilizing large or small strongholds.

It is possible that the Burghal Hidage sites reveal some evidence for the chronological implementation of this strategy, indicated by regional differences in the siting and form of burhs (Fig. 24). In the Wessex heartlands of the southwest counties are the primary clustering of hilltop refuges. This function is clearest in Somerset, where it is apparent that listed burghal forts existed next to other ecclesiastical and royal centres. The minster and shire centre of Somerton lay beside the fort at Langport, and there is a pairing of the minster and royal estate of Cheddar beside the fort at Axbridge, as well as Athelney and Lyng (Aston 1984). Similarly elsewhere in the southwest hillfort burhs like Pilton, Halwell, or Chisbury are also unlikely to have been intended as permanent settlements and are probably interpreted more correctly as temporary refuges for the surrounding countryside. These fortifications may date back to an older system of civil defence, and in some ways may make sense of Alfred's retreat to Athelney in 878.[72] These older fortifications may have survived into the Burghal Hidage simply because the economic and administrative system on which they relied remained essentially unaffected. But in this zone there was also some attempt made to defend existing centres of authority, such as minsters and royal centres, particularly in the refurbishment of Roman town circuits, and the reuse of Roman forts. In addition there was the use of a number of promontory locations, such as Malmesbury, Lydford, and Shaftesbury, which seem to continue a tradition of defence based on inaccessibility and topographical utility.[73]

In contrast with this pattern in the southwest, around the edges of this zone is a separate area in which all of the *de novo* burhs are located. These sites, such as Wareham, Wallingford, Cricklade (as well as probably Oxford, Lewes, Southampton, and *Lundenburg*) are noticeably closer to the frontiers of West Saxon territory, and appear to have been better equipped for counteroffensives. Unlike the south-western burhs these sites appear to have locations more clearly responsive to the strategic realities of the ninth and early tenth centuries, positioned on major waterways and coastal landing places in order to restrict movement around southern England. This is most clearly articulated by the Burghal Hidage sites along the Thames where Oxford, Wallingford, *Sceaftesege*, and Southwark were all located at points facilitating movement into the Danelaw (Hinton 1996, 157). Taken

[72] Significantly Athelney has in its hinterland the greatest number of hundred meeting places of any of the burhs, and it may have been this central position within a network of local administration which determined Alfred's decision to go there.

[73] Though not apparently all, e.g. Sherborne.

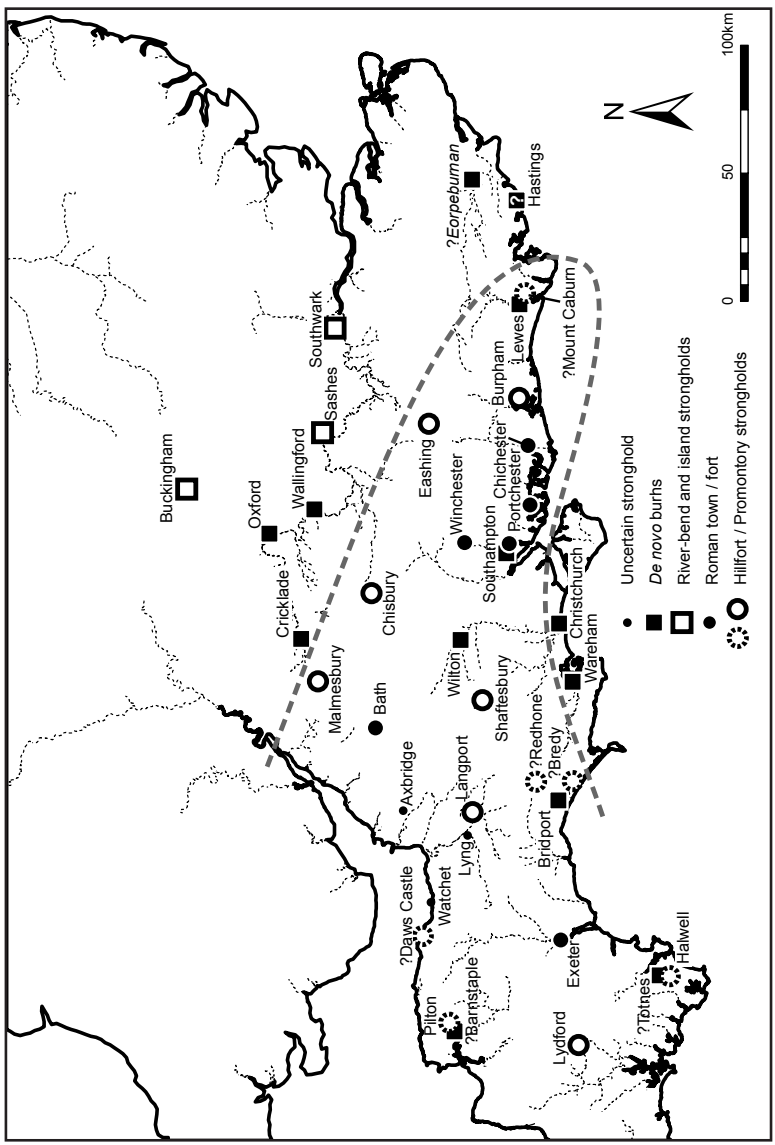

Fig. 24. Map of Burghal Hidage strongholds, and the form that these take, after Hill (1996). Significant is the distinction between defensive sites for most of heartland Wessex, based on ready-made Roman and prehistoric strongholds, and frontiers to the south, north, and east, where the majority of *de novo* strongholds are sited. The transition from one system to the other is suggested by the close proximity of planned towns and earlier promontory forts listed in the Burghal Hidage at Barnstaple (Pilton Camp) and Totnes (Hallwell Camp; both De.), as well as Great Bedwyn/Chisbury (Wi.) and Cricklade/Malmesbury (Wi.) discussed in Chapter 4. Undated, but possible early medieval, defences at Daws Castle (So.), Redhone or Bredy (Do.), and Mount Caburn (Sx.), may provide further evidence of the same process.

as a group, these strongholds suggest a return to earlier preclusive security, perhaps in tandem with mobile river patrols, defining a perimeter in Mercia, but denying passage into the West Saxon territories behind the frontier. A possible context for this situation—or at least the inception of the strategy—is the period after the Treaty of Wedmore in 879–80, when a border forward of this line was defined by the treaty between Alfred and Guthrum; and perhaps even after the occupation of London in 885–86, when the Mercians submitted to Alfred, enabling him properly to fortify this perimeter line (Davis 1982; Dumville 1992c).[74] Edward the Elder's assumption of control over Oxford, London, and their associated lands upon the death of Æthelred of Mercia in 911 provides another suitable context (ASC AD).

The analysis of military sites in this way opens up a number of multi-scalar themes in the chronology and form of defensive systems. Can different systems be compared and contrasted with the archaeological similarities and differences between sites? Does, for example, the morphology of burhs relate to specific strategic initiatives at different phases of conflict? Can military sites, known only archaeologically, be made to "fit" chronological systems of civil defence? By focusing on the networks created from local forts and strongholds, beacon sites and lookouts, and routes of communication, it may be possible to provide a military and social context for the burghal system. Some of the elements that make up these systems are discussed more fully in the next chapter, and explored in relation to such wider questions in the subsequent case-studies.

A second issue that emerges from this characterization of late Anglo-Saxon civil defence concerns the administration of strongholds themselves. The shift from protected institutions to garrisoned hard-points has already been noted. Related to this development are questions about the organization of forces charged with the manning of fortifications. In contrast to the *ad hoc* systems of levying and deploying *fyrd*-men both to challenge forces in the field and defend major institutions, Alfred's rotational contingents were assigned closely to recognizable fortifications. This policy has been used to explain the apparently close correlation between certain Burghal Hidage figures and archaeologically attested fortifications (Hill 1967a; 1967b; Biddle 1970b; Aldsworth and Hill 1971); however, it is clear that such burh-work was subject to considerable variability (Brooks 1996b). A potentially fruitful avenue of investigation is to calculate the manning ratio of defined defensive circuits as a way of examining the scale of duties

[74] A different interpretation of this pattern of burhs is made by Haslam 2006, and pp. 32–33 above.

imposed on warland peasants during phases of conflict. As it is noticeable that the size of strongholds group into clear classes these calculations may in turn be related to different levels of civil administration.

Manorial or thegnly residences such as the late tenth-/early eleventh-century enclosures excavated at Trowbridge and Faccombe Netherton can be compared favourably with the Burghal Hidage assessments of Lyng, Lydford, and Southampton, whilst the larger Goltho Period 5 enclosure, also of a tenth- to eleventh-century date, is close in size to Halwell and probably *Eorpeburnan* (Fig. 25). Indeed, the actual size of the Lydford and Lyng defences, at around 300m, is broadly comparable with Goltho Period 5 and its 337m circuit. Together these sites appear to form a coherent group of enclosed manorial centres containing hall-building complexes, and often with associated extra-enclosure chapels, perhaps marking them as the concern of middling thegns, as defined by Senecal (2000), with holdings worth maybe £5 to £40.

Of a different order of magnitude, Reynolds' (2003) major settlement modules—for example the minster enclosures of Bampton, Bisley, and Lambourne, and the secular ovoid enclosures of Barton-on-Humber and Puxton—represent archaeological examples of 500-hide fortifications, equivalent to Burghal Hidage sites such as Hastings, Portchester, and Watchet (Fig. 26b). The Barton-on-Humber enclosure circuit is dated to the ninth century or earlier, and is almost 629m in length, requiring almost exactly 500 hides for its upkeep. Almost identical in size, the length of Portchester fort ditch is only 8m longer. Significantly, both Barton-on-Humber and Portchester are also commonly cited for their masonry towers, and it may well be that it is this class of enclosure which represents important royal thegns (*proceres* having estates valued at around £40 and above) charged with wide-reaching civil defence duties beyond the remit of other local lords.

At a higher end of the scale we are able to calculate the likely circuits, and the equivalent hides required for their upkeep, of several putative burghal towns. Of these Avebury (at 840 hides) and Marlborough (at 960) are comparable with the Burghal Hidage assessments for places such as Bridport (at 760) and Bath (at 1000), but also the late tenth- to early eleventh-century emergency burhs of Old Sarum (834 hides) and South Cadbury (811 hides) (Fig. 26a). Right at the top sit several high-order settlements, roughly twice the size of these late planned burhs. These include *Lundenburg*, the central planned core of which comprises an area of some 2400m or 1925 hides; significantly not far exceeding that entered in the

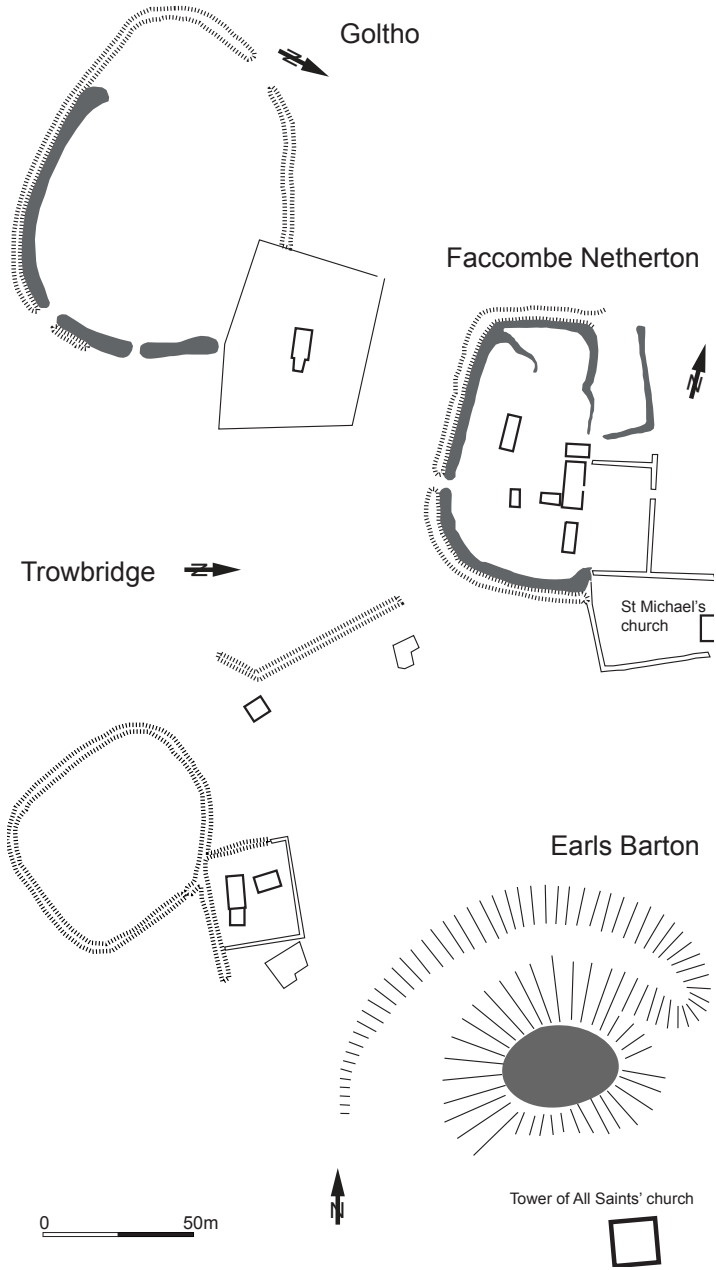

Fig. 25. Comparative plans of manorial compounds: Goltho (Li.), Faccombe Netherton (Ha.), Trowbridge (Wi.), and Earls Barton (Li.).

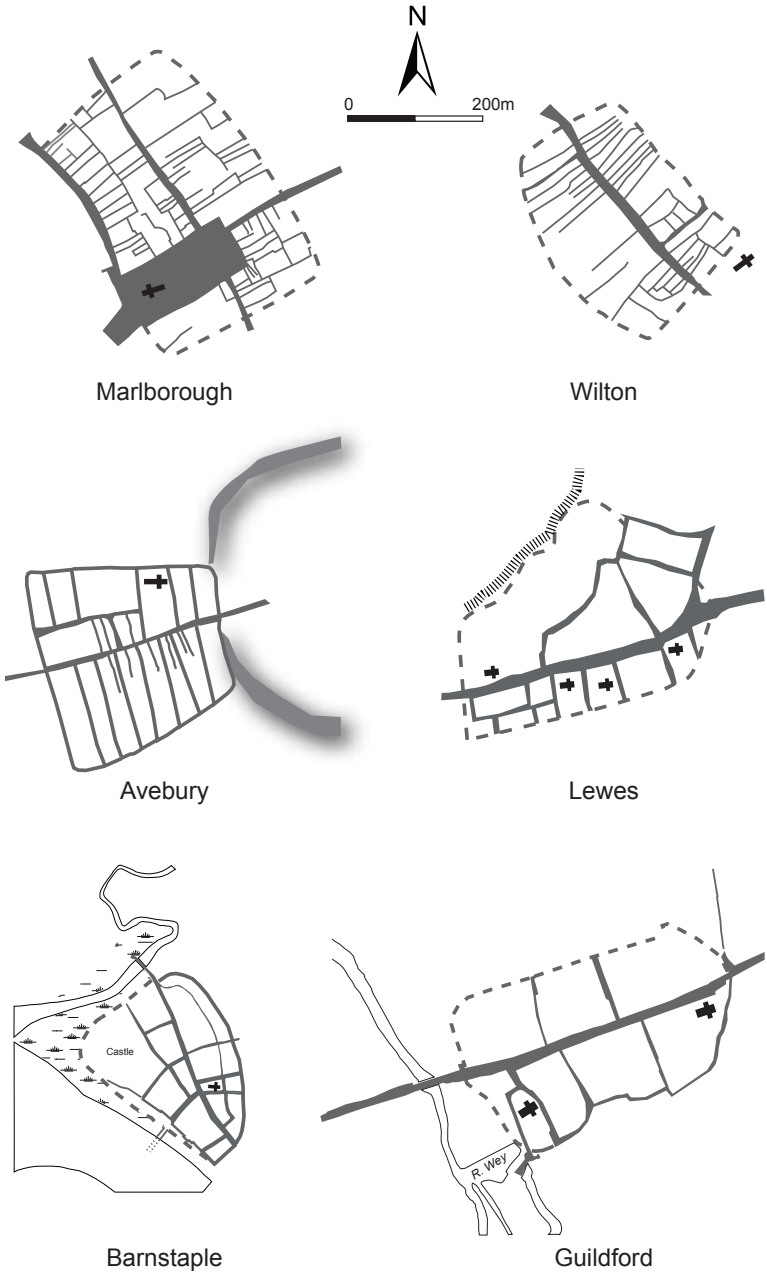

Fig. 26a. Comparative plans of major settlement modules of the rectilinear planform type (Marlborough, Wilton, Avebury (all Wi.), Lewes (Sx.), Barnstaple (Dv.), and Guildford (Sr.)).

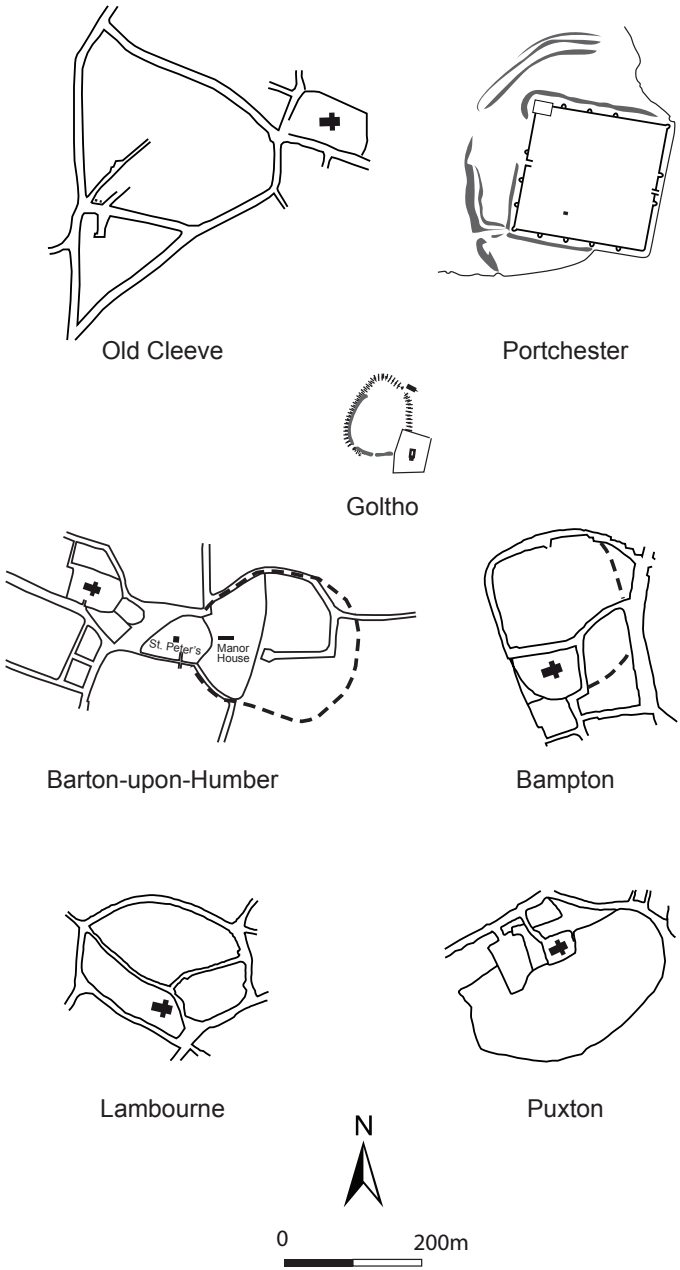

Fig. 26b. Comparative plans of major settlement modules of the curvilinear planform type (Old Cleeve (So.), Portchester (Sx.), Barton-upon-Humber (Li.), Bampton (Ox.), Lambourn (Be.), and Puxton (So.)).

Burghal Hidage assessment for Southwark at 1800; and Canterbury where the 2760m of Roman walls equate to nearly 2200 hides (Fig. 27).

Variations such as these must, in their extremes at least, be related to function. At one end of the scale are the small defended enclosures, best regarded as defensive sites of thegnly vassals, at the other, large-scale fully-urban complexes. Between these extremes are strongholds designed as part of the wider defence of the countryside, and therefore the clearest articulation of broader defence policy and the territories of responsibility. Conclusions such as these are certainly tentative at present, but provide the first method by which to relate the administration of civil defence to the range of aristocratic social ranks, and in turn explore some of the links between landholding, administration and civil defence. Further investigation of these ideas is outlined in following chapters.

Multi-disciplinary Approaches

It remains to be seen whether patterns in these sites can be related to political and economic developments over the later Anglo-Saxon period. As much as anything, this chapter has underlined the significance and the potential problems of multi-disciplinarity. Difficulties concerning terminological usage have already been noted, and adoption of terms by different disciplines to cover separate, specialized meanings, can cause almost intractable complications, especially when long-term use of a word endows it with considerable semantic baggage, as is the case with burh. In the present study, an attempt has been made to circumvent such problems by employing a policy of parallel usage, with the difference indicated by font and, where relevant, by word-form. It must be admitted that such a solution is far from ideal, and as far as possible the term "stronghold" is used in preference to other synonyms for "fortified site" or burh. Collaboration between the disciplines is the best way of minimizing such difficulties.

The importance of an approach that brings together archaeological, philological, and documentary evidence will be even more obvious in Chapter 3, where the physical characteristics of some of the features and defensive elements discussed are of an even more ephemeral nature, but it is worth dwelling on the issues raised by multi-disciplinarity. Perhaps most problematic is the question of fitting material and linguistic evidence into a single chronological framework. While individual phases of an archaeological site may be datable to within a well defined period, attempts to use these as temporal pegs on which to hang toponymic references to strongholds are obfuscated by continual re-use of sites for similar, in this

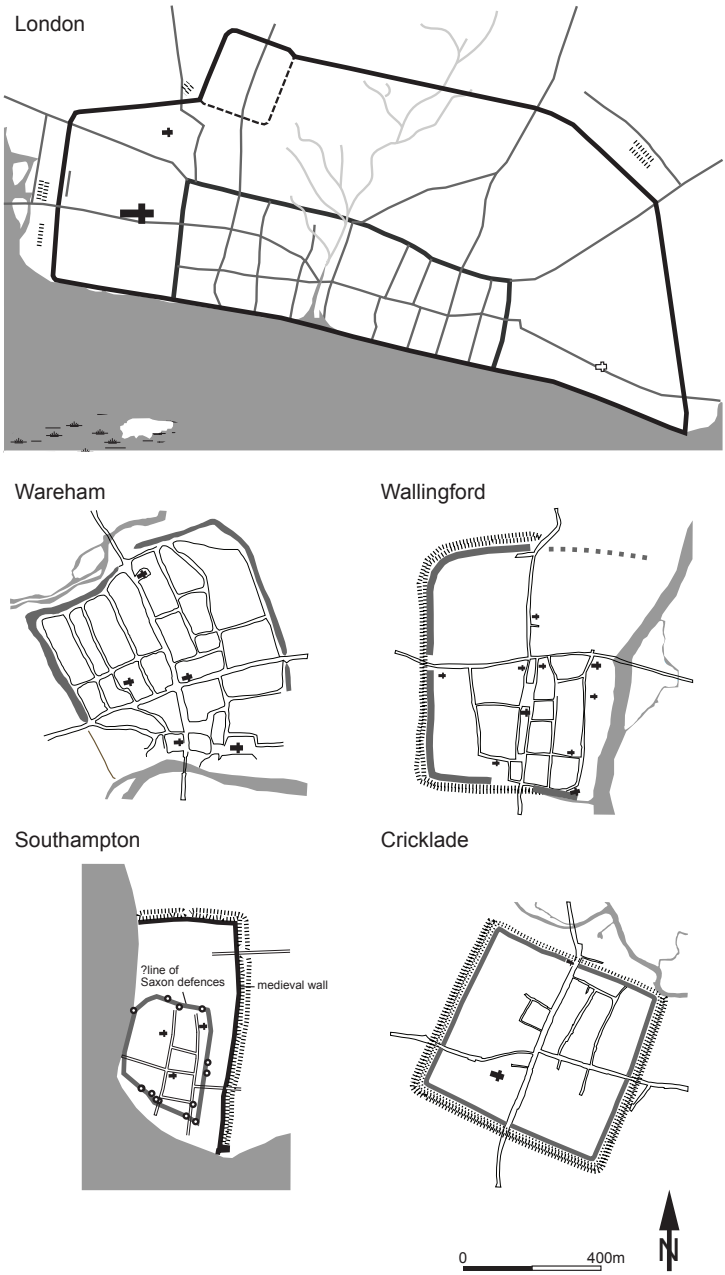

Fig. 27. Comparative plans of *de novo* burghal towns: London, Wareham, Wallingford, Southampton, and Cricklade.

instance defensive, purposes. Place-names too are subject to replacement, but can sometimes show considerable longevity. Only in extraordinary circumstances would it be possible to date the first use of a place-name on the basis of the date of its first documented form alone; a place-name first recorded in Domesday Book may have been in use for hundreds of years, or may (in very rare cases) have been coined in the 1080s. Taking the chronology of an individual place-name further than this involves an element of subjectivity. Sometimes, the most satisfactory context for a "stronghold" place-name may seem to lie in the late Anglo-Saxon period and to be provided by a closely dated archaeological feature, but it is seldom possible to achieve close synchronization of this kind for individual sites, and the wide range of possible applications for which an individual place-name element may be employed adds a further layer of complexity. The fact that relatively few recorded or archaeologically attested late Anglo-Saxon fortified sites actually have place-names indicating use as strongholds is salient.

The problem is even more acute where features named in the toponymic record might be labelled metaphorically—as seems to be the case with some instances of OE *fæsten*, and could also be the case with, for example, OE **tōt* (see Chapter 3)—not because they were ever used as military strongholds or lookout sites, but because they resemble such things to the untrained eye. With this in mind, the strength of the present approach for providing a better understanding of place-name terminology should not be overlooked. It is only, for instance, the archaeological evidence for Iron Age hillforts that permits the conclusion that, in many place-name instances, OE *burh* refers to prehistoric fortified sites.

The crucial role of place-name studies in identifying features of archaeological significance is well known (Gelling 1997, 130–61)—where topographical surveys and excavation cannot be undertaken, where they prove ineffective, or where earlier features have been destroyed, toponymic studies can provide vital data, even in cases where that data is yet to be analysed or properly interpreted (cf. *burh-geat* above). Again, the importance and subtlety of the evidence place-name research is capable of providing are demonstrated in Chapter 3 and in the case studies, but without the benefit of archaeological and topographical information, they would perhaps not be fully appreciated. Nevertheless, there is a danger of circularity, with the evidence from one discipline being used to "prove" the significance or interpretation of evidence from another. For example, if, on one occasion, a **tōt* place-name happened to coincide with archaeological evidence one of a number of interpretations of which was as a viewing

platform of late Anglo-Saxon date, it would be natural and reasonable to use the place-name evidence to sway the argument. A normal progression from this would be to study other places called **tōt* and other sites with a similar archaeological signature, whether or not they coincided, on the assumption that each new instance might mark the location of a lookout site. It would be wrong, however, to extrapolate from the evidence of a single site, that all such archaeological evidence, whether coincident with **tōt* place-names or not, should be interpreted in the same way, or that all **tōt* place-names referred to sites with viewing platforms of that kind, although it may be considered a strong possibility. It may be impossible completely to avoid such problems—and certainly this volume does not claim to do so without exception. There are many instances where topographical likelihood must lead to tentative suggestions of the existence of a site for which there is otherwise little evidence—but an attempt has been made to be as circumspect as is possible and reasonable.

Apparent contradiction of different forms of evidence presents a more obvious difficulty. Multi-disciplinarity is perhaps most tested when archaeological data suggests one set of circumstances, while toponymic or documentary evidence points to another. In reality such opposition is often, to some extent, a theoretical rather than a practical issue if each set of data is considered within a rigorous interpretational framework. The various historical and landscape historical sources have unique and shared limitations. The field of knowledge and interpretative parameters within which each one operates are separate but overlapping, and a careful approach allows the various disciplines to be complementary rather than confrontational. The issue is not so much establishing a hierarchy of validity, with one form of evidence given priority over another, but understanding the relationship between a number of different evidential approaches. Indeed, one of the aims of the present work is to pay equal attention to all forms of evidence, even if the relative emphasis necessarily changes.

Conclusions

In the south of England a number of late Anglo-Saxon strongholds are known from contemporary written sources, archaeological evidence, and place-names. Although these structures can be classed loosely under the heading of burh, they range in size and function from small defended hardpoints to fully-urban centres. Despite this variability, there are good grounds for regarding the majority of these sites as a group. Excavated

examples have displayed remarkable points of similarity, particularly in the form, structure, and chronological development of defensive circuits. Wherever the evidence is sufficiently detailed, it points to a sudden and concerted period of timber and earth construction, often followed by a second phase in stone. Many also adhere to a rigid spatial system, in all probability imposed upon a landscape to an overarching strategic purpose. Detailed examination of these spatial and chronological factors has allowed for changes in the military policy to be recognized, related to the changing level and nature of perceived threats, systematic defence-in-depth emerged as a response to Viking incursions, not before, as a fundamental revolution in socio-military policy. In keeping, it is argued that early strongholds, such as appeared in Mercia during the eighth century, belong to a wider tradition of fortification which emerged over the middle Anglo-Saxon period that included defended hillforts and minor settlement enclosures. These earlier traditions no doubt influenced the development of strongholds in the later ninth and tenth centuries, and the emergence of the burghal "system" itself is likely to represent if not a gradual, at least a piecemeal expansion of these architectural ideals. Nevertheless, the coherence and uniformity displayed by the archaeological case-studies outlined in the following chapters bear witness to a substantive reorientation of settlement and defence, representing, in all likelihood, the guiding influence of the West Saxon kings Alfred and Edward the Elder.

CHAPTER THREE

CHARACTERIZING ANGLO-SAXON CIVIL DEFENCE (COMMUNICATIONS)

Introduction

The preceding chapter takes static defences as its central focus. Strongholds, refuges, and other types of defensible site are a crucial element of militarized landscapes and are particularly well suited to scrutiny by archaeological and other approaches. Such monuments have consequently received considerable scholarly attention and rightly assume an important position in the study of Anglo-Saxon military organization. Early medieval warfare as depicted in contemporary sources, however, is characterized by movement. Rather than with those forces with defensive capabilities, until the late ninth century the advantage in martial conflict almost always lay with the aggressors who were able to exploit their high mobility and tactical acumen to devastating effect.

From the autumn of 867 until 878, when the Viking Great Army was defeated at Edington, the narrative sources emphasize the speed with which Viking forces could move, seemingly at will, to attack central places deep in the heart of Mercia, East Anglia, and Northumbria. In 867 they swept from York to Nottingham from where they could not be dislodged by the combined forces of Mercia and Wessex (ASC A 868). In 869 a similar lightning strike took Ivarr and the Great Army from York to Thetford, apparently catching King Edmund by surprise , with fatal consequences (ASC A 870; Fig. 28).

In both of the forms of warfare defined by Halsall (2003)—small-scale plundering raids and larger-scale campaigns—the movement of war-bands over enemy territory is regarded as an essential feature in the conduct of war. Battles between the major middle Anglo-Saxon kingdoms were often carried out deep within the territory of adversaries, even if little land changed hands as an outcome. Similarly, throughout the major campaigns of the Vikings, armed hosts penetrated far into Anglo-Saxon territories and were able to retreat again successfully, maintaining the integrity of their war-bands, and often heavily laden with booty. Besides providing the logistical and financial support for an army on the move, harrying lands served also to draw the enemy to confrontation. This much can be sur-

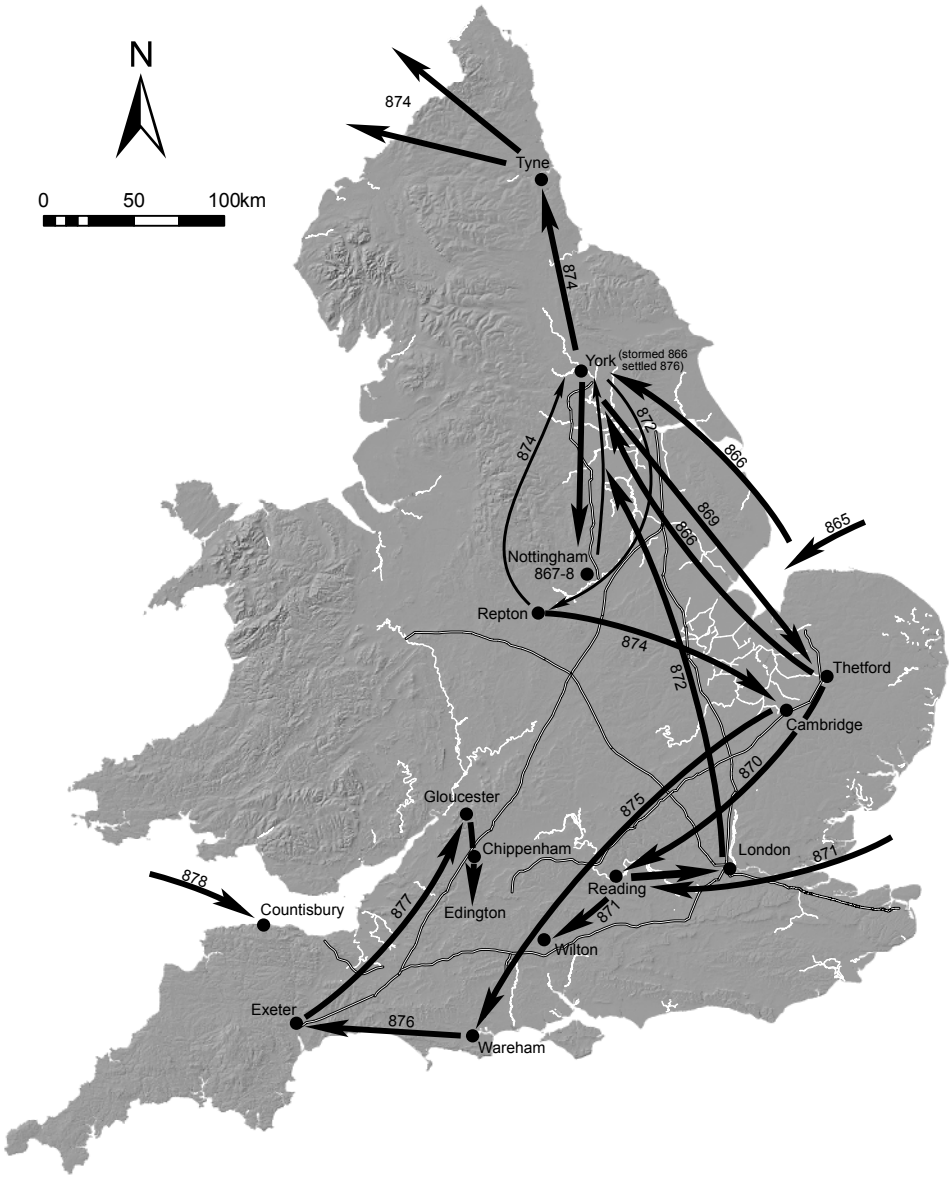

Fig. 28. The Vikings in England 865–878. Significant is the close association between the manoeuvres of the Vikings, principal roads (after Hill 1981, 166), and navigable waterways.

mised by the events of 869. According to the Peterborough Chronicle Ivarr's army "destroyed all the monasteries they came to. In the same time they came to *Medeshamstede* (Peterborough), burnt and destroyed it, killed the abbot and the monks and all they found there" (ASC E 870).[1] King Edmund's death in this year—whether in battle or as a martyred captive (Abels 1998, 125)—must be seen as part of this same aggressive strategy.

Many of the defensive features discussed in the previous chapter can be regarded as a direct response to the nature of the mobile threat. In the eighth century linear earthworks were designed to restrict opportunistic frontier incursions whilst minor settlement enclosures served to limit the impact of such raids. Despite a scale change in the levels of fortification represented by the Burghal Hidage system, its primary purpose was much the same: to limit the advantage of highly mobile aggressive troops. Nevertheless the abandonment of linear earthworks in favour of burhs also reflected a changing approach to civil defence, with a greater concentration on territorial defence, and an increasingly powerful mobile force ready to move to any threatened point.

The channels and routes of movement are fundamental to understanding this landscape of militarism. With the mobility and elusiveness of armies an essential tactical concern, a detailed knowledge of landscape—terrain, lines of communication, the position of natural hazards, the configuration of defences, resources and personnel—underpinned all military engagements. Routes of movement provided both the means by which Viking forces could harry enemy territories and the basis for defensive responses. At the very least, key points on these routes appear to have been under surveillance, given the evidence for border officials who were charged with challenging new arrivals (789 ASC A; Halsall 1989, 164), and this is likely to have extended to formalized systems of observation and signalling; but symbolic associations between places and warfare may also have had great significance in defining "traditional" battlegrounds at the focal nodes of communications (Halsall 2003, 156–8). Certainly it may well be that underlying the apparent correlation between battlefields and significant places we can discern some of the myriad difficulties of coordinating field engagements in archaic states (Cathers 2002, 13); how, when and where to join battle needed explicit communication, unambiguous description, and careful synchronization—as well as a willingness on both sides. Successful harmonization of these factors could lead to battles such

[1] The lines in question may in fact be a post-Conquest addition to the common stock (Irvine 2004, xciv).

as Edington (Wi.) in 878, but did not always result in a military engagement, as demonstrated by events at *Cwicelmeshlæwe* (Cuckhamsley, Be.) in 1006. The same event reminds us that symbolism ascribed to landscape could also influence the process of war, by defining the appropriate places for battle, mustering, and conflict resolution (ibid.; Carman and Carman 2006).

All these factors could prove significant in determining the pattern and conduct of warfare. Before success in battle could be contemplated, a detailed understanding and successful negotiation of this landscape needed to be achieved. Early medieval armies required an accurate knowledge and appreciation of the available vectors of communication by land and water, effective use or control of which could be significantly advantageous. They depended on accurate intelligence on the theatre of war and about the nature, strategy, and movements of hostile forces. Finally, they needed to coordinate their own activity and movements prior to engagement in order to present sufficient numbers of troops at the appropriate location and in good array, within certain time constraints. In essence, the prosecution of war was intimately linked to the landscape of military mobility.

Infrastructure and Communications

Roads

Mobile warfare of the Viking Age appears to have adhered to a few well-known principal routes. The *Anglo-Saxon Chronicle* frequently documents the actions of military forces along coasts and rivers, whilst terrestrial deployment appears often to correlate with the course of Roman roads and other route-ways claimed to have their origins in prehistoric times (Grundy 1918). Many of these long-distance routes—"ridgeways" or "watershed ways"—are certainly known to have been used by the medieval period, but dating their exact origins is extremely difficult (cf. Turner 1980; Harrison 2003). Hill (1981, 115) has suggested that certain such routes were clearly in existence at least by the late Anglo-Saxon period on the basis of recorded events and itineraries. These include the London Way from Ilchester via Wilton and Guildford to London; the Icknield Way from Wessex (possibly originating near Wanborough) to East Anglia via Princes Risborough, Dunstable, and Newmarket; The Pilgrims' Way from Kent via Canterbury to London; and routes between Curry and Williton in Somerset, and Nottingham and York (ibid., 116, fig. 199; Fig. 29). In some cases these and other

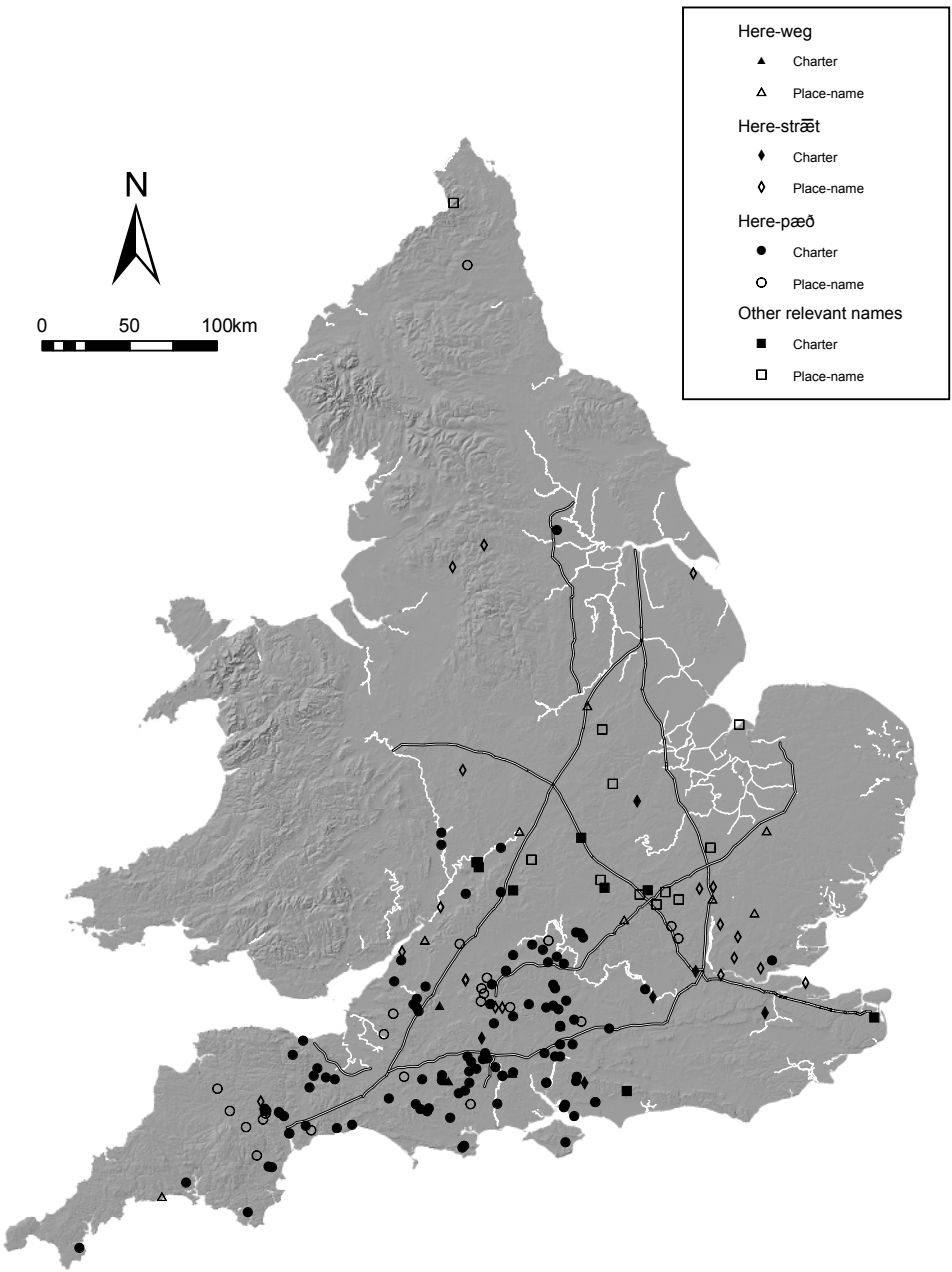

Fig. 29. Distribution of *here* place-names.

routes also appear in Anglo-Saxon charter bounds, and it is from these sources that are derived some of the possible functions of different roads (Grundy 1918, 70–72).

Of these, the Icknield Way is mentioned also in the *Leis Willelmi* 26 as one of the four royal roads—alongside the Roman Watling Street, Ermine Street, and Fosse Way—existing at the top of a hierarchy of long-distance route-ways (Pelteret 1985, 156; Cooper 2000; 2002). According to the full version of this legal treatise in *Leges Henrici Primi* 10 anyone who attacks "his enemy unexpectedly, or waits for him on the road and assaults him", or who kills a stranger, is committing a breach of the King's Peace. Alan Cooper (2002, 53, 58–59) traces the origins of this law to the mid-tenth century, drawing a link with Æthelstan's peace-keeping ordinances (VI Æthelstan 1.5) and the general increase at this time in charter bounds of road descriptions that "suggest both greater concerns about their quality and a greater sense of their utility".

Margaret Faull (1978–79, 37–39), Margaret Gelling (1983, 62–84; Gelling and Cole 2000, 65–96), and David Pelteret (1985, 157) have all pointed out the wide range of place-name elements that might be indicative of roads or road-construction—not just those that make direct reference to route-ways, such as *weg*, *ford*, *pæð*, and so on, but also terms that provide indirect or (in Pelteret's words) "presumptive evidence of roads", including OE *wægn* "waggon", *crundel* "quarry", and *pytt* "a (quarry) pit" (cf. Smith 1956b, 75). Sue Oosthuizen (1986) highlights a number of other direct and circumstantial indicators (especially later medieval ones), that may point to the existence of important roads, including wayside crosses, successful markets, and hermitages. In reconstructing strategic landscapes, all of these may be important, but among the most important potential indicators of military route-ways are place-name compounds combining a specific meaning "army" and a generic denoting a road or track (Fig. 29). Of place-name elements meaning "army" or similar, OE *here* is the most common. In OE texts, the word *here* is used to describe, among other things, the Viking armies. Other less common elements are also relevant. OE *fyrd* "army" is found in a handful of names, especially in the south midlands, usually compounded with *strǣt* or *weg* (Baker 2013), and Ekwall (1922, 57) takes Wuerdle (La.) to represent OE *werod* "troop, host" and *hyll*. Harpath Sike (Nb.) has been derived from OE *heriges-pæð* "army road" (Mawer 1920, 102), and OE *þēod* "nation, people" (ASD), and *folc* "the people" (DOE), when used in place-names may also, occasionally, have military connotations (cf. DOE s.v. *folc* sense 12). Both terms are found in compounds with the generic *weg*.

In place-names, *here* is found exclusively as a first element, or as the first part of a compound noun, frequently in combination with words referring to tracks, paths, or roads, most notably OE *pæð* "a path, a track", but also OE *weg* "a way, a path, a road" and *strēt* "a Roman road, a paved road, an urban road, a street". The term *here-pæð* is especially common in charter boundary clauses. In one instance—Fleet Hargate (Li.; *Herregate* 1276)—*here* (or perhaps its cognate OScand *herr*) is apparently compounded with ON *gata* "a way, a path, a road, a street", (Cameron 1998, 45). Fleet Hargate lies on the road from King's Lynn to Sleaford. This possibly hybrid formation may find a parallel in the lost name *Ferdgate* (Cox 2004, xi), apparently consisting of OE *fyrd* "army" and ON *gata*. This is a road that runs north-south through much of Leicestershire.

Where it occurs in place-names, *here* is often, but not always, translated as "an army" (Smith 1956a, 244). In its literary uses it also carries the senses "a host, a multitude, a large predatory band", and in some of its compound uses the senses "host" or "multitude" may be implied. Indeed, if the use of *here* in place-name compounds such as *here-pæð* is a simple reference to the size of the feature concerned, that is to say that the compound means "road wide enough for use by a large group of people", then there is no reason to suspect military undertones. If, on the other hand, the reference is functional or administrative, then "army" is the most likely meaning. It is more probable that a road might be defined as being maintained by, or for the use of, an army, than a multitude; similarly, association of a road with military activity, because of continual use of that road by an army, seems more plausible than association of a road with an unspecified non-military multitude.

Old English *here*, it should be noted, is defined as any group of more than thirty-five people, in the Laws attributed to Ine (§13.1, Whitelock 1979, 400). *Here-pæð* is usually considered to be the West Saxon term for a "main road" (Gelling and Cole 2000, 90), and Kitson (forthcoming) considers it to be "a road reliably passable for substantial groups of people", the West Saxon equivalent of Old English *strēt* as used in what Kitson terms the old south-eastern dialect. It might reasonably be questioned whether a travelling group of more than thirty-five people was likely to be anything other than military in nature. Lords with their retinues, armies on the move, or raiding-parties are all military groups of some sort. Apart from these, groups of churchmen or pilgrims might number more than thirty-five, but might not, in any case, travel unarmed. So even if *here-pæð* meant "road used by a multitude", that multitude was likely to be military in nature. On

the other hand, if Kitson's definition is accepted, the road need only be substantial enough to cope with large groups of people, without actually being used by such groups on a regular basis—essentially, the reference to an army might be figurative.

In charters at least, Old English *strēt*, though meaning literally "Roman road", is often used of non-Roman tracks too, and may also mean "main road". In support of this, Kitson (forthcoming) cites S 467 (*on þa stret 7lang strete to alberhtes treowe*) which apparently refers to a stretch of Gloucestershire ridgeway, and S 1208, where the Icknield Way is called *ikenilde stræt*. In major place-names the term more usually means "Roman road", but in minor names and field-names such a meaning cannot be assumed, and later senses such as "straggling village" may be involved (Gelling and Cole 2000, 93–94). There are few charter instances in which *here-pæð* is applied to Roman roads, and this leads Kitson to agree (but only for instances within Wessex) with Grundy's assertion that *strēt* was used of Roman roads, *here-pæð* of native main roads (Grundy 1918, 71–72; 1938, 261–62). Kitson's view, based on the charter data, is that the term *here-pæð*, which is apparently absent from Middle English, was becoming obsolete towards the end of the Anglo-Saxon period, being replaced by *strēt*. He sees *here-strēt*, which is largely confined geographically to the lower Thames, as "the last stage in the process of replacement". The single charter instance of *here-pæð* outside Wessex and the south-west midlands—in relation to Sherburn-in-Elmet (S 712)—is considered by Kitson to be a case of surveyor's standard English. Against the "civilian" interpretation of *here-pæð* is Halsall's (2003, 148, 222) observation that many so-named roads seem not to link contemporary rural settlements, but to follow ridges, often connecting fortified sites. He thinks it likely that they had an administrative function within Anglo-Saxon kingdoms and considers them to have been routes used by armies (rather than constructed by armies or taken *en route* to muster), and probably by offensive armies. He notes that limited local knowledge probably confined armies to the use of a few, well-known principal routes.

Place-names add considerably to the picture presented by the charter evidence. The distribution of place-names containing *here-pæð* rather confirms their confinement to Wessex and the south-west midlands, but there are at least two lost instances of the term in Hertfordshire, perhaps both in reference to the road from Barnet to St Albans (Gover, Mawer, and Stenton 1938, 67, 96), which runs approximately parallel to Watling Street, but nearly 3km to the east. A further instance is suspected in Lincolnshire,

where Harpswell (*Herpeswelle* 1086) may be a compound of *here-pæð* and OE *welle* "spring, stream" (Smith 1956a, 240; Cox 1994a, 39; Cameron 2001, 175–76). Though perhaps 60km distant from the Sherburn-in-Elmet instance, this does provide a second possible example of the term's use well outside Wessex. However, not only is Harpswell some way outside the normal *here-pæð* region, it would also represent an unusual formation. *Here-pæð* is often found with the generic *ford*, but virtually never with any other generic. Possible exceptions are Harptree (So.; *Harpeðreu, Herpe-, Harpetreu* 1086), which may be a triple compound *here-pæð-trēow* "army-road tree" (Turner 1951, 18–19), and the lost name *Harpydegor'* (1361) in Sandford Orcas (Do.), with OE *gāra* "corner of land" (Mills 1989, 391). Ekwall (1960, 220–21) thought it more likely that Harpswell went back to OE *hearpere* "harper".

Place-names also provide us with more instances of *here-strǣt* and *here-weg*, the latter of which is recorded only twice in charters (S 630, S 899). As with the charter instances, *here-strǣt* place-names are most frequently found in the lower Thames valley. Modern instances of Hare Street may, in some cases, go back to *here-strǣt*, but without early forms this cannot be taken for granted. *Here-weg* has a less well defined area of use, being evidenced twice in Wiltshire (S 899; Gover, Mawer, and Stenton 1939, 510, cf.435), with further instances in Gloucestershire (Smith 1964a, 17–18; 1964b, 218), Hampshire (Gover 1958, 6), Cornwall (Gover PNCo, 298), Essex (Reaney 1935, 593), Hertfordshire (Gover, Mawer, and Stenton 1938, 6), Nottinghamshire (Gover, Mawer, and Stenton 1940, 238–9), and perhaps in Hareway Lane in Barford, Warwickshire (OS County Series 1:2500, 1st edition, 1887).

The wider acceptance that the use of *here* in names designating roads is a reference as much to the size of the roads as to their military use (Ekwall 1960, 236; Cameron 1996a, 158; Gelling and Cole 2000, 90) has been challenged. The network of fortifications and lookouts in Lindsey, suggested by Barrie Cox (1994a, 39), implies a more strategic and military role for the *here-pæð* that he thinks might lie behind the name Harpswell, and Reynolds (2000) suggests a link between roads called *here-pæð* and military activity in the Avebury region. The latter study of a group of sites in northern Wiltshire lying between the burhs of Malmesbury and Chisbury explicitly emphasizes the systems of military communication—including roads—linking these settlements together. At Yatesbury, on the western fringe of the Marlborough Downs, was found a late Anglo-Saxon circular enclosure of c.200m diameter with evidence for a possible beacon platform

(Fig. 30). This, he argues, was likely to have been linked via a beacon relay on Silbury Hill, with the defended sites of Avebury and Marlborough, both of which have been shown to have had rectilinear "burh-style" plans. This putative system is further reinforced by the presence of a road linking the three settlements together, which is referred to in a 1536 survey of the Seymour estates as *Hare Pathe* (Reynolds and Brookes 2013), and this probably goes back to OE *here-pæð*. The track in question has been demonstrated archaeologically to predate the Yatesbury enclosure.

Although emphasizing the likely military role of roads called *here-pæð*, the north Wiltshire example raises further questions about the nature of the "groups of people" implied, and the status of herepaths within the Anglo-Saxon road system. It seems likely that military movement through unfavourable terrain or to the crossing points of rivers was confined to definable corridors, determined by terrain, slope and surface features. By designating them as such, Old English observers may simply have sought to highlight the likely campaigning routes available to an attacker, but also the means by which a defensive response could be organized. In this respect, place-name and archaeological definitions may not be in conflict. Larger roads, passable by mobile forces, held a greater strategic importance due to their association with hostile military operations, and their corresponding role in facilitating an armed response. On this assumption a null hypothesis could be advanced that roads became herepaths, firstly, in areas of known military activity (perhaps even related to specific campaigns), and, secondly, in direct relation to other defensive structures, such as beacon systems and fortifications. This hypothesis is explored further in Chapter 4.

Archaeological Evidence for Herepaths

Few herepaths have been sampled archaeologically, and little data therefore exists from which to gauge their surface characteristics or dimensions. Nevertheless the place-name and charter evidence outlined above gives some indication that they existed near the top of a hierarchy of route-ways enabling long-distance travel within and between individual kingdoms (Hooke 1981, 307; Grundy 1918, 70–71). Stenton (1936), in the first paper to deal specifically with the issue of medieval roads, saw *port-*, *fyrd-*, and *here-strēt* as names for more major roads than other secondary thoroughfares mentioned in written sources. Both Hooke (1981, fig. 3.41) and Cox (1994a, fig. 1), however, regard herepaths as supplementary highways to the Roman *strēt;* the implication being that they together formed the post-Roman

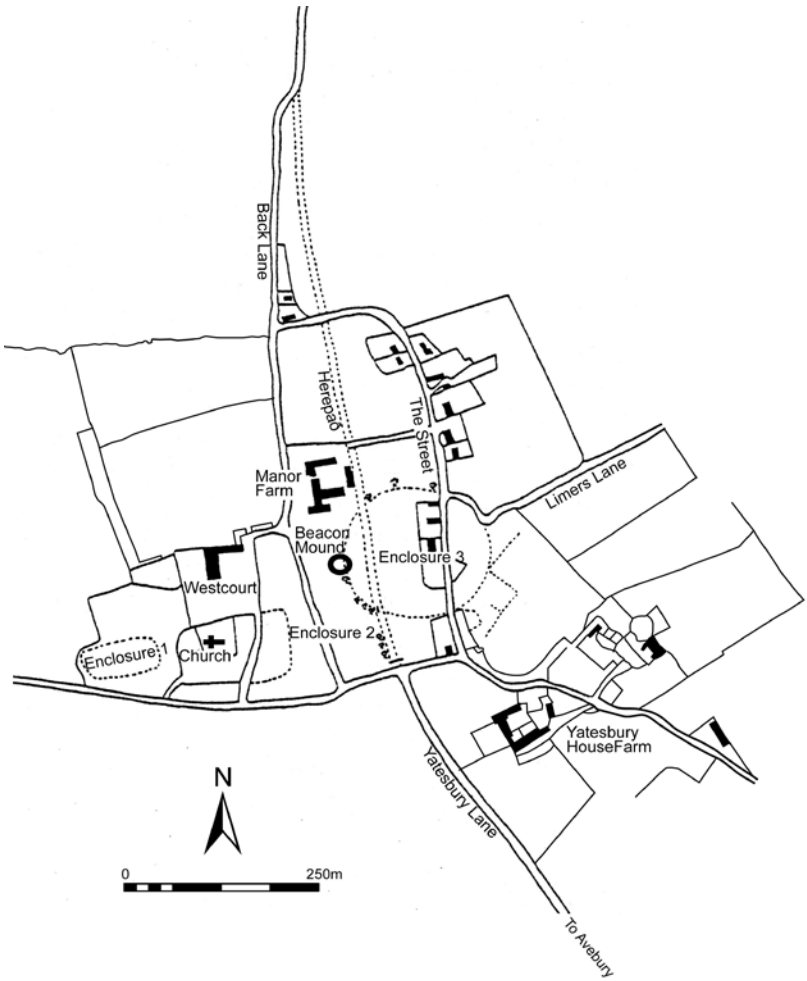

Fig. 30. Plan of Yatesbury showing the development of the village plan and street names. Note the location of the beacon platform on the western side of the enclosure.

network of long-distance and large-scale communications. Certainly, it is unlikely that any over-arching military rationale purposely avoided Roman roads, even if these routes were not deliberately designated toponymically as military paths. The possibility remains therefore, as Christopher Taylor's (1979) work at Stamford, Winchester, and Tamworth suggests, that here-paths represent the infilling of a communication network designed to better reflect the post-Roman state of strategic affairs.

Some herepaths appear to correlate with routes often cited in archaeological literature as prehistoric trackways. These routes generally follow watersheds for long distances and have in the past been identified by the close proximity of prehistoric monuments such as Bronze Age round barrows, Iron Age hillforts, as well as Roman find-spots, and the juxtaposition of early Anglo-Saxon burials (Fox 1923, 147; Taylor 1979, 17–39; Bell and Lock 2000, 85; Brookes 2007b). In some cases these routes have been partially incorporated within the later Roman road network—what Grundy (1918, 71) terms "Romanized Roads". Although recent interpretations have preferred to see prehistoric trackways as broad corridors of linear communications, comprising a bundle of parallel route-ways (cf. Dyer 1989, 345; Fowler 1998, 30; Harrison 2003), when charter evidence does exist the routes can often be recognized as being partially preserved in contemporary landscape as tracks or field boundaries.

The Ridgeway, described as a *here-pæð* in the ninth to tenth centuries between Winterbourne (S 668), East Overton (S 449), and Alton Priors (S 668), follows a roughly straight line north-south along a ridge of the Marlborough Downs (Fig. 31). The solved charter boundaries follow the same line as the present-day route of the Ridgeway, which is stratigraphi-

Fig. 31. Photo of the Ridgeway east of Avebury.

cally later than the prehistoric field systems of Overton Down, and probably also the Roman road between *Verlucio* and *Cunetio*, and Roman minor trackways with which it is out of alignment (Fowler 2000, 22, 215). A likely post-Roman date has therefore been put forward for the present track, although a general co-linear "Ridgeway route", visible as a number of former north-south track lines, may have greater antiquity (Fowler 1998, 30). Today the Ridgeway exists as a 13m-wide path, which was also its recorded width in the nineteenth century (Fowler 2000, 61). The Ridgeway crosses the Kennet as a *straetford* in a tenth-century charter (S 784) suggesting that here, at least, the road was metalled or otherwise recognisably Roman or major (cf. Costen 1994, 105).

Supporting evidence for the Anglo-Saxon origins of these long-distance trackways is provided by excavation of the Pilgrims' Way at White Horse Stone, near Boxley in Kent (Hayden and Stafford 2006; Booth et al. 2011, 375–380). Although it is not directly named as a *here-pæð*, the Pilgrims' Way has been suggested as the likely route taken by William of Normandy in 1066 (Banyard 2004) and in its western branch through Surrey and Wiltshire it is known as the Harrow Way (probably OE *here-weg*, but the late forms make other interpretations diffcult to rule out; v. Grinsell 1958, 298; Reynolds and Langlands 2011, 416–17). At this location two (possibly three) trackways were excavated below the Pilgrims' Way, representing predecessors for the later highway between London, Canterbury, and the Kent coast. Although all three track-ways were of a post-Roman date, closer dating was complicated by poor artefactual evidence. Nevertheless, close to the Pilgrims' Way, and stratigraphically earlier than the most recent predecessor, was a middle Anglo-Saxon crossroad burial (cal AD 680–970; GU-9013; Fig. 32). This is likely to have been contemporary with the second hollow-way, which was the first to lie directly on the line of the present-day route-way (Booth et al. 2011, 376).

The White Horse Stone excavations revealed evidence of the structure of the Anglo-Saxon Pilgrims' Way. Both of the earlier roads took the form of hollow-ways, some c.6–9m wide, with irregular bases *c*.0.7–1.0m deep and sloping sides The hollow-ways are likely to have taken this form as a result of erosion caused by traffic moving along them, which appears to have been combated by surfacing the bases with layers of flint, presumably as a means of providing a sound surface for movement.

Excavations on the Lower Icknield Way at Aston Clinton (Bu.) suggest a post-Roman date for this route-way too (Harrison 2003, 11–2). A large trackway in use from the late Iron Age to early Anglo-Saxon period was

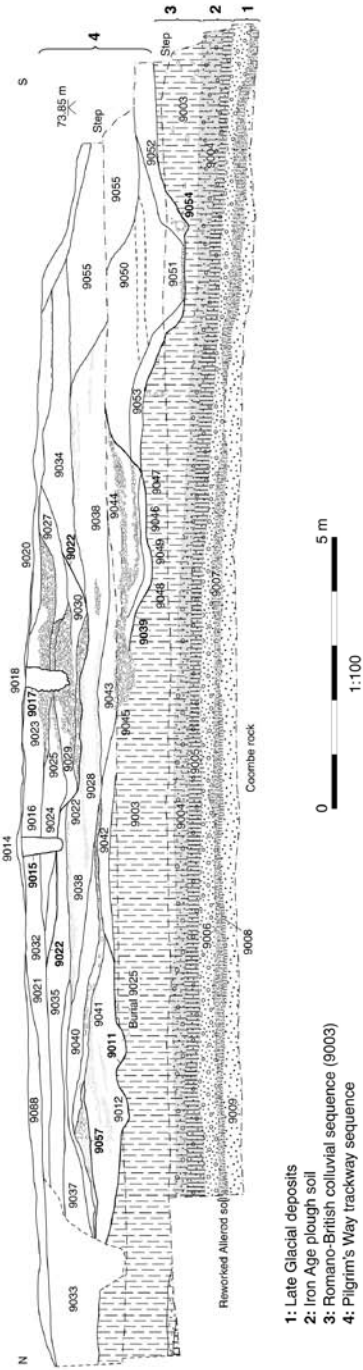

Fig. 32. Section drawing across the Pilgrims' Way at White Horse Stone excavated in advance of the Channel Tunnel Rail Link. Note the stratigraphical relationship between the second oldest route (9046) and the crossroad burial (9025).

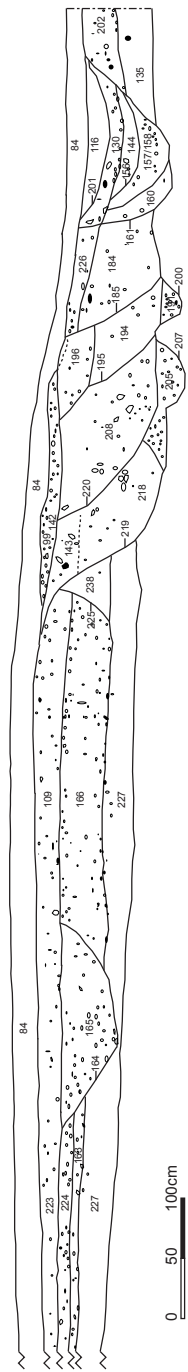

Fig. 33. Section across the herepath at Yatesbury.

identified in the excavation, however this ran perpendicular (north-south) to the line of the Lower Icknield Way (east-west), the course of which slighted features of early Iron Age to late Roman date, including a substantial rectangular enclosure.

The combined evidence supports the idea that zones of "prehistoric" communication only became fossilized as major thoroughfares on their present-day alignment during the Anglo-Saxon period. Given the capital investment in road surfacing noted at White Horse Stone, it remains possible that the context of these long-distance trackways was military. Herepaths may, therefore, have specifically denoted the purposeful construction or structural formalization of route-ways for military endeavours. Both Fowler (1998, 31) and Taylor (1979, 93) have argued that the Ridgeway cuts across the greater Fyfield and Overton communication network in a way that suggests it may have operated at a different scale of inter-regional movement; possibly only infrequently used, and divorced from local economic activities and landforms. However, at the very least, the White Horse Stone evidence indicates frequent, if not necessarily regular, use. Certainly, the proprietors of the large, scattered Kentish estates would have had an interest in the maintenance of long-distance route-ways (cf. Brookes 2007a, 71–75), and this suggests a degree of economic traffic. Furthermore, the site is located at the base of a steep scarp close to a watercourse on boggy ground, precisely the type of terrain likely to have been the focus of remedial activities countering natural erosion. As at *straetford*, where the Ridgeway crossed the Kennet, these routes may simply have been surfaced when and where it was necessary to make them passable, whether by an army, cart, or packhorse.

The excavated herepath dimensions compare poorly with those of Roman roads. Unlike Roman roads there is no evidence for special surfacing material. The successive flint surfaces lining the flat bases of the White Horse Stone hollow-ways averaged between 4m and 5m, although the trackways spread in the most recent phase to nearer 9m in width. At Yatesbury, a section across the herepath revealed the likely road agger (context [166]) to be c.2.8m in width, with the base of its parallel ditches increasing in width from 4.8m to 6.1m with subsequent recuts (Fig. 33). Both roads compare favourably with the width of the eleventh-century London Bridge roadway, estimated from surviving timber footings to have been *c*.4.6m wide (Watson 2001, 75–6). The agger of Roman roads, by contrast, vary from 3m to 8m with ditches 5m to 26m apart, with major roads considerably wider still (Hindle 1993, 31). Hugh Davies' recent study of 488 principal

roads in Roman Britain established their average width at 22 *pedes*, or 6.51m (Davies 2002, 73). By the Norman period greater roads falling under the king's justice adhered to specific dimensions enshrined in law: "they should be so wide that two wagons could pass upon them, two ox herds could just make their goads touch across them, and sixteen armed knights ride side by side along them" (*Leges Henrici Primi* 80.3). It is questionable whether the earliest phases of these excavated Anglo-Saxon roads reflect these regulations, although it is significant that London Bridge is itself described in the eleventh-century saga of Olaf Haraldson as "so broad that two waggons could pass each other upon it" (Laing 1907, 259, 123).

River-crossings

River-crossings to a large degree pre-determined travel choices in early England. Cox (1976, 59–60), who notes the high proportion of *ford* place-names among those recorded before c.730, stresses their importance on routes of communication. As nodal points, settlements at fords are likely to have held enhanced economic potential and to have been disproportionally successful. The places where major rivers were forded or bridged became fixed points around which the formal road network emerged; and while the use of individual fords might vary seasonally, bridges could provide a more dependable means of traversing waterways and their associated marshlands. It was for this reason that Stenton (1936), in his otherwise damning assessment of the Anglo-Saxon communication network, regarded bridge-building as the principal contribution made by pre-Conquest engineers. Built and maintained bridges established the free flow of long-distance traffic, which in time would become fossilized in the dendritic pattern of medieval roads, paths, and route-ways.

The importance of river-crossings was emphasized by the inclusion of bridge-work amongst the "threefold obligations" (*trinoda necessitas*) of military service in charters from the mid-eighth century (Stevenson 1914; Brooks 1971; Chapter 2 above). References to bridge-work in written sources provide evidence of the apportionment of labour to network integration. In contrast to road-maintenance, about which sources are silent until the Norman period (e.g. *Leges Henrici Primi* 80.3), bridge construction and repair emerged as significant royal concerns, certainly by the tenth century. In these are enshrined a royal interest with communications not only for the movement of kings and their followers, but also as a means of linking together places and areas of economic activity (Hill 1981, 115). But the charters that reveal this to be the case may also reflect a more prosaic real-

ity: bridges required more repair than roads, which functioned simply from remaining free and clear (Flower 1923, xvi; Cooper 1998, 4–5). Bridge-work by implication may, therefore, provide the best physical indicator of the level of communications in early England, and simultaneously the scale of the organizational apparatus responsible for their construction and maintenance. However, its inclusion in the *trinoda necessitas* suggests a further dimension, namely the use of bridges in military activities.

It is unclear from the early clauses whether bridge-work was considered primarily a defensive preoccupation or a logistical one. In some instances, fortifications and bridges appear to have been built to a common strategic purpose; a finding which is in part supported by passages in the *Anglo-Saxon Chronicle*, particularly when describing the policies of Edward the Elder. In AD 913 Edward built northern and southern burhs on the Lea at Hertford (ASC CD 913); in AD 915 he ordered the construction of a burh opposite the existing one on the south side of the Great Ouse (ASC 918); a policy repeated in 918 at Stamford on the south side of the Welland (ASC 921); and in 920 at Nottingham on the south side of the Trent (ASC A 923). In Nottingham, we are further told, Edward "ordered a stronghold to be made opposite the other on the south side of the river, and the bridge over the Trent between the two strongholds". To Hollister (1962, 72) and Brooks (1971, 72) this passage emphasizes the overarching military function of bridges: "together [with neighbouring fortresses] they secured the river crossings for the armies of the kingdom and together they prevented the movement of enemy troops either by land or river" (ibid.). Furthermore, bridge- and fortress-work might occasionally be indistinguishable from each other, as in the Worcester charter of AD 817 (S 181; Brooks 1971, 72). As a cautionary note, we must be careful not to project the strategic role of bridges in the tenth century back in time to the ninth, for Edward's policies may themselves have been innovative, rather than a continuation of earlier practice.

Nevertheless, topographical support for this twofold arrangement has been presented for a number of sites, particularly in the phenomenon of so-called "double-burhs", often attributed to the early tenth century (Haslam 1983; 1984a; 1987; Rodwell 1993, 76–84; Fig. 34). At these sites (including Thetford, Stamford, Cambridge, and Bedford) defensive earthworks have been identified on both sides of rivers at the intersection with major routeways, seemingly in order to control river crossings. Morphologically these double burhs share certain characteristics, often with regular rectilinear fortifications lying on the opposite bank to D-shaped

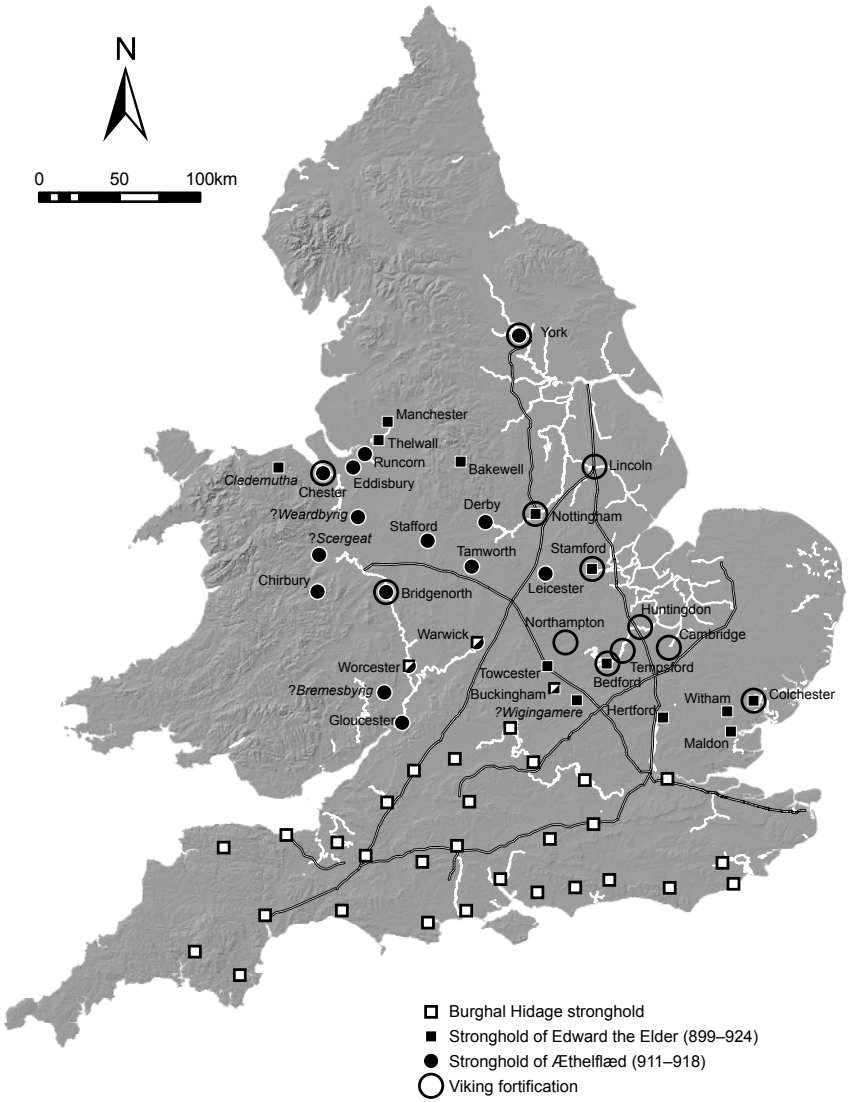

Fig. 34. Strongholds recorded during the reign of Edward the Elder (899–924).

earthwork enclosures protecting the riverside. In all cases both defensive circuits are clearly related to the throughway leading to the river crossing, although little evidence for the crossings themselves has so far been forthcoming. Despite this, the comparison has often been drawn between these sites and fortified bridge complexes in contemporary Francia (Hassall and Hill 1970, 192–4; Boyer 1976, 21–3).

Only in few recorded instances is there direct allusion to a bridge at an early date. The *Anglo-Saxon Chronicle* contains just two bridge names before the tenth century: *Cwatbrycge* (ASC A 895), the site of a Viking winter-camp and presumed to be the same place as the Æthelflædan burh called *Bricge* (ASC C 912);[2] and Cambridge (875 and 917), which is first recorded in the form *Grantebrycge* in the late ninth century (ASC A s.a. 875).[3] Both sites were occupied by Viking forces during the 866–95 campaign, and subsequently became the focus of English strategic defences. A considerable number of pre-Conquest bridges are known from place-names and from charter evidence, but many such names may have referred to simple foot bridges or to causeways (VEPN:2, 51–57). Examples such as Stamford Bridge underline the tendency for bridges to be constructed on the sites of earlier fords, naturally enough maintaining the existing road systems, even if precise alignments may have changed. Instances of places called *brycg-ford*, including East and West Bridgford (Nt.) and Brushford (So. and De.), may also reflect the coexistence of fords and bridges, as perhaps does the place-name Fordingbridge (Ha.), probably meaning "the bridge of the peo-

[2] The earliest reliable references to Bridgnorth call it simply "bridge" (early eleventh-century *apud Brugiam* and *Brig'* in 1161), and the chronicle of Florence of Worcester places Æthelflæd's fort called *Bricge*, as mentioned in the Mercian Register entry for 912, on the western bank of the Severn, a location that suitably describes Bridgnorth (Gelling 1990, 56–7). It seems clear that twelfth-century tradition equated Bridgnorth with Æthelflæd's stronghold. Just to the south of Bridgnorth are Quatt and Quatford (ibid., 248–9), both of which clearly contain the element found as the specific in *Cwatbrycge*, and indeed Quatford, with *ford* as its generic and obviously being the site of a Severn crossing of some kind, has been supposed as the possible location of the 895 fortification (Stamper 1989, 70), though this view is opposed by Mason and Barker (1964, 37–8) and by Gelling (1990, 56–8). The element *Cwat*(*t*) in these names is probably a district name and it is quite likely that Bridgnorth was within the district called *Cwat*(*t*) and therefore alternatively referred to as *Brycg* and *Cwat*(*t*)*brycg* (Gelling 1990, 56–8). On the other hand, Bassett (2011, 14 fn. 44, 18 fn. 63) stresses the lack of evidence for an Anglo-Saxon period stronghold on the site of Bridgnorth Castle and prefers to identify the site with Quatford.

[3] The earlier name for the place was *Grantacaestir* (c.730 Bede), "the Roman fort on the River Granta", rather than "the bridge on the Granta". A form *grontabricc* survives in a tenth-century manuscript copy of Felix's *LifeGuth.* (Colgrave 1956, 28–29, 86–87 n.33; *castello quem dicunt nomine Gronte* in the eighth-century version, see Carroll and Parsons 2007, 67). While the earlier name does not rule out the existence of a bridge, the later name suggests that a physical structure over the Granta (later Cam) came to prominence in the intervening period (Lobel 1975; Haslam 1984a). So far all excavated evidence for Anglian and Mercian settlement clusters on the northern side of the river crossing in the area of the fortified former Roman town of *Durolipons* on Castle Hill (Cessford and Dickens 2005), with settlement on the other bank along Trumpington Street only indicated by the pattern of later Saxo-Norman church foundations (Haslam 1984a). In this area an early ninth-century bridgehead settlement has been postulated on the basis of some nineteenth-century observations; however, datable evidence for it is lacking (ibid.,19).

ple at the ford" (Gelling and Cole 2000, 69). In several instances, place-names originally ending in *ford* may have undergone a change to *brycg* following the construction of such a feature. In the case of Redbridge (Ha.) this change can be traced. The name is first recorded by Bede as *Hreutford* in the early eighth century, and it was still known as a *ford* when the Old English translation of Bede was made in the late ninth century (*Hreodford* c.890), but by the middle of the tenth century the existence of a bridge had presumably become the most important aspect of the place, which is called *Hreodbrycge* in 956 (S 636) and *Rodbrige* in the Domesday survey (Ekwall 1960, 383; VEPN:2, 52). When exactly this change occurred is difficult to say, and an alternative process is discussed for Ducklington (below). Just because it was still called *ford* in the late ninth century does not mean that a bridge did not exist, simply that the traditional place-name was the most widely known—indeed, the later name is taken to mean "the bridge at Redford (the reed ford)", rather than "the reed bridge"—but it is possible that the bridge was not constructed until the early tenth century.

Some of the *brycg-ford* names may in fact refer to fords at places where bridges had once stood, but were no longer useable. In some instances, this might mean a Roman bridge, and the proximity of East Bridgford to the Fosse Way is worth noting. Places where *brycg* is compounded with the generic *hām* have also been put forward as possible references to very early, perhaps Roman bridges (Gelling and Cole 2000, 67). The survival of such place-names, however, does not constitute evidence that Roman bridges were maintained and continued in use throughout the Anglo-Saxon period, and they may simply have been recognized as monuments in the landscape. The *brycg-ford* names may, in fact, indicate that the bridges in question were no longer useable. It may be instructive that Cox (1976) found no instances of OE *brycg* in place-names recorded by c.730, although other terms for river-crossings were relatively common. In some cases, however, it is possible that Anglo-Saxon crossings incorporated the remains of earlier Roman bridges. Brooks (1993) has suggested that the Rochester Bridge burdens, documented from the 790s, record the obligation to repair and maintain the Roman bridge over the Medway. The eleventh-century "Rochester bridgework list" records nine piers, the amount of wood required to span them, and the various estates (constituting the lathe of Aylesford) on whom this burden fell (ibid.). The arrangement has been convincingly reconstructed as a horizontal wooden beam structure utilizing the Roman masonry piers as supports.

Beyond Rochester, the evidence for Roman survivals is scanty. Two eleventh-century *brycg* place-names, Piercebridge and Corbridge (both Nb.), at former Roman sites next to powerful rivers, may record the reuse of Roman masonry bridge fabric, still surviving into the Anglo-Saxon period (Rigold 1975, 49; Harrison 2004, 101–2). Similarly, at Newcastle, the foundations of the Roman stone bridge over the Tyne were possibly reused before its replacement by a new crossing in the thirteenth century (Bruce 1885). In none of these cases has convincing evidence been put forward for the continuous use of Roman structures through the earlier Anglo-Saxon period; a problem faced also by two other bridges recorded at an early date, at Chester and London. An obligation for the repair of the Old Dee Bridge in Chester appears in Domesday Book, but it remains uncertain whether this represents an allusion to a bridge restored in the late Anglo-Saxon period or a Roman predecessor on the same site. Favouring the latter interpretation, David Mason (2007, 91–92) has outlined a complicated case in which the 1200 hides of Cheshire could be equated with the c.1400m L-shaped walled circuit of Chester (suggested in Mason 1985, 36–39) but only if a 100-man bridge assignment were included in the calculation. However, this interpretation seems unlikely given the extent of Chester's southern parish boundaries, all of which butt against the Roman walls rather than continue over the river (Thacker 2003, fig.3), and a later Anglo-Saxon date for the bridge seems more likely.

Documentary and archaeological evidence suggests that the first post-Roman bridge at London was a foundation of the late tenth or early eleventh century, with a lack of fifth- to ninth-century activity both at the northern City end and Southwark bridgehead area arguing against continuous use in the intervening period (Watson, Brigham, and Dyson 2001; Milne 2003, 53–9; Baker and Brookes 2011, 111; *pace* Haslam 2010a, 130–6). This new bridge is likely to be represented by the two large *ex situ* timbers recovered from the Thames, and dendro-chronologically dated to come from a tree felled c.982–1032 (Watson, Brigham, and Dyson 2001, 57). Plausibly its construction could therefore be placed between the devastating Viking raid on London in 994, and the less successful attack of 1009 (ibid., 53). As the context for these timbers has been lost, it remains possible that they, like Rochester, originally formed part of a beam structure utilizing the masonry piers of the Roman bridge. However, both the eleventh-century Saxo-Norman timber bridge and its medieval successor have been argued to have lain to the east of their Roman counterpart, and it is likely that their immediate predecessor did likewise (ibid., 52). Furthermore, the

ease with which the Vikings accessed the middle and upper Thames in the ninth century does not suggest that they were in any way obstructed by the presence of Roman bridge ruins at London. An example of how the twelfth-century bridge blocked upstream movement is outlined by Gustav Milne (2003, fig. 30), and it is likely that any beam bridge making use of the Roman piers would have presented a similar obstacle. Likewise, the implication of the development of an international emporium at *Lundenwic*, upriver from the Roman bridge, is surely that the bridge was no longer a factor in Thames navigation.

Support for this interpretation comes from the reconstruction of the topography of late Anglo-Saxon Southwark (Watson 2009; Fig. 35). This suggests that the bridge crossed the shortest distance over the Thames to

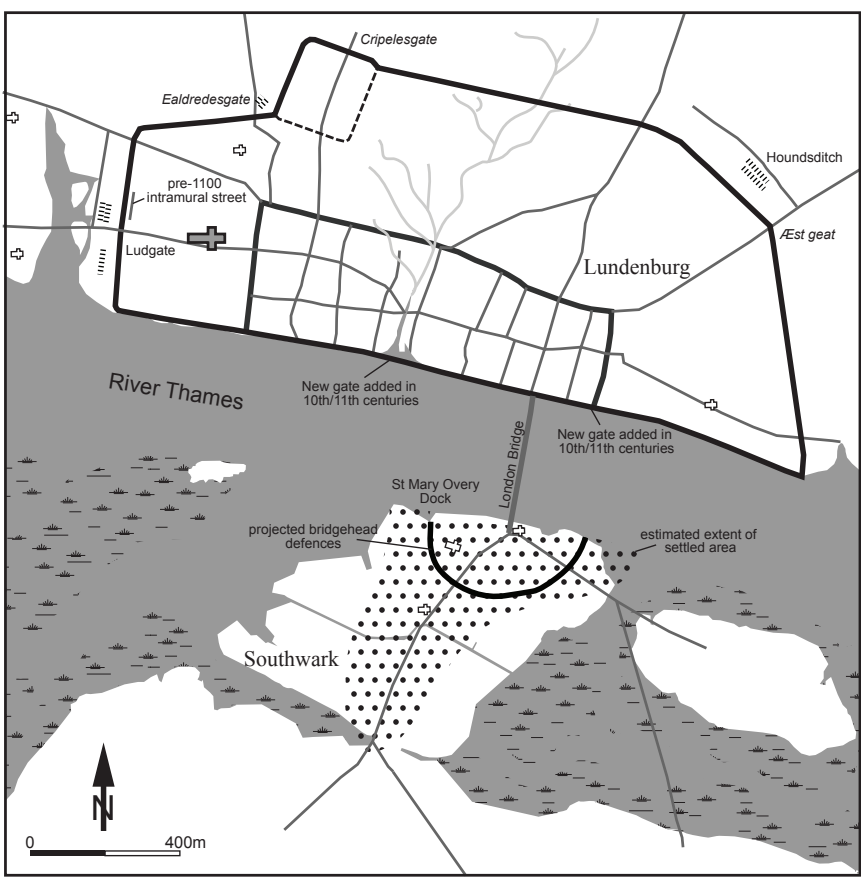

Fig. 35. Topographical overview of Anglo-Saxon Southwark and London, showing the main late Anglo-Saxon features.

the dry raised area under Toppings Wharf, which is flanked on both its eastern and western sides by marshy ground. At this point the crossing may have been protected by a bridgehead, the perimeter ditch of which was partially excavated in 1979–80, 100m to the east at Hibernia Wharf, and encountered perhaps also at 1–7 St Thomas Street (ibid.). Although truncated by post-medieval cellars the Hibernia Wharf ditch was found to be 4m wide and 2m deep with a V-shaped profile and evidence for a timber revetment, suggesting original dimensions of c.10m width and 4m depth (Watson, Brigham, and Dyson 2001). Bruce Watson's (2009) projection of the ditch connects it in the west with a stream channel or inlet which later became St Mary Overy Dock, to the south with a similarly-shaped ditch recovered in 1985 at Montague Close, and with the river in the east at City Pier, to describe a D-shaped defence of c. 200m diameter, enclosing the high ground over 1.0m OD immediately at the southern terminus of the postulated bridge (Watson 2001, 53–54; 2009, fig. 1). The lower fills of the ditch included an oak timber which provided a dendrochronological date (heartwood only) of AD 943 (i.e. felled after AD 953), and the upper fills contained Saxo-Norman pottery (AD 970–1100; ibid., n. 27). Potentially, this feature represents the remains of a tenth-century enclosure of *c*.5ha at the northern end of Southwark Island containing both the possible ninth-century minster on the site of St Mary Overy and the area which later became the approach to London Bridge.

This evidence gives good support to events recorded in the *Anglo-Saxon Chronicle* for 1016, when Cnut and his men, apparently confronted by a defended bridgework, undertook to dig a "large ditch on the south side and dragged their ships on to the west side of the bridge" (ASC 1016). Certainly, London Bridge and a fortified bridgehead at Toppings Wharf would have presented such an obstacle. Perhaps significantly, the Borough Channel, a watercourse enclosing Borough island c. 300m to the south of the postulated London bridgehead, has been reconstructed in the most recent map of Roman *Londinium* (Museum of London Archaeology 2011). A recutting of this channel by Cnut could conceivably have been achieved by Viking forces, thereby circumventing the London bridge defences.

Of possible significance to this debate is the inclusion of Southwark, as *Suthringa geweorc*, in the Burghal Hidage, where it is given the large figure of 1800 hides. As several authors have indicated, the equivalent length of defences (2263m) describes an area enclosing the entire marsh island settled in the Roman period, far larger than the putative bridgework of 6.62ha

(the perimeter of which equates to 1081m; Dyson 1980; Hill 1996a, 218–9). Roman Southwark comprised a large sandy island, apparently enclosed by a timber revetment, and split into two halves by the east-west Southwark Street channel (Museum of London Archaeology 2011).[4] Significant archaeological intervention across Southwark has revealed a more contracted area of late Anglo-Saxon occupation focusing on a narrow strip of high ground c.150m to either side of Borough High Street running south to Marshalsea Road (Thorn 1978; Watson 2009, fig. 1); an area of approximately 24.4ha. A perimeter drawn around this area runs to 2455m, or 1952 hides using the Burghal Hidage formula—a figure not irreconcilable with the Burghal Hidage assessment. Nevertheless, it remains possible that the Hidage text refers to another designated fortress or even an incomplete one (Dyson 1990, 110). It is remotely possible that this fortress was *Lundenburg* itself, the central planned core of which, as suggested by Milne (1990), comprises an area of some 2400m, the equivalent of 1925 hides, which is intriguingly very similar in size to Anglo-Saxon *Suthringa geweorc*. It may just be possible that the Burghal Hidage assessment documents Surrey's contribution to the defence of Wessex at the point—sometime after 880—where a burh of Southwark was in the process of being transferred to a new planned settlement at *Lundenburg*.

A similar bridgehead arrangement to London has been argued on the basis of medieval written sources and topographical survey to have existed in Bristol (Leech 2009). Here, an area enclosing the southern bridge abutment, demarcated on its southern boundary by the Law Ditch, was known in the fourteenth century at Arthur's Acre, and appears to have been a bridgehead settlement linked to Bristol (*BRIC* 1009×1017, *BRCS* 1017×1023 coins, *to Brycg stowe* 11th ASC D 1052, ASC A 1063; OE *brycg-stōw* "the (gathering) place at the bridge"; Smith 1964c, 83–84; Carroll and Parsons 2007, 42–46) on the northern bank. Preliminary dating of a section across the Law Ditch between properties in Temple and St Thomas Streets appears to place it in the period c.995–1020 (ibid., 17), making it not only contemporary with the London Bridge evidence, but also with the earliest known coinage from the Bristol mint, which is dated to c.1009–10 (Grinsell 1986, 25).

[4] The northern, most densely settled of these two islands equates to an area of 20.44ha. As reconstructed in the Roman *Londinium* map (*Museum of London Archaeology* 2011) the timber revetment enclosing this island runs for 2184m, the equivalent of 1737 hides of defences using the Burghal Hidage formula.

From the decades around 1000 also comes evidence of a fortified bridge at Kingsbridge in Devon. A charter for land at Sorley in Churchstow, Devon (S 704), dated to 962, records a "king's bridge" (*cinges bricge*) which appears to be the origin for the town of Kingsbridge on the estuary of the same name. Jeremy Haslam (1984c, 271–75) has suggested that this records the existence of a fortified town and bridge built to defend against river-borne attack in the late tenth century.

Surveying the assembled evidence it appears that, with the exception of Rochester, there is no archaeological support in England before the late tenth century for a model of deliberate construction of strongholds and bridges, sited to stop movement up-river and to hinder advances along major waterways.[5] Even the apparently straightforward case of Nottingham has recently been undermined by Cooper (2006, 50–51). He argues that all documented late Anglo-Saxon bridge-building obligations were to maintain the Leen Bridge leading towards Wilford, the postulated site of Edward the Elder's burh of AD 920 (Haslam 1987), rather than the Trent (Hethbeth) Bridge. Given the River Leen and Wilford are some 2km apart, their function as a cohesive blockage must, therefore, be doubted. In keeping with this, the *Anglo-Saxon Chronicle's* description of Alfred's blockage of the Lea in 895, although possibly the first English instance of the strategic construction of a "double-burh", imitating the Carolingian strategy of the 860s (Hassal and Hill 1970), does not mention a bridge.[6]

In contrast to the evidence for bridge-blockages, there is good archaeological support for bridge and causeway construction to facilitate movement. The 400m-long bridge or causeway known as "The Strood" linking the island of Mersea to the Essex mainland, was constructed upon some 3,000–5,000 oak piles, which have been dated by dendrochronology to A.D. 693±9.40 (Crummy, Hillam, and Crossan 1982). An early eighth-century date has been suggested for a timber bridge over the Trent at Cromwell (Nt.), presumably forming a spur road linking up with the Foss Way (Salis-

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[5] Perhaps significantly in this regard, Tim Tatton-Brown has argued that Rochester bridge may itself only have been rebuilt around 1000. He suggests (2001, 128) that Rochester Bridge was perhaps in ruinous state in the seventh to ninth centuries, and was only rebuilt after the attack of 999, when Vikings successfully sailed up the River Medway (ASC CDE).

[6] See, for example, Snorri Sturluson's account in *Heimskringla* of Harald Hardrada's escape from Constantinople, where the harbour entrance was blocked by an iron chain (*King Harold's Saga*, § 15; Magnusson and Pálsson 1966, 63). In his *History of the Archbishops of Hamburg-Bremen* (I, 60), Adam of Bremen claimed that rocks had been placed by the people of Björkö on the Baltic, in order to obstruct pirates, although there is some uncertainty about his accuracy in attributing the positioning of these rocks to human hands (Tschan 1959, 51–52 and fn. 176; Sawyer 1982b, 5).

bury 1995).[7] A bridge of similar construction (Bridge 2) across the Trent is also known from the late eleventh century at Hemington Quarry near Castle Donington (Le.; Cooper and Ripper 1994).[8] This last example represents the most sophisticated of all known early medieval bridge constructions. The find comprised two bridge piers of framed lozenge-shaped wooden boxes upon which the bridge superstructure rested. Each box rested on diagonally lap-jointed base-plates, and was filled with approximately five tonnes of sandstone rubble acting both to anchor the structure and as a platform to support the superstructure. This survived directly over the collapsed remains of pier base II and comprised a massive timber trestle of Rigold Type II (Rigold 1975).

Archaeological evidence for a crossing at Oxford supports the view that bridge building was primarily aimed at facilitating road transport, rather than blocking riverine movement. Excavations on the late eleventh-century stone causeway known as the "Grandpont" have suggested that this c.700m long structure, leading south out of Oxford and over the Thames, was constructed along the line of an earlier Anglo-Saxon Thames crossing, consisting of fords, bridges, and islands (Durham 1984). Timber piles recovered from below the Norman causeway have been radiocarbon dated to cal AD 660–900 at 95% confidence (GU-5333; Dodd 2003, 123, 127, 420), providing good evidence for a middle Anglo-Saxon crossing comparable with the Essex "Strood".

The archaeological evidence for significant structures built from the middle Anglo-Saxon period onwards can be compared with the occurrence of bridges in written sources. Cooper's (2006) analysis of late Anglo-Saxon bridge building concludes that this may have been a sporadic and unusual occurrence before the reign of Edgar. Before the tenth century only one bridge is mentioned in charter bounds: Crediton in Devon (S 255), although some fifty fords are mentioned (Cooper 2006, 9). This corresponds with the failure of more than four fifths of royal diplomas before the mid-ninth century to reserve any or all of the common burdens (Brooks 1971). Furthermore, these clauses always refer to the "construction", rather than the "repair" of bridges; the latter wording only becoming common in tenth-century charters after AD 959 (Harrison 1996, 234; Cooper 2006, 10). Only

[7] Although the dendrochronolgical date derived for the youngest ring was AD 693, there are some reservations about accepting uncritically an early eighth-century date for this structure: the samples did not include sapwood, so could conceivable represent the heartwood of a more mature tree; and the tusk-tenon construction of the pier suggest a later—possibly even ninth-century—date.

[8] A dendrochronologically-derived felling date of 1097 is reported.

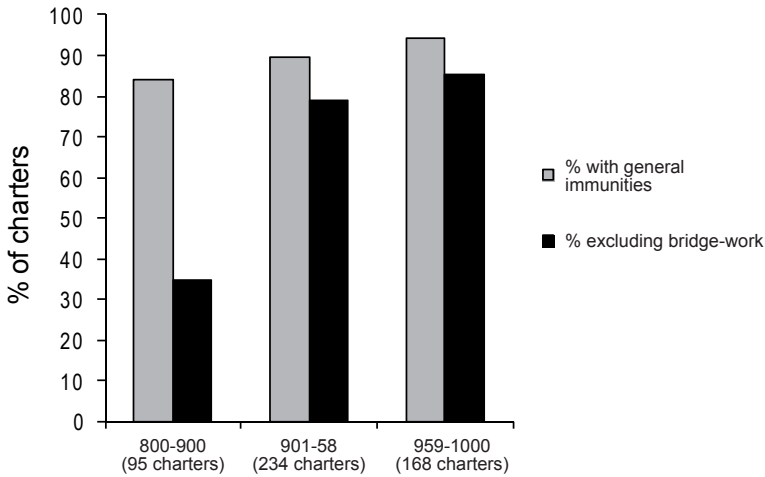

Fig. 36. Graph of exemption clauses, data from Cooper 2006.

over the course of the tenth to thirteenth centuries is there an indication that bridge-work took on a greater role in society. There is a significant increase in the number of references to bridges, occurring first in charter bounds, then in Domesday and medieval place-names (Cooper 1998, 24; 2006; Harrison 2004). Cooper (2006, 9), who has counted the occurrence of bridge references in charters, suggests that there is a considerable increase over the course of the tenth century, rising dramatically two-and-a-half fold in the third quarter of that century (Fig. 36). Over the same period the number of references to fords drops from 12 in 9 charters (133%) in AD 900–25, to 61 in 102 charters (60%) in 950–75, to 96 in 173 (55%) in 950–75, and finally to 20 in 45 (44%) in AD 975–1000. Moreover many of the bridge terms that emerge are often accompanied by references to "old fords", suggesting that this period witnessed the gradual replacement of earlier crossings by more substantial structures.

There are problems with Cooper's analysis, as he acknowledges (Cooper 2006, 8–9, n.1), not least of which is the very small number of reliable charters prior to 925, rendering meaningful statistical analysis difficult for that period. If all charter bounds are taken together, the ratio of fords to bridges is nearer five to one (Kitson forthcoming),[9] compared with Cooper's fifty to one for pre-tenth-century charters. While this may suggest an increased presence of bridges after the ninth century, it is hard to extrapo-

[9] Kitson counts 648 instances of *ford* (that is 514 separate features), and 133 of *brycg* (106).

late reliably from such limited and chronologically uneven data. A further implication of Cooper's analysis seems to be that charter references to river crossings of any kind became less common as the tenth century progressed, since the increase in the relative number of bridge references does not counterbalance the fall in mentions of fords. Analysis of other terms for river crossings might alter the picture,[10] but it seems unlikely that such significant features of the landscape were becoming less important to those who drew up boundary clauses, and the change in the figures may, to some extent, be down to random statistical variation. Of course, there is a further imbalance in the geographical distribution of Anglo-Saxon charters—more in Wessex than elsewhere, and parts of Mercia particularly underrepresented.

Moreover, the use of the term *brycg* in charters may not imply the existence of significant structures. The excavated crossing of the Elm Bank Ditch, in Oxfordshire, provides a clear archaeological example of a ford known from written sources (Blair and Millard 1992). Importantly this crossing is named in two mid tenth-century charters, from Ducklington (S 678, AD 958) and Witney (S 771, AD 969), which describe the crossing as *stanford* and *stan bricge* respectively. Excavation of the crossing has revealed a c.3m-wide rubble bank and paved surface lying directly on the natural river clay, interpreted by the excavators as a rubble-built causeway and ford. These findings would appear compatible with the charter descriptions, but correspondingly emphasize that *ford* and *brycg* could be used synonymously (ibid., 348).[11]

The Ducklington example provides a note of caution against the assumption that *ford* and *brycg* always described features that were distinct, and it is possible that *ford* was originally a rather general term for a river-crossing.[12] Etymologically this is quite feasible at any rate. The reconstructed PIE root **pr̥tu-* gives cognates such as Welsh *rhyd* "ford" and Avestan *pərətu-* "bridge, ford", but also Latin *portus* "harbour, port". The latter sense is not dissimilar from that of the closely related OScand *fjǫrðr* "inlet, bay" (Pokorny 1959, 817 *sub* per-tu-, por-tu-; Onions et al. 1966, 369; De Vries 1977, 126; Seebold 1999, 292).[13] The sense here seems to be a

[10] Although Gelling suggests that (*ge*)*wæd*, for example, went out of use relatively early, replaced by the "ubiquitous" *ford* (Gelling and Cole 2000, 94).

[11] This may also support the view that OE *brycg* could sometimes mean "causeway" rather than "bridge" in the modern sense (VEPN:2, 51–52).

[12] The authors are grateful to David Parsons for helpful discussion on this point.

[13] Coates (1988) makes the tentative suggestion of a connection with a PIE root **pŕt-* "battle"; intriguingly in view of the many battles fought at fords (see below). It seems unlikely,

passage across water, or perhaps an interface between land-routes and waterways. OE literary use of the term seems to encompass meanings such as "body of water, sea, stream"; but that these were vectors of travel seems again to be implied—so the reference is to water as a route-way rather than a geographical feature (DOE). Gelling (1984, 69; Gelling and Cole 2000, 72) glosses the OE term in place-names as "ford", but suggests a sense causeway in some compounds.

Given the impact of medieval and modern river management on inland waterways, it would be somewhat surprising if OE *ford* evoked the same topographical image as Mod.E *ford*. In early medieval England, the sections of a river that could be forded may often have been broad shallows, adjoined by marshland and meadows. A secure pathway through this mixed wetland might be what was envisaged when the element *ford* was used, and such a crossing might in places have been aided by a section of causeway or even a simple bridge—such a crossing certainly seems to have existed at Oxford from an early date (Durham 1984). There is at least a possibility that the range of crossings described by the term *ford* included those that later were called *brycg*, especially as investment in the bridging of a section made the bridge the most characteristic feature of the crossing. In other words, early instances of *ford* may in fact denote crossings that already relied partly on causeways or bridges. A change of name to *brycg* might then reflect a physical change in the crossing—the construction of a new bridge or modification of an existing one; but it might be symptomatic of a narrowing of the meaning of *ford*, so that it was used in opposition to *brycg*.

It is clear that not all bridges mentioned in charter bounds belonged to the category of bridge that was the subject of bridge-work;[14] but even a causeway of Ducklington-type would require some maintenance, and it is probable that in some or even most cases they did.[15] Furthermore, estates

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however, that such a sense enters into OE *ford*, or that it had any direct connection with warfare other than as the name of strategically important river-crossings that might be contested.

[14] The *eorthbrycge* in the bounds of Old Swinford (Wo.; S 579) and the *risbrigge* of Romsey (Ha.; S 812) may refer to locally used causeways (VEPN:2, 51–52). The *byrcg* in the bounds of Padworth (Be.; S 620) was presumably of local importance, linking Padworth with Lower Padworth across the Kennet (Gelling 1973–76, 645–46), but its wider significance might be questioned.

[15] This, at least, seems to be an implied assumption. "The obligation to perform bridge-work appears in many Anglo-Saxon charters from the eighth century onwards. On the other hand, apparently paradoxically, the bounds listed in those same charters do not refer to many bridges" (Cooper 2006, 8).

subject to bridge-work might not always have been adjacent to the bridges they helped to maintain—perhaps normally river-crossings on major route-ways—and the absence of bridges in their bounds does not necessarily imply a lack of important bridges in the surrounding country.

Cooper notes only forty-four *brycg* place-names in the Domesday survey, compared with eighty-seven on Speed's county maps of c.1600, about two thirds of the additional names being recorded in other sources by 1250 (Cooper 2006, 10–11). This, and other evidence, leads Cooper to suggest that the major period of bridge building came between 900 and 1200 (ibid., 15). It is certainly possible to take issue with the dating of bridge-building on the basis of earliest place-name records. Some of the bridge-names mentioned in pre-Conquest sources but absent in Domesday, survive to this day and did go on to become important settlement names,[16] so the small number of bridge-names in the survey may be misleading. *Cwatbrucge* is first recorded in a section of the Parker manuscript of the *Chronicle*, probably compiled in the early tenth century (Gelling 1990, 56–8; cf. Bately 1986, xxv–xxxiv; Dumville 1992b, 56–95). Subsequently, it was not recorded at all between c. 1000—the probable date of Æthelweard's *Chronicle* (Campbell 1962, ix–xiii)—and the reign of Henry I (1100–35), if it is the same place as Bridgnorth. In any case, Bridgnorth is not in Domesday Book, so it seems that an important crossing point in this area is overlooked in that survey.

Domesday surveyors would not have systematically noted the names of bridges regardless of the economic status of the settlements attached to them, and it must have taken a considerable amount of time for some bridge names to become embedded in local and regional toponymy, especially when the bridges were close to settlements whose earlier names were already well established. Heybridge in Essex was called "*Tīdweald*'s *tūn*" in Anglo-Saxon documents, and is *Tidwolditunā* in Domesday (Reaney 1935, 303–4). The earliest recorded mention of "the high bridge" is in c.1200 (*Heaghbregge*), by which time the bridge was presumably well established—had perhaps even become a focal point; it must anyway have been constructed some time before its first record. The earlier name, however, persists in the documents until at least 1316 (*Tydwoldyngtun*). It probably then continued in use locally for some time, but by then "*Tīdweald*'s *tūn*" was presumably less important than Heybridge, which had become the

[16] Elbridge (Ke.) is mentioned in S 535, Ealing Bridge (Ex.) is *at Gildenebrigge* in c.1045 (12th); Kingsbridge (De.), mentioned in S 704, is now the name of a parish (Gover, Mawer, and Stenton 1931–32, 305), as is Curbridge (Ox.), first recorded in S 1292 (Gelling 1953–54, 315), and Stockbridge, recorded in S 403, became the name of a hundred (Mawer, Stenton, and Gover 1929–30, 14).

main centre of settlement or commerce. In total, it may well have taken at least 150 years for the bridge name to displace the earlier name of the settlement. A bridge name first recorded in the twelfth century, therefore, might easily describe a feature constructed at the beginning of the eleventh century or earlier.

On the whole, however, Cooper's argument that bridges were becoming more common during the later Anglo-Saxon period is convincing. The evidence of Redbridge (above) suggests that a bridge was constructed there by about 900 (Coates 1989, 137). The occurrence in charters after 945 of the name "old ford", and the change of bridge-work terminology from about 959, from expressions meaning "bridge-construction" to words meaning "bridge-repair" (Cooper 2006¸9–10), also seem to fit with a period of fairly intense bridge building in the early tenth century and perhaps even in the late ninth, even if the general rarity of *brycg* place-names recorded before the tenth century (given the importance of bridges, like fords, as landscape features) is suggestive (if nothing more) of a scarcity of bridges before that time.

Discussion: The Role of Bridgeworks

Together, written, place-name, and archaeological evidence conflate to present an overall picture of increased bridge building taking place from the late ninth to eleventh centuries. If bridge-work was one of the main mechanisms driving this trend its purposes appear to have been primarily to keep open lines of land communication rather than to serve in the control of waterborne movement (cf. e.g. Hill 1981, 115; Loyn 1984, 33). The strategic position of some burhs, in this reading, must be seen to control access to overland communications. By commanding the points where this system came into contact with other coastal and riverine networks, these burhs restricted the free flow of goods and people into regional interiors, whilst simultaneously preventing opposing forces from doing the same. Certainly the Vikings in the ninth century, and increasingly the English in the later tenth and eleventh centuries, used ships for transport around the coast (Lavelle 2010a, 186, 200–7); in each recorded instance, however, it was to support military campaigns aimed at controlling inland territory.

The continental evidence also suggests that river-blocking was, in many if not all cases, a secondary function of bridges.[17] Simon Coupland discusses

[17] There are in fact continental instances where rivers were turned into defensive obstacles through the destruction of existing bridges, again emphasizing the infrastructural rather than defensive role of early bridges; although of course with the appearance of

the documentary evidence for bridge building in the reign of Charles the Bald, considering there to be evidence for actual fortification only at Pont-de-l'Arche on the Seine in the 860s and a bridge over the Loire, perhaps at Les Ponts-de-Cé, in the early 870s (Coupland 1991, 4–6, 9–10). For two further bridges on the Marne and Oise, Coupland finds no definitive reference to fortification, and suggests that they were repaired principally so that Charles could move his troops around more swiftly during a particular crisis (ibid. 6–7). Finally, at Isles-lès-Villenoy, Coupland finds no reference to fortification, even though in this instance the bridge did somehow act as a barrier to Vikings operating further upstream. Coupland suggests that any blockage associated with the bridge was temporary, since there is no suggestion of any hindrance on the Marne in 887 (when another Viking host apparently passed the same point) and no mention of the bridge in later records (ibid. 2–4). In the case of Pont-de-l'Arche, Isles-lès-Villenoy, and presumably Les Ponts-de-Cé, Coupland argues that the bridges were converted temporarily into obstacles by the insertion of timber baulks blocking the bridge spans, arguing that the commercial importance of fluvial transport could not allow the rivers to become permanently impeded. In Coupland's opinion, this may explain the apparent ease with which a Viking fleet travelled up the Seine in July 865. It might be suggested that the presence of fortified bridgeheads at Pont-de-l'Arche was deterrent enough without the need for an actual, tangible barrier to riverine traffic, as long as the bridgeheads were garrisoned. If the bridge piers were close enough together to force a boat to pull in its oars and pass slowly, it would be left extremely vulnerable to attack from above. In the case of a large fleet, where synchronized manoeuvrability might anyway be difficult (Gillmor 1988b, 82–83), a bridge could presumably have the effect of a bottle neck and further expose the Viking host. Friendly traffic, while also slowed down, would nonetheless be able to pass freely.

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seafaring invaders, who could travel along rivers as well as roads, the role of bridges must have become significantly more complex (Halsall 2003, 148–49). Discussion of the continental Viking threat reminds us of a further consideration. Carroll Gillmor (1988b, 100–107) discusses the difficulty for a large Viking fleet consisting of ships of varying size to negotiate rivers without losing formation, especially when travelling through river-bends. This, it is argued, would have seriously slowed the advance of a fleet, making overland attacks, launched from the ships, a far greater worry to those concerned with the defence of the countryside. This and the fact that the direction of advance along a river is far more predictable than movement over land would make it imperative on defenders to prevent the Vikings from gaining access from the rivers to the road network.

This much can be surmised from the arrangement of "double-burhs" in England. At Witham (Ex.), the location of one of Edward the Elder's defended sites (ASC A s.a.912), a bridge certainly existed from the eleventh century. Howbridge or Hubbridge, straddling the River Brain, is recorded in Domesday Book (Reaney 1935, 301). It is impossible to say, without archaeological support, if the bridge had its origins in the tenth century or earlier. Whenever it was constructed, it is most unlikely that its purpose was to prevent or control riverine movement, since it is improbable that the River Brain was navigable at this point (Edwards and Hindle 1991, 130, fig.2).[18] On the other hand, Witham is on an important former Roman road from Colchester to Chelmsford (Margary 3b) and eventually London—important at many periods, but perhaps especially so in the late ninth and early tenth centuries, when it was a major route-way from Viking territory into English. It seems more plausible that the bridge here was constructed to facilitate the movement of the *fyrd* into north-east Essex, and that the intention of the stronghold was to prevent Viking use of this crossing. That fortified sites such as Bedford, Stamford, Wallingford, Thetford, and Hertford all contain the generic *ford*, underlines their importance as river crossings.

As crossings, bridges worked to integrate territories, and it may be significant that several major bridges were the responsibility of large administrative districts, whose obligation was still assessed on the basis of hides in the later medieval period (Cooper 2006). The *Anglo-Saxon Chronicle* entry for 1097 implies that the maintenance of London's defences and bridge were the obligation of "many shires". Similarly, in his discussion of Cambridge, Maitland (1897) suggested the idea of a county bridge, where the obligation was drawn from a large district, not merely the duty of the local hundred. In Cooper's reading, this is evidence of the existence of a small number of major bridges (also including Chester, Rochester, Huntingdon, Nottingham) that played a strategic role during the first Viking war, whose construction (or restoration) required special laws to ensure their maintenance. In light of the above discussion it seems likely that these bridges served, not primarily as strategic defences for these territories, but as logistical conduits, linking burhs to their far-flung economic and military resources and interests.

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[18] It should be noted that Edwards and Hindle assess the navigability of waterways based on later medieval material; but in Witham's case, the fortified site at Maldon, at the effluence of the River Blackwater into the Blackwater estuary, may already have controlled access to that river and thus the River Brain too.

This revised emphasis of the role of bridge-work has further implications for the interpretation of the double-burhs of Edward the Elder. Rather than controlling the waterborne movement of Vikings further inland, their primary strategic rationale appears to have been as defended fords or crossings, providing simultaneously for the safe transportation of English armies over potentially dangerous crossings, controlling the otherwise uninhibited movement of enemies along major roads, and defining defended open areas for the provisioning of burghal garrisons. It is significant that all identified double-burhs exist on the major routes into the Danelaw (London, Wallingford) and within it (Thetford, Stamford, Cambridge, Bedford), and it is possible that they fulfilled the roles primarily during the conquest of the Danelaw, when the logistical pressure on maintaining a West Saxon army in the field was paramount.

In this regard, the scale of D-shaped enclosures may be significant (Fig. 37). The King's Ditch at Bedford encloses an area of some 17.7ha, including an undefended riverfront of nearly 600m. This huge area is exceeded by the King's Ditch at Cambridge (36ha with c.1100m of waterfront), and curvilinear enclosures at Witham (30ha and 1200m of waterfront) and on the south bank of the Little Ouse at Thetford (69.2ha and c.1400m of waterfront), but is broadly comparable with enclosures at Stamford (11.7ha and c.500m of waterfront) and Cambridge Phase 1 (10.0ha, 300m). Morphologically, these very large enclosures are quite different from the bridgehead defences of Cambridge Phase 1, Wallingford (3.2ha), and London (6.6ha). The probable late tenth-/early eleventh-century date of the latter makes us mindful that this category of fortified bridgework belongs more properly to the reign of Æthelred II.

Waterways and Maritime Capabilities

Although bridges may not have functioned in the first instance as blockages, the close association between burhs and major waterways nevertheless underlines the importance waterborne movement played in determining the location of defensive strongholds. In only few cases are Burghal Hidage forts not tied topographically to navigable rivers or coastal havens. This reflects, at least in part, the perceived direction of Viking attacks; but so too does it emphasize the importance waterborne transport more generally played in regional and supra-regional integration, a point most recently elaborated in a volume edited by John Blair (2007c). Coming out of this collection of papers is a consensus view of extensive, well-managed riverine communications existing in the late Anglo-Saxon and Norman

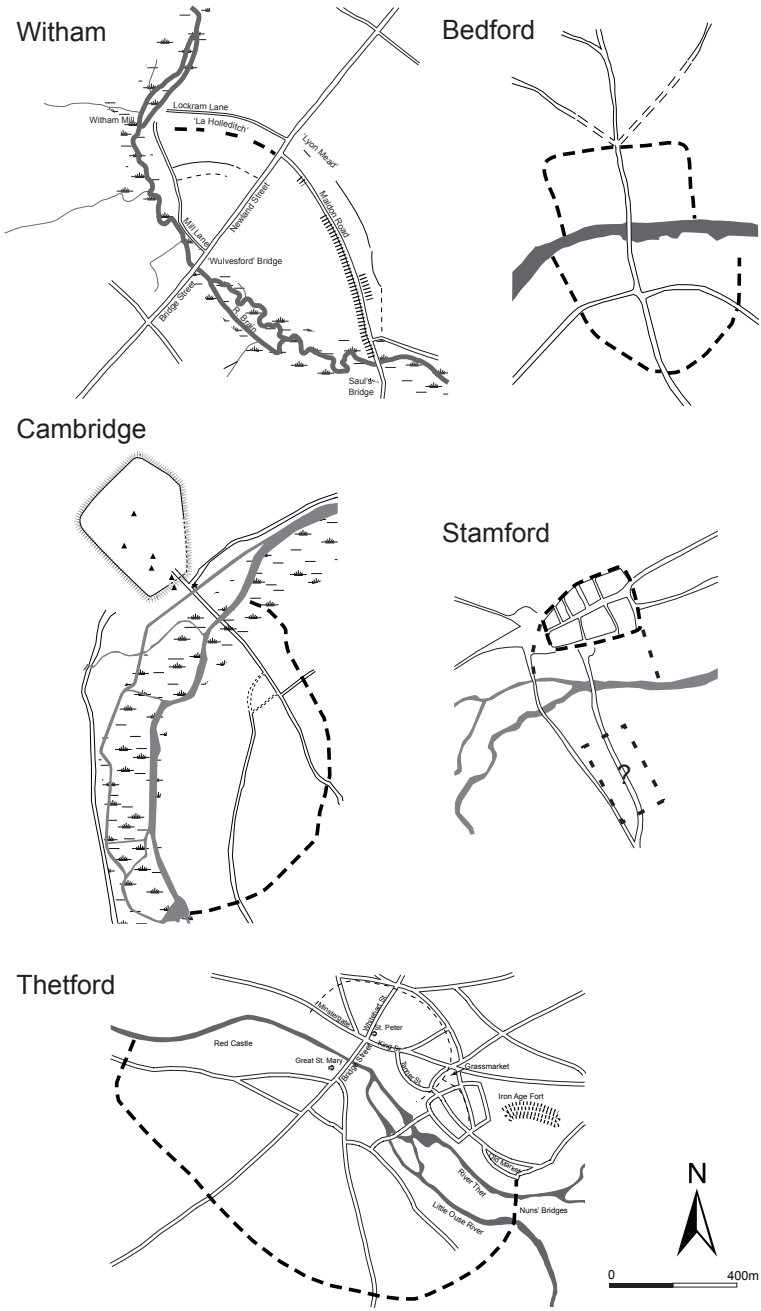

Fig. 37. Comparative plans of "double burhs".

periods, which appear to have been facilitated by optimum climatic and fluvial conditions. Inland and coastal waterways served as the main routes for the transportation of bulk commodities over large distances, with the nodal "break points" between different waterborne systems (riverine, coastal, oceanic), and between waterborne and overland systems particularly significant (ibid., 13; Langdon 2007, 120–1). These "break points" are likely also to have affected military strategy in several clear ways. The limit to which vessels could navigate upstream determined the effective range of an offensive force's supply lines. It also defined the area, alongside the coast, which could be surprised by rapidly-moving mobile forces making landfall.[19] By way of contrast, campaigning inland beyond these points required different tactics, where the size and composition of armies, and the strategic use of fortresses, played a greater determining role. By protecting the intersection between key watercourses and roads, burhs worked to limit the options available to enemy armies by restricting their access to overland routes and agricultural lands beyond the river and coastal shore. Simultaneously, garrisons overseeing these points provided ready-assembled forces located at the most significant strategic nodes in the communications network.[20] No longer could a campaigning Viking force rendezvous unchallenged with a fleet at a good coastal anchorage, and nor could that fleet make easy landfall.[21]

Our ability to map waterborne mobility in the Viking Age depends on two factors in particular. The first concerns an assessment of the quality of the system of waterways before reliable written evidence for navigation. The second relates to the nature of Viking Age boats themselves. With regard to the former, it is likely, following Blair (2007a, 12–13), that the "maximalist" model of river navigation presented by Edwards and Hindle (1991)

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[19] The element of surprise clearly played a role in early waterborne raids on Kent, York, Nottingham, and Thetford in the ninth century, but was still a tactic employed in the later tenth century as part of renewed Viking activities. It has also been suggested that some of the large-scale movements of the Great Army during the campaigns of 866–95 represented tactical moves deliberately designed to surprise the West Saxons (Griffith 1995, 117).

[20] From this perspective it is of interest that when the Danish army built a fort for the protection of their boats at just such a break point on the River Lea in AD 895, Alfred's counterworks were similarly designed to limit their strategic mobility; in this case barring their route back to the sea.

[21] This point is made cogently by Richard Abels (1988, 71–72): "The presence of well-garrisoned boroughs along the major travel routes of Wessex presented an obstacle for viking invaders. Even if a viking *here* avoided the borough forces and successfully raided the interior, the booty-laden army would face the borough garrisons as it attempted to return to its ships or stronghold".

represents a reasonable assessment of the eleventh- to thirteenth-century situation; and therefore comparable with the scale of late Anglo-Saxon riverine communications. Despite this general conclusion, close study of the navigation of some rivers has suggested that Edwards and Hindle are on occasion too generous (Langdon 1993 and Jones 2000; cf. Edwards and Hindle 1993). There are certainly dangers in drawing conclusions about late Anglo-Saxon navigability based on thirteenth-century and later material, although some of the challenges to inland travel by river may have been created by weirs and mills constructed in the intervening period (Langdon 2000). However, John Langdon's (1993) further caveat regarding the seasonal use of waterways does need highlighting. His analysis of thirteenth- to fourteenth-century purveyance accounts emphasizes that waterways were effectively navigable in upper reaches only in winter. Perhaps reflecting this situation it is noticeable that the Vikings carried out long-distance troop movements immediately before taking-up winter-camp, for example from York to Nottingham (866), from York to Torksey (872), and from Repton to York (874).

The range of navigation was also subject to the types of vessels being used. A variety of boat types are known archaeologically from the Viking Age, including barges (Oseberg, c. AD 820), general purpose vessels (Gokstad, c. AD 900), warships (Ladby, c.AD 900, Skuldelev 2, c. AD 1055, Skuldelev 5, c. AD 1030), oceanic (Skuldelev 1 *knarr*, c. AD 1030; Hedeby 1, c. AD 1025) and inshore cargo vessels (Skuldelev 3, c. AD 1070; Graveney, c. AD 930). Of these, double-ended warships and flat-bottomed vessels in particular were able to operate in shallow waters. The draught of the Gokstad vessel was 0.74–0.95m while Oseberg had 0.90m (Griffith 1995, 95), allowing them to manoeuvre up small creeks and channels wide enough to use oars or be towed. This ability is underlined by the appearance of ships in 895–96 twenty miles up the River Lea (ASC A 895), probably therefore above the limit of later medieval navigation at Ware; and perhaps at Bedford and Tempsford on the Great Ouse in 1010, both above St Neots.[22] It is, however, also significant in this regard, that the Gokstad finds included, alongside the large ship, three further smaller vessels (so-called *faerings*), designed to make landfall in shallow water (Seal 2003).

Inland waterways were linked to a wider navigable world of the sea where (weather, currents, and below-surface obstacles excepted) there

[22] If indeed waterborne assaults formed part of the Viking operations here. These sites are within the limit of navigation as suggested by Edwards and Hindle (1991, table 1), but beyond that suggested by Jones for the later medieval period (2000, fig.2).

were few restrictions placed on movement. Events in the *Anglo-Saxon Chronicle* suggest that these maritime passageways were routinely exploited by raiders, particularly during the ninth century, affecting all of the countries on the rim of the North and Irish Seas. In the 830s, raids on England can be related to Viking activities in Ireland, whilst forays on the southern and eastern coasts in the 840s form an extension of attacks on Frisia and Francia (Hill 1981, 36–37). During this period the estuarine islands of northern Kent in particular were used as bases for opportunistic raids. Viking armies appear to have established a presence from an early date. In 811 they are known to have built fortresses on the north coast, and large armies are reputed to have over-wintered on Thanet in 851–52 and Sheppey in 854–55; long before the more sustained campaigns of 864–78 and 891–96. The location of these islands on sea-lanes made them particularly strategic. Proximity to mainland Europe meant that Kent and Essex were positioned on many of the main routes between England and the continent. Control of Kent meant control of cross-Channel sea-lanes, but its location on major maritime routes meant also that Viking forces based here could move in one of several directions: inland or around the south coast into Wessex, north either into the Thames or along the East Anglian coast, or south and east into Francia. This strategic position, coupled with the ready availability of defendable island sites along the relatively isolated coastline, is likely to have influenced Viking decisions throughout the ninth century. Forces based in the mouth of the Thames could exploit opportunities on a number of fronts, but their position also provided an exit-point when the threat of retaliation escalated dangerously—as it may have done in 811 (S 1264; Brooks 1971, 79)—or when opportunities arose elsewhere.

Some sense of the strategic value of these islands can be gained by comparing land and sea distances. Using average sailing times derived from Ohthere and Wulfstan's voyages, we can estimate the range and speed of a Viking fleet at around 1.5 to 2 knots against the wind, 6 to 8 knots in favourable conditions, maintaining an average speed of 3 to 4 knots (Crumlin-Pedersen 1984, 33; Morcken 1968; Englert 2007, 120; Baker and Brookes forthcoming b). From this it is calculated that ships could be in Kent from Denmark in four days, and from here they could be in Paris, Southampton and the Wessex heartland, or in Dorestad in less than two days.[23] When viewed against these logistical choices, the role of some burhs in blocking

[23] These distances compare favourably with those produced by experimental Scandinavian ship reconstructions (Crumlin Pedersen and Vinner 1993; Brøgger and Shetlig 1953)

access into the interior can be envisaged.[24] Offshore islands also provided safe anchorages for shipping on their landward side, and it is clear that this was also a determining factor in the trend of Viking activities. *Knarrs*, as troop transporters, required still waters with appropriate landing facilities; initially a beach (*strand*), but increasingly from the tenth century, formal structures which Milne calls *hithes*.[25] Coastal havens, inlets, and major river-mouths were best suited to fulfil these topographical requirements, and accordingly played a key role in the tactical manoeuvres of both Viking and English maritime forces.[26] It follows that coastal havens were often the location of "sea" battles—presumably hand-to-hand affairs utilising both ships and shore as fighting platforms—as these were the places where opposing fleets could rendezvous and be supported by land forces (Keegan 2004, 63–65).[27] Major engagements are recorded in the *Chronicle* at Portland (837, 982, and 1052), Carhampton (836 and 843) and the mouth of the River Parret (845). Sandwich haven, a large expanse of water at the southern terminus of the Wantsum Channel protected by Deal spit, was the site of a major sea battle as early as 851—when King Æthelstan of Kent triumphed over a Viking fleet (ASC A, B, D)—but was also, significantly, the place where fleets (both English and Danish) were mustered in 1009 (ASC CDEF), 1045 (ASC C), 1049 (ASC C), 1052, and 1066 (ASC CD).

Judging from these accounts the English were clearly able to pursue naval warfare. Both John Haywood (1991) and Matthew Strickland (1997) have argued persuasively that the late Anglo-Saxon navy played a major part in challenging Viking maritime supremacy. Over the course of the tenth and eleventh centuries repeated allusions in the sources refer to the mobilization of English ships, and their often successful engagement with the enemy. Fleets also served to sustain internal dissent, as in 1049, 1052,

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and a half-scale model of the Sutton Hoo Mound 1 ship (Gifford and Gifford 1995; 1996; 2002, 17).

[24] The evidence presented by Baker and Brookes (forthcoming b), highlights the different nature of strategic threat posed by seafaring fleets threatening the coast, and by those travelling upriver and consequently more slowly and more predictably. The unifying aim of defensive planners, indicated by the location of strongholds, was not to prevent entry into the rivers, but to deny access to overland routes.

[25] This interpretation of *hȳð* is contrary to that expressed by Ellmers (1972, 137–38), but is suggested by archaeological evidence from the London Thames waterfront (cf. e.g. Milne 2003, 45–47).

[26] This is a point also made using place-name evidence, with 'port' places commonly mentioned in sources (Cole 2007, 60).

[27] The events in ASC 934, 1063, and 1072 make it clear that naval and land forces could work in tandem.

and 1066 (Strickland 1997, 370). How much this naval power was the result of Alfred's policy of boat-building is difficult to say.[28] The higher visibility of West Saxon fleets after Alfred certainly supports popular opinion (Hooper 1989; Hollister 1962, 103–26; Swanton 1999), but of course he was taking part in a pre-exiting tradition of West Saxon naval activity. It is noteworthy that the Viking Age waterfront sequences of several towns (e.g. London, Dublin, and York) witness an increased investment in formal embankments over the course of the tenth and eleventh centuries, usually supplementing earlier "hards" or reinforced foreshores; but on the other hand this is also likely to reflect the increasing size of cargo ships in general over the same period.

Edwards and Hindle's (1991, fig.3) map of medieval transportation provides an important insight into the strategic rationale of late Anglo-Saxon civil defence. It is clear, when comparing the location of individual strongholds, that it was the connection between water and road systems that determined the strategic response. Some 67% of the West Saxon burghal sites are located on navigable waters, and a further 68% of these—that is nearly half of all sites—are close to the limit of navigation, at the point where water and land networks intersect.[29] Apart from the Thames sites below Oxford,[30] only Lyng, Axbridge, Christchurch, and Southampton appear to have been sited to restrict the free flow of ships further upstream. Despite the increased significance of "double burhs" in the reign of Edward the Elder, these figures are comparable with those of his reign, with 8 of his 16 burhs located at the limit of inland navigability.

It must be assumed that most coastal ports were at once suitable for beaching and launching ships, and attractive to seaborne raiders, in which case it is reasonable to assume that naval provision might have covered any or all such locations. Place-names alone do not necessarily provide an indication of where naval activity was centred, although in this regard two estuarine instances of the place-name compound *here-wīc*, "specialized or

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[28] ASC (A) 897: "Then King Alfred ordered long-ships to be built to oppose the 'askrs'; they were well-nigh twice as long as the others, some had 60 oars, some more; they were both swifter and steadier, and also more responsive than the others; they were neither of Frisian design nor Danish, but as it seemed to himself that they might be most useful" (Swanton 1996, 90).

[29] Dorchester (Do.), despite its existing Roman town walls, and known use during this period, was not included in the Burghal Hidage, perhaps precisely because it failed to fulfil this geographical criterion (cf. Hinton 1977, 40).

[30] The Thames does not appear to have been navigable above Radcot (Blair 2007b, 285; and below, Chapter 5).

dependent settlement associated with an army", may be relevant. Harwich (Ex.) and Harwich Street in Whitstable (Ke.) might conceivably mark the sites of naval musters.[31] Several commentators have suggested association with the Viking wars of the later ninth century, and the remains of a military camp were still apparently visible at Harwich (Ex.) in the eighteenth century (Doubleday 1903, 285; Reaney 1935, 339). Other possible instances of this compound do not have coastal or estuarine situations,[32] but Baker and Brookes (forthcoming a) suggest that a number of place-names with *here* as first element describe places where armed groups mustered, and this could certainly mean naval forces in suitable areas, and on appropriate occasions. Harwich Street lies by the port and hundredal centre of Whitstable, in sight of the lookout of Warden point (OE *weard-dūn* "watch hill"). Warden point was probably one of the lowest spots on the southern shore of the Thames estuary from which the Essex coast could be seen clearly, potentially allowing watchmen to identify any raiding party, whether they entered via the Wantsum Channel or originated in East Anglia. Ships' crews based in Whitstable might therefore have been well placed to intercept hostile fleets. Harwich (Ex.) lies at the most north-eastern tip of its historic county. If the northern boundary of Essex was defined in the ninth and tenth centuries by the River Stour, as it is now, then Harwich was probably the north-easternmost extent of West Saxon authority at times during this period. It is also well placed for observation and policing of hostile fleets intending to enter, or perhaps more pertinently to leave, East Anglia by means of the rivers Stour and Orwell, or more generally travelling up or down the east coast. Paul Cullen (1997, 297–98) rightly points out, however, the semantic difficulty of assuming that *wīc* had a sense similar to "military camp" (cf. Ekwall 1964, 17; Coates 1999), and prefers to take the Kentish example to be a trading settlement somehow associated with an army.

Other place-names provide information about the extent of riverine navigation, not least those that imply the existence of commercial settlements. In coastal and riverine locations, this might apply to OE *port*, but its modern sense "a port, haven", is less common in place-names than the

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[31] Harwich (Ex.) is *Herdwic* 1229, *Herewic* 1248 (Reaney 1935, 339); Harwich Street (Ke.) is *herewic* 863, *de Hertwick'* 1240, *Herwich'* 1254 (Wallenberg 1931, 216–17; Wallenberg 1934, 494).

[32] For example, Harwick in Laxton (Nt.), which is *Herewyk Wro* 1335 (Gover, Mawer, and Stenton 1940, 299), and the lost *Herwichil* 1230–50 in Kingerby (Li.; Cameron 1992, 51). Two further possible examples, one in the bounds of the Bathampton (So.) charter (S 627; cf. the Language of Landscape website: http://www.langscape.org.uk/) and Herdswick in Ogboure St George (Wi.; Gover, Mawer, and Stenton 1939, 304; Draper 2002, 41) are doubtful.

more general meaning of "a (market) town" (ASD; Smith 1956b, 70), especially where *port* occurs as the generic.[33] A number of place-names in OE *wīc*, such as Fordwich (Ke.), Ipswich (Sf.), and *Hamwic* (Ha.) denote trading settlements in river-side locations, again emphasizing the significance of the maritime engagement fought in the vicinity of Sandwich (Ke.), and OE *ēa-tūn*, commonly preserved in modern place-names of the Eaton type, may refer to settlements with a specific function relative to rivers, perhaps providing a ferry service, or charged with keeping the river free of obstruction and suitable for navigation (Gelling and Cole 2000, 14–15, esp. fig.3; Cole 2007).

Names containing *hȳð* "landing-place on a river, a port" (Smith 1956a, 278; Gelling and Cole 2000, 83) and *strand* "land at the edge of a piece of water, a shore, a bank" (Smith 1956b, 162) at least provide evidence of landing-places, whether used for military or mercantile purposes. OE *ōra*, the second element in Windsor, may sometimes denote "a firm fore-shore" or "a gravelly landing-place" (Ekwall 1960, 350, 523; Gelling and Cole 2000, 203–8). OE *ōfer* "river-bank", is hard to distinguish from OE **ofer* 'ridge', and although it is not independently attested, **ofer* may be overwhelmingly more common in place-names than *ōfer*, even if the latter has been suggested for the place-name Elmore (Gl.; Smith 1964b, 162), and seems to interchange with *ōra* in some names, including Windsor (Gelling 1973–76, 26–27), and the lost field-name *Overton* in Windsor (*ibid.*, 19, 35, 894). Gelling points out the semantic weakness of a riverside place-name meaning "river-bank", since such a label might describe many riverine settlements (Gelling and Cole 2000, 199–200), and this may explain the apparent near-absence of *ōfer* from place-names. Perhaps more promising are OE *hwearf* "an embankment, a shore, a wharf" (Smith 1956a, 272), and *stæð* "the bank of a river, a shore" (Smith 1956b, 142), although in the latter case, Smith notes that the sense "landing-place" is not evidenced before the fourteenth century.

The true significance of place-names in *hȳð*, *ōfer*, *ōra* (in the sense postulated by Ekwall), *hwearf*, *strand*, and *stæð* can perhaps only be appreciated by considering the nature of major rivers in the early medieval period. Long stretches of arterial riverine routes, such as the Ouse and Thames, are surrounded on both sides by extensive floodplains. Vessels travelling along the main river channel might not find it easy to cross this marshland, and would not therefore be able to land except in a few places where the chan-

[33] Place-names such as Portsmouth (Ha.), Portbury (So.), Portslade (Sx.), and Portland (Do.) probably all have *port* in the sense "a haven, a harbour" (Smith 1956b, 70; Watts 2004).

nel came into close proximity with higher land or firmer geological outcrops. For instance, Bluntisham (Mawer and Stenton 1926, 204), at more than 10m OD, rises impressively above the surrounding fenland, much of which is below the 5m contour. Mawer and Stenton take the second element to be OE *hām*, but *hamm* is also possible, and the sense "land hemmed in by marsh" would appropriately describe the setting (a sixteenth-century form *Bluntsome* is, however, probably too late for the *-o-* to be conclusive evidence of *hamm*; cf. Gelling and Cole 2000, 47). It is only at nearby Earith (*Herhethe* 1244 (c.1350), *Earheth* 1260), OE *ēar-hȳð* "muddy landing-place" (Mawer and Stenton 1926, 204–5), that the main channel of the Great Ouse comes into contact with land above the 5m contour. Place-name elements meaning "river-bank" need not have been as semantically redundant as Margaret Gelling supposed, since actual, accessible river-bank may have been relatively rare along many major rivers.

Information

The collection of data on the movements of hostile armies starts long before those forces enter the physical landscape of warfare. Contemporary sources make clear that espionage was a part of early medieval military activity and in Francia at least from the eighth century (Bachrach 2001, 202–5). Abels (1998, 159–60) makes the point that Alfred's efficiency and success in the Edington campaign must in part be due to active use of scouts and spies, a fact perhaps commemorated (though in apocryphal form) by the tale of Alfred's escapade in Guthrum's camp, disguised as a jester. The fact that William of Malmesbury recounts this story indicates at least that such activity was anticipated in the twelfth century, if not earlier (*Gesta Regum* ii.121.5; Keynes 1999, 227–28). The Bayeux Tapestry depicts William of Normandy in the act of receiving intelligence, after his landing in England and prior to the Battle of Hastings; and it is clear that Harold was expected to be similarly well-informed (Davis and Chibnall 1998, 106–7; Gillmor 1984, 124). The use of scouts by Earl Hakon may also be implied by Snorri Sturlusson in *Olof Trygvasson's Saga* (§38).[34]

[34] Aðalbjarnarson 1941–51, volume 1. The Old Icelandic *njósn* may be translated in a number of ways. Laing (1907, §41) uses the word "spies", while in the translation by Finlay and Faulkes (2011, 172 (§38)) the sense is one of "watch" being kept. Hollander (1964, 178 (§38)) prefers "reconnoitering". The idea seems to be the gathering of information or intelligence.

The use of scouts is also well attested in Carolingian warfare (Bachrach 2001, 188–90) and was no doubt important also to the Anglo-Saxons. In this context, the *Chronicle*'s frequent reference to armies using cover of darkness to evade the West Saxon *fyrd* may be relevant. In 865 the Viking army in Kent is said to have stolen away inland "by night" (*se here hiene on niht up bestæl*; Whitelock 1979, 176), and when Guthrum's host stole past West Saxon forces and into Wareham ten years later (*her hiene bestæl se here into Werham Wesseaxna fierde*), Asser (§49) makes clear that this was achieved at night (Keynes and Lapidge 1983, 82). Since the Viking army on this occasion started out in Cambridge, it is difficult to see how its departure from there by night could have thrown the West Saxons completely off their guard. A mixed army on foot and horse might only have been able to cover between twelve and fourteen miles a day (Haldon 1997, 122–23). Even if the whole Viking host travelled on horseback, it might have taken several days to reach Wareham. It was also at night, the following year that they evaded the West Saxon forces on their way to Exeter (*7 hie þa under þam hie nihtes bestælon þære fierde se gehorsoda here into Escanceaster*), and further instances of hostile nocturnal movements are mentioned in later annals (ASC A *s.a.* 901 (for 900) and 918 (for 914)).

The specific excuse of darkness seems to rule out simple failure of a system of lookouts and beacons, since a large army following an established route-way might still be audible even if not visible, and would certainly be detectable by appropriately posted watchmen. Beacon fires ought in fact to be equally or more effective at sending messages by night, and even an army that set out in darkness would eventually be met by daybreak. What these passages may be emphasizing is the difficulties faced by scouts and the confusion that could arise when armies manoeuvred by night. In the challenging conditions of darkness, when the coherence of a marching army might be put at risk, it was perhaps easier for one force to use reconnaissance in order to avoid contact with an enemy, than for that enemy to coordinate an effective intercepting manoeuvre.

In general, espionage and scouting are much less likely to have left an impression on the landscape than lookout and beacon systems. The work of Hill and Sharp (1997) in Hampshire, and of Reynolds (2000) in the Kennet valley has highlighted the possible complexity of signalling systems within a civil defensive framework. At a local level, beacon signals between forts in close proximity could have warned troops of the imminent arrival of hostile forces—a simple message that the neighbouring stronghold was already under attack or that the enemy was on the local road and needed to be intercepted (Brookes 2013). But beacons can provide an important

long-range signalling system, as stressed by Hill and Sharp (1997), who outline the elements of an extensive network of beacon sites in Hampshire, capable of relaying news of a seaborne Viking attack from the coast to the interior of Wessex within minutes (Fig. 38). Of course, as well as relaying point to point messages (however basic), the lighting of a beacon system can reach all areas within sight of any of the individual fires, thus having the potential to rouse an entire population in quick time. The symbolic message of a well-drilled nation prepared to confront its attackers must also have impressed invaders and threatened population alike. The ability to send signals rapidly over long distances has been important for peacetime and military activities since ancient times. Polybius, for example, reports Hanibal's use of smoke signals during his advance across Gaul (Polybius *Hist.*, Bk 3, 43.6), and there are many other early references to beacons and beacon systems (White 1931, 252; 1934; 77–8; Burns 2004, 3–16). Signalling stations were certainly an important part of the late Roman defence of Britain, and there is some evidence of reoccupation, perhaps even refortification of these in the post-Roman period (Ottaway 1996; Russell 1955, 251).

There is extensive evidence of the use of signalling systems in continental Europe in the medieval period, with references to beacon systems as early as the ninth century in the Paris region. Such beacon systems could be fairly crude—Robert the Frisian, for example, is said to have signalled his arrival in Flanders in 1071 by setting fire to a house in Kapelle (Verbruggen 1997, 326)—but some of the beacon signals were apparently of considerable complexity, involving different numbers of individual fires and the covering and uncovering of these fires to convey different messages. Use of lighthouses is well evidenced, especially along the Mediterranean littoral, but Charlemagne is also known to have repaired the lighthouse at Boulogne as part of his coastal defences against the Vikings. Other medieval means of rapid long-distance communication included the ringing of multiple bells, a signalling method also used in the modern era (Musgrave 1800, 101–2), and the deployment of carrier pigeons, which were extensively used by Muslim forces during the Crusades (Verbruggen 1997, 325–27). *Orkneyinga Saga* (13, 112, 118–21), written around 1200, makes reference to an ultimately failed system of beacons in the Northern Isles, set up during a period of hostility between Earl Páll and Earl Rognvald in 1136 (White 1934, 78), and beacon networks certainly existed in England as early as the fourteenth century, such a system on the Isle of Wight being outlined in an Inquisition of 1324 (White 1931) and throughout much of England in the following years (White 1934, 78–9; Russell 1955).

Fig. 38. Images of beacons lit to celebrate the Diamond Jubilee of Her Majesty the Queen, 4 June 2012: bonfire beacon at Clarendon Park, near Salisbury (*top*); the national beacon at Buckingham Palace (*centre*); view of beacons at Hillmark and East Knoyle from Clarendon Park (*bottom*; the distance from Clarendon Park to East Knoyle is 40km). During the Silver Jubilee celebrations in 1977, more than a hundred beacons—stretching from St Kilda to Dover—were strategically sited to relay the signal from Windsor. Accounts of the event record that the terminal beacon on Unst, Shetland Isles, was lit precisely one hour after the start of the beacon chain at Windsor (RICS 1977, 29).

We know from contemporary sources that beacons were a part of late Anglo-Saxon warfare. The *Chronicle* makes an apparently ironic reference to them (ASC E s.a. 1006) in the context of the Viking army's custom of setting fire to settlements in its path, and there are many instances of the word *bēacen* in Old English literature, although its range of meaning extends beyond "visible or audible signal" to include "physical symbol", "outward mark or appearance" and "sign, portent" (DOE). It is in variants of these other senses that the word is used three times in *Beowulf*, and in most other Old English occurrences. Indeed, the *Chronicle* instance cited above is the only documented Anglo-Saxon use of the term in apparent reference to signal fires. Similarly, it should be noted that OE *ād*, thought in place-names to have a sense "beacon", is generally used in written sources to mean "funeral pyre" (DOE).

Given the use of beacons in Francia, however, there is little reason to believe that the Anglo-Saxons were unfamiliar with the concept of signalling systems, and the doubts expressed by Griffith (1995, 150–52) about the ability of Viking Age society to maintain effective watch and efficient beacon systems may be groundless. In recent times, archaeological fieldwork has identified possible early medieval beacons in Wiltshire (Reynolds 1995; 2000) and in Orkney (Bradley and Gaimster 2000, 338). Furthermore, the duty described as *vigiliis marinas* or "coast watch" in a charter for St Keverne in Cornwall (S 832) may refer to the maintenance of a system of beacons and lookouts. The Old English document known as the *Rectitudines Singularum Personarum* lists keeping watch on the sea-coast as one of the duties of the cottager, a clear hint at the existence of some kind of organized lookout system (Liebermann 1903, 446). Hill and Sharp (1997, 158–61) list a number of other possible references to this kind of system in Anglo-Saxon England and, significantly, the possible use of beacon fires by King Æthelstan. This is inferred from a passage of Richer's *Histoire*, in which a French reception party and King Æthelstan send signals across the Channel by setting fire to houses. Once assembled on the beach, the French party sets fire to some cottages (*tuguriorum incendio*), to signal their presence to Æthelstan, who in turn orders several houses to be set on fire (*Cujus jussu domus aliquot succensae*) to publicize his own arrival at the coast, ready to send his nephew Louis d'Outremer across (Richer, *Histoire*, §3). Latouche (1930, 130–31, n1) doubts the veracity of the account, given the distance that separates the English coast from Boulogne (a distance of about 50km). It is arguable that the suggested beacons would have been at the limit of visibility, but even if the light from the beacons were not visible,

the pools of smoke might well have been.[35] If nothing else, this passage suggests that at Rheims at the end of the tenth century, when Richer wrote his account (ibid., v), it was quite acceptable to suppose that Æthelstan might communicate with emissaries on the other side of the Channel in such a way.

Richer's description of Æthelstan's beacons recalls the account of Robert the Frisian and the *Chronicle* entry for 1006 (both discussed above), which seem also to associate beacons with the burning of buildings. In this context, the scene from the Bayeux Tapestry, in which a woman and child flee from a house being set alight, may be relevant. The caption reads "*hic domus incenditur*", and of course it may depict the ravaging that followed the Norman landing; but the protagonists setting fire to the structure are apparently unarmed. The scene is immediately preceded by one in which a messenger brings William news of Harold and his army, and is followed by the advance of William's forces into battle. In that context, the burning of the house might be interpreted as a beacon; perhaps a warning signal to any of William's forces camped outside Hastings.

Vocabulary

Hill and Sharp (1997) have carefully assembled textual references to use and maintenance of lookouts in Anglo-Saxon England. The existence in Britain of places at least considered appropriate as lookouts is also attested in place-names. Not all lookouts necessarily had beacons, but in times of military threat, when rapid messaging was important, it would have made sense to install some kind of signalling system at lookout places. In that sense, words whose true sense is "lookout" or "watch-place" may often have been synonymous in practical terms with those that actually specify the use of beacons, although demonstrably medieval examples of the latter are comparatively rare. The word *beacon* is relatively common as a modern simplex place-name or as an affix to a pre-existing name, as in Ivinghoe Beacon. Although OE *bēacen* "sign, signal", the ancestor of ME *bēken* and ModE *beacon*, may be evidenced in place-names, it is not certain that "fire warning-signal" is the meaning in such cases (VEPN:1, 68, *sub bēcun*). The ME and ModE reflexes of *bēacen* lie behind the vast majority of modern *Beacon* place-names, and in most cases these names probably arose through use of the sites as beacons during the late medieval or early mod-

[35] Those involved in the lighting of a network of celebratory beacons across Britain in 1977 reported exceptional distances of visibility. For example, from Therfield Heath (Ht.) it was said that a beacon on Dunstable Downs, some 35km away, could be seen (Royal Institute of Chartered Surveyors 1977).

ern periods. Although the likelihood of continuity of use also makes such sites invaluable in investigating early medieval signalling systems, the names themselves are not demonstrative of Anglo-Saxon use of this kind. One of the normal OE terms for "fire beacon" may well have been *ād*, although "limekiln" may have been an alternative sense. Rune Forsberg (1970, 65–76) goes so far as to suggest that charter instances of *ād* at Barr Beacon (St.; S 574), Melbury Hill (Do.; S 630), and in the compound *ādfīnig* (Ha.; S 412) may refer to beacons in use during the wars with the Vikings in the late ninth century. The element is relatively rare in place-names, although Shemming and Briggs (2007) propose a side-form **āð* to explain three Dorset place-names which they consider to be probable beacon sites: Nath Point near Corfe Castle, White Nothe in Owermoigne, and The Nothe in Weymouth. Mills (1977, 23, 142, 256) takes these to contain an OE **hnoð* "knoll, hill".

A relatively wide range of terms indicative of observation (and perhaps also therefore signalling) is preserved in place-names, the evidence for which is discussed at length elsewhere (Baker forthcoming). In spite of the diverse vocabulary, two elements are especially relevant to this discussion: the OE feminine noun *weard* "watch" and OE **tōt* "lookout", and their ME and ModE derivatives. The first of these is used in Old English texts to describe the act of keeping watch and is found in a number of place-names and Anglo-Saxon charter bounds (although some examples could formally contain the OE masculine noun *weard* "a guard, watchman"). A large proportion of such place-names are first recorded by the eleventh century, which, together with the charter examples, gives the impression that this element was current in place-naming during the Anglo-Saxon period. OE **tōt*, by contrast, occurs in only a small number of early-recorded place-names and charter bounds, and is otherwise unrecorded in Anglo-Saxon texts (although ME *tote* is well evidenced). It is, however, relatively common in place-names first recorded in the late medieval and early modern periods, and many of these may have been coined before the Conquest even if only recorded later on.

One feature shared by both *weard* and **tōt* place-names is their association with generics denoting vantage points, such as *dūn* "flat-topped hill", *beorg* "rounded hill, mound", *hlāw* "tumulus, mound", *hōh* "spur", *hrycg* "ridge", and so on. Indeed, the compound **tōt-hyll* "lookout-hill" is so common in Middle English texts and in place-names as to suggest that it was an appellative (MED *sub* tote-hille; Smith 1956b, 185). Gabriel Pepper (1996, 432) considers Toothill in Westminster to refer to an artificial mound of the

type usually called *hlāw* in Old English, and indeed he notes an early mention of such a feature in the area (cf S 903; Gover, Mawer, and Stenton 1942, 174, 222). This might therefore be an example of the compound appellative being used. Kurath et al (MED, *sub* tōte) take ME *tōte* in a topographical sense to denote "a projection of rock and earth, a hill", and do not include a meaning "lookout"; but the compound use of the term with *hille* to refer to a "lookout-hill" must indicate that the sense "peep, look", which underlies the related ME verb *tōten* (<OE *tōtian*) is also present in the noun (cf. ASD, 1009). More generally, the recurrence of compounds where *weard* and **tōt* qualify hill-terms is compatible with their use to denote observation points, and these place-name elements therefore provide strong evidence of the former existence of lookouts.

They are not, of course, without problems. In areas subject to Scandinavian settlement and linguistic influence, there may be occasional confusion between OE *weard* and OScan. *varða* "a cairn", and OE *waroð* "shore" can also result in similar medieval and modern spellings. In such cases, the generic can be decisive—whether, for example, it is an OScan. rather than an OE word, and to what type of feature it refers. Certainty is not possible in all cases and, for example, generics such as OE *beorg* and its OScan. cognate *berg* can be orthographically identical in early forms (Smith 1956a, 31; VEPN:1, 89). First elements that resemble *varða* but are compounded with OE generics may be originally wholly OE compounds that have been partially Scandinavianized, since *varða* does not seem to have been current in ME (cf. MED).

Apparently genitival inflexion has led in some instances to derivation from the recorded personal names *Tota* or *Totta*, and the unrecorded personal names **Weard* and **Wearda*. Genitival form alone should not however preclude reference to an inanimate object (cf. Tengstrand 1940, 9–52, 105–12); and many genitivally constructed place-names where individuals are denoted, refer to an official role or personal status (e.g. *abbodes wylle* "abbot's stream") rather than to a named individual (ibid. 5). Again, the generics can shed light on this question. Where an apparently genitival composition denotes a probable vantage point—a hill or ridge, for example—the first element may still refer to a lookout place or watchman, both of which might quite reasonably be genitivally inflected. "Hill of the lookout-place" or "hill of the watchman" are surely acceptable interpretations of Tottenhill in Norfolk (*Tottenhella* 1086, *Totehill* 1251; Ekwall 1960, 478; Mills 2003, 467; Watts 2004, 624). Given the absence of a recorded personal name **Weard* or **Wearda*, the *weardæs bœorh* of a Berkshire

charter (9th (12th) S 317, S 503; Gelling 1973–76, 680–2) and the *weardan hylle* in the bounds of Odstock (Wi.; 928, S 400) could be the hills associated with a watchman (masculine *weard*) and a **wearde*, perhaps "a watch-place", respectively (cf. Ekwall 1960, 497 *sub* Wardington). The former is on raised ground with good views to the south (Grundy 1927, 144). *Weard* or **tōt –ing–* or *–ingas* (gen. *–inga–*) compounds might similarly contain references to lookout-sites or to persons whose role was to keep watch (cf. Gower 1992, discussed below).

On the other hand, instances where genitival inflexion occurs in a habitative compound, rather than one describing a raised position, might more reasonably be assumed to contain personal names. The case of Tottenham (Mx.) underlines the inherent difficulties. In this case, forms with *–n–* are regular from the thirteenth century (*Totinham* 1227, *Thotenham* 1236), suggesting a genitivally inflected personal name with OE *hām*, meaning "homestead or settlement of Tot(t)a" (Gover, Mawer, and Stenton 1942, 78). However, Tottenham appears in Domesday as *Toteham*, and forms without the medial *n* persist through the twelfth century up to 1237 (ibid.). There is a possibility, therefore, that the first element is actually an uninflected OE **tōte*, perhaps meaning "lookout-place", and that the *–n–* of the later forms is an inorganic intrusion, perhaps due to folk-etymology or to the proximity of the similarly-named Tottenham Court, which has much earlier forms with the weak genitival inflexion *–an*. The two orthographic traditions might even reflect a variation between *tote-hām* "homestead associated with a lookout-place", and *tōten-hām* "homestead of the lookout-place or watchman". It is worth noting that Tottenham is situated on Ermine Street and close to the River Lea, a suitable place for a lookout. Proximity to an elevated position or a route-way might not be enough to assert observational significance; but a number of lookout place-names have been identified near to the meeting-points of two or more route-ways (Baker 2011, 263; Baker and Brookes forthcoming b). In that respect, the location of Totton (Ha.; *Totintone* 1086), at the confluence of the Test and Southampton Water, and on a Roman road, makes it very suitable for the positioning of a lookout (Coates 1989, 164; Watts 2004, 624), even if formally it could be "the farm of *Tota*". The proximity of Wardington (Ox.; *Wardinton* c.1180) to Chipping Warden (Np.; a possible **weard-dūn* or "watch hill"), makes "farm associated with the lookout(-place)" an appropriate sense (Gover, Mawer, and Stenton 1933, 36–7; Gelling 1953–54,427; Smith 1956b, 246).

The related compounds, *weard-setl* "watch-house" and **tōt-ærn* "lookout-building" are another important indicator of observation sites. Gelling (1997, 146–47), notes the frequent occurrence of these compounds in association with prehistoric hillforts, which often occupied commanding vantage points. Charter instances of *weard-setl* form an important part of the reconstructed beacon system proposed by Hill and Sharp (1997), and **tōt-ærn-hōh* "lookout-building spur" is the probable etymology of Totternhoe (Bd.), which is recorded in Domesday and may form part of a signalling system in the south-east midlands (Baker 2011, 262–64). Other instances of the same compound may lie behind modern names of the Totterdown type. One such place-name is located in the parish of Tooting in Surrey (Armstrong et al. 1950–52 (3), lxxii) close to the former site of a sizeable artificial mound, and this has led Gower (1992), following Zachrisson (1932–33, 18) to propose that the parish-name also makes reference to an important lookout, the **Tōtingas* being "the people of the lookout". Gover et al. (1934, 35) had earlier dismissed Zachrisson's suggestion, but were apparently unaware of the existence of Totterdown.

Significantly, *weard-setl* and **tōt-ærn* place-names may denote physical structures associated with lookout positions, perhaps suggesting organized observation points, rather than *ad hoc* use of local high points. It should not, however, be assumed that place-names containing specifics denoting lookouts always mark the precise location of those lookout-sites. If the lookout was a sufficiently distinctive landscape marker, it might serve to define a nearby settlement, piece of woodland, or other topographical feature. There are indeed several instances of more than one place-name arising from the same lookout-site. For example *Tothull* and Tutty (Wood) in Lambourn (Be.) probably refer to a lookout-hill and a nearby enclosure named from the same feature (Gelling 1973–76, 340, 342), and the bounds of the Brokenborough (Wi.) charter seem to include a **tōt-hyll* and a **tōt-lēah* "open woodland by the lookout", the latter of which is preserved in the modern name Twatley Farm (S 1577; Gover, Mawer, and Stenton 1939, 54).

Other elements that may indicate the presence of Anglo-Saxon beacons or lookouts include OE *waru* "protection" and its side-forms (Mills 1977, 61; Cullen 1997, 252), an OE **cape* "lookout place", suggested in a few place-names including a lost *Capenesse* in Romney Marsh (Ke.; Smith 1956a, 80; Ekwall 1960, *sub* Capton; Cullen 1997, 275–76; VEPN:2, 141–42), *tācn* "token, sign, signal" or perhaps a variant **tǣcne* "beacon", which lies behind Teeton (Np.; Gover, Mawer, and Stenton 1933, 88; Ekwall 1960, 462) and **prāw* "lookout" found in Prawle in Chivelstone (De.) among other examples

(Mawer, Stenton, and Gover 1929–30, 520; Ekwall 1931, 79–80; Gover, Mawer, and Stenton 1931–32, 319–20; Wallenberg 1934, 489; Smith 1961f, 11). More problematic are OE *wacu* "a watch, a wake" (Ekwall 1936b, 189–90; Smith 1956b, 234), and *bēl* "fire, funeral pyre" and perhaps by extension "beacon" (Ekwall 1936b, 159–63; 1957, 139; Smith 1956a, 28; Cox 1994b, xxxvi, 68–9; VEPN:1, 78 and cf. 41), the significance and existence of which have been questioned. Blomé's (1929, 58) suggestion, taken up by Russell (1955, 254), that four Devonshire places called Bickington contain OE *bēacen* has been rejected on linguistic and onomastic grounds by Gover, Mawer, and Stenton (1931–32, 124), who note the persistent *Buk-* spellings indicating derivation from the personal name *Beocca* or *Bic*(*c*)*a*, and the clustering of known instances of this personal name in approximately the same region as the Bickington names.

With diversity of nomenclature may come regional variation. The recurrent compound **weru-horn* "lookout projection" (Cullen 1997, 252, 357, 382, 549) has been noted in eastern Kent, while in Devon and Cornwall, as many as fourteen instances of the compound *fȳr-bēcun* "fire beacon" are known, compared with only three elsewhere (Gover, Mawer, and Stenton 1931–2, 78 and 545; Russell 1955, 256; Smith 1961d, 50 and 205; Cameron 1996b, 114; Baker forthcoming). Instances of this kind suggest a localized terminology contrasting with the predominance of *weard* and **tōt* over much of the rest of England.

Previous Work

Early beacon systems in Britain have been an academic concern for many years. Indeed the opening paper of the very first volume of *Archaeologia* discusses a possible beacon system in Warwickshire (Ward 1770). Onomastic evidence has been used in a number of studies of Anglo-Saxon beacon systems. Kökeritz (1940, lxxv–lxxxi) discussed some Isle of Wight place-names containing Old English terms for "beacon" or "lookout" in the context of the working system of Isle of Wight beacons outlined in a fourteenth-century inquisition. Of the twenty-nine beacons mentioned, most have names unrelated to military activity, but two of them have possible beacon words affixed to their names (OE **weird*, a proposed side-form of *weard*, in *Nywetone at la Wirdde* and OE *ād* in *Woditone* at *la Ode*) and one is called simply *La Wyrde*. Three others may have had *burh* as second element, while one unidentified beacon may be the *Langedon* mentioned in 1349 in association with *Hethietout* (a probable OE **tōt*(*e*) or ME *tōte* place-name). An early seventeenth-century map, showing beacons on the

Isle of Wight, places one at Newchurch, probably near Wackland (*Wakelande* 1249; Kökeritz, 172–73), a name that may have OE *wacu* "a watch, a wake" as first element. In addition to this, Kökeritz noted the place-names Tothill, Totland and Warden Point, all of which may contain references to keeping watch.

Russell (1955) observed a similar coincidence of beacon sites in Devon with place-names containing Old English "lookout" terms. He proposed a system of watches in Devon, relying on runners, or perhaps riders, to pass on any tidings. Further discussion of the defence of Devon by Slater has noted the careful positioning of the Burghal Hidage fort of Halwell to control the area known as the Hams, with intervisible Iron Age forts perhaps reused as a beacon system in Anglo-Saxon times (Slater 1991, esp. 76–77), and Rainbird considers the possibility that Oldaport fitted into an extension of the same system (Rainbird 1998, 161 and Fig. 4).

The 1990s saw further work on Anglo-Saxon beacon and lookout systems (Fig. 39). In attempting to reconstruct a network of fortified sites around the perimeters of Anglo-Saxon Rutland and Lindsey, Cox noted several place-names that might indicate the presence of a system of watch and signalling. Around the borders of Rutland were *Wakehull* (OE *wacu*), Turtle Bridge, Twitch Hill (perhaps both from OE *tōt-hyll*), Wardley (OE *weard*), and Belton (OE *bēl*), and he cited the place-name Toot Hill, **tōt-hyll* "lookout hill", in Grimsby as possible evidence for a missing fortification there (Cox 1996, 53–55). Hill and Sharp (1997) have drawn together the evidence for the use of beacons in Anglo-Saxon England and reconstructed the probable extent of a beacon system in Hampshire, based on what is known of Elizabethan beacons in the county, augmented by relevant place-names in Anglo-Saxon charters. Of course, there is no way to prove that a sixteenth-century system was in use in the Anglo-Saxon period, but there are Old English charter references to lookouts at several of the beacon sites. Furthermore, Hill and Sharp (1997, 163) point out that the system is interlocking—if one beacon is removed, others become redundant—making it unlikely that beacon systems change much over time. Recent work by Shemming and Briggs (2007), using place-names indicative of beacons and lookouts, has attempted to extend the Hampshire system westwards along the Dorset coast.

Further to his 1992 discussion of Totterdown, Gower (2002) has also proposed a signalling system between Chichester and London. He notes a line of six **tōt* place-names overlooking Stane Street, at Aldingbourne and Pulborough (Sx.), Slinfold, Cranleigh, and Headley (Sr.), and culminating

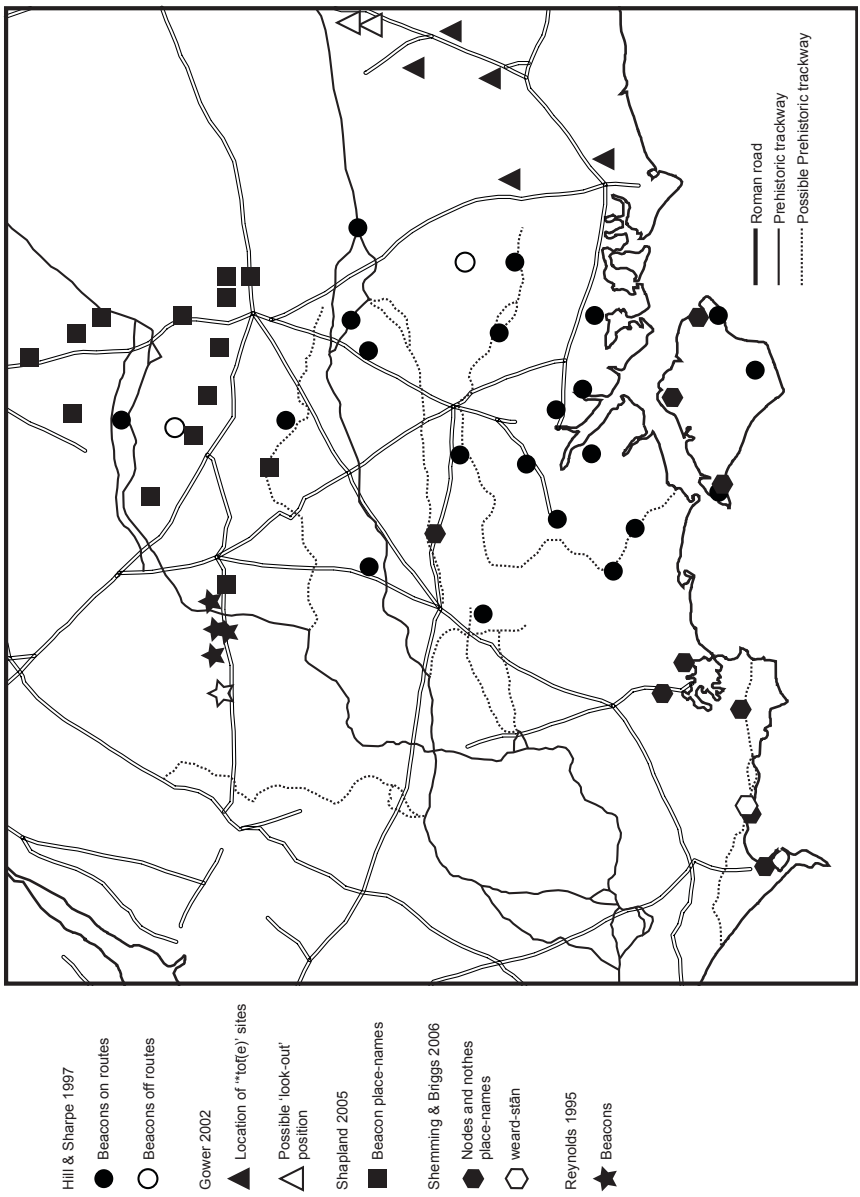

Fig. 39. Composite map of southern England showing the pattern of beacon networks suggested by previous scholars.

in Totterdown in Tooting. Although not all of these places are in view of the next proposed beacon along the road, Gower suggests a number of intermediate locations on raised ground, sometimes with "beacon" names. He notes the strategic importance of Stane Street as a direct link between the Sussex coast and London, and suggests that a system of watch posts and beacons may have been implemented here in the late Anglo-Saxon period, as a response to the Viking threat. The association of lookout sites and important route-ways echoes Reynolds' work in the Kennet valley, Wiltshire, where a system of fortified sites and beacons seems to have been linked by a road referred to in early documents as a *here-pæð* or "army road" (Reynolds 2000).

Discussion

Providing a chronological context for place-names is a complicated and sometimes impossible task. Many of the place-names relevant to the present discussion first appear in post-Conquest records, making it very hard to assert their existence in Anglo-Saxon times. Even where Domesday or earlier forms exist, there can be no certainty about the date at which the lookouts or beacons were first used as such, or whether they ever formed part of an organized, military system, unless corroborative evidence is available. The possibility that places affording good views were referred to figuratively as "lookouts" should not be ruled out. Even if all such places held a specific importance as sites where watch was kept, there is no proof in the name alone that the object being observed was human rather than animal—presumably shepherds used raised points in the landscape to watch over their flocks and keep an eye out for potential predators (Mills 1977, 61). As shown above, careful consideration of individual landscapes and archaeological data can to some extent address these issues..

In many instances, *weard* and other lookout place-names are found in close proximity to important early route-ways. The *weard hangra* recorded in the bounds of Micheldever (Ha.; S 360) must have been very close to the Roman road from Winchester to Silchester (Margary 42a), while Warthill (YoN), which is *Wardhilla, Wardille* in 1086 (Smith 1928, 11) is approximately 1.5km northwest of the Roman road from York to Bridlington (Margary 810). Gower points out the proximity of a series of **tōt(e)* names to Roman Stane Street (Gower 2002, 60–1); and Tothill in Westminster (Mx.), the lost *Tothull* in Bray, the former street name *Totehill* in Reading (both Be.; Gelling 1973–76, 52, 173), the field-name Toot Hill Butts in Barton in Oxford (Ox.; Gelling 1953–54, 31), and Totterdown in Kempsford (Gl.; Smith 1964a, 39)

are all very close to the Thames. This kind of spatial relationship is of note, but must be treated with caution. Statistical modelling shows that proximity to long-distance route-ways is not unusual for any inhabited place (Brookes 2007a; Briggs 2009). Many lookout place-names are not, however, settlements, but are preserved in the microtoponymy. Moreover, careful consideration of the landscape context of these names can sometimes reveal that the relationship between lookout place-names and route-ways is not simply spatial but what might be called observational. That is to say, the sites in question occupy commanding positions overlooking, but not necessarily adjacent to, important roads.

Warden Hill in Everton (Hu.) provides a useful example. The place is so-named on the first edition OS map (1:10,560) in 1892, and although the modern form is suggestive of a compound *weard-denu* "watch valley", the orthographic development of nearby names such as Eversden (Ca.) (which derives originally from *dūn* "hill"; Reaney 1943, 159) allows the possibility that Warden actually denoted an eminence rather than a valley. An assessment of the local topography supports such an assertion, the place-name in question referring to a small hill set out from the local scarp, and providing dominant views over the Roman road from Sandy to Godmanchester (Margary 22) less than one kilometre to the west. This kind of visual relationship is also suggested for Totternhoe (Bd.), an apparently unique instance of a **tōt-ærn* place-name recorded before 1100 (Mawer and Stenton 1926, 139–40; Baker 2011, 262–64; Fig. 41). Ward Hill in Skipton (YoW.) (so-called in 1730; Smith 1961f, 67) probably overlooks the Roman road along the bank of the River Wharfe below (Margary 730). Suspected lookout sites that are slightly more distant from the known early, long-distance infrastructure may therefore still be significant if consideration of the local landscape suggests that they were well placed to observe movement along important roads or rivers.

Two aspects of the positioning of lookout place-names are particularly worthy of comment. The first is the coincidence of such sites with nodal points in the long-distance communications network. A *wearddune* or "watch hill" in the bounds of Newnham (Ox.) (S 738) is close to the junction of the Icknield Way and South Oxfordshire Grim's Ditch (a reputed route of the Ridgeway), and further juxtapositions of lookout place-names and Icknield Way intersections have been noted at the junctions with Watling Street (Margary 1), and with Margary 210 and the early route known as the Ede Way; the lookouts also being intervisible in these cases (Baker 2011, 262–64). Two lost **tōt-hyll* place-names recorded in sixteenth-century

Fig. 40. Photos of the views from Totternhoe (Bd.). Top: south-west towards Ivinghoe Beacon. Bottom: north-east towards Watling Street.

documents, in Weston and Therfield (both Ht.), may well have provided observational coverage of the junctions of the Icknield Way with Margary 22 and 221, and with Margary 2b respectively. Further to the northeast, Wadloo in West Wratting (Ca.), a *weard-hlāw* or "lookout-mound" (*Ward*(*e*)*lou*(*h*)(*e*)*feld* c.1250; Reaney 1943, 122–23) overlooks the point at which the Icknield Way passes through Fleam Dyke, while a Beacon Farm was situated at its passage through the Devil's Ditch in Swaffham Prior parish (Reaney 1943, 135). Elsewhere, Warborough in Letcombe Regis (Be.), taken to be a reference to Segsbury hillfort on the Berkshire Ridgeway, may have been at the point of intersection with Margary 164. Warleigh in Tamerton Foliot (De.), first recorded in the thirteenth century and probably derived from OE *weard-lēah* "open woodland associated with a watch(man)" (although OE *warod* "shore" is an alternative first element; Gover, Mawer, and Stenton 1931–32, 242–43; Ekwall 1960, 498) is located on a spit of land overlooking the confluence of the Tavy with the Tamar, a point at which other waterways also join the estuary and therefore presumably an important nodal point. It would also have been an ideal spot from which to observe seaborne incursions into Devon and Cornwall from the English Channel.

This coincidence of lookout place-names not just with route-ways, but with nodal points, reinforces the impression that they were part of a strategic landscape of observation and signalling, rather than sites noted simply for their commanding views of the surrounding countryside. It is also worth noting that a number of the roadside examples show remarkable regularity of spacing. Although this will be a product partly of the topography within which they exist, it may also reflect a degree of central supervision in the laying out of lookouts. Of the Icknield lookouts, Warden Hill, Ward's Hurst, and Whorley Wood form an equally spaced row at 16km or 17km (c. 10 mile) intervals (Baker 2011, 263), and Old Warden (Mawer and Stenton 1926, 97–8) is a very similar distance away to the north-northeast of Warden Hill, as Warden Hill in Everton is to the north-north-west of the likely site of *Totehyll* in Weston, along Margary 22 (Fig. 41). Similar regularity is evident on the southwest shore of the Isle of Wight. Warden Point must have been about 10km from *La Wyrde* in Brighstone. This in turn must have been 10km from *La Wirdde* in Niton (Kökeritz 1940, lxxviii, 66, 184; Forsberg 1970, 60), on the southern point of the island. These lookouts are closer together than those along the Icknield Way, but the maritime location and potentially foggier conditions could have made this a necessary condition of a coastal system, if indeed they were part of a system.

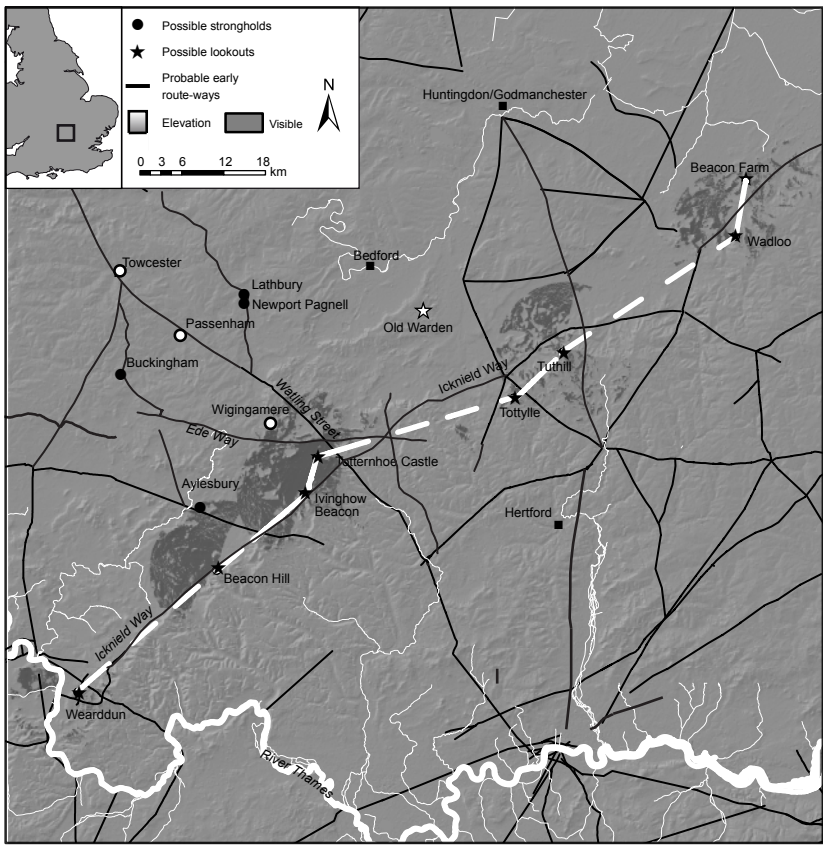

Fig. 41. Icknield Way lookouts at cross-roads, Thames to Cambridgeshire, showing lines of intervisibility and 10km viewsheds.

It is difficult to know how common such regularity is. Further scrutiny might reveal other, similar lookout-chains; on the other hand, many lookout place-names will not have entered the surviving records, leaving gaps in our knowledge of their overall distribution, while some sites without lookout place-names may nonetheless have functioned as lookouts.[36] Regularity of this kind may reflect a feeling that signals could not reliably be sent over greater distances, but it also gives the impression of a carefully planned and administered system with some input from a central

[36] Intriguingly, John Blair (pers.comm. 22.12.2011) notes a number of instances, including Bierton and Aylesbury (Bu.), where a *burh-tūn* is intervisible with the site from which it was named, and suggests that the former may in some cases have held an observational function relative to the latter.

authority. If 20 miles (32km) was the distance an army could travel in a single day (Maguire 1899, 63–4; *pace* Laurence 1999, 82), then the significance of the intervals may have been in providing half a day's warning between each lookout site.

In a number of instances, lookout place-names seem to be positioned relative to waterways. The *weard* preserved in the name Ward's Farm in Southwick (Ha.; *le Warde* 1365, cf. *Henry de la Warde* 1216–72; Gover 1958, 23) probably overlooked Portchester and Portsmouth Harbour, but may also have been part of a wider beacon system relaying messages from the Isle of Wight to inland Wessex (Hill and Sharp 1997, 159, fig. 11). Worbarrow in Tyneham (Do.; *Wyrebarowe* 1462, perhaps OE **wierd-beorg*; Mills 1977, 103–4; Mills 1986, 163) and Wardstone in Chaldon Herring (Do.; *Wardstone Barrow* 1811, OE *weard-stān* "watch-stone"; Mills 1977, 112) are well positioned to keep watch over the English Channel from Portland Bill to St Aldhelm's Head and perhaps beyond, and Shemming and Briggs (2007) include Wardstone in their network of coastal beacons in Dorset. What is striking, however, is the absence of discernible chains or networks of *weard* place-names along the major navigable rivers. Warden (Ke.; *Wardoñ* 1207, OE *weard-dūn*; Wallenberg 1934, 274) certainly overlooks the Thames estuary, but there is no apparent network of lookout place-names overlooking the inland stretches of the river. The two *weard* place-names in southern Oxfordshire—Warborough (*Wardeberg, Warberge* 1200, OE *weard-beorg*; Gelling 1953–4, 138) and *wearddune*—seem to have been positioned to keep watch on the river-crossings, rather than on movement along the Thames. The same is true of the Severn, the Trent and other rivers with navigable stretches such as the Nene and the Bristol Avon. This seems to contrast with early modern signalling arrangements, by which beacons are said to have lined the Thames (Corner 1852, 57). This point is emphasized by an examination of Anglo-Saxon coastal defences, which suggests that the primary consideration in choosing the location of lookouts was visibility over roads, rather than commanding views to sea (Baker and Brookes forthcoming b; Fig. 42).[37]

[37] The implication of this should not be overstated, simply because place-names are prone to replacement over the course of time. The absence of lookout place-names forming chains alongside rivers does not mean that riparian networks of watch-keeping were not maintained. It suggests, however, that overland threats were a longer-term preoccupation of military planners, and the antiquity of some of the place-names discussed above demonstrates that this was almost certainly the case during the Anglo-Saxon period. As bridges and forts were constructed, providing a level of control over the access to inland waterways, lookout systems along those rivers might have become redundant. A row of lookouts

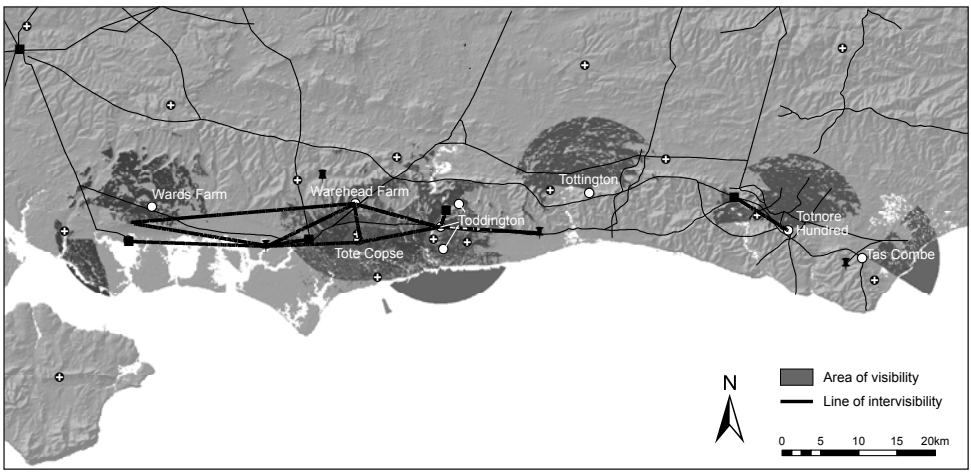

Fig. 42. Defence of the south coast. Place-names indicating the possible presence of a lookout or beacon, showing lines of intervisibility and 10km viewsheds.

Dating these place-names is a matter of considerable difficulty. In most cases, the parameters are provided only by the language in which the name was coined and the date at which it was first recorded. The second of these only provides a date by which the place-name was current, while at the same time there can be considerable difficulty in establishing whether a name was coined in OE or ME, or even in OScan. In principle, a place-name coined in English and first recorded in Domesday must have come into existence between the fifth and the eleventh centuries, but greater certainty using only internal evidence is impossible. Certainly in the case of OE *weard*, which occurs as a specific almost as frequently in place-names first recorded in or before Domesday as it does in ones recorded later, the lookouts seem likely to have been Anglo-Saxon. During which part of the Anglo-Saxon period they were formed, however, is difficult to say, and it is often only the landscape or historical context that allows a

installed along the Thames in the late ninth century, as part of the defences against the Vikings, would have ceased to be strategically significant after the construction of London Bridge blocked free access to the middle and upper Thames, perhaps at the end of the tenth century. This would leave a long period of time for lookout place-names to become redundant, semantically opaque, and finally lost or replaced. The continued strategic importance of roads may have led to a prolonged use and later reuse of the same lookout sites, helping to preserve existing lookout place-names as long as they remained meaningful, and increasing the chances of any replacement names similarly making reference to observation or signalling sites. This highlights a potentially significant difficulty in identifying military networks from a period at which strategic requirements could change rapidly.

hypothesis to be advanced. Another important consideration is that of the antiquity of beacon systems first recorded in the late medieval or early modern periods. It is clear that many signal sites have names incorporating modern *beacon*, and some have names including elements such as *ād*, *weard*, and **tōt*(*e*) which must often go back to the OE or ME periods. In a few instances, charter and other evidence survives to show that the site of a modern beacon was recognized as a lookout or beacon in Anglo-Saxon times too—for example, Barr Beacon in Great Barr Street (St.) may be the site of the *ealdan ad* "old beacon" mentioned in the bounds of S 574 (Forsberg 1970, 27–39); the site of the *weardsetl* on the boundary of Burghclere and Highclere (Ha.; S 258, S 487, S 565, S 680) is now known as Beacon Hill (Grundy 1921, 131–33; 1926, 136) and in the same vicinity are Tot Hill in Highclere and the street name Tothill in Burghclere. Whorley Wood in Ellesborough (Bu.; *Wardeleie* 1195, OE *weard-lēah* "watch(-place) woodland"; Mawer and Stenton 1925, 150) is just to the south of Beacon Hill, which overlooks the Icknield Way. There is a Beacon Hill in Totham (Ess), a "lookout settlement or estate" (*Totham* c.950 (S 1483), c.1000 (S 1486), *Tot*(*e*)*ham* 1086; Reaney 1935, 310), and the meeting place of Totnore Hundred in Sussex, which seems to have been in Firle parish (Mawer, Stenton, and Gover 1929–30, 357), may well have been at Firle Beacon. In Wardour parish (Wi.; (*æt*) *weard oran* S 1445, "(at) the lookout ridge"; Gover, Mawer, and Stenton 1939, 197) is Totterdale (*Totederehilla* 1100–35, apparently from OE **tōte-dēor-hyll* "(wild) animal hill with a beacon"; Gover, Mawer, and Stenton 1939, 198). This seems to support the longevity of lookout sites—they could presumably remain in use for long enough that their original names lost meaning, and for new names to be created, referring to the same activity or feature but using different terminology, and supports the suggestion made by Hill and Sharp (1997) that many later medieval and early modern beacons continue a very long tradition of watch-keeping on those sites.

The Venues of Warfare

Maintenance and exploitation of the vectors of communication, alongside observation and transmission of information along those vectors, served as the means of coordinating the collaboration of large numbers of armed fighters and their support teams of men and beasts. Military action in early medieval England involved the summoning together of individual soldiers from regions of varying size and terrain to predetermined locations

in readiness for military service; and the further displacement of previously constituted forces from one site to another in order to meet with opposing manpower and, if necessary, to undertake the ultimate enactment of military service by joining battle. While much of this chapter has focused on the military landscape of movement, it must be recognized that one function of this landscape was to facilitate the manoeuvring of forces to nominated termini, where military strength could be gathered and displayed. Places of assembly were therefore an integral part of medieval military organization, whether this meant the gathering together of friendly forces as part of a local or national mobilization, the meeting of hostile forces on the field of battle, or the coming together of opposing forces for the drawing up of a treaty.

Of course, engaging in battle was a hazardous course of action with potentially disastrous results, and it was possible for wars to be waged and won without a military engagement of this kind (Gillingham 1999, 78–79). Indeed, medieval armies, and especially Viking ones, often preferred raiding to set-piece battles (Abels 1991, 148, n. 25; Clarke 1999, 47). Successful campaigns nevertheless necessitated the constitution of a military force, whether or not that force was called upon to fight,[38] and assembling such an army required a system of muster. Contamine has stressed the impressive scale of mobilizations achieved by medieval states, relative to their populations, further noting that it was not the assembling of armies that was difficult for medieval leaders (in this instance after c.1200), but maintaining them in the field (Contamine 1984, 307). While the logistical problems of maintaining and manoeuvring an assembled army have been addressed (e.g. Keegan 1993, 301–15; Gaffney 2006, 251–57), and the capacity and speed of mustering systems have been assessed (Bachrach 2001, 57–59, 224), surprisingly little has been said about the actual mechanisms involved in bringing an army together in the first place and getting enough troops to the right location within a limited time. From first summons,

[38] There was apparently no engagement following the mustering at *Wilfaræsdun* in 644 (Bede *EH*, III.14; Colgrave and Mynors 1969, 256–57), and Halsall (2003, 159) notes Louis the Pious' stand-off with rebels at Rotfeld, Alsace, in 833, which ended without an engagement. One passage in Nithard's *Histories* (II, 1) describes how Lothar and Louis agreed to postpone armed conflict in June 840, with the proviso that, should negotiations fail, they and their armies would come together again at the same spot on a specified date in November, in order to give battle (Scholz and Rogers 1970, 142). This kind of arrangement may have suited opposing armies that were both intent on a decisive engagement; on the other hand, an army whose strength lay in its mobility and the ability to raid the countryside, is less likely to have agreed to a pitched battle.

through local and regional mobilization, to final arrival at the battlefield, assembling an army demanded a complex level of organization and a pre-arranged network of mustering-places.

In part, this apparent oversight may be due to an assumption that the procedures required were already in place in the local administrative infrastructure and consequently need little explanation in a military context. This may be so. Certainly the hundredal system in England seems to have had an underlying military function and it was presumably the established local administrative organization that permitted the burghal system to exist (John 1991, 172; Campbell 1995a, 59–60; Baker and Brookes forthcoming a). The origins of the hundredal system are unclear,[39] but it is a natural supposition that the mobilization of an army took advantage of existing governmental structures, with forces gathering first at local moots, then regional meeting places, before assembling with the rest of the *fyrd* at a predetermined spot (Peddie 1999, 134–35; Marren 2006, 13). Baker and Brookes (forthcoming a) discuss the location of recorded musters and known administrative meeting-places, and consider the evidence for a series of multi-shire mustering points, placed close to the intersection of neighbouring shires (Fig. 43). Examples of the use of such sites is provided by Alfred's mobilization prior to the battle of Edington,[40] the description of which in the *Anglo-Saxon Chronicle* is worth setting out in full:

> And the Easter after, King Alfred with a small troop built a fortification at Athelney, and from that fortification, with that part of Somerset-men nearest to it, was making war against the raiding-army. Then in the seventh week after Easter he rode to Egbert's Stone to the east of Selwood, and there came to join him all Somerset and Wiltshire and that part of Hampshire which was on this side of the sea—and were glad of him. And one day later he went from those camps to Island Wood, and one [day] later to Edington, and there fought against the whole raiding-army, and put it to flight, and rode after it as far as the fortification, and stayed there 14 days; and then the raiding-army granted him prime hostages and great oaths that they

[39] The hundred-names of England were the subject of a survey by Anderson (1934; 1939a; 1939b). Their antiquity is uncertain (e.g. Loyn 1984, 140–1; Hooke 1985, 75–116; Gelling 1992, 141–5; Meaney 1997, 195, 201) and the problems involved in setting them in a chronological framework are set out by Semple (2004, 135).

[40] The location of the battlefield itself is much debated. In a recent summary of the rival suggestions made by antiquaries, Lavelle (2010a, 308–14) lists no fewer than seven alternative locations, though the ridge to the south of Edington near Westbury in Wiltshire remains the strongest contender. Perhaps significantly, this location is only about 3km from the probable meeting-place of the hundred of Whorwellsdown, in the vicinity of Cresswell Down (formerly Crosswelldown) Farm (Gover, Mawer, and Stenton 1939, 135–36).

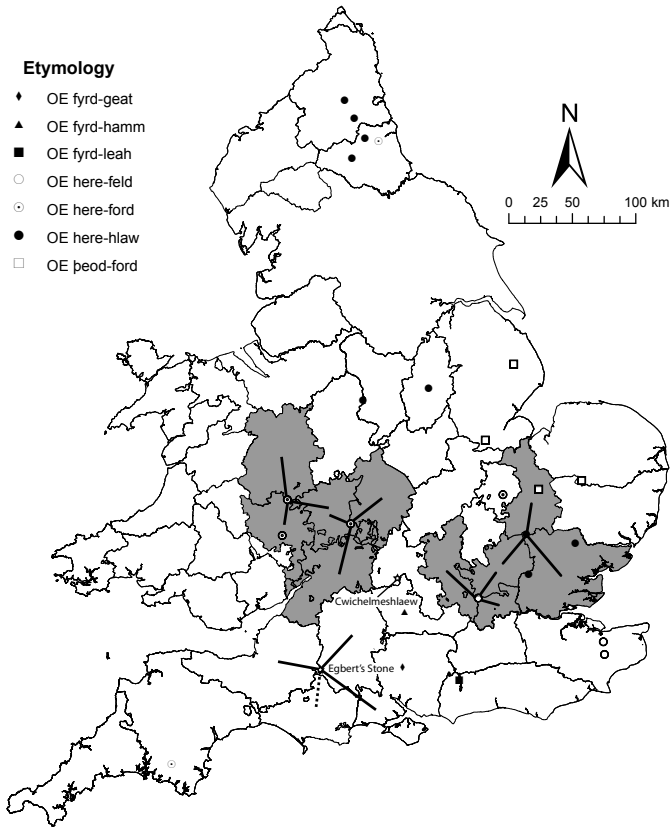

Fig. 43. Distribution of place-names containing OE *here* (and semantically related elements) in relation to shire boundaries.

> would leave his kingdom, and also promised him that their king would receive baptism; and they fulfilled it thus. (Swanton 1996, 76)

The account gives an indication of the speed and efficiency with which an army could be put in the field. Even from a position of apparent weakness, Alfred was able to gather to himself a force strong enough to defeat the Vikings under Guthrum. From his arrival at Egbert's Stone to the engagement at Edington, only two days elapsed (ASC A 878), implying that the forces, who came not just from Wiltshire, but from Somerset and Hampshire too, were able to muster successfully to a relatively tight schedule. How much advance notice of mobilization was given is unclear. Burne (2002, 55) thought it likely that the troops had gathered at Egbert's Stone during the days before Alfred's arrival there, considering it impossible that

the forces could have coordinated their arrival with that of Alfred's. This seems quite likely, if for no other reason than the potential risk to Alfred were he to leave Athelney without the confidence that an army would be waiting for him on his arrival in Wiltshire, but it would have been difficult, not to say dangerous, to raise an army early and keep it idling at Egbert's Stone or Iley Oak for an extended period.[41] Apart from the potential for the gathered forces to become restless and unruly, an army—or part of an army—without clear purpose and leadership might become more vulnerable to attack. The longer they waited at the mustering point, the greater the possibility that the Viking army would become aware of their presence and take advantage of their unpreparedness.

The events of 870–71, when Æthelwulf of Berkshire, the Atheling Alfred, and King Æthelred fought three very bloody battles in eight days and four in three weeks, show that forces were on occasion raised rapidly (and presumably repeatedly, if reinforcements were required), but the effectiveness of this system was not without limitations. At Hastings in 1066, there are hints that some of Harold's levies failed to arrive in time for the battle,[42] which suggests that there was an expectation that mustering of forces could be done within quite a narrow timeframe, even if in this instance it was not entirely successful. By analogy, it is possible that forces were still arriving at Egbert's Stone and Iley Oak in the two days before Edington. Harold's itinerary from Stamford Bridge to London and on to Hastings may have been on a larger scale than Alfred's advance from Athelney, but the essential element of haste may have been much the same in each case. The implication of the Ashdown and Edington campaigns is that a working system for mobilizing the *fyrd* was already in place by the 870s and that it was tied in with the existing structures including territorial affiliations and the office of the shire reeve who was presumably responsible for organizing this mobilization (Marren 2006, 13). The complexity and durability of the system seems to have been such that Alfred, in an apparently weak posi-

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[41] Two centuries later, the delay to William of Normandy's invasion plans caused by climatic conditions, placed him in the precarious position of maintaining morale and order amongst his assembled force (Bradbury 1998, 138–40; Bates 2001, 87–88). William of Poitiers (*GestaGv.* §2) claims that William forbade plunder and supported the army at his own expense (Davis and Chibnall 1998, 103). The logistical complications of this delay are discussed by Gillmor (1984, 123–24).

[42] ASC E states that *Harold com norðan 7 him wið feaht ear þan þe his here come eall* "Harold came from the north, and fought with him [William] before all his raiding-army had come" (Plummer and Earle 1892, 198; translation from Swanton 1996, 198). The wording is ambiguous, and could imply that William's army was incomplete; but the impression that Harold felt able to muster an army at great speed is clear.

tion, was nevertheless able to retain effective control of forces well beyond the immediate vicinity of Athelney.

A number of place-names contain first elements indicative of the presence of armies or other large groups of people, and it has been suggested that they may mark the sites of major gatherings, perhaps military musters (Baker and Brookes forthcoming a). These include names of the *here-feld* "open land associated with an army" and *here-hlāw* "army mound" type, preserved in Harefield (Mx.) and Harlow (Ex.), but may also include place-names with the first elements *fyrd* "army", *þēod* "nation", *folc* "folk", or other elements descriptive of large (armed) groups. The distribution of these names demonstrates that most are located outside the West Saxon heartlands. Coates (1997, 608) connects Herriard (Ha.; *Henert* (?for **Heriert*) 1086 DB), a compound OE *here-geard* "army-enclosure", with military engagements at *Acleah* and Basing in 851 and 871 respectively, although its landscape location is, superficially at least, different from those site mentioned above. Beyond this type of place-name, comparable potential mustering sites, especially within Wessex, can perhaps be identified only through narrative sources. Yet the pattern and spatial characteristics of known musters is the same. Most such places are located in close proximity to major political boundaries, important physical monuments, major route-ways, and known meeting-places, and many can be related to shire groupings (Fig. 43).

In examining the places where people collected together for military purposes, the need to understand the landscape of all kinds of known meeting-places is clear.[43] Apart from emphasizing that a system of mustering points existed in the late ninth century, the Edington events are also significant in highlighting Athelney as the site of Alfred's refuge. The defensive qualities of the Somerset Levels notwithstanding, the area is significant also for being associated with a royal territory (Lavelle 2010b), and of course has a name referring to members of royal stock or *æthelingas* (Watts 2004, 26); it is also significant for its dense pattern of Domesday hundreds—a ninth-century version of which may well have formed part of a system of local mobilization. Places established within the hundredal system of the later Anglo-Saxon period may well have served as the framework for mustering at that time; some elements of earlier mustering systems may also be fossilized within the system as it is recorded at Domesday.

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[43] In England, important work has been done on the meeting-places of the hundred system by Anderson (1934; 1939a; 1939b), and on a regional basis by Pantos (2002; 2004a; 2004b) and Meaney (1994; 1997) among others (e.g. Baker and Brookes forthcoming).

Other place-name elements, such as (*ge*)*mōt* "meeting, assembly" or *spell* "speech" may also serve to commemorate sites of military muster employed during mobilizations of the Anglo-Saxon period. Established meeting-places would, by necessity, have been accessible, so it may be coincidental that battles such as Edington occurred in the vicinity of the central points of hundred units. Halsall (2003, 156) suggests that the limited number of campaigning routes and the basic nature of medieval scouting made selection of a battlefield a question of convenience as much as tactical considerations, noting that twenty-two of the twenty-six located Anglo-Saxon battlefields of the period c.600 to c.850, were at river-crossings or significant landmarks. He nevertheless points to examples of armies stationing themselves at significant legal or administrative centres, perhaps as a form of challenge to the opposition. The activities of the Vikings at Cuckhamsley in 1006 might perhaps be viewed in this light. The Viking occupation of a symbolic centre was perhaps a confident (and ultimately successful) challenge to the West Saxon levies to meet them in battle (Stenton 1971, 381; Halsall 2003, 157). The location of the Viking army at Edington could be viewed in a similar way. Burne (2002, 45–46, sketch map 5, and 50–51) takes Lowbury Hill (*Loughborough* 1839; Gelling 1973–76, 512) to be the site of the battle of Ashdown, and considers it to have been a well-known spot at the junction of several tracks. The name, probably from *hlāw-burh* "tumulus- or mound-stronghold" (perhaps in reference to a Roman hill-top fort), suggests a type of location suitable for legal and administrative meetings and perhaps endowed with symbolic importance. The battle in the vicinity of Thetford in 1010 is traditionally placed either at Ringmere (Nf.) or Rymer (Sf.; Swanton 1996, 140, n. 2). Briggs (2011a) has recently argued for the latter, but both are very appropriate sites for early meeting-places: the first is situated on heathland where the boundaries of six different parishes meet (Hart 1992, 526), while the second lies at the junction of nine parishes (Marren 2006, 167).

Other battles fought near to hundred meeting-places or possible estate centres include Basing (Page 1911, 113–4) and Sherston (Draper 2006, fig. 22). Coates (1997) argues that the battle of *Acleah* took place at Oakley (Ha.), just to the west of Basing, while perhaps the most likely site of the battle of *Brunanburh* is in the vicinity of Thingwall (*Tinguelle* 1086) from OScan. *þing-vǫllr* "assembly-field" (Cavill 2008; Dodgson 1972, 273). Briggs (2011b) has challenged conventional thinking by placing *Hægelisdun*, location of King Edmund's martyrdom c.870, in the vicinity of Maldon (Ex.). Maldon was to become a burh in the tenth century, but may in the 860s

already have been a significant meeting-place. It was to become the centre of a Domesday hundred, and its name is from OE *mæl-dūn* (*to Mældune* e.10th ASC A 913) "hill marked by a cross" (Reaney 1935, 218).

The high number of later Anglo-Saxon military engagements with place-names in *ford*—Fulford, Stamford Bridge, Brentford, Thetford, Hereford, and Castleford—suggests that river-crossings were still often the sites of battles, and by extension, that accessibility was of prime importance. This is hardly surprising, but it is notable that many battles fought between c.850 and 1066 were in close proximity to Anglo-Saxon fortified sites or Viking encampments—Hastings, Wilton, Maldon, Hereford, *Cynuit*/Congresbury, Thetford, and Reading—many of which might be expected to have been focal points for the mustering of troops.[44] They were also notable landmarks and therefore perhaps useful for armies attempting to locate each other. For the purposes of mustering and engagement in battle, accessibility would need to be combined with ease of identification, especially in cases where armies were operating outside familiar territory. In many cases, shire meeting-places were marked by distinctive landscape features, but it is notable that some battle sites, like Reading and perhaps Tettenhall, may have had minster churches at an early date (Blair 2005, 338). These too could have been clearly visible landmarks at which troops might assemble. In the midlands, the proximity of roads called *fyrdstrēt* to the sites of minster churches at Church Stowe (Np.) and Adlestrop (Gl.) may be significant if these "army roads" were so-named in reference to use by troops (Baker 2012a). Minster chuches may, however, have had a defensive function (Wilson 1976, 443–44), and the location of battles near to fortified sites may alternatively highlight the changing nature of warfare during the Viking period, with hostile armies increasingly held up or confronted by garrisons.

If established meeting-places were convenient general locators for battle, the specific choice of battle site was subject to other considerations. In choosing its position, the first army in place was potentially able to make best use of the terrain. Medieval writers make clear the importance of ter-

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[44] Of course, in some instances, such as Maldon, it may have been economic wealth rather than military importance that made these places focal points for Vikings in search of plunder and Anglo-Saxon forces intent on stopping them (Abels 1991, 148). Briggs' (2011b) association of the battlefield at which Edmund of East Anglia was killed with Maldon is intriguing, potentially reemphasizing the strategic importance of this locale. In this interpretation, Edward the Elder's stronghold was constructed in the vicinity of a former battle site, and was to become the scene of a second engagement towards the end of the tenth century.

rain in gaining an advantage in battle (Verbruggen 1997, 204–7). Different types of soldier prospered on different types of terrain, so that, for example, cavalry required open land while foot soldiers could be better deployed in wooded country. In the thirteenth and fourteenth centuries, Scottish and Welsh forces made successful use of terrain against English armies. In 1327, according to Jean le Bel, Edward III's forces came up against a Scottish army on a hill slope, at such a distance from a stream that the English army found it awkward to manoeuvre, while the rocky nature of the land posed problems for its cavalry (ibid., 207). Written in the ninth century, both the revised version of the *Royal Frankish Annals* (*s.a.* 778) and the *Vita Caroli* of Einhard (§9) lay considerable stress on the importance of terrain in the defeat of Charlemagne's rearguard by Basque forces at Roncesvalles in 778 (Scholz 1970, 56; Thorpe 1969, 64–65).

Whilst terrain was an important factor in the battles between Anglo-Saxons and invading armies little is specifically mentioned in the sources and there is much debate surrounding the exact positioning of opposing forces at many of the set-piece battles of the Viking Age. For instance, it is generally accepted that the battle of Edington took place close to the village of that name near Westbury in Wiltshire, but the precise location of the engagement is still a matter of informed speculation (Burne 2002, 38, 58; Abels 1998, 161; Peddie 1999, 129–30). The precise site of the battle of Ashdown is even less clear, and the positioning of Harold's forces at Hastings has long been disputed, although the general area of the battle is known (Burne 2002, 118–121; Bradbury 1998, 168–78). Indeed, the *Chronicle* seems relatively unconcerned with the tactical and spatial details of battle, recording only the general locations and the outcomes. Descriptions of battlefields and the use of terrain are rare and generally brief, exemplified by Asser's account of the confrontation at *Cynuit* (Keynes and Lapidge 1983, 84), with a few notable exceptions such as the poetic accounts of the battles of *Brunanburh* and Maldon (ASC A *s.a.* 937; Scragg 1991). Even here, some caution is needed—in the composition of poetic accounts of battlefields accurate description of the terrain may not have been as high a priority as the scoring of propaganda points (Cavill, Harding, and Jesch 2004, 36–37).

In keeping with battlefields, peacemaking also made use of established administrative meeting-places, whether hundredal or not. According to Asser (§ 56; Keynes and Lapidge 1983, 85), Wedmore, site of part of

Guthrum's baptismal ceremony, was a royal estate.[45] It may be that a royal residence was a necessary venue for some aspects of the formal celebrations of such an event, such as feasting. *Olanige*, where Cnut and Edmund II came to terms in 1016 (ASC D), may well have been near Naight Brook in Deerhurst (Smith 1964b, 79; 1964c, 161), presumably close to the meeting-place of Deerhurst hundred. The island location suggested by the place-name *Olanige* ("Ola's island"; Smith 1964b, 79) may also have provided the kind of symbolic neutrality (through separation from the surrounding world) that was a requirement of such a meeting. The peace of 906 between the West Saxons and the Vikings of East Anglia allied to the Northumbrians was ratified at Tiddingford in Linslade (Bu.). Tiddingford is the point at which a significant route-way known in Anglo-Saxon times as *þēodweg* "public or nation road" crosses the River Ouzel (Mawer and Stenton 1925, 81; 1926, 122), and is close to the supposed location of Edward the Elder's fort at *Wigingamere* (Dodgson 1997). Linslade seems to have been a royal estate in the 960s and 970s, when it was the subject of a grant by King Edgar to his kinswoman Ælfgifu (S 737), and also of her will (S 1484).[46] It may even be that the Ouzel at times formed the *de facto* frontier between West Saxon and Danish control (Gurney 1920, 176; and cf. Davis 1982; Hill 1981, 55).

Perhaps the most essential feature of all meeting-places, whether for mustering, diplomacy or battle, was their accessibility.[47] In many instances, this meant the proximity of major roads or waterways, but it could equally mean their location on the borderland between two hostile territories. This may well have been another factor in the choice of Tiddingford for the meeting of 906, and the selection of Eamont Bridge near Penrith (Cu.; *æt Eamotum* 926, ASC D), for Æthelstan's meeting with Constantine of Scotland and Eugenius of Strathclyde may have been due to its borderland position at least between the English and the Strathclyde Welsh (Armstrong *et al* 1950–52, xxvi). The place-name, OE *ēa-gemōt* "junction of streams", in reference to the confluence of the Lowther with the effluent of Ullswater (ibid., 12), may also underline its natural accessibility by water; and it lies close to the line of the old Roman road from Brough to Carlisle (Margary 7e).

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[45] The status of Wedmore is underlined by its being granted to Edward in Alfred's will (Keynes and Lapidge 1983, 175).

[46] Ælfgifu's royal connections are discussed by Stafford (2004) and Keynes (2004).

[47] Hooke (1985, 102) draws this conclusion for the hundred meeting-places of the south-west midlands.

Discussion

The preceding survey has outlined a number of elements comprising the landscape of Anglo-Saxon warfare. Clearly, there is considerable potential for identifying physical expressions of military organization. The infrastructure of communications—roads, bridges, waterways and fords, landing-places and harbours—can all be identified by archaeological, topographical, or philological means, as can observation and signalling points as well as meeting-places, which often have distinctive place-names or material signatures. All of these can be compared with the evidence for fortified sites, discussed in the previous chapter. If it is clear from chapter two that strongholds had a complex range of functions, the evidence for the systems that underpinned these fortified sites shows an equal level of organizational and functional complexity. The maintenance of a network of roads, keyed into the system of waterways, was clearly of paramount importance. Without transport, effective displacement of the *fyrd* would have been impossible; civilian movement would also have been negatively affected, severely hampering commercial operations. Given the mobility of the opposing Viking armies, a slow-moving *fyrd* would have been a severe handicap. It is therefore not surprising that early bridge-building seems to have been aimed as much at the securing of overland routes as the blocking of rivers. This secondary purpose was no doubt important on specific occasions, but it seems unlikely that river-blockades were always permanent.

If anything, enemy movement along roads is likely to have been a greater danger than along rivers. Certainly it is easier, on a national scale, to see spatial relationships between lookouts and roads, than between lookouts and rivers. Analysis of the speed of Viking ships indicates their importance in giving their crews and passengers the advantage of surprise. When a Viking fleet descended on a coastal or estuarine settlement, land-based observers would first see them only when their masts appeared over the horizon on a clear day, and later still in poor atmospheric conditions. The time-lapse from first sighting to the moment of landing would be limited. The Vikings might not arrive completely unannounced, but it is unlikely that a *fyrd* could be mustered in time to prevent them from making successful landfall (unless one happened to be in the vicinity), bearing in mind the intended destination of the Viking fleet might not be immediately clear. Use of rivers by Viking fleets is a different matter. Once spotted on a river, a Viking fleet could probably be tracked relatively easily along its

course, having few choices of destination as long as access to the road network was denied (Gillmor 1988b, 100–106). The speed of movement along rivers is likely to have been slowed by their meandering nature, difficult shallows and, on occasions, the force of the current; and the wide flood-plains of rivers such as the Thames, would have made landing treacherous for long stretches. In theory then, a reliable lookout placed at the mouth of a river might be sufficient to alert the *fyrd* of the presence of the enemy fleet. The lack of early beacon place-names along the Thames may illustrate this point, although uneven survival of the names may be another possible explanation.

By contrast, roads were often more direct, offered more alternative routes, and could be travelled on horseback at considerable speed. If they could become impassable at certain times of year, this was less likely to be a problem during the dryer and warmer campaigning season, and may have been further alleviated by local maintenance work on particularly important roads. More lookout posts would therefore be required to keep track of enemy movements.[48] It is notable, for instance, that of the *weard* place-names along the Icknield Way, Warden Hill (Bd.) is situated between Baldock and Dunstable, two major intersections; Ward's Hurst (Bu.) is between Dunstable and the junction with Akeman Street (Margary 16a), and Whorley Wood (Bu.) lies about 10km to the other side of the same junction. It would be possible to track the movement of a hostile force along Icknield Way at whichever point it joined the road, and to be aware if it ventured onto another road. Where lookouts are found close to rivers or coastline, they seem often to prioritize observation of crossing points or roads leading from the shore, rather than the river and sea themselves (Baker and Brookes forthcoming b). Being able to oppose enemy armies at nodal points of the road network, such as river-crossings, was probably even more important than being able to stop their movement along those waterways. Strongholds at such junctions were also efficiently placed for the launching of offensives by the *fyrd*.

The foregoing analysis does not claim to provide more than a broad view of the significance of such sites and their locations within the landscape. Sometimes, almost by chance, one category of military feature can be

[48] Gillmor notes that the "danger of surprise attack by ship was minimal, as the line of approach was entirely predictable, but the possibility of a lightening raid on horseback was clearly apparent to the Franks as early as the spring of 858, when the Northmen from their naval base opposite Jeufosse attempted their only documented mounted expedition" (Gillmor 1988b, 104–5).

linked spatially to another, as is the case, for example, with certain lookouts and nearby roads, or with strongholds and river crossings; but the apparent connection may be no more than an impression given by their proximity. Without a detailed survey of the locality and careful investigation of viewsheds, conclusions about the intervisibility of these places and the real importance of the lines of communication that surround and join them, can only be tentative. The relationship is not a simple measurable one, but must take into account visibility between lookout and route-way, and perhaps between lookout and other potential lookout-sites nearby. How close to a road does an observation post need to be for a definite link with that transport route to be proposed? What is the significance of one river-crossing, such that a stronghold is positioned there while other nearby fords are ignored? Questions of this type cannot easily be answered through a national survey alone.

Nevertheless, important points can be drawn from this wide-ranging analysis. It is clear that political manoeuvrings, set-piece military engagements and major strongholds are only the best documented aspects of medieval warfare, obscuring, by their natural drama and imposing nature, more mundane yet crucial features of military organization. Though contemporary scribes often limit their record to peace treaties and alliances, to the outcome of the campaigning season, especially the results of individual battles, and to the construction of major public works, it was arguably the less well evidenced elements of organized defensive structures in the landscape that dictated the success or failure of contemporary war leaders. The imposition of a series of major fortified sites, outlined in the Burghal Hidage and the *Chronicle*, allowed Alfred and his offspring to withstand the Viking onslaught and eventually to impose their rule on most of southern England, but it is doubtful whether such a system of forts could have existed and been successful without the lines of communication that allowed for rapid movement of troops and supplies. By the same token, the significant West Saxon and Mercian victories of the late ninth and tenth centuries must have depended on the efficient functioning of a well established system of mobilization, by which large enough numbers of soldiers could be mustered within short spaces of time at very precise locations, in order to defeat the enemy. The implementation of new naval policies was important in stemming the tide of Viking attacks on the coastline and riverbanks of England, but the fleet must have relied, for its successful deployment, on a working system of lookouts and presumably beacons. It is indeed to be wondered whether strongholds or *fyrd* would have worked

without systems providing early warning. Within a local landscape, Viking forces certainly showed themselves capable of circumventing strongholds to plunder within Anglo-Saxon territory, even when these strongholds stood firm against them (cf. ASC A *s.a.* 921 for 917), and a *fyrd* cooped up within a defensive circuit was not always necessarily at its most effective. With sufficient warning, it was presumably possible to deploy the force to maximum impact. On a wider scale, signalling systems would allow one shire's *fyrd* to come to the aid of a stronghold in another shire with intimidating speed. In fact, all elements of the defensive system were probably interdependent—good lookouts being useless if roads were impassable, rapid mobilization a waste of time if the enemy were permitted to range freely and at pace across and along rivers and road networks. It is worth suggesting that it was not just their success in battle, but the existence of an effective working system of defence making success possible, that instilled fear of Alfred, Æthelflæd, Edward the Elder, and later Æthelstan in other British rulers. In the terms of Luttwak (1976), this was the perceived military potential that reduced the need for displays of actual military muscle. It was the means of reacting to belligerent opponents that underpinned the military prowess of these Anglo-Saxon rulers.

Much of this is common sense, but without detailed consideration of the regional landscape of defence it is at best a well informed suggestion, at worst pure speculation. It is for this reason that the following case studies are of such importance to our understanding of the mechanics of late Anglo-Saxon defensive strategy. It is only through local analysis that the elements of military systems can be convincingly identified. For example, there are strong indications, from this national survey, that lookouts and beacons were also focused on the road network, but these are some of the more ephemeral elements of the system of defence, their physical features being harder to locate than those of strongholds or route-ways. This is reflected also in their place-names. For a system of observation and signalling posts to be efficient, it is likely that many such sites were required, yet only a handful of lookout-names have become major place-names, comparing unfavourably, for example, with bridge-names. This, in part, must be because lookout sites are chosen for their topographical prominence as opposed to their accessibility, and river-crossings are natural locations for settlements to develop. Local study can provide clearer evidence for the existence of lookout sites. Just as importantly, it is detailed landscape analysis that allows the relationship between the various aspects of defence to be assessed with any serious degree of accuracy. Important

questions about the criteria for choosing defensible sites, observation and signalling points, and route-ways can only be addressed by consideration of the situation on a local scale. By these means, it may also be possible to establish the relationship of herepaths with strongholds, lookouts, other strategic points in the landscape, and, of course, other types of route-way. It is regional study that provides the best opportunity to identify the landscape impact of the military innovations and obligations known to have been imposed on Anglo-Saxon society.

CHAPTER FOUR

THE KENNET

Introduction

How borders were formed is one of the key issues in the analysis of civil defence. The emergence of visible and defined territorial boundaries in the landscape, provides evidence on the one hand about the form and scale of military commitments to defence, and on the other about the levels of state power, and the creation and exercise of that power over its citizenry (Anderson 1996, 1–2). Clear and well defined borders are synonymous with the limits of state power, and in this way are instruments of political control. They are also shared between neighbouring states. It follows that borders are the product of very particular historical and political circumstances, when the points of contact between territorial power structures become defined in time and space. They are never simply the result of centrist political tendencies of one state (Spykman 1942, 437). "Viewed in this manner," Julian Minghi suggests, "the position of a boundary, when observed over time, could become an index to the power relations of the contending forces on either side" (Minghi 1963, 411). Simply put, a stable border can be related to a balance of power between neighbouring states, whilst shifts equate with changes in the relative strength of each (Spykman 1942, 437).

It is unlikely that such a political context ever existed in early medieval England. Geoffrey Barrow (1989) writing of the frontier between the English and Scots in the high middle ages suggests that it was only in the fourteenth century that a perpetual state of either war or truce between the kingdoms led to the development in the Borders of clearly-defined military institutions, identities, and socio-religious divisions. The boundaries between Anglo-Saxon kingdoms were similarly fuzzy areas in which legal border principles had yet to be defined. For this reason, alternative terms, such as 'border-areas', 'borderlands', and 'frontiers', have been suggested by geographers to better describe the areas that existed between pre-modern states. These are seen as distinctive dynamic regions of cultural, economic, and political activity distinguished by both discord and cooperation, which only later become bisected by the objective boundaries between territo-

rial nation-states (Prescott 1987). Depending on the extent to which sovereignty and state control is exercised over subjects and areas, people confined within the borderland are supposed to conform to common loyalties, values, and characteristics. However, border communities can both reinforce and break down these identities (Wallman 1978; Donnan and Wilson 1999, 64–7; various papers in Curta 2005).

This chapter analyses the landscape evidence for one such borderland in order to examine some of the ways in which military institutions evolved between neighbouring kingdoms over the course of the eighth to tenth centuries. Although it must be acknowledged that border-formation is a two-sided process, the present concern is primarily with the structural and organizational (top-down) effects of the developing English kingdom, rather than with the social, cultural, and experiential (bottom-up) ones. Nevertheless, it is argued that by studying the creation, structuring, and administration of border landscapes we can gain valuable insights into the institutions and policies of the West Saxon state.

The Kennet Valley Borderland

All indications suggest that the Kennet was just such a borderland (Fig. 44). In the eighth and early ninth centuries the Kennet area, between the Vales of Pewsey and White Horse and extending westwards to the Bristol Avon, formed a highly unstable frontier province between the rival Mercian and West Saxon kingdoms. Although battles are infrequently recorded, land grants by the rulers of the two rival kingdoms during this period document attempts by both to establish claims in the area, particularly through patronage of border minsters such as Abingdon, Bath, Cookham, and Malmesbury (Yorke 1995, 62–64; Eagles 2001, 221–26; Kelly 2005, 12–14). For periods under Æthelbald (716–57) and Offa (757–96), when domination was also being exerted over neighbouring Hwiccian territories, Mercian rulers appear in the ascendancy. Æthelbald occupied Somerton (So.) in 733, and Offa defeated the West Saxon Cynewulf at Bensington (Ox.) in 779, between which Mercian rulers are found in possession of lands around Wootton Bassett (S 256, S 96) and Purton (S 149), near Swindon. However, West Saxon victories at Kempsford (Gl.) in 802, Wroughton (Wi.) in 825, and possibly Cherbury Camp (Ox.) in 821, consolidated the territory under West Saxon rule (Yorke 1990, 113; Blair 1994, 55–56).

The natural boundary for much of this period of turmoil is likely to have been the downs (Blair 1994, 56). From the lower ground of the Thames valley and Bristol Avon the steep scarp of Upper Greensand and Lower

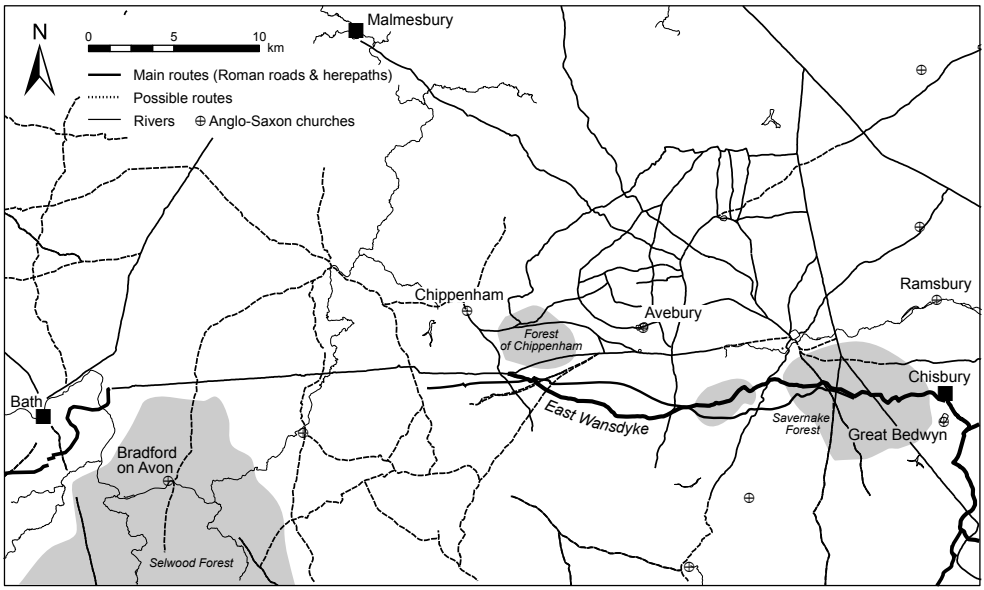

Fig. 44. Map of the Kennet region.

Chalk Down rises from 100m to 190m O.D. in occasionally dramatic fashion, forming a distinctive physical boundary to the settled areas on lower-lying clay. Mercian land grants, even at the time of greatest political influence, restricted themselves primarily to the broad valley areas of Malmesbury and Swindon to the north and west of this boundary, an isolated grant of land at Farnborough (S 225) attributed to the reign of Offa being a notable exception. By contrast, contemporary West Saxon grants, particularly under King Cynewulf (757–86) at Little Bedwyn (S 264), North Stoke, north of Bath (S 265), and even Rodbourne near Malmesbury (S 260), display greater territorial ambition across the full upland and valley extent of the frontier, even if these did—in the short-term at least—over-reach the extent of West Saxon power.

The Kennet also played an important frontier role in the Viking Age. During the tumultuous events of 878 Guthrum's army occupied Chippenham on the Bristol Avon evidently intending to press home its advantage over King Alfred, who had retreated to the Somerset marshes to the south. Chippenham, which Asser identifies as a "royal vill", served as a base-camp for the Viking Great Army, providing the platform both for their advance to Edington and in the aftermath of the battle, when the Danes were besieged in Chippenham by the victorious West Saxon *fyrd*. Significantly,

these manoeuvres played out across the frontier zone of northern Wiltshire, with the battle of Edington taking place on the edge of the Chalk incline between the opposing forces.

This frontier again figured prominently in the second phase of Viking incursions. According to the *Anglo-Saxon Chronicle* the Danish *here* under Swein made a major expedition in 1006 raiding from the Isle of Wight as far inland as Wallingford, before marching in a great curve along the Ridgeway to Cuckhamsley Knob (Be.), then moving on to do battle with the Anglo-Saxon army somewhere on the Kennet (*Cynetan*). The Danes were victorious and moved thereafter from the battlefield via Winchester to the sea. There are several possible locations for the battle, but all emphasize the importance of the Kennet valley as the boundary of West Saxon resistance.[1] This observation is reinforced by events some four years later, when this frontier zone again featured as a battle site, this time on the low ground at the foot of the chalk spur of the downs at Cannings Marsh (*Canegan-mersces*).[2] Whatever the strategic intentions of these manoeuvres may have been, the Kennet, and the forces that were able to be mustered there, clearly formed an important line of defence.

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[1] Either the Danes continued along the Ridgeway hoping to draw the English to battle, which would have meant an engagement somewhere in the Avebury/Marlborough area (the route favoured by Stenton 1971, 381; Grundy 1918); or, having failed to draw the English into battle at Cuckhamsley, the Vikings may have already decided to move back to their ships on Wight. This route would have meant a crossing of the Kennet somewhere near Newbury (possibly at Kintbury), before heading due south. Although the latter is the most direct route, it is cross-country as far as Worthy. The main road-based route from Cuckhamsley to Winchester, is to continue on the Ridgeway as far as Chiseldon and then take the Roman road southwards through *Cunetio* (by Marlborough), Andover, and Winchester, meaning a crossing of the Kennet at Mildenhall. This route passes between the sites of Marlborough and Chisbury and would have been a good place for the English *fyrd* to gather. Alternatively, the Danes may have continued on the Ridgeway as far as the Kennet (i.e. at East Kennet); a place referred to in charters as *Cynetan* (Grundy 1918, 194), before backtracking to Marlborough and the Roman road to Winchester. In the latter option, an engagement at the Sanctuary may be preferred (cf. Williams forthcoming).

[2] Several sites are again possible, Bishop's Cannings (a probable late Anglo-Saxon minster), Allington (OE *Æþelinga-tūn* " princes' farm or estate"; Ekwall 1960; Gover, Mawer, and Stenton 1939, 311) which may have been the centre of a great estate, or All Cannings, the affix of which is a corruption of OE *ald* "old", hence "the old or former Cannings (or place of the *Caningas*)". The likely route for the Vikings to have taken from Northampton would have been along the Ridgeway to Alton Barnes. Thus All Cannings would seem to be the logical location of the battlefield rather than Bishops Cannings, even if the latter may well have been the target.

Fig. 45. Photo of East Wansdyke near Morgan's Hill.

The Wansdyke Frontier

Significantly this borderland is bisected to the south by the linear field monuments of the West and East Wandsdyke, the Roman Road from Bath to Mildenhall, and Bedwyn Dykes, which together form a continuous east-west boundary across northern Somerset and north-central Wiltshire. At its most impressive the East Wansdyke is a bank of c.5m height, with associated ditch and counterscarp bank on the north side, and it stretches for nearly 20km from Morgan's Hill in the West to the western edge of Savernake Forest in the East across the Upper Chalk ridge that bounds the northern extent of the Vale of Pewsey (Fig. 45). To the west of this section, the boundary is demarcated only by the Roman Roads from Morgan's Hill to Bath, and the Foss Way from Bath to Odd Down, whereupon its course is taken up again as the linear West Wansdyke earthwork. Bedwyn Dykes, to the far east, extend the boundary as far as Inkpen Beacon on the eastern edge of Wiltshire, albeit as a much reduced earthwork of less than 5.5m width. From this point the boundary may be taken up as the border between the shires of Berkshire and Hampshire, but there is no further physical trace for it (Reynolds and Langlands 2007, 36).

Several rival theories have been proposed for the dating of Wansdyke, generally relating its construction to alternative phases in the geo-political narrative of regional landscape development. To many scholars conflicts of the early post-Roman period provide the best context for the construction of such a large linear defence (Dark 2000, 146–49; Eagles 2001, 215), although the late sixth century (Myres 1964; Bonney 1973, 478), mid-seventh (Taylor 1908), and late eighth century (Reynolds 1999, 85; Draper 2006, 59–60; Reynolds and Langlands 2007) have also been suggested.[3] The little archaeological evidence available—a radiocarbon determination from a section across the dyke at Wernham Farm near Marlborough (cal.AD 890–1160 at 2 sigma), and the relationship of the monument relative to late Anglo-Saxon estate boundaries—perhaps best supports the latter ascription; however, this is far from conclusive (Reynolds and Langlands 2007; Eagles and Allen 2011). Analogies with Offa's Dyke emphasize that large linear earthworks may not have been built as single continuous borders, and may represent composite monuments constructed over a long timespan (Hill and Worthington 2003). When gauged against the changing political geography of the early medieval period, several separate episodes of border-construction are feasible, although the topographical coherence of the final boundary in its entirety is perhaps best regarded as part of later West Saxon state-formation processes.

Whatever the precise context for construction of the monument, the re-emphasis of the functions of linear boundaries suggested above stresses the role of this border, not merely during a single "window" of peer-polity competition, but in a more drawn-out process of territorial formation, during which Wansdyke remained an important feature of the landscape palimpsest. Through its physical monumentality Wansdyke controlled movement from the upland watershed into the Vale of Pewsey, particularly at the point where it was crossed by the Ridgeway, today known as Red Shore. Several documented events reference this location, clearly demonstrating its importance as a point of strategic and symbolic significance. The Neolithic long barrow Adam's Grave, or *Woddesbeorg*, 1km to the south of Red Shore is the site of a battle in 592 mentioned by Æthelweard (Chron ii.12) and is recorded in the *Chronicle* as a battlefield in 715 (ASC BCDE). As a highly visible and distinctive feature of the landscape this location clearly made an appropriate battle site. Adam's Grave

[3] Other authors have also suggested a Roman date for East Wansdyke (Fowler 2001), although this appears to be contradicted by the available archaeological evidence (Pitt-Rivers 1892; Reynolds and Langlands 2007, 21–25).

is located on a chalk spur overlooking the sharp break in the high ground through which the Ridgeway descends into the Vale of Pewsey. On the opposite side of this gap is the Neolithic causewayed enclosure of Knap Hill, upon which a sixth-century Saxon sword was found in 1908 (Pollard and Reynolds 2002, 211–12). Between the two prehistoric monuments the chalk slopes form a large natural bowl, bisected by the broad north-south route of the Ridgeway path. Whether or not Wansdyke was contemporary with these events, it served to direct forces through Red Shore into a natural theatre for battle.

The role of Wansdyke in controlling movement is underlined in more detailed fieldwork. In a case-study of one section of East Wansdyke in West Woods, Peter Fowler (2000; 2004) has argued that a number of gateways pierced the monument funnelling movement from the north towards controlled points along the border; a function reinforced by the presence of small outer earthworks lying beside the incoming roads that worked to narrow the path through the boundary. Lying to the east of the Red Shore gap, four further gateways or *gatu* are recorded in charters of the tenth century (S 272; S 784; Gover, Mawer, and Stenton 1939, 318), with one, *Woddes geat* (at South Lodge) related to a named *herepæð* (S, 272; Grundy 1919, 160) and not too far distant from the Totterdown place-name in Fyfield parish (see below).[4]

Although Fowler regards Wansdyke as an unfinished Roman earthwork, the conclusions he draws regarding its function provide important insights into the role of the monument in local communications. Firstly, the topographical location of the earthwork in West Woods is clearly related to movement along the bundle of Ridgeway routes (see Chapter 3 above). By blocking and funnelling north-south movement towards controlled points on the border, Wansdyke aided the fossilization of more clearly defined route-ways, even if these, in some cases at least, were merely transhumance routes between the Marlborough Downs and the Vale of Pewsey (cf. Wileman 2003, 63). Secondly, the number of gateways identified along a short stretch of the earthwork emphasizes the existence of a dynamic border landscape, in which there was considerable physical contact on either side, even if the monument could also be turned to military use in times of conflict. The role of the earthwork as an important permeable zone for trade and socio-political interaction is further suggested by the site of Tan Hill in All Cannings parish, a flat plateau between Rybury Neolithic causeway enclosure and Wansdyke. This was the former site of a summer fair,

[4] The use of OE *geat* to denote gaps in an earthwork is discussed by Smith (1956a, 198).

the festival of St Anne, recorded in AD1499 (Pollard and Reynolds 2002, 254). By this time, the fair was held primarily for the sale of sheep and horses to communities north and south of Wansdyke, but it is possible that the site controlled exchange between Wessex and Mercia at an earlier period (Wileman 2003, 64). Thirdly, the bank was constructed using military criteria. The size and elaboration of the monument is in direct relation to the coombes that intersect the earthwork. Fourthly, across its full length East Wansdyke had the effect of controlling the Chalk upland; anyone who attempted to enter Wessex from the Ridgeway would be shepherded off the Chalk and into more heavily wooded areas, around the Avon valley to the west and Savernake to the east (Fowler 2001, 195). This role is further underlined by the incorporation within the border of the undefended Roman road, which links the two sections (East and West Wansdyke) on low-lying geologies to either side of Bath. Regional control evidently allowed for east-west movement through the frontier zone; it was the control of communication between upland and lowland which demanded attention.

The separation of communication networks north and south of Wansdyke is reflected in the pattern of Domesday hundreds which form a number of coherent territories to either side of the boundary (Draper 2006, fig.26). In all likelihood these hundreds emerged from simpler, earlier arrangements put together prior to the mid-tenth century when these administrative districts became codified. Several studies have drawn attention to the strong correlation between the administrative geography of hundreds, minster *parochiae* and Anglo-Saxon estates known from charter evidence, and have argued that some may once have corresponded with *regiones* of tribal organization (Bassett 1989a, 17–20; Reynolds 2001; Pitt 2003; Draper 2006). South of Wansdyke, in the Vale of Pewsey, Domesday hundreds are characteristically long irregular-shaped territories extending from the scarp slope onto the Upper Chalk upland. To the north of Wansdyke, they exhibit a form suggestive of more regular planning comprising large, evenly-sized polygons, although this regularization is not reflected in their hidation which varies from 90 hides (Ramsbury) to 196 $^{7}/_{8}$ (Selkley; Thorn 1989, 42). The pattern of hundreds has the effect of emphasizing the greater tenurial complexity to the south and this is to some extent borne out by the pattern of lordship. North of Wansdyke the frontier was formed by several large hundreds named after important royal vills from which they were still administered in the late eleventh century, such as Calne and Chippenham, to which might also be added Selkley hundred which was dependent on the royal borough of Marlborough. By contrast,

with the exception of Kinwardstone hundred, which was managed by the royal manor of Bedwyn, those south of Wansdyke had largely passed out of royal control by Domesday. The manor of Bradford, which made up the hundred, was granted to Shaftesbury in 1001; Bishop's Cannings was a 70-hide manor-hundred of the Bishop of Salisbury;[5] Melksham hundred was a former possession of Earl Harold and his sister; and Studfold and Swanborough had no clear single owner (Hooper 1989b, 7–8).

The coherence of a line of hundreds—Chippenham, Calne, Selkley, and Kinwardstone (the latter south of Wansdyke)—all under royal control, is particularly striking, especially given their high hidation in Domesday, at 142, 91, 196 $^{7}/_{8}$, 196 ¼ respectively. Whether this reflects their origins as larger royal territories, or the amalgamation of earlier smaller estates, the

[5] The hundred of Cannings, to the south of Wansdyke, provides a good example of this process of territorial fragmentation. The names of Bishop's Cannings and All Cannings (in the neighbouring hundred of Studfold) suggest that they form two parts of a once larger unit. Both have indications of minster status. The church of Bishop's Cannings had a notably high valuation in the thirteenth century, and had Devizes as a dependent church (Pitt 2001). All Cannings may have acquired some kind of independent minster status when granted to Nunnaminster, thereby being carved out of the Cannings hundred. This suggests Bishop's Cannings (in the hundred of that name) is the older foundation. A conical spindle whorl inscribed with various signs representing alpha and omega, probably Anglo-Saxon, and suggested to be of eighth- or ninth-century date, was found in the churchyard at Bishops Cannings in 1891, thereby providing a possible *terminus post quem* for a minster, or at least a Christian presence, at this site. However, the hundred meeting-place of Bishop's Cannings stood on the boundary between Bishops Cannings and Etchilhampton in the Domesday hundred of Studfold (Gover, Mawer, and Stenton 1939, 249, 313), suggesting that the primary district could also be based on Studfold or even Rowborough, if it existed at all (Reynolds 2005, 173). Place-name evidence nevertheless suggests that Bishops Cannings was the location of an important assembly site; the Cannings hundred meeting-place certainly seems to be a more auspicious location for an early site of assembly than that of Studfold. On Etchilhampton Hill, on the border of Bishops Cannings, were fields known as *Spilsbury* (c.1840), probably from OE *spelles-beorg* "mound or tumulus of the speech", and in the thirteenth century, a Walter de *Hundredesclyve* ("steep slope associated with the Hundred") was recorded in All Cannings (Gover, Mawer, and Stenton 1939, 249 and cf.198). Nearby, in Etchilhampton, is Tinkfield Farm (*Fing Field Barn* 1773, *Tinkfield* c.1840), a possible instance of OE *þing* "assembly" (Gover, Mawer, and Stenton 1939, 313, cf.249) and Harepath Farm (*Hare Path, Harepath Way* c.1840) in Bishops Cannings also presumably marks the presence of an important route-way or *herepæð* (Gover, Mawer, and Stenton 1939, 251). It is worth noting that the parish-name Etchilhampton is suggestive of a piece of land added to an estate (ibid., 313; cf. Ekwall 1925; Gover et al. 1936, 30). By contrast, the meeting-place of Studfold (*Stotfalde, -a* 1086), "herd or stud enclosure" (Gover, Mawer, and Stenton 1939, 311) was probably at Foxley Corner (*Foxle* 1342), perhaps "Fox woodland clearing" (ibid., 316) and there are few indicators of an established, early meeting-place here. The meeting-place of Rowborough (*Rugeberga hundred, hund Rueberge* 1086), "rough barrow", may have been near Rowbury Lane on the boundary between Potterne and Market Lavington parishes (ibid., 242; Anderson 1939a, 167).

effect was the creation—presumably deliberately—of a frontier of coherent territories which remained under royal control until the latter part of the eleventh century.

It is difficult to discern precisely when this development may have occurred. Jeremy Haslam (1984d, 138) has argued that some of the northern Wiltshire hundreds (including Bradford, Bedwyn, and Ramsbury) were once coterminous with great estates derived from earlier prehistoric or Roman territories focused on Iron Age hillforts, Roman towns, or villas. The existence of these estates is in a number of cases supported by place-name and charter evidence (ibid.). However, close chronological data for the emergence of these places as military and administrative districts in the early medieval period remain elusive. Recent regional studies have tended to emphasize discontinuities with Roman territorial administration, stressing the complex dynamics of landscape reorganization, particularly during the seventh and eighth centuries (Blair 1991, 27; Klingelhöfer 1992; Reynolds 2005; Draper 2006, 68–69). Amongst these, Reynolds (2005) in particular, has outlined a model by which early Anglo-Saxon *regiones* in the Kennet area which did not rely on earlier administrative systems fragmented into primary districts of civil organization over the course of the seventh to ninth centuries, which subsequently went on to form the core of Domesday hundreds.

Although the Wansdyke borderlands influenced the general pattern of hundreds, the physical boundaries of hundreds, ecclesiastical parishes, and minor estates apparently disregarded Wansdyke as a boundary feature (Bonney 1972; Reynolds and Langlands 2007). In boundary clauses of charters relating to, for example, Alton Priors (S 1513), West Overton (S 449), and Stanton St Bernard (S 368), all of early tenth-century date, none apparently utilized the monument to delimit their boundary. This observation is seen as evidence for the antiquity of estates, predating the construction of the linear monument (Bonney 1972, 176; Reynolds and Langlands 2007, 31).

A corollary of this interpretation, not explored fully by these authors, is that Wansdyke when it was constructed was not the limit of West Saxon sovereignty—that is to say a "border"—but the last line of a system of frontier defence, selected unilaterally by authorities operating to the south. Its purpose, much like the Roman *limes* or other early medieval linear earthworks such as Offa's Dyke, was not simply a way of protecting the state, but a means of policing the border regions through which it ran. The upland to the north of Wansdyke comprised a border zone of cultural over-

lap and political instability which estates to the south had evidently partially colonized by the early tenth century, but which nevertheless followed a different evolutionary trajectory from lands further south (Reynolds 2005, 171–75), emphasizing a continuing separation of territories to either side of Wansdyke prevailing until at least the eleventh century. There are archaeological indications that these borderland estates and the settlements on which they were focused retained distinctive cultural signatures, sharing a number of characteristic features (discussed below). Taken together these settlements and estates can be viewed both as evidence of local-level organization, and as a reflection of wider political structures, that—when viewed chronologically—provide evidence of boundary changes and boundary delimitation, as well as of the form and function of the state.

Defensive Sites of the Kennet Region

The fluctuating political environment of the northern Wiltshire borderland provide an important context for the range of defensible sites known from the area through archaeology, written sources, and place-name evidence. The location of the seventh-century monastery of Malmesbury within the ramparts of an Iron-Age hillfort has already been cited (Chapter 2), as has the evidence for a beacon and enclosure in relation to the prehistoric monuments at Yatesbury (Chapter 3; Reynolds and Brookes 2013) and to this can be added evidence for defence-works at or near the major middle and late Anglo-Saxon ecclesiastical settlements of the area: Bath, Bradford-on-Avon, Avebury, Preshute (Marlborough), and Bedwyn; settlements that for the most part can also be associated with royal manors. What follows is a detailed description of some of these sites as a way of examining some of the chronological and topographical features of fortification-use in Wessex during the middle and late Anglo-Saxon periods.

List of Sites

Re-used Hillforts

At both Bradford-on-Avon and Bedwyn royal estates corresponding to minster *parochiae* emerged with centres in close spatial proximity to Iron Age hillforts at Budbury and Chisbury respectively (Haslam 1984d). Both sites feature in a military capacity: Bradford appears to have been the site of a

battle in 652 (ASC ABCG), and Chisbury (by Bedwyn) was a Burghal Hidage stronghold. Both are also located close to the course of the Wansdyke boundary, with coherent estate territories arranged mainly behind the border (Draper 2006, 62–64). The northern limit of the Bradford estate is described in a charter of 1001 as the Bath-Verlucio road (S 899), whilst Chisbury, in the northern part of the Bedwyn estate, is on the line of the continuation of Wansdyke east of Savernake Forest, and that of a long dyke, known as Bedwyn Dyke, which adjoins the hillfort defences to the south east.

Bradford-on-Avon minster, which is likely to have stood on the site of the present parish church of Holy Trinity (Haslam 1984d, 94), is traditionally attributed to missionary activities of St Aldhelm before 705, and although there is no secure documentation for this early foundation an eighth-century ecclesiastical presence is supported by stone sculpture finds (Cramp 2006, 202–5; Fig. 46). By the tenth century Bradford was clearly in the royal ambit, a meeting at Bradford in 959 is related in the *Vita Dunstani*, and the church of St Lawrence, to the north of Holy Trinity, was in all probability a specially-constructed mausoleum for the relics of King Edward the Martyr (Hinton 2002). In 1001 the Bradford community, estate, and relics all passed to Shaftesbury Abbey (S 899), ostensibly for protection against the perceived threat of Viking aggression (Kelly 1996, 114–22).

The site was conveniently placed to serve as a crossing point of the Bristol Avon between Bath and Chippenham, as is suggested also by its place-name, derived from 'broad ford' (Gover, Mawer, and Stenton 1939, 116). The likely location for this ford was c.100m to the west of the present bridge, at the apex of a bend in the Avon, on the alignment with Frome Road (Haslam 1984d, 92). At this point the crossing is overlooked both by the minster at Holy Trinity, and the Early Iron Age promontory fort at Budbury, 200m to the northwest. Occupying a steeply scarped spur, the hillfort comprises a rectilinear bivallate enclosure of c.2.4ha, with a stone "box" rampart and double ditch on two sides (Wainwright 1970). Despite heavy modern truncation, the dry-stone wall, surmounting the earthen ramparts, survives to 0.45–0.78m (ibid.). No early medieval material has been recovered from within the hillfort, but the close proximity of the fortification to the Anglo-Saxon ecclesiastical *foci* on the slopes below suggests comparisons on morphological grounds with major settlement modules such as Barton-on-Humber (Li.), underlining Bradford's likely origins in the middle Anglo-Saxon period (Reynolds 2003). A *terminus ante quem* for Budbury's defensive role seems to be provided by an authentic charter for Westwood

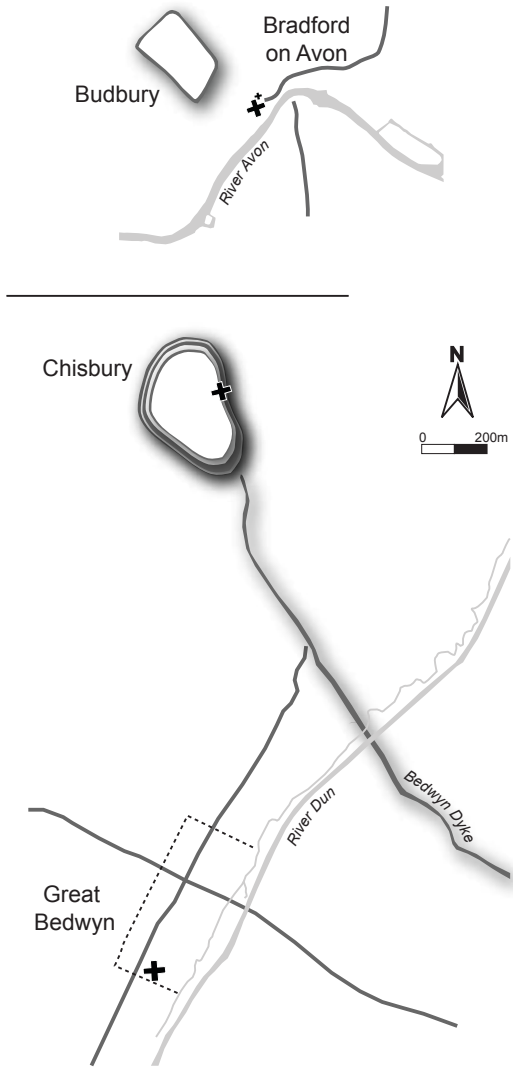

Fig. 46. Plan of the middle Anglo-Saxon minsters of Bradford-on-Avon and Great Bedwyn, and their proximity to the Iron Age hillforts of Budbury and Chisbury respectively.

(Wi.; 987 (12th) S 867), the bounds of which list a "great refuge" (*on ða greatan hlywan*) to the south of Bradford (Grundy 1920, 99 and fn. 3). It may be significant, in the context of civil defensive organization, that this is described as a refuge rather than a stronghold.

Like Bradford, settlement at Great Bedwyn may have its origins in the late seventh or early eighth centuries, although this interpretation relies heavily on later sources. In the twelfth-century *Chronicon Monasterii de Abingdon* (ii, 268) the fort in the south of Bedwyn parish is described as having been built by Cyssa in the time of King *Kinuinus* of the West Saxons; the fort was called *Cyssebui* (sic) after him. The sub-king Cyssa does not feature in the king lists or genealogies, but a Cissa is mentioned as an early patron of Abingdon Abbey (Kelly 2000, cxcix). The *Chronicon* also states that Cissa was the predecessor of Cædwalla (685?–88) and ruled Wiltshire and the greater part of Berkshire from his "metropolis" at Bedwyn.

Although garbled, this tradition does appear to be consistent with evidence from other sources. A stronghold of *Cissanbyrig* is known also from the Burghal Hidage list. This site has long been associated with the middle Iron Age hillfort of Chisbury Camp, 1.5km to the north of Great Bedwyn on a part of the Marlborough downs that forms upland between the valleys of the Kennet in the north and Pewsey in the south (Brooks 1964).[6] The hillfort encloses an area of c.6.07ha and is bivallate in form with additional ramparts on the southeast and northwest sides (Hill 1996a, 197–98). A feature supporting the identification of Chisbury is the extant late thirteenth-century chapel of St Martin's, near the eastern entrance of the hillfort, which has been argued to represent a possible successor to one which served the burh (Haslam 1984d, 96).

Whether the tradition that relates the construction of the hillfort—or some phase of reoccupation—to an eponymous Cissa has any basis in fact cannot be definitively answered. Much discussion of the place-name predates its identification with the Burghal Hidage stronghold, but the persistent <ss> spellings have led to association with the name recorded in Abingdon tradition, if not necessarily the (pseudo-)historical individual. The first element of the Burghal Hidage form (*to cissanbyrig*), which is the earliest surviving reference to the place, may well represent a genitivally inflected form of Cissa, thus reinforcing this interpretation (Gover, Mawer, and Stenton 1939, 334–35; Ekwall 1960, 106; Mills 2003, 114; Watts 2004, 136). Whether the *burh* takes its name from a local potentate named Cissa, or whether the foundation story and the eponymous protagonist were invented as part of a folk-etymological explanation of the place-name, is very hard to say. This type of popular reinterpretation of a place-name based on

[6] There are other possible sites for *Cissanbyrig*, including Chisenbury and Chiselbury (both Wi.). However, as there is little archaeological or written evidence to support these identifications, Chisbury remains the likeliest contender.

a folkloric misconception of its origins is relatively common. Even if the Cissa mentioned in connection with Abingdon was a local notable with a powerbase at Bedwyn, there can be no certainty that he gave his name to the hillfort. The coincidental similarity of the toponym and his personal name could have been enough to initiate an apocryphal story of this nature; or he might have been named in reference to a local tale that already associated the name Chisbury with a mythical Cissa.

Geological maps of Chisbury do show a layer of gravel, which according to local tradition, was even partially excavated prior to the Second World War; at present, however, there is no reliable archaeological account for this occurring. Noting the apparently gravelly nature of the subsoil at Chisbury, Gover, Mawer, and Stenton (1939, 334) considered but dismissed (on the grounds of the persistent <ss>) the possibility of a first element OE **cis* "gravel". However, there is some evidence for an OE **cisse*, derived from **cis* and meaning "gravelly place" or "gravelly feature", and an oblique form of this (**cissan*) might explain the first element of Chisbury (Dodgson 1996a, 106; Mills 1998, 83–84; 2003, 114; VEPN:3, 77–78). Dodgson (1996b) further suggests that names of this kind might have something to do with the material of construction, rather than simply the underlying soil of the locale, and that a gravel defence-work would be notable for requiring some kind of timber or stone revetment. This is a significant point: if the specific refers to the use of gravel in a phase of fortification or refortification of the site, such a phase may be identifiable archaeologically, and, if it belonged to the Anglo-Saxon period, it might provide a chronological framework for the naming of the place. In the absence of this, Dodgson's suggestion is untested; but in any case an association with gravel is the most likely explanation of the first element, while the connection with an eponymous Cissa is more likely to reflect a folkloric fabrication than a reliable tradition.

Bedwyn first appears in contemporary sources in the early ninth century when land there was held by the bishop of Winchester (S 1263), although it is referred to later in the ninth century in Alfred's will (S 1507); a royal connection that continued to Domesday when Bedwyn provided the "farm of one night" (Lavelle 2007, 24). Royal interests in Bedwyn are particularly visible in the early tenth century. A charter of 904 makes clear that the estate was added to under King Edward when it gained 20 hides at *Stoce* by Shalbourne, probably preserved in the name of Stokke Manor, 1.5km to the west of Great Bedwyn (S 1286), and was apparently enlarged further still in the early tenth century to 114 hides (S 416), before being partially

dissolved (Dumville 1992a). David Dumville has suggested that this acquisition of an enlarged estate must be related to the establishment of the Burghal fort (*ibid.*), the implication being that Chisbury Camp may have been fortified, or at least consolidated as a stronghold around 904.[7]

On the basis of this evidence Haslam (1984d) has suggested a chronological sequence of development between the two sites in which the hillfort settlement was transplanted immediately south to Great Bedwyn in the early tenth century. In support of this hypothesis, the first obligatory tithe payments to a minster at Bedwyn date to between 926 and 930 in Athelstan's reign; this church still retaining a 1.5 hide share in Domesday (Eagles 1997, 386). Indeed, an organized military presence at Bedwyn in the mid-tenth century is further suggested by the issue of a series of guild statutes (Whitelock 1979, 605–6). These were seen by F.W. Maitland (1897, 191) as evidence for groups of military personnel existing in amongst newly established urban communities. Further support for this spatial shift may also be provided by Bedwyn's town plan, the morphogenesis of which is suggestive of late Anglo-Saxon [re]planning, comprising a sub-rectangular plan-unit aligned on the River Dunn, demarcated by property boundaries to the northeast of the town and beside St Mary's in the southwest, with a regular grid of properties aligned on a central crossroad.[8]

Haslam (1984d) argues that this substantial early tenth-century manor and military stronghold, and the subsequent development of Great Bedwyn as an urban centre and mint in the reign of Edward the Confessor, presupposes the existence at Bedwyn of a royal vill at the head of a large estate during an earlier period. This conclusion is also reached by Simon Draper (2006, 62–63), who reconstructs the Bedwyn estate alongside the lesser royal estates of Pewsey and Collingbourne as making up the double hundred of Kinwardstone, a putative primary district of territorial administration. Certainly, the various royal and ecclesiastical associations suggest some form of exceptional status; however, the antiquity of this great estate remains uncertain.

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[7] Peddie (1999, 99–101) has suggested that between the battles of Basing and *Meretun* in AD 871, the West Saxon army may have withdrawn to Chisbury Camp (although another possibility is Walbury Camp to the south).

[8] The field to the south of St Mary's church (the presumed minster site) appears to have several banks and ditches, possibly demarcating a curvilinear enclosure around the minster. It is possible that these features represent an element of a middle Anglo-Saxon settlement plan, however, the stratigraphical relationship between these features and Bedwyn's rectilinear streetplan is uncertain.

Bath

The middle Anglo-Saxon context for defended settlements in this borderland region—albeit for different reasons—is further emphasized by the archaeological evidence from Bath, the former Roman town of *Aquae Sulis*. All indications suggest that Bath continued to be partially inhabited throughout the early Anglo-Saxon period, perhaps initially as a sub-Roman British centre, but thereafter as an important central place for the Hwiccian province of northern Somerset and Gloucestershire (Davenport 2002; Fig. 47). It is likely that the Roman city walls, enclosing an area of 9.3ha, were a key determinant for this continuity. Unlike nearly all other early ecclesiastical centres in south-western England, the minster founded at Bath c.675 (in all likelihood beneath the later abbey church), occupied a central position within a Roman enceinte, with an intra-mural settlement probably developing in the southwestern quadrant of the town. The walls were also critical to Bath's role as a Burghal Hidage stronghold, although by the later ninth or early tenth century they appear to have been in a poor state of repair (see Chapter 2).

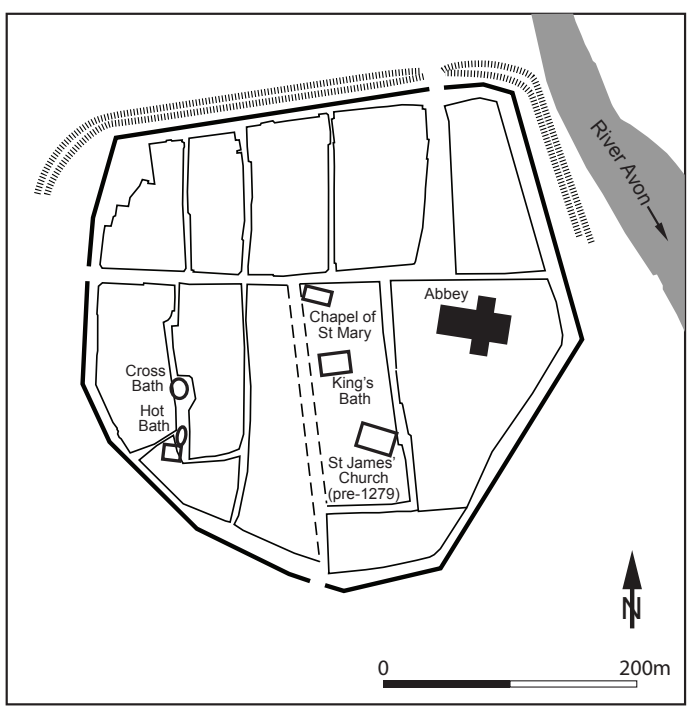

Fig. 47. Anglo-Saxon Bath.

Avebury

Alongside these sites, monumental reuse is known also from Avebury, the Anglo-Saxon development of which has been collated by Reynolds (Pollard and Reynolds 2002; Fig. 48). Avebury occupies a central position within the expansive north Wiltshire Chalk borderland, some 5km to the north of Wansdyke. Large numbers of finds from all periods are known from Avebury and its immediate environs. It is the location of numerous extant prehistoric earthworks as well as the famous Neolithic henge enclosure itself. Reynolds has postulated the existence of a middle Anglo-Saxon minster on the site of St James' church, for which there is good archaeological and written evidence. The upstanding late Anglo-Saxon fabric of the church reuses monumental sculptural fragments dating to the late ninth or tenth century (Cramp 2006, 200–1). The high status of the foundation is further implied by Avebury's Domesday assessment, which included a two-hide holding for the priest Regenbald.

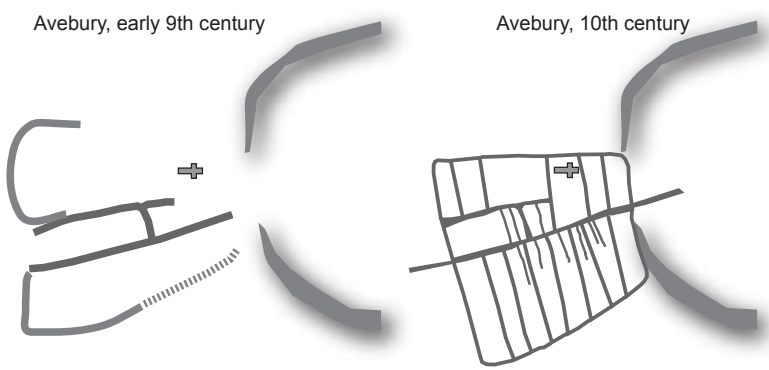

Fig. 48. Plans of late Anglo-Saxon Avebury.

Probably earlier than this putative minster are finds from excavations in the area of Avebury car park demonstrating early to middle Anglo-Saxon activity, including possible sunken-floored buildings, together with banks, ditches and hollow ways (DoE 1977; Borthwick 1985). To these can be added objects recovered from Keillor's and Gray's excavations within the henge in the early 20th century, including grass-tempered pot sherds of sixth- to seventh-century date from under Stone 7, and from the ditch of the Avebury henge (Pollard and Reynolds 2002, 191–92).

Excavations to the west of these finds in the area of Butlers' field have revealed later occupation debris, with a radiocarbon assignation of c.AD

886 (1160±80 uncal. BP; OxA-1220; Evans et al. 1993). This radiocarbon date was obtained from the south of the elliptical plan-form that is arguably of this period, part of which was recorded in the RCHME survey of the Avebury environs (Pollard and Reynolds 2002, 198–99). A similar ninth-century radiocarbon date (1220±80 uncal. BP; HAR-1696) was also obtained from the School site excavations on the south side of the west entrance of the henge, from a pit containing grain in association with occupation debris (ibid., 199; Wilson 1970, 200–1). Associated with this pit were further curvilinear enclosures and a probable hall building. On these grounds, it is likely, Reynolds suggests, that a minster settlement of the ninth century existed at Avebury (Pollard and Reynolds 2002, 201). This was enclosed by a series of curvilinear enclosures, and comprised an elliptical street plan finding close parallels also with the plan-morphology of Ramsbury and Kintbury.

Reynolds (2001; Pollard and Reynolds 2002) has further argued that a second, sub-rectangular, enclosure is visible to the west of the henge enclosing the church, the earlier curvilinear ditches, and houseplots. Measuring 270m (east-west) by 200–300m (north-south) the earthen bank of this enclosure is evident in the south and west of the village, whilst in the east it is likely that the henge ditch formed a defensive feature. To this new plan belong regular plots laid out perpendicular to the main east-west thoroughfare, the boundaries of which have in some cases been archaeologically verified. The bank and ditch of the enclosure were cut in 1985 in the area of the car park, some 200m southeast of the henge (Borthwick 1985). The section revealed two ditches, one fairly substantial, at the foot of a shelf of higher ground. The dimensions of the largest ditch were 3.5m wide and 1.5m from the top of the bank. A timber palisade on top of a bank is suggested by two postholes.

The combined evidence suggests that Avebury underwent at least two phases of significant re-planning. The first phase, represented by the curvilinear enclosure may reflect the foundation of a defended minster, possibly contemporary with the monumental fragments of architecture contained in St James' church (i.e. of late ninth-/tenth-century date) and the Butler's Field radiocarbon date (c.AD 886), therefore perhaps from the reign of Alfred (871–99). The second phase, represented by the construction of the sub-rectangular street-plan and defensive circuit, may be linked with the upstanding fabric in the northwest of St James' nave which incorporated the tenth-century stone fragments, that is to say of later tenth- or early eleventh-century date.

Any hope that the place-name itself might throw light on the use of the site is limited. The earliest forms of the name, *Aureberie* 1086, *Avesbiria* 1114 (Gover, Mawer, and Stenton 1939, 293–94) allow for little certainty, but derivation from a personal name *Afa* with OE *burh* (dat. *byrig*) has been suggested (Ekwall 1960; Watts 2004). Gover, Mawer, and Stenton (1939, 293–94) put forward the alternative possibility of a river-name *Afon* or Avon, referring to a tributary of the Kennet, perhaps the Winterbourne, which flows through the village (Watts 2004). The second element is perhaps of more interest in the present context, but Avebury exemplifies the difficulties of identifying the significance of OE *burh* in place-names. The basic meaning, "stronghold", would suit the suggested use of the site for defensive purposes in the late Anglo-Saxon period; but reference to the Neolithic bank and ditch that surrounds the village or to the presence of a minster might also explain the name (see chapter 2).

Silbury Hill

Further evidence for early medieval civil defence has been identified close to Avebury atop the Late Neolithic mound of Silbury Hill (Fig. 49). Standing to a height of some 37m, the top of the monument has the appearance of being cut back to create a ditched platform. Recent conservation work on

Fig. 49. Silbury Hill.

the monument has revealed further evidence in the form of large timber post-holes of a substantial late Anglo-Saxon fortification on top of this platform (Reynolds pers. comm.), corroborating similar finds made in 1970 by Richard Atkinson (1970, 313–14). The 1970 features were associated with iron nails and a Last Small Cross cut farthing of Æthelred II, dating to 1009–17 (EMC 1980.0013). When added to antiquarian finds, including an early eleventh-century horse-bit, these indicate a significant military presence on top of Silbury Hill during the Viking onslaughts of Æthelred II's reign (Pollard and Reynolds 2002, 226–27).

As a place-name, Silbury is one of the more enigmatic of the sites discussed here. The early forms make it hard to be sure what the first element is;[9] as to the second, *burh* and *beorg* are both possible (Gover, Mawer, and Stenton 1939, 295; Watts 2004, 550). The topography of the site is obviously well suited to OE *beorg* "barrow, tumulus", as this is precisely what Silbury Hill is, and *beorg* place-names often show confusion with *burh* in their later medieval forms. On the other hand, the growing archaeological evidence for late Anglo-Saxon reuse of the top of the tumulus for military purposes, may give weight to *burh* as the second element. Traditionally, the specific is taken to be OE *sele* "hall" (Ekwall 1931, 40–1; Gover, Mawer, and Stenton 1939, 295). This is an unusual way of qualifying either a *burh* or a *beorg* (cf. VEPN:1, 88–90; VEPN:2, 81–85), but might be paralleled in the name Chirbury (Sh.), one of Æthelflæd's Mercian strongholds, and probably from OE *cirice* "church" and *burh* (Gelling 1990, 80; Anderson 1934, 157; Ekwall 1931, 40–41).[10] OE *beorg* probably offers the most likely explanation, but confusion about the second element may have arisen due to the new, defensive function of the hill in the late Anglo-Saxon period. The first element might refer to a nearby building, or possibly to the late Anglo-Saxon structure on the top of the hill; but the archaeological evidence is insufficient to demonstrate that there was a hall or similar building within the apparent palisade (Reynolds and Brookes 2012).

Marlborough

There are indications that Marlborough originated as the middle Anglo-Saxon royal estate and minster of Preshute (Fig. 50). The settlement is located on a prominent broad spur overlooking the Kennet valley, 2km

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[9] *Seleburgh* 1281, *Selbyri, Selburi hille* c.1540, *Selbarrowe hill* 1558–1603 (Gover, Mawer, and Stenton 1939, 295; Watts 2004, 550).

[10] The earliest form is *æt Cyricbyrig* ASC B *s.a.* 915.

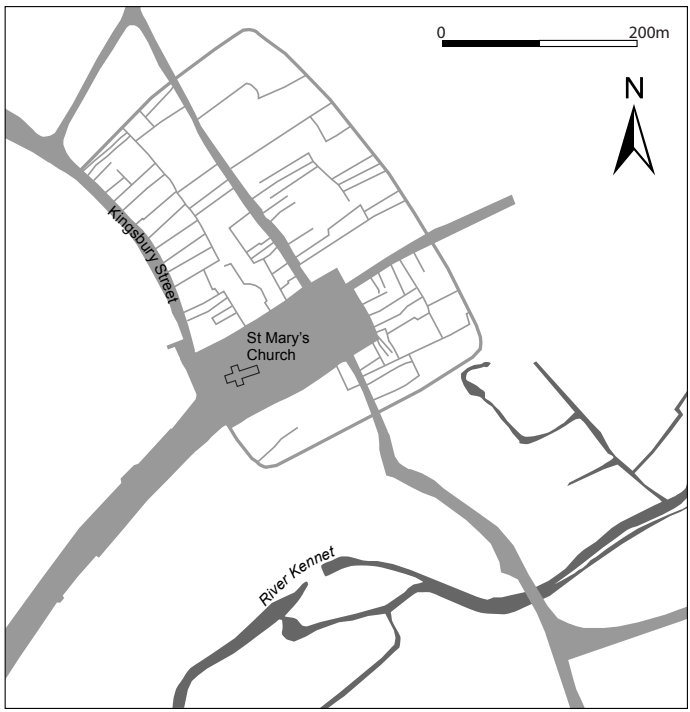

Fig. 50. Plan of late Anglo-Saxon Marlborough, showing the burghal planform suggested by Haslam (1984c)

west of the former Roman town of *Cunetio* (Mildenhall), on which a number of Roman roads converge, a northern route from Wanborough (Margary 43), a south-eastern route from Winchester (Margary 43), and a southern route from Old Sarum (Margary 44). A further road (Margary 53) led from west to east from Bath through Marlborough and *Cunetio* to meet the Silchester-Cirencester highway (Margary 41).

The minster *parochia* of Preshute appears to have comprised the eastern half of Selkley hundred, with a putative boundary between the great estates of Avebury and Preshute defined by the Ridgeway (Pollard and Reynolds 2002, 224; Draper 2006, 69). Preshute was the mother church to an unknown number of unnamed chapels, retaining right to tithes from Clatford and Manton, as well as St Martin in the east of the town, seemingly founded when the settlement expanded into new land during the thirteenth century (Pitt 1999, 87–88). Preshute is probably the church of Marlborough mentioned in Domesday Book holding a hide and valued at 30*s*. These combined data suggest that the minster may well have originated during

the middle Anglo-Saxon period, contemporary with foundations at Avebury and Ramsbury; all of which exercised discrete ecclesiastical spheres of influence, as well as sharing a number of topographical attributes (Pollard and Reynolds 2002, 224).[11]

There are some faint indications that this middle Anglo-Saxon settlement may have focused on the area to the west of St Peter's Church. Finds from the nineteenth century at Summerfield House, Marlborough College, included early medieval pottery, an early eighth-century series H *sceatta*, a silver-gilt pin of the late ninth or early tenth century, and two late Anglo-Saxon iron padlock keys that were recovered with a pin (Eagles 1997, 388; EMC 1999.0116). This part of the town is also the location of The Mount from which the settlement is likely to take its name.[12] This large conical mound on a bend of the River Kennet is thought on morphological grounds to have similar prehistoric origins to Silbury Hill, and was used as a castle motte during the Anarchy period (Brown, Colvin, and Taylor 1963, 734–8; Field, Brown, and Crockett 2001). It is possible that this was the focus of an earlier ringwork. An enigmatic ditch, some 3m wide and 3m deep, has been found concentric with, but outside of, the postulated castle circuit (Gaimster and Bradley 2001, 333), which although undated, may indicate the replacement of an earlier enclosure by the later bailey.

Similarly to Avebury, Preshute appears to have been replanned during the later Anglo-Saxon period as the burh of Marlborough. In a convincing summary of the topographical development of the settlement Haslam (1984d) has argued for the division of the earlier parochial unit for the creation of such a burh. The place name Kingsbury suggests that this was built on the royal demesne on the eastern part of the spur closer to the natural crossing of the Kennet. Plan analysis of this part of the town suggests a sub-rectangular plan unit of regular east-west lanes, demarcated on

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[11] It is worth noting that the place-name Preshute (*Prestcheta* 1185) is derived by Gover, Mawer, and Stenton (1939, 307–8) from OE *prēost* (gen.pl. *prēosta*) "priest" and *cīete* "cottage, cell".

[12] *Merleberge* 1086, *Marleberg*(*e*) 1091 (Gover, Mawer, and Stenton 1939, 297–98). The second element is OE *beorg*, a reference to The Mount in the grounds of Marlborough College, dated to the mid third millennium BC. The first element is difficult, the most obvious explanation being an unrecorded personal name **Mǣrla* (ibid.; Watts 2004, *s.n.*). Ekwall (1960, *s.n.*), however, noted the coincidence of the double occurrence of the same name, here and in Malborough (De.; Gover, Mawer, and Stenton 1931–32, 307), and suggested therefore a significant first element OE *meargealla*, *mergelle* "gentian", rather than a personal name. Gover, Mawer, and Stenton (1939, 297–98) dismissed this explanation for the Wiltshire occurrence, thinking it just as unlikely to find such a rare plant-name twice compounded with *beorg*, and pointing to the only other known instance of *meargealla* in a place-name, in which the first element is still *merghel* in the fourteenth century (cf. Gover, Mawer, and Stenton 1931–32, 516).

the western boundary by Kingsbury road, and on the south by a sharp drop in the land south of St Mary's, which probably served as the burghal church (ibid.). To the north of this foundation existed arable lands, named Portfield, which appear to have been intended as subsistence support for the burh. Royal connections remain visible for the rest of the Anglo-Saxon period, Domesday Book records Marlborough as a royal estate, and the mint of Bedwyn was moved to Marlborough in 1086.

Ramsbury

There have been few early medieval finds within Ramsbury and the status and dating of the site is very much dependent on two main pieces of archaeological evidence (Fig. 51). Firstly, Ramsbury appears to have been a former minster, and from 909–1058 the Cathedral of the See of Ramsbury. The only physical remnants of this minster are a group of important Anglo-Saxon fragments including a ninth-century cross shaft, three fragments from two crosses, and two fragments from ninth-century grave slabs, found during restoration work in the late nineteenth century at the present Church of the Holy Cross (Cramp 2006, 228–34). These indicate an ecclesiastical presence at Ramsbury for a century before the foundation of the See. Secondly, excavations on a site in the High Street in the 1970s have revealed an iron smelting and smithing site datable to the late eighth or early ninth century (Haslam 1980). This site is approximately 200m southwest of the church precinct close to the River Kennet, and comprised several phases of iron working evidence on a platform cut into the hillside. Features included two furnaces, an iron roasting area, a smithing hearth, and a number of postholes interpreted as workshop structures. Associated datable material included a copper-alloy key (dated to the mid-seventh to mid-ninth centuries), a Trewhiddle-style strap-end of eighth or ninth century date, an inlaid iron strap-end of probable ninth-century date, and a number of other early-medieval iron tools and utensils. Radiocarbon dating was carried out on charcoal from the site. Six samples (HAR-no.1606–9, 1626, 1704) from different features suggested a fairly short period of use overall, with median dates ranging from cal. AD 660–905 (overall weighted mean of 820+/-45; Haslam 1980, 54–55).

Gelling has discussed the place-name compound *hræfnes-burh*, "*Hræfn*'s or the raven's stronghold", which lies behind Ramsbury and three minor place-names nearby in Berkshire (Gelling 1973–76, 346–47; Gelling 1997, 144–45; cf. Gover, Mawer, and Stenton 1939, 287–88). The three Berkshire examples can be related to prehistoric hillforts or features likely to have

been interpreted as such by the Anglo-Saxons, and Gelling proposes that *hræfn* or its side-form *hremn* (cf. Smith 1956a, 264) in these instances is a reference to the raven as a familiar of Woden, noting Old English literary association of the bird with battlefields. The compound *hræfnes-burh* would therefore be a supernatural name, rather than a description of a *burh* frequented by ravens or owned by a person called *Hræfn*. The earliest certain forms of Ramsbury (Wi.) are *Hremnesbyrig* c.990 and *Ramesberie* 1086 (Gover, Mawer, and Stenton 1939, 287–88).[13] An earlier tenth-century form, *Rammesburi* (S 524), may belong here (ibid., 287–88; Ekwall 1960; Watts 2004), but Gelling (1973–76, 346–47) thinks this form should more correctly be considered under the lost Ramsbury in Ashbury (Be.). Either way, the forms of the Wiltshire name are entirely consistent with the meaning "raven's *burh*". There is, however, no obvious location for defences. The closest known prehistoric hillfort is that of Membury fort 5km to the northwest. A curvilinear precinct corresponding to Back Lane and forming a D-shaped area with the river does enclose both the church and the iron working site, but the antiquity of this arrangement is speculative. However, there are morphological similarities in this elliptical plan with both Avebury in the ninth century and Kintbury (Pollard and Reynolds 2002, 201). On these grounds it is possible that Ramsbury was an enclosed minster settlement, although archaeological evidence for it is also so far lacking.

Once again, as with Avebury, the archaeological evidence provides a context in which Ramsbury might have been given the name *burh* either because it was a late Anglo-Saxon fortified site, or due to the presence here of a minster. However, if Gelling's theory is correct, and her argument is persuasive, Ramsbury must be the site of prehistoric defences, or earthworks recognisable as such. It is conceivable that a feature recognized by the Anglo-Saxons as a prehistoric fortification has escaped modern detection, perhaps because it has since disappeared due to ploughing and soil erosion, or through other modifications of the landscape. An earthwork of this kind might well have encouraged re-use of the site as a stronghold or minster in Anglo-Saxon times. Remains of an earthwork ditch, some 150m long, are visible on aerial photographs, just north east of Hilldrop Farm, c.400m north of modern Ramsbury (NMR ref. SU 27 SE 9). The feature is of an unknown date and purpose, and has been much eroded, but might

[13] Ekwall also noted a reference to *æcclesia Corvinensis* (l.10th, S, 1451a; Ekwall 1960, *s.n.*), although he did not think it proof that the OE name was an ornithological reference rather than containing a personal name, even if it was analysed as such in the tenth century.

represent the remains of a large prehistoric enclosure. Another possibility is that Ramsbury originated as a name for the hillfort called Membury, but having become attached to the land unit, shifted away to the location of the Anglo-Saxon settlement of Ramsbury. Membury, another *burh* place-name, is within Ramsbury's parish. Two possible explanations have been offered for the first element. Ekwall (1960) preferred to find a wholly Old English etymology, and suggested OE *myne* in the sense "love" or "memorial". However, Coates (2000b) finds good evidence of fairly late use of Brittonic in north-western Wiltshire, so an alternative Brittonic **mīn* corresponding to Welsh and Cornish *min* 'edge' should not be ruled out (Gover, Mawer, and Stenton 1939, 289; Ekwall 1960). If Gover, Mawer, and Stenton are right in taking this also to be the first element of *Myndeane* (1553) in the same parish, then we may be dealing with a significant feature in the area called in Brittonic **mīn*, which gave its name to both places. That a hillfort should have two names, "stronghold by the feature called **Mīn*" and "stronghold associated with the raven (as Woden's familiar)" is not out of the question.

Chippenham

Chippenham appears to have been a significant settlement from the mid-ninth century at the latest and is likely to have been a royal vill of some importance (Haslam 1984d, 132; Mcmahon 2004; Fig. 51). It is first mentioned in 853 as the venue for the marriage of King Æthelwulf's daughter (Alfred's sister) Æthelswith to the Mercian King Burgred (Asser.*VitAlfredi* §9), and it is probable that the West Saxon kings maintained a seat here at this time. In Asser's account of the events of 878, Chippenham is described as a royal vill (Asser.*VitAlfredi* §52), and it is likely that at this time Chippenham formed the centre of a large estate which included the royal forest of Chippenham and Melksham as well as the manors of Kington St Michael and Kington Langley (Haslam 1984d, 132). The latter were both granted to nobles in 934 suggesting that the Kington label must pre-date this (S 426; Ford 1976, 8). In 930 (10th/11th S 405), 933 (12th S 422, 12th S 423) and 940 (14th S 473) charters were apparently signed by the king at Chippenham, but after the mid-tenth century there is little reference to Chippenham until Domesday which probably reflects some decline in its status. Nevertheless, the church of Chippenham retained a hide of land in 1086 and was valued highly for Wiltshire at 55*s*, indicating extraordinary status at the head of a large minster *parochia* (Pitt 2003, 79).

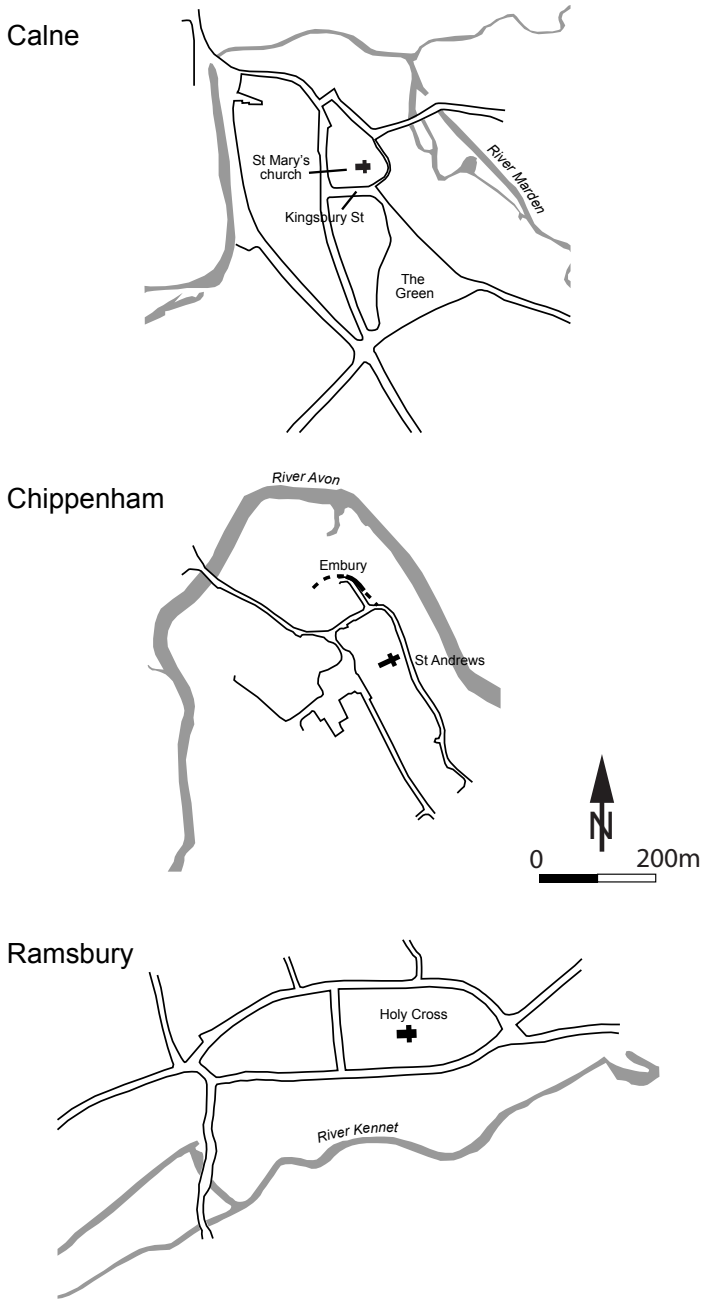

Fig. 51. Middle Anglo-Saxon curvilinear settlements in north Wiltshire: Ramsbury, Calne, Chippenham.

Topographically, the core of the town occupies a defendable spur of Oxford Clay, surrounded on three sides by the river Avon. Landward approaches to the town are only from the southeast, and these attributes are likely to have made Chippenham a significant strategic place. Several routes from the north converge at the northern end of the probable early river crossing at the head of the spur; in all probability a ford or bridge.

Fortifications are not explicitly described in the *Chronicle* entries for 878 and 879, but are implied by Alfred's siege of the retreating army following the battle of Edington, although it is not entirely certain that the "pagan fortress" and Chippenham were the same site. As a royal vill, and an attractive base for the Viking force, it must be assumed that Chippenham was contained within a defensive enclosure. If it is one and the same as the "pagan fortress" described by Asser, it was furthermore formidable enough to deter the victorious West Saxon army from all-out assault on the defeated *here*.

Despite this textual evidence no confirmed archaeological remains or chance finds of the period have yet been made within the historic core of the town (Mcmahon 2004, 8). Haslam (1984d, fig. 56) and Mcmahon (2004, fig. 5) have both attempted topographical reconstructions of Anglo-Saxon Chippenham on the basis of later burgage plots and tenements. These have suggested a settlement focus around the Church of St Andrew, a twelfth-century structure, which is likely to have succeeded a Saxon minster. Immediately north of the church is a sub-rectangular plot of land defined by Market Place, Cook Street and part of St Mary's Street. Leading away from this plot to the northwest, parallel to the arc of the river is Emery Lane (*Ymbyri* 1314; Gover, Mawer, and Stenton 1939, 89). Ford (1976) takes this to be OE *ymb-byrig* "around or about the burh", while Haslam (1984d, 135–36), noting that a field also called Imbury, later Emery, abutted the rear of the burgages in old Cook St, has suggested that the name refers to a royal "palace-burh", effectively a Kingsbury, even though no Kingsbury name survives to be associated with the site of the royal vill. In either case, the difficulty in interpreting *burh* must be kept in mind (see Chapter 2), and it probably should not be rendered as the modern archaeological "burh".[14]

[14] The compound OE *fore-burg*, which is found in a number of place-names (Gover, Mawer, and Stenton 1938, 296; 1939, 424; Reaney 1935, 596; Gover et al 1936, xlix; Gover n.d., 58; Smith 1956a.183–84) is thought to mean "fore-court, entrance-court", and is used as a gloss of Latin *promurale* "counter scarp, outer wall of a fortification"; and for Latin *praedium* "estate, landed property" (DOE *s.v.*). If an unrecorded compound **ymb-burg* existed, it might have meant something like "outer defence".

Whatever the significance of Emery, according to tradition this area has been maintained as the location of a royal palace. It is the site of foundations and a mound of uncertain date noted in the late nineteenth century, but which have since disappeared (Ford 1976). Between Emery Lane and the Avon a feature was observed during earthmoving at the Emerygate Centre in 1986, but not recorded in detail (Mcmahon 2004, 8). According to the excavator it comprised a clay bank which appeared to be well stratified, and was in an alignment and at such an elevation that it could have been part of the Saxon defences of the town, however, no plan was recorded, so its alignment with regard to other topographical features is uncertain. Mcmahon's (ibid., fig.5) postulated burh disregards this feature from its topographical assessment. He prefers a rectangular plan bounded to the southeast by the line of Joseph's Lane which has marked the edge of the borough since at least medieval times, and to the northwest by—as yet unidentified—defences to the rear of Cook St, where the line of the boundaries to the rear of properties marks the extent of former medieval burgage plots. However, if Chippenham's origins are as an eighth- or ninth-century royal vill, a curvilinear bank parallel to Emery Lane (rather than cutting across it) and enclosing the church and market place, are entirely feasible and would find parallels in the elliptical plans of Avebury and Ramsbury, particularly if it was subsequently remodelled around a more rectilinear plan-form. In both models it is unclear where the western defences beyond The Causeway would lie. Mcmahon (ibid., 20) suggests that the line may be preserved in the boundaries to the rear of the properties fronting onto Market Place, although trial excavations cut at right angles to the suggested line of the Anglo-Saxon bank failed to identify definite evidence of any defences (ibid.).

Calne

Calne was evidently a royal vill by the tenth century, whose estate was most likely coextensive with both the minster *parochia* and Domesday hundred (Draper 2007, 64; Fig. 51). In Domesday Book Calne appears as a superior church with six hides, formerly eleven, and valued very highly at £8 (Pitt 2001). It retained a large number of dependant chapels in the thirteenth century stretching across the hundred (ibid.). The earliest evidence for Calne's royal connections comes from c.951–55 when it forms part of a bequest to Winchester Old Minster in King Eadred's will (S 1515). However, it is likely to have remained in royal hands (Draper 2007, 64). In the *Chronicle* entry for 977 (ASC 978 DEF) a meeting of all the chief councillors of

England was interrupted when the upper floor of the hall collapsed killing several of those assembled. Such an assembly, and the existence of a two-storey building, implies a high-status complex, apparently rebuilt in time for another *witan* held there in 997 (S 891). Royal connections remained in Domesday, where Calne is recorded as paying the "farm of one night" (Lavelle 2007, 20), however, any physical evidence for the early medieval settlement is lacking. Kingsbury Street in Calne is also worth noting, perhaps preserving the name of a royal holding recorded in the fourteenth century as *Kyngesbiri* (Gover, Mawer, and Stenton 1939, 256).

Discussion

It should be clear from the description of sites above, that the Kennet zone has considerable evidence for a range of defended settlements dating back at least to the middle Anglo-Saxon period. For the most part these sites can also be identified as royal and/or ecclesiastical central places at the heart of larger estates equating to minster *parochiae* or hundreds. Various authors have attempted reconstructions of these territories, including Bradford-on-Avon, Chippenham, Malmesbury (Haslam 1984d), Great Bedwyn (Eagles 1997), Avebury, Preshute (Reynolds 2001), andCalne (Draper 2007). Taken together, these describe a complex process of landscape formation in which royal and ecclesiastical influences are particularly noticeable. Despite this complexity, some patterns are in evidence that may potentially be tied to the geo-political evolution of this frontier landscape.

Settlements which may have an early ecclesiastical presence dating to the late seventh or eighth century are located primarily south of the Wansdyke boundary (Bradford-on-Avon, Bedwyn) or in the extreme north and west of the region on low-lying geologies of the Avon and Thames valley (Bath, Malmesbury). These settlements are also those in clearest association with prehistoric hillfort enclosures, or in the case of Bath, a Roman walled precinct. Perhaps significantly, indications of other ecclesiastical foundations in the region of this date, at least on the basis of sculptural stone fragments, echo these findings. From Colerne in the extreme northwest of Wiltshire two cross-shaft fragments of eighth- or ninth-century date suggest the founding of a minster by Hwiccian nobles within 2km of the Iron Age multivallate hillfort of Bury Wood Camp (Cramp 2006, 211–13). Further to the west, major ecclesiastical sites such as Westbury-on-Trym to the north of the Bristol Avon, and Congresbury, 15km to the south of West Wansdyke, were also located close to Iron Age multivallate hillforts,

at Blaise Castle and Cadbury Camp respectively, although close dating for the origins of these minsters is lacking.

In contrast to the evidence for ecclesiastical central places south of Wansdyke, settlements at this date to its north on the Chalk uplands of the Marlborough downs are generally much more domestic in character; there is no genuine evidence for an ecclesiastical provision until the eighth or ninth century, nor any for settlement enclosure. Unlike other parts of Wessex such as Hampshire and Dorset where there was apparently good parochial coverage provided by minsters from the seventh or eighth century (Hase 1988; Hall 2000) parts of the north Wiltshire upland were over 18kms from a minster even in the late eighth century. However, significant changes in the character of settlement in this borderland are apparent around this time. Foundations at Ramsbury and possibly Marlborough in the late eighth to early ninth centuries and Avebury in the later ninth, were enclosed within defined curvilinear precincts, further examples of which may also be visible locally in the elliptical plan-units of Kintbury (Be.), Lambourn (Be.), and Bremhill (Wi.; Pollard and Reynolds 2002, 203; Draper 2006, 77).

The dating of these foundations within the borderland is significant. As described above (pp. 216–17) accounts of the late eighth and early ninth century document increasingly antagonistic relations between Mercian and West Saxon rulers, particularly evident in the north Wiltshire frontier. In 771 Offa's influence in Hwiccian areas included taking control of Bath, which became a royal proprietary monastery (Edwards 1988, 122). Around the same time he seized Cookham on the southern bank of the Thames (S 1258), thereby gaining control of two strategic minsters along the frontier with Wessex (Blair 1994, 55; Yorke 1995, 63). Against this backdrop enclosed minsters at Avebury, Ramsbury, and elsewhere along the Kennet, as well as the related pattern of regular *parochiae*, might be regarded as planned foundations explicitly designed to increase royal influence in the frontier zone, although it is unclear whether these were Mercian or West Saxon undertakings. Cramp (2006, 72) has suggested that some of the carved stonework from Ramsbury reflects Mercian tastes in animal ornamentation, whilst also noting that these had gained widespread popularity in Wessex during the ninth century. By contrast, the dating of the stonework from Avebury to the late ninth and tenth centuries must make this minster the result of West Saxon patronage.

Of possible significance is an authentic charter of 778 (S 264) recording a *gabulos* "gallows" on the Kinwardstone hundred boundary at Little

Bedwyn, just to the north of Chisbury Camp, on a crossroads of significant east-west and north-south aligned routes. In a recent discussion, Reynolds (2009) has suggested the emergence of judicial monuments, such as gallows and execution cemeteries, as being emblematic of the range of mechanisms which kings of the seventh and eighth centuries adopted in order to secure and administer territories under their jurisdiction. In his analysis of such sites, they are commonly found in the frontier areas between the emergent polities of the middle Anglo-Saxon period.[15] From this perspective, he sees early instances of public execution running hand-in-hand with the formation of large defined polities, and the extension of political influence over borderland regions. Of interest to this line of argument is a suggestion, put forward by Wileman (2003, 65) that, following common law, the structural element of property boundaries should lie on the side of the builder responsible for their maintenance. In the case of linear bank-and-ditch earthworks, the structural element is arguably the ditch, which by implication would lie on the side of the chief partner, which at this period would have been Mercia. Whoever was responsible in Kinwardstone hundred, the close proximity between public execution site, border monument (Wansdyke), putative archaic-stronghold, royal vill, and minster, make it possible to envisage just such top-down processes, with the regularization and monumentalization of the border landscape a clear symbol of political intent; the gallows between Chisbury/Bedwyn and the minster of Ramsbury therefore demarcating the late eighth-century boundary between Wessex and Mercia.

In reality, the existence of enclosed minster compounds within the borderlands may well have served the interests of both Mercian and West Saxon rulers. As quasi-fortified institutions, at the centre of large estates, minsters were amongst the few early medieval institutions capable of supporting either a king travelling on circuit or a warband foraying into enemy territory. More problematic is the issue of whether these ecclesiastical institutions always existed in tandem with royal manorial complexes. This was almost certainly the case at Calne, Bedwyn, and Chippenham which retained the royal farm of one night into the later medieval period, and to these may be added the estate of Preshute; but at Ramsbury, Avebury, and

[15] Various such correlates exist: the later seventh- and eighth-century execution cemeteries of Walkington Wold, Staines, and Cambridge can be related to the frontiers of Mercian hegemony. In the authentic mid-tenth century charter of the Chalke estate (S 582), repeated references are made to *Heafod Stoccan* ("head stakes") along the shire boundary between Dorset and Wiltshire (Alex Langlands pers. comm. May 2011).

Bradford-on-Avon a royal presence is much harder to discern (contra Haslam 1980, 58–64).

Many of these sites provide evidence that they were rebuilt around rectilinear plan-forms of varying size. These find a range of comparanda in the settlement forms of late Anglo-Saxon Wessex, including those of *de novo* burhs (see Chapter 2) and minsters. The early medieval minsters of Dorset have recently been the subject of a study by Teresa Hall (2000, 66), in which she defines a number of characteristics of these settlements, including: orientation on a river; a centrally-placed church; an east-west, north-south alignment of roads and boundaries up to 300×400m in size; the presence of a fixation line along what may have been the precinct enclosure; and suburban development. Examples of this arrangement are cited as Sherborne, Wimborne, Whitchurch Canonicorum, Charminster, and others in Dorset (ibid.), to which should be added Congresbury in Somerset (Oakes and Costen 2003). The rectilinear plan-forms of Avebury and Bedwyn fit well into this corpus of settlements, although in both cases the church is not centrally-placed within the enclosure (their locations do, nevertheless, find parallels with the plans of Charminster and Sturminster Marshal; Hall 2000, fig.49); a point emphasized by the comparison of minster-settlement plans. Significantly, in Hall's survey, where the sites of royal vills associated with these rectilinear minster enclosures were known, they tended to be located at some distance from the minsters. This situation is perhaps paralleled at Avebury, with a late tenth- or early eleventh-century military settlement on Silbury Hill, and at Bedwyn/Chisbury.

Although there is no physical evidence it is possible that there was a period of destruction between the phases of elliptical and rectilinear plan-form. At the nearby settlement of Trowbridge, excavation has suggested there was a hiatus between the two phases of Anglo-Saxon settlement (3 and 4; Graham and Davies 1993). During the earlier phase (3), dating from the seventh to tenth centuries, a small agricultural settlement was focused on the higher part of the Cornbrash ridge adjacent to the river valley. Structures dating to this phase were sealed by a horizon, containing a significant amount of pottery sherds of the tenth century, possibly representing a phase of abandonment or agricultural use of the site, during the period of Danish incursions in the region. In contrast to the earlier settlement, later tenth-century regeneration of Trowbridge comprised more substantial building, including a simple two-celled church (of c.950–1139 date) as well as a sub-rectangular ditched and banked enclosure (c.55×70m diameter), with an entrance to the north-eastern side adjacent

to the church. The enclosure may have contained substantial buildings. This compound appears to have been established in the eleventh century, and finds good parallels with late Anglo-Saxon manorial complexes elsewhere (Reynolds 1999, 132).

On the basis of the stone sculptural finds from St James' Church, Avebury, it is unlikely that a similar date sequence can be applied there. It is more probable that Avebury minster survived through the tenth century, perhaps supplemented by a fortification on Silbury Hill early in the eleventh century. Both sites may subsequently have been destroyed in 1013, when Swein's host traversed Wiltshire from Wallingford to Bath (ASC CDEF). In this scenario, the replanning of Avebury in the aftermath of the second Viking war and the consolidation of military and ecclesiastical functions at a single site, listed as *Terra Regis* in Domesday Book, is one that could fit the available archaeological evidence.

At this point, it is probably worth briefly considering the implications of the foregoing discussion for the precise application of OE *burh* in place-names, and especially the possible connection between *burh* and prehistoric fortified sites, Anglo-Saxon strongholds, and settlements with minster churches (see discussion in Chapter 2). In a sense, the names of the possible strongholds in the Kennet Valley underline the difficulty of finding a datable context for the creation of *burh* place-names, even if the sites are consistent with a general meaning of "stronghold" or "site enclosed by a wall, rampart, or fence" (VEPN:2, 74–85). Of the nine sites in the Kennet region with possible evidence of defensive works, two (Ramsbury and Avebury) have *burh* as their generic, and a third one (Silbury) at the very least shows later medieval confusion between *beorg* and *burh*. Five further sites are associated with *burh* place-names: Bradford-on-Avon with Budbury, Bedwyn with Chisbury, Marlborough and Calne both with Kingsbury names, and Chippenham with Emery.

Of course, since all of these show possible signs of use as later Anglo-Saxon strongholds and minsters, it is possible that the use of *burh* is a reflection of this reuse. Nevertheless, of all these *burh* place-names, three (Budbury, Chisbury, and Avebury) have a definite connection with prehistoric enclosures that were, or might have been construed as, fortifications. Ramsbury has produced no clear evidence of a site of this description, but its name is strongly suggestive of the presence at one time of such a feature, and there was a hillfort at Membury, in Ramsbury parish. These four are the only major *burh* place-names, and they are consistent with the general sense of *burh* proposed by Parsons and Styles (VEPN:2, 74–85) and

discussed above (Chapter 2), namely a "stronghold", with specific reference to prehistoric enclosures.

Silbury is not recorded before the thirteenth century, but should perhaps be set aside here, since there is no certainty that it was a *burh* place-name. The other references to *burh*—Emery and the two Kingsburys—seem not to be associated with prehistoric earthworks (Mcmahon 2004, 7–8); but they are also minor names, not first recorded before the fourteenth century. Here it is quite likely that we are dealing with one or more of the later applications of *burh* set out by Parsons and Styles (VEPN:2, 74–85). Emery may well consist of a compound noun meaning something along the lines of "forecourt" or "outer wall". In the absence of a post-Conquest castle, the most likely context for this would be a later Anglo-Saxon burh, but it could perhaps refer to the forecourt of a minster precinct. The two Kingsbury place-names also seem most probably to belong to the later Anglo-Saxon period at the earliest, perhaps in reference to royal holdings at Marlborough and Calne; similar reasons possibly lie behind the place-names Kingsbury Episcopi (So.; Watts 2004), Kingsbury in St Albans (Ht.; Gover, Mawer, and Stenton 1938, 89; Niblett and Thompson 2005, 178–92), and Kingsbury in Old Windsor (Be.; Wilson and Hurst 1958, 183). All of these places also probably had an important ecclesiastical presence (although the Kingsbury in St Albans was viewed by the Abbey as a rival to its interests). Moreover, Kingsbury in Middlesex seems to have been so-named after being granted by King Edward the Confessor to Westminster Abbey (Watts 2004), and Kingsbury in Benson (Ox.) may have got its name for similar reasons (Gelling 1953–54, 117). However, in these instances surely the sense is "manor", not settlement of minster status. This group of *burh* names is, then, entirely consistent with the development of a range of applications from an original meaning "stronghold" or similar.

Roads and Intervisibility

Can this model of landscape formation be refined further through an examination of the links that existed between sites? This requires an understanding of the structural dimensions of the communication network, in particular the trajectory of network evolution. By defining the geographical selection, retention (continuity) and variation of particular links between sites it may be possible to reconstruct particular phases of network development, furthermore providing clues as to how "communication networks at Time 1 affect the interactions among member organizations—specifi-

cally, their formation of ties to other organizations—at Time 2" (Kenis and Knoke 2002, 277–78).

As one element of the links between sites, roads clearly played a crucial role in the movement of armies and the orchestration of early medieval battles. The importance of established major route-ways for military manoeuvres has been mentioned (Chapter 3), but is worth reemphasizing. Control and use of major route-ways was strategically crucial in dominating a theatre of conflict and ensuring reliable supply lines (Wagstaff 2006 and cf. Bachrach 2001, 224, 237), and at a time before accurate, detailed maps were available, an army would not be able to negotiate minor roads without considerable difficulty, especially in unfamiliar country. To know the direction to a target by reference to the cardinal points would be of little help; more important, was knowledge of the local landscape and the roads, ridges, or rivers that led there. The same constriction would apply to a retreating or returning host. Use of local guides should certainly not be ruled out, but it may not have been possible to pick up such aid locally—many people may have known their way around the local roads and tracks of their own district, but they too were probably dependent on the few principal route-ways for travel further afield. In this respect, it is worth noting the development of names such as *wīc-herepæð*,[16] *portweg*,[17] and *sealt-herepæð*;[18] even on a local basis, certain roads were recognized as leading to the major settlement in the area, or to salt supplies further away. In any case, movement by minor roads, which are more likely to have taken a circuitous route to allow for the local layout of the managed landscape, would be less direct and slower than by the established long-distance roads. Leaving the major route-ways might have been appropriate from time to time, for example to avoid a fortified river-crossing, to evade an enemy army, or to bypass a section of track made impassable by environmental conditions; but such detours cannot have been more than short-distance measures.[19]

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[16] E.g. two examples in Hampshire, *on pic herpað* in the Highclere charter (S 680); and *to píc herpaðe* in Headborne Worthy (S 309).

[17] E.g. *on þone port weg* in a charter for Wootton in Berkshire (S 858).

[18] E.g. *Saltharperweie* in Rodmarton (Gl.; Smith 1964a, 107–8).

[19] Even before the Viking Age, outsiders seem to have been very much encouraged to stick to the established roads in southern England, for in the seventh-century lawcodes of Ine of Wessex and Wihtred of Kent provision is made, and the severest punishment prescribed, for any alien who should leave the road without warning (W 28, I 20, Whitelock 1979, 398, 400).

We should, therefore, expect both Viking and Anglo-Saxon armies to have made use of established route-ways. However, there is some evidence to suggest that particular types of road were favoured over others. Viking long-distance manoeuvres, such as those between Cambridge and Wareham in 875, and from Exeter to Gloucester in 877, appear to have exploited the Roman road network to traverse Wessex without provoking major confrontation. Similarly, in Peddie's (1999) detailed reconstruction of the movements of the Great Army, these were clearly influenced by the Roman modal networks and rivers in particular, as well as to a lesser extent 'Prehistoric' trackways. Perhaps significantly, in Peddie's analysis the two instances where Vikings departed these predetermined long-distance routes they were engaged and defeated by West Saxon forces, on a sortie from Reading at Englefield in 871, and at Edington in 878. Not too much should be made of this observation, but it is nevertheless striking that West Saxon troop movements, when chartable, generally adhered to ridge-top and other ill-defined routes rather than the Roman roads preferred by the Great Army—for example, Alfred's probable advance from Athelney to Edington (Peddie 1999, 134–35). This potentially provides evidence of differences in topographical knowledge influencing the contrasting tactical decisions of the opposing forces. Given this trend it is possible that Viking military intelligence extended only as far as the national and provincial topography. By restricting movement of their own forces to regional and local route-ways, West Saxon kings were able to mobilize forces discretely and predict the best tactical responses to Viking movements. Such local routes may include routes sometimes referred to in charters as *herepaðas* and are referred to below as herepaths.

Identifying Herepaths

Unfortunately mapping such secondary routes is extremely difficult, and relies on the detailed reconstruction of the wider network of communications. Aston (1985, 143) has suggested that the study of roads should be attempted at four levels: national, provincial, regional, and local. Each of these stages is argued to reflect different functions in the modal network. However, since road systems at a local level are integral to the national network, the study of roads should be undertaken simultaneously at all levels. Furthermore, the characterization of routes in this manner provides only evidence of the relative relationship between route-ways. In rare instances, military terms appear in charter bounds, thereby providing at least one fixed topographical and chronological point of reference, but in order to chart the linear route of a *herepæð* a number of additional methods need

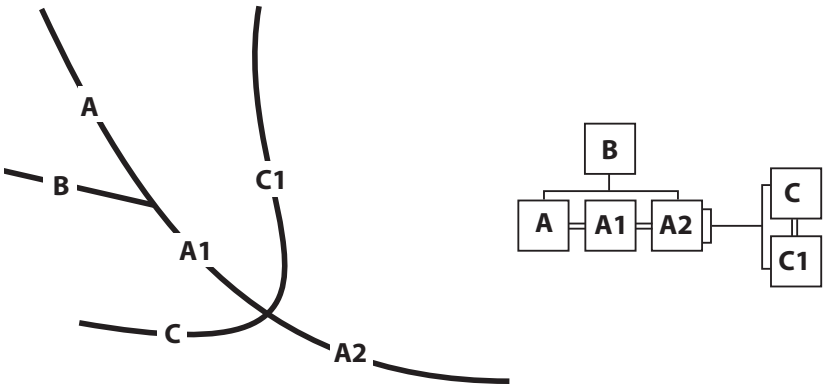

Fig. 52. Stratigraphical relationships between route-ways.

to be applied. One is to examine the topology of routes. This is determined by two principal methods: firstly, retrogressive analysis, in which cartographic sources are used to remove most recent route-ways; and secondly, by determining stratigraphic relationships between the remaining routes (Deacon 1994). In the latter method, the junction of roads can be defined as butting, cutting, or contemporary in order to establish relative relationship to each other. Roads butting on to other routes are later in construction whilst cutting relationships are indeterminate. By constructing a matrix of route-way relationships it is thereby possible to determine the relative chronology of road construction (Fig. 52). Phased road networks can then be compared with evidence from documentary sources. These may provide not only absolute dates for the existence of routes, but also, potentially, evidence for the functions of particular route-ways. Of particular interest are correlations between stratigraphically "primary" routes and features named as *herepaðas* either in charters or in modern place-names, which together may suggest the presence of Anglo-Saxon military route-ways (see Chapter 3).

This method of landscape reconstruction has demonstrated the existence of several such roads in northern Wiltshire (Fig. 53). One, previously defined by Reynolds (1995), follows the course of the modern Barrow Way-Yatesbury Lane, linking together Marlborough, Avebury, Yatesbury, Wroughton, and Chiseldon, where it adjoins the north-south Roman road between Wanborough and Mildenhall, near Marlborough (Margary 43).[20]

[20] Although Peter Fowler (1998, 32) has dismissed the claim that this route is a *herepæð*, arguing that the identification is based on an incorrect reading of the bounds of S 449, the

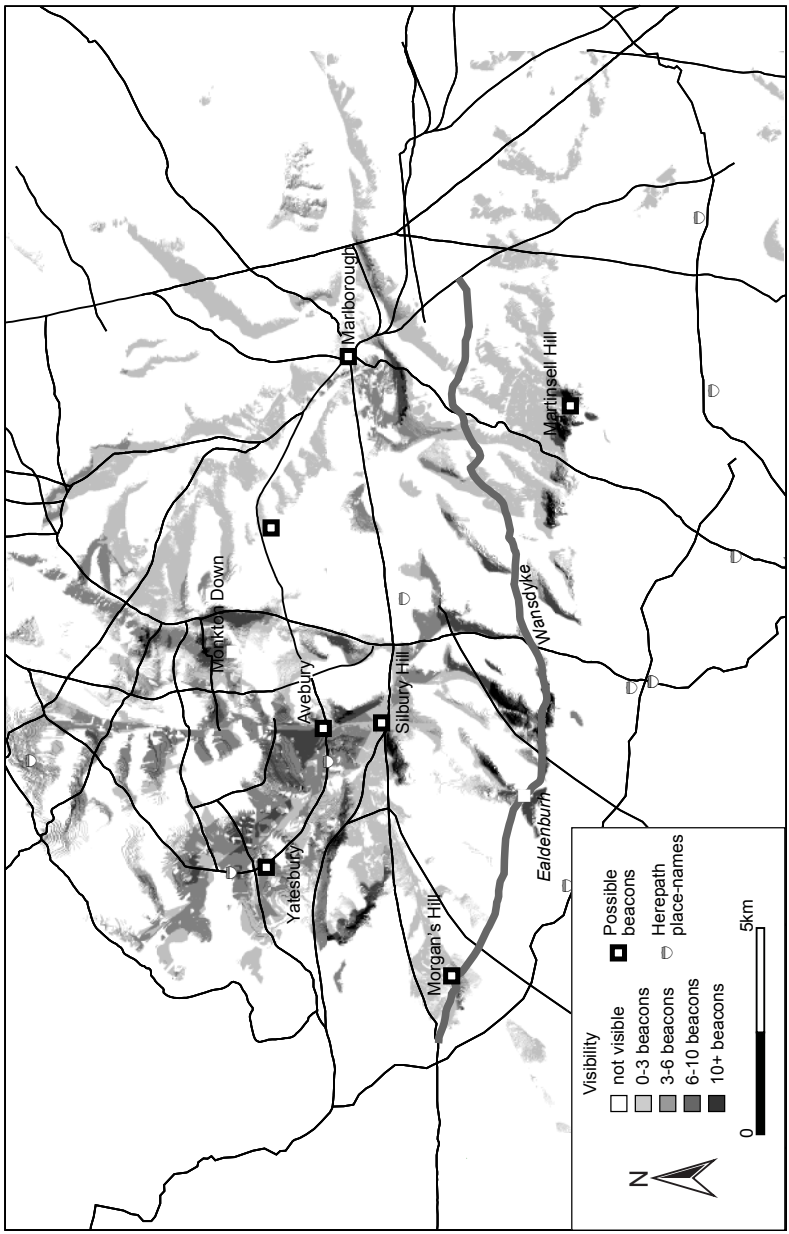

Fig. 53. Road network in the Avebury region showing multiple viewsheds calculated from the Yatesbury-Silbury beacon chain.

For much of its route between Avebury and Chiseldon, this road effectively follows the Lower Chalk Shelf parallel to the scarp of the Marlborough downs, thereby bisecting the high ground below the downs in a great loop joining the Roman road. A charter of 955 (S 568) makes clear that the Roman road was only in passable condition to the south of Chiseldon,[21] thereby forming in tandem with the Yatesbury Lane *herepæð* a closed circuit with its hub at Marlborough/Mildenhall (Reynolds 1995, 24–25), which evidently functioned to control the upland.

In keeping with this apparent militarization of the north Wiltshire upland, three further named *herepaðas* emphasize a similar concern with controlling access to the Chalk upland. The Ridgeway itself is probably the road named as a *herepæð* in three separate ninth-century charters as it bisects the region. S 272, a charter for Alton Priors (Wi.), mentions an *ealdan herepaðe* that Grundy (1919, 160) took to be the Ridgeway; the boundary of S 449 seems to run along a road on top of Hackpen Hill, on the boundary of Winterbourne Monkton and East Overton (Wi.; Gover, Mawer, and Stenton 1939, 310), likely to be the Ridgeway here; and in S 459, a charter for Liddington (Wi.), Grundy (1920, 12–16) took both *herepaðas* to be ridgeways, one the "great ridgeway" and the other a "branch ridgeway", running south to a crossing of the Kennet at Marlborough (see Chapter 3). To this evidence can be added the place-name Harepath Farm in Broad Town and Clyffe Pypard parish, which is located on a significant point of access onto the Marlborough downs. At this location meet the principal road approaching Marlborough from the northwest across the downs, and two lowland branches towards Malmesbury and Cricklade. Finally, another, much-named primary route links Malmesbury with Calne and Pewsey. Crossing the Bristol Avon at Christian Malford it is named as Hare Street in Bremhill parish. From Calne the road passes Beacon Hill travelling southeast towards All and Bishop's Cannings, skirting between Cannings Marsh and the upland scarp of the downs. East of Bishop's

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wording of the boundary clause suggests a crossroads between the two routes with the boundary itself crossing over the east-west aligned *herepæð*: *þonne on coltan beorh oþ þæne herpoþ an hacan penne*, "then to Colta's barrow up to the herepath on Hackpen". The fact that the boundary clause uses *oþ* "to, up to, as far as" rather than "along" seems to indicate a crossroads. See also Reynolds and Brookes forthcoming.

[21] At this point the charter boundary advances to (*on þe*) *brokenestret*. This is "the broken (Roman) road", and Grundy (1919, 208) notes that it "was probably applied to the road because part of it had been destroyed; and the modern map shows pretty clearly that that had taken place near Covingham Farm…, close to the point where it joins the Roman road which comes up to that farm from the old Roman station at Speen near Newbury".

Cannings the route passes Harepath Farm before proceeding to Allington, Stanton St Bernard, Alton Barnes, and Alton Priors, and finally joining the *Ealden Walweg* (Workway Drove) to Pewsey mentioned in S 272. East of Pewsey this road continues to Hare Street Copse in Milton Lilborne parish and Harepath Farm in Burbage, before climbing the scarp to Great Bedwyn and Chisbury.[22]

Several further place-names and sources extend the system to the south of the Vale of Pewsey. A primary route known as the *bradan wege* in a charter of 987 (S 865) and now known as Hare Street runs southwest from Marlborough crossing the Calne-Pewsey *herepæð* in the vicinity of the Swanborough Tump (Semple and Langlands 2001, 240–41). From here it continues to Manningford where it briefly forms a single route with the Ridgeway. South of Manningford it climbs with the Ridgeway onto Salisbury Plain, but diverts sharply south-eastwards to join the Roman road near Everleigh in the northeast corner of Enford parish. In a charter of 934 (S 427) both this last section of the route to the northeast of Chisenbury Camp and the Roman road from Mildenhall to Old Sarum (Margary 44), which it joins, are named as *herepaðas*.

This density of road-names and place-names with possible military connotations is not in evidence to the west, in the Avon valley lowland, but finds some parallels in the Lias and Ham Hill stone upland around Bath, where several routes are named *herepæð*. To the north of the burh the Roman road from Gloucester (Margary 542) is named as a *herepæð* in a charter of 931 (S 414), as is the Fosse Road (Margary 5b) to the south of Bath in a charter of 961 (S 692). Further *herepaðas* close to West Wansdyke are also named in the tenth century, seemingly referring to routes from fords across the Bristol Avon southwards up onto the higher ground and through the earthwork (S 476; S 414).

'Natural Pathways' and Herepaðas

It is possible that particular properties of these routes made them suitable for military communications; they were flatter, straighter, and maintained constant elevations for example. In order to test possible relationships between terrain and *herepaðas*, a friction surface of the Kennet area was created to model the suggested isotropic energetic cost of moving across different slopes.[23] Through this process the "best" routes across the Kennet

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[22] Smith also believed this route to have some antiquity (1884)

[23] A slope map was calculated of the area using a digital elevation model produced at 50m pixel resolution from 10m Ordnance Survey digital contours provided by the Digimap

area were calculated (for a comparable methodology see also Bellavia 2001; 2006; Bevan and Brookes forthcoming; Fig. 54). Perhaps surprisingly, few *herepaðas* apart from the Ridgeway adhered to those "natural pathways" providing the fewest obstacles to moving armies across this landscape. Particularly noticeable, the Malmesbury-Calne-Pewsey-Chisbury route is only collinear with optimal paths in the final section between Burbage and Chisbury, seemingly avoiding better routes on the Lower Chalk shelf, or at the base of river valleys. The latter might be explained in strategic terms, since control of upland areas perhaps afforded tactical advantages—the flanking units of invading armies may have sought out the higher ground. More probably it is explained by the influence of ground conditions, not factored into the model, and this is supported by the slightly better fit between "natural pathways" and primary routes on the Chalk downs themselves. Nor does the model account for woodland, of which there is likely to have been plentiful cover, particularly in the area around Bedwyn (Eagles 1997, 389), and between Chippenham and Calne (Haslam 1984d, 132–33). Nevertheless, the *herepæð* gives the impression of linking together natural pathways, rather than following them. The implication of this finding is that *herepaðas* may not have been so-named because they represented the most likely direction a Viking force would take—that is to say "good" routes across the landscape—but because they served some other strategic function. By implication, if it needed stating, the use of *here* in the *Chronicle* to describe Viking hosts should not be seen as relevant to the meaning of *herepæð* (see Chapter 3).

In order to test this finding further an accumulated friction-surface of the suggested energetic cost of moving across different slopes was created from the Viking camp at Chippenham using a formula adapted from Bell and Lock (2000). From this starting point a number of anisotropic (i.e. directional) cost-paths were calculated to putative "targets" in the Kennet region, such as minsters and major settlements. Rather than predicting the general communications routes of the region, this process sought to examine the specific process of strategic decision-making underlying the events of 878. Significantly, although the most easily traversed paths from Chippenham to Ramsbury, and Chippenham to Chisbury failed to correlate closely with *herepaðas* identified from route topology, they did pass through all of the major settlements in the area. Both paths cross the same

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Project (http://edina.ac.uk/digimap/). This was then reclassified according to a scheme adapted from Llobera (2000). From this map "natural pathways" for the area were extracted using the hydrology modelling plug-in TauDEM (http, //hydrology.neng.usu.edu/taudem/).

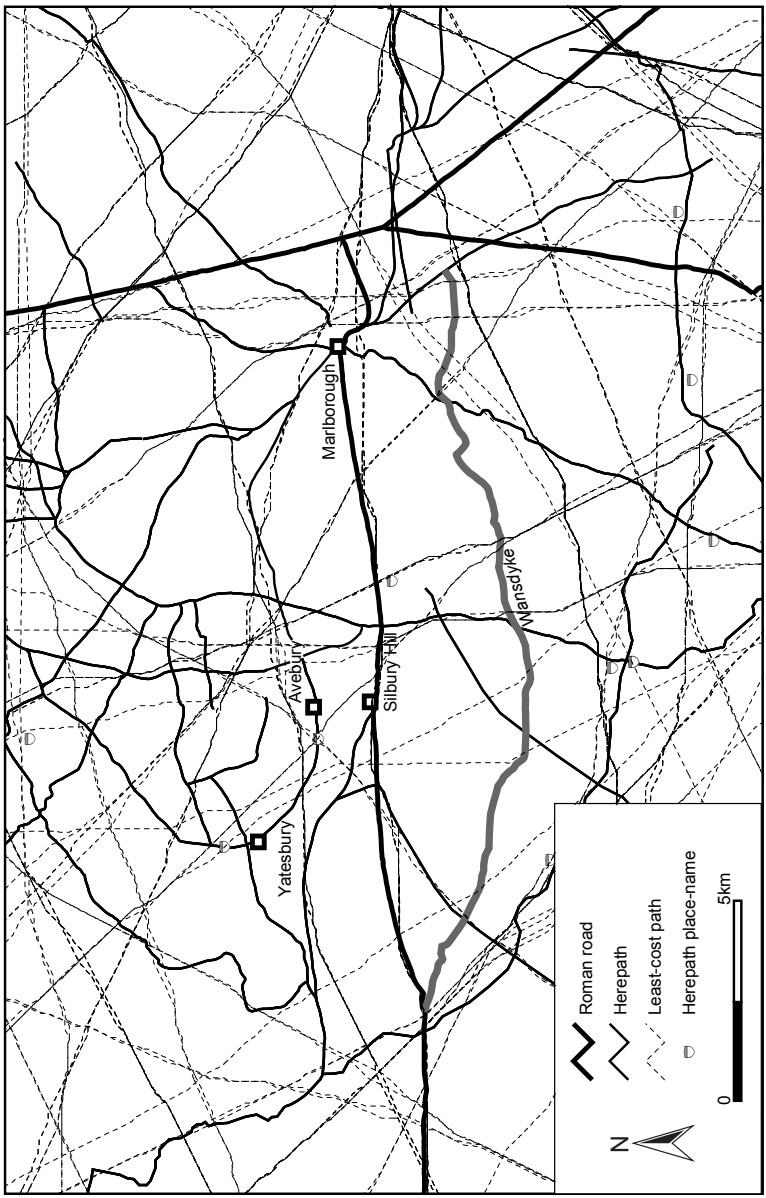

Fig. 54. Road network in the Avebury region showing the correlation between actual routes and calculated "natural pathways". Herepaths are noticeably more closely correlated with predicted least-cost-paths than Roman roads, emphasizing their origins as "desire paths" attuned to terrain and topography.

low ground of the Bristol Avon valley over the River Marden to Calne before splitting on the Greensand incline near Cherhill. From here the least-cost path to Ramsbury heads directly east to Avebury before crossing over to Ogbourne St Andrew and descending into the Kennet valley just west of Ramsbury. The Chippenham-Chisbury least-cost path alternatively branches south to Silbury Hill, then following closely the Roman Road to Marlborough and the "primary" route between Marlborough and Froxfield.

Whilst both these tests would profit from better-resolution topographical data, it is significant that the *herepaðas* of the Kennet area appear primarily to link together the static defences of the region rather than reflecting natural corridors of movement as defined by the regional topography. In this sense, they cannot be said to be reactive to tactics shaped by terrain. *Herepaðas* are therefore more likely to reflect the administrative or military functions of Anglo-Saxon kingdoms, rather than representing the routes used by attacking armies (*contra* Halsall 2003, 148, 222). From this perspective it is also striking that several of these routes run parallel to the course of Wandsdyke for some distance. As such, it may be possible that sections of these military roads date back to the use of the earthwork as a territorial border and are related to the administration of lands on either side. The lack of correlation between *herepaðas* and least cost paths between the defended sites may imply development of *herepaðas* within an already intensively exploited and carefully managed landscape, which *herepaðas* may have been forced to take into account in some degree. Another possibility, recently suggested by Alex Langlands (forthcoming), is that the location of *herepaðas* was at least in part determined by the pattern of those estates directly responsible for the upkeep and maintenance of the roads.

At the very least, the connection between *herepaðas* and static defences allow these networks to be analysed as coherent systems. In these descriptions of routes, Calne, Marlborough, and Swanborough/Manningford stand out as significant hubs in the networks of *herepaðas* criss-crossing the Chalk upland. In the case of Marlborough this function is partially the result of its proximity to the small Roman town of *Cunetio*, on which several Roman roads converge. However, in addition to this, at least two further *herepaðas* named in charters also have Marlborough as a major node, marking it out as a premier military site (if such roads can reliably be associated with military movement), at least by the reign of Æthelstan. Similar military functions may be attributable to Swanborough, which occupies a central locale at the intersection of three *herepaðas* through the Vale of

Pewsey named in tenth-century charters. Close to the centre of this intersection is Swanborough Tump, the meeting-place of the Domesday hundred of Swanborough, which has been identified with a low mound of possible ninth-century date (Gover, Mawer, and Stenton 1939, 317; Semple and Langlands 2001, 241).[24] Finally, Calne is located at a very strategic point blocking access from the Avon valley into both the Vale of Pewsey and onto the Marlborough downs.

Between these three sites, Yatesbury and Avebury are less well-connected nodes and the *herepæð* linking them together provides little outward connectivity with other long-distance routes. The form and structure of this section of the network very much suggests a role in the control only of the local upland; a factor which may have influenced Avebury's subsequent decline in the later medieval period (cf. Reynolds 2003). The status of Avebury as a secondary centre is emphasized further by the chain of intervisible beacons identified by Reynolds (2000) comprising signals at Yatesbury, Silbury Hill, Totterdown, and Marlborough (Chapter 3 above). In this analysis Avebury is not part of the chain, relying on signals from Silbury Hill to communicate with other centres.

Beacons and Visibility

GIS-based visibility analysis of the Silbury beacon system suggests that these sites provided near complete coverage of several of the major routes through the area, including the Ridgeway and the Barrow Way-Yatesbury Lane *herepaðas* (Fig. 53). Indeed, it is noticeable that large sections of these routes are intervisible with several of the putative beacon sites. Using this method of overlapping viewsheds it may also be possible to predict the location of other beacon sites in an extended chain. This is an imperfect process. In many cases, the exact location of the lookout is unknown. In some instances, this is because the place-name is no longer current and cannot be identified on the map. Where the lookout name is a feature in an Anglo-Saxon boundary clause, it may be possible to identify its exact location, but not in all cases. Sometimes lookouts are commemorated by

[24] This is not to be confused with *Swinbeorg*, mentioned in Alfred's will, which may have served as the mustering point for West Saxon forces prior to the Battle of Ashdown in 871. The early forms of Swanborough cannot be reconciled with *Swinbeorg* (Whitelock 1979, 534 fn 1): the former is OE *swānabeorg* "hill of the herdsmen, peasants, or (perhaps) warriors"; the latter seems to be OE *swīnbeorg* "pig hill" (Gover, Mawer, and Stenton 1939, 317, 320; Anderson 1939a, 167–68).

place-names such as Wardlow (Db.), from OE *weard-hlāw* "watch mound",[25] where the meaning of the name offers hope that the feature will be easily identifiable on the ground and the point from which watch was kept can be narrowed down to a closely confined area. This is rarely so. In many instances, the feature has disappeared and can no longer be identified, but more often than not, the place-name itself does not permit such a high degree of spatial accuracy. Place-names that once described landscape features often become attached to specific settlements or roads, which may no longer be on or even especially adjacent to the feature from which they are named. Even where the generic is *dūn* or *beorg*, words defining fairly specific landscape features, there may be more than one appropriate candidate in the area; but sometimes memory of a lookout is preserved by references to features or settlements that were close to or in some way associated with it, rather than by the survival of the name of the lookout itself. In this way, Totley (Db./YoW), "the woodland of the lookout place or of the lookout people" (Walker 1914, 250–1; Cameron 1959, 315; Watts 2004),[26] probably indicates the existence of a lookout somewhere in the vicinity, but where it was is hard to say.

As a consequence, in looking at the intervisibility of beacon sites, some informed guesswork has been required. It is probably a fair assumption that most lookouts and beacons are on the highest land in the parish,[27] but this will not always be the case if the lookout needed to see a particular point in the distance that is obscured by even higher ground in between. As Hill and Sharp have noted (1997, 163), sometimes a lower piece of ground provides a better angle to signal along a valley, or to see round an obstacle that is too high to see over. Even where a beacon is associated with a certain piece of high ground, it is difficult to know from which part of this high ground observations were taken. In fact, it seems reasonable to assume that lookout was often kept from more than one spot—a watchman might wander over an area of several hundred square metres, regularly checking the views in several directions. The point from which he could see a signal from one beacon might not be the same point at which he lit a beacon to signal to another watchman. Another unknown is the height from which watch was kept. In some cases, a watchman standing on a platform a few metres high would not have his view impeded by obstacles that blocked his vision

[25] *Wardelawe* 1258, *Wardlow*(*e*) 1275 (Cameron 1959, 175).

[26] *Totingelei* 1086 (Cameron 1959, 315).

[27] This assumption receives some support from the example of the Boughton Blean lookout on Lambarde's map, discussed in Chapter 6.

at ground level. In working out what was visible from each lookout, all of these factors have been taken into account. Some flexibility in terms of location on the ground has been allowed, but the assumption has been made that no viewing platform was used, unless specific evidence suggests the existence of such a feature.[28]

Finally, the question of distance is of considerable importance. Over how great a distance watch could be kept would depend on weather conditions, time of day, and the object being observed. On a clear day or night, a lookout would probably be able to spot smoke or flame of even a relatively remote fire beacon, as long as he knew at which point on the horizon to expect it. Even at 20 km or so, the signal might be picked up. On the other hand, spotting movement of hostile forces along a road might be more difficult, even on a clear day, at more than 2–3 km, especially if the road in question was lined with hedgerows. For observation of this kind, a limit of around 5 km seems reasonable, but even at smaller distances, lookout posts might well have employed scouts or runners at night or when the viewing conditions were poor, who could wait at the side of roads, rivers or crossing points and bring news of any unwelcome movements. A further variable is the nature of the topography. A beacon located on a ridge or promontory overlooking a wide area of lowland, would be visible much further afield than one located on rolling downland. Beacon sites are therefore likely to be spaced further apart in some areas than in others.

Consideration of the Silbury chain suggests that it may have extended northwards to include the possible meeting-place of the Domesday hundred of Selkley at Man's Head, but from this point it is unclear how such a system may have been extended further. To the west, a beacon on Oldbury would extend the chain from Yatesbury to both Calne and Morgan's Hill at the western terminus of Wansdyke. To the south, the earthwork named *Ealdenburh* in an authentic charter of 957, surviving in a fourteenth-century manuscript (Finberg 1964, no.286; S 647), is intervisible with Silbury Hill and commands the high ground overlooking Red Shore, the break in the Wandsdyke through which the Ridgeway passes, Morgan's Hill, further west, and into the Vale of Pewsey itself. None of these sites have toponymic grounds for being regarded as beacons, with the exception of Morgan's Hill, and even this is doubtful—a place-name Beacon Hill approximately 3.5 km to the south-west.[29] It is, however, striking that all

[28] For example, the eleventh-century St Michael's tower at Oxford.

[29] The earliest form, *Beacon Down Hill*, dates from 1773 and is likely to record early modern, rather than Anglo-Saxon or later medieval use of the site as a beacon. Beacon is

these sites are almost equidistant, at around 6 km apart, perhaps reflecting a local network of territorial surveillance existing below the long-distance beacon chains proposed by, for example, Hill and Sharp (1997).

By way of contrast, it is difficult to extend the system further east along the River Kennet proper. The Mount in Marlborough is visible from Totterdown, but further east Ramsbury's location at the base of a steep valley makes visibility from there to both Marlborough and Chisbury impossible. For the minster to be included in a wider network of communications, there would need to have been signalling sites on the high ridge to the south of the settlement, but none are apparent in place-names. Chisbury and Bedwyn also, have relatively poor lines of sight to the west, although Chisbury does afford good views to Inkpen beacon further to the east. The distinct impression is that the Silbury system formed a discrete network focused on controlling the Marlborough downs, and in particular movement east-west across the Wansdyke frontier. As with the network of upland *herepaðas* already discussed, this putative system appears to have focused on Marlborough. If the lookouts are not preserved in the toponymy, it may be because of the nature of the landscape. From this downland, extensive views are available from many points; precise and static observation sites may not have been established, or may have been so widespread that they did not need recording. By contrast, an arc of possible lookout and beacon place-names on the lower ground runs parallel to the northern edge of the Marlborough downs, from *weardæs beorh* in Woolstone (Be.; see Chapter 5), through Totterdown in Covingham,[30] Toot Hill in Lyddiard Tregoze,[31] and Beacon Hill in Hilmarton (all Wi),[32] to Morgan's Hill.

Discussion

Examination of the Kennet region has demonstrated the existence of a dynamic early medieval border landscape, characterized by a distinctive pattern of settlement and communication ties between them. Some evo-

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rarely if ever evidenced in Old English place-names (Chapter 3), although it seems sometimes to be used in modern times of eminences to which Old English lookout toponyms are attached (Chapters 3 and 5); cf. also Beacon Hill in Hilmarton (Wi.; below).

[30] Early forms of this name have not been identified.

[31] *Tothulle* 1200 (Gover, Mawer, and Stenton 1939, 276).

[32] *Bignall Hill* 1773. Possible connection with the Domesday *Bichenehilde*, *Bechenehilde* is noted by Gover, Mawer, and Stenton (1939, 268), who suggest OE *bēacen* "sign" and *hielde*, *helde* "slope"; but this interpretation is uncertain.

lutionary trajectories have been recognized amongst these networks; so too have some stable features. Of clear importance throughout the middle and late Anglo-Saxon period was the control of Chalk downland. Throughout, this landscape provides evidence for monuments of martial character, in clear contrast to low-lying areas of Jurassic clay in the Avon and Thames valleys, where they are largely absent. Geology certainly had a significant impact on later medieval and early modern battlefields (Halsall 2002a; 2002b), and it is possible that this concern already influenced the conduct of warfare during the early medieval period. Geology affects vegetation patterns, woodland, drainage, and land-use, and it may be that military operations were always constrained by such local topographical considerations. Certainly, long-distance movement across poorly-drained clay would have been slow going, and an extensively managed agrarian landscape might mean more restricted movement along circuitous minor tracks, whilst Roman roads and Chalk-top routes offered far better alternatives for rapid deployment. Since the upland was more likely to be in pastoral use and therefore very open in places, it may have allowed relatively free movement even beyond the established tracks; but it is nevertheless significant that the effort invested both in boundary features, such as Wansdyke, and networks of communications and surveillance, restricted themselves to policing only the most appropriate battle terrains of the Chalk downs.

The extent to which these networks worked to control the upland is open to debate, and very much dependent on the dating of individual elements making up these systems. Whatever the origins of Wansdyke, it clearly functioned as a political frontier rather than a boundary between Wessex and Mercia during the late eighth century. There is no sense that it formed a physical limit to a Mercian territorial entity. However, it remains possible that the use of elements of the identified communication network are contemporary with this frontier. The Roman road from Mildenhall to Bath and the *herepæð* from Cannings to Chisbury both conform to the east-west alignment of the earthwork. Perhaps in keeping, in nearly all of the viewsheds calculated from the Silbury beacon-chain, Wansdyke lies at the limit of visibility; the earthwork forming in effect the southern horizon of visible surveillance. Given this observation it is striking that no such system can be found between Ramsbury and Chisbury, which lie to either side of this frontier, even though it was here that sovereignty was most obviously demarcated by gallows, the physical symbol of law and punishment. Their presence suggests that actual control over

borderland people or their affiliations may have been somewhat in flux, and in this sense any perceived correspondence between state and identity, let alone territory and identity, may be regarded as premature.

In a recent paper (Reynolds and Brookes 2013), it is suggested that significant differences may have existed between West Saxon and Mercian military organization in the earlier ninth century, enabling the former more successfully to combat the Scandinavian threat. The key distinction between these kingdoms is argued to be the levels of centralization realized by the rival states. Mercia is distinctive for its comparatively early "towns"; whilst the scale and ambition of linear earthworks such as Offa's and Wat's dykes clearly demonstrate an ability to mobilize far greater resources than were available to contemporary West Saxon kings. By contrast, the West Saxon landscape, as exemplified by the Kennet area, lacked major centres of defence, commerce, and population in the early ninth century, and leaders were reliant on highly-localized military and ecclesiastical hardpoints, as islands of compact lordship. Conflicting evidence for the dating of Wansdyke serves only to reinforce this view—as a palimpsest monument probably comprising prehistoric, Roman, and post-Roman elements, Wansdyke may always have been a pale imitation of more coherent earthworks to the north. Wansdyke was not the expression of a powerful centralized beauracracy, in the way that Offa's Dyke was, but rather a more localized approximation of Mercia's territorial ambitions.

As it proved, a powerful centralized system was more prone to destabilization than one characterized by dispersed social and administrative functions. The haphazard creation of Wessex's border institutions apparently militated against their destruction, as power was evenly distributed across a widespread and elaborate system. This self-same network of localized power provided the platform through time for more intensive forms of local administration. The implementation in the late ninth or tenth centuries of a system of more elaborate defences tied together by communication links, acknowledged the need for a permanent overarching military strategy in the region.

Whilst it must be assumed that earlier border-formation involved some form of outward (i.e. northward-looking) surveillance, the impression of the Silbury system was that it was designed primarily to monitor west-east movement onto the downs from the Bristol Avon valley. Several historical contexts for this development present themselves. One might be the events of 878–79, when Viking forces were camped at Chippenham and the threat of advances onto the Marlborough downs was a very real possibility. In

order to check such advances, West Saxon strategy may well have included the creation of systems providing for the rapid mustering and deployment of troops to challenge Scandinavian military supremacy, although it appears that these may have restricted themselves primarily to defensible positions in the upland. In light of this pattern it is perhaps significant that evidence has been uncovered at Trowbridge for a possible destruction horizon dated to the tenth century. Unlike settlements on the downs, where similar evidence for destruction at this date is so-far absent, Trowbridge was located amidst the low-lying geologies of the Bristol Avon, close to, and apparently unprotected from, the Vikings at Chippenham.

Whatever systems were in place in the late ninth century, the dating evidence presented above suggests that greater efforts were made in hindsight to these events, as a pragmatic response to regional requirements. On the basis of communication ties, it appears that civil defence was focused on several key military hardpoints. The Burghal Hidage identifies Chisbury as the premier fortification in the region, which alongside Malmesbury, Wilton, and Cricklade formed the Burghal defences of Wiltshire. Some support for the system of civil defences is provided by the territorial organization of the Wiltshire hundreds, even though the total Domesday assessment for the shire (at c.4050 hides) does not appear sufficient to provide for its four burhs as they are assessed in the Burghal Hidage (combining to make 4700 or 4800 hides; Fig. 55). To the south, the Domesday hundreds appear to form a coherent block of 1364.25 hides (or 1340.75 hides), possibly representing the territory of Wilton, assessed at 1400 hides in the Burghal Hidage. This leaves the remaining 2539.75 (2350.125) hides from north Wiltshire to divide between three burhs. Coherent territories can be reconstructed for Chisbury and Malmesbury, comprising 739.375 (or 837.5) hides, and 1236.75 (or 1283.75) hides respectively, not too dissimilar to their Burghal Hidage assessments of 700 and 1200 hides. However, this leaves little remaining for Cricklade—419.5 hides to be precise—which is assessed at either 1400 or 1500 hides depending on which version of the Burghal Hidage is used. This numbers game might be seen as evidence that Cricklade's military hinterland stretched beyond the boundary of Wiltshire, or possibly that it was a later imposition on to an earlier system. A similar argument might account for the emergence of Marlborough as a central place; an idea which is certainly suggested by both the networks of *herepaðas* and beacon-chains which concentrate on the settlement. However, without written sources Marlborough's putative hidation relies on a calculation based on the length of its defences. The

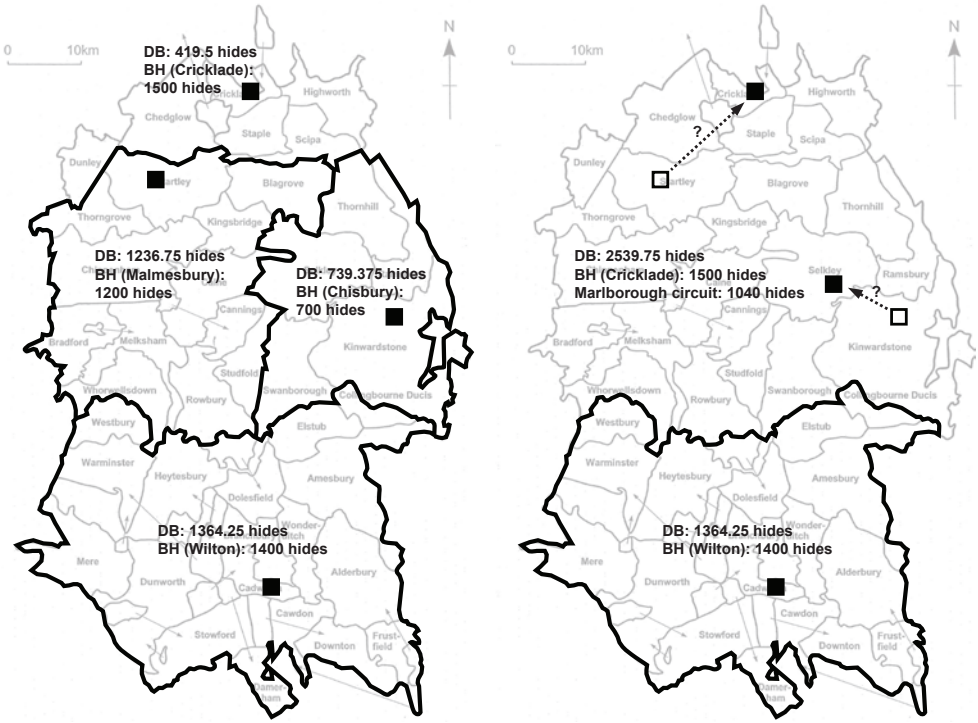

Fig. 55. Hypothesized burghal territories in Wiltshire, describing a model of their evolution.

circuit as defined by Haslam (1984d) equates to c.1300 m or 1040 hides. Perhaps tellingly, this assessment when combined with that for Cricklade, amounts to 2540 hides; almost precisely the total assigned to the northern Wiltshire hundreds in Domesday Book.

This raises a number of interesting ideas. Firstly, that Burghal defences may be related closely to the territories and communities in which they were sited, and that the foundation and maintenance of these sites depended largely on these same resource territories; secondly, that the allocation of these resources could evolve. The military strategic importance of Chisbury and Malmesbury may have been recognized early on, not least for their pre-existing defensibility, but also for their ready access to and control of the communications networks; Cricklade, perhaps alongside Marlborough, represented changing policies towards civil defence emerging around the time that the Burghal Hidage was compiled. The only way these new defences could be financed was by diverting resources away

from other sites. It may not be coincidental that excavation has revealed no evidence for ninth- to tenth-century fortification-work at Malmesbury (Chapter 2), just at the time when those at Cricklade were being constructed. Nor is it too fanciful to imagine the men assigned to Chisbury putting their service to use in constructing new defences at Marlborough, some 8 km to the northwest.

Archaeological indications suggest that settlement defences for most—if not all—of the ninth century continued traditions of fortification established in the eighth century, that is to say the use of pre-existing defended sites and the construction of curvilinear enclosures of relatively modest size and complexity. This apparently *ad hoc* approach to civil defence is perhaps supported by evidence from written sources. Only in Æthelwulf's reign (839–58) do the first genuine Wessex charters including military obligations appear (Brooks 1971, 81), and it is unlikely that any systematic building programme was carried out before the reign of Alfred. On current archaeological evidence there are no grounds for regarding the introduction of *de novo* rectilinear plan-forms as a ninth-century development, with perhaps the replanning of Marlborough and Bedwyn—probably in the early to mid-tenth century—amongst the first instances of such innovation. Certainly in the latter case, and possibly also in the former, this replanning of settlement appears as much to be the result of economic and administrative reorganization as of military practicality. It is doubtful that the new settlements of Bedwyn or Marlborough provided better protection than Chisbury or The Mount, and the same rationale may also account for the fortification of Silbury Hill close to Avebury early in the eleventh century. Indeed, comparison between Avebury's rectilinear plan-form and other eleventh-century minsters such as Congresbury, Wimborne,[33] or Sturminster Marshall, suggests that by this time rectilinear planning was more part of the grammar of ecclesiastical settlement, than military central places. Whatever Avebury's status, the early eleventh century provides the most likely context for the use of the Yatesbury-Silbury beacon chain. The very localized character of this beacon chain must relate to the array and deployment of equally localized forces; a situation which can only have existed in the aftermath of Alfred's military reforms when the Kennet region had become populated by a number of mutually-supporting garrisons and strongholds (Reynolds and Brookes 2013).

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[33] Although Wimborne minster probably dates to the eighth century, it is intriguingly argued by Leland to have been destroyed in 998, before being refounded in the eleventh century (Leland 1710, iii, 72).

CHAPTER FIVE

CONNECTIONS AND OBSTRUCTIONS: THE THAMES IN ANGLO-SAXON MILITARY STRATEGY

Introduction

Major, navigable rivers can have a contradictory dual existence. On the one hand, they define, divide, and separate territories, acting as semi-penetrable boundaries that force overland route-ways to focus on crossing-points. On the other hand, they are vectors of movement for waterborne traffic; the unifying focal nexus of spatially separate riparian communities, linking together inland settlements on tributary rivers and the distant sea. Both these functions were important elements in the structure of early medieval societies, helping to define the development of commercial, social, and military networks, and consequently also of settlements and polities.

The River Thames would seem to have assumed both of these characteristics at different times in its history, but the effects were neither uniform nor continuous across the early medieval period. The role of the Thames as an important arterial route for commercial and other forms of travel since early times is often assumed (e.g. Harding 1972, 1; Dickinson 1976, 416; Sherratt 1996, 220–21), yet a recent consideration of the Thames in the first millennium AD has concluded that evidence for the use of the river in this way is "frustratingly slight" (Booth et al. 2007, 415). An almost complete absence of nucleated settlements along its banks in the Roman period suggests that its role as a line of communication was very restricted at that time (other than for local transport), perhaps because of the extensive and well-maintained road network. It may be the case that during the Anglo-Saxon period, the deterioration of this network made use of the river more attractive,[1] but it is not at all clear how far the Thames was navigable for much of the Anglo-Saxon period, with shallower stretches perhaps hampering transport by larger craft due to both natural and anthropogenic agencies (Peberdy 1996, 311–12).

[1] The state of the Anglo-Saxon road network is discussed by Stenton (1936) and above (Chapter 3). In any case, there does not seem to have been a Roman road running along the river (ibid. 34–35, fig. 3.1; Margary 1973, Map 5), but one running more or less parallel and slightly to the north has been proposed (Morris, Hargreaves, and Parker 1970).

During the fifth to seventh centuries, the distribution of imported objects and other elements of material culture suggests that the Thames was an important corridor linking the regions of its watershed with Kent (Harrington and Welch forthcoming). The dynamics underpinning this pattern may be manifold, reflecting alternatively wider political and economic aspirations of the Kentish kingdom (Webster 1992, 79–80), the influence via Kent of ideologically-charged Germanic material culture (Dickinson 1993, 36–43), or the product of low bulk/high value exchange networks linking the economies (and mineral resources) of western Britain with the nascent North Sea trading zone. With the burgeoning influence of Mercian and West Saxon power in the seventh century and the emergence of the trading emporium of *Lundenwic*, the evidence for traffic along the Thames is temporarily difficult to discern. The presence of unusual and isolated burials along the banks of the Thames, together with the use of Thames-side sites, such as Brentford (AD 704×705) and Chelsea (AD 801), for secular and religious meetings, may suggest that at this time the river assumed a frontier position between the rival polities north and south of the Thames (Cohen 2003, 18). It may also reflect the economic transition from exchange relays along the river in low bulk/high value goods to more large-scale commodity exchange focused on the *emporia* and ecclesiastical sites. London was taken into Mercian control during the 720s, and it is only from this point that real economic growth is visible in the material record of the site (Hodges 1989, 95–96; Blackmore 1997; Cowie 2001, 88). Accompanying this development, coin loss suggests renewed commercial activity between the south-east and the upper Thames in the mid-eighth century, seemingly reflecting trade between the Thames estuary and Hwiccian territories, perhaps the result of Cotswold wool production (Blair 1994, 84; 2005, 257; Metcalf 2003, 42–45). The presence of a number of middle Anglo-Saxon ecclesiastical foundations accessing the Thames fluvial network at Bampton, Eynsham, Oxford, Reading, Sonning, and Barking similarly supports the idea of an emerging trading economy along the river dealing in low value/high bulk commodities (Blair 2005, 257), and many of these sites evolved into towns over the course of the late Anglo-Saxon period (Booth et al. 2007, 416).

It is certainly the case that the course and character of the river has changed considerably over time (Cohen 2003, 9). In the later Anglo-Saxon period, maintenance of river-crossings and the development of water-powered mills and fish traps may have led to the construction of weirs, creating deep pools and allowing navigation where previously there had

been shallows (Thacker 1914, 4–5; Davis 1973, 262–65; Booth et al. 2007, 325–26). Another by-product of river-management was the creation of deeper human-made channels, which would also have aided transport along the river. John Blair finds strong evidence of the river's navigability up to and beyond Oxford from the late Anglo-Saxon period (Blair 2007b). During this period, as perhaps at other times, there may well have been a division between use of the Thames in its tidal reach and use of it above the tidal head (cf. Westerdahl 1992, 6–7; Parker 2001, 26). Palaeoenvironmental evidence suggests that a relative drop in river levels during the Roman period meant that the tidal head was perhaps as low as *Londinium* itself, but that it (and thereby the range of easy navigability) generally moved slowly upstream during the Anglo-Saxon period. This trend was not, however, uniform, and there were also brief periods (such as the late tenth to eleventh centuries) when the tidal reach shifted back downstream again (Thomas, Siddel, and Cowie 2006, 12). In more recent times, the tidal head of the river may have been even higher than its current (artificial) position at Teddington (Thacker 1920, 465).

Later medieval purveyance accounts suggest that the Thames from Henley to London and the estuary, and perhaps upstream of Henley as far as Oxford, was an important transport route in the thirteenth and fourteenth centuries (Langdon 2007, 113 fig. 23, 126).[2] Along and above these stretches, early management of the river for transport should not be ruled out,[3] although acting against this, management of the river for fishing and industrial purposes might not always encourage its use for transport (Davis 1973, 263–65). Furthermore, while flash-locks could allow relatively easy movement by a wide range of boats downstream, they are unlikely to have eased all movement in the other direction.[4] For this reason, much early commercial activity of a long-distance nature must have been on a one-way basis, with empty or lightly charged boats returning upriver (Blair 2007a, 12; Langdon 2007, 125), although Wandalbert of Prüm's description of how in the ninth century the boat of a Frisian trader was pulled by slaves against the current of the Rhine reminds us that a great investment in the logistics of transport upriver was not impossible (McCusker 1997, 31; *Vita*

[2] Langdon (2007, 128–29) calculates, however, that a relatively small fleet of 50 to 100 vessels would have been ample to handle the commercial transport between Henley and London at this period.

[3] The rivers Nene, Cam, and Itchen may have been artificially channeled, possibly as early as the tenth century (Currie 1997; Bond 2007, 177–82).

[4] The pound-lock was not invented until the end of the fifteenth century and was evidently unknown on the Thames before 1624 (Davis 1973, 265).

[*et miracula*] *Sancti Goaris*, §§ 32, 33).[5] Blair suggests that as well as long-distance use of the Thames, local commercial transport also took place especially in the upper reaches, where familiarity with the river's layout may have been important (Blair 2007b, 285–86). A series of local commercial networks may have been the easiest way to move goods from the lower Thames to its source. The overriding impression, nevertheless, is that a more even volume of traffic existed on the Thames in late Anglo-Saxon times than was the case towards the end of the medieval period, when an increase in mill-dams on the middle Thames may have accentuated the differences between the upper and lower stretches (Langdon 2000, 79; Blair 2007b, 285), use of the river by boats and barges as far as Cricklade in 1677 notwithstanding (Bainbridge 2011, 12).

These various findings relate to very different periods of the river's history and might not all have been applicable at all times. The state of the river when the Vikings were active in the ninth century is unclear, although it is quite likely that watermills were already having some impact. Eighth- and ninth-century watermills are known from Tamworth (St.; Rahtz and Meeson 1992), Ebbsfleet (Ke.; Welch 2007, 206–7), and Corbridge (Nb.; Nenk, Margeson, and Hurley 1996, 276–77); two well-preserved vertical-wheeled watermill were recovered from Wellington (He.), probably associated with a Mercian royal estate and constructed in the late seventh or early eighth century (Jackson 2000); a similar mill was constructed around the same time near Wareham; and there is an example at Barking Abbey dendrochronologically dated to just after 705 (Hamerow pers. comm.). These appear part of a trend of more widespread engineering visible during the middle Anglo-Saxon period. The earliest mention of mills on the Thames is from the mid-tenth century, although the two successive mills excavated at Old Windsor, also on the Thames, apparently date to the seventh/early eighth, and to the ninth centuries respectively (Wilson 1958, 184; Davis 1973, 263; Foreman, Hillier and Petts 2002, 72; Booth et al. 2007, 327).[6] Besides mills, fish-weirs as well as the maintenance of river-crossings could have had an impact on navigation by the ninth century (Booth et al. 2007, 20, 318, fig. 6.20, 338–40). Water levels were also seasonally variable, affecting transportation practices. Purveyance accounts provide evidence for increased shipping of produce along the river during the winter months

[5] Ohler (2010, 34–37) notes a similar use of horse-power, and calculates that horse-drawn boats would have been capable of doing between 9 and 12 miles (14–19km) a day, but with potential obstacles to take into account.

[6] The excavation itself is unpublished.

during the thirteenth and fourteenth centuries, and it is likely that use of rivers was considered most efficient at this time of year when water levels were more reliable and, conversely, roads became considerably less passable (Langdon 1993, 5–6). This observation may apply just as easily to the ninth century, and although the difficulty of moving in summer must have depended to some extent on the size of ship and the weight of cargo, winter travel seems often to have been favoured by the Vikings (see above, Chapter 3).

Further evidence of use of the Thames for transport and trade is provided by the place-names along its banks (Fig. 56). On the lower Thames and its estuary, between *Lundenwic* and the North Sea, are a number of place-names in OE *wīc*—literally a "dependent economic unit" but often referring to a specialized centre of a commercial nature (Coates 1999, 84–107, esp. 98). These are Greenwich and Woolwich (both Ke.; Wallenberg 1931, 237–38; 1934, 237–38; Ekwall 1960, 204, 533; Watts 2004, 261, 699), Harwich (Ex.; Reaney 1935, 339; see Chapter 3), a lost *Herewic* in Whitstable (Ke.) analogous with Harwich (Wallenberg 1931, 216–17; 1934, 494), and *Lundenwic* itself;[7] all of which may have been locally or nationally significant trading settlements at some time in the Anglo-Saxon period, and are a clear indication of the presence of waterborne merchants on the Thames (Cohen 2003, 11).

Archaeological evidence for local (perhaps temporary or seasonal) marketing comes from 2km west of Eton Wick, at Dorney (Bu.). Excavations here at Lake End Rd West, Lot's Hole, and Lake End Road East have revealed evidence for significant middle Anglo-Saxon activity (Foreman, Hiller, and Petts 2002). Across the three sites 123 features of eighth-century date were recorded, a large number of which were pits of varying sizes backfilled with cess, animal, and plant remains, in addition to a range of small finds including exotic imports alongside more limited evidence for craft and agricultural production. The formal arrangement of the features, the character of the material culture, and the scarcity of occupation structures, suggested

[7] Chiswick (Mx.) is another Thames-side *wīc*. The final *–c* of *wīc* exhibits an interesting phonological divergence between velar and palatal articulations, perhaps reflecting variant underlying grammatical morphology of the element *wīc* in place-names. The correlation is not absolute, but in general, *wīc* place-names associated with centres of trading have palatalized final *–c*, while other *wīc* place-names do not (Ekwall 1964, 10–13, 31–41; Coates 1999, 103). It should also be noted that Chiswick is a recurrent compound (see Watts 2004, 131 *sub* Cheswick, 342 *sub* Keswick), presumably referring to a settlement specializing in cheese-production. For these two reasons, it is omitted here.

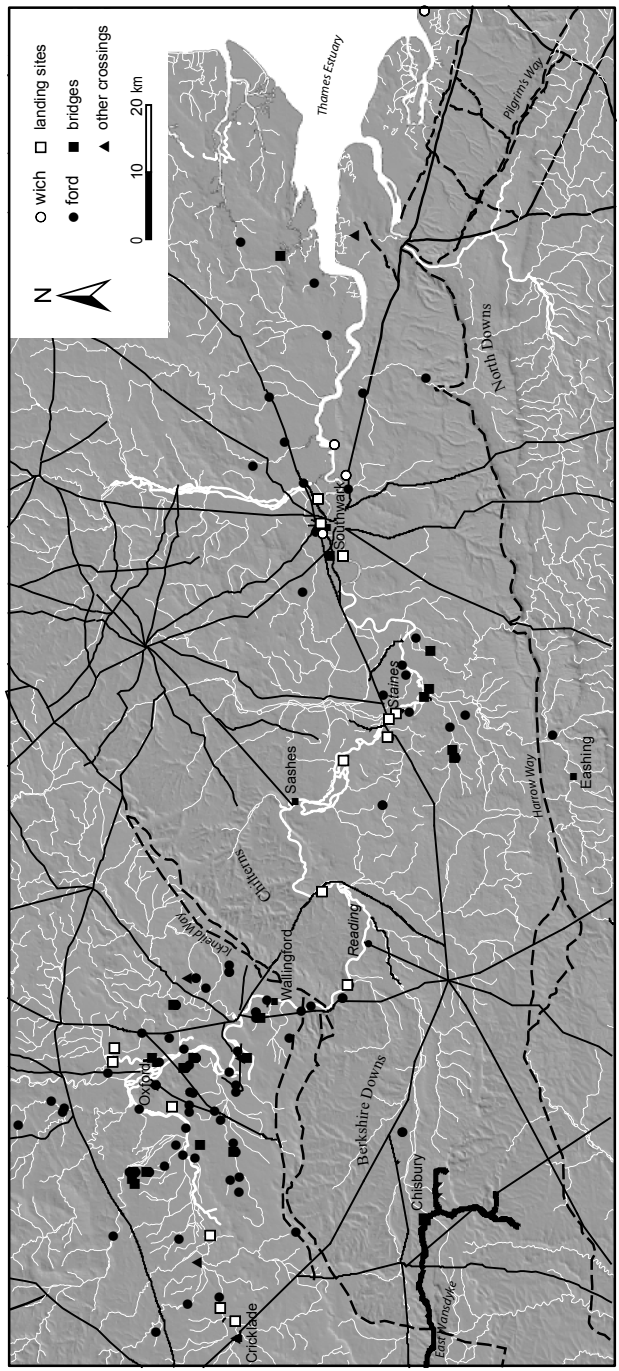

Fig. 56. Place-name and archaeological references to trading-places, landing-sites, and crossing-points on the Thames, with major roads.

to the excavators that this was the site of a temporary open-air trading place, operating for a brief period in the mid-eighth century.[8]

A similarly impressive cluster of names evidences use of the river from its estuary as far as Oxfordshire. These are place-names in OE *hȳð* "landing-place", such as Chelsea (Mx.; Gover, Mawer and Stenton 1942, 85–86), Lambeth, Rotherhithe (both Sr.; Gover et al. 1934, 22, 28), and Maidenhead (Be.; Gelling 1973–76, 53; Gelling and Cole 2000, 83–89, esp. fig. 13). Use of the river in its upper stretches may well be reflected by place-names of the Eaton type, which consist of the OE compound *ēa-tūn*, denoting a settlement with some kind of function relative to the river, perhaps provision of a ferry or maintenance of the waterway for the purposes of river-transport. There is a notable grouping of such names on the Thames above Oxford (Gelling and Cole 2000, 14–15, esp. fig. 3; Cole 2007). Other place-names may also be relevant. Windsor (Be.) is one of a number of place-names that derive from the compound OE **windels-ōra* (Ekwall 1960, 523; Nicolaisen, Gelling and Richards 1970, 26–27; Gelling 1984, 181–82; Gelling and Cole 2000, 208; Watts 2004, 684), denoting a riverside settlement with a windlass, presumably for hauling boats either up the bank or as an aid to navigation along the river. OE *ōra* "bank" in this instance may be in its sense "place suitable for landing" (Ekwall 1960, 350, 523; Gelling and Cole 2000, 203–8), and indeed shows early confusion with OE *ōfer* "river-bank" (Gelling 1973–76, 26–27). The riparian toponymy of the Thames certainly suggests a river in use as a vector of trade and movement along most of its length.

In economic terms the lower Thames was important as a route between London and the North Sea, and its significance grew in the middle Anglo-Saxon period as a major trading settlement developed beside the Roman

[8] The close proximity of Dorney to Taplow hillfort, c.3km to the north, is possibly of some significance in this regard. The identification there of a high-status seventh-century sentinel burial has been argued by Leslie Webster (1992) to indicate the existence at Taplow of a frontier between a Kentish trading zone and a more western West Saxon dominated one. However, excavations on the hillfort itself have revealed middle/late Anglo-Saxon pottery in the rampart ditch fills (Allen 2009) raising the possibility that this frontier was emphasized not only through symbolic monumentalization, but also through actual military force. A middle Anglo-Saxon central-place on Taplow hillfort could conceivably have been the site on which Dorney, Cookham, and Sashes ultimately depended. We are grateful to Professor John Blair for making this point to us, and to Geoff Fairclough for discussing the archaeological and geophysical evidence for the middle Anglo-Saxon stronghold at Taplow. An important observation made by Fairclough, is that the hillfort "is placed at the down stream end of the cliff…this position gives the greatest observation time for river down stream traffic approaching from the north, with the flow, and for upstream, against the flow, slower traffic coming from the south. In other words, the position of the Fort is in the best place to control river traffic in both directions."

city of London. The emporium of *Lundenwic* had its heyday in the middle decades of the eighth century, at which time its international links are revealed in a wide range of traded goods, including continental ceramics (Blackmore 1997; Malcolm, Bowsher, and Cowie 2003, 101–5); coinage (Metcalf 2003); lava quern stones from Mayen, in the Eifel region of the Rhineland (Freshwater 1996); metalwork and other luxury items.[9] An absence of similar emporia further upstream has been noted (Booth et al. 2007, 359), due to domination by *Lundenwic* of international trade in the Thames, but the evidence from Dorney suggests that secondary short-lived or temporary trading sites existed at times in *Lundenwic's* hinterland. Certainly, it is likely that the flow of imports was matched by reverse commodity exchange, and though the precise character of this trade is archaeologically opaque, the emphasis in recent writing is that wics channelled produce from their productive hinterlands to the sea (e.g. Palmer 2003; Naylor 2004).

In this light it is apposite that the major emporia of middle Anglo-Saxon England straddled the junctures between coastal routes and inland/riverine transportation networks (Ellmers 1972, Karte 1; Scull 1997, 285–88). In keeping, archaeological evidence for watercraft using these maritime systems also falls into two categories. The first are sea-going ships, such as the Graveney Boat (Fig. 57). Abandoned in estuary mud near the late Anglo-Saxon port of Seasalter in north-east Kent in 1970, the Graveney Boat remains the most complete example of Anglo-Saxon ship-building (Fenwick 1978). Consisting of a clinker-built shell of overlapping oak strakes, around two-thirds of the vessel survived, indicating that it had once been a small coastal trader of around 14m in length (ibid.). Dendrochronological dating of the hull strakes suggests that the vessel was built around 900 (Fletcher and Tapper 1984). Contained within the waterlogged remains of the boat were pieces of Kentish ragstone and lava quernstones from the Rhine Valley as well as archaeobotanical evidence for hops, together with twelve continental pottery sherds of tenth- or eleventh-century date. Evidently the crew of the Graveney Boat traded across the North Sea to the Rhine mouth as well as around the coast of Kent.

By contrast, evidence for riverine transport on the Thames in this period comes only in the shape of dugout logboats, such as a mid-tenth-century example from Clapton (Goodburn 1988), and two further tenth-century craft from Sewardstone and Molesey (Marsden 1996, 222;

[9] By AD 1000 merchants known as "Esterlings" made bi-annual visits to London paying their port tolls in pepper from Indonesia or the Malabar coast of India (Keay 2006, 108).

Fig. 57. Replicas of two vessels known to have used the tenth-century River Thames. *Front*: Damian Goodburn in a full-size replica of the Clapton dugout; *Back*: Edwin Gifford in a scaled-down replica of the Graveney boat.

Milne 2003, 48). These vessels were essentially personal lighters able to carry up to four adults or an equivalent limited cargo, and though able to account for the distribution of luxury goods along the Thames, are unlikely to have enabled more substantial bulk transportation—the vessels for which remain to date archaeologically invisible.

The Thames in the Viking Age

Both the Graveney Boat and the Thames dugouts date to a period of more reduced Thames trade. Evidence from *Lundenwic* suggests that there was a downturn in trade from the last quarter of the eighth century onwards, and by the late ninth century it seems likely that the wic had been abandoned in favour of *Lundenburh* (Astill 2000, 34–38; Malcolm, Bowsher, and Cowie 2003, 105–10; Milne 2003, 41–46; Booth et al. 2007, 362) The decline may not have been entirely due to Viking activity—a trade dispute between Offa and Charlemagne, and a more general economic drop-off caused by political turmoil, both in England and on the continental mainland, might also be cited as reasons (Malcolm, Bowsher, and Cowie 2003, 109). Whether or not Viking attacks helped to exhaust the economies of

the major European trading emporia, it is hard to ignore their potential contribution to the demoralization of urban populations. If nothing else, the more dangerous climate of the early ninth century, including a Viking raid on London in 842, promoted concerns over safety. During the ninth century large defensive ditches were drawn across *Lundenwic* (Cowie and Whytehead 1988; Malcolm, Bowsher, and Cowie 2003, 118–120) and it is likely that at this time some of its inhabitants moved to the relative safety of the walled former Roman town.

If the presence of trading posts made the Thames an attractive area of operations for Viking pirates in the ninth century, it is clear that their use of the river was not restricted to plundering its riparian settlements. The storming of London in 851 seems more than an act of pillage, followed as it was by the defeat of Beorhtwulf of Mercia, and the confrontation with Æthelwulf and Æthelbald of Wessex at *Acleah*. Over the next fifteen years, Vikings posed a considerable menace to the inhabitants of the Thames estuary, setting up bases in Thanet and Sheppey; and in the early 870s a Viking host wintered at London as a prelude to sustained attacks on Mercia, Northumbria, and East Anglia. Another Viking host was present on the Thames at Fulham in the late 870s and the lower Thames was again the focus of Viking activity in the 890s, when forts were constructed at Milton Regis (Ke.), Benfleet, and Shoebury (both Ex.). A combination of the seasonal (and presumably climatic) unreliability of riverine travel and the need on many occasions to travel upstream cannot have made it easy for Vikings to use the Thames for shock offensives. Significantly, the incursion above the tidal head of the river in 870 may have taken place on land and by horseback (Hill 1981, 40 (Map 58); but cf. Peddie 1989, 75–77; see pp. 292–93 below), and there is no clear example of a Viking force travelling by water up the Thames further than Fulham (cf. Baker and Brookes forthcoming c). Use of the river by invasion forces cannot have been easy, even if strategically useful, and we should perhaps think of it as a possible route of attack rather than necessarily a preferable one, when compared with movement by land. Nevertheless, however difficult negotiation of the river was, especially movement upstream, it seems clear that the Thames was a major Viking access route into Mercia and Wessex, and could provide a convenient line of retreat (e.g. ASC *s.a.* 896). As discussed below, the location of some of the Burghal Hidage forts, notably Sashes, is suggestive of an attempt to prevent future incursions or retreats along this passage.

A combination of archaeological, historical, and toponymic sources suggests that the Thames was an important route for commercial and

military travellers during the Anglo-Saxon period, but that the river's navigational complexity imposed limitations on different types of craft and therefore on different kinds of traveller. While small-scale trade is likely to have been carried out along much of the length of the Thames, comfortable transport of large entourages was probably only regularly possible during the winter months, and transport of heavy cargoes was carried out perhaps only reliably and swiftly in a downstream direction.[10] Ocean-going ships would have found movement beyond the tidal stretches of the river very difficult, and even negotiation of the tidal river would certainly not have been straightforward. For this reason, while commercial activity might be possible in the upper stretches of the river, there is little evidence that ocean-going military fleets laden with troops regularly penetrated further upstream than the tidal head during the Anglo-Saxon period.

As well as a trade route, the Thames, for much of its length, was also a natural obstacle to movement of people and goods. Without the construction of bridges, the river would have been impassable except by ferry, from its estuary as far as the lowest fording point, perhaps as low as Halliford near Shepperton (Mx.; Thacker 1920, 432), and between the various fording points. Even where the middle and upper stretches could be forded, such crossings were not guaranteed to be easy. Lechlade and Cricklade, two potentially treacherous upper Thames crossings, severely affected by flooding in winter, were named OE (*ge*)*lād* "difficult river-crossing" accordingly (Gelling and Cole 2000, 81; Carroll and Parsons 2007, 106–12). Trade and transport between southern and midland England was consequently concentrated along a series of narrow corridors, significantly heightening the importance of some river-crossings, especially around the middle Thames where routes from the east midlands and the south coast converged on a series of fords around Wallingford and Oxford. Ralph Davis pointed out Oxford's particular importance as a major thoroughfare on the main route between Northampton and Southampton, consequently becoming the focus of early works to secure the crossing (Davis 1973). The precise chronological origins of this role are unclear, since recent work on *Hamwic* suggests that its inland trading hinterland was restricted mainly to West Saxon territories (Palmer 2003, 58–60), making strong links between this West

[10] Blair (pers.comm.) points out that for this reason routes where road and river ran parallel were especially favoured, facilitating transport of goods and people. He draws attention to two such stretches along the Thames: a postulated route from Henley to London via Marlow, Sashes/ Cookham, Taplow/ Bray, Eaton/ Windsor, Staines, Brentford, and Chelsea; and the stretch of Roman road from Rochester to Canterbury.

Saxon port and Mercian settlements such as Northampton much less likely. Moreover, coin distributions suggest that most trade in the middle and upper Thames had an east midlands provenance, the River Thame and the Icknield Way being the main lines of communication in the middle Anglo-Saxon period, while coin and pottery finds from the Oxford region suggest a north and east orientated trading hinterland stretching towards London, Buckingham, and the east coast (e.g. Mellor et al. 1994, fig. 8). This is an understandable situation in view of Oxford's Mercian background (Booth et al. 2007, 359–62).

Not surprisingly, for much of its length the Thames formed a frontier in the middle Anglo-Saxon period. The estuary and lower stretches of the river marked the boundary between the kingdoms of Essex and Kent, the interpretation of the name Surrey, *Sūðre-gē* or "southern district" notwithstanding (Gover et al. 1934, 1–2; Blair 1989, 100–2; Dumville 1989, 134–35; Bailey 1989, 112; Hines 2004), while the middle and upper Thames and its hinterland formed part of the frontier zone between Wessex and Mercia, though the exact border seems to have changed considerably over time.[11] It is notable, in this context, that no fewer than five Burghal Hidage forts were located along the banks of the Thames. Davis (1982, 807) made an explicit link between the Burghal Hidage strongholds and the West Saxon frontier at the time of its compilation, suggesting that the choice to position a defensive site at Eashing showed that the boundary between West Saxon and Viking territories ran south of the Thames between Southwark and Sashes, with Eashing blocking access up the River Wey in a similar way to Sashes on the Thames. While use of the river as a route-way for Viking attacks may be assumed by the positioning of some strongholds and the location of Viking camps, there has been less consideration of the importance of the Thames and its crossings in defining Viking overland lines of attack. Just as the tactics of maritime invaders must have been dictated by the navigability of the river and the location of suitable landing-places,

[11] The West Saxons seem to have considered Oxfordshire part of their early possessions (e.g. ASC s.a. 571), and indeed Dorchester-on-Thames, on the north bank of the Thames, was the episcopal centre of the early West Saxon see (Yorke 1990, 132). Being on the northern side of the Thames, it more naturally fell into the Mercian sphere, and indeed was under Mercian control for most of the middle Anglo-Saxon period. Berkshire on the other hand, south of the Thames, seems to have been held by Mercia as late as the 840s (Keynes and Lapidge 1983, 67, 228). The location of Wansdyke may also point to an area of disputed territory in the middle Anglo-Saxon period, perhaps indicating Mercian control of northern Wiltshire at times during that period, before the extension of West Saxon authority up to the Thames (Draper 2006, 59–60; Reynolds and Langland 2007, 26–37; Chapter 4).

overland raiding parties must have been limited by the provision of passable long-distance route-ways and the positioning of serviceable river-crossings. It is infrastructural considerations of this kind that must have influenced military planners just as deeply as they influenced the development of commercially viable settlements. In this respect the Thames should be viewed as an integral part of the communications infrastructure of ninth-century southern England, at once acting as both a vector and a controlling barrier on movement by land and by water.

The Strategic Landscape of the Thames

To understand the simultaneous roles of the Thames as communications vector and barrier, it is necessary to consider its relationship with the wider infrastructure of land routes and waterways. The problems associated with reconstructing the early medieval transport network are discussed in Chapter 3. Here it will suffice to observe that existing knowledge of pre-Roman, Roman, and later medieval routes is crucial to our understanding of the Thames as part of a landscape of travel. The intersection of the Thames with other corridors of movement provides an important guide to the strategic considerations faced by military planners, for these nodal points indicate the most likely locales at which river traffic might gain access to overland route-ways, and *vice versa*, or at which overland travellers might hope to cross the river and take up overland routes on the other side. Difficult questions arise, however, concerning the extent of the early medieval long-distance road-network, the continuity in use of Roman roads, the development of alternative paths forming part of prehistoric tracks, and the navigability of waterways. Major engineering projects of the Roman period—bridges, causeways, artificial hards—not to mention rigorous maintenance of elements of the transport network, made possible an interaction between overland and riverine routes that was not necessarily feasible (technologically or financially) or desirable (politically or commercially) in the post-Roman period, at least in its earlier extent. The continuity of Roman routes into the early medieval period should not therefore be assumed.

A more detailed and perhaps also a more nuanced understanding of the strategic landscape of the Thames is therefore required, taking account of the river's capacity on the one hand to be traversed and on the other to be navigated by human traffic. In a sense, this question should be best answered by geological study, but such an approach would have clear short-

comings in the current context. While it would establish the true and objective physical character of the river in absolute terms and therefore the potential for human transportational interaction, it would not necessarily help to establish the actual degree to which travellers felt able to interact with the river in the medieval period. That is to say, a geological approach might establish every point at which the river could be crossed on foot, or every site at which watercraft might successfully land; it would not indicate which of these potential crossings or landing-places were actually employed by long-distance travellers. A more useful approach with this end in mind is an analysis of the toponymy of the river's banks. As discussed in Chapters 2 and 3, place-names often provide important information descriptive of the landscape and may sometimes preserve memories of its use, revealed by direct or (to borrow Pelteret's (1985) term) "presumptive" reference to human activities of different kinds. The place-names found along the banks of the Thames can help to elucidate its character. For example, place-names denoting landing and crossing points of the Thames have been noted (Gelling and Cole 2000, 71–72, 87; Dewey 2009), and a detailed consideration of their spatial relationships to each other and to the suspected road network is likely to enhance our perception of the role of the Thames in early medieval defensive organization.

The parameters for such a toponymic consideration are important. Late and minor place-names and field-names may reveal the existence of a considerable number of crossing-points or landing-places used temporarily or seasonally by local traffic. While there is no reason to assume that such crossing- or landing-sites did not exist during the Anglo-Saxon period—indeed according to Faull (1978–79, 38–39) many minor *ford* place-names refer to crossings used during the Middle Ages—the fact of their relative documentary unimportance until modern times is suggestive of their economic inferiority, and this may indicate that they were not located on significant route-ways during the medieval period.[12] Gelling (1984, 67) warned that many major *ford* place-names may also have referred simply to minor, local crossings. This observation is hard to test without a very detailed national survey of *ford* place-names. Even then, the full extent of the Anglo-Saxon road-network and the relative importance of each of its elements are difficult matters to assess. It is hard to demonstrate that a given road was of regional importance during part of the Anglo-Saxon

[12] The *Sumerforde* in Standlake (Ox.) was presumably a seasonal crossing (Gelling 1953–54, 331).

period; it is probably almost impossible to prove that it never was. A detailed study of Shropshire *ford* place-names has found that nearly 40% of them "lie on long-distance routes through the county, or can be explained by their relationship to these routes" (Laflin 2000, Chapter 2). If this is representative of the country as a whole, then it is at least clear that a significant proportion of major *ford* place-names were on long-distance route-ways. Others may have been on roads of considerable importance for a limited time or within a more geographically restricted context.

To approach the problem from another angle, those *ford* or *hȳþ* place-names recorded by the end of the eleventh century, are likely to have been of some importance during the Anglo-Saxon period. For some reason these crossings or landing-sites attracted settlements that became economically and socially important enough for eleventh-century scribes to record them. Proximity to a significant element of the transport infrastructure may well have been a necessary precondition of that economic prosperity. For this reason, a consideration of appropriate place-names recorded as settlements during the medieval period may provide an indication of the most important infrastructural nodes associated with the river during that period. If nothing else, most of these major place-names were recorded in the Domesday survey and have in all probability existed since long before 1086. Where crossings and landing-places are mentioned in pre-Conquest sources as landscape features rather than as settlement-names, for example in Anglo-Saxon charter bounds, it is also clear that they were recognized as crossings or landing-sites by the time the boundary clause was written, and are therefore worthy of consideration.

The relevant place-names are mapped in Fig. 56. It is clear from this representation of the data that the Thames can be divided into two distinct stretches. Running downstream from Reading to the mouth of the Thames, place-names containing the elements *ford* or (*ge*)*lād*, and referring to crossings of the Thames, are entirely absent from both the major toponymy and charter bounds. This is not to say that the Thames could at no time be crossed below Reading by pedestrians or travellers on horseback. Laleham Gulls, the stretch of river at Chertsey, was notorious for its shallows, which caused problems for river traffic (Thacker 1920, 404–5), while unsatisfactory water flow may also have been the reason for the construction of the Abbey River at Chertsey, which was used to power the Abbey's mill (Booth et al. 2007, 326). However, the failure of any crossing to enter the major or early-recorded toponymy might suggest that none was of great importance

in the medieval period.[13] In reality, the conditions for such a crossing may only have been present on a seasonal basis, or perhaps in extreme climatic conditions: when the river was particularly low, when surrounding marshland especially dry, or in exceptional winters when the Thames itself (and perhaps its associated wetlands) froze over. Such factors would have allowed river-crossings to take place, but they could form no basis for the development of a long-term overland road network or for the planning of a major expedition. By extension, military planners are unlikely to have based careful strategies on such unusual and perhaps unpredictable phenomena.

By contrast, as noted by Gelling and Cole (2000, 84, fig. 13), this stretch of the Thames is very accessible to waterborne vessels. Not only were there a number of trading centres containing the element *wīc* (above, pp. 273–74, fig. 56), but it was also well-served with landing places. From east to west are: Erith (Ke.; Wallenberg 1931, 17–18; Watts 2004, 218), Stepney (Mx.; Gover, Mawer and Stenton 1942, 149–50), the lost *Aðeredyshyd* (S 1628; identified with the later Queenhithe in London), Lambeth (Sr.; Gover et al. 1934, 22-23), Chelsea (Mx.; Gover, Mawer and Stenton 1942, 85–86), Putney, Hythe, Glanty (all Sr.; Gover et al. 1934, 27–28, 121–22) and Bolney (Ox.; Gelling 1953–54, 73–74), all containing the element *hȳþ*, while a charter of 672×674 ((13th) S 1165) also mentions a *wealas huþe* near to Egham (Sr.). Rotherhithe (Sr.) is a major name—that of an ecclesiastical parish—even if its first record is of twelfth-century date (Gover et al. 1934, 28–29). Gelling and Cole (2000, 87) note a number of other *hȳð* names along the Thames. Maidenhead is not first recorded until 1202, and came to replace the earlier name for the settlement, which is *Elentone* in 1086. The modern parish of Maidenhead was taken out of Bray and Cookham in the nineteenth century (Gelling 1973–76, 53–54). For all that, this was clearly an important landing-place within a century or so of the Norman Conquest, and deserves inclusion here; its proximity to Cookham/Sashes is noteworthy. To the east of Erith, Greenhithe (Ke.) is first on record in the second half of the thirteenth century (*Grenethe* 1264–93, *Greneheth*(*e*) 1278–1405; Wallenberg 1934, 51; Watts 2004, 261). On the upper Thames, Hythe Bridge in Oxford (*hithe* 1233–34) is first on record in the same century, but Bablock Hythe (Bablick Hithe 1797, cf. *Babbelack* 1277) in Northmoor (Ox.) is a much later name (Gelling 1953–54, 35, 366). Just upstream of Reading at Whitchurch (Ox.),

[13] Thacker (1920, 454–55) notes a claim that Kingston-upon-Thames (Sr.) was the site of a Thames crossing called *Mereford*, but finds no corroboration for it. Phillips (1981, 134) assumes the existence of a ford at Runnymede in the thirteenth century, but provides no evidence.

a charter apparently of the early eleventh century (S 927) notes a *suðre stæð* "southern landing-place", a further reference to a site where watercraft could be landed (Gelling 1953–54, 64)—"southern" presumably in relation to another nearby landing-site. The elements *hȳþ* and *stæþ* seem to be absent from the major toponymy of the Thames river-banks further upstream.

The only *ford* place-names that survive downstream from the *suðre stæð* refer not to crossings of the Thames itself, but of its tributaries, as is the case with Ashford (Mx.; Gover, Mawer and Stenton 1942, 11–12) and Crayford (Ke.; Wallenberg 1931, 83; 1934, 29). On the other hand, in the same bounds as *suðre stæð* is mention of a *Bleccesforda*. From that point upstream, and including *Bleccesforda* itself, no fewer than twenty foot crossings are preserved in major place-names or in Anglo-Saxon charter bounds, 15 containing the element *ford*,[14] 4 in (*ge*)*lād* "difficult crossing",[15] and 1 *brycg*,[16] with Cricklade the westernmost of all. In other words, this upper section of the Thames presented a much more porous barrier than its lower counterpart, and it could be crossed by overland traffic at a great number of places without excessive difficulty. The ease with which the Thames could be crossed along sections of this upper stretch may be underlined by the eleventh-century complaints of the people of Oxford, who, according to a twelfth-century account, found great difficulty in navigating the river around Abingdon because of a tendency for it to run dry (*Chronicon Mon-*

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[14] *Bleccesforda* (1012 or 1013 (13th) S 927; Kelly 2001, 531–35; Gelling 1953–54, 64), *Bæstlæsford* (Basildon, Be; S 354; Gelling 1973–76, 750–51, 755), Runsford Hole (Keynes 1994, 1137–38; Gelling 1973–76, 531–32), Moulsford (Gelling 1973–76, 527–28), Wallingford (ibid., 535–36), Appleford (Gelling 1973–76, 400–401), *Wylfing ford* (S 1567; Kelly 2000, 130–32; Gelling 1953–54, 151), Sandford on Thames (Gelling 1953–54, 186), *Stanford* and *mægðe ford*, which refer to crossings of at least one channel of the Thames (S 567, S 663; Kelly 2001, 215–16, 250–55; Gelling 1973–76, 729–30), Oxford (Gelling 1953–54, 19), Swinford (S 410; Kelly 2000, no. 26; Gelling 1973–76, 446–47), Shifford (Gelling 1953–54, 327), Duxford (Gelling 1973–76, 392), and Kempsford (where a Hwiccian army reportedly crossed into Wiltshire in 802; Smith 1964a, 38). Note also the lost *Slotisford* in Cholsey or Moulsford (Be.), *Heslitesford, Esliteford, Eletesford* 1086, *Sletesford* 1130, *Slotesf'* 1162 (Gelling 1973–76, 507; Anderson 1939a, 216), and Shillingford (*Sillingeforda* 1156 (13th), *Salingford'* c.1180; Gelling 1953–54, 139), which is first recorded in the twelfth century.

[15] *Dyrnan gelade* of a charter for Appleford (S 355), *eanflæde gelade* in Wytham (Be.; S 663; Gelling 1973–76, 731), Lechlade (Smith 1964a, 40–41), and Cricklade (Gover, Mawer, and Stenton 1939, 42; Carroll and Parsons 2007, 106–12). In the case of Lechlade, it is unclear whether (*ge*)*lād* here has the sense "channel, water-course" or "difficult crossing" (Smith 1964a, 40; Watts 2004; cf. Gelling and Cole 2000, 21, 81).

[16] *Stan bricge* in Longworth (S 654,S 673, S 771; Kelly 2001, 329; Gelling 1973–76, 706–7). There is some debate whether this crossed the Thames or a small tributary stream (Blair and Millard 1992, 348; Kitson forthcoming). Of course, the Grandpont (*Grantpunt* 1180–84 (late 12th); Gelling 1943–54, 21) or "great bridge" (OFr *grant* and *pont*) is recorded at Oxford in the late medieval period.

asterii de Abingdon 1, 480–81; Davis 1973, 263; but see Blair 2007b, 258, fn.12 on the difficulties in translating this passage).[17]

These are important observations for our understanding of the character of the Thames and its role in medieval long-distance transport. While the place-names indicate that the lower stretch of the river was not easily fordable, they imply also that the upper stretch was not navigable by boats likely to be connecting with the main elements of the overland communications network, for no settlement-name seems to commemorate the presence of a landing-site. This is negative evidence, but the complete absence of early references to landing-places along the stretch of river dotted with *ford* place-names, and the complete absence of *ford* place-names along the stretch of river where references to landing-places do occur, is compelling. Below Goring (Be.), the Thames was a natural barrier to overland movement, but could be navigated by river vessels and could therefore be crossed by ferry;[18] above Goring, the Thames was not always a barrier at all as far as overland traffic was concerned, but was perhaps much harder to navigate other than in exceptional conditions or by small craft.[19]

Within this characterization of the Thames, the place-name compound OE *ēa-tūn* requires consideration. For settlements so named, Cole (2007) posits a role in the maintenance of the Thames as a waterway, although an alternative view (Gelling and Cole 2000, 14–15) is that they might have been the sites of ferries to take traffic across the Thames. In either case, it is interesting that three of the four examples are located along the stretch of the river where *ford* is common. None of them occurs in close proximity to known important roads, which may tell against the idea that they were

[17] Although the wider belt of alluvium at Abingdon may still have presented a rather marshy and difficult crossing compared with the stretch of river between Dorchester and Goring (Booth et al. 2007, 4–5 and fig. 1.3). Most of the fords between Cricklade and Goring are either on very narrow stretches of the alluvium (e.g. between Dorchester and Goring), or at points where the alluvium briefly narrows or is narrowed by islands of gravel (e.g. Shifford and Oxford). Duxford and Swinford (Gelling 1973–76, 392, 446–47), however, both cross the Thames at points where the alluvium is much wider than is the case at Abingdon. There was a ferry at Swinford in modern times (Thacker 1920, 93). More recent human management of the river may have deepened the water at some fords.

[18] This characterization of the Thames finds support from Laura Wright's survey of Thames vocabulary between Staines Bridge (Mx.) and Yantlet Creek (Ke.), in which hithes, docks, quays, strands, and other landing-places, as well as water-vessel terminology, are very well represented (Wright 1996, 45–53, 138–52).

[19] Davis (1982, 809) notes William the Conqueror's decision not to cross the Thames at Southwark but to proceed to Wallingford and Berkhamstead, then London; he suggests also that West Saxon access to London in the 880s may sometimes have been by a similar route—via Wallingford and Buckingham.

ferries; although it is interesting that Gelling (1953–54, 366) notes the ferry that used Bablock Hythe (Ox.) was referred to as *passagium de Eatona* in 1212, a reference to Eaton in Berkshire. On the other hand, a section of the Thames where navigation was generally difficult might well have required maintenance for local traffic. It is worth noting the proximity of the posited temporary market at Dorney (discussed pp. 273–76 above) to Eton (Bu.), generally held to be an instance of *ēa-tūn* (Ekwall 1960, 169; Gelling and Cole 2000, 14–16; Watts 2004, 219; *pace* Mawer and Stenton 1925, 236).

The toponymic evidence of Anglo-Saxon roads set out in Chapter 3 can reveals the complexity of the road network in the vicinity of the Thames (Fig. 56) and add further detail to the characterization already discussed, even if it can probably only provide a partial picture of the full extent of the medieval road network in this zone. It is immediately apparent that a much more intricate network of roads was in use in western Berkshire than is evident from a consideration of attested Roman and prehistoric trackways alone. The *herepaðas* alluded to in the bounds of a series of Anglo-Saxon charters seem to serve as middle-distance link roads, connecting a number of long-distance tracks with each other and with the Thames. Just to the west of Margary 164 was a possible route-way marked by references to a *herepæð* in *Cern* (perhaps Pusey, Be; S 651) and Watchfield (Be.; S 413; Grundy 1918, 129; Gelling 1973–76, 698). Gelling considers the Watchfield reference to denote the road from Shrivenham to Faringdon (both Be.), and a continuation of this route to the north-east, essentially along the line of the modern A420, would pass near to Pusey (where it forms the parish boundary for a short stretch) and would perhaps have joined Margary 164 on its way to the Thames at Oxford. One stretch of the same route may have been that referred to as *portwege* in the bounds of Longworth (Be.; S 673; Gelling 1973–76, 707). A westward extension of the same route would intersect with Margary 41.

Just to the west of Wallingford, a series of four herepaths may have formed a small network, connected with the Icknield Way and Ridge Way. The *herepað* of the bounds of Harwell (Be.; S 672, 790) ran roughly due south from Abingdon (Grundy 1918, 126; Gelling 1973–76, 764), perhaps approximately on the present course of the B4017, A4185, and A34. A little way to the east of this road, the *herepage* (*sic*) in a Blewbury (Be.) charter (S 496) seems to have been the road linking Blewbury with Upton to the west (A417; Grundy 1918, 124–25; Gelling 1973–76, 760 and Group G map), and may, therefore, have joined the *herepæð* to Abingdon at Rowstock. We do not know if the predecessor of the A417 was considered to be a herepath

on the continuation of its route towards Wantage, but it was known as the Portway (*Portway*(*e*) 1607) early in the seventeenth century (Gelling 1973–76, 5), and this may point to its early importance as a main highway to Wantage. If it was, then it may have been joined at some point by the *bradan herpaðe* in the bounds of Hanney (Be.; S 597). George Grundy (1918, 131) took this to be a reference to the Frilford to Wantage Road (now A338), a track of Roman origin, noting a Harepit on its line that might be a corruption of *herepæð*. Gelling (1973–76, 742–43 and Group F Map), however, identifies this feature with a track running along the East Hanney boundary, presumably Old Man's Lane (which joins the Wantage Road) or the path that joins it at 441920,191760. Old Man's Lane then joins the Roman road heading towards Wantage.

Finally, also connected with one or more of these tracks was the road referred to as *hearpaþes* (S 673), which runs south between West and East Ginge (Be.; Grundy 1918, 140; Gelling 1973–76 Group F Map). On the other side of the Thames in Oxfordshire, one *herepæð* crossed the Thame at *Herfordbrugg'* (probably now Wheatley Bridge, Ox; S 587; Gelling 1953–54, xxviii, and 142) and ran in a southerly direction along the boundary of Little Haseley (S 902), and on to the Icknield Way (Gelling 1953–54, 131).[20] Further downstream, another early route-way of some significance has been posited in the vicinity of the crossings at Whitchurch, on the line of the road running south through Whitchurch (B471), crossing the Thames there to Pangbourne and continuing south along the valley of the Pang (A340; Stenton 1913, 26, fn. 3). Such a road would eventually join the Roman road from Silchester to Dorchester-on-Thames (Margary 160c) and thereby provide access to all parts of the West Saxon kingdom.

Knowledge of route-ways of this kind is necessarily linked to the survival of Anglo-Saxon charters. The uneven geographical distribution of these texts must therefore affect the apparent distribution of herepaths. It may be important, therefore, not to read too much into the relative scarcity of herepaths outside the Berkshire region. It is nevertheless worth noting how much more complex the road network appears in that region when compared with other areas downstream. Several of the examples recorded in Middlesex, Surrey, and Essex seem to refer to sections of

[20] *Herfordbrugg'* is probably OE *here-ford-brycg* "bridge at the *here-ford* or army ford". The significance of the compound *here-ford* is discussed by Torvell (1992); Carroll and Parsons (2007, 162); Baker and Brookes (forthcoming a). The last of these proposes that places called *here-ford* were at one time used as mustering sites, which is significant in the present context.

Roman roads, or to alternative tracks serving the same itinerary as Roman roads. The lost Harpsford in Egham (Sr.) seems to refer to a ford crossed by the Roman road from Staines to Silchester (S 1165; Gover et al. 1934, 121), or perhaps an early medieval replacement track, while Hare Street (*Herstrate* 1344) in Romford (Ex.) is thought to refer to the Roman road from London to Colchester (Margary 3a; Reaney 1935, 118 and 174–75, fn. 5). The *here stræt* (S 670; S 1450) near Tyburn is thought to have run approximately where Oxford Street is now, effectively on the line of the London to Staines road (Margary 4a; Gover, Mawer, and Stenton 1942, 222). On the other hand, references to a *Herestrete* (c.1350) in Horndon-on-the-Hill and a *herpað* (S 717) in Vange (Ex.) hint at the existence of at least one other important route-way in southern Essex (Reaney 1935, 118). The *herestrǣt* of the bounds of Chertsey (S 1165) seems to refer to the Chertsey to Cobham road, while the *ealde herestrǣt* of the same charter may denote the Chertsey to Weybridge road (Gover et al. 1934, 105, fn. 1), and this may point to the existence of an important branch road, perhaps ultimately linking Margary 4a (Staines to Silchester) with Margary 15 (Stane Street).

The toponymic evidence for the infrastructural system of which the Thames formed a central element suggests very strongly, therefore, that the upper Thames—that is to say, approximately the section upstream of Whitchurch (Ox.)—played only a very superficial role in the transport system, channelling traffic through a series of crossings but otherwise hardly standing as a barrier to overland movement in any way, whilst facilitating waterborne movement only in localized contexts (cf. Bainbridge 2011, 12). This is reflected in the greater complexity of the road network surrounding that stretch of the Thames. From Whitchurch downstream, on the other hand, the Thames was a major barrier to overland movement, funnelling travellers through a limited if variably dense number of river-crossings by ferry. Here, the Thames could be navigated more readily by boats, but such crossings were probably slower and at times much more awkward than the fords further upriver.

In attempting this toponymic assessment of the Thames, some cautionary observations are necessary.[21] It is self-evident that the absence of *ford* place-names on the lower Thames reflects a genuine lack of such crossing-points, but the absence of *hȳþ* place-names from the upper Thames might have a more complex explanation than a straightforward scarcity of landing-places. For one thing, crossing points of the Thames must have

[21] The authors are especially grateful to John Blair for his comments on this section.

been capable of doubling as interfaces between river-transport and land-transport systems. Moreover, it is not inconceivable that the landing-places here were of a different type, perhaps much smaller, than further downstream, and their failure to enter the local toponymy may reflect their ubiquity—they were too commonplace to be distinctive place-names. The total volume of traffic along the Thames making use of such sites might be comparable to that of a single large landing-site. It certainly seems unlikely that a string of minor sites with a specific role in relation to river-vessels existed, since references to landing-places of some kind might at least be expected to enter the microtoponymy, and this does not seem to have happened in any significant way.[22] This does not rule out the possibility that river travellers made use of local knowledge of the riverbank to land goods at a variety of suitable locations in an *ad hoc* way, but the significance of this for military planning may not have been great. A sizeable army, especially one unfamiliar with the terrain, might have felt compelled to use well-known landing-places with the capacity to handle large numbers of men, and from which positions a major land-route could easily be found.

A further point of consideration is the reliability of the fords of the upper Thames. Low-lying and perhaps often boggy, these routes may not always have been conducive to crossings by large forces of men. It is worth noting the influence that the construction of a causeway at Radcot had on campaigning routes (Blair 2010):[23] its strategic importance was recognized by Stephen in 1142 (Poole 1955, 145), and by both royalist and parliamentarian forces during the siege of Oxford in 1646 (Varley 1932, 114); and the Appellants seem to have anticipated its use by Robert de Vere on his march towards London in 1387 (Myres 1927). On each occasion, the commanders seem to have acknowledged the difficulty of getting an army across the Thames without a bridge, and this presumably emphasizes the strategic importance of the crossing at Oxford (Hassall 1972, 143–47; Durham 1984; Blair 1994, 89). Such difficulties may have been less apparent during particularly dry campaigning seasons, and it is worth noting that Robert de

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[22] So for instance, between Streatley and Wallingford (Be.), a stretch of the river only just above Whitchurch, the only minor place-names indicative of landing-sites are Ferry Hill/Mead in Wallingford (1838; Gelling 1973–76, 538), and *le Strandputt* in Goring (c.1250; Gelling 1953–54, 55), the first element of which is OE *strand* 'shore'. There is at least one more *ford*, *Muleforde* 1220–27 in South Stoke (Ox.), OE *myln-ford* 'mill ford' (Gelling 1953–54, 159).

[23] An eleventh-century date for the construction of the causeway has been proposed (Wessex Archaeology 2009, 2; Blair 2010, 29).

Vere was travelling in December—he and his adversaries may have known that the Thames fords would be impassable. In the absence of a bridge, early medieval armies presumably had to make do with fords, and while some fords were surely preferable to others—those with place-names in (*ge*)*lād* "difficult crossing" were probably generally less appealing—their choices may have been dictated by the road network.

It is impossible, then, to speak in absolute terms about the function of the Thames in the infrastructure of southern England, but the general impression is clear, and an appreciation of the strategic landscape of the river helps to explain military planning in this zone during the later Anglo-Saxon period. The lower half of the Thames apparently provides only a very small number of sites where an army might gain access to the major West Saxon land routes, and must therefore have been comparatively easily defended against land-based forces, by whom any attempt to cross would have been cumbersome and dangerous.[24] The difficulties faced by military fleets navigating upstream should not be neglected either (Baker and Brookes forthcoming b). While hostile waterborne forces might make use of the flood tide to negotiate the estuary and make landfall in Kent or Essex, or perhaps as far upriver as London, travel beyond the lower Thames within the six hours of a single flood tide was nearly impossible.[25] These considerations would have significantly increased the length of warning and the available response time for those charged with defending landing-places further up the river.

In contrast, the upper section of the Thames provided a range of options for those hoping to cross the river and regain access to overland routes. The densities of both fords and major roads were much higher in this part, allowing military forces to move across the river more rapidly and less predictably. Although the banks of this part of the Thames must have been relatively if not absolutely safe from amphibious attack, they would have been altogether more vulnerable to devastation by land-based forces. The

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[24] Trim (2006, 406–8) emphasizes the proficiency in river-crossing attained by well-prepared armies, especially by use of pontoon bridges; but his only medieval example, that of Edward I crossing the Menai straits in 1282, he considers something of a rarity. He notes also the same king's effective use of the Severn in 1265, to isolate Simon de Montfort from supplies and allies. Brummett (2001) gives examples of the extreme difficulties faced by Ottoman forces when confronted with rivers on campaign. A more detailed discussion of the difficulties faced by early medieval armies attempting to cross rivers is provided in Baker and Brookes (forthcoming c).

[25] An attempt to move upstream against the ebb tide, on the other hand, might have been a futile exercise.

Thames here could not have provided much protection against mobile armies using the road network, and cannot have been thought of as an impervious barrier. This would have had a considerable impact on the ideas of West Saxon and Mercian military planners.

Against this backdrop, Reading assumes an especially salient position on the Thames, just below the lowest crossing-point by foot, and near the upper limit of navigability by ferries and longer-distance river-traffic. The importance of this strategic situation is reinforced by the fact that it was Reading that the Vikings initially targeted during their West Saxon campaign of 870 to 871. It is possible, as Peddie (1989, 75–77) proposes, that the Viking advance on Reading made use of riverboats as well as land routes, and that the army travelled all or part of the way from East Anglia to Reading by boat. Indeed, Peddie notes the strategic potential of Reading for a joint waterborne and land-based operation, and suggests that the Viking forces under Halfdan headed down Ermine Street before proceeding along the Thames in convoy with a fleet and perhaps aided by a third Viking force based at London and able to prevent resistance from the presumably hostile districts alongside the Thames. The basis for Peddie's preference of Ermine Street, rather than the alternative route along the Icknield Way as far as its Thames crossings, is the potential difficulty of synchronising an overland advance of this kind with a simultaneous approach by water, arguing that the land-based Vikings might have found themselves vulnerable in Reading, waiting for the arrival of the fleet. Against this, it should be noted that an entirely overland approach by the Vikings along the Icknield Way to the Thames crossings just above Reading might have been quicker and easier, especially with horses at their disposal. As discussed above (pp. 271–72), much commercial traffic along the Thames in the medieval period was carried out on a one-way basis, that is to say in a downstream direction, with the harder return journey presumably being made by boats carrying lighter cargoes or no cargo at all. In this regard, Reading, already an attractive target as a royal centre (Abels 1998, 125–26), may well have been an important West Saxon entrepôt, and therefore an even greater lure to Vikings in search of booty and supplies for the winter. Its location at a high point in the easily navigable stretch of the Thames, would also have facilitated the transport away from the theatre of war of goods and chattels obtained by the Vikings during their campaign.[26] It may

[26] At least one major long-distance road led to the Reading area, if not to Reading itself: Margary 160c, which crossed the Thames at Dorchester and followed the southern bank for a section in the Reading area on its way to Silchester. Margary 163, which crossed the Thames

have been these considerations, rather than the coordination of land and river forces, that made Reading a natural target.

Static Defences

The location of West Saxon strongholds can be seen as a direct response to this strategic landscape. A key source for the plans of the West Saxon military strategists is the Burghal Hidage, which lists no fewer than five strongholds lining the River Thames: Cricklade (Wi.), Oxford (Ox.), Wallingford, Sashes (both Be.), and Southwark (Sr.). The strategic importance of their locations has been discussed, among others, by Haslam (2006, 130) and Hinton (1977, 39–40), and the fact of their positioning underlines the strategic importance of the river. However, the Burghal Hidage should not be thought of as documenting the entire inventory of late ninth- and early tenth-century strongholds, and may provide an insight into the military strategy of only a single moment in a relatively long period of intermittent warfare. It is clear from a number of sources that the range of defensive or defensible sites available to the Anglo-Saxons was very much wider (Halsall 2003, 215–16; Yorke 2012), perhaps including high status (especially royal) compounds, which may have been defensible and sometimes militarized; minsters and their precincts, which might be robustly constructed and capable of being pressed into defensive use; and pre-Anglo-Saxon defensive enclosures, that could relatively easily be refortified. It is nevertheless essential to consider all the Thames strongholds listed in the Burghal Hidage, since these certainly provide an indication of where major military expenditure was considered most necessary around the time of its compilation.

Thames Strategy 1: Defending the Road Network

The overriding importance of the Thames as a barrier can be seen in the positioning of these five strongholds, at least four of which are situated in such a way as to block movement along important roads, either standing at Thames crossing-points or at network hubs which an invading army might exploit if allowed to make landfall there. This is certainly the case at Cricklade (Fig. 58), only 10km or so from the source of the Thames, the importance of which lies in its position at a point where the Roman road from Cirencester to Silchester (Margary 41b) crosses the river (Loyn 1963,

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near Sashes, and a possible early route-way that seems to have crossed the Thames at Bolney (Ox.), may also have linked up with route-ways to Reading.

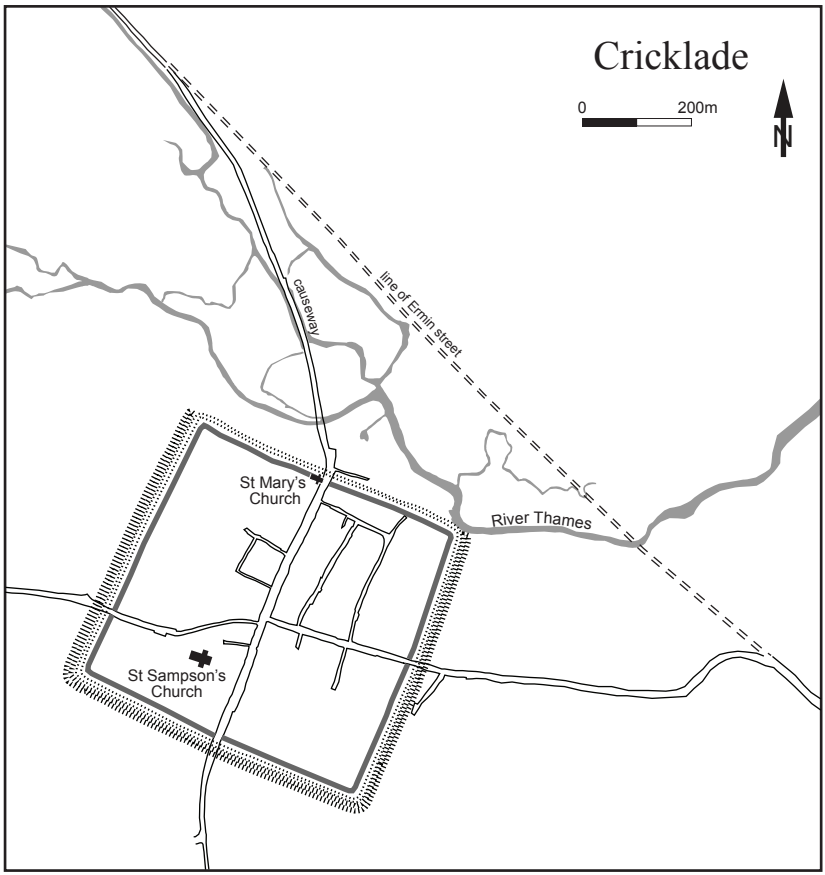

Fig. 58. Cricklade and surroundings.

11). The reliance of campaigning armies on well-established route-ways of this kind would have made Cricklade an important strategic location; that it was an important entry point into the West Saxon kingdom seems to be confirmed by the annal for 902 (ASC A *s.a.* 905), describing the use of this crossing by Æthelwald and his allies.

Access to the stretch of road running to the south-east quickly provided options to an invading force, increasing the strategic importance of Cricklade. At Wanborough (Wi.), just 15km away, the road divides: one branch heading towards Winchester, the other into Berkshire, and both roads intersecting with further Roman route-ways. The location of Chisbury, a hillfort reused as a Burghal stronghold, in the vicinity of these junctions is

notable; but when the West Saxons came to create a *de novo* stronghold, they chose to do so at Cricklade, constructing the stronghold close to the Roman Ermin Street crossing of the Thames, where access to the West Saxon road system could be denied at source.[27] Similarly, Wallingford, another *de novo* Burghal Hidage stronghold, was constructed on the Thames at the point where ancient tracks forming part of the Icknield Way acceded to the Thames fords, before continuing the itinerary to the south-west of the river. It would also have provided a measure of control over the Portway from Reading to Dorchester (Margary 160c). Between Cricklade and Wallingford, Oxford, a settlement and perhaps a major ford by the end of the eighth century (Durham 1984, 85–86) and possibly already a fortified site by the later ninth (Blair 1994, 87–92), likewise controlled an important Thames crossing. It may well have exerted some control over the northwards continuation of the Portway (Margary 160b), and also blocked the road (Margary 164) that branched from this in a south-westerly direction. It is at least noteworthy that these three Burghal Hidage forts each take their name from Thames crossings.

The importance of the Thames burhs in controlling Thames crossings and access to the West Saxon road network can also be seen further to the east. In conjunction with London, Southwark formed a nodal point in the Roman road network. The river at this point could not be forded and the lack of evidence for a working bridge until the later tenth century suggests that a ferry crossing was more likely (Milne 1990, 207; Watson et al. 2001, 57; Sharp and Watson 2011, 81–83; and see Chapter 3). For traders or small to medium-sized groups, this would still have been a practical crossing-point, but for an army to cross might take a considerable amount of time and require control of both London and Southwark. Nevertheless, landfall by a seaborne force at Southwark would afford access to former Roman roads as well as the Pilgrims' Way and London Way (cf. Hill 1981, 116), routes leading into Kent, across the Weald to the south coast and into the Wessex heartland. Here too, then, control of overland route-ways may have been one priority.

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[27] The line of Ermin Street passes *c.* 250m to the north-east of Cricklade, where it crosses low-lying water meadows beside the Thames (unpublished excavations cited in the Extensive Urban Survey appear to have revealed evidence for the Roman bridge lying just 60–70m upstream from the present bridge by North Wall). Excavations of Ermin Street in 1954–55 showed that it had been used and maintained well into the fourth century after which it became lost or abandoned (Wainwright 1960), leading to the subsequent realignment of the crossing to the higher ground beneath Anglo-Saxon Cricklade.

The Roman road from *Verulamium* to Silchester (Margary 163) probably crossed the Thames at Cock Marsh, some 2km upstream of Cookham Lock; a suggestion which is supported by recorded sightings of a road in Kidswell Park, Maidenhead, perhaps continuing north of the Thames as the Alderman Silver's Road (Berks 2008, fig. 8). It is possible that a route from Cookham to Hedsor/Taplow, crossing at My Lady Ferry to the south of Cookham, also has some antiquity on the basis of finds made through field-walking at Whiteplace Farm (ibid., 18). Sitting between these two crossings was the stronghold of *Sceaftesege*, assumed on etymological grounds to have been located at Sashes Island, in the loop of the Thames adjacent to Cookham (Brooks 1964, 79–81; Gelling 1964, 89–90; 1973–76, 81; Harrison 2004, 51).[28] The stronghold was probably somewhere in the area of Cookham Lock (Fig. 61), and from this location Sashes would therefore have been well placed to control both crossings.

Between them, these five strongholds would have controlled access to most of the major route-ways leading from the Thames into Wessex, but there are some crucial exceptions. For example, the landing-place commemorated in the place-name Bolney Court in Harpsden (Ox.) may well have served as a ferry for travellers along a branch road from Dorchester-on-Thames (Margary 160c).[29] In a sense, it is these apparent oversights on the part of the military planners that most help us to understand the structure of the West Saxon defensive framework.

The most obvious potential weak point in the Thames system is further downstream. Not all route-ways from London continued south of the Thames via Southwark. A crossing point at Brentford (Mx.) is implied by the account of 1016 (ASC C), and the major cluster of middle and late Anglo-Saxon weaponry recovered from the river at the site of "Old England", Brentford, suggest that it may have served as a crossing point throughout the early medieval period (Torbrügge 1970–71, 111–12 ; John Clark pers. comm.). It is also worth noting that the Silchester road crossed the Thames somewhere around Staines (Mx.; Fig. 59). It was here, in 1009, that a Viking force crossed in order to elude the Anglo-Saxon levies (ASC

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[28] Brooks and Gelling show that the modern form Sashes developed from OE *Sceaftesege*, citing forms such as *Sefteseya* 1220, *Shaftesya* 1241, *Shetefley* 1275–76, *Shaseys* 1562, *Shaffseys* 1566, *Shawses* 1609.

[29] Bolney is *Bollehede* 1086, *Buleh'* 1166, *Buleheðe, Buleheða* 1176, apparently **bulena-hȳð* "landing-place of the bullocks" (Gelling 1953–54, 73–74). Most commentators are unconvinced by the possibility that the first element of Harpsden is OE *herepæð*, preferring *hearp* "harp" or *hearpe* "salt-harp" (Gelling 1953–54, 72–73; Ekwall 1960, 220–21 *sub* Harpenden; Watts 2004, 281; but cf. Mills 2003, 228, who allows both *hearp* and *herepæð*).

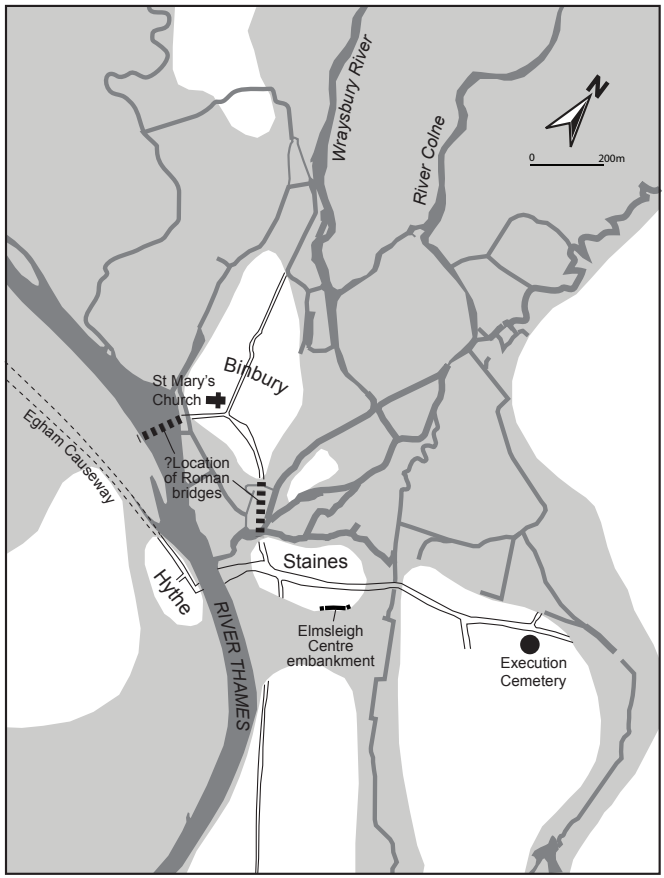

Fig. 59. The topography of the area near Staines. Shown are the probable locations of the Roman river crossings, together with key features of the eighth- and ninth-century settlement pattern, discussed in the text. Only the areas of higher ground were free from seasonal flooding and suitable for settlement in antiquity.

s.a.), and probably also here that a defeated Viking army crossed in 893 (Jones 1982, 192–93). References to a *herepæð* on the possible line of the Roman road in Egham (Sr.; Smith 1928, xlv),[30] and mention of at least one

[30] The place-name Harpesford in Egham (*Herpesford* 672×674 (13th) S 1165, *Harpesford* 1225) is probably from OE *herepæð-ford* (Gover et al. 1934, 121). The Egham herepath crosses marshy ground skirting the Thames floodplain, and disputes in the fourteenth century over its ownership suggest that by this time at least the route was followed by a causeway. Jones (2010, 13) speculates that this same causeway may have originated as the westward extension of the Roman road from Staines.

herestrǣt in the bounds of Chertsey and Egham (Sr.)[31] hint at a significant amount of traffic in the area in Anglo-Saxon times, which would be compatible with the maintenance of a Thames crossing in the Staines area.

In Roman times the crossing presumably consisted of a bridge (Burnham and Wacher 1990, 306–7; Jones 2010, 13–14),[32] the location of which is uncertain, but may have been 500m north of the later medieval bridge, crossing first on to Binbury island and from there across the River Colne into Staines (Jones 2010, 14). The fact that there is no further record in either written or archaeological sources of a bridge before the early thirteenth century (Jones 1982, 190; Jones 2010, 44), and that this was in any case at a different location from its predecessor, argues against the existence of a bridge in the ninth century.[33] The Carolingians were evidently capable of constructing pontoon bridges when on campaign, but this was not a quick process (Bachrach 2001, 221, 254–55). Perhaps at certain times of the year the Thames here was fordable or swimmable; there was possibly at one time a ford at Laleham (Mx., see p. 383 above), but on topographical grounds such a crossing would surely have been undertaken above the confluence of the Rivers Thames and Colne. The Viking crossing in 893, however, is specifically said to have been achieved without using a ford, and the existence of a ferry should not be ruled out. There was certainly a ferry at Chertsey up until the end of the thirteenth century at least (Thacker 1920, 410). Nothing in the local toponymy suggests the presence of a *ford* or *gelād* across the Thames,[34] and the occurrence of a row of place-names containing *hȳð*, "a landing place",[35] on the opposite bank would be

[31] The same charter that first mentions Harpesford (S 1165) also describes a *herestrate* and an *ealde herestræt*. Gover et al. (1934, 105–6, fn.1) take the first reference to be to the Weybridge-Chertsey road, and the second to be to the Weybridge-Cobham road.

[32] The Roman name, *Pontibus*, is a plural "bridges", but this need not imply the presence of more than one bridge-crossing; a crossing that consisted of a series of bridge structures being a possible alternative (Rivet and Smith 1979, 441, and cf. 347).

[33] Further support that the Roman bridges had gone out of use by the early medieval period is provided by the Egham causeway itself. This route deviates from that of the supposed Roman crossing towards the medieval bridge. Should this causeway indeed originate as a late Anglo-Saxon herepath it would indicate the preference by this time for a direct crossing between The Hythe and Staines rather than the earlier Roman crossing point.

[34] Crockford, Dunford (or Durnford), *Woburne brugge* in Chertsey, and Harpesford in Egham (S 1165; Gover et al. 1934, 109, 112, 121) all refer to crossings of local streams, not the Thames itself.

[35] In Egham are Hythe (*huþe* 672×674 (13th) S 1165, *Huthe* 1216–72), *Wealas huþe* (*Wealas huþe, Wheles huþe* 672×674 (13th) S 1165, *wealeshuþe* 871×899 (13th) S 353), and Glanty (*Glenthuþe* 672×674 (13th) S 1165, *Glenthuthe* 1259), all recorded in early documents (Gover et al. 1934, 122).

consistent with river traffic, even if they had as much to do with trade up and down the river as with ferry links across it.[36]

In view of the location of the Burghal Hidage strongholds on important Thames crossings, it is surprising that the Staines crossing was left apparently undefended. Indeed, the absence of a stronghold here would seem to constitute a weakness in the system as a whole. A Viking presence in southern England would have made this route-way crucially important as an overland entry into the entire West Saxon road network. Arguably, the gap around the Staines crossing-point threatens to undermine the entire defensive network along the Thames and to some extent belies even the existence of such a system. It suggests that the burhs recorded along the Thames might represent individual initiatives, constructed at different times and with different immediate strategic goals, and that their appearance in the Burghal Hidage represents their incorporation into a wider system during a specific period; but their inclusion in that list requires them to have been part of a network of some kind, so an explanation of the absence of a stronghold at Staines is needed.

Place-name evidence suggests that there were sites suitable for defensive purposes in the vicinity of Staines, such as Ruxbury and the lost *Eldebury* (probably the hillfort on St Ann's Hill) in Chertsey.[37] There is no archaeological evidence, however, of late Anglo-Saxon reuse of these or other defensible sites. Archaeological and written sources suggest that late Anglo-Saxon Staines itself focused on the island of Binbury,[38] another *burh* place-name and the site of a possible royal manor with a minster church, but the only identified early medieval earthworks come from south of the High Street on the main Staines island. Here were excavated in 1974 and 1977–78 a series of parallel gullies running along the crest and foreshore of the island, apparently representing a system of bank-side defences—prob-

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[36] The high number of Domesday burgesses at Staines and the evidence of links with London may be indicators of strong commercial contacts between the two settlements (Jones 1982, 191–92; O'Connell and Poulton 1984, 41).

[37] Ruxbury is *Rokesbir'* 1203 and *Eldebury* is recorded thus in 1321 (Gover et al. 1934, 111). The latter has been identified with the earthwork on St Ann's Hill, and in view of the proximity of Ruxbury Road, it seems possible that these were alternative names for the same feature.

[38] Binbury is first mentioned in the fourteenth century (Reynolds 1962, 13–18). Dalton (1957, 341–42) provides the following early forms: *in Bynnebury* 1336 and 1371, *in Bynneburi* 1372, and *Bynnebury Stret* 1380, and these suggest derivation from a personal name, or perhaps an elliptical *binnan-byrig* "within the *burh*", cf. Binnimoor Fen (Ca.) possibly from OE *binnan mōre* "within the fen" (Watts 2004, *s.n.*), and St Mary *Bynnewerk* in Stamford (Li.), "St Mary within the castle" (Smith 1956a, 36).

ably as a measure against flooding, but just possibly protection against human threats as well (Jones 2010, 33). The features were not closely datable; recovered finds comprised sherds of grass-/chaff-tempered pottery datable to the sixth to early eleventh centuries. Significantly 400m to the east of Staines island on high ground beside the London Road lies an execution cemetery, the earliest burials of which date to cal AD 670–900 (Hayman and Reynolds 2005, 252; Lab ref: AA-38407 (GU-8994)), making it amongst the very earliest of such sites. In a recent comparative survey of the earliest execution cemeteries, Andrew Reynolds (2009b) has suggested that they belong to a phase of Mercian territorial and political expansions, when public execution formed one strategy in the physical expression of authority over neighbouring communities. A further strategy was likely to be military force. Comparable finds at Cambridge (Ca.) and Walkington Wolds (Li.) were recognized to lie in close proximity to strongholds that are likely to have been used as part of this same process of subjugation. The cemetery and possible defensive features in Staines are consistent with a similar arrangement existing here in the late seventh or eighth centuries.

The pre-existence of an older fortification at Staines could explain the apparent absence of any Burghal Hidage strongholds on Margary 4a, between London and Silchester, and the sizeable blind-spot here in the system as a whole.[39] A further explanation might be sought in the economic situation in which the Thames strongholds evolved. Even if some of the Burghal strongholds possessed, or rapidly acquired, commercial characteristics, it is clear that the strongholds of the Burghal Hidage were constructed with defensive purposes in mind (Stenton 1971, 265, fn. 2). This is made plain, for example, by the impressive fortifications at Wallingford and Cricklade. The positioning of Sashes on a major Thames crossing, and its apparently entirely military role, also underline the strategic defensive importance of such strongholds. On the other hand, a stronghold such as Sashes might well have had a dual role, as part of a defensive system along the Thames, and as a protective bulwark for the thriving centre at Cookham (Astill 1978, 23–24; 1984, 64; Booth et al. 2007, 139), and it is clear that commercial and economic considerations are likely to have affected the positioning of the strongholds along the Thames, even if their primary role was a military one.

[39] Davis (1982, 807) considered the West Saxon frontier to have run south of the Thames between Sashes and Southwark, and this would indeed explain the absence of any recorded stronghold in the Staines area; but it does not explain the similar lack along Margary 4a to Silchester.

Of course, some of the sites chosen as Burghal Hidage strongholds may have had a previous economic importance; Oxford itself may have been important in this respect before it became a West Saxon stronghold (Durham 1984, 85–86; Blair 1994, 101; Dodd 2003, 12–19). Likewise Sashes, Southampton, and Chisbury were also adjacent to commercial and royal centres—Cookham, *Hamwic*, and Bedwyn respectively—but it is the military centres that the Burghal Hidage lists. By and large, early medieval military and commercial activity both referenced corridors of medium- and long-distance travel. Placing burhs at the nodes where the principal long-distance land-routes crossed the Thames was therefore likely to give military control and commercial opportunities at the same time. Nevertheless, in planning a defensive strategy against raiders known to have a liking for wealthy royal, ecclesiastical, and commercial centres, it must have been important to afford such places some kind of protection.

What is perhaps most significant is the different degree of economic prosperity along the southern bank of the Thames. Most royal and economic centres in ninth-century Berkshire seem to have been concentrated in the west of the shire, an area of large estates and, as discussed above, crossed by numerous route-ways (Astill 1984, 58–60). Late seventh- and eighth-century *sceatta* finds suggest that most trade in the Upper Thames was along the Thame valley and the Icknield Way (Blair 1994, 81–83, fig. 53), and in the eighth century, the major trading site in the area may have been at Drayton/Sutton Courtenay (Ox.; Booth et al. 2007, 359–61). Since the Thame flows into the Thames by Dorchester and the Icknield Way crosses the Thames in the Wallingford area, and in view of the proximity of Drayton/Sutton Courtenay, this would make Wallingford, and to a lesser extent Oxford, ideal locations from a commercial point of view for the creation of burhs. Oxford may have had an early commercial importance, but there is no clear evidence that Oxford and Wallingford were significant trading centres before the tenth century, and the period immediately preceding their incorporation into the Burghal system was one of economic decline (Astill 2000, 34–38; Booth et al. 2007, 362). Nevertheless, their economic potential may well have been evident, and, more importantly, so may the commercial importance of the lands in north-west Berkshire, immediately behind and therefore protected by them. In other words, the same infrastructural complexity that made this part of Berkshire especially vulnerable to military incursion from across the Thames, also helped to make it commercially productive.

This contrasts sharply with the picture in east Berkshire and Surrey, an area which seems to have been less intensively exploited until later on, and where there were fewer major settlements away from the Thames itself (Astill 1984, 60, and 59, fig. 23; O'Connell and Poulton 1984, 49–50; Blair 1991, 2–6, 64, 66). The absence of major settlements on the road between Old Windsor and Silchester, compared with the density of such sites in north-west Berkshire, underlines the importance of the strongholds at Oxford and Wallingford. They may not have been primarily commercial centres, but by providing them with defences, the West Saxon military planners were protecting an area of considerable economic potential. On the other hand, the appeal of eastern Berkshire to prospective raiding forces was perhaps limited by the absence of commercial centres. An army that crossed from Staines into Berkshire might find reward at Old Windsor and would gain access to the West Saxon road network; but there might be easier ways to access the wealthier parts of Berkshire and Wessex. The Burghal system may have been part of an overarching national strategic initiative, but it is not inconceivable that planning within each region took account of local economic conditions; certainly there is some evidence of regionalism in other respects (Huggins 1991, 22–25; Hinton 1996, 153; Brooks 1996a; Christie, Creighton, and Edgeworth 2013, **pp**. ??; cf. Fernie 1991, 3).

For all this, the crossing at Staines still offered hostile armies the opportunity to invade Wessex. The events of the 870s show how wide-ranging Viking manoeuvres could be, and there is no reason to suppose that they would limit themselves to short-distance raids. Alternative reasons for the absence of a Burghal Hidage stronghold at the Staines crossing must therefore be sought. One important concern must have been the practicalities of the crossing itself. The task of transferring an army from one side of a river to another by boat, in hostile territory, is a very challenging one, considerably slowing an army's progress, threatening its coherence, and leaving it vulnerable to counter-attack (Baker and Brookes forthcoming c). In that case, movement by military forces across the fords above Goring would have been considerably easier and safer than anywhere lower down the Thames, raising the significance of the Icknield Way relative to other potential road links between Wessex and northern and eastern parts of England. The two recorded instances of Viking forces using crossings near Staines suggest that it was not generally a route chosen if others were available, or as part of an itinerary planned well in advance. Neither crossing was made as part of an offensive action: the 893 army was on the retreat and presumably forced to take any route it could out of Wessex, while the

crossing at Staines in 1009 was an attempt to avoid contact with the West Saxon *fyrd*. With speed of movement and the advantage of surprise being key elements in the strategy of offensive forces, the difficulty of negotiating the Thames may have rendered the Staines crossing impractical to armies on the offensive.

Even so, the Staines crossing lies almost equidistant from the Burghal Hidage strongholds at Sashes (Be.), Southwark, and Eashing (Sr.), whose garrisons were therefore perhaps half a day's journey away at least—time enough for a Viking army to gain a foothold on the southern bank—so a defensive site somewhere nearer to the crossing might be expected. In this regard, the possibility that some kind of stronghold did exist is intriguing. A second reason for its absence in the Burghal Hidage list may reflect its origins as a Mercian rather than West Saxon site; but whatever military functions Staines may have served in the eighth century it is probable that these had passed by the ninth century to Old Windsor, 9km to the west.

Excavations there have revealed a small village or farmstead lying to the south-west of the church, which is thought to have been occupied by the middle Anglo-Saxon period (Wilson 1958, 183–85; Astill 1978, 69–70; Booth et al. 2007, 102). In the eighth century the first of two successive mills was constructed, as well as a "huge" ditch (Foreman, Hiller, and Petts 2002, 72), perhaps suggesting an increase in status, associated with the emergence of the settlement as a royal centre. In the ninth century a stone mill and other buildings are recorded at the site (including one with a tiled roof and glazed windows) and by the eleventh century the site was clearly a royal palace of Edward the Confessor (ibid.). Although Old Windsor is not listed in the Burghal Hidage, it may well have had a military presence expected to block any attempt by a hostile army to cross the river at Staines.[40] Archaeological evidence that Old Windsor was destroyed by fire in the late ninth or early tenth centuries might easily relate to one of the recorded Viking crossings of the river (Wilson 1958, 185; Astill 1978, 70).

The use of royal sites as strongholds within the wider Thames system is paralleled elsewhere (Williams 2013); Sashes, for instance, was attached to the royal site of Cookham. Rob Poulton (1987, 211) suggests that Kingston-on-Thames (Sr.), a very important late Anglo-Saxon royal site and a major

[40] Clearly it must have been inadequate to prevent the Vikings from crossing at Staines in 893, but on the other hand, the host in question was leaving Wessex, defeated and perhaps stripped of its plunder, rather than entering it in force and on the offensive. Since they would have arrived at Old Windsor by land rather than across the river, they may in any case have been much harder to repel.

centre of population by the eleventh century (O'Connell and Poulton 1984, 48–49; Blair 1991, 56, 99–100), was an Anglo-Saxon burh and raises the possibility of its being a West Saxon stronghold. Indeed, if it is assumed that royal centres along the right bank of the Thames had a military capacity and could be called on to defend local fords or landing places,[41] then their remarkably even distribution between the recorded Burghal Hidage strongholds may be significant.[42] Kingston, Old Windsor, Sashes, and Reading divide the stretch of Thames between Southwark and Wallingford; Abingdon that between Wallingford and Oxford (Fig. 60). Apart from the inclusion of Sashes in the Burghal Hidage, there is no clear evidence that any of these royal estates were used defensively during the later ninth century, but the occupation of Reading by a Viking host in 870–71 and the possible violent destruction of Old Windsor around 900 may at least place them within a context of military activity; so too, Alfred's reported seizure of church lands at Abingdon after the Viking attack of 871 (Stenton 1913, 31–32), perhaps a rapid reaction to a dangerous situation and an attempt to bolster his northern defences (Fleming 1985, esp. 250–51, 261–64; Dumville 1992a).

In a sense, the list of strongholds in the Burghal Hidage is as interesting for its omissions as for its inclusions. The absence of anything at the Staines crossing is instructive. A range of factors may underlie its exclusion, but the archaeological evidence points tantalizingly to the presence of some kind of defensible site through most of the period: a putative middle Anglo-Saxon Mercian site at Staines itself, perhaps superseded by a West Saxon one at Old Windsor. The combination of the relative economic poverty of east Berkshire and, more importantly from a strategic viewpoint, the challenging nature and therefore reduced importance of this crossing once the Roman bridge had fallen out of use, may have meant that royal compounds of this type were deemed adequate to patrol this stretch of the Thames. The example of the Staines crossing highlights the piecemeal nature of the evolution of defensive arrangements along the river, with different types of stronghold included or excluded from the Burghal Hid-

[41] The expressions "right bank" and "left bank" are used here to describe the river following the direction of its flow, hence the more southerly and more northerly banks respectively. This is in recognition of the fact that the course of the Thames makes "north" and "south" occasionally misleading. In this way, Buckinghamshire and Middlesex are on the left bank, Berkshire and Surrey on the right.

[42] Or perhaps more correctly, the even spacing of those strongholds with a specifically military use between the existing royal compounds, which might have served also as strongholds.

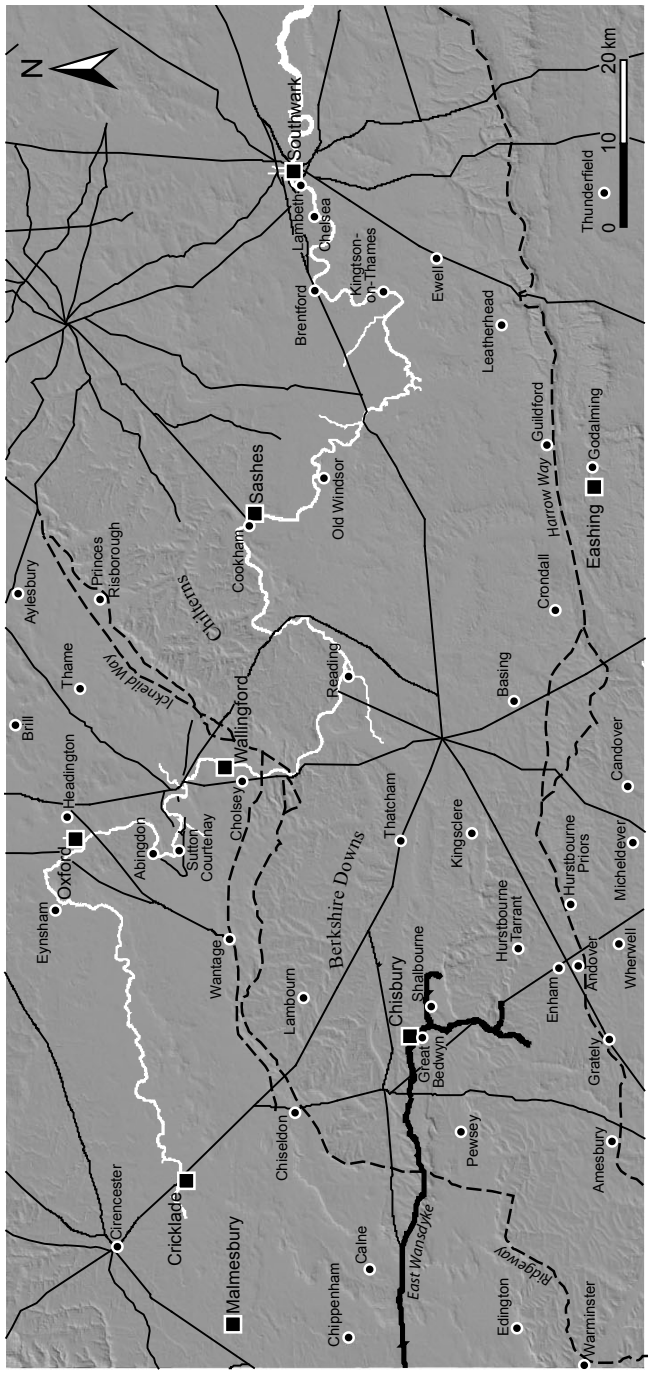

Fig. 60. Royal vills along the Thames, data from Sawyer (1983).

age list on a purely strategic basis, irrespective of the period at which they first came into use.

Thames Strategy 2: Defending the Waterway

It would be wrong to regard the location of the Burghal Hidage strongholds purely as a defence against river crossings. As stated above, Southwark was perhaps as likely to repel attempted landings by fleets travelling in from the Thames estuary as land-based armies hoping to cross by ferry from the north bank to the south. In the absence of London Bridge, Southwark could not, however, prevent fleets from passing this point on their way up or down the river. Hæsten's journey up the Thames in 893 does not suggest the presence of a river-blockage at that stage, and the lack of a bridge might also help to explain London's omission from the Burghal Hidage document, since its strategic importance from a West Saxon viewpoint would consequently be diminished (see Chapter 3). Nevertheless, even without a bridge, Southwark could still have provided some degree of defence against movement upriver. The range of Anglo-Saxon bows, at c. 183m at ground level (Bachrach and Aris 1990, 6), was not sufficient to cover the whole width of the Thames at London Bridge in the late ninth and early tenth centuries (approximately 270m; Watson, Brigham, and Dyson 2001, Fig. 30), however, if another part of the garrison was based in London, the fleet would have been far more vulnerable. Southwark could also have blocked or patrolled the river if it operated as a naval base, from which Anglo-Saxon ships could intercept unwelcome river users. There is, however, no evidence of its use as such, nor is there any mention of naval operations being launched from Southwark. It seems most likely therefore, that Southwark's principal objective as a stronghold, at least before the later tenth century, was to prevent access to the road network running south from the Thames.

Had there been a contemporary blockage between Southwark and London, one of the functions of the stronghold at *Sceaftesege* would have been rendered redundant. The location of Sashes differs from that of other Thames strongholds. While the others sit on a single bank,[43] Sashes is an island site in mid-stream. Indeed, covering an area of 24.5ha, Sashes Island is the largest island in the Thames above its estuary. Today consisting of a flat water meadow, the island lies in a large bend in the river 300m east of Cookham. The site has changed somewhat since the Anglo-Saxon period.

[43] Or perhaps straddle the Thames, in the case of Wallingford, see below, p. 310.

A map of c.1580 shows several channels in the area of Sashes Island, all but one of which (Hedsor Ditch which bisects the island) can be correlated with the present-day topography (Fig. 61; Berks 2008). Significantly, of these courses, the shorter and faster southern channel, now known as Sashes Water but probably King's Water in the 1580 map, has not replaced the main channel, Hedsor Reach, running around the north of the island. This situation could only have been achieved artificially. The c.1580 map shows a bank or weir called the *Warborow* blocking off the river channel closest to the Berkshire bank, which could conceivably have survived from the Anglo-Saxon period (Bootle and Bootle 1990, 10–13). The *Warborow*, or another unnamed feature at the southwest end of Sashes Island, must have forced water to flow around the northern course through an engineered cut (Hill, Beard, and Robinson 2000). The conclusion to be drawn is that Sashes Island has been artificially created, perhaps as part of the foundation of the burh on this site (ibid.).

It is worth noting the potential significance of the lost place-name *Warborow*. Of course, the first element of this name might be OE *waru* or *wǣr* "weir", but the second looks like OE *beorg* or *burh*, and this would consti-

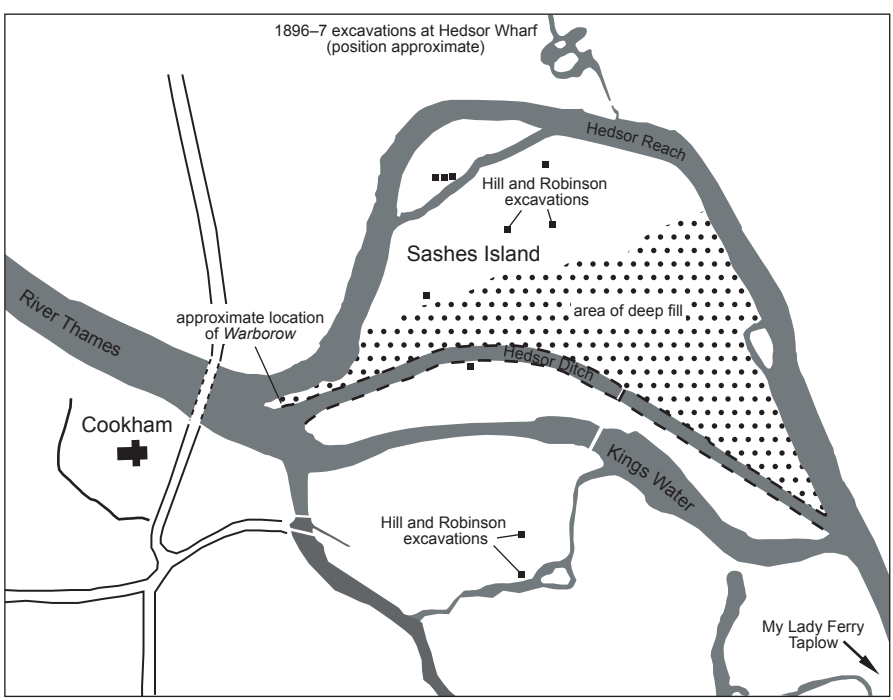

Fig. 61. Sashes.

tute an unusual compound.[44] Though earlier forms are lacking, OE *waru* "protection" or *weard* "watch" are alternative first elements. Given the possible role of Sashes as a protective bulwark for Cookham, the first of these raises important possibilities, but a compound *weard-beorg* "watch mound" would also find direct parallels (Chapter 3). A mound of some potential antiquity is located 300m to the north on Hedsor Eyot (Berks 2008; Buck SMR no. 0147200000), and perhaps this was originally called *weard-beorg*, the name being later transferred to the whole island and then just the weir. On the whole, the second element is phonologically and perhaps also topographically more likely to be OE *burh* than *beorg* (Jordan 1974, 65–66, 96–98; Gelling 1973–76, 797, 798), and a compound *waru-burh* or *weard-burh* might have been descriptive of the stronghold on Sashes Island, the last of these being an interesting parallel to the unidentified stronghold of *Weardburh*, constructed by Æthelflæd in 915 (ASC C; see Chapter 2).

David Hill, David Beard, and Derek Robinson carried out evaluative fieldwork on Sashes Island in 1995–96 with the aim of identifying archaeological evidence for the burh (Hill, Beard, and Robinson 2000). Unfortunately, the island was bisected in 1830 by a canal, Hedsor Ditch; the upcast of which covers most of the southern half of the island. Fieldwork accordingly focused on the north-western corner of the island furthest from the lock cut, and Hedsor Eyot: a small island to the northwest of Sashes Island proper. Trial trenches demonstrated that the land surface of Sashes Island has probably been stable since the Neolithic period and it remains possible that early medieval features are partially buried under lock-cut upcast (Hill et al. 2000). None of the seven trenches revealed evidence for Anglo-Saxon activity, although a large linear anomaly in the resistivity survey running almost perpendicular to the Thames in the northern part of Sashes Island remains to be tested archaeologically. If the Sashes Island fort adhered to the formula laid down in the Burghal Hidage its defensive perimeter would measure 1257m, meaning it may have only occupied part of the island (i.e. a smaller area than that postulated by Hill 1996a, 216), and it remains a possibility that the linear anomaly represents defensive works subdividing the island.

Possible Anglo-Saxon evidence has, however, been recovered nearby from the other side of the Thames, *c.*50m to the north of Sashes Island, at Hedsor Wharf, consisting of vertical oak and beech piles, horizontal tim-

[44] For instance, KEPN lists no certain instances of OE *wǣr* qualifying a word for an elevated site or hill, and none with *burh*.

bers and brushwood spreads (Cocks 1897). The most likely interpretation of the feature is as a medieval wharf, but the associated artefacts included (amongst the predominately later medieval material) pottery of late Anglo-Saxon date (Jope 1947, 53, 71, 73), raising the possibility that some form of riverine infrastructure existed at this Thames crossing by that period.

The creation of an island site may suggest an intention to prevent use of the river by waterborne invaders. An island is likely to have been awkward to negotiate, and any waterborne aggressors attempting to pass might be seriously slowed down (Gillmor 1988b, 100–107) and rendered vulnerable to attack by a defensive garrison placed on such an obstruction. If Sashes is viewed primarily as a blockade against movement up and down the river, the location was well chosen. In the late 18th and early 19th centuries, Hedsor Reach flowing to the north of Sashes Island was a notoriously difficult channel to navigate, as it was particularly shallow and fast-flowing; complaints to the Thames commissioners eventually leading in the 1830s to the cutting of Hedsor Ditch (Berks 2008).

The use of a fortified island at Sashes may have been mirrored elsewhere. Whilst there is no clear archaeological evidence that further defensive strength against movement along the river was provided in this way, the OE compound *burh-ēg*, which underlies the names of three Thames islands, is discussed by Gelling (1989, 146; 1990, 41), who notes the even spacing along the Thames of Laleham Burway near Chertsey (Sr.), Borough Marsh near Sonning (Be.), and Burroway near Bampton (Ox.).[45] Even in the absence of archaeological evidence—of which little might be expected by analogy with Sashes (Brooks 1964, 79–80)—it is possible that such sites were used as temporary or emergency strongholds against waterborne invaders.

Whether any other Thames strongholds mentioned in the Burghal Hidage played a major role in limiting riverine movement is debatable, and depends to some degree on the extent of the easily navigable length of the Thames. There is clear evidence that the river was in some way navigable up to and beyond Oxford (Blair 2007b), but for a large Viking fleet, negotiating its middle and upper reaches may have been difficult with or without defensive strongholds. Assuming the burh at Sashes functioned effectively as a control on river transport, the burhs located further upstream may

[45] These are *in þere ea betweone Burghege and Mixtenham* (S 353, S 1165), *Burweye* 1277 (Gover et al. 1934, 110); *Burgeia* 1220 (Gelling 1973–76, 133); and *Burweia* c.1210 (Gelling 1953–54, 305) respectively.

have faced little in the way of waterborne threat. However, the possibility that they predate Sashes, or that waterborne forces could gain access to the Thames higher upstream than Sashes, perhaps through portage into the Cherwell or the Thame, should not be ruled out. In this context, it is worth considering the possibility that Wallingford played a role in controlling waterbourne movement. Possible evidence that Wallingford's fortifications stretched across the Thames comes from the local parochial geography, the boundary taking a detour to include an area surrounding the eastern end of Wallingford Bridge (Hinton 1977, 37; 1996, 153; Bradley and Gaimster 2004, 285–86). There is also a suggestion of a bridge-head defence on the left bank defined by a curvilinear boundary ditch in line with the parish boundary (Gaimster and Bradley 2004), but geophysics and topographical survey in this area have revealed few anomalies. The construction of a bridge-head fortification—and by implication, bridge—at Wallingford might be interpreted as an attempt to block movement along the river, and such a construction may have occurred by the tenth century; but the exact date of this construction is far from clear.[46] A number of features have been recognized beyond the "bridgehead" which have been interpreted as Anarchy-period siege works and it may be to these later events that the ditch dates (ibid.; Christie et al. 2004, 99–101).

Even without a bridge, a burh with a roving garrison, capable of patrolling the banks of the Thames within its jurisdiction, would have acted as quite an effective control on movement by harrying invading forces wherever their progress was slowed and the main stream of the Thames was close enough to a firm bank for the defending force to engage them. The large swathes of low-lying land on either side of the Thames are a significant feature of its upper sections, especially around Oxford and Wallingford. Such marshland would not have been passable by large boats and would have been extremely difficult to cross on foot, seriously limiting the number of points at which a fleet could reach dry land and giving an important advantage to a defending army. For instance, troops from Wallingford, placed at the foot of the Sinodun Hills (Little Wittenham, Be.), would be able to inflict considerable losses on a waterborne force negotiating the sharp bend in the Thames at that point. After such an attack, the waterborne army would be forced on a long loop to the north, unable to make

[46] Anderson (1970, 79) suggests that the *brycgwege* of charters for Brightwell and Sotwell (Be.; 945 (12th) S 517; 957 (15th) S 641; Gelling 1973–76, 761–63), a reference to the road between Wallingford and Shillingford, is so-called because of the existence of a bridge across the Thames at Wallingford by the middle of the tenth century.

land-fall on the low-lying terrain of the West Saxon bank. At the same time, the land-based troop could make the 2km march westwards across to Long Wittenham (Be.), and be ready to harry the invading force a second time as it slowed to negotiate the winding course of the Thames between what is now Clifton Lock and Appleford (Be.). A further attack at Sutton Courtenay (Be.) might also have been a possibility, while some time before this, news of the invading force might be expected to have reached the garrison at Oxford. Perhaps significantly, recent analysis of English Heritage National Mapping Programme data has revealed a road linking together the high-status middle Anglo-Saxon settlements of Sutton Courtenay, Long Wittenham, and Dorchester-on-Thames (Hamerow pers. comm.).

Thames Strategy 3: Offensive Actions

If allowance must be made for a role in supervising transport along the Thames, it is clear that the primary role of most of the securely attested Thames strongholds was to control overland movement across the river. However, the relationship of strongholds to road networks need not always have been a defensive one. Oxford and possibly also Wallingford stand out from Southwark and Cricklade in maintaining a presence on the left bank of the river. The island location of Sashes may also have given it easier access to the left bank of the Thames. In discussing the choice of Oxford and Wallingford, while Reading and Old Windsor were omitted from the Burghal Hidage, Hinton (1996, 156–57) felt that expansionist rather than defensive considerations were a key factor, Wallingford being further north and therefore in a more forward position, while Sashes created a bridgehead into south Buckinghamshire. This ultra-fluvial foothold may have permitted a more aggressive and pre-emptive attitude in policing the crossings, involving the coordination of early-warning systems and the interception of hostile forces by advance patrols.

In this way, Wallingford, Oxford, and Sashes may have been better able to defend the numerous river-crossings in the area. Control of these crossings would also permit West Saxon forces to exert influence north of the river and to exercise considerable control over Oxfordshire and the Buckingham area, especially towards the end of the ninth and in the early tenth centuries, when the West Saxons were in a position to take the offensive against the Scandinavian forces beyond the Thames. It seems that Wallingford was constructed on lands appropriated from the large royal estate centred on Benson, on the left bank of the Thames (Booth et al. 2007, 132; Christie, Creighton, and Edgeworth 2013, fn. 21), and this may lend support

to the idea of Wallingford as an assertion of military power north of the river.[47] That these strongholds could have been favoured over Southwark (or Southwark and London) for such offensive operations would reflect their infrastructural convenience and the logistical difficulty of leading an expedition across the Thames at Southwark. It presumably also took account of the logistical situation within Wessex, since a campaigning West Saxon *fyrd* of the late ninth or early tenth centuries might well have been composed predominantly of troops from Hampshire, Wiltshire, Berkshire, and the southwest. For such an army, the most direct route to Northampton, Leicester, and the north-east midlands would have been via the crossing at Oxford or along the roads through Cirencester. The routes through the south-west midlands would take the *fyrd* through notionally friendly territory for much of its journey and allow it to be provisioned as well as joined by Mercian troops.

Observation and Signalling

Whatever the strategic goals of the Thames strongholds, a carefully planned system of communication, based on the established route-ways, and with observation and signalling posts, would have considerably improved its efficiency. Based on established knowledge of Anglo-Saxon beacons and lookouts, discussed in Chapter 3, it seems highly probable that such a system existed, reducing the *fyrd*'s reaction time and increasing preparedness for military assaults. The many potential lookout points suggested by surviving place-names may help us to understand better the landscape of defence that surrounded the Thames strongholds. The distribution of these types of place-name can again be related to the infrastructural context of the Thames.

The Lower Thames

The lower Thames has very little evidence of a system of observation posts, with the possible exception of the Southwark area. There is little impres-

[47] The *Chronicle* entry for 571 suggests that, in the 890s, the West Saxons were asserting the moral legitimacy of their territorial claims centred on the Vale of Aylesbury and including Benson. Sims-Williams (1983, 33) stops short of claiming that the annal for 571 was an invention to "form a 'charter' for West Saxon territorial expansions", but it is possible to imagine that the claim of having captured the land from the Britons—that is to say, the people considered to have been aboriginal—was a shorthand way of claiming original ownership of that land, regardless of intervening territorial vacillations (cf. Day 2008, esp. 11–27). The decision to construct Wallingford on lands appropriated from Benson therefore has a political as well as a military context.

sion of the existence of message relays along the Kentish coast as far as Southwark (Chapter 6), or from Southwark further upriver. This is in contrast with the early modern beacon system, which supposedly consisted of a string of beacons on every eminence along both banks of the Thames (Corner 1852, 57), and may emphasize the importance of land routes (as opposed to waterways) for both attackers and defenders. In contrast to the lower Thames, there is a very clear concentration of lookout place-names in Berkshire, perhaps reflecting the density of important route-ways and river crossings in the region since pre-Roman times (Sherratt 1996). Also of potential importance is the apparent comparative dearth of this type of place-name north of the river, although an impressive chain of lookouts along the Icknield Way suggests that this was not everywhere the case and may simply reflect an uneven survival of such names across the country (Baker 2011, 261, fig. 2, and 262–64; see Chapter 3).

A number of probable lookout sites in the vicinity of London and Southwark, and running south along the Chichester road, have been commented on at some length (Gower 1992; 2002; Pepper 1996; and see Chapter 3). Once again, it is the surveillance of roads, rather than of rivers, that seems paramount in the defensive priorities revealed by lookout sites. Movement along rivers may have been kept under watch, but few river-observation points on the Thames have left a mark in the local toponymy. Where such names do survive, for example the name of Beacon Hill in West Thurrock (Ex.),[48] they may well be of modern origin. If the beacon system detailed by Gower (2002) was functional, then it provided an important link between the Thames and the Channel, also connecting two Burghal strongholds, Southwark and Chichester.

Between Southwark and Sashes there is again little if any toponymic evidence of lookouts, but the obsolete place-name *Warborow* on Sashes Island (discussed above) may indicate the presence of surveillance functions in the medieval period. If so, such a lookout did not exist in isolation, since a further observation post is indicated in Bray (Be.), where a *Tothull* was recorded in 1338 (Gelling 1973–76, 52; Fig. 62). A beacon on the high ground in this parish would certainly have been visible at Sashes, 7km to the north, and its location in Bray, on a bend in the river, may also have given it views of the Thames for several kilometres south-eastwards towards Windsor. This would provide ample warning to the garrison at Sashes of anything approaching by water from the east. The place-name in

[48] *Beacon Hill* 1777 (Reaney 1935, 131).

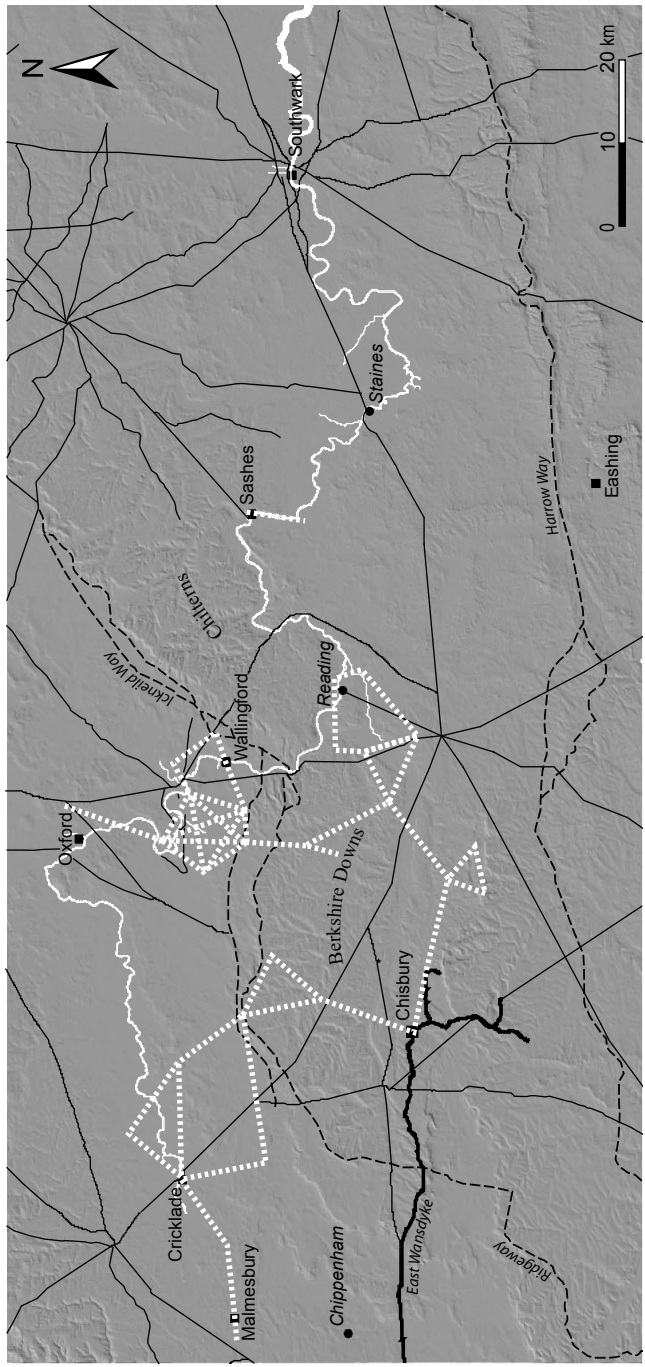

Fig. 62. Thames beacons.

question appears first in a later medieval record, but there is no reason to assume that it had not been in existence for several centuries by that time. Nevertheless, there is no evidence of a systematic chain of beacons or lookouts linking Sashes with any of the other Burghal forts. *Tothull* was almost certainly not intervisible with other identified lookout sites, although there could be unidentified beacons with which it was. It is also impossible to say with absolute certainty that a lookout on the site of *Tothull* was used in conjunction with a stronghold at Sashes, but it must be a strong possibility. To the north of the Thames, lookout sites might be posited at Totteridge and Beaconsfield (both Bu.), although other explanations of the place-names are possible (Mawer and Stenton 1925, 203, 214; VEPN:1, 68). As lookouts, they might have kept watch over the River Wye and a suggested early track along its valley (Head 1974), and perhaps also over Margary 163. The existence of a system comprising one stronghold on the river with an associated lookout, a single lookout within sight to the south, and perhaps one or two lookouts on the northern side of the river, is suggestive of an isolated phase of military planning within the locality of Cookham. The location of the lookouts gives the impression of a concern to track not only movement up the Thames from the direction of London, but also down the Wye valley towards the Thames, and in a southward direction along the tracks north of the river and heading towards the Sashes stronghold. The absence of lookouts apparently intended to watch for river traffic from the west is also noteworthy, if the aim of Sashes was also to block use of the Thames by those who had gained access via the Thame or the Cherwell.

The Upper Thames

In contrast to the lower and much of the middle Thames, the river around the Goring Gap and as far as Cricklade is surrounded by a very large number of place-names potentially indicating lookouts. The lines of intervisibility are indicated in Fig. 62, and reveal some potentially significant clustering. One possibly interdependent group of lookouts can be identified in western Berkshire, around Pangbourne and Reading.[49] Although the lookout

[49] This consists of: *Totehill* "lookout hill" (1548) in Pangbourne (Gelling 1973–76, 170); *Tothulle* (l.13th; ibid., 211) in Englefield, about 4km to the south, and about 8km to the south of Pangbourne in Sulhamstead is Totterdowns (1846; ibid. 187 and cf. 160) , which may contain OE **tōt-ærn* or "lookout house". A lookout on the high ground in Sulhamstead would have been intervisible with the possible lookouts in both Pangbourne and Englefield, and a lookout here would also have overlooked the Silchester to Dorchester road, only a few hundred metres to the west, near to its crossing of the Kennet (Margary 1973, 166). *Totehill*, about 10km to the northeast in Reading (1310; Gelling 1973–76, 173), is probably also

sites recorded in local toponymy were probably not all intervisible, they are all in some way keyed into a single network. Significantly, this group of lookouts is linked twice over with a larger system covering Hampshire (Hill and Sharp 1997). With good viewing conditions, it should have been possible to see a fired beacon at the *weard setl* mentioned in the bounds of Highclere and Burghclere (Ha.; S 258, S 487, S 565, S 680) from the **tōt-ærn* commemorated in Totterdowns in Sulhamstead. At nearly 20km, this was perhaps at the limit of reliable visibility, but in poor viewing conditions it may still have been possible to pass signals between the Pangbourne/Reading system and Hampshire via Totterdown in Bucklebury, which seems to be intervisible with Tot Hill in Highclere (*Totehulle* 1421; Gover 1958, 154).[50]

The Pangbourne/Reading system was also linked to beacons further to the north. From Totterdown in Bucklebury it is 16km to Tadcombe, recorded as *totan cumb* in charters for Blewbury and Hagbourne (S 354, S 496; Grundy 1922–23, 204), and it should be possible in good visibility for a lookout at one to see a beacon at the other. Tadcombe seems to have been part of another important system of lookouts covering the hinterland of Wallingford and probably overlooking many of the important routes in this area.[51] Importantly, the Burghal stronghold of Wallingford was probably

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visible from here, and another instance of the place-name Totterdown has been recorded at Bucklebury (*Totterdown Meadow* 1840; Gelling 1973–76, 160; 1997, 147). Tutts Clump in the neighbouring parish of Bradfield may commemorate a *tōt*(*e*) or lookout (see Gelling 1973–76, 202). Lookouts at Reading and Pangbourne would probably also have been able to see the high ground on the other side of the Thames in Caversham, where Toot's Farm hints at the former existence of a lookout (*Toots* 1797; ibid., 179). The form of this last example is more suggestive of ME or early ModE origin, for the name at least, but use of the site as a lookout place may go much further back (see Chapter 3).

[50] Beacon Hill, the possible site of the *weard setl* (Grundy 1921, 131–33; 1926, 134–36), can also be seen from Tot Hill. A further possible beacon site, the *ād* "pyre, burning-place" (Grundy 1924 95; Forsberg 1970; VEPN:1, 5) referred to in *þam ealdan ad fini* of a charter for Ecchinswell (Ha.), may have been visible from both Tot Hill and Beacon Hill. Yet another alternative signalling relay to Tot Hill and the Hampshire beacons was provided from the high ground in Bucklebury, via Warnham (?*Werdham* 1241, *Werdeham* 1248 (1329), *Werdenham* 1252–5; OE *weard* or perhaps **wearde*/**wearda* with *hām*; Gelling 1973–76, 499), on raised land in Compton (Be.), further up the Pang valley, and from there via two more lookouts, Oareborough Hill Copse in Chieveley (*Le Worborowhill* 1550, perhaps from *weardbeorg*; Gelling 1973–76, 244), and Warrendown (*weardan dune*; 10th S 491) in Leckhampstead (both Be.).

[51] The key elements in this system are: 1. Tadcombe; 2. Tatlings in Steventon (*Totlynche* 1390–91; Gelling 1973–76, 421), apparently a **tōt-hlinc* "lookout bank or ledge" (there is still a Tatlings Road just at the western end of Steventon village, but about 1.25km to the south-southeast is a triangulation point, and this may be closer to where the lookout was posted); 3. *wearddune* "watch hill" on the other side of the Thames, recorded in a charter for Newnham Murren (Ox.; S 738); 4. Warborough (Ox.; *Wardeberg*, *Warberge* 1200), also on the left

able to send and receive signals to and from two of these lookouts, *wearddune* in Newnham Murren (Ox.) and Tatlings in Steventon (Be.). This suggests that the planners of the Thames burhs could have made use of this system, if the lookouts existed by the late ninth century or were newly set up at that time.

In the system described here, Tatlings is key, linking these lookouts via Tadcombe to the Pangbourne/Reading and Hampshire networks, and possibly via Warborough in Letcombe Regis (Be.) with further beacons to the west. If the observation point at Tatlings were obscured for one reason or another, Wallingford and the two Oxfordshire lookouts would be isolated. For this reason, it is possible that two other sites should be considered as forming part of the same network. The first of these is Blewburton Hill in Blewbury (Be.). The place-name Blewburton ((*ofer*) *bleo byrig dune* S 725; Gelling 1973–76, 151–52) "the hill of Blewbury (the variegated stronghold)", gives no suggestion of a lookout, but this ancient hillfort is on a high point (today it is the location of a triangulation point) with commanding views. It would have the advantage of providing an alternative route to send signals from Tadcombe to Wallingford and *wearddune*, from each of which it can be seen, without relying on Tatlings. Blewburton is actually bisected by the parish boundaries of Blewbury and Aston Upthorpe. In the next parish of Aston Tirrold is Wacknalls, which probably means "watch hill" (ibid., 511).[52] In fact, Aston Tirrold is only separated from Blewburton by the width of Aston Upthorpe parish, a distance of about 700m, and the hill that it is on culminates in the hillfort, so it is conceivable that Wacknalls is a reference to watch being kept at Blewburton.

A second possible addition to the system is The Toot in Culham (Ox.). This is a modern name recorded on early Ordnance Survey maps,[53] and it is impossible to say if use of the site as a lookout stretches as far back as Anglo-Saxon times, but it commands a wide loop in the Thames and is visible from Warborough (Ox.), *wearddune*, Tatlings, Tadcombe, and

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bank of the Thames, which is a *weard-beorg* "watch mound or hill" or *waru-beorg* "defence or protection mound or hill" (Gelling 1953–54, 138; Ekwall 1960, *s.n.*; Watts 2004, *s.n.*). These four points share a high degree of intervisibility: from the high ground in Steventon where the original Tatlings might have been, all three others are visible, and Warborough should be visible from *wearddune*. The location of these lookouts overcomes the potential obstacle of the Sinodun Hills, which obscure Warborough from much of Berkshire in the Wallingford area—although, of course, there is some chance that a further lookout would have been placed on Wittenham Clumps or Castle Hill.

[52] *Le Wakenell* 1549, from *wacen-hyll* (Gelling 1973–76, 511).

[53] *The Toot*, OS County Series (Oxfordshire), 1:2500, 2nd edition (1899).

Blewburton. It may also have provided a link with lookouts to the north, starting with a Toot Hill in Barton (Ox.),[54] on Margary 160b. Whether or not it connected with Oxford is not clear; Blewburton may have been visible from Oxford, but probably only from a considerably raised position within the burh, perhaps from a tower such as St Michael-at-Northgate or that of St George in the Castle. Otherwise Oxford's communication links with the other possible beacons in this area are seriously limited.

To the west of Cricklade, and also visible from it, a **tōt* is recorded in Charlton (Wi.) as the *Totleie* "lookout wood" in the bounds of S 1578.[55] Also visible from this probable lookout site, was the Burghal Hidage stronghold of Malmesbury, which was in turn intervisible with a series of sites with lookout place-names in Wiltshire,[56] and probably linked via the *wœardæs bœorh* "watchman's mound or hill" of the *Æscesbyrig* (Woolstone) charters (S 317, S 503, S 575)[57] with the Wallingford and Cricklade networks, since

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[54] *Toot Hill Butts furlong* 1805 (Gelling 1953–54, 31).

[55] Grundy is very uncertain about the identification and location of the landmarks in this charter (Grundy 1920, 9), but Hooke (1994, 93–94, Fig. 4.8) places *totleie* on the boundary between Charlton and Purton. There is a highpoint of 134m on the boundary at 401975,188115, and plenty of woodland in the area.

[56] Several more possible lookout posts are within sight of Cricklade. Almost due south, approximately 10km away, stands Toot Hill in Lydiard Tregoze (Wi.), in recent times the location of a triangulation pillar, but obviously noted for its commanding views since the medieval period at least (*Tothulle* 13th; Gover, Mawer, and Stenton 1939, 276). To the north of the Thames, a watchman in the vicinity of Totterdown Lane in Kempsford (Gl.; *Totterdown Lane* 1870; Smith 1964a, 39, and cf. Totterdown Lane in neighbouring Fairford (also Gl.)) would probably be able to send signals to Cricklade, as perhaps would a watchman on the higher ground to the south of Worsall Farm in Coleshill (Be.) on the Berkshire/Wiltshire border. Worsall is *Little Worsell* in 1608 (Gelling 1973–76, 358), and although the forms are far too late for certainty, it is just possible that it derives from OE *weard-setl* "watch-house". If the watch house were on the high ground as suggested, it would be intervisible with Totterdown in Kempsford. It would also be intervisible with the *wœardæs bœorh* "watchman's mound or hill" mentioned in the bounds of *Æscesbyrig* (Woolstone, Be; S 317, S 503, S 575; Gelling 1973–76, 381, 681–82), perhaps somewhere in the vicinity of Uffington Castle. From this spot it may have been possible to see the ridge to the south of Warborough Bottom in Letcombe Regis (Be.). This name is recorded late (*Warborough Piece* 1841), but probably goes back to OE *weard-beorg* "watch mound" (Gelling 1973–76, 324), and it is quite possible that it referred to a feature up on the higher ground, rather than near to the settlement now called Warborough Bottom. This in turn connects the western network with the network around Wallingford through intervisibility with Tatlings. However, the fact that the settlement named as Worsall today is about 1km to the northwest of the high ground from where intervisibility with *wœardæs bœorh* can be achieved, means that considerable relocation of the place-name would have been involved, and this possible lookout should be treated with even more caution than the others.

[57] Grundy (1922–23, 166; 1927, 144) took this to be Idlebush Barrow, pointing to its apparently extensive view to the south. Gelling (1973–76, 681–82) also discusses the bounds. Based on her interpretation, the tumulus should be somewhere in the area of The Manger,

the high ground in Woolstone is also visible from Toot Hill in Lydiard Tregoze. Obviously, Cricklade and Malmesbury were therefore linked to the beacon system of Hampshire, via the network of beacons around Wallingford and Pangbourne. Moreover, they were linked more directly by way of the suggested location of *wæardæs bæorh*, which would have been intervisible with the lost *Tothull* "lookout hill" (c.1275; Gelling 1973–76, 342) in Lambourn (Be.).[58] From *Tothull*, it was probably possible to see *weardsetl* in Burghclere, although the two points are about 25km apart, and the Burghal stronghold at Chisbury (Wi.), about 15km away. In this way, four Burghal forts, Malmesbury, Cricklade, Chisbury, and Wallingford, and perhaps a fifth in Oxford, are linked to each other by observation and signalling points, and also connected with other lookouts covering the Reading and Pangbourne area of Berkshire, and with the extensive network in Hampshire, which itself may have extended to the Isle of Wight and the Dorset coast (Shemming and Briggs 2007).

One further chain of lookout place-names stretches north-east from Wallingford, all the way along the Icknield Way and into Cambridgeshire (Baker 2011; Fig. 41). This is reminiscent of the possible lookouts to the north of Sashes, but on a much larger scale, starting at *wearddune* (S 738) just across the Thames from Wallingford, and including two sites in Hertfordshire—a lost *Totehyll* in Weston and *Tuthill* in Therfield (Ht.), both first recorded in 1528—and two more beyond that in Cambridgeshire—Wadlow in West Wratting (*Wardeloufeld* c.1250; Reaney 1943, 122–23) and perhaps Beacon Course and Farm (1805 and 1825) in Swaffham Prior (Reaney 1943, 135, 137), if this modern name marks the site of a much earlier beacon. The relatively even spacing, the choice of locations—the posited lookout sites tend to overlook important nodal points in the infrastructure associated with the Icknield Way—and the fact that several of these sites are intervisible, lends them the appearance of a working system. The fact that

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perhaps on the bump that stands north from the ridge at 197m at 430070,186865. This is on the present boundary, but well below the high point of the ridge, on which there are tumuli at 430065,186440. Note also that "Tættuca's stone" in the charter is recorded as *Tottingestone* in c.1220–30 (ibid., 381). This is a corruption of the earlier name, but might perhaps have been influenced by the presence of a lookout post here. There is a further modern triangulation point at Uffington Castle. This is some way to the north of Grundy's identification, but just to the south of and above The Manger, at 430115,186360, and watch may well have been held somewhere near here. It might even be necessary to think of a watchman covering both the top of the ridge and the outcrop at 197m, which are only 500m or so apart, in order to keep watch in several different directions.

[58] Note Tutty Wood (in the same parish) is *Tuthy Ground* 1848 (Gelling 1973–76, 340), which might be from OE **tōt-(ge)hæg* "lookout enclosure".

most of them are first recorded in medieval (one of them early medieval) or very early modern documents gives them an air of antiquity, and the fact that several of the sites would also have been intervisible with late Anglo-Saxon strongholds, such as Wallingford, and the proposed site of *Wigingamere*, is suggestive of their use as a system in the early tenth century. Both here and perhaps at Sashes, the idea of being pre-emptive in response to hostile advances from beyond the Thames, is given further emphasis by these possible early-warning systems.

Similar observations can be made of the lookout place-names in Berkshire and along the upper Thames, nearly two thirds of which (19 out of 32), were first recorded before the arrival of the Spanish armada, and cannot therefore have resulted from that period of beacon construction, even if they were reused as beacons at that time. A good proportion (13), although not a majority, seem to have been in existence before the start of the Hundred Years War, another period for which there is evidence of beacon networks (see Chapter 3). In certain instances, such as The Toot in Culham and Toot's Farm in Caversham, the toponyms may have come into being at a later stage, perhaps during a late medieval or early modern period of beacon work or simply in recognition of their commanding views. Simplex **tōt* names of this kind are very rarely recorded in medieval documents, especially before the fourteenth century, and may represent Middle English rather than Old English coining. Certainly *tote* or *toot* remained active elements in English vocabulary long after the Anglo-Saxon period (MED; OED). Nevertheless, the possibility should not be ruled out that some of them were existing beacon or lookout sites, reused and renamed in the later medieval or early modern period. There are several instances of late medieval or modern place-names meaning "lookout" or "beacon" probably having replaced earlier place-names referring to the same lookout.[59] Over time, some Old English names for beacon sites are likely to have become semantically opaque to local users. If the site continued to serve the purpose of a lookout or beacon, it is quite likely that a new, meaningful label would be attached to the site.

The rapid military response to the Viking occupation of Reading late in 870 certainly hints at an efficient, if reactive, system of mobilization, which may well have relied partly on effective early warning (Baker and Brookes

[59] Note for example Beacon Hill (Ha.), which may well mark the site of the *weardsetl* of the Highclere and Burghclere charters, while Beacon Hill in Ellesborough (Bu.) may well be the same feature as that referred to in the name Whorley Wood (Baker 2011; and see Chapter 3).

forthcoming a). Comparison with the reported response to a French invasion in 1545, suggests that a beacon system allowed an army to be put in the field within 36 hours (Kitchen 1986, 183). The build-up to Englefield in 870–71, and that to Edington in 878 imply that a West Saxon *fyrd* in the 870s could be assembled in two or three days (see Chapter 3), not too unfavourable a comparison. What is more, in 871 Alfred and Æthelred arrived at Reading within a week of the Viking invasion, leading what the *Chronicle* calls the *micle fierd*, or "great army", presumably raised from the neighbouring shires.

Viewsheds

While this system has been reconstructed using a certain amount of speculation, not least in assessing the likely positions of the lookouts, it has been put together using only sites for which toponymic evidence suggests the presence of lookouts or beacons. In reality, there may well have been other lookout sites that have not registered in the surviving place-name record. For example, it is not unlikely that a West Saxon signalling system would have included watchmen at the important meeting-place of *Cwicchelmes hlæwe* (Cuckhamsley or Scutchamer Knob) in East Hendred (Be.),[60] or at Inkpen, the eastern terminal of the Wansdyke, but there is no place-name evidence of such a posting. Had there been a beacon at Inkpen, it would have been visible from Chisbury, Burghclere, and Oareborough in Chieveley, providing further connections between the Pangbourne, Wallingford, and Cricklade networks and the Hampshire system. These extra links may seem superfluous, but in an emergency situation, with unreliable weather and viewing conditions, it was perhaps better to have too many signal chains than to run the risk of the whole system breaking down because of the loss of one link in a single chain.

The location of the lookout sites is also instructive. They are rarely found on the highest ground of the Berkshire downs, being sited on ridges and along valleys. In part, the highest ground must have been more prone to low cloud, and being further away from settlements, it may have been impractical to man and furnish lookout posts in these remoter areas. The uplands may also have been more densely wooded, making visibility a more awkward issue; but most importantly, the highest points of the downs may not have been visible in the valleys, and may not have afforded clear views of the communications networks. The importance of the Berkshire

[60] A triangulation pillar now stands near the knoll.

system is intrinsically linked with the route-ways that cross the Thames there, and this is demonstrated by the viewsheds from the lookouts (Fig. 63). *Tothull*, south of Sashes, looks over the Thames, but other lookouts show more concern with roads and tracks. The viewsheds from the Pangbourne lookout sites give excellent coverage of the Pang valley and the road running south from the ford at Pangbourne, but relatively little coverage of the Thames, especially in the Reading area. It was presumably the crossing and the road that were of greatest concern to the people who manned these watching posts. The lookouts at Oareborough and Warrendown may also have kept watch over the herepaths recorded in Chieveley and Curridge (S 558, S 560; cf. Gelling 1973–76, 655 and Group B(a) Map). Again, the lookouts in the Tatlings/Wallingford system keep good watch over route-ways. The Icknield Way system has already been discussed, but the cluster of lookouts as a whole was probably able to keep an eye on movement along the Ridgeway south of the Thames, as well as the various herepaths mentioned in charters from this area (see pp. 287–88 above).

Discussion

On the face of it, the system of Thames burhs seems fairly strong as a defensive network, preventing access to major road networks, restricting movement along the Thames at Cookham, and barring entry to Wessex via the major Thames river-crossings. The strength of the sites chosen by the West Saxon military planners is emphasized by comparison with Viking encampments along the Thames in this period. The requirements of raiding parties, looking for easy loot and a measure of protection during the campaigning season, were very different from those of military planners trying to defend Wessex or Mercia. The Viking bases at Fulham, Sheppey, Shoebury, and Benfleet may have been chosen for their accessibility by boat—a convenient means of shipping away booty—and because they were relatively inaccessible by land and therefore easily defensible. Their Viking occupants were not attempting to control movement through important fords or to block river traffic. Given the difficulties faced by boats entering the Thames, it is worth considering that places such as Fulham or Sheppey may have been natural break-points in maritime navigation. Whilst on campaign, wealthy and preferably defensible sites such as Reading, Nottingham, and London, provided an introductory bounty and useful bases for further operations.

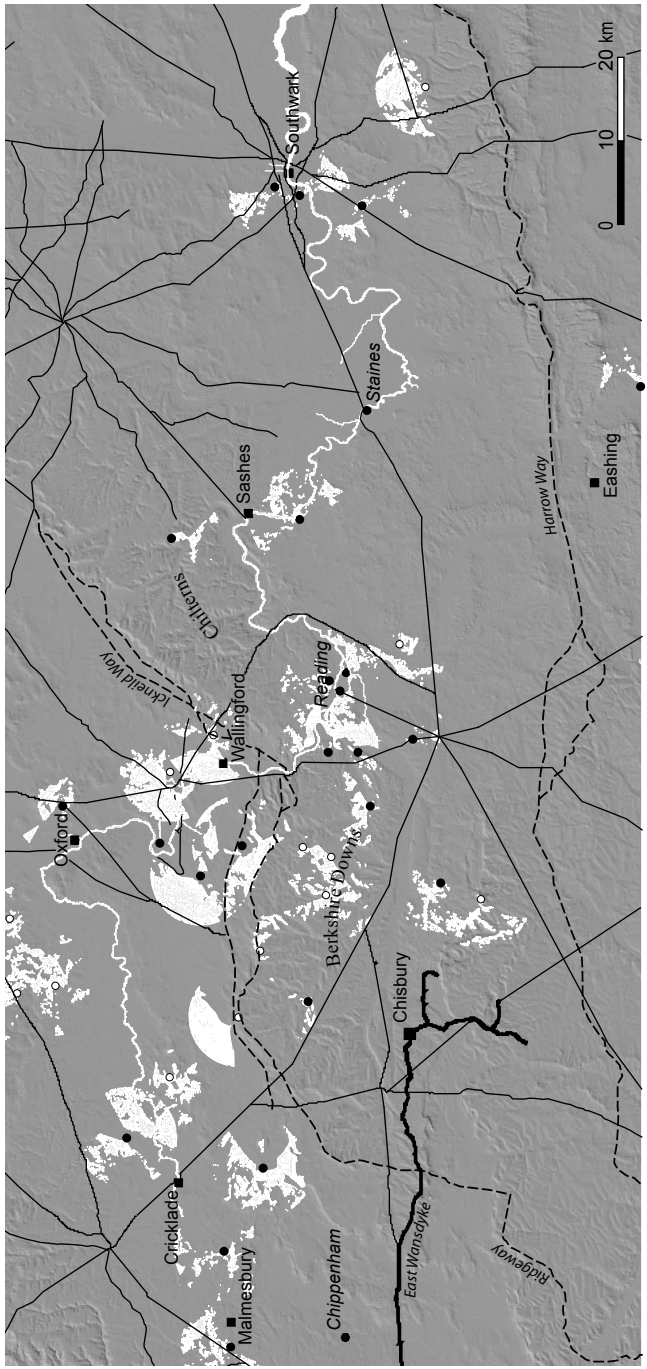

Fig. 63. Thames viewsheds.

By contrast, West Saxon strongholds seem often to command important nodal points and to control traffic along the main route-ways of the Thames zone. Especially if it is accepted that a number of sites not listed in the Burghal Hidage, notably Thames-side royal centres, served as defensive bulwarks of a kind, then the system has a very effective appearance. Southwark, Old Windsor, Sashes, Wallingford, Oxford, and Cricklade between them control access to most, if not all the major road networks south of the Thames, while Sashes (perhaps in conjunction with other island sites) represents an effective block on movement along the Thames. Wallingford and Oxford, in particular, also provide obvious springboards for aggressive manoeuvres in traditionally non-West Saxon territory. There are, however, sometimes subtle but certainly important differences in the structure of the system along the length of the Thames.

Below the Goring Gap, provision of defensive strongholds looks relatively poor. Only two sites are listed in the Burghal Hidage, namely Sashes and Southwark; the first of these having the smallest assessment of all the Thames burhs in that list. That Old Windsor (if indeed it was used to patrol the crossing from Staines) was not included in the Burghal Hidage might hint at an auxiliary rather than a primary role in defence, while the fact that neither Southwark nor Sashes has produced much in the way of material remains might be suggestive of an ephemeral nature and relatively short-lived use. Sashes, of course, might be viewed as an extension to a royal centre, and might have been little more than an advanced observation post with rudimentary defences in addition to its naturally defensive location. There is little evidence of a support network of observation posts in the vicinity of Old Windsor, and only a very limited system may have existed around Sashes. Southwark's lookouts seem rather to have linked it with Chichester and the south coast burhs than with other defensive points along the Thames. In this context, the strongholds along the lower Thames might be viewed as individual initiatives with different objectives: a control on access to Surrey, Kent, and Sussex from the north, linked with counterparts serving a similar purpose along the south coast (Southwark); a defensive bulwark for a thriving royal centre at Cookham, guarding it against attack by river or land (especially from the north), and perhaps preventing hostile forces based further upstream from shipping boatloads of booty out through the Thames estuary (Sashes); a royal estate centre serving as a deterrent to anyone hoping to use the difficult crossing from Staines (Old Windsor).

Against this, the upper Thames, with its many pedestrian crossing-points and its dense network of middle- and long-distance roads and tracks, seems to have been extremely well defended. Observation systems provide a means of signalling between the major strongholds and potentially a very effective early-warning system along the Icknield Way. Three Burghal Hidage strongholds guard the Thames crossings in this region, two of which were *de novo* constructions—that is to say, they do not represent the pressing into service of pre-existing defensible sites, but the expensive creation of purpose-built fortified sites. There may be evidence of a further attempt by Alfred to shore up the defences along the upper Thames at Abingdon. It seems fair to suggest that the West Saxon military planners clearly recognized the strategic importance of this zone and its potential vulnerability, and went to great lengths to ensure its successful defence.

Even within this apparently thorough piece of planning, a potential weakness seems to exist. In contrast to Malmesbury, Cricklade, Chisbury, and Wallingford, there is little evidence of lookout sites within view of Oxford. Of course, the relevant observation posts may not have survived in the local place-names, but it is quite surprising that whereas Malmesbury, Cricklade, and Wallingford are all visible from at least two places with lookout names, Oxford may not have been visible from any. It is possible that Oxford was intervisible with a lookout commemorated in the lost field-name *Wirdesden* in Handborough (Ox.).[61] The first element could be OE **wierde*, related to *weard* (see Chapter 3), but the personal name *Wīgheard* may be preferable, especially as the views here are restricted by higher land to the north.[62] All of this adds to the perception of Oxford as something of a misfit in the Thames system; it is the only burh north of the river and is apparently disconnected from the main lookout systems. It may be that Oxford, as a former Mercian town, was a late addition to the system and was not fully part of it until the construction of a substantial tower at the north gate in the mid-eleventh century allowed it to communicate with the beacon systems of the area.

Unquestionably one of the most puzzling aspects of the Burghal Hidage is the inclusion of Southwark but not London. Of course, towards the end of the ninth century control of London went from Alfred to Æthelred of Mercia, until his death in 911, before passing to Edward the Elder; but these vacillations can hardly explain its omission while Oxford was included,

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[61] This is recorded as *weresden furlong* 1605, *Wirdesden* 1608–9 (Gelling 1953–54, 270)

[62] Insley (1979–80, 61–62) provides valuable discussion of the phonology of this proposed variant and the etymology of some of its putative occurrences.

since the latter seems similarly to have changed hands. The peculiarity of this omission is highlighted by London's apparently important strategic position. Tony Dyson (1990, 100), for example, stresses that London "commanded the lowest crossing-point of the Thames, on which the existing network of roads converged, and was well placed to control east-west communications along the Thames". Haslam (2011) also emphasizes London's strategically vital position, as the fulcrum of the road and river network of south-east England, being able simultaneously to block movement from the estuary into the middle Thames, and from East Anglia and the east midlands, along the Roman road network leading into Wessex. He explains London's omission from the Burghal Hidage by assuming it to have been drawn up as early as 879, before Alfred took control of London in the 880s (Haslam 2006; 2011).

In fact, London was not necessarily the lowest crossing of the Thames, since a ferry may have operated between West Thurrock and a promontory north of Swanscombe as it did in the high medieval period (Webb 2000, 228). Inherent in Dyson's and Haslam's discussions is an assumption that the Thames was bridged at London in the late ninth century; yet evidence for this is absent (see Chapter 3). Without a bridge, a London/Southwark double-burh could not easily prevent travel along the Thames, and London added nothing to Southwark's capacity to block entry to the road network south of the Thames. London held commercial, religious, and political prestige, but it was not a necessary part of the maintenance of a coherent West Saxon kingdom south of the Thames at least.[63] In this sense, London/Southwark may be analogous with Cookham/Sashes, Bedwyn/Chisbury, Athelney/Lyng, or Barnstable/Pilton—indeed the further proximity of earlier *Lundenwic* and the Roman city suggest that the varied functions of this central place may have been dispersed around a locale (Brookes and Harrington 2010, 86–89).[64] In all but one of these cases, it is the military stronghold alone rather than the high-status settlement that is mentioned by name in the Burghal Hidage, even if some of these pairings formed part of the same complex (Astill 1978, 23–24; Aston 1984, 184).

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[63] London's wealth and economic importance is clear from the presence of a mint for Alfred and Ceolwulf, but it is worth noting that only five charter assemblies are recorded in London before the reign of Æthelstan, and only one of those involved a West Saxon king (Æthelwulf, S 318 in 857), the rest all being earlier and Mercian (S 91, S 132, S 168, S 170). This compares with at least eight gatherings at Winchester, and seven at Southampton up to and including the reign of Edward the Elder.

[64] On the association between wics and nearby former Roman towns see Malcolm, Bowsher and Cowie (2003, 143) and Kemp (1996, 76–83).

Evidence outlined in Chapter 3 argued strongly that the physical link between Southwark and *Lundenburg*—London Bridge—was a development which occurred only in the years around AD 1000. Prior to the construction of the bridge, Southwark may well have been the key West Saxon military installation at this point in the Thames, the role and perception of which changed once the Thames had been bridged (Sharp and Watson 2011, 278–79). The positioning of the Thames defences relative to the middle- and long-distance infrastructure and Thames crossings suggests that they, and perhaps also the system outlined in the Burghal Hidage, should be seen as West Saxon measures aimed at protecting Wessex south of the Thames and dominating territory to the north. In the interpretation of the Thames defences outlined here, the absence of London from the Burghal Hidage list is not so astonishing.

Conclusion: The Development of the Thames System

Superficially, the Burghal Hidage strongholds along the Thames certainly have the stamp of central strategic planning, in their positioning at important junctions of river and roads and in their layout, but as noted succinctly by Brooks (1964, 81), there is a less than uniform appearance to the types of stronghold in the Burghal Hidage, "a mixture of old and new, makeshift and permanent". The Thames strongholds illustrate this point, closer examination revealing an intricate picture of a complicated evolution. The marked differences between defences above and below Goring probably reflect the change in the nature of the Thames and its associated infrastructure within a strategic framework. The lower Thames offered an awkward access to a limited number of entry-points to the overland route-network, and could be overseen and defended adequately by a few, relatively minor defensible sites, perhaps created by separate, individual initiatives, and operating independently of each other. Where they are linked by lookout-sites to other strongholds, the links seem to run southwards rather than along the Thames. They could function individually in order to block or slow down hostile forces, while signals were sent inland, but they were perhaps unable to offer mutual support. The upper Thames, with its plethora of foot-crossings, required a very different defensive response—major, purpose-built strongholds in addition to pre-existing defensible sites, and most, if not all, of them linked together by a complex system of lookouts that extended along the road network north of the Thames. Here, the garrisons could cooperate and act efficiently and decisively in unison, rather than as individuals.

The Thames defensive system should probably be seen as evolving relatively piecemeal over a long period with separate phases of military planning, rather than in a single episode. Dating evidence for extensive fortification work at the Thames strongholds listed in the Burghal Hidage, where clear archaeological evidence exists at all, is consistent with but not conclusively demonstrative of an Alfredian date for their construction (e.g. Wilson and Hurst 1967, 262; Astill 1984, 76; Haslam 1984d, 107–10, 115; 2003; Blair 1994, 100–101; Dodd 2003, 21–23; Brooks 1964, 79–81; Durham et al. 1972), but it often provides only very broad chronological parameters (Brooks 1979, 17). The legacy of eighth-century fortification work, perhaps under the initiative of the Mercian kingdom, can be recognized amongst the evidence at Staines, Oxford, and *Lundenwic* itself. Royal complexes, perhaps developed by the West Saxon kings, such as Old Windsor, Kingston Upon Thames, and Reading, were certainly in existence by the early ninth century, and can be placed alongside pre-burh evidence at Wallingford and Cricklade (Hamerow and Westlake 2009, 13–16). While Haslam (2006) would place the construction of all Burghal Hidage strongholds within a few months at the end of the 870s, most commentators favour a more gradual phase of construction spanning the second half of the ninth century and the early decades of the tenth (Hill and Rumble 1996a, 1–2; Hill 1996b; Carver 2010, 127–45; Baker and Brookes 2011, 112–14). The greater success with which the West Saxons were able to respond to the Viking assault of the 890s is sometimes used as evidence of the strength of the new system implemented by Alfred (Brownbill 1911, 3; Stenton 1971, 265; Abels 1998, 304), but this does not mean that the system as it stands in the Burghal Hidage was in place, nor that all of the Burghal Hidage strongholds were already completed and fully functioning by this time.

An episode at the beginning of the tenth century may demonstrate this. During Æthelwald's rebellion, he is said to have joined forces with the Vikings of East Anglia and, after raiding across Mercia, to have arrived at Cricklade before crossing the Thames into Wessex (902 ASC A (*s.a.* 905); Stenton 1971, 321–22). For reasons that are unclear, Haslam and Hill use this episode as evidence that Cricklade was already constructed and was "successfully defended" against (Haslam 1984d, 106), or "blocked the path" of (Hill 1996a, 200), the hostile army. Both seem to have used Whitelock's translation (1979, 208), which renders *hie hergodon ofer Mercnaland oð hie common to Creccagelade, 7 foron þær ofer Temese* thus: "they harried over all Mercia until they reached Cricklade. And they went then across the Thames". Perhaps this wording encourages the idea that the rebels' harry-

ing was stopped at Cricklade, and they were forced to find somewhere else to cross the Thames. The Old English seems more likely to express the idea that Æthelwald crossed the river at Cricklade itself. Certainly, this is the interpretation followed by Garmonsway (1972, 92) and Swanton (1996, 92): "until they came to Cricklade and there crossed [Swanton "and there went over"] the Thames". Thomson (1958–61, 68) and Loyn (1963, 10) think the stronghold was either unoccupied, or was successfully defended—presumably supposing that a stronghold's role was restricted to that of public refuge. Bainbridge (2011, 15), who cites Whitelock, surely gets closer to the point in stressing that the invading force "is not said to have attacked Cricklade". The invading host came to Cricklade, and crossed the Thames unmolested.

It is hard to see *de novo* strongholds of the Wallingford and Cricklade type as simple refuges. They were highly-secure repositories for supplies, massively-defended barracks within which a garrison could reside and from which well-organized forces could operate, and a technologically-advanced element in a wider defensive landscape. Their impact on their surroundings must have been both military and psychological. Yet in one way or another, Cricklade did not function as a stronghold on this occasion in the way most of the Burghal Hidage sites and especially the *de novo* strongholds might be expected to have operated. It did not block the route of the invaders (who, in Thomson's words, "flowed round it"), nor did its garrison engage them in battle. In 902, to all intents and purposes, Cricklade was simply a crossing, a (*ge*)*lād*, a "difficult crossing" because of its liability to flood, but not apparently made harder by the presence of an operational stronghold. Perhaps the garrison here was sympathetic to Æthelwald's struggle, but then why did Æthelwald not occupy it for his own purposes? Given the labour and expense so obviously committed to the construction of Cricklade, and the continuing menace from north of the Thames, it is almost inconceivable that it could have been abandoned so soon, or carelessly "allowed to stand vacant" in the words of Stenton (1971, 336).[65] It is surely possible that the stronghold at Cricklade was somehow dysfunctional—incomplete or unmanned—because its construction had only recently begun, or had not begun at all. The fact that the *Chronicle*

[65] In 1016 (ASC), Cnut is reported to have crossed the Thames with his army at Cricklade, heading in the other direction, which suggests that Cricklade was again ineffective in guarding the crossing. By that time, however, the strategic landscape of England had changed considerably, and the Thames was no longer a frontier zone, so it is conceivable that Cricklade's defensive functions had diminished.

names Cricklade does not indicate the existence of the stronghold, especially if Ermin Street had already been realigned on the Anglo-Saxon causeway there. The causeway, though apparently post-Roman (Bainbridge 2011, 14–15), may have been relatively early, perhaps part of a branch road running south towards the reasonably high-status mid-seventh-century cemetery at the site of the Fox Pub, Purton (Wi.; Meaney 1964, 272). If an originally Roman causeway further east fell into disrepair, it would be natural for the road to divert via Cricklade, and for Cricklade to become one of the main crossing points on the Thames.[66] There is fragmentary evidence of occupation at Cricklade before the burh (Ralegh Radford 1972, 90, 92, 96; WANHM 2006, 265), and this may have developed as a result of the increased importance of the ford.

If this episode cautions against an assumption that the major Thames strongholds were constructed and continually operational by the end of Alfred's reign,[67] there is also, unsurprisingly, evidence that West Saxon leaders recognized the importance of building fortifications at least as early as the 850s (Brooks 1971, 83–84). It follows that there is a distinction to be made, when discussing the Thames system of defences, between the dating of specific elements in that system employed as individual strongholds, and the inception of the system as a working whole, combining all its constituent parts. Alternative interpretations of the phases of development might be suggested, but it is possible to envisage a fairly ad hoc system operating up until the 860s and 870s, a remnant of middle Anglo-Saxon military organization. Royal and other high-status enclosures may have afforded a degree of protection against the violent incursions, and on the Thames this would encompass Kingston (Sr.), Old Windsor, Cookham, Reading, and Abingdon (all Be.). Several of these were on or close to important crossing points on long-distance route-ways, and were in naturally strategic positions. Malmesbury was the site of a minster church, and Cricklade has produced evidence of middle Anglo-Saxon occupation (Blair 2005, 331–33; WANHM 2006, 265; Booth et al. 2007, 134–35, 248). These too may have been defensible sites on important entry points into Wessex. The events of the 870s, however, underline the potential weaknesses of this kind of defensive framework, with Viking armies

[66] Indeed, Carroll and Parsons (2007, 106–12) suggest an etymology for the place-name Cricklade that reflects this very diversion—OE **crōc* "crook, bend", perhaps in reference to the sharp realignment of the road, and (*ge*)*lād* "(difficult) river-crossing".

[67] The proposed situation at Cricklade provides a useful parallel to the comments made in the 890s by Asser (§ 91; Keynes and Lapidge 1983, 101–2) and the *Chronicle* scribe (ASC *s.a.* 893 for 892), concerning the difficulties of constructing and maintaining strongholds.

crossing into Wessex in 870, 875, and 878, and roaming the West Saxon kingdom more or less at will, as far as Wareham and Exeter (ASC 871, 876, 878).

It seems unlikely that a coherently planned and effective system of strategically placed and well-defended strongholds was functioning at that time, but there are indications that an organized system of lookouts and beacons was already in use. The major long-distance routes were well-established long before the ninth century and had always been overlooked by vantage points. It is quite likely that watch had been kept at certain strategic viewpoints for many years if not centuries. Within the national distribution of place-names indicating lookouts and beacons, the cluster in Berkshire is particularly dense. This may in part be due to better local survival of charters with boundary clauses than, say, in East Anglia (Hill 1981, 22 (Map 31) and 24 (Map 35)), but such an argument does not apply to the same degree in Oxfordshire or Worcestershire. It is also worth pointing out that many of the Berkshire lookout names survived as place-names into the later Middle Ages and the modern period, not just in charters. That there should be so many observation sites recorded in the Old English place-nomenclature of this area is not surprising, given the number of important route-ways that pass through; but they must have been named at a time when keeping track on movement along those routes was important.

If these beacons do form part of a single system, as their intervisibility and observational coherence suggest, then parts of that system must have been created during the Anglo-Saxon period, since a number of the place-names in question were coined in Old English. The most suitable context for this must have been when Berkshire was a border territory, either under Mercian control and guarding the approaches from Wiltshire and Hampshire northwards, or under West Saxon control and watching for incursions from the midlands. The incorporation into this system of strongholds named in the Burghal Hidage, and indeed the crucial importance of the lookout at Cricklade as a nodal point between the lookout systems around Malmesbury, Chisbury, and Wallingford, may underline the Anglo-Saxon military planners' awareness of such networks. The lookout at *Tothull* in Bray seems also to relate to a Burghal stronghold, and was perhaps in contemporary use with Sashes, or with Cookham before the development of Sashes.

With or without an early-warning system, the defensive measures in place in the 870s proved inadequate, and the need for substantial and permanently defended strongholds had certainly been recognized by the 890s

(cf. Asser § 91). Halsall has drawn attention to this change in fortification during the ninth century, with a move towards more formal strongholds (Halsall 2003, 215–16; see also Chapter 2). The more loosely organized network of defensible sites that took the bulk of the defensive strain, typified by battles at the noble residence of *Merantun* (ASC A s.a. 755 (for 757)) and the Iron Age fort or Roman signal station of Countisbury (ASC *s.a.* 878; Asser § 54; Yorke 2011), find parallel in the Burghal Hidage list, which includes a number of reused promontory forts, and in a number of the recorded or posited strongholds along the Thames. An appreciation of the inadequacy of these arrangements may be evidenced in the construction of separate military bulwarks associated with these high-status enclosures. Again, a number of these are included in the Burghal Hidage, and on the Thames one seems to have been constructed outside Cookham. At some point, however, the acute need to reinforce the Thames defences, especially along the stretch above Goring, must have become very evident. It is in this context that the construction of *de novo* strongholds, and perhaps also Alfred's attempt to obtain former ecclesiastical lands around Abingdon, should be viewed. Abingdon sits neatly between Oxford and Wallingford, and it may be that the clustering of fords and route-ways between these sites demanded the preparation of an intermediate stronghold. Alternatively, the intention may have been for Abingdon to provide some control over the routes that crossed the Thames at Oxford; a role no longer required once Oxford fell under West Saxon authority. Certainly the stronghold at Oxford is something of an anomaly, sitting as it does on the northern side of the Thames, and apparently not interconnected with the other nearby strongholds by the network of beacons. This may well reflect its origin as a Mercian stronghold (Durham 1984, 85–86; Blair 1994, 99–101, 146), and its relatively late incorporation into the system described here, perhaps even after resumption of West Saxon control there in 911. It is worth considering that the construction of a very elevated tower at the north gate in the eleventh century and possibly also one above Westgate (Dodd 2003, 41) may well represent an attempt to bring Oxford more fully into the system of beacons.

As West Saxon authority north of the Thames was consolidated over the course of the tenth century, the military significance of the Thames strongholds would have changed, and some would have become obsolete. In this way, the strongholds that lined the Thames, while displaying a certain spatial coherence in terms of strategic control of communication lines and nodal points, should not be seen as a single system laid out in one go, but

as one stage in an evolving frontier—some parts of which belonged to a much earlier tradition of defence—with the final purpose of securing the entry points into the West Saxon kingdom. We should be careful not to assume an entirely direct correlation between the movement of the point of interface between West Saxon and Viking regions of control, and the strategic landscape as perceived by the West Saxons. As noted in Chapter 1, the military powerbase and defensive interests of the West Saxon kings may have remained at least partly Wessex-centred well into the tenth century, while the imagined strategic importance of certain sites may have outlasted the reality of their strategic value as judged from a modern historical viewpoint. It is very difficult to say when exactly West Saxon leaders became confident that concerted attacks along or across the Thames were a thing of the past, and such attacks certainly continued into the tenth century. Nevertheless, as the frontier evolved, so too did the ultimate aim, as events made possible the addition of strongholds north of the Thames, reduced the threat to certain crossing points, and eventually made parts of the system redundant.

CHAPTER SIX

THE DEFENCE OF KENT

Introduction

In 892 a great Viking army, which had previously been active on the Continent, rowed some 250 ships up a river across Romney Marsh as far as the Weald, 6km from the mouth of the Lympne estuary, where they stormed a fortress (ASC 892 AEF, 893 BCDG; *Æthelweard Chronicon* § iv.3, 48–49; Fig. 64). The fortress offered little resistance; inside were a few peasants, and it was only partially built, and thereafter the army moved to Appledore on the edge of the Marsh where they made camp. Soon after, a second Viking force of 80 ships, led by the veteran chief Hæsten, journeyed to the Thames estuary, establishing a base at the royal vill of Milton Regis on the Swale. From these positions in north and south Kent, the Vikings saw out the winter, plotting their next move.

Alfred's response to this new threat was proactive. Diplomatic relations with the Scandinavian rulers of Northumbria and East Anglia were shored up to ensure the hostile forces did not receive support (ASC 893 AF, 894 BCDG; *Æthelweard Chronicon* § iv.3, 49). He then manoeuvred his army between the two Viking camps, from which position he, with help from the men of Canterbury and Rochester,[1] harried the invading forces thereby limiting their operations in the region. In the end the stalemate was resolved through negotiation and military intervention. Peace was made between Alfred and Hæsten, who accepted baptism (and Danegeld) as a concession for withdrawing from Milton to Benfleet in Essex. By contrast, the Viking army at Appledore broke camp around Easter 893, with part of the force sailing to Mersea in Essex, and the other part moving overland to meet up with the fleet. Although they successfully avoided the West Saxon force in Kent, raiding west into Hampshire and Berkshire (included in *Æthelweard Chronicon* § iv.3, 49), these Vikings were eventually overtaken by Alfred's son Edward at Farnham (Sr.) and routed.

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[1] The *Chronicle* simply states *of þæm burgum* "from the burhs or strongholds", but this is likely, for reasons discussed further below, to refer to these two centres (cf. also Brooks 1984, 31).

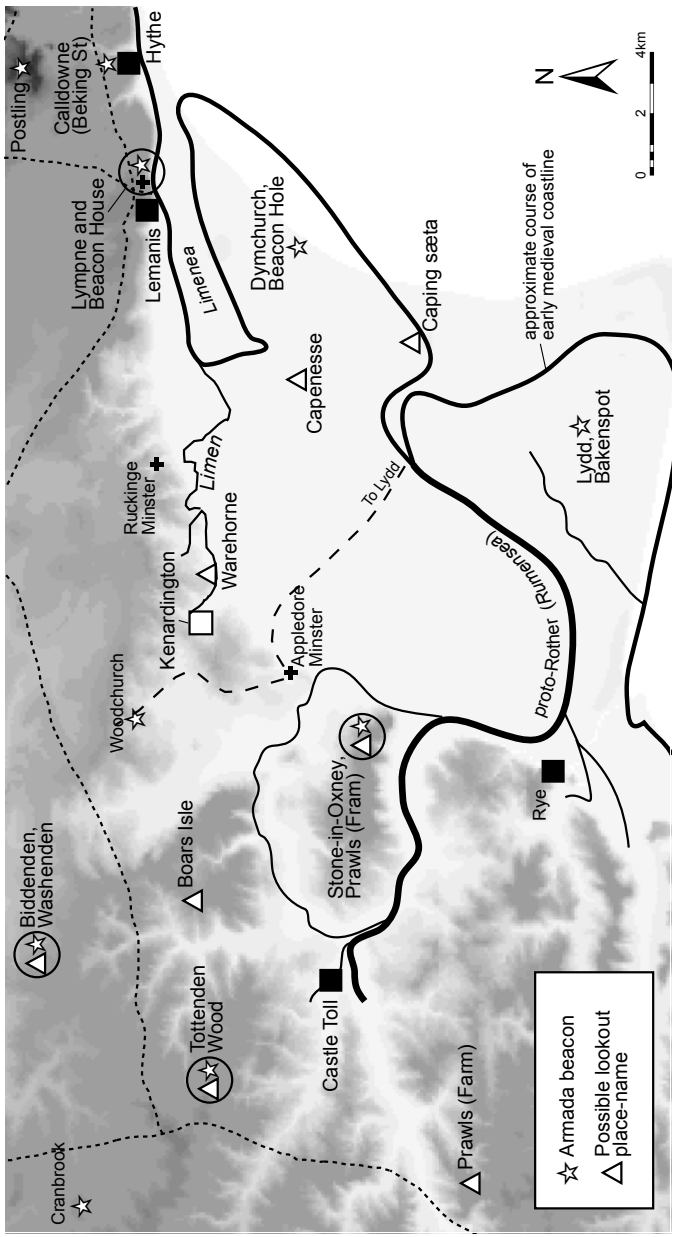

Fig. 64. Map of eastern Kent showing the location of sites mentioned in 892–93.

In this portrayal of the events of 892–93 there are a number of points of significance regarding Anglo-Saxon civil defence and Viking tactics at the close of the ninth century. Firstly, they demonstrate how the defensive system, when fully operational, was intended to work.[2] Amongst the most striking features of this system are the regularity of distances between strongholds and the positions in landscape they took. Thus, the responsibility for the protection of the countryside was evenly spread across southern England. Should one burh fail, the network of neighbouring strongholds restricted movements further afield. It is significant that in Biddle's important illustration of the schematic catchments of Burghal sites (1976a, 124), the only territories under direct West Saxon control not within easy reach of a Burghal garrison were the inaccessible areas on the borders of Sussex and Surrey deep within the High Weald; precisely the region through which the Appledore army slipped in early 893.

Furthermore, the position of burhs, particularly noticeable along the south coast, lay in the path between principal landing-places and overland communications. It was impossible for seaborne invaders to penetrate far inland without quickly coming up against a Burghal garrison, and equally difficult, given the proximity of neighbouring garrisons, to depart again should the fortification be overrun. Had the "half-built fort" resisted the Viking assault, Alfred's tactical manoeuvre late in 892 would have been unnecessary, but the purpose of it was the same as the destroyed fortification he replaced: to control the route-ways into Wessex by stationing a permanent force in the path of the invading host, whilst simultaneously limiting the Vikings' access to local subsistence support. The Vikings were in effect trapped inside their bases, Alfred could "reach either [Viking] army, if they chose to come into the open country", and indeed the Viking "army did not come out of those encampments more than twice" (ASC 893 AF; these events are discussed in detail by Shippey 1982).

The same events illuminate Viking strategy. Southeast England and Kent in particular, are likely to have been an attractive target for sea-borne Viking bands of the ninth and tenth centuries. There existed a large number of wealthy ecclesiastical foundations often located in exposed coastal positions, and these are known to have been the victims of numerous raids during the early ninth century. In 804 the nuns of Lyminge were granted refuge within the walls of Canterbury as a result of these activities (S 160), whilst in 811 the Kentish *fyrd* was mustered to attack Viking forces on the

[2] As Keynes and Lapidge (1983, 25) have remarked.

Isle of Sheppey (Brooks 1971, 70). Further specific attacks are mentioned during 835 (Sheppey; ASC 832 ACDEG), 841 (Kent; ASC 838 ACDG), 842 (Rochester; ASC 839 ACDEG), 851 (Canterbury and Sandwich; ACS851 ADEF(OE)G, 853 BC), 853 (Thanet; ASC 853 ADG, 854 C, 852 E), and 865 (ASC 865 ADEG, 866 BC), when the whole eastern kingdom of Kent is recorded as having been ravaged.

Raiding Kent was likely to have remained a profitable exercise until at least 865, when the Men of Kent attempted—unsuccessfully—to buy off a Viking army. At the beginning of the ninth century the holdings of the great monasteries of St Augustine's and Minster-in-Thanet rivalled those of Christchurch, with those of Lyminge and Reculver not far behind (Witney 1982, 216). By the late ninth century these institutions were largely destroyed. There are no records at all in the ninth century of the communities of Minster-in-Sheppey and Hoo St Werburgh on the exposed Swale coast (ibid., 222), and it is possible that members of the former had been moved to St Mildrid's in Canterbury by this time (Brooks 1984, 201). The vulnerable location of Reculver must have meant the community was much depleted if it continued at all, and although Folkestone, Dover, and Minster-in-Thanet survive some time longer, they all disappear from records in the second half of the ninth century (Brooks 1979, 12; 1984, 202). Inland monasteries are not likely to have fared much better. It is unlikely that St Augustine's outside the walls of Canterbury survived totally the wasting of the city in 851, and Lyminge is ominously last mentioned in 844 (Brooks 1984, 202). Indeed, the image painted by Brooks (ibid., 172–74) of the Canterbury archives in the last quarter of the ninth century is one of crisis, not only in the levels of scholarship and literacy, but of the physical community itself.

Beyond the easy-pickings of the monasteries, Canterbury itself was a lucrative target for military expeditions. In the early ninth century, Canterbury was the dominant Anglo-Saxon mint and a major centre for trade; a position no doubt due to its location on the busy trade route between England and Francia (Metcalf 1998a, 183). Access to this trade corridor, continuing up the Thames to Rochester and London (significant mints in their own right), was a major source of conflict between Mercia and Wessex in the early ninth century (Keynes 1998, 3), and offered an equally attractive target for opportunistic raiders. Viking attacks certainly had an effect. The debasement of Canterbury issues witnessed from c.842 has been attributed to the interception of continental bullion bound for Kent (Metcalf 1998a, 174), and the same may have caused the closure of the Canterbury (and Rochester) mints in the last quarter of the ninth century

(Dolley 1974, 175–77; Lyon 1976, 182 n.2; Brooks 1984, 31). In the longer term this, combined with new West Saxon monetary policies, meant that Canterbury gradually lost out to London as the premier Anglo-Saxon mint, but the continued activity of the eastern Kentish market throughout the remainder of the Viking period only serves to underline the inherent wealth of the region.

Both of the Viking armies of 892 were well placed to exploit this wealth. By positioning his troops at the royal vill of Milton, Hæsten could lay claim to a wide hinterland of differentiated staple production comprising arable areas of lowlands, marshland, and pastoral uplands; all linked to the centre by a network of minor droveways and "denn-routes" (Everitt 1986; Brookes 2007a). Appledore similarly lay at the centre of a larger productive landscape. Until the eleventh century, Appledore may well have been a minster (Tatton-Brown 1992, 82), and the peninsular on which the settlement was located commanded the only land route off Romney Marsh,[3] one of the wealthiest pastoral landscapes of early medieval England.[4]

The value of Kent to Viking raiders lay not only in its wealth, but also its position at the head of a number of major communication routes. With

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[3] In the late Anglo-Saxon period Romney Marsh was separated from uplands by a major inlet known as *Limenea* coming inland past both the middle Anglo-Saxon settlement of *Sandtun*, and Stutfall castle (the third-century Roman Saxon Shore fort of *Portus Lemanis*), and by the former course of the River Rother (*Rumenesea*), which looped from its mouth near Old Romney across the Priory lands to the south of Appledore and the Isle of Oxney, with a small tributary feeding the channel from the west past Smallhythe (Rippon 2002; Brooks 1988). This now much altered landscape creates some problems for the identification of the Viking camp at Appledore, which would have been at least 2km from the Rother itself. Several possible locations suggest themselves. Tradition maintains that a "castle" stood where Appledore church now stands, but that this was destroyed in 1380 (Gould 1908, 440); according to Kilburne in 1659 "upon the ruines of that Castle the present Church was builded (the situation whereof rendreth the same probable)." However, the Isle of Oxney lay closer to the River Rother and would have provided natural protection. Finally, both Hasted (1797–1801) and the *Victoria County History* have suggested Kenardington c.3km to the northeast of Appledore. In the late Anglo-Saxon period this site would have lain, not on the Rother, but on a creek feeding into the *Limenea* inlet, mentioned also in a charter of 805 (S 39). From Kenardington church, the ground falls away to the east to a small cove, and to the south to the river. Around the church are still visible some earthworks, of possible Anglo-Saxon date, presumably demarcating an ecclesiastical enclosure. Halfway down the slope to the waterfront is a substantial bank and ditch, both above a previous fence-line. This bank peters out to the north, but the area circumscribed is still bounded on the northwestern corner by a substantial holloway, which makes a dog-leg around the church precinct.

[4] It is significant that the archaeological sequence at the coastal site of *Sandtun* ends c.875 (Gardiner *et al.* 2002), and the settlement is not mentioned in the *Chronicle* entry of 892, even though the suggested course of the Viking fleet would have taken it directly past it.

marsh islands in the north and Wealden woodland in the south providing good protection for army encampments the Kentish road and navigable water systems provided a range of military options. Across the northern foothills and Holmesdale valley a number of major routes traverse Kent in an east-westerly direction. These are preserved in part as the contemporary road network and include several Roman roads radiating out from the *civitas* capital of Canterbury, and some Iron Age and Prehistoric trackways running along the Green Sand scarp (cf. Margary 1946; 1948; Knox 1941). The most important of these, Watling Street (Margary 1B), linked the premier entry point into the Roman province, initially at Richborough (Margary 10) and from the second century at Dover (Margary 1A), with Canterbury, Rochester, and ultimately, London.[5] Alongside the Roman road system the Pilgrims' Way and the parallel Greenway appear to have been major communication routes in the medieval period (see pp. 141–42, 149 above), providing access along the North Downs through Kent to Sussex and via Guildford into the heart of Wessex.

In contrast to these main inter-regional routes, only few roads cut across the spine of Kent. To the east a Roman road links the Channel port at Lympne with Canterbury (Margary 12) whilst further west important roads connect Wealden iron resources north of Hastings, with both Rochester (Margary 13) and Canterbury (Margary 130). A coastal road linking together the Saxon Shore forts of Dover and Lympne is suggested by the *Peutinger Table* (Detsicas 1983, 37), but remains unsubstantiated. Logistically, the lack of major north-south routes meant that forces to the north of the Weald were largely isolated from inland military support, and this factor is likely to have influenced the tactical choices made by the Danish armies, particularly during the ninth century.

In addition to its position at the head of several major roads, Kent's close proximity to mainland Europe meant that it lay on a number of sea-lanes and commanded many of the major maritime routes between England and the Continent, providing unrivalled strategic opportunities (see pp. 36–37, 173–74 above). Amongst these, a series of eighth-century royal charters (Kelly 1992) attest to the importance of the Wantsum Channel in north-eastern Kent for maritime traffic into the Thames estuary, avoiding the

[5] Following Tatton-Brown (2001) it may be important not to overemphasize the role of Watling Street in long-distance transport during the early and middle Anglo-Saxon periods when movement on the smaller tributaries into the Thames may have been of greater significance. He argues that it was only in the later Anglo-Saxon period that Watling Street again took on major importance as a significant routeway.

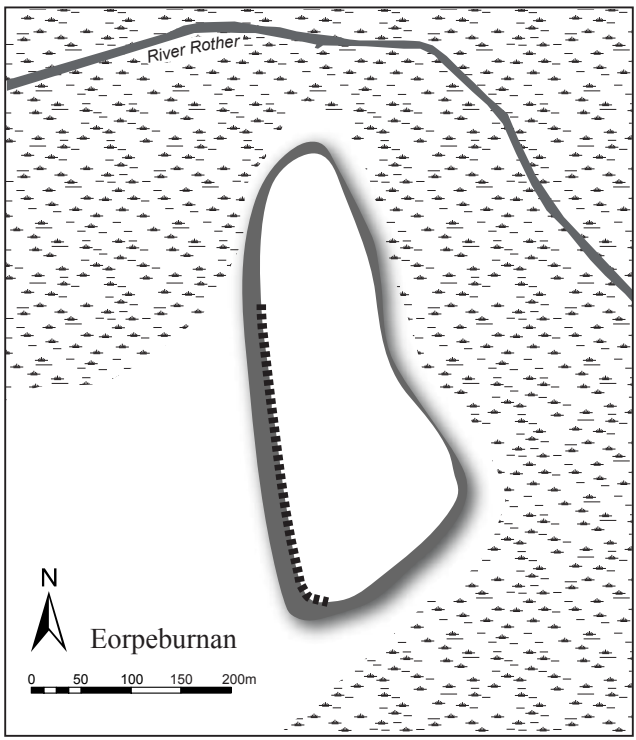

Fig. 65. Castle Toll.

dangerous waters of the North Foreland headland. The Hoo peninsular crossing to East Tilbury—used from at least Roman times—formed a major route across the Thames estuary from Kent to the eastern seaboard. To the south, Dover, and the mouth of the *Limen* near Lympne, and the River Rother at Romney, as well as the lagoon of the waters of Rye provided safe landing places for travel to and from the Continent.

None of the sites that played a role in the events of 892–93 can be identified with any certainty. The "half-built fort" is generally identified with the burh of *Eorpeburnan* (e.g. Brooks 1964; Davison 1972). *Eorpeburnan*'s position in the sequence of the Burghal Hidage list places it somewhere on the Kent/Sussex border (Brooks 1964). This site has often been identified with Castle Toll at Newenden (Fig. 65).[6] During the Viking period the

[6] An alternate identification for *Eorpeburnan*, as Rye (Sx.), has been suggested by Kitchen (1984), however, recent fieldwork in the Cinque Port has failed to identify any material convincingly predating 1100 (G. Draper pers. comm.).

River Rother had its mouth at Old Romney, and its course looped across Walland Marsh and south of the Isle of Oxney to Newenden. This placed Castle Toll at the junction of navigable water and upland, protecting access to roads through the High Weald into the heart of Kent and Sussex. The place-name is taken to contain OE *eorp* "dark" or perhaps a personal name, with *burna* "stream" (Brooks 1964, 81; Dodgson 1996a, 98–99), but it is not clear which river this describes. An alternative that would locate it in the stronghold at Agney in Romney Marsh, requires too much special pleading in the absence of physical evidence of fortifications in that place (Brooks 1964, 84–85). A survey of the Castle Toll site has revealed two earthwork circuits occupying the hooked end of a mile-long spur jutting into the marsh (Davison 1972). The stratigraphically more recent circuit is almost certainly what remains of a twelfth-century motte and bailey castle. Surrounding this is a larger earthen bank and ditch cutting off the end of the spur to form an enclosed area quite possibly corresponding in length with the Burghal Hidage assessment. Two phases of this ditch are evident, initially it appears to have been cut some 15m wide, though only 0.3m deep, and was replaced by a collinear ditch 9m wide and 2m deep. Further supporting this interpretation, Castle Toll seems to have formed part of the estate of Beckley, which features in Alfred's will as the land furthest east held by the West Saxon kings. As a major *de novo* fortification its construction would have required not only the land it occupied, but also access to a larger estate for a supply of building timber and produce to feed the resident garrison.

Alternatively, the possibility remains that the "half-built fort" and *Eorpeburnan* are two separate sites, with the former referring in fact to the earlier Roman Saxon Shore Fort of *Lemanis*, located on the *Limenea* inlet, which survives in fragmentary form owing to landslips (Johnson 1979, 53–56). Unlike Castle Toll, which is located some 22.7km up the course of the proto-Rother, *Lemanis* is only 5.5km from the coast near Hythe, finding good correspondence with the *Chronicle* account. It would be in keeping with general West Saxon defensive practice to reoccupy and refortify a Roman stronghold (cf. Winchester, Towcester, and others), and in the first phase of Burghal fortification under Alfred, when time and resources may have been tight, it might have been expedient to reuse existing enclosures such as Malmesbury, Chisbury, and Exeter, whether Roman or earlier. Furthermore, this interpretation would favour the idea of a Viking advance further inland to the head of the *Limenea* inlet at Appledore, following the battle, with an encampment at Kenardington therefore a distinct possibility.

The location of Alfred's camp "between the two enemy forces" (ASC 893 AF, 894 BCDG; *Æthelweard Chronicon* § iv.3, 9) is even less certain, although only few sites would seem to fulfil both tactical and logistical demands. Peddie (1999, 176) has suggested Bredgar, but apart from being a minor late Anglo-Saxon settlement, there is nothing particularly distinctive about this site. Abels (1998, 293) prefers Maidstone, and the site has much to recommend it both on strategic and logistical grounds. It is well placed on the east bank of the River Medway and its tributary the River Len, at a crossroads of the Roman road from Rochester to Hastings (Margary 13) and a trackway between Tonbridge and Ashford. Situated almost midway between Milton and Appledore, Alfred could therefore quickly intercept either army should they move westward towards Wessex. As a burgeoning central place Maidstone could also have fulfilled many of the logistical requirements of an army in the field. It appears to have become a minster (possibly also the centre of a royal estate), at some point during the later Anglo-Saxon period (Tatton-Brown 1988), and was also the meeting-place (and muster?) of the hundred, with the *Mægþan stane* that gave the settlement its name recorded *c.*AD 975 (Anderson 1939b).

A further alternative contender is the site of Stockbury, a place mentioned in Domesday Book lying on high ground, 6.2km south of Milton, which still has evidence for a ditched ringwork, possibly stratigraphically earlier than the Norman motte and bailey castle that replaced it. The early forms of the place-name Stockbury[7] suggest that the second element is *burh* "stronghold", with a folk-name **Stocingas* "the people of *Stoc*", perhaps in reference to one of the places in Kent still known as Stoke (Wallenberg 1934, 230 and cf. 166; Smith 1956b, 155; Watts 2004, 576). Smith takes OE *stoc* to mean "a place, a religious place, a secondary settlement", but he notes the occasional difficulty of differentiating it from OE *stocc* "a log, a stock" in English place-names (Smith 1956b, 153, 156; see also Gelling and Probert 2010). In some compounds with *burh*, it has been suggested that OE *stocc* is a reference to the construction material of the stronghold and may therefore be suggestive of a site in some repair at the time the name was coined (Baker 2011; 2012b). However, it is hard to account for the *–inga–* formation that seems to be indicated by the early forms, if the first element is OE *stocc* rather than *stoc*, unless the folk-name referred to "the dwellers among the stumps", in which case the first element would still seem to have little to do with the construction material of the *burh*.

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[7] *Stochingeberge* 1086, *Staca-, Stocingabere* c.1100, *Stoking(e)bir', -beri* 1208–43 (Wallenberg 1934, 230; Watts 2004, 576).

To these suggestions one further interpretation presents itself, namely, that the first phase of the Castle Toll fortification was Alfred's camp, which was subsequently enhanced to burh status in its second construction phase. From the perspective of the events of 892–93 the choice of Castle Toll seems apt; a resident force could draw on the royal estate to maintain itself through the winter, and it was positioned on a cluster of woodland tracks enabling sorties to surprise the enemy. Given Castle Toll's location much closer to Appledore than to Milton, three corollaries of this interpretation can be noted with regard to the *Chronicle* entry. Firstly, that Alfred relied on the support of the boroughs of Rochester and Canterbury to contain Hæsten at Milton. Secondly, that a diplomatic solution with Hæsten was always favoured over military engagement, although the swift movement of forces along Margary 13 into northern Kent could still be an option. Thirdly, that Alfred always regarded the larger force at Appledore as the main threat, as indeed it proved.

If the purpose of Alfred's activities was to limit Viking destruction, his policy in 892–93 was only partially successful. Whatever the civil defence policy for West Saxon territories following the successes of 878, it does not appear to have been sufficient to protect eastern Kent from invasion. Indeed, the overriding coherence of the Burghal Hidage system in Wessex—certainly as it appears in the early tenth century—throws into some relief the fragmentary evidence for civil defence in other areas under West Saxon control. In English Mercia, which is likely to have been under at least the indirect control of Alfred from the late 880s (Keynes 1998), a number of strongholds are mentioned in contemporary sources. Three possibly early sites are recorded in the Burghal Hidage, and ten further fortresses are mentioned in the *Anglo-Saxon Chronicle* as having been built in the early tenth century, hinting at the expansion of the system north of the Thames particularly under Edward the Elder and the Mercian Æthelflæd (D. Griffiths 1995). However, in the south-eastern extension of West Saxon dominion into Surrey, Sussex, and Kent, there are few recorded sites. London may well have been a major stronghold refurbished after 886, but is not included in the Burghal Hidage list,[8] and sources are similarly opaque on the status of old strongholds such as Canterbury and Rochester. The

[8] The *Anglo-Saxon Chronicle* refers to King Alfred's "occupation" of London in 886. This event has been the subject of some debate on grounds of written and numismatic evidence (Dyson 1990; Blackburn 1998; Keynes 1998; Haslam 2010a; Baker and Brookes 2011). On current evidence Keynes' (1998, 23) proposed chronology of London's reoccupation seems the most plausible, with Alfred regaining London from the Vikings during a campaign in 883, but only re-fortifying the Roman city in 886.

Burghal Hidage does include Hastings, Southwark, and *Eorpeburnan* as its easternmost stronghold, yet this leaves much of the southeast coast apparently undefended.

This absence is all the more striking when one appreciates the importance previous West Saxon kings had laid on controlling the area for economic and religious reasons. As Keynes (1993) has convincingly shown, the kingdom of Kent played a key role in the political manoeuvrings between Wessex and Mercia in the ninth century. Not only did control of Kent mean control of the seat of ecclesiastical might, it was strategically placed on the main trade routes between the Continent and London, and by extension, the entire eastern seaboard. Kent was wealthy, it had significant symbolic importance, and it certainly bore its share of attacks, so its absence from this same system of defence requires further clarification.

A partial explanation for the omission of Kent in West Saxon defence policy is likely to be found in the organization of regional administration. Although Kent was no longer a fully independent kingdom in the ninth century, accepting Mercian and then West Saxon overlordship over the course of the century, the continuity of a number of distinctive local traditions suggests it enjoyed exceptional treatment. Phillip Grierson (1987, 81) has suggested that Kent was not included in the Burghal Hidage because it was assessed in sullungs rather than hides, thereby making a unified assessment impossible. It may simply be the result of account keeping, but underlying this observation remain wider questions about the nature of West Saxon authority in Kent, and the sorts of civil defence systems that existed in those areas not included in the Burghal Hidage. It may, for instance, be significant that the Viking armies of 892–93 positioned themselves at the borders of the territory covered by the Burghal Hidage list, perhaps because this is where a more coherent defensive system was already in place and evolving. It is perhaps noteworthy that Alfred's effort was aimed at blocking their route further west and not at retrieving eastern Kent, even though the Vikings had penetrated a considerable distance into lands apparently under West Saxon control. In thinking about these issues, the strategic intentions of Vinking armies in Kent also need to be addressed, along with the scale of their activities in the southeast during this period. Finally, assessments of how Kent could, realistically, have been defended during the late ninth and early tenth centuries, and what lessons (if any) were learnt between the Viking raids of the ninth century and those of the later tenth, is required. Much of this depends on the analysis of the archaeological evidence for civil defence in Kent, and in particular on relating datable evidence to the political context of various events in the ninth and tenth centuries.

The Evidence for Civil Defence

Given the nature of these threats it might be expected that the essential principles of the Burghal system can be recognized also in the defence of Kent. Burhs on the southern coast of Wessex are clearly located to deny access via the main coastal inlets and waterways to the interior. An extension of this system further around the southeast coast throws up several important locations, previously recognized by the Romans for their strategic nodal positions, including Rye, Lympne, and Dover, but also Sandwich Haven at the southern entrance of the Wantsum (site of the Saxon Shore fort of Richborough Castle), the Medway crossing at Rochester, and the crossing-places of the Thames at Cliffe-at-Hoo and Gravesend. Many of these same locations were also to prove critical in the defence of the English coast during the later medieval period, and in the sixteenth and twentieth centuries, and there are good topographical grounds for suggesting that they may also have been the sites of Anglo-Saxon coastal defences. However, written and archaeological sources provide only fragmentary information about the organization of civil defence in Kent. Examination of the evidence suggests it is nevertheless possible to discern a number of patterns regarding both major and minor sites, and their relationship to these key corridors of military activity. A review of this evidence precedes a discussion on the defence of Kent in the Viking Age.

Strongholds

Some defended sites are known from written sources. The towns of Canterbury and Rochester were clearly regarded as major military sites—Canterbury was sacked in 851 and Rochester famously held out against a Viking army in 885, long enough to be successfully relieved by Alfred (ASC 885 ADEG 886 BC; Asser *Life* § 66). Both places appear to have been significant ninth-century settlements, apparently reviving many of the urban functions they had occupied in the Roman period. It is clear that by this time *Cantwaraburh* "the burh or stronghold of the people of Kent" was regarded as the capital of a Kentish kingdom that had begun to centralize ecclesiastical, royal, economic, and military functions at a single site. The place-name itself suggests that the city was regarded as a tribal capital, presumably also with a defensive role (Carroll and Parsons 2007, 80–82; and see Chapter 2).

Survey and excavation of the extant defensive circuit of Canterbury has demonstrated significant continuity from the Roman to medieval periods (Frere, Stow, and Bennett 1982; Fig. 66). It is therefore likely that the

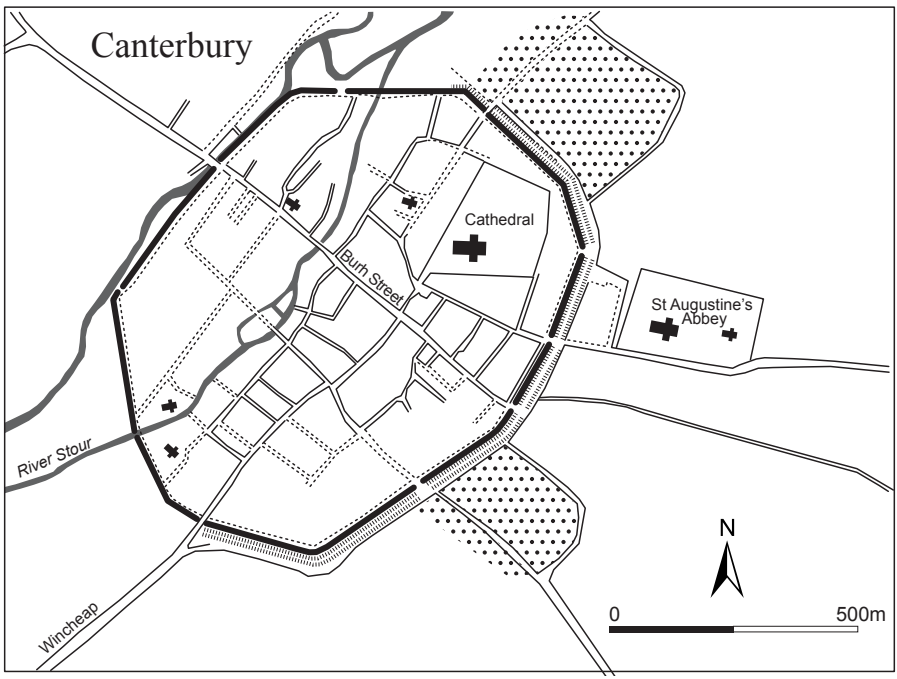

Fig. 66. Anglo-Saxon Canterbury.

enclosed area of *c*.52.6ha formed the main point of defence for the events described by the *Anglo-Saxon Chronicle* and other contemporary documents. Canterbury's late third-century fortification comprised a defensive circuit of some 2760m (549 poles), including a town wall of mortared coursed flint surviving to this day to a height of some 2–3m (and in one section to 6m) and a width of *c*.2.3m, and an extra-mural ditch. As part of this circuit there were contemporary square interval towers attached to the inner face, two of which have been found in the former Bus Station (CAT 2003, 292), along with possibly two further external towers at Old Cattle Market and south of Dane John Mound (Frere, Stow, and Bennett 1982, 19). The latter appear to have been incorporated into later medieval towers arguing for their continued use in the late Anglo-Saxon period. Seven gates punctuated the Roman wall circuit. Of these, London gate (in the southwest) appears not to have been used in the medieval period, while Quenin Gate (northeast) continued in use as one of the main postern gates to the city until the 15th century when it was blocked; the rest continued as entry points to the town. Evidence for this is provided by three parish churches

dating from the late Anglo-Saxon period which surmount the town gates: Holy Cross on top of Westgate, St Mary Northgate, and St Michael on Burgate. Three further gate-churches may also have Anglo-Saxon origins: St George's above Newingate, St Edmund's Ridingate, and St Mary Worthgate (Tatton-Brown 1984, 9–10). The circuit was reinforced on three sides by a ditch of about 18m width and 5m depth, and a gravel-capped bank. To the north of the city the ground-surface west of Northgate is close to the water-table and it is possible that the ditch in this area was filled with water, or even comprised a diverted tributary of the Stour (Frere, Stow, and Bennett 1982, 858).

Excavations at Burgate Lane (between Burgate and Newingate) in 1954 (Frere, Stow, and Bennett 1982, 34) suggested that the Roman defences in this corner of the city had been levelled in the early medieval period. At this time a gravel street was laid over the intra-mural bank, and several pits were dug into it. Datable material in the street surface comprised ninth-century cooking pot sherds (ibid., 36). Stratigraphically it is unclear whether the Roman wall was still standing at this point, although the street may well have been a new intra-mural lane. The surface was overlain by bank wash in its western extent, suggesting that a bank continued to exist above the height of the street to the east. Similar intra-mural reorganization is visible in the Church Lane excavations of 1977 in the far north of the circuit (ibid., 77–105). Here, the internal rampart appears to have been partly destroyed in the middle to late Anglo-Saxon period by a number of storage pits, suggesting that at this time occupation was encroaching quite close to the wall. Sealing these pits was a sequence of street-metallings that cut a terrace into the ramparts, c.2.5m from the back of the wall. The fill of the street-side gutter included sand-tempered ware, and the first street surface was sealed by sand- and shell-tempered Saxo-Norman pottery.

The Burgate Lane and Church Lane sequence of intra-mural streets is likely to have been built to provide access to the city defences, which may moreover have been refurbished at this time. Although in the case of Church Lane the excavator favoured a post-Conquest date for the first metalling (which showed considerable wear), the datable finds suggest that it may have been of late Anglo-Saxon date, possibly contemporary with that of Burgate Lane. Unfortunately, without more reliable evidence it is at present impossible to assign a closer date to these defensive works, though it is likely that they were constructed in response to a specific Viking threat either in the ninth century or more probably in the tenth.

Numerous excavations within Canterbury's walls attest to moderate or high urban density in the late Anglo-Saxon period. This corresponds well with existing ninth-century charter evidence that details densely packed houses and streets with formal burgage plots. Domesday Book records some 451 burgesses and 187 urban properties, suggesting a lay population of at least 3000 people (Brooks 1984, 32). To this can be added around 2000 monks and nuns, the poor, and the unpropertied. In keeping with this figure the Christchurch monk Osbern estimated the population of Canterbury during the Viking attack of 1011 at 8000 (Lyle 2002, 55). If this number is accurate it equates to an average density of 1 person per 66 square metres. Using the length of the Canterbury walls as an indicator of the required garrison—with the formula of four men for every pole of wall—approximately 2200 members of this population must have been armed defenders, with an additional non-military population of 5800. Given Kent's total hidation in 1066 was about 1224 sulungs (Maitland 1897, 400), i.e. perhaps 2448 hides, this calculation estimates that virtually the entirety of Kent's military force was committed to the defence of Canterbury.

Written and archaeological sources indicate that late Anglo-Saxon settlement was focused in the two thirds of the city on the eastern bank of the Stour, low-lying lands to the west having become too wet for sustained settlement (Tatton-Brown 1984, 7–8). Rising sea-levels contributed to the periodic flooding of the area to the west of the Stour throughout the Anglo-Saxon period, and it is likely therefore that this area was used primarily for agricultural purposes, and, as was apparently the case in 804, as a place to accommodate refugees during times of conflict. On the eastern side of the Stour the northernmost part was almost wholly taken up by the Cathedral complex. Brooks (1977) has argued that this corner may have been an inner burh, possibly fortified by earthen and timber defences on the south and west sides. This rectangular precinct may be what is referred to in ninth-century sources as *innan burhwara*, with settlement in the larger Canterbury circuit identified as *utan burhwara*. The southern extent of this precinct may be marked by the reorientated High Street which links together the Roman Westgate with the eastern Newingate, possibly inserted in the eleventh century. However, a large number of excavations have taken place within Canterbury since this assertion, and successive finds of seventh- to eighth-century and ninth-century materials in the southern and south-eastern parts of the walled city have led Brooks to revise this interpretation (1984, 26).

The street plan of medieval Canterbury bears little resemblance to that of Roman *Durovernum*, suggesting that significant reorganization of the urban layout took place sometime in the post-Roman period. A number of Canterbury's streets (e.g. Castle St, Burgate St, High St) are mentioned in early medieval charters indicating that much of the internal arrangement was already established by the late Anglo-Saxon period (Urry 1967; Brooks 1984, 24). The two main routes into the town appear to have been on the line of the dual-carriageways, known as *Burh Stræt* in the east to Sandwich, and High (later Watling) Street which leaves Ridingate on its way to Dover. Newingate is first mentioned in a charter of the late eleventh to early twelfth century and may be a late Anglo-Saxon insertion related to the reorganization of the city centre (Brooks 1984, 25). Possibly a part of this replanning are a number of lanes laid out at right angles to High Street, recently excavated in the Whitefriars area close to Newingate (CAT 2003, 291). Elsewhere, urban redevelopment appears to have been more organic. In the southern part of the city several lanes make dog-legs around the former Roman theatre, which may well have remained a physical monument within the city, albeit in a ruinous state. The lack of significant Anglo-Saxon features within the theatre has prompted Brooks (1984, 25) to suggest that this building may have continued to function as a point of public assembly, or at least an open area. During the later Anglo-Saxon period, even areas in the extreme south of the city close by Worthgate began to be developed. To the northwest of Worthgate an enclosure of about 2.4ha, likely to be that granted to the community of Lyminge, was excavated between 1999–2002 (Pratt and Sweetingburgh 2003), whilst eleven houses are recorded as having been destroyed by the ditch of the Norman Castle by 1086 (Urry 1967, 214–15).

In comparison with Canterbury, both written and archaeological evidence from Rochester is rather less conclusive, though several similarities are apparent. As at Canterbury the Roman walls are likely to have provided a focus for local administration and defence. In the tenth-century we have reference to the *regio* of the *Ceasterware*, the district of "the inhabitants of the 'walled town' or of the *Ceaster*-dwellers" (Brooks 2006, 15),[9] whilst a Rochester charter (S 339) describing the site as a *weallfæsten* may be one of the rare instances of a toponymic use of the term *fæsten* with the sense "stronghold", although the even rarer poetic style of the charter boundary clause suggests that use of the term may be a literary flourish rather than

[9] VEPN:2, 158 define OE *cæster* as "city, walled town, fortification".

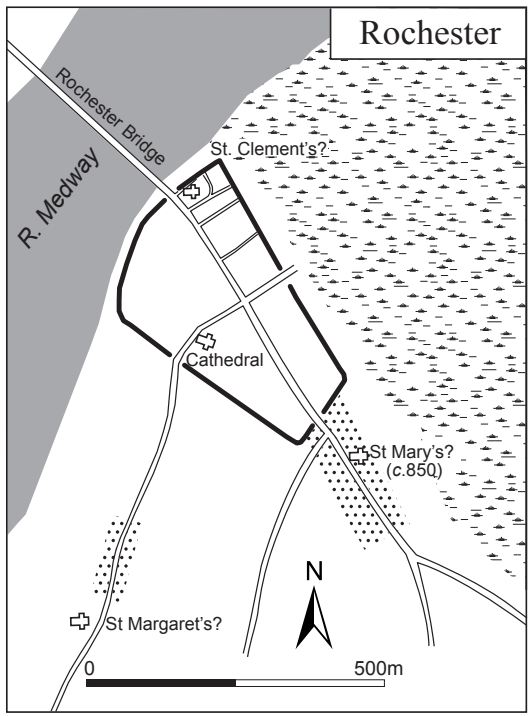

Fig. 67. Anglo-Saxon Rochester.

a true reflection of local nomenclature (Kitson 1987; Baker 2008, 334 fn.4). The Episcopal See was known as *Hrofæsceastræ* from 604, and Rochester is described by some writers as *castellum*, perhaps reflecting local, vernacular tradition of calling the place *Ceaster* as opposed to *Burh* (Canterbury; Campbell 1979, 38–41).[10]

The city is the second most important in Kent and the "capital" of the region of West Kent, although the Roman settlement was considerably smaller than that of Canterbury (Fig. 67).[11] At 1260m (250 poles) the third-century walled circuit defended a settlement less than a fifth its neighbour's size, but included also the bridge over the Medway which is known to have been re-used by AD 792 at the latest (Brooks 1993; 2006; see p. 156

[10] And so too by Bede (*HE* IV.5), but only when quoting from another source, thus *Putta episcopus castelli Cantuariorum quod dicitur Hrofaescaestir*, "Putta, bishop of the Kentish town known as Rochester" (Colgrave and Mynors 1969, 350–51).

[11] The walls of Roman *Durobrivae* enclosed c.9.41ha to *Durovernum Cantiacorum*'s 52.61ha.

above). In the early medieval period this bridge made Rochester both a communication node and bridgehead against Viking incursions; a role it was indeed called upon to fulfil in 885, when the Viking army that had previously been operating in Francia came to Rochester and besieged the city (*civitatemque*), "immediately construct[ing] a strong fortification (*castellum firmum*) for themselves in front of its entrance " (Asser *Life*, § 66; Keynes and Lapidge 1983, 86). Despite considerable effort, these Vikings were successfully held back by the Rochester citizenry, until relieved by Alfred and his forces. Tatton-Brown (1984; 1988) has suggested that Rochester may have had an extra-mural beach market (or wic) during the middle Anglo-Saxon period, with trading most likely taking place on the marshy ground to the northeast of the settlement outside the walls. Any formal facility of this kind is perhaps unlikely to have survived the "great slaughter" (*micel wælsliht*) of 842, however, and by Domesday Rochester appears to have been of only middling economic importance.[12]

Perhaps also a sign of the settlement's later ninth-century travails, Rochester's internal street-plan displays considerable regularity, hinting at a significant re-organization of the town during the Anglo-Saxon period. The city's plan-form comprises a central crossing of *Doddingherne Lane*/ Broad Gate and High Street, and four planned units of long parallel burgage plots fronting onto High Street (Tatton-Brown 2006, Fig. 1; Brookes forthcoming). The morphogenesis of this plan may be contemporary with a series of charters dating to the 860s in which large properties, comprising two of the four quadrants of the city, were granted to various ecclesiastical lords (Brooks 2006, 12–13). As at Canterbury, however, parts of Rochester also remained undeveloped, with much of the south eastern corner of the walled area apparently empty until the post-Conquest period when it became the site of a new Benedictine priory.

In addition to these two major sites the Burghal Hidage lists two strongholds on the southeast coast of Kent. The first is *Eorpeburnan*, discussed above, and the second is Hastings. Little archaeological evidence exists to define the location of late Anglo-Saxon Hastings. The earliest recorded form of the name is *Hæstingaceastre*, suggesting (as at Rochester) the reuse of Roman fortifications. So far none have been identified at Hastings,

[12] Some measure of Rochester's apparent decline is provided by the history of its coinage. At the time of the Grately Laws of Æthelstan (925–39) Rochester was assigned two regal moneyers and one episcopal moneyer. Less than half a century later Rochester was a single-moneyer mint, and by the time of Edward the Confessor its output had ceased (Metcalf 1998b, 236).

prompting some authors to hypothesize about a site probably lost to coastal erosion south of the lower town (Hill 1996a, 205–6) or at a different location altogether, such as Pevensey (Combes and Lyne 1995).[13] Despite the lack of physical evidence several arguments support the former identification. Firstly, although the *gens Hæstingorum*, gave their name to a large area including, apparently, Hastingleigh in Kent and Hastingford in north-east Sussex, their main lands appear to have lain around Hastings (Welch 1989, 78; Brookes 2011, 160–63),[14] making a folk stronghold in this area highly appropriate. Secondly, the place-name Bulverhythe in the sheltered anchorage to the west of the present town suggests a spatial relationship with a burh or a place called *burh*. Early forms of the place-name—*Bulwareheda* 12th, *Burewarehethe* 1229—show that this is OE *burhwara-hȳð* "the landing-place of the inhabitants of the *burh*" (Mawer, Stenton, and Gover 1929–30, 535). Ekwall (1960, 73), Cullen (1997, 217), and Watts (2004, 99) take the *burh* in question to be Hastings. Thirdly, a short section of undated wall has been identified off Winding Street, close to the waterfront, which may offer physical evidence for Roman or Anglo-Saxon defences in the lower town area (Turner 1970, 155). Finally, as Carroll and Parsons (2007, 156–57) point out, Pevensey Castle was known already as *Andredesceaster* in the late ninth century (ASC A *s.a.* 491).[15]

Ports and Coastal Defence

Further archaeological evidence for civil defence is provided by a number of sites tentatively identified as coastal garrisons. Foremost amongst these is the late tenth- or early eleventh-century church of St Mary-in-Castro atop the eastern cliffs at Dover. This substantial cruciform church was probably connected with the refoundation of the monastic community of St Martin, which lay within the Dour-mouth settlement below (Tatton-Brown 1984, 23; Evison 1987, 174), and may represent the first post-Roman settlement at the site of the later medieval castle (Fig. 68).

St Mary-in-Castro adjoins a Roman *pharos,* which survives to 13m, half of its original height. Access between the buildings is provided by a wood-

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[13] Combes and Lyne (1995) have suggested that the most likely identification of *Hæstingaceastre* is the Saxon Shore fort of Pevensey, some 20km to the west.

[14] Cullen (1997, 146) strongly doubts a connection between Hastingleigh and the *Hæstingas* of Hastings, preferring to posit the (not unlikely) existence of another individual named **Hǣsta*.

[15] The place-name Pevensey was also current in the late Anglo-Saxon period (Mawer, Stenton, and Gover 1929–30, 443–44; Watts 2004, 470).

Fig. 68. Photograph showing the relationship between St Mary-in-Castro church (*left*) and the Roman *pharos* (*right*), as well as the substantial earthwork in which they are sited.

en gallery and an above-ground doorway at the western end of the nave, which links to an early medieval doorway piercing the *pharos* wall, suggesting the former existence of a suspended walkway. As such, the two structures must be regarded as a building complex, possibly part of a larger site defined by a pre-existing—perhaps prehistoric—earthwork (Biddle 1970a; Tatton-Brown 1984, 23). The church dimensions suggest a defensive function, the walls are thick, and are surmounted by a substantial east tower of some 21m in height (Taylor and Taylor 1965, 215–16; Audouy, Dix, and Parsons 1995; Shapland 2005, 11–19; Booth 2007). Given the presence of this second tower, it is unlikely that the *pharos* (which may well have been an even taller structure in this period) functioned as a belfry for the church, and a more convincing role as a lighthouse or beacon has been suggested (Shapland 2005; Booth 2007).

The St Mary-in-Castro complex was probably part of a wider defensive rationale. The hilltop enclosure in which it is sited is often claimed as the location of the burh recorded from AD 1051, and may also be the site of Harold Godwinson's "castle" of c.1064 (Tatton-Brown 1984, 23; 1988, 227; Fig. 69). Supporting this interpretation is the identification of a possible

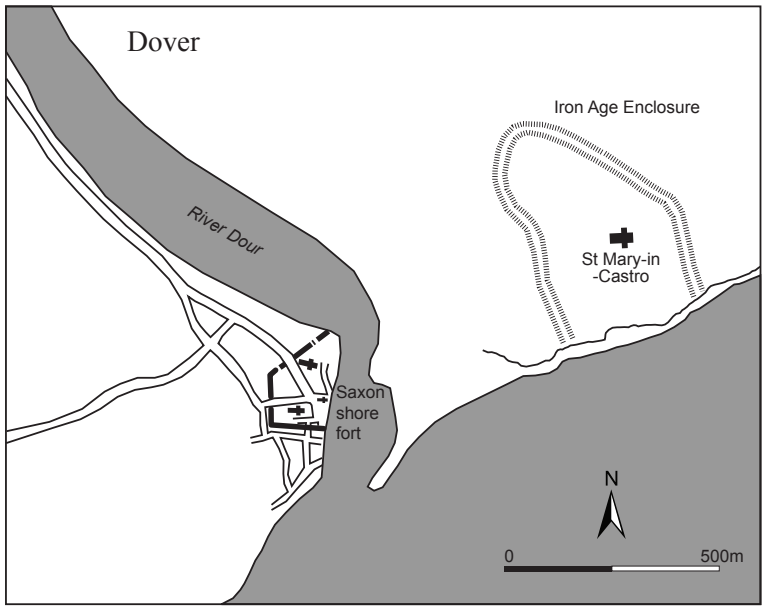

Fig. 69. Anglo-Saxon Dover.

eleventh-century ditch, some 8m wide and 5.5m deep (Wilson 1964, 253). Even without more conclusive evidence, it is highly likely that the eastern cliffs site played some part in the defence of Dover, but there is little to suggest that this position was exploited before the late tenth century. All earlier settlement evidence is focused to the west within and around the late Romano-British Saxon Shore Fort at the mouth of the River Dour (Parfitt 2001, 96–97). Indeed, in this area, there is archaeological evidence for widespread destruction in the ninth and tenth centuries. A large timber hall (mistakenly interpreted by the excavator as the middle Anglo-Saxon minster of St Martin) shows evidence of having been destroyed by fire in the tenth century, potentially marking the end of an official royal presence in the lower town (Philp 1978; 2003; Welch 2007, 203).

The overriding impression gained from written and archaeological evidence is that Dover was substantially re-organized as a strategic site in the tenth century, possibly as a royal undertaking. This work may have started as early as the reign of Æthelstan (AD 924–39) when Dover first appears as a named mint. More probable, however, is that a programme of military construction including the lookout or beacon of St Mary-in-Castro and the refurbishment of the defences on the eastern cliffs was undertaken during

the reign of Æthelred II (AD 978–1016). Æthelred is also known to have strengthened his naval forces in order to better defend the coast (Hollister 1962 103–26; Hooper 1989a; Taylor 1992; Abels 1997) and it is significant that royal fleets are recorded at Dover in 1036, 1051, and 1066 (Tatton-Brown 1984, 22). Under Edward the Confessor, Dover and Sandwich supplied the king with 20 ships manned by 21 mariners for a period of 15 days a year (DB i.1). In light of the St Mary-in-Castro evidence it is likely that this naval provision also included the creation of a formal system of coastal surveillance including the establishment of seamarks, lookouts, and beacons.

As part of this enterprise Dover may well have been linked into a wider network of coastal defences. Hythe, Romney, and Sandwich are also recorded as having done ship service in the late Anglo-Saxon period—that is to say, raised a naval force apparently paid for by a national ship levy or "ship soke" (Tatton-Brown 1988, 231). The origins of this provision are unclear, but it was certainly necessary by the late tenth century when eastern Kent was the target of renewed Viking raids. In particular, Sandwich, the target of attacks in 1009, 1015, 1047, and 1048, occupied a strategic position at the southern entrance to the Wantsum Channel, adjacent to a large sheltered haven known in a charter of Cnut dated 1023 (11th/12th; S 959) as *Mearcesfleot*. These topographical attributes secured its importance as the main naval anchorage for Anglo-Saxon fleets in the tenth and eleventh centuries (Brooks 1984, 294); a function perhaps also hinted at by a naval engagement in 851 between King Æthelstan of Kent and the Danes at *Sandwic*.[16]

Anglo-Saxon Sandwich is only slowly being revealed archaeologically, but recent work by Helen Clarke et al. (2010) has clarified somewhat our understanding of the site (Fig. 70). It is likely that the settlement focus migrated through the early medieval period along a spur of higher ground jutting into the southern mouth of the Wantsum Channel (Brookes 1998; 2007a; Clarke 2005). Until the ninth century the undefended Anglo-Saxon trading place (wic) of Sandwich appears to have been located on the sandbar to the east of the present town centre, exploiting the natural lagoon formed behind Deal spit. Only in the early eleventh century does archaeological evidence attest to the settlement in the area of the present-day town, with an urban nucleus focused on high ground around St Clement's

[16] ASC (E) *s.a.* 851. Traditionally, this is believed to have taken place at Bloody Point (c. NGR 634100,159800), which may well have been the main entrance to the Wantsum Channel during the ninth century (Robinson and Cloet 1953, 79).

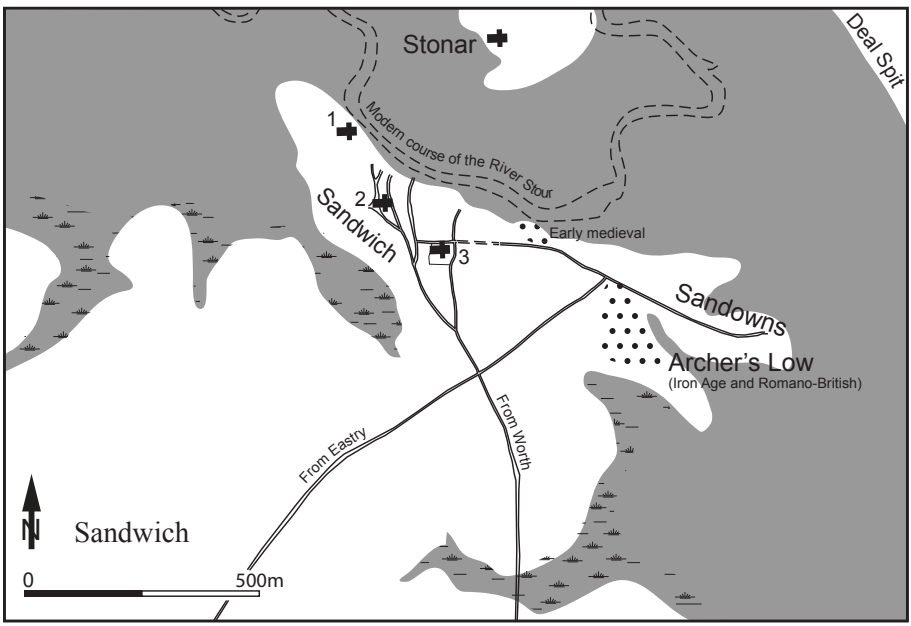

Fig. 70. Twelfth-century Sandwich. 1: St Mary's church; 2: St Peter's church; 3: St Clement's church.

church, the oldest fabric of which dates to c.1000 (Clarke et al. 2010, 23–28). Medieval slipways, visible through close-contour survey, suggest that maritime activities were focused on the north and west sides of the settlement on the banks of the former Wantsum Channel (now River Stour) below the church. Significantly, St Clement's church in Sandwich and St Mary-in-Castro in Dover are morphologically highly similar in plan, raising the strong possibility that they were built at the same time, and to a common purpose (ibid., 28).[17]

The origins of Hythe and Romney can similarly be associated with developments in the later tenth century. As at Sandwich, both emerged from a sequence of maritime sites in the north-eastern corner of Romney Marsh. During the eighth and ninth centuries, settlement on the tidal inlet known as *Limenea* appears to have focused on the site of *Sandtun*, located on sand dunes hard by the Saxon Shore fort of Lympne (Gardiner et al. 2002). The

[17] Moreover, the dedication to St Clement is attributed to Cnut's Scandinavian military elite during a period when many of the major centres were garrisoned (Richards 2000; Crawford 2008).

main period of occupation at this fishing settlement appears to have ended c.850–75. Although it is not possible to attribute its decline directly to Viking incursions in Romney Marsh during the ninth century, it is likely that its vulnerability to seaborne attacks contributed to its abandonment until the late eleventh century. The same fate probably also befell the church of St Martin's, New Romney, documented as an *oratorium* in AD 741 (S 24), and located on an exposed coastal shingle spur to the south of *Limenea*.

Significant efforts appear to have been made to regenerate trade in this area in the tenth century. A *Limen* coinage appears in the reign of Edgar (959–75), which may have been minted at West Hythe, Lympne, or Stutfall Castle. Given the pattern of defended mints attested elsewhere during the tenth century, the latter is the most likely contender, but as yet there is no corroborating archaeological evidence. However, by the eleventh century the main focus of settlement had moved closer to the present site of Hythe; with changes in the morphology of the tidal inlet of *Limenea* most probably a contributing factor. Hythe is first mentioned in a charter dated 1026 (e. 12th; S 1221) and was minting its own coins from 1044–46 (Carroll and Parsons 2007, 177), presumably replacing the mint at Lympne/Stutfall. By the time of the Conquest, it is well-attested as a late Anglo-Saxon town.[18] Similar growth is also in evidence at New Romney, where a mint was established during the reign of Æthelred II (c.997–1003) and a port founded, probably by the archbishop, in the final decades of the tenth century (Gardiner 1994). The morphogenesis of this settlement is indicative of a new planned town foundation, with a grid pattern of streets and tenements on the bank of the northern edge of the mouth of the *Limenea* estuary.

Beacons

Though place-names recording beacons and lookouts are evidenced in Kent, there are two particularly striking aspects of their type and distribution. Firstly, unlike the beacons on the Thames and north Wiltshire, it is difficult to link any of the relevant sites to Burghal strongholds. This is not at all surprising, since Kent is a notable omission from the Burghal Hidage list, the nearest recorded strongholds of which were at *Eorpeburnan* and Southwark. Nevertheless, the lack of a signalling link with the strongholds to the west may offer partial confirmation that Kent was to some degree

[18] Accompanying this development, Lympe/Stutfall became the fortified centre (castle) of the Archdeacon of Canterbury after the Conquest.

autonomous defensively. Secondly, the range of observational vocabulary evidenced in the place-names is more diverse than seems to be the case to the west.

There is a surprising absence of place-names indicative of lookouts along the lower stretches of the Thames. Warden on Sheppey is one of the lowest points on the river from where the north bank is visible.[19] An observer here would have been able to spot a Viking fleet as it entered the mouth of the river, even if it originated in East Anglia and kept to the northern side. Warden is not recorded until the thirteenth century, but it is probable (as with many place-names first recorded in the later medieval period) that it had existed since Anglo-Saxon times; an observation post is not necessarily the type of place that would be recorded in early documents. By the sixteenth century it seems to have fallen out of use (see below). There is little evidence, however, of relay beacons to carry messages along the Thames to Southwark and the strongholds beyond, with the possible exception of the place-name Bean—perhaps a contracted form of the OE (*ge*)*bēacon* "beacon".[20]

Further beacon sites may simply not have left their mark on the local toponymy, but it is also possible that no such observation posts existed. There may be clear implications from this for the defensive priorities of Wessex with regard to Kent; but this would also imply that beacon and lookout place-names occurred normally as an expression of a centrally planned system, and that local people were incapable of recognizing suitable positions from which to keep watch for potential trouble. Even left to their own devices, the people of Kent might be expected to have developed a system of watches, and it would be strange if this was completely ignored in place-nomenclature. More practical reasons for this apparent absence of observation and signalling posts may be suggested. In local terms, movement along the Pilgrims' Way would have been considerably more rapid than the progress of a fleet up the Thames. A waterborne raiding party intent on reaching London would be sensible to time its approach to coincide with the rising tide,[21] but it might find itself compelled to beach its

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[19] *Wardoñ* 1207 "lookout hill" (Wallenberg 1934, 274).

[20] *Ben* 1240, 1270, *Byen, Bien* 1254–1332, *Been* 1278 (Wallenberg 1934, 48; Watts 2004, 44). The earliest form of this place-name might be taken as representing OE *bēan* "bean", but Wallenberg thought this an unsatisfactory explanation unless used in a topographical sense to denote a hill. An alternative might be to take this as a contracted form of OE (*ge*)*bēacon* "beacon" (Paul Cullen pers.comm.), the scarce Old English evidence for this term both as a place-name element and in the sense "signal site" notwithstanding (see Chapter 3).

[21] This advice is still given to modern sailors (pers. comm. Mandy Kewley, X-Pilot charter boat).

ships after six hours, in order to wait while the tide went out. A fleet coming to the attention of the watchman on Warden Point still has approximately 70km to travel before reaching London, all of it on a tidal stretch of the river. It would be a tremendous achievement to make this journey in one stage, and it seems unlikely to have been possible.

Equally, were the invading fleet to make straight for land on the north Kent coast, its advance from there up the Thames would be wholly predictable. Assuming a reliance on well-established long-distance routes, it would be limited to the Pilgrims' Way. A rider might reach Southwark in plenty of time to warn the garrison of the imminent attack. Even a Viking army that landed and gained access to the Pilgrims' Way would be unable to enter Wessex proper without passing Southwark. This essential difference between speed of travel on land and water would have carried implications for the organization of defence further upriver, and may be one reason why a continuous line of beacons along the Thames was unnecessary, or of lower priority than beacons overlooking roads.

The apparent disjuncture between Kentish lookout sites and the Burghal system to the east does not preclude the existence of a defensive system within Kent itself. The probable stronghold of Rochester sits within 11km of Tottington (*Totintune* 1086), which may represent OE **toting-tūn* "the settlement or estate of the lookout-man" (Wallenberg 1934, 146), and the *weardsetl* of a Meopham charter (S 447; Wallenberg 1931, 241–46; Kitson forthcoming) was located just above the Pilgrims' Way offering commanding views to the south (Nicholas Brooks pers.comm.).[22] This is in keeping with the concern for guarding overland routes shown by Alfredian and Edwardian military planners elsewhere in Wessex (see Chapters 4 and 5). It looks away rather than towards Rochester, but this should not rule out a connection with that settlement (see discussion below).

Canterbury, on the other hand, is less clearly adjacent to observation posts. One possible reason for this is linked with the second striking characteristic of Kentish beacon sites. Where they have left an imprint in the onomastic record, the lookouts in the Kennet and Thames Valleys (Chapters 4 and 5) show considerable terminological uniformity. The terms *weard* and **tōt*, in different compounds and with occasional side forms, predominate. While this is not entirely untrue of Kent, where both terms are also well represented, a number of other possible beacon terms have also been noted. Most notable is the group of three places called Warehorn

[22] Nicholas Brooks (pers.comm. November 2007) places the *weardsetl* at NGR 563200,161000.

and a further Warehorne (Wallenberg 1934, 474, 605; Cullen 1997, 252, 357, 382, 549; Watts 2004, 651 *sub* Warehorne), which seem to consist of OE **weru* a side form of *waru* "a shelter, defence, guard" (Smith 1956b, 246) and OE **horna* "a horn" (Smith 1956a, 261–62), probably in a topographical sense, hence "guard or lookout promontory" (Watts 2004, 651). Also in the Kentish case-study area are found two possible instances of the compound OE *prāw-hyll* "peeping or lookout hill", in Prawls Farm in Ewhurst (Sx.),[23] and a place of the same name in Stone cum Ebony parish (Ke.),[24] though Wallenberg took the latter to be a manorial name formed from the Sussex example (Wallenberg 1934, 489). Finally, a potential example of OE **cape* "lookout place" has been identified in the lost name *Capenesse* in Romney Marsh (Ke.; Cullen 1997, 275–76; VEPN:2, 141).[25] The nearby charter instance of *caping sæta* (S 1288) may also be connected with a lookout in this area (Wallenberg 1931, 638; Cullen 1997, 275).

A rather slighter possibility for a Kentish beacon term is evidenced in two place-names, Pembury and the lost *Pepingstraw* recorded in 1543 in Offham parish (both Ke).[26] Wallenberg (1934, 185–86) took Pembury to be OE **pēpinge-byrig* (dat.) "stronghold at the lookout place" , with *Pepingstraw* probably containing a personal name derived from the same stem with a second element OE *trēow* (ibid. 149 and 185–86), hence perhaps "tree of the watchman". Watts, however, notes the persistence of early spellings of Pembury that contain *–pp–*, which perhaps tells against Wallenberg's explanation, and prefers a personal name **Peppa* (Watts 465 *sub* Pembury). It should be noted that no such personal name is on independent record and, as Watts notes (ibid.), Pembury is situated on high ground with commanding views. Whatever the explanation of Pembury, there is clear evidence of a range of lookout terms that has not been noted in the other case study areas (see Chapters 4 and 5). It is possible, in view of these different lookout terms, that the Kent region had a more varied nomenclature for observation and signalling posts than is evidenced in the Wessex heartland. One implication of this is that other terms indicating such sites have yet to be identified, and that there may be many more lookout sites in Kent than is at first evident.

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[23] Family of *Pralle* 1276, ?*Prelhm* 1421, *Pralle's Tenement* 1621 (Mawer, Stenton, and Gover 1929–30, 520).

[24] Cf. *Robert Prall* 1450 (Wallenberg 1934, 489).

[25] *Copenesse* 1225, *Capenesse* 1242 (Cullen 1997, 275–76).

[26] *Peppingeberia, -b'i, -byr'* c.1100, 1218, 1250, *Peping*(*e*)*bir', -byr, -bur*(*i*)*, -ber*(*y*) 1205–70 (Wallenberg 1934, 185–86; Watts 2004, 465).

Comparison can be made between these beacon place-names and the beacon sites of the sixteenth century recorded in William Lambarde's map of Kent, dated 1585 (Fig. 71),[27] and J. Nordon's map of Sussex, 1595.[28] The Kent map illustrates the system of early warning which existed alongside the network of "Device" forts constructed under Henry VIII,[29] and shows a complex network of signals and the lines of intervisibility that existed between beacons. Elements of this system are likely to have some antiquity (Kitchen 1986); already during the fourteenth century Edward II and Edward III had ordered the construction and manning of a large number of "Bekynes" for the protection of the south coast,[30] and these sites are presumably those referred to by Henry VII in 1490 when he ordered beacons "in all the usual places".[31] These beacons were called into use at varying intensities during the sixteenth century, particularly 1539–49, 1567–74, and 1588–1603, when the Privy Council frequent ordered their manning and repair.

The operation of this system impressed a number of contemporary foreign observers. According to George Rainsford's *Ritratto d'Inghilterra* of 1556 the system of beacons allowed for the rapid mustering and deployment of local forces, "so in time of danger the whole country can quickly take up arms"; with the specific aim of defending beach-heads and landing places a primary concern (Hale 1982, 395). The Imperial ambassador of Spain provides actual numbers, warning in 1545 that "by means of the beacons the English say they can anywhere muster 25,000 or 30,000 men in two hours".[32] "No foreign vessel could show itself without the whole country being warned", so effective was this system according to the French ambassador.[33] This was indeed the case in 1545 when a French landing at Seaford on a Saturday immediately raised the Sussex forces by beacon. By ten o'clock that evening the Kent beacons were also lit, and the relieving force had reached Uckfield, just 30km north of Seaford, by Sunday night (Kitchen 1986, 183).[34]

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[27] BL Additional MS. 62935.

[28] A further map recording the location of sixteenth-century beacons is that of the Isle of Sheppey by the unidentified map-maker IM (Public Record Office, MPF 240).

[29] The "Device by the King" was drawn up in 1539 and detailed the system of defences put in place to secure sections of the English coast (and its French territories) from foreign attack. Of the c.30 new forts and castles erected, Deal, Walmer, Sandown, Sandgate, and Camber castles represented major new fortifications constructed as part of the Device to sit alongside improvements to Dover and Queenborough, and several smaller artillery forts (Biddle et al., 2001, 11–12)

[30] *Calendar of Patent Rolls*, 1324–27, 216–18; 1369–74, 456.

[31] *Calendar of Patent Rolls*, 1485–94, 348.

[32] *Letters and Papers of Henry VIII 1485–94* 19.1, 1330.

[33] *Letters and Papers of Henry VIII 1485–94* 14.1, 770.

[34] *Letters and Papers of Henry VIII 1485–94* 20.1, 1297.

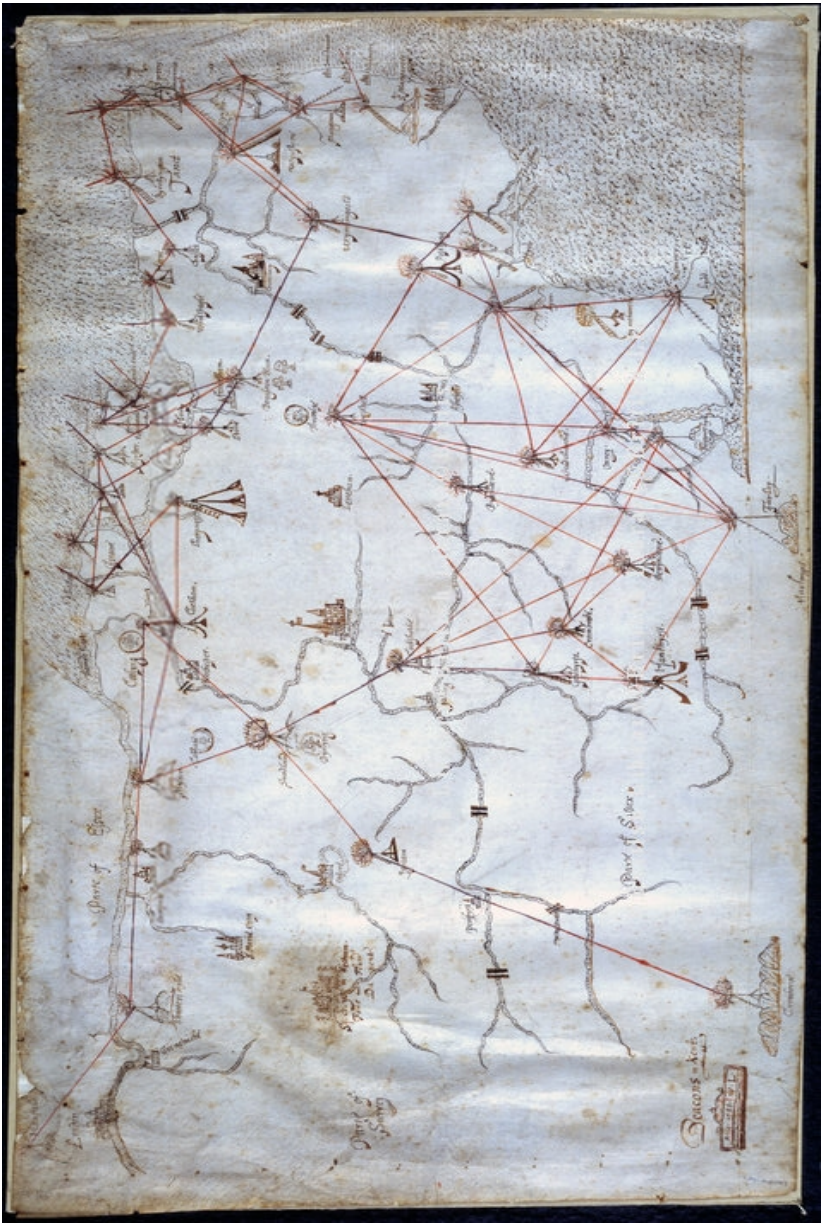

Fig. 71. Map of beacons in Kent, by William Lambarde, "commissioned by Lord Cobham in order to have multiple copies made, as a guide to the effective use of beacons. The positions of about fifty beacons are marked, with lines indicating the direction of the signals given off by them." Originally published/produced in 1585.

The Lambarde map illustrates beacon sites with a symbol and the place-name, whilst depicting also the major river crossings and fortifications (Fig. 71). It shows a line of beacons ringing the coast, connecting the various vulnerable landing places from Farley (Fairlight in Guestling Hundred, Sx.) to Shooter's Hill above Greenwich, and north to London. From the coast a number of sightlines connect to elevated positions inland, serving to alert the shire militia. Using a variety of sources a comparable system has been reconstructed for Sussex, including the various points of contact between the two shires (Kitchen 1986).

In some cases the beacons illustrated by Lambarde can be corroborated by place-name evidence (Fig. 72). Beacon Hill, near Chattenden in Frindsbury Extra parish is likely to be the location of *Fryndsbury* beacon on the Lambarde map. Similarly, Warde House in Birchington may well be coincident with the beacon of *Byrchyngton*. Verification of sight lines in GIS has enabled the location of some beacon sites to be refined. This process involves generating the viewsheds of known beacon sites and examining the area of overlap. Thus, in order for the beacon of Boughton Blean to be intervisible as it is on the Lambarde map with Furze Hill and Bell Farm (both on the Isle of Sheppey), Beacon Hill by Stone-by-Faversham, and an unidentifiable beacon to the south-east at *Wymingeswold* (probably in the area of Goodnestone), it must have been positioned at the apex of Boughton Hill, near Dunkirk, rather than in the village itself.

Several **tōt* and *weard* sites were clearly incorporated within the sixteenth century system, and may date at least to the medieval signalling system of the Hundred Years' War. Tothill Terrace by Minster-in-Thanet (*Tattle Street* 1710; Wallenberg 1934, 597; Cullen 1997, 533) is believed to have been part of a late fourteenth-century beacon system overlooking the Wantsum Channel (cf. White 1934, 79; Wallenberg 1934), and is likely to be the *Mynster* beacon of Lambarde's map. However, other sites on the former Wantsum Channel, such as Ward Marsh near St Nicholas at Wade, first recorded in 1292 (*marisco de Warde* 1292, *Le Warde* 1418, *Wardmarsh* 1538, (v. *weard mersc*), Cullen 1997, 550) and the Warehorns of Preston next Wingham, St Nicholas at Wade, and Ash-next-Sandwich, had clearly gone out of use by the sixteenth century when the Wantsum was no longer passable. Similar geomorphological changes in the coastline are indicated also by the location of Warehorne on Romney Marsh, and the *cæping sæta* of S1288 which find no parallels in the beacon system of the sixteenth-century.

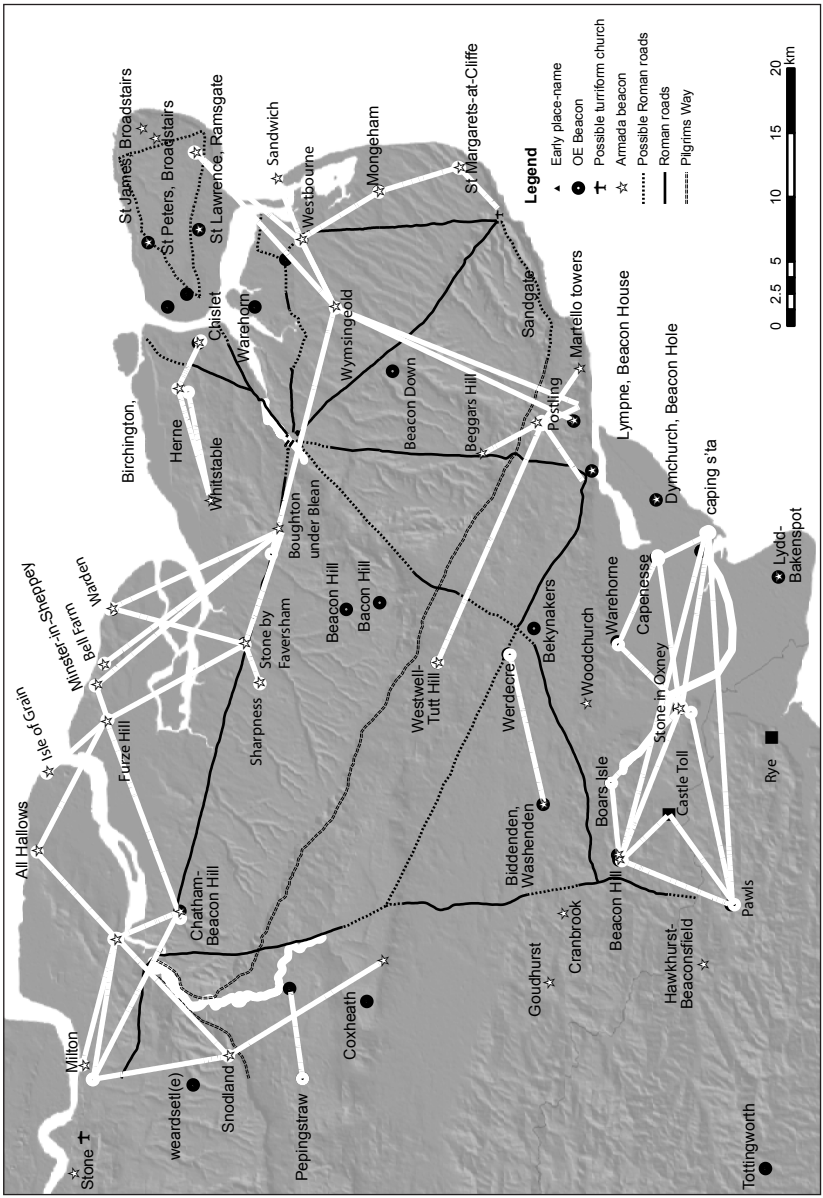

Fig. 72. Kentish lookout and beacon place-names and lines-of-sight (in white).

Paul Cullen (pers.comm.) has noted a coincidence of OE *stān* as a simplex place-name with sites later used as Armada beacons , and this is worth further emphasizing. Simplex place-names are generally rare outside very local toponymic contexts, such as field-names; yet as many as eight simplex *stān* place-names in Kent have medieval forms, and several were major place-names. Stone in Dartford, Stone by Faversham, and Stone in Oxney are all marked as beacons on William Lambarde's map of 1585. It is worth noting that Stone in Oxney is also adjacent to one of the possible *prāw-hyll* place-names, and in Warehorne parish is a Stone Farm, recorded as *la Stone* in 1313 (Wallenberg 1934, 475). The settlement called Bean, discussed above, is also in a parish called Stone (Wallenberg 1931, 304; 1934, 48). Finally, a simplex *stān* name seems to lie behind Stone House and Farm in St Peters (*de Stone* 13th; Wallenberg 1934, 603), the site of another Armada beacon. OE *stān* (often occurring in plural form *stānas*) had a variety of referents in place-names (Smith 1956b, 143): a stony feature or rocky outcrop; a stone marker or monolith, perhaps of the kind that marked the meeting-place of Folkestone Hundred (Wallenberg 1931, 23; 1934, 445; Watts 2004, 235); a stone building, perhaps Roman remains, as Watts (2004, 580) suggests for Stone in Oxney. There may of course be a correlation between sites deemed suitable for the erection of a stone monument, and places with commanding views, suitable for surveillance; but the coincidence of lookout sites with OE *stān* specifically in simplex place-names may point to a more specialized regional use of the term.

It may also be worth drawing attention to the number of Armada beacon sites with very early place-names denoting churches, such as Dymchurch and Woodchurch, and the Minsters in Sheppey and Thanet. Church buildings are likely to have provided good vantage points and would naturally have appealed to sixteenth-century beacon planners.[35] By that time, many parishes had sizeable churches, often with well-built towers, but this was not the case in the pre-Conquest period when stone churches known from archaeological and place-name evidence were rarer. All of the four place-names in this list were recorded by c.1100 (Wallenberg 1931, 22; 1934, 256, 364, 462; Watts 2004, 201, 416, 694) and almost certainly

[35] This may be further evidenced by the five place-names on Lambarde's map that are all church dedications, All Saints Hoo, St James Broadstairs, St Peter's Broadstairs, St Lawrence Ramsgate, and St Margarets-at-Clyffe. All Hallows (*Omnium Sanctorum* 1253×54–1293, *Ho All Hallows* 1285); Wallenberg 1934, 122), St Margaret-at-Cliffe (*Clyue scē Margarete* 1270; Wallenberg 1934, 565), and St Peter's in Thanet (*borgha scī Petr'* 1254; Wallenberg 1934, 602), are all recorded early, though it is impossible to say on this basis that their names originated—and that their churches therefore existed—in Anglo-Saxon times.

(without doubt in at least two cases) refer to Anglo-Saxon churches. That four OE *cirice* or *mynster* place-names should have been included in a sixteenth-century beacon system may therefore hold a deeper significance. Though there can be no certainty, it is conceivable that these too were much earlier places of observation and signalling that were taken on, consciously or otherwise, by early modern military planners.

By contrast, it may be significant that several possible lookout sites indicated by *weard* place-names were no longer used by the sixteenth century: *Werdecre* (Great Chart) overlooking the Pilgrims' Way and Roman Road (Margary 130) crossing (overlooked also by *Bekynakers*) is not used in the system of sixteenth-century coastal defence. Neither is there a late medieval site corresponding to the *weardsetle* in the bounds of Bromley (S 331, S 671, S 864, S 893) on the Roman Road from London to Lewes (Margary 14). Finally, Warden on Sheppey (first recorded in 1207) finds no direct match, although Sheppey itself has several beacons recorded by the sixteenth century at Furze Hill, Rodmer (Bell Farm), and Sandesend. Significantly, with the exception of Warden in Sheppey, most of these *weard* place-names are found in inland locations with viewsheds over roads rather than maritime routes; by implication suggesting that it was inland movement, rather than coastal defence, which was their primary rationale.

This emphasis on the control of inland movement (by road or river) is demonstrated by a potential beacon chain in the Lathe of Aylesford forming a line on the boundary of East and West Kent, known through some of the earliest place-name attestations (Fig. 73). This chain includes the *weardsetl*(*e*) of a tenth-century charter for Meopham (S 447), a site which may be the Holy Hill beacon of Lamdbarde's map (where it is referred to as Byrling) close to the border of Snodland and Meopham parishes; Tutsham (*Totesham* 1072; Wallenberg 1934, 160),[36] possibly identifiable as Coxsheath beacon in the sixteenth century; and two further sites, Tottington (first mentioned as *Totintune* in Domesday Book; Wallenberg 1934, 146), and *Pepingstraw* (discussed p. 361 above), which do not find clear coincidences within the sixteenth-century system. The areas of visibility created for these sites appear to indicate a common surveillance of routes into West Kent, particularly the crossings of the Medway. Tottington overlooks the crossing of the Medway above Rochester, and is intervisible with all other three sites, whilst Tutsham, mentioned in 1072, lies some 6km to the

[36] Wallenberg (1934, 160) takes the first element to be an unrecorded personal name **Tut*(*t*) or similar, but the earliest form suggests that OE **tōt* or a personal name derived from it is possible.

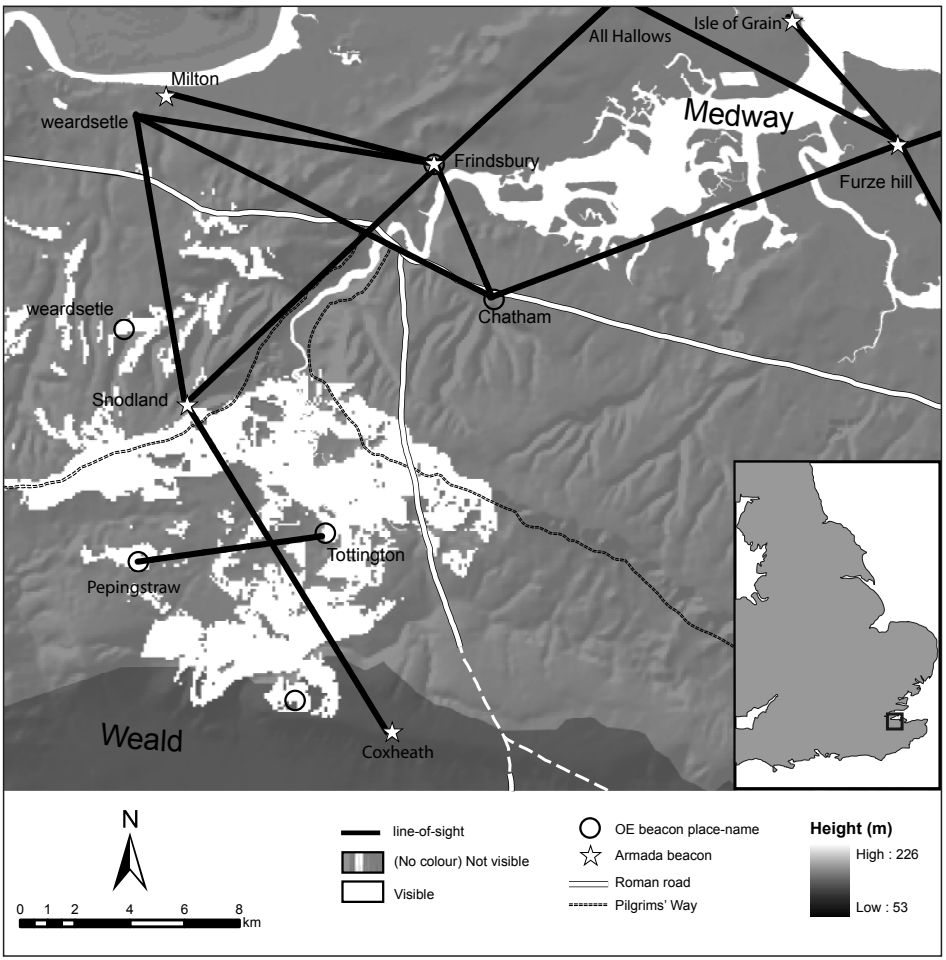

Fig. 73. The Tottington beacon chain.

south with a very small, but significant, viewshed overlooking the north Wealden fringe with clear views along the Pilgrims' Way into East Kent. Significantly, Tottington is redundant to the operation of the beacon system, as Tutsham and the *Weardsetl*(*e*) of Holy Hill are intervisible (as is indicated on the Lambarde map); its only function therefore must relate to the close observation of the Medway crossing, or else the *tūn* of the place-name was associated with a lookout elsewhere, Tottington not actually being a lookout site in its own right. The inescapable impression is that these sites—with the burh of Rochester itself—are designed to form a

continuous line of surveillance along the Medway overlooking both it and the major land routes between East and West Kent.

Discussion

It should be clear from the above that, with the exception of Canterbury, Rochester, possibly Dover, and the enigmatic *Eorpeburnan* which was probably fortified late in Alfred's reign, there is little evidence for civil defence structures in Kent during the ninth century. What evidence there is points at the function of these places primarily as regional refuges (*Fluchtburgen*); a suggestion certainly supported also by the place-name evidence in the case of Canterbury and Hastings or *Hæstingaceaster* (see Chapter 2). This approach to regional defence is comparable with that already encountered in northern Wessex in the earlier ninth century (Chapter 4). However, in contrast to Wessex, West Saxon kings including Alfred must have believed that existing defences were effective enough to defend the metropolitan sees from Viking attacks, and indeed the events of 885 were testimony to this policy. Not only were the burh defences of Rochester in a good state, but the armed defence of the city was sufficient to repel the invader successfully for the first time.

Other indications of Kent's alienation from the main thrust of West Saxon defensive planning may be detectible in the place-name record. It has already been noted that lookout place-names show much less uniformity in Kent than is the case in Kennet or along the Thames, both in location and nomenclature. This may not hold any significance at all for late West Saxon military planning, but it might suggest a more parochial response to defensive concerns, resulting in observation and signalling posts arranged to suit specific localized situations and given locally, perhaps dialectally, appropriate place-names. Furthermore, while other parts of the West Saxon kingdom were well covered with roads known locally by names such as *here pæð*, *here weg* or *here strǣt*, the same is not the case in Kent. Here, only two such place-names are known, a very late possibility in Hare Street (1854) in Plumstead, and *herestræt* in the bounds of a charter for West Malling (S 514). Both of these come from western Kent. The almost total absence of this class of place-name from Kentish toponymy does not indicate the absence of roads of this type, but it requires that the terminology to describe them was different, and it is hard to know what it might

have been.[37] In the east midlands, terms such as *fyrd weg* or even perhaps *þēod weg* may have been employed in describing the types of road normally called *here pæð* in Wessex (Chapter 3), but no such terminology is found in Kent. Alternatively, the category of roads elsewhere called *here pæð* or similar may not have been numerous in Kent. This seems unlikely, but would have important implications and might further explain defensive difficulties confronting the people of Kent in the later ninth century, since an absence of a certain category of road could limit mobility and might have taken away some of the natural advantages of the defender, handing an important initiative to invading forces. A third alternative is that Kent had similar provision of all kinds of roads as was the case elsewhere, but did not have roads recognized locally as being of military use, again highlighting an essential difference in defensive thinking from the rest of Wessex. These place-name aberrations may simply reflect dialectal rather than socio-political differences, but the possibility that they add to the picture of a region tackling its defensive requirements in a separate and markedly different way from the West Saxon heartlands should not be ruled out.

In the archaeological and written record for other settlements of the middle Anglo-Saxon period—the villages, minsters, and emporia—the impression is one of widespread and catastrophic destruction. Perhaps indicative of this situation, hoards from Erith, dating to 890, and (famously) Gravesend, where some 552, mostly Anglo-Saxon, coins were found, including 429 pennies of Burgred king of Mercia (852–74), together with gold and silver ornaments dating to c.871, document dangerous and unpredictable times (Hawkins 1841; Blackburn and Pagan 1986, no. 64). Only in the later tenth or early eleventh century is there evidence of significant regeneration, demonstrated by the foundation of new boroughs (e.g. Rye, New Romney, Hythe) and the replanting of older ones (e.g. Sandwich, Hastings).

This impression of a much wasted landscape may in itself explain the absence of any major activities relating to civil defence dating clearly to the late ninth century. By whatever calculation is applied, it has been recognized that the Burghal system was almost prohibitively expensive and

[37] That OE *here* was an active part of Kentish place-name vocabulary may be suggested by the occurrence of a *here-wīc* (Harwich Street in Whitstable; S 332; Wallenberg 1931, 216–17; and Chapter 3) and three possible *here-feld* names—Harefield Farm in Selling (Wallenberg 1934, 305), Harville Farm in Wye (ibid., 386), and Harvel in Meopham (Wallenberg 1931, 244)—although there are alternative explanations for some of these (cf. Wallenberg 1934, 295, 305; Cullen 1997, 41).

required significant mobilization of resources (Brooks 1979; Abels 1997). It is for this reason that the construction of Burghal Hidage strongholds also depended on the availability of royal fisc; it is not coincidental that the extents of Alfred's Burghal policy coincide with that of his personal holdings as revealed in his will. However, in Kent the principal landowner was the church not the king, and the church is likely to have felt the effects of a hundred years of near-continuous raiding.

Nearly a third of all land in Kent was under ecclesiastical lordship in the ninth and tenth centuries, and was particularly dense in the north-eastern corner of Kent, including the Wantsum Channel, where royal lands seem to have been confined to Fordwich and the estate at Barham (Witney 1982, 225). At least in this area it is likely that the church played an important role in the defence of the realm. This much is clear from the charter evidence discussed by Brooks (1971) which suggests that military service was exacted on ecclesiastical estates from at least 792 (S 134) and was commonplace by the 820s (S 177). Less clear from this charter evidence is how services, including the building of static defences and bridgeworks, were delegated locally. A charter of 873 (S 344) granting land at Ileden is drawn up in the name of Archbishop Æthelred and King Alfred, suggesting that both had lordship of former ecclesiastical lands and the responsibility of protecting them (Brooks 1984, 159). Similarly, it is noticeable that of the seven estates responsible for Rochester Bridge piers in the *Textus Roffensis*, more than half were ecclesiastics (Brooks 1993). However, already from the mid-ninth century the maintenance of church estates was becoming increasingly difficult (S 1198, S 1239), and this, compounded with the strain of making tribute payments to the invaders (such as was attempted in 865; ASC 865 A, 866 C) are likely to have affected the ability of churchmen to organize effective military resistance (Kelly 1995, xvii). The suggestion that the "half-built fort" was *Lemanis* rather than Castle Toll, that is to say associated with the minster of Lympne rather than the royal estate of Newenden, implies that the Kentish church was negligent—or at least unable to fulfil these responsibilities at the close of the ninth century. Following the withdrawal of the Lympne community to Canterbury earlier in the century, a "few peasants" was, it seems, all they could muster.

Another suggestion worth considering, proposed by Peddie (1999, 170–72), views the absence of civil defence structures in eastern Kent as evidence for what was effectively a scorched-earth policy of tactical West Saxon withdrawal. Whilst this suggestion perhaps accredits more homogeneity to the two Viking hosts than can be read from subsequent events

(Abels 1998, 289) support for this interpretation is provided both by Viking tactics in the following year, and the administrative geography of the Kentish kingdom itself. Echoing the Kentish episode discussed at the start of this chapter, it is noticeable that the Northumbrian and East Anglian force that attacked North Devon and Exeter in 893 similarly split itself across West Saxon territory, isolating a large area behind two fronts (ASC 893 A, 894 BCDG).[38] Just as it did in Kent, this stratagem divided local militia whilst simultaneously securing from the English a large hinterland up the Taw and Exe valleys for subsistence support. However much strategic co-operation underlay this tactic, Alfred's response in 893 was more decisive than it had been in Kent, moving first to drive the Vikings from Exeter and then to consolidate his control of the West Country (ASC 894 A, 895 BCDG). These actions potentially reveal the different attitude taken towards the defence of Wessex and that of other regions, wherein the integrity of the West Saxon kingdom was more actively pursued.

In this regard it is important to bear in mind that eastern Kent was in some ways considered as a separate political entity from its western part as late as the ninth century, and this division may account for the differential treatment accorded both in 892–93. For much of its existence as an independent kingdom Kent appears to have been divided into two provinces each ruled by its own king—a situation apparently originating in the sixth century when western Kent was absorbed by its more powerful eastern neighbour (Yorke 1983; Welch 2007; Brookes 2011). When control of Kent passed to Mercian and then to West Saxon kings in the ninth century, the division of Kentish administration appears to have been maintained by local ealdormen. Oswulf, who held office under Cuthred (798–807) is described in S 1439 (dating to 844) as having been *Dei gratia dux atque princeps provinciae orientalis Cantiae*, and two separate groups of ealdormen appear to succeed one another throughout the remainder of the ninth century (Chadwick 1905, 271). Under King Ecgberht two ealdormen—Osmond (S 157, S 270, S278) and Dudda (S 1436, S 282, S 323)—appear at the head of witness lists of the Kentish nobility (Keynes 1993, 122), and as late as 905 two ealdormen of Kent—Sigulf and Sighelm—are recorded as falling at the battle of "the Holme" (S 1211). Even though West Saxon kings from Æthelwulf onwards increasingly regarded Kent as the eastern extension of their own kingdom, the continued existence of a king of Kent until 860 and of two ealdormanries through the ninth century indicates conti-

[38] The besieged fortress in north Devon is likely to have been Countisbury, which had similarly been attacked in 878.

nuity in the local patterns of both administrative and military organization.[39]

Given the location of Burghal sites and the activities of Alfred in Kent during 885 and 892–93, it is conceivable that only the western part of Kent was fully absorbed into West Saxon defensive policy; whilst the traditionally more dominant eastern Kent continued to be seen as separate from Wessex.[40] It is of note that in this eastern kingdom the church exercised considerable administrative and jurisdictional power in the ninth century, including perhaps the role of defending their dependent lands. As early as the 860s, West Saxon kings had ceded control of Rochester to Bishop Cuthwulf (Brooks 2006, 15), and the outcome of the manifold struggles in the ninth century between kings and church over rights to lands in Kent (Brooks 1984, 175–206; Witney 1982, 216–28), may similarly have left kings with little influence in the administration of those local estates on which civil defence rested.[41]

Whilst this pattern of lordship does not amount to a "scorched earth policy" in eastern Kent, it may account for some of the peculiarities in the record of Kentish civil defence. Given the distance of Canterbury from the West Saxon heartlands, Alfred's concern seems to have been to concentrate his effort on the more defensible frontier between east and west Kent. The Burghal Hidage may reflect this, in listing strongholds in those areas taxed centrally by Wessex, but including provision for territories in the catchment of both Hastings and *Eorpeburnan*. Outside this core area the role of coordinating defence fell upon a more diverse constituency, including archbishops, bishops, and local secular lords under the Ætheling Edward.

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[39] This much is suggested by a charter of 844 (S 319) in which King Æthelwulf granted land at Horton to Ealdorman Eadred along with permission to pass this same land on to a series of local landlords (Abels 1983). The four-stage process involved in this transaction served not only to create reciprocal bonds between the various parties, but also to reinforce in a very real sense the relationship between a local ealdorman and his thegns.

[40] An alternative—and perhaps complementary—interpretation, and one which may be borne out in the events of the late ninth century, is that eastern Kent was itself under temporary Danish control. The Danish presence in London during the 870s and 880s could conceivably have been linked with Viking forces in France and the Low Countries between 879 and 886. Activities during this time suggest an intention to retain control of a maritime axis with Dorestad and Frisia at one end and London at the other; something surely inconceivable without a sustained presence in eastern Kent, perhaps on the north coast islands of Thanet and Sheppey.

[41] Further indication of the joint control of Kent is provided by the coin sequence which suggests that Kent was not fully incorporated into the West Saxon economic system until the tenth century. Coinages of Archbishops Æthelred (870–89) and Plegmund (890–923) continued alongside Alfred's Canterbury series (Lyon 1976, 181–82).

This situation may have arisen from the practices established during the period of Mercian domination. By the late ninth century Kent had already a long-standing tradition of bridge and fortress-work of the kind only just becoming common in West Saxon diplomas under Æthelwulf (S 298, dated 846), and especially Æthelbald (S 326, dated 860; Brooks 1971, 80). The consequence of these parallel developments being that, whilst, the defences built to protect Wessex bear the hallmark of a deliberate and regular policy, those of eastern Kent present all the signs of an earlier, and by the 890s, rather antiquated system. In this regard, both Hastings and *Eorpeburnan* conform to a general spatial pattern of defence evident elsewhere on the south coast. At around 19.4km apart, their spacing is similar to that of Burpham/Chichester (18.3km), Chichester/Portchester (23.5km), and Portchester/Southampton (20.8km) further to the west. They also command important entry points into greater Wessex: Hastings lies south of the terminus of the Roman road from Rochester to Ore (Margary 13); and the same route passes close by Castle Toll at Sandhurst and Bodiam. Set beside this system, locations of the Viking encampments at Milton and Appledore take on added significance. They are the last safe anchorages before crossing into West Saxon dominion proper, close to a border along the Medway valley marked by a string of early lookout place-names, and in the winter of 892 patrolled by King Alfred himself.

Whatever the case, it must have been clear from the events of 892–93 that eastern Kent was insufficiently defended. Aside from the Roman walls of Rochester and Canterbury, however, there is little in the archaeological record of eastern Kent to suggest a coherent policy of civil defence before the later tenth or early eleventh century. At this time there appears to have been significant investment made into the establishment of a network of large and small sites that were interlinked around the coast, including from the late tenth century the beacon of St Mary-in-Castro and the replanted ports of Sandwich, New Romney, and Hythe.

The driving force behind these works may well have been lay, rather than ecclesiastical lords. During the later tenth century, as Robin Fleming has shown (1985), many of the lands belonging to ruined monasteries were absorbed into royal fisc, prefiguring the greater emphasis on coastal defence during the second wave of Viking incursions. The monastery at Hoo and the nunnery at Folkestone had been dependencies of Peterborough before the ninth century, but in an admittedly dubious charter of Æthelstan's reign (S 389) they are described as *terra juris mei*, and by the eleventh century they had passed to the earl of the south-east (Fleming 1985, 251,

255). Similarly, once Vikings had destroyed the nunneries of Milton and Minster-in-Sheppey in the later ninth century their lands appear to have reverted to royal ownership, where they remained until Domesday (ibid. 261).[42] Whilst the motivation for acquiring the control of these lands may well have been economic, the overall effect of this process of changed lordship proved strategically significant, as many of these foundations occupied important positions on major maritime routes, and there is evidence to suggest that their value was increasingly exploited in the tenth century. Ryan Lavelle has recently suggested that several cases of land exchanges from church to private landownership can be recognized during Æthelstan's reign, particularly on the south coasts of Dorset and Hampshire (Lavelle 2010a, 172–73), and the Kentish evidence fits this pattern. Just as was the case on the south coast, the revised policy of civil defence in Kent—appearing in response to the renewed Viking activity at the end of the tenth century—may well have been predicated by the consolidation of royal holdings in exposed coastal positions (cf. also Kelly 2005, 16–19; but see Dumville 1992a, 38, 45–54 for an alternative view).

Whilst it is possible to relate some lookouts and beacons known from place-name and other forms of evidence to coastal defence, notably the St Mary in Castro beacon and the Warehorns of the Wantsum Channel, it is noticeable that the majority of potentially early sites conform to a different defensive rationale, commanding views over inland rather than coastal routes. Similar to the Medway beacon chain described above, lookout place-names in the eastern Weald comprise a network of intervisible sites commanding views over the route of the proto-Rother and its tributaries, and their approaches to the Hastings-Rochester road (Margary 13). The orientation of these viewsheds is primarily inland, not seaward. Also similar to the Medway system, these lookouts can perhaps be linked with a burh, in this case Castle Toll (i.e. *Eorpeburnan*), which is hidden from the coast behind the Isle of Oxney.

Not only were potentially early systems focused on major navigable waterways rather than on the coast, all indications are that they operated in three discrete groups centring on the Medway, Wantsum, and eastern Weald, with no apparent point of intervisibility between these networks. At least two can be linked to early tenth-century strongholds. In this configuration, these systems find good parallels with those from elsewhere on

[42] These are not isolated Kentish examples. Similar reallocation of minster property occurred also at Abingdon, which after being destroyed by Vikings in 871, was apparently taken into royal hands (Stenton 1913).

the southern coastline (Baker and Brookes forthcoming b). Furthermore, both the Medway and proto-Rother systems find a fitting historical context in the events of 892–93. To this may also be added a curious event described in the *Chronicle* entry of 885 (ASC 885 ADEG, 886 BC, *Æthelweard Chronicon* § iv.3 (p. 45)). In this year Alfred is said to have led a naval force from Kent to the mouth of the Stour where they defeated a small Viking fleet, but on returning homeward were themselves overpowered by a larger Viking flotilla. Although this event is traditionally held to have occurred at the mouth of the Essex Stour, re-evaluation of many of the tacit assumptions, including the reading of *orientales partes Anglorum*, have suggested to Christine Grainge (2005) that an engagement in the Wantsum Channel is more likely. The implications of this interpretation are revealing. It would confirm the impression that the major maritime route between Rochester and the continent was a highly contested arena in 885, witnessing the active presence of at least two Viking fleets as well as a West Saxon one based in Kent. Alongside the naval skirmishes of 875 (ASC 875 ADEG, 876 C) and 882 (ASC 882 ADEG, 883 C, *Æthelweard Chronicon* § iv.3 (p. 44)), it would bear out the belief that the Alfredian fleet was limited in size and effectively pursued only small-scale engagements close to river mouths. Finally, it would suggest that fully-operational coastal patrols, such as characterized the late Roman Saxon Shore, were inconceivable at this time.

Given these observations it is telling that the rationale of the lookout systems discussed here contrasts markedly with that of later sixteenth-century coastal defence as illustrated in the Lambarde map. As described above, this comprised a ring of intervisible beacons overlooking principal landing places, linked to key inland musters. Potentially, elements more closely approximating this system emerged during the later tenth century, when a number of sites can be discerned occupying key positions above coastal sea-lanes. Perhaps indicative of this system are the isolated places such as Warden on the Isle of Sheppey, Warde House on the Isle of Thanet, the beacon of St Mary-in-Castro, and perhaps the late eleventh-century turriform church of Jevington (Sx.; Taylor and Taylor 1965, 349–50). Whilst the possibility remains that these sites were linked via a chain of coastal beacons whose names have been replaced by people using later terminology, the overriding impression is that they functioned as discrete lookouts. In keeping with this observation, St Mary-in-Castro itself is not intervisible with any other beacons in eastern Kent known either from place-names or sixteenth-century maps; perhaps highlighting its more important role in signalling to sea traffic (Baker and Brookes forthcoming b).

The appearance of coastal lookouts during the late tenth century corresponds with the emergence of ship-services and the greater visibility of naval actions in written sources, particularly relating to those maritime places later to form the Cinque Ports; but the antiquity of these services is unclear (Hollister 1962, 103–26; Hooper 1989a). Certainly in the case of Romney and Hythe, which, alongside Dungeness and Folkestone, contributed ships (and in all probability crews) to Harold's campaign of 1052 (ASC 1052 CDE), it is unlikely that these obligations pre-date the foundation of the settlements in the late tenth century. Archaeological evidence cited above, similarly supports a dating of c.1000 for the inception of these innovations.

Conclusions and Wider Implications

The events of 892–93 reveal a number of important issues regarding the strategies, timing and spatial organization of Alfredian civil defence. Particularly noticeable in this eastern extremity of his kingdom was a reliance on older established traditions of military organization, which seem to have been incorporated into his own system of territorial defence. Operationally, both systems were clearly intended to dovetail together. Whether Castle Toll or *Lemanis* was originally envisaged as the stronghold for south-eastern Kent, both fulfilled the same criteria determining other Burghal Hidage sites, namely distance to other burhs, strategically spaced catchments, and command of communications. Located close to the Sussex border in a sparsely populated area, the rationale of this stronghold must have been to plug a gap created by the more limited scope of earlier military service assessed at a shire level.

A final observation that must be drawn from the events of 892–93 is that by this date the intended Burghal system was not yet fully functional. This observation, combined with the archaeological evidence, reinforces a chronological pattern of burh development discussed in previous chapters, and provided here in summary form. The evidence from Kent, in keeping with other parts of Wessex, suggests that civil defence in the ninth century rested primarily on emergency burhs, which were organized regionally. These were ready-made defences—hillforts, Roman towns and forts, and early enclosed promontory sites—which acted primarily as refuges in times of crisis. Some of these burhs survived into the system of defence reflected in the Burghal Hidage list. Should the "half-built fort" in fact equate with the Saxon Shore Fort of *Lemanis*, there is a distinct impres-

sion—unfortunately too fine-grained for archaeology to prove categorically—that Alfred's Burghal policy, right up to the late 880s or even the early 890s, predominantly involved the re-fortification of older (Roman and prehistoric) defensible sites. In this view, the *terminus post quem* of de novo burh construction may well be the events of 885, and this is broadly consistent with the evidence discussed elsewhere and summarized in Chapter 7. As Brooks (1979, 16) has suggested, only with the siege of Rochester was there a significant change in Alfred's use of burhs, and this event could mark the point where the offensive capabilities of strongholds were first recognized. Most significantly, the restoration of London, if it was indeed a strategic reaction against the Rochester siege the previous year, was the first clear attempt to wrest the initiative away from the Vikings. London's "restoration", which included the planned grid of streets laid out as part of this visionary moment, is cited in the *Chronicle* precisely because it was such a radical departure from earlier policy, involving the comprehensive reorganization of an entire Roman town, including, as the entry of 893 tells us, provision for its effective defence (see Chapter 2).

The remodelling of old defences may well have remained the norm into the 890s, and was on the whole effective. During the 892–95 campaigns Exeter (893), North Devon (presumably Pilton Camp, 893), and Chichester (894) successfully resisted the Viking army, as in all likelihood did London itself in 893 and again in 894. But this same campaign also exposed the weakness of the system. The freedom with which the Vikings exploited river systems, such as the *Limenea*/Rother in 892, the Thames in 893, and the Thames and Lea in 894 required a more aggressive policy of riverine defence. The clear influence of Roman military architecture on the planned burhs on the Thames may well reflect this change in thinking. It is conceivable that *Eorpeburnan*, as Castle Toll, may also have been [re]fortified at this time to redress the inadequacies exposed at *Lemanis*.

This suggested reading of the evidence, by necessity tentative, is certainly compatible with written and archaeological sources and carries with it a number of attendant implications. Firstly, it supports a long chronology in the creation of the system documented in the Burghal Hidage. Given the level of effort (both physical and economic) that underpinned the defence of Wessex, it should not surprise us that this new system emerged first in the core areas of West Saxon control where royal fisc (and will) was concentrated. Outside the West Saxon heartlands, any extraction of military obligations was a much more complicated and ultimately drawn-out affair, as Offa's *Clofesho* charter to the churches of Kent demonstrates in

relation to earlier Mercian aspirations too (S 134; Brooks 1971, 78–79; Williams 2001, 303). For these reasons church estates in north east Kent were not afforded the same level of defence, and it was not until the later tenth century that systems of defence emerged that began to address this omission, albeit often on church lands forfeited to the crown.

Secondly, this view suggests that lessons were learnt between 892 and the second phase of Viking assaults during the later tenth and early eleventh centuries. The arrangement of static defences and lookout chains suggest that in 892 Kent did not have an effective coast watch, nor in all probability a coherent naval provision. Some attempts were made to rectify this error over the course of the tenth century, including the refurbishment of the St Mary-in-Castro beacon, and the tightening of royal control over coastal communities, visible in the foundation of new or replanted ports, and the imposition of more regular ship duties. To this period may also date the remodelling of Canterbury's defences, including a substantial free-standing tower built at St Augustine's (Wilson and Hurst 1958, 186–87) which may—if furnished with a bell—have been intended as a warning system for the city, alongside the numerous mural churches of Canterbury itself.

Whatever changes were implemented, these new provisions also proved ineffective. During the later tenth and early eleventh centuries Kent suffered regular destructive visits, including, in 1011, one leading to the sack of Canterbury itself (ASC 1011 CDEF). It is possible that the ineffectiveness of Kentish defence during this phase of Viking incursions was again due to the lack of a coherent overarching policy. In the archaeological and place-name record of lookouts and coastal defences, it is not possible to discern an integrated system such as became commonplace in the sixteenth century. In this system of coastal defence that so impressed foreign commentators, two elements stood out: the dense network of beacons and fortifications that ringed the Kent coast, and the armed militia that could quickly mobilize to defend beach-heads and landfalls. Neither of these components seems to have existed in the autumn of 892.

CHAPTER SEVEN

CIVIL DEFENCE AND THE ENGLISH STATE, 800–1016

Introduction

In discussing English coastal defences of the mid-sixteenth century, the Venetian ambassador Daniele Barbaro, in his *relazione* of 1551, stressed that "the chief strength of that realm consists in its inhabitants" (Hale 1982, 395). To his mind it was not the new system of forts and batteries constructed at great expense by Henry VIII for the defence of the realm that held the greatest threat, it was the troops who, alerted by early-warning systems, could move under local command to engage invading forces almost as soon as they had landed. The effectiveness of this system of regional mobilization was reflected in the scale of static fortifications: well-guarded and strategically attuned to the subtleties of terrain, logistics, and communications, but—in comparison to contemporary continental forts—small, and slightly out-of-step with the latest military developments.

In many ways Barbaro's observations could equally be used to describe the defence of England 650 years earlier. By the early decades of the tenth century much of southern England at least was dotted with defences great and small, often linked together through complex networks of communications, providing for the rapid warning and mobilization of civil militia. How this approach came about, and on what principles it rested, has been the central concern of this book. The following section summarizes the main physical elements of Anglo-Saxon civil defensive effort discussed in the text, attempts to place their use within a chronological framework, and proposes an evolutionary model for the military strategies that required their existence. Following this review we hope to place the concept of civil defence firmly within the landscape historical analysis of Anglo-Saxon England as well as other preindustrial states, in particular the relations between military power, landscape, territoriality, and state.

Civil Defence: Strategy, Territoriality, and Royal Authority

The origins and chronological evolution of defensive structures and institutions, the development of military strategies, and the role of warfare in

state formation are key themes of the preceding chapters. They are, of course, intimately connected, and any discussion of one has clear implications for the others. A broad chronological framework for some categories of defensive site has been long established, but more precise dating of evolutionary developments depends on interpretation of the context in which such features may have arisen.

This is perhaps the most troublesome obstacle to a successful analysis of Anglo-Saxon defensive arrangements. Many of the excavated sites provide broad date-ranges centred on the later Anglo-Saxon period, but cannot be narrowed down further than that. Traditionally, therefore, periodization of Anglo-Saxon fortifications is anchored on evidence drawn from non-archaeological sources, such as administrative and narrative accounts. Even the Burghal Hidage, which provides a *terminus ante quem* for 31 strongholds, is the subject of intense disagreement as to its date of composition, which in any case is worked out on the basis of inferences from the *Chronicle* and Alfredian coinage, among other things. Chronology therefore relies not just on archaeological dating, but on historical context and the implication of statements made in contemporary or later documents. Arguments relating to this are set out in detail in Chapters 2 and 3. This section will draw these arguments together and focus in particular on the evolution of defensive strategy during the later Anglo-Saxon period, and how it relates to changes in the scale and level of governmental institutionalization.

Threats, Vulnerabilities, and Responses: The Evolution of Military Strategy in Later Anglo-Saxon England

The discussion set out in the previous chapters reveals a complex and evolving series of strategic approaches adopted by southern English rulers in the middle to late Anglo-Saxon period, and allows a chronology of the changing approach to civil defence in Anglo-Saxon England to be charted, at least from the eighth century to the tenth. Bachrach (2001, 1–3) notes the problematic uses of terminology in historical analysis of military strategy, and the danger of reconstructing "grand strategy" by retrospective interpretation of events that may not at the time have been subject to an overarching political and military theory. To ignore the possibility of a wider context for military developments, on the other hand, might leave a perception that early medieval rulers were militarily naïve. The evidence assembled in the present volume gives a very strong impression of military astuteness and considerable medium- and long-term planning, and it

seems appropriate to attempt a unified interpretation of the strategies that inspired military innovation.

This outline necessarily generalizes in its characterization of defensive organization across the country, and it is worth noting that the response to military threats would have varied from region to region, depending on the opponent, the terrain, and the socio-political context. The discussion here attempts to set out in broad outline the position of key elements of Anglo-Saxon defence, as they can be identified through a multi-disciplinary landscape approach, within the context of military strategy. Five grand strategies are visible in the evidence:

- Frontier defence (eighth to early-ninth century)
- Defence-in-depth (late ninth century)
- Linear defence (c. late ninth/early tenth centuries)
- Offensive burhs (early- to mid-tenth century)
- Territorial defence (late tenth century)

Frontier Defence in the Eighth and Ninth Centuries

Prior to the eighth century, defensive organization might be described as "sub-state", or even "tribal"—based predominantly on regional or folk customs rather than national institutions, though of course modified by the prevailing socio-political structure and the partial survival of earlier military systems. It has been characterized effectively by others (e.g. Bachrach 1972; Contamine 1984, 13–22; Halsall 2003), and in a sense lies beyond the main focus of this book. It is worth noting, however, that the elements that constituted this approach formed the framework out of which later systems developed, and were in many cases retained and modified within those later systems. A brief description will therefore be helpful in understanding the changes that took place through the eighth, ninth, and tenth centuries.[1]

In the earlier period, military arrangements seem to have consisted of a localized dependence on defensive refuges/temporary forts, serving regional unities that were essentially based around "tribal" or regional ties and were territorially small. For such polities, domination of neighbouring territories depended on individual military leadership and could be

[1] The description is of course simplistic, presenting a model rather than an actual situation, and it is clear that different historical backgrounds spawned different versions of this system. In Francia, for example, the remains of the Roman imperial system may have had a much greater impact on the organization of early medieval warfare than was the case in Britain (Bachrach 1972, 124; 2001, 52).

limited to a single reign; the political dynamics changing regularly. Defensively, individual polities depended on the ability to take refuge in a central hard-point where elites, peasants (on whom elites depended for resources), and livestock could shelter effectively; but surrounding land could not be protected from harrying. More often than not, these folk refuges were re-used enclosures of Roman or pre-Roman date, and they may sometimes be commemorated in place-names such as Canterbury and Stallingborough, which combine group-names with a word probably meaning "stronghold". During this period, alternatives to refuge were to seek battle or recognize the superiority of the opponent and pay tribute. The role of support networks was relatively simple—a means of getting to and from strongholds, and of alerting the population to an imminent danger. The prominent landscape location of many pre-Roman enclosures in any case gave them commanding views over the surrounding country; and their location close to ridgeways and herepaths made them relatively accessible (cf. Halsall 2003, 222).

In reality, of course, this description may not exactly fit any polity of the early Anglo-Saxon period, but it provides a useful simplified model. Within this model, territorial units can be scaled up or down relatively quickly. In a period when siege warfare was basic and not invariably successful (Halsall 2003, 223–24), a single defensible circuit could theoretically act as a potentate's powerbase, and the surrounding territory form a single, small, autonomous territory; but in practice most recognizable polities presumably consisted of a more complex amalgam of local defensive arrangements. Under the threat of violence by a more powerful neighbour, such polities might quickly be brought together in a temporary or permanent confederation, in a way not dissimilar to Bassett's "F.A. Cup" model (Bassett 1989a, 26–27); but such groupings might also be prone to rapid disintegration (Oman 1924, 70–71). If the general trend of agglomeration resembles a knock-out competition, the individual matches are end-to-end affairs, and eliminated competitors may re-emerge through repechage.

Defining the defensive strategy behind this structure is awkward and perhaps an over-elaboration. Where such arrangements coalesced around a powerful core authority, forming an extensive territorial polity, the resulting strategy does depend on a frontier of some kind, if only one created by the insertion of hard-points into peripheral areas. This is probably how Mercian strongholds such as Cambridge should be viewed. It might be termed "frontier" or perhaps "buffer" defence, for it is a kind of entrenchment behind tributary territories, and it is elastic insofar as it does not

greatly hinder the enemy's advance into the defended territory, but makes it hard for the aggressor to inflict lasting damage or to take permanent control of key strategic points. Livestock, ruling administration, and population can all be preserved within refuges, and the armed elite retains the option of confronting the enemy in battle. This strategy seems to characterize the wars between Northumbria, Mercia, and Gwynedd in the seventh century—military confederacies advancing and engaging with defensive forces deep inside the notional territory of the defending power. Defensive systems based on this approach, and maintaining strongholds that were essentially tribal refuges/temporary forts, may have persisted through the eighth century and into the ninth, especially on the fringes of the larger kingdoms, or in areas subject to repeated war, invasion, and domination by one or more external powers. Even within the nascent middle Anglo-Saxon kingdoms, such a means of defence probably remained as long as those kingdoms preserved a segmented structure based on agglomerations of semi-autonomous folk-groups with traditional community or "tribal" loyalties, and on the centripetal personal force of an overlord king.

An army drawn from a federation of local units of this kind can nevertheless wreak considerable havoc, and can be used offensively to carry out major political objectives, as the wars of the seventh and eighth centuries demonstrate; but defensively it must leave peripheral areas—frontiers—vulnerable to repeated raiding. This is dangerous in an environment where personal overlordship can only survive as long as its benefits and threats outweigh external ones, and it is in this context that we start to see the evolution of a more complex approach to defence. A military system emerges in the eighth and ninth centuries clearly built on earlier arrangements in the continued use of pre-English defensive enclosures, but differing in important ways: the construction of major public defensive earthworks, the proliferation of defensible aristocratic and ecclesiastical precincts, and perhaps also an increasingly joined-up use of communications networks.

Already in the eighth century, state-organized defensive works are in evidence, in the form of the great public earthwork dykes in western Mercia and northern Wessex. Although dating of these is disputed, an eighth- and early ninth-century context for their use has been convincingly argued (Reynolds 1999, 85; Draper 2006, 59–60; Reynolds and Langlands 2007; Malim and Hayes 2008), and this would be in keeping with the first references in charters to military burdens (Brooks 1971). Whilst it is certainly possible that parts of these monuments predate the eighth century, it is

only within this period that they operated properly as frontier works (Brookes and Reynolds 2013).

Contemporary with these linear defences were a series of strongholds, which could serve as places of retreat against a rampaging army and might also act as rallying points for defensive forces. These seem to fall into two categories. The first consists of prehistoric hillforts, often found in close association with royal vills and minsters (e.g. Bigbury, Chisbury, Malmesbury, cf. Chapter 4). These were reused in this period probably as a means of protecting livestock and food renders, and as refuges for local populations and armies, who might wish to avoid immediate combat with a larger attacking force. Archaeological evidence for these sites remains slim, but common enough (as outlined in Chapter 2) to represent a generalizable pattern. The second comprises high-status residences, ecclesiastical sites, and other settlements making use of defensive circuits, both ancient and new. While these were not well-defended strongholds of the type familiar from the decades around 900, they represent defensible sites that could be pressed into action in an emergency, providing a vital element of defensive advantage to their occupiers. Potentially, eighth- or early ninth-century circuits of some Mercian burhs such as Winchcombe, Tamworth, and Hereford fit within this pattern (Bassett 2008), albeit representing particularly large planform arrangements of the type. Evidence for the reorganization of Winchester's defences, datable on current evidence perhaps to the 860s, provides a comparable West Saxon analogue. Significantly, it was these same sites which were identified as suitable strongholds by the Vikings in the ninth century.

Such systems may well have been supported by beacons and lookouts, and it seems feasible to suggest that wider networks of such sites were employed in association with these earthworks. Many are indicated in the toponymy of Wiltshire and Berkshire, a notably disputed territory at that period. There was a long tradition of communication by beacon fires in Europe and evidence of their use in the time of Charlemagne (see Chapter 3), so there is no reason to assume that the Anglo-Saxons did not on occasion communicate in this way from early times. Some signalling systems in the middle Anglo-Saxon period could have been relatively primitive, perhaps providing warning to the district so that part of the population could seek refuge and local militia could muster. Ideally such a system would also alert neighbouring districts, but the limited complexity of message that could be transmitted by means of a beacon may not have permitted much more than that.

The coordinated use of massive linear earthworks, supporting strongholds, and lookouts, together with provision for the maintenance of infrastructure, represents an advance in cohesive planning and may be the first state-driven overarching defensive strategy in Anglo-Saxon England. It might be characterized as "frontier defence", but it is not clear that all the elements for an effective approach of this kind were in place, in particular mobile field units. Armies were still effectively regionally based and dependent on ties of personal authority, and could only be summoned locally to meet a specific threat, or kingdom-wide for a particular and limited campaign. The system was, then, elastic—allowing large numbers to take refuge from attack while forces could be gathered; and controlling—limiting and defining the routes that hostile forces could take into the territory, and the tracks along which they could extract plunder. If this system originated in Mercia, the development and use of enclosed sites in the Wansdyke frontier suggest its adoption within the West Saxon kingdom during the eighth century.

Of course, the nature of our sources privileges details of West Saxon military responses. That the defensive structures of the West Saxon kingdom were in some way efficient is indicated by the apparent speed with which forces could be brought against invading hosts. Nowhere is this more evident than in 871, but the preceding decades had witnessed a series of battles between West Saxons and Mercians on the one hand, and Vikings and Cornishmen on the other. Up until the 860s, Viking war-bands may have been of a size that could be matched by shire militias, and the existing system seems to have been well capable of a localized response to invasion. Thereafter, new systems and new responses seem to have been needed.

Defence-in-depth (Late Ninth Century): The Alfredian Reform

In essence, the system as it stood in the eighth and early ninth centuries was a relatively *ad hoc* defensive arrangement (Halsall 2003, 215–16; Yorke 2012), aimed not at establishing a linear boundary, but a militarized frontier zone within which locally mobilized forces could see off or delay an invading army. Indeed, evidence of large-scale defensive strongholds in eighth-century Mercia and Wessex, of a type that could delineate and reinforce a territorial border, is very problematic; even if the tradition of such strongholds was adopted in Mercia before Wessex, the earliest examples may only date from the middle of the ninth century or later. By this time, and certainly by the last quarter of the ninth century, the nature of external military threats had evolved considerably. Viking raiding since the later eighth

century had demonstrated the danger of permitting hostile access to inland waterways and especially road networks, by means of which mobile war-bands could terrorize large swathes of countryside in a relatively short time. During the second half of the ninth century, larger Viking hosts could act effectively as a standing army, active throughout a long campaigning season. Furthermore, by capturing and reinforcing defensible sites, usually well-stocked administrative centres, Scandinavian armies proved capable of remaining over the winter, immune from attack by local forces, in order to restart their activities the following spring. Operations could subsequently be directed from these strongholds, making it hard for defending armies to force a pitched battle on their own terms. Warfare between Anglo-Saxon and British kingdoms in previous centuries seems generally to have sought a modification of the existing balance of power: one ruler using violence or the threat of violence to bring another under his overlordship, to renegotiate tributary terms, or to capture commercially, agriculturally, and strategically important territory. By contrast, Viking warfare in the second half of the ninth century often involved long seasons of plunder and could be targeted at conquest and settlement, entailing in several cases the destruction of existing political units and the extinction of their royal lines. Moreover, as Smyth (1995, 71) notes of the actions of the 870s: "huge distances were being rapidly covered [by the Vikings] in order to catch the West Saxons off guard". By exploiting their greater mobility the Vikings were able to penetrate deep into the heart of Wessex.

To confront this new threat, Anglo-Saxon military planners had to redefine their strategic goals. Underpinning the system of "defence-in-depth" was a mechanism by which such rapid drives across Wessex could be countered. It must have been clear after 871 that local militias were not an efficient way of combating the *micel here* (Stenton 1971, 261). Even when West Saxon forces were victorious, they must have sustained considerable losses—this is made explicit by the *Chronicle* entry for 853, detailing an action in Thanet which may have involved a smaller Viking force than was active in the 860s and 870s. The struggles of Æthelred and Alfred in 870–71, which involved nine major battles and many other local engagements, still failed to drive the Vikings from Wessex. This experience may well have led to a realization that the best policy for defeating the Vikings was to draw up the combined strength of the whole kingdom, and to take the Vikings on, if possible, in a single set-piece engagement. Something similar to this seems to have happened at Edington in 878 with the effect of driving the Vikings into refuge, and ultimately forcing the Vikings out of Wessex with one action.

The development of West Saxon military arrangements can perhaps be traced in the *Chronicle*. The military engagements fought by West Saxons in the ninth century can be divided into offensive and defensive actions, but this is not necessarily a helpful distinction, since some defensive actions resemble offensive ones, insofar as advance warning of a threat has permitted the assembling of a large force and its engagement in a set-piece battle in a way that might normally be associated with a foreign campaign. A more useful division might be made between planned responses on the one hand and rapid reactions on the other. The former includes aggressive campaigns initiated by the West Saxons. Between 800 and 870, in all such cases the West Saxon forces were led by the king: for example, Ecgberht led forces in Cornwall in 815 and against the Mercians at *Ellendun* in 825; also at Hingston Down in 838, where he defeated an alliance of Vikings and Cornishmen that had been active in the south-western peninsula for some time, according to the *Chronicle* (ASC A); in 853 Æthelwulf gave military aid to the Mercians against the Welsh; and in 868 Æthelred and Alfred marched to Nottingham. In 851, a West Saxon force led by Æthelwulf and his son Æthelbald confronted the Viking host at *Acleah*. Although this took place within West Saxon territory and was essentially defensive, the Viking army in question had spent the previous weeks storming Canterbury and London, and fighting in Mercia, and this presumably gave the king time enough to assemble a national force and plan a response.

Between 800 and the beginning of 870, of the eleven engagements that might truly be categorized as rapidly reactive, only two were led by the reigning West Saxon king—both incidentally at Carhampton, and both unsuccessful (836, 843 ASC). The other nine engagements were led by ealdormen with shire militia, although Prince Athelstan (already styled "king" by the *Chronicle*) took part in the action at Sandwich in 850.[2] These

[2] In 802, a Hwiccian army was defeated by Ealdorman Weohstan and the men of Wiltshire (but Weohstan was also killed); in 836 King Ecgberht led an army against the Vikings at Carhampton; in 840, Ealdorman Wulfheard fought against the Vikings at Southampton; also in 840, Ealdorman Æthelhelm fought against the Danes at Portland (and was defeated and killed); in 841 Ealdorman Hereberht was slain by "the heathen" on Romney Marsh; in 843 King Æthelwulf fought against Vikings at Carhampton; in 848, Ealdormen Eanwulf (of Somerset) and Osric (of Dorset), together with bishop Ealhstan, fought against Vikings at the mouth of the Parret; in 850 Ealdorman Ceorl and the men of Devon fought "the heathen" at *Wiceganbeorg*; also in 850, Prince Æthelstan (already referred to as King (of Kent)) and Ealdorman Ealhhere fought the Vikings at Sandwich; in 853 Ealhhere (of Kent) and Huda (of Surrey) fought against Vikings in Thanet; *s.a.* 860, in detailing the death of Æthelwulf, the *Chronicle* mentions the host storming Winchester and being fought off by Ealdormen Osric (of Hampshire) and Æthelwulf (of Berkshire).

local responses to foreign invasion were clearly effective in slowing down the enemy, and it is a mark of the strength of the existing defensive systems that they were able to react in time to muster and engage the enemy so rapidly, but the battles only ended in victory about fifty percent of the time. The initial response to the Viking attack on Reading in 870 was also led by an ealdorman, but subsequent engagements seem to have taken place under the king's command and through the 870s, 880s, and 890s, Alfred is described as the general in every clash with the Vikings. Of course, in some cases this must represent the laudatory approach of the *Chronicle* scribes (cf. Shippey 1982). Other sources, such as Æthelweard's chronicle, suggest that Alfred was supported in his campaigns by Prince Edward and Ealdorman Æthelred of Mercia. Leadership of the army seems nevertheless to have been concentrated in royal hands.

This is made particularly clear when a Viking force landed at Lympne in 892 and did not apparently face an initial confrontation with local forces at all. This may have been a response to the increased size of Viking armies during the second half of the ninth century, with local ealdormen unwilling to lead small shire militias to almost certain annihilation against much larger forces. Two brutal engagements at the start of the 840s had demonstrated the danger of such confrontations, with Ealdormen Æthelhelm of Dorset and Hereberht of Kent defeated and killed (840–41 ASC).[3] It was an army led by King Æthelwulf and his son that faced the Viking host at *Acleah* in 851, a host so large, according to the *Chronicle*, that its transport required three hundred and fifty ships. There is, however, another possibility to explain the apparent change in army leadership. Although it is only in the annal for 893 that the *Chronicle* first makes reference to Alfred's new organization of the *fyrd*, the implication may be that a move towards the concentrating of manpower in a large, national army was already in process earlier (cf. Keynes and Lapidge 1983, 285–86).

The *Chronicle* entry dated 894 (for 893) specifically associates the move towards a type of standing army with the garrisoning of strongholds, and indeed, it is hard to see how the former could have existed without the latter. Somehow, the new *fyrd* needed to be sheltered and supplied, and since the Vikings had proved so successful at seizing well-stocked royal settlements, these provisions needed to be gathered in strongly defended

[3] Another ealdorman, Wulfheard, was victorious in a battle earlier in 840. He passed away later that year, but apparently not as a result of wounds received in battle, since Æthelweard (*Chronicon*, III.4) claims that he died from natural causes. In 802, in spite of his victory over Ealdorman Æthelmund, Ealdorman Weohstan of Wiltshire was slain.

enclosures. The garrisoning of a series of strategically-sited strongholds across the kingdom and close to important route-ways, was *the* key military innovation of the new system; shifting strongholds from being static defendable places (offering protection to English and Vikings alike) to mutually-supporting, yet self-contained tactical elements able to concentrate the defensive response (cf. Luttwak 1976, 131).

The new series of garrisoned strongholds would still have been interspersed with the many smaller and temporary strongholds of the eighth and ninth centuries, and if the former served as refuges, they were certainly not the only refuges in use, and this was certainly not their main purpose. Fully to meet the threat of what must effectively have resembled a standing Viking army, these major strongholds must have operated in conjunction with the newly organized *fyrd*. Their strength and relative impregnability, by comparison with places like Reading, Chippenham, and earlier Nottingham—which had been occupied by Viking hosts and held against West Saxons and Mercians—meant that resources and supplies could be kept securely and that Anglo-Saxon forces could assemble in safety. Forces based at such strongholds could respond rapidly to local Viking aggression. It was therefore in conjunction with a garrison that strongholds of this type were intended to operate; without a garrison, there would be little to prevent any Viking army from passing a stronghold and continuing its progress through Wessex, or storming and occupying the stronghold itself.

This then was truly a system of "defence-in-depth" involving the abandonment of the frontier defences for strongholds located in tactical positions guarding the main vectors of approach. In reference to the Roman strongholds placed by fords along the Rhine and Danube, Luttwak (1976, 133) observed that in "a rational scheme of selective fortification in depth, the goal is to *equalize* the barrier effect of terrain across the sector as a whole by denying free use of the easier passage points." And so the West Saxon system made use of linear earthworks (e.g. Chisbury) and natural barriers such as the Thames (e.g. Sashes), and combined the control on movement these imposed with use of large, mobile forces and well-defended and garrisoned strongholds. The latter were strong enough not to be taken without serious difficulty, and their garrisons could slow down the progress of a Viking army while the field army moved to intercept and defeat it. The numerical strength the centralized *fyrd* now possessed by comparison with the former regional militias increased the likelihood of such a defeat being decisive. For the Vikings, the conduct of war had

changed decisively. As Oman so bluntly put it in 1924: "there was little gain in harrying the open country; not only had it been plundered already by fifty previous raids, but now the peasantry flocked into fortified places with all that was worth carrying away" (Oman 1924, 107).

The episode of 893 demonstrates well the new system in operation. Although the forces of Hæsten and his allies were able to gain access to Alfred's kingdom in 892, their movement seems to have been more tightly confined than had been the case for earlier Viking hosts in southern England. This was undoubtedly in part due to Alfred's tactic of placing his forces between those of the Viking armies, but may also have been a result of the wider military innovations outlined above. By limiting access to communications networks, Alfred made it very difficult for the Viking army to raid throughout Wessex before slipping away across the Thames without being forced into a major engagement. Once the Vikings were brought to battle, the new organization of West Saxon forces gave Alfred a decisive advantage, and he was able to rout his opponent. Ultimately, by reinforcing a series of strongholds, some of which are noted in the Burghal Hidage, the Alfredian government was able to limit, but not to deny, access to Wessex.

This new system seems to have been operating by the early 890s, when it is first noted in the *Chronicle*, but the annal in question (ASC A *s.a.* 894 [for 893]) was written down some years after the event and in order to explain Alfred's manoeuvres the scribe might simply be providing contextual material relating to changes that had begun some time before 893. As has been seen, there is evidence from the 870s of a move away from shire militias as the key element in rapid reactive conflicts. Whether the origins of this new system can be found as early as the 870s is questionable, but it is notable that neither the Viking raid as far as Wareham in 875 nor the attack on Chippenham in 878 faced any local defensive forces upon entering Wessex—at least none deemed worthy of mention in the *Chronicle*. The trauma of repeated Viking raids over the previous decades may well have left the military administration and infrastructure on the point of collapse, leaving the kingdom open to invasion, but it seems unlikely that such a situation would have been allowed to persist for so long.

It might therefore be suggested that in a preliminary stage of military reform, responsibility for defence had been centralized and therefore taken away from local ealdormen and militias, so that in times of crisis, the affected shire did not engage the opposition immediately, but assembled with forces from other parts of the kingdom in an army to be led by the king. This would have concentrated West Saxon military power, and pre-

vented the Vikings from draining its strength by picking off a series of smaller forces, making final victory over the Vikings a more likely prospect; but for a short time it would have seriously undermined the defensive arrangements of frontier districts. It might alternatively be suggested that the initial priority in choosing strongholds to support the new *fyrd* was not defence of the periphery, but logistical convenience: in other words, sites that could be rapidly fortified, commanding major routeways, and at which supplies could be easily gathered were preferred. The number of major pre-English enclosures that were clearly still in use when the Burghal Hidage list was compiled, such as Malmesbury, Chisbury, or Winchester, may be a reflection of this. It may also be significant that the dating evidence for the earliest phases of refurbishment at Winchester centres on the 860s, by which time the dangers presented by large Viking armies would have been clear from their activities in Wessex and elsewhere.

There are several observations which suggest that as a first step West Saxon military planners may have looked only to existing earthworks and major defensible circuits in convenient locations and strengthened their existing defences. Firstly, the distribution of these types of strongholds in the Burghal Hidage appears to show a marked concentration across the West Saxon heartlands. *De novo* fortifications, by contrast, are located at the periphery of West Saxon territory and, as discussed further below, are designed with a different grand strategy in mind. Indeed, the distribution of (re-)fortified sites alone, without the inclusion of *de novo* strongholds, fulfils the aim of territorial coverage required of defence-in-depth, with no two sites of this kind more than 40 miles apart (Fig. 74). This observation alone adds an important corrective to the thesis put forward by Jeremy Haslam (2006; Chapter 1 above), regarding the events of 878–79. If indeed the crucial turning point in Alfred's dealings with the Vikings in these years was his implementation of a radical new strategic redeployment of the forces available to him, this could have been achieved simply by taking up positions within pre-existing fortifications, not the construction of new ones. Purely from a tactical perspective, there is no need to see *de novo* fortifications as part of the primary defences; indeed evidence outlined in Chapter 4 argued that building a stronghold at Cricklade changed the military rationale behind the earlier hard-point at Malmesbury.

Secondly, to this can be added the evidence for the arrangement of hundred territories lying behind the Thames strongholds. As may be the case with Cricklade (Chapter 4), the burh of Wallingford drew on a large territory of appurtenant vills lying on both sides of the Thames in Berkshire

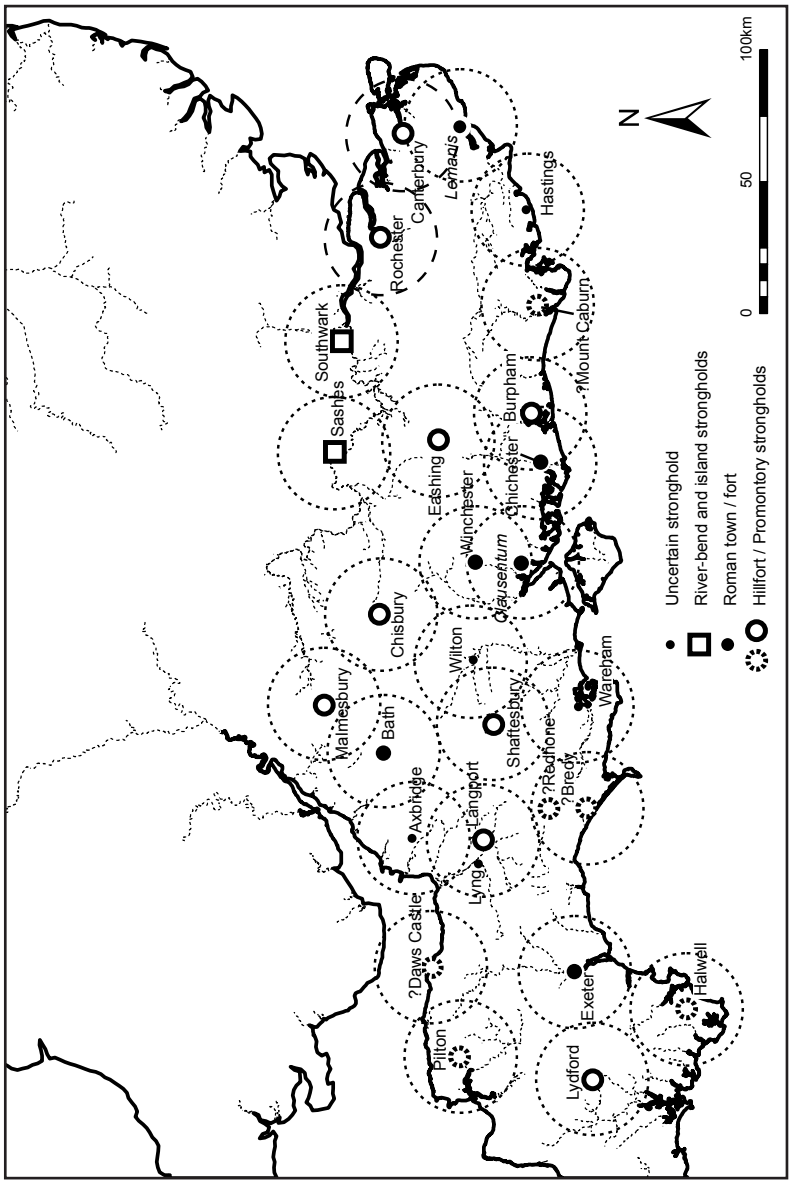

Fig. 74. 20-mile radii drawn around the first-phase burhs of the Burghal Hidage.

and south-eastern Oxfordshire, arguing that its assessment was shared between the two shires (Roffe 2009, 42–45). Perhaps significantly, when taken together Oxfordshire (2434.6 hides) and Berkshire (2495.8 hides) were assessed at 4930.4 hides in Domesday Book (http://www.domesdaybook.net/), a value that is not too dissimilar from the combined assessment of Oxford (1500), Wallingford (2400), and Sashes (1000) in the Burghal Hidage of 4900 hides. On numeric grounds at least, it is probable, therefore, that the burh of Sashes drew solely from territories lying in Berkshire (*pace* Roffe 2009, 44). The evidence is less convincing in the case of Southwark. Surrey's Domesday assessment of 2005.25 hides is insufficient to provide fully for its burhs of Eashing (600) and Southwark (1800). Nevertheless, there are grounds—not least the name itself (Chapter 5)—for believing Southwark to be linked with the shire of Surrey. The conclusion to be drawn is that unlike the *de novo* strongholds of Cricklade and Wallingford, whose burghal territories spanned the river, Sashes and Southwark were garrisoned river islands, utilizing their location to defensive effect, and drawing their manpower from the right, West Saxon, bank.[4] Potentially, this observation defines two chronological phases: the first, a time when the reorganization of civil defence measures was a purely West Saxon affair; the second, involving the imposition of such a system in southern Mercia. Arguably, the latter policy could only have been achieved after this area came under West Saxon control in 911.[5] Whilst this does not discount the probability that some, more modest, form of pre-burh stronghold existed at these places in the ninth century, it may only have been around this date, that is to say, around the time of the production of the Burghal Hidage list

[4] A similar argument could be made to explain the discrepancy between the Domesday assessment of Hampshire, and the number of hides assigned to its burhs in the Burghal Hidage. There is a good fit between the total shire assessment (2586.72 hides) and the sum of those made for Winchester (2400 hides) and Southampton (150 hides); i.e. if one excludes the assessment made for the *de novo* stronghold of Christchurch (470 hides) and the early tenth-century addition of Portchester (500 hides). In Devon, the sum of the assessments for Exeter (734 hides), Halwell (300 hides), and Lydford (140 hides), at 1174 hides, comes close to the Domesday value of the shire of 1138 hides, but only if one excludes the 360 hides assigned to Barnstaple. However, in this case it is possible that the burh drew on hides from Somerset, which has a surplus of 373 hides left over from its Domesday value (2986 hides) and the total number of hides assigned to its burhs. No numerical solution can be made to explain the shortfall between the Domesday assessments for Dorset and Sussex, and the total number of hides assigned to the burhs in these shires, though it seems likely that allocations to the *de novo* strongholds of Wareham and Lewes similarly required the reassignment of hides from older fortifications.

[5] Jeremy Haslam has recently argued that Alfred may have taken direct control of at least part of southern Mercia as early as 879–80 (Haslam 2011a).

itself, that *de novo* strongholds on the Thames, as well as their burghal territories, originate.

A third observation adds further weight to this pattern. Pairings of burhs recorded in different versions of the Burghal Hidage suggest that early strongholds such as Pilton Camp and Halwell Camp (both De.), originating as pre-historic hillforts, were replaced in the first quarter of the tenth century by *de novo* sites at Barnstaple and Totnes (De.; Haslam 1984c, 251–56; 259–62; Slater 1991; Hill 1996a, 213–14; 2000). Likewise, Guildford (Sr.) appears to have been a replacement for the nearby Burghal Hidage promontory burh of Eashing (Sr.; O'Connell and Poulton 1984, 46), and Watchet for Daws Castle (So.; Haslam 2011b; see also Fig. 75). To this list may be added Wareham (Do.). The *Anglo-Saxon Chronicle* records that Wareham was occupied by the Vikings in 876, after they "slipped past the West Saxon army" on an 80-mile lightning strike from Cambridge (ASC 876 ADEF). Given that they were subsequently in a position to bargain their way out of the settlement, it is reasonable to assume that Wareham was by that date a defended site. However, Asser's description of the event makes clear that Wareham was a convent, and was secure because of its topographical posi-

Fig. 75. Photo from Daws Castle of Wachet, Somerset. The bank of the ninth-century promontory burh is clearly visible in the foreground, directly in front of the harbour and burghal core of Watchet on lower ground to the east.

tion between two rivers, not its man-made defences (Asser.*VitAlfredi* § 49). Perhaps supporting this idea, the planform of streets around Lady St Mary church in the south of the town, in all likelihood the location of the middle Anglo-Saxon minster at Wareham, has a distinctively more organic form than the rectilinear pattern across the rest of the burh, suggesting the location of an earlier defensible ecclesiastical precinct predating the *de novo* fortification.

Although there is no precise dating for the origins of any of the Burghal Hidage strongholds, circumstantial evidence discussed throughout this book suggests that the policy of utilizing pre-existing defences continued into the 890s. If it is authentic, Shaftesbury's lost inscription dates the foundation of a burh there to c. 878–79 (Cramp 2006, 111–12), but the process of fortifying early minsters in promontory locations was clearly still continuing over a decade later. Charter evidence suggests that Alfred was still consolidating the burghal territory of Malmesbury in the 890s (Kelly 2005, 18), whilst the report of an agreement between Alfred and Ealdorman Æthelred, concerning the construction of the new defences at Worcester—that is to say the extension of the Roman defensive circuit there (Chapter 2)—is datable to c. 889–99 (Baker and Holt 2004, 113). Portchester's incorporation into the burghal system must surely post-date the transaction, datable to 904, by which the Roman fort passed from the bishop of Winchester to Edward the Elder (S 372), continuing a tradition of re-fortifying Roman forts recognized also at *Clausentum* (Ha.), and in 892 at *Portus Lemanis* (Ke.; Chapter 6).

Linear Defence and de novo *Strongholds* (*c. Late Ninth/Early Tenth Centuries*)

The size of Viking forces was, however, only one of the troublesome issues facing Alfred. The events of the early 890s showed that the Vikings were still capable of gaining access to important royal centres, making them defensible, and (crucially) of commandeering their associated resources. While ultimately successful, there is a suspicion that Alfred was forced to pay tribute to one of the Viking leaders (Smyth 1995, 41–42). Together with the drain on resources through pillage and occupation of territory, this must have created an uncomfortable situation. Already by the 890s, therefore, the strategic approach may have been changing. The best way to prevent Viking atrocities within Wessex was surely to deny access to its major river and road networks altogether. The most efficient way to do this was by controlling entry to and the nodal points of the transport system. It was

impossible to protect every communication route, but local surveyors would have been aware that most Viking movement was limited to well-established and widely known vectors rather than local roads. By placing bulwarks at or near to the places where arterial roads entered the kingdom—Thames crossings and the intersection of coastal inlets with major overland route-ways—West Saxon forces could hope to counter the Viking threat before it got out of hand. From such strongholds, military activity could be not only reactive, but also pre-emptive and offensive.

An example of this approach can be seen on the south coast where a *de novo* stronghold at Lewes—perhaps replacing undated, but possibly earlier, defences on Mount Caburn (Drewett and Hamilton 1999, 9–10)—was placed at the junction of roads with a river that gave direct access from the sea. A series of possible lookout sites in this area watched over the connecting roads and rivers, not out to sea (Baker and Brookes forthcoming b). This suggests a more subtle use of beacon systems, not as general public alerts but as posts for specific military observation. At this stage there was little hope of preventing a Viking landing, but once the Vikings did land, their choice of routes was restricted by the *de novo* strongholds, and their advance overseen and communicated by the lookout and beacon sites.

Part of this same process may have witnessed the garrisoning of Portchester Castle after 904 (discussed in chaper 2). Lying on a tongue of land extending out into the northern edge of Portsmouth Harbour, the fort lies near the main route along the south coast linking Portsmouth and Southampton (Margary 421) and an inland road to Winchester (Margary 420). Though only 26km from Southampton and 29km from Chichester, Portsmouth Harbour may have been identified as a vulnerable point in the south coast cordon, providing shelter for a fleet and a clear opportunity to access not only the coastal road running across the flank of the bay, but also the road direct to Winchester.

A further site potentially fits these same developments, perhaps demonstrating a willingness to protect the Isle of Wight itself. The Lower Enclosure at Carisbrooke Castle, on a hill-top in the centre of the Isle of Wight just to the south of Newport, is an irregular rectangular monument which is argued on archaeological grounds to have pre-dated the Norman castle built on this site (Young 2000). Two phases are discernable: an initial chalk bank, c. 1.5m in height, and a second phase in which the front of the bank is faced in stone, at least 3m in width (Fig. 76). The latter phase is comparable with Æthelredian works of the early eleventh century, suggesting a possible tenth-century date for the former. Perhaps mirroring this

Fig. 76. Photo of Carisbrooke Castle, Isle of Wight.

sequence, structures internal to the enclosure also comprise two phases of a major wooden building near the centre of the fortification.

On the Thames too, new, purpose-built strongholds at Wallingford and Cricklade may have been keyed into and linked by a system of lookouts in Berkshire and north Wiltshire. To some degree this represents a move towards a more preclusive defensive system: where a border is set, and defences seek to exclude external forces from access to the defended territory. An obvious parallel to this kind of defence is provided by Roman arrangements along Hadrian's Wall, where the border defences were patrolled by a relatively small force, with the main manpower held back from the front and ready to move forward against an incursion (Luttwak 1976, 142–43, Fig. 3.3). West Saxon borders such as the Thames, while forming significant obstacles to mobility, were not impervious, and it seems likely that patrols operated from the strongholds at the front line.

It is not necessary to see the two phases—defence-in-depth and linear defence—as entirely distinct, and a certain amount of overlap is to be expected. The change of strategy may be no more than a reflection of practical necessities. In the years following Guthrum's invasion, time and resources may have been at a premium and reoccupation of existing strongholds, whether their location was ideal or not, may have been the only option available. Later on, as time and resources permitted, West

Saxon forces constructed a handful of powerful new strongholds at locations chosen on purely military grounds—Wallingford, Cricklade, Lewes, and Barnstaple among them. Even when such defences began to proliferate, the evidence of the Burghal Hidage suggests that existing strongholds, continued in use and in some cases were adapted to meet new requirements.

That high-status residences and especially royal centres persisted as important defensive points in the landscape is suggested by the distribution of Burghal Hidage strongholds along the Thames and the southern coast of Wessex. Apparent weaknesses in the defensive system, for example at Old Windsor on the Thames, may correspond with known royal complexes that presumably continued to serve a military purpose albeit within an altered defensive strategy.

No written or archaeological evidence securely and unequivocally places any of the *de novo* strongholds before 890. As we have shown, supposedly characteristic features of their planform, such as regular streetplan, are visible by the 860s at Winchester, and are only adopted at Worcester following the destruction of the city defences built in the 890s; whilst their earth-and-timber defences have still older antecedents (Chapter 2). On numismatic evidence these sites only become visible in the second quarter of the tenth century, since mint-names rarely appear on Anglo-Saxon coinage before the reign of Æthelstan. Barnstaple's earliest issues appear in the mid-tenth century, and Cricklade's in the reign of Æthelred II (Hill 1981, 131–32). The early to mid-tenth centuries certainly appear also to have witnessed the consolidation of burghal sites across Wessex, with the replacement of many "primary" burhs by new towns (e.g. Hallwell by Totnes; Pilton by Barnstaple; see above). Taken together these replacement sites demonstrate a range of similarities. They generally have a rectilinear planform comprising a single central main street with long *insulae* laid out at right angles to the main street, and they emerge as mints in the middle decades of the tenth century. Many other new "towns" of Æthelstan's reign (e.g. Dorchester, Newark) adopted these same planned features (Hill 2000). Comparable evidence presented in Chapter 4 suggests that Great Bedwyn and Marlborough are part of this same development, even though no coins are known to have been minted at the latter.

Offensive Burhs (*Early to Mid-tenth Century*)

If the new strategic outlook aimed to exclude hostile forces from entry into West Saxon territory, then the useful lifecycle of many strongholds was

likely to be limited by the changing political landscape of the late ninth and early tenth centuries, as West Saxon authority increased in midland areas. The morphological similarity of the *de novo* strongholds along the Thames and throughout Mercia suggests that they were constructed in a relatively short period at about this time, but the activities of Edward, Æthelflæd, and ealdorman Æthelred suggest that a preclusive line based on the Thames was becoming less of a strategic priority even as early as the 910s. While Æthelred and Æthelflæd were perhaps constructing something similar along the northern and eastern limits of their Mercian territory, Edward was active in the southeast midlands and Essex, either moving his preclusive border further north, or reinforcing West Saxon defences with the creation of a militarized salient, in which forces could be based in order to intercept hostile armies before they reached the Thames crossings. The clearest expression of the new phase of defensive activity are strongholds along the Ouse and in Essex, the key function of which seems to have been the exclusion of hostile forces from access to the road network. On that basis, a preclusive barrier based on the Rivers Ouse and Stour could be envisaged, but further strongholds at Hertford, *Wigingamere*, and Nottingham may complicate such a picture.

Another important element in Edward's strategy in the south-east midlands (and probably elsewhere) may have been his use of landscape to provide his new strongholds with a network of signalling posts that could provide additional cover. A series of evenly spaced lookouts along the Chiltern scarp provides a means by which the key Icknield crossroads could be observed. Crucially, these lookout sites are intervisible and would have been able to signal with each other and, feasibly, with strongholds at Wallingford, and *Wigingamere*. This use of beacons differs from that set out by Hill and Sharp (1997), a system of general warning, and is much more closely paralleled by the positioning of beacons along the Sussex coastroads. In this case, very specific nodal points are being observed and the a message of impending danger is being sent to other beacons along the same road and to nearby strongholds. Depending on the order in which the beacons lit up, troops based at the strongholds may have been able to assess the direction in which the threat was moving. If this lookout system (or its use as such) is contemporary with Edward's advance into the Ouse valley, then it may be a demonstration of the shift of military emphasis that had taken place, moving away from the raising of shire levies and the warning of inhabitants to find shelter, and towards a calculated communication to one or more military forces already in some state of preparation.

One characteristic feature of the *de novo* burhs of the Thames, including *Lundenburg*, was the deliberate creation of large open spaces within the defensive circuit (Chapter 2). This feature distinguished these sites both from *de novo* sites in Wessex (e.g. Lewes, Barnstaple, Axbridge) mentioned in the Burghal Hidage and mid-tenth century planned towns such as Newark and Guildford. It is a trait, however, shared with so-called "double-burhs", where large D-shaped enclosures similarly provided large defended open spaces lying adjacent to the core areas of settlement. No significant archaeological remains of late Anglo-Saxon date have been recovered from these compounds and the likelihood that they functioned as military marching camps for Edward the Elder's campaign remains inescapable. The close morphological similarity between D-shaped enclosures, extending to the remarkable similarity in the size of the Cambridge, Witham, and Thetford enclosures in particular (Fig. 37), reinforce the impression that these compounds were designed to a military standard and plan. Whilst some doubts have been expressed about their role in blocking up-river approaches towards Wessex (as opposed to controlling access to the road network; Chapter 3), a function as temporary camps of military personnel and depots for logistical support seems highly likely. These sites, and their Thames-side counterparts, were not the defended and garrisoned bunkers of Alfred's system, but highly-efficient advanced platforms from which to launch offensives aimed at the subjugation of the Danelaw. In that sense, they might be compared with modern aircraft carriers.

The West Saxon push into the southeast midlands and East Anglia would have had a major impact on the strategic importance of the strongholds along and south of the Thames, including those major constructions mentioned in the Burghal Hidage. By the end of the 910s, a military presence at places such as Cookham/Sashes and Old Windsor would have been of marginal importance. In this respect, the Burghal Hidage—which is almost certainly incomplete as a list of strongholds in use at any given time—should also be seen as a snapshot of a changing strategic situation, taken at one specific point in the evolution of West Saxon defences (Baker and Brookes 2011). The absence of London from the Burghal Hidage is a matter that has exercised historians, but Hertford and Witham are also absent, both of which existed by the time the Burghal Hidage was compiled, by accepted reckoning. The many different types of stronghold, with origins in a variety of periods and socio-political contexts, that ended up being incorporated into the temporary phase of strategic development encapsulated in the Burghal Hidage, is a clear indication of the patchwork

nature of that evolution. It is to be expected that many other strongholds came in and out of use during this tumultuous period, not all of which were ever mentioned in contemporary documents, and some of which very soon ceased to be of strategic importance as the military outlook changed.

Territorial Defence of the Mid- to Late Tenth Century

Certainly by the end of the tenth century, the organization of Anglo-Saxon defence has a more territorial appearance. With the extension of Anglo-Saxon royal power beyond the Humber and the establishment—apparently acknowledged under Edgar—of hegemony over Britain, the immediate threat of overland invasion of Wessex must have fallen significantly. Much of the success of Edward the Elder, Æthelstan, and their successors was built on the military foundations outlined above: the authority and resources to keep an army in the field more or less continuously; a network of garrisoned strongholds to act in conjunction with the *fyrd*, securing route-ways for defensive and offensive purposes, protecting resources and supplies, and also providing a rapid response to local infractions; and a sophisticated signalling system.

It is possible that late Anglo-Saxon kings hoped also to engage the enemy before it reached English shores. A significant part in this strategy was the development of a naval force capable of obstructing, if not heading off, foreign invasion armies before they made landfall. Although control of roads retained its significance—indeed, warfare on the land apparently continued to be far more important than warfare at sea in the tenth and eleventh centuries—it is clear from the time of Alfred that a naval force was considered necessary. Edgar appears to have had a powerful mercenary fleet at his disposal (Jayakumar 2001, 27–30). By the reign of Æthelred II the potential importance of a fleet was well recognized, although ships were not always used successfully (1008–9 ASC E). Perhaps the most significant events highlighting Æthelred's use of the navy were those of c.1000, when he led attacks on the kingdom of Strathclyde and the Isle of Man, as well as sending a force of ships across the Channel to raid the Cotentin region of Normandy (ASC CDE; Lavelle 2002, 97). Despite major Viking attacks on Devon and Cornwall in 997, Dorset in 998, and Kent in 999 (ASC CDE), Æthelred was still in these years pursuing a policy of forward defence, albeit against less elusive opponents.

There is some evidence that other defensive efforts were also increasingly directed towards the sea in the tenth century. The proliferation of smaller defences—potentially the *burhgatu* of written sources—in the

archaeological record of the later tenth century has been noted, and these include free-standing stone or timber towers, ringworks, as well as so-called turriform churches. The location of these defences noticeably supplements that of major strongholds, closing down the enemy's lines of attack, particularly around the south coasts. In Sussex, for example, lesser defensible sites such as Bishopstone, Old Erringham, Jevington, East Dean, and Bosham, command good positions overlooking river-mouths leading towards the main centres of Lewes, Steyning, and Chichester. Whilst structural evidence for these defences is generally late tenth-century in date this policy may have been enabled by exchanges in land carried out much earlier in the century. Robin Fleming (1985, 253–54) has drawn attention to a number of exchanges whereby monastic lands in strategic coastal locations in Cornwall, Devon, Somerset, and Hampshire passed to Edward the Elder, and how these formed the core of important royal and comital manors by Domesday Book; presumably with attendant defensive roles.

This change of observational emphasis may well be echoed in the contemporary literature. The earliest evidence for coastal beacons in Anglo-Saxon England may be Richer's reference to Æthelstan's burning of huts on the Sussex shore (Richer, *Histoire*, 128–31(§3)). This account, though referring to events that took place a few decades earlier, dates from the later tenth century. As Hill and Sharp (1997, 158–61) have shown, it is from around this time that the first reference to *vigiliis marinas* or "sea-watch" is recorded in a charter for St Keverne in Cornwall (S 832), which survives in a later eleventh-century copy but purports to date to 977. In the *Rectitudines Singularum Personarum*, which is probably of eleventh-century date, a thegn's duties are said to include "equipping a guard ship, and guarding the coast", as well as "military watch", while a cottar's duties include "keeping watch on the sea-coast" (Douglas and Greenway 1953, 813–14; Hill and Sharp 1997, 158–61). All of this seems to indicate a growing interest in the defence of the coast and the use of ships.

The tenth century also sees the first appearance of English evidence for major defensive bridges of the Pont de l'Arche type. All archaeological evidence indicates that the Anglo-Saxon bridge at London was constructed at the end of the tenth century, and comparable developments at Bristol and Kingsbridge have been discussed (Fig. 77). Of similar date are a range of written sources relating to bridgeworks (Chapter 3; Harrison 1996, 234; Cooper 2006, 10). Work on strongholds presumably continued as part of the obligations placed on the land, but there is little evidence of a campaign of fortification works to support and sustain the territorial gains

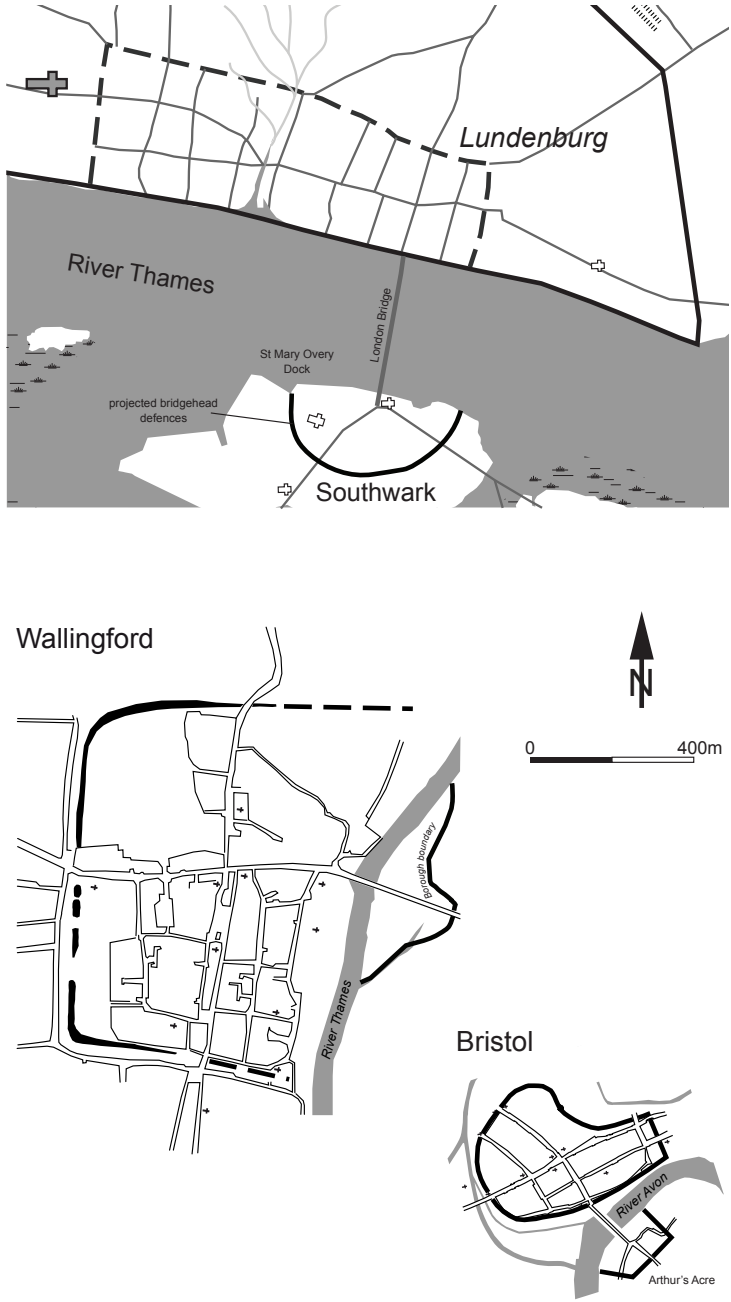

Fig. 77. Comparative plans of the Æthelredian bridgeheads at London, Wallingford, and Bristol.

achieved by the powerful English armies at this period. Perhaps such things were no longer deemed noteworthy, or their impact was not felt by southern scribes; but the possibility remains that the royal powerbase stayed rooted in Wessex.

Given this apparent concern for preclusive defence in the years running up to 1009, it is all the more intriguing that Æthelred's defensive strategy changed so radically soon after. The removal, sometime during the years 1006–1011, of key administrative institutions to "emergency burhs" in former Iron Age hillforts of South Cadbury (So.), Cissbury (Sx.), and Old Sarum (Wi.; Alcock 1995, 166–69),[6] as well as the refortification in stone of many of the Burghal Hidage strongholds, which may also have taken place around this date, emphasizes a return to the tried and tested defence-in-depth policies of Alfred. However, unlike his illustrious ancestor, Æthelred was never able to inflict decisive victories on Thorkell, Swein, or Cnut, whose forces in any case may have been larger and better organized than any of those of the ninth century (Keynes 1980, 224–25). Nor was he ever afforded the luxury of time to organize his forces effectively as Alfred had done. Moreover, as the *Chronicle* entry for 1010 (ASC 1010 CDE) hints, Æthelred may not have been committed to either one grand strategy or the other. "Then all the councillors were summoned to the king," the chronicler tells us, "and it was then to be decided how this country should be defended. But even if anything was then decided, it did not last even a month." Rather than help, Thorkell's defection with his 45 ships to the English cause (1012 ASC CDE), may have further diluted the effect of a strategy of defence-in-depth, splitting Æthelred's policy between preclusive and defensive tactics. A final contributing factor to the English military collapse was scale: as is evident from Figure 74, the primary phase of the burghal system confined itself only to the eight shires of heartland Wessex, by c.1010 Æthelred's kingdom covered the whole of England.

Themes in Anglo-Saxon Civil Defence

The socio-political background of Anglo-Saxon military structures and systems has important implications for our understanding of their his-

[6] Jeremy Haslam (2011b) argues that the second phase defences of Daws Castle (So.) should be seen as part of this same development. The impetus for this shift might have been the attacks on Watchet in 997, when much damage was done (ASC CDE). Perhaps significantly, excavations at Daws Castle revealed the deliberate destruction of the second-phase wall (McAvoy 1986), an event Haslam explains as part of a deliberate policy under Cnut (1016–35) of decommissioning the military installations of Æthelred's reign.

torical context and strategic roles. The physical, morphological, and terminological parallels and differences evident among the various landscape expressions of later Anglo-Saxon civil defence point to some moments of uniform planning, but also to a number of separate initiatives during this long period of warfare and preparation for war. On the one hand are defensive works that represent a major investment in terms of institutional organization, manpower, and cost; while on the other are undertakings of the kind that suggest regional or local concerns first and foremost. If the latter reflect either ad hoc arrangements or the exercise of "tribal" authority, the former are surely associated with coherent state-led initiatives.

Civil Defence and State Formation

It is clear that a variety of public works appeared in Wessex and Mercia during the period. The clearest physical expressions of public defence organized at state level are the major linear earthworks of similar type to Offa's Dyke, which are found not just on the Welsh frontier, but in Wiltshire and Somerset, and on the western approaches to East Anglia. These monuments were constructed on a national scale and their implementation—including on-going maintenance—demanded a sophisticated regional and national governmental framework.

Several types of stronghold also indicate state-level input, either because of their scale and resource requirements (only a large and complex, institutionalized polity could have imposed them on the landscape), or because of their uniformity (suggesting central influence on planform and construction methods). Many of the major strongholds listed in the Burghal Hidage and the *Chronicle* are covered by both definitions. Defensive circuits of considerable scale and of similar construction, and displaying parallel morphologies, are surely the outcome of central initiative, but crucially not evolving from a single strategic policy but from several separate ones. The so-called *de novo* strongholds of the Burghal Hidage show remarkable coherence in the construction and plan of the earth and timber phases of their defences, and are paralleled by some of the constructional phases at Mercian sites; they clearly differ from other strongholds grouped together with them in contemporary accounts: reoccupied hillforts such as Chisbury, strategic bulwarks such as Sashes, and so on. While internal street layouts may be superficially similar at a number of sites, individual alignments may have been responses to underlying geological factors as much as central planning. In general, the datable material from excavated sites suggests a long chronology of stronghold development.

Some late Anglo-Saxon strongholds seem more likely to have their origins in another context, one where military concerns were confronted at a more local or regional level. *Hæstingaceaster*, Worcester, and Leicester, all listed as strongholds in writings of the period, and Canterbury, which seems likely also to have served such a purpose, have place-names suggesting earlier use as "tribal" strongholds.[7] Many other former Roman or pre-Roman enclosures that figure in ninth- and tenth-century accounts of defensive organization, may have served a similar purpose during the middle Anglo-Saxon period. At this time we also see a series of archaeologically attested enclosures, which may represent elite compounds of a type that could on occasion serve a defensive purpose. Again, these can be categorized by the scale of their defences, and each class finds parallels among the listed strongholds of the Burghal Hidage and other ninth- and tenth-century records. This, if nothing else, demonstrates the palimpsest of site-types that ended up being used in defensive systems of that period.

An especially interesting defensive site-type is the so-called "double burh", usually illustrated by strongholds such as Bedford and Cambridge, and consisting of enclosed sites on either side of a river, and (at some date) a connecting bridge. As has been recognized, the typology of the constituent elements suggests that these may belong to different phases of fortification—a (possibly initial) rectilinear stronghold on one bank, with later phases of redevelopment, and a curvilinear D-shaped circuit on the opposite bank—but contemporaneity or near contemporaneity between the construction of the second stronghold and the bridge has often been assumed. In fact, the typological differences point to different phases of fortification and different functions. To take Bedford as an example, the origins of the northern stronghold may belong to a phase of defensive construction perhaps in the mid- to late ninth century, with tenth-century redevelopment associated with a growing commercial role. This phase perhaps includes the early development of the Anglo-Saxon stronghold of Cambridge, and a number of other Mercian and non-Mercian sites, and may be related to a phase of Mercian territorial expansion, recognized also in archaeological evidence for burgeoning administrative complexity (Haslam 1984b; Reynolds 2009b).

At Bedford, the southern stronghold, which is dated on documentary grounds to 915, belongs to the group of D-shaped military compounds built by Edward the Elder. As the name suggests, Bedford was a natural river

[7] See the discussion of Canterbury in Chapter 2 for the possibility of its being named from outside Kent.

crossing, so there is no need to assume that a bridge was constructed in 915. More likely, is that these compounds served as temporary military camps, simultaneously designed to control central-places in the Danelaw and draw on the logistical infrastructure linking these towns to their supportive hinterlands.

Viewed as a composition of functionally, morphologically, and chronologically disparate parts, these sites actually find interesting parallels elsewhere in southern England—Bedwyn/Chisbury, Athelney/Ling, Barnstable/Pilton, Cookham/Sashes—where military hard-points seem to have been appended to high-status settlements in order to reinforce the security of the latter, and later diminished in importance or disappeared, as the adjacent site grew commercially and administratively, in a climate that favoured economic productivity over military precautions. All of these composite sites might thus be better labelled stronghold or burh complexes than "double burhs".

The major elements of centralized defensive strategy could not have functioned successfully without significant manpower, and the effective coordination of responses to military threats required supporting networks of communication and infrastructure. Many of these have proved harder to identify or characterize archaeologically, and the main evidence comes from place-names. Since differences in terminology can reflect dialectal rather than typological differences, and since place-names can be subject to replacement over time, it is difficult to use this evidence alone to define separate types of lookout post or route-way. Regional variation in the vocabulary used to describe such features might be a sign of differing levels of central control, but need not be.

Some attempt at characterization can nevertheless be made, at least in regard to the organization of such networks and their likely socio-political context. At least two different kinds of lookout network have been tentatively identified here. The first consists of wide-ranging national systems, of the kind outlined in parts of Berkshire and Wiltshire (Chapters 4 and 5) and identified by Hill and Sharp (1997; Chapter 3). The second is represented by regularly-spaced intervisible chains of observation posts lining particular transport routes, focusing especially on nodal points, and perhaps ultimately connected by signalling to strongholds or wider lookout networks. Such a chain has been posited by Gower (Chapter 3) and is suggested for example along the Icknield Way (Chapter 5). Although place-name evidence alone tends not to facilitate the establishment of a chronology, it seems reasonable to assign such systems to the overarching

national strategy likely to have been imposed by a strong centralized state, and in that sense they are analogous with major linear earthworks and phases of stronghold construction. It is at least conceivable that eighth- and ninth-century kings capable of major public works were also able to make use of a national beacon system that could alert an entire kingdom in times of conflict.

At the other end of the scale, some lookout place-names appear to have stood alone, or in relation to a single stronghold such as Sashes/Cookham, effectively forming a small, closed, local network (Chapter 5). Of course, this is to argue from negative evidence, since absence of lookout place-names does not equate to absence of lookouts, but the Kentish evidence discussed in Chapter 6 may also indicate the existence of smaller groups of lookouts monitoring a feature of particular strategic importance, such as the series of **weru-horna* place-names discussed by Cullen (1997; see Chapter 6), which are located around the Wantsum Channel and Romney Marsh. This use of lookouts may reflect smaller-scale administrative organization, associated with individual defensive initiatives, or perhaps with military planning at a regional level. In the Kentish examples, the apparent terminological individuality is perhaps at least suggestive of this.

A recurrent theme of this book has been the significant impact of transport routes on military organization, and in particular the importance of controlling access to overland routes. This is reflected in the positioning of strongholds and lookouts alike, and stems from the reliance of hostile forces on major long-distance route-ways. Of course, not all roads offered equal opportunity to invading forces, and it is likely that the Vikings used major, well-known paths as much as possible. This would have included a wide range of Roman roads and prehistoric tracks, and may also have encompassed roads known as *herepæð*, *fyrdweg*, and similar. Whether these roads gained importance at this time as part of a militarized landscape, perhaps being modified for defensive purposes, or were ancient tracks recognized as being well-suited to use by armies, is difficult to say. As roads of such a size that armies could use them, their existence would have been relevant to military planners, and any large group of people using a road during the Anglo-Saxon period may have been practically indistinguishable from a war-band. In this way, the names could have been imposed from above by military planners who designated certain roads as having a military function—perhaps because they were wide enough for such use or widened for the purpose, and because they linked strategically important points. The naming of such roads could alternatively have been a more

organic development due to their repeated use by bands of people with a military appearance. These may have been the roads frequently used by kings as they travelled around their kingdoms (and their position relative to assembly sites and royal centres may be significant), or the roads used by invading and defensive armies during times of greater martial activity. In either case, it is possible that a period of increased militarization led to their being characterized as military roads,

The fact that such names are so much rarer outside southern England and also in Kent, Sussex, and Surrey, than in Wessex proper and the southern midlands, may be due to regional variations in terminology, charter survival, or in the road network, but might also be due to differences in organization, structure, or perception of the administrative or defensive landscape. In the latter interpretation, the inception of a system of reliable and suitably substantial herepaths, in addition to the existing pre-historic and Roman network, may have been a vital element in the ultimate success of West Saxon military planners of the middle and later Anglo-Saxon periods, by comparison with their contemporaries in other parts of the country.

In this regard it is perhaps significant that many roads are first recorded in the first third of the tenth century, and it is over the course of the tenth century that they begin to feature more prominently in legal texts (Cooper 1998). In Æthelstan's laws, roads are clearly defined as zones of the king's peace, just as they are recorded in the *Leges Henrici Primi* (Cooper 2002). Road terms proliferate to describe surface conditions and their public utility, suggesting that they are being used more in the local economy (Cooper 1998). Together these references suggest that at the same time as roads were becoming more closely integrated into the workings of the local economy, the activities that took place on roads were being monitored more closely.

Taken together, the evidence of evolving military institutions underlines the increase in governmental centralization during this period and is a clear sign that regional polities and confederations of semi-autonomous territories were being superseded by strongly institutionalized states. Massive earthworks such as Offa's Dyke demonstrate a significantly increased level of state power, but their corollaries—the existence of small-scale local defensive enclosures and the periodic reuse of pre-English enclosures, and the continued reliance on local militia—are suggestive of kings who were still dependent in part on traditional regional organization and loyalties. It may be significant that the "tribal" refuges/temporary forts that seem to continue in use longest and therefore become incorporated into

late ninth- and tenth-century military systems, tend to be situated in the east (Canterbury, *Hæstingaceaster*) and in the midlands (Leicester, Worcester), and may indicate the longer persistence of a decentralized government apparatus in those regions. The increasing administrative strength of the state is indicated not by the creation of a single defensive system, but by phase after phase of apparently centrally-driven defensive organization and reorganization. This is evidenced by the similar constructional morphology of defensive sites, perhaps also by the growing complexity of military support systems, and the more regular use of large, campaigning armies. It is no doubt significant that the earliest evidence of a regularly ordered hundredal system, which must have formed the basis for the mobilization of these forces, appear in the tenth century. They may well have replaced earlier, more varied and localized systems, and their regularity is most clearly visible in the landscape of the midlands, where West Saxon kings were exerting the authority of their state during the tenth century (Brookes and Baker forthcoming d).

Evolving Concepts of Territorial Power

The various systems of the Burghal Hidage outlined above represent a significant advance in the establishment of territorial sovereignty. In the preceding chapters we have described a chronological model of West Saxon frontier development over the course of the eighth, ninth, and early tenth centuries. Important findings of these case-studies are the ways in which border-lines and frontiers—equating closely with Friedrich Ratzel's concepts of *Grenzlinien* and *Grenzräume* (1923, 392–97)—were used in defining the limits of West Saxon jurisdiction.

In the late eighth and early ninth centuries a zonal frontier existed in northern Wiltshire broadly described by the area between Wansdyke and Thames. Following Ratzel, this *Grenzraum* was a shared space in which conflicts were dampened and competing identities and interests coexisted. Rival Mercian and West Saxon charters pertaining to the area attest to this situation, as do the many battles (coordinated, and at least as much symbolic as militaristic in intent) which were "contained" within this zone (Chapter 4). During the eighth century Wansdyke (and perhaps the Thames also) formed an essential element in defining the frontier, as a platform for policing and influencing activities in the *Grenzraum*, and controlling access into and out of northern Wiltshire into core territories to the south.

Developments in the later ninth and early tenth centuries mirror this arrangement. With the building of the Burghal Hidage fortifications of the

Thames this *Grenzraum* shifted northwards to the area between Thames and the border-line of the Guthrum-Alfred treaty (or the contemporary alignment). Although more heavily fortified, the Thames border served a similar role to that of Wansdyke a few decades earlier: controlling movements and containing zonal activities. In Chapter 6 we have argued that eastern Kent served the same buffer role as southern Mercia in the decades around 900, and it may be that weakly defended districts such as Cornwall and the Isle of Wight formed similar *Grenzräume*. Potentially, Viking activities in 893–94 can be understood with respect to this situation: the occupation of eastern Kent restricted itself to one of these buffer zones, as indeed did Hæsten's move from Thames to Severn in 894.

If these structures defined the limits of West Saxon jurisdiction, within Wessex the consolidation of a network of more-or-less evenly spaced burhs put in place—for the first time—a framework through which all subjects became dependents of a centrally-administered defensive programme. The link, established by this development, between ordinary people and territorially-organized institutions of defence, would become formalized by the division of England in the tenth century into administrative units of shires and hundreds, which themselves became associated with judicial and fiscal systems. In this way the more systematic approach to mustering evidenced by the Hundred Ordinance of the mid-tenth century echoes the move to a more regular system of *fyrd* service (Baker and Brookes forthcoming a).

Accompanying developments in civil defence are equally important ideas about security; how they enter political discourse and are institutionalized in organizations, roles, and practices (Lipschutz 1995). The complexity and ubiquity of the system serves to demonstrate the extent to which royal authority permeated society, not just with the imposition of burhs, but with the maintenance of systems of lookout and communication which themselves must also have required considerable manpower and social organization. The manning of lookouts by individuals or teams of watchmen, the maintenance of route-ways and waterways, the provision of materials, such as firewood for beacons and building materials, all served to link civil defence across all levels of society.

Certainly the widening scale of defensive features must have contributed to a greater sense of place as a communal territory, bound together also by a unitary identity, consisting in shared history, language, and religion, and in common adversity. Taken as a package these values contributed to the status of Alfred and Edward as powerful and effective rulers;

but, as Simmel (1983, 223) makes clear, the emergence of states is as much the result of rising "exclusive" relations between individuals as top-down legislation. In George Molyneaux's view "the aim of Alfred and this tenth-century successors was not to create a kingdom of all the English, but to contain, subdue and ultimately expel the Scandinavian potentates who had gravely threatened Wessex" (Molyneaux 2011, 79). Analysis of tenth-century military landscapes of England does little to disprove this interpretation. Archaeology and place-name evidence can only hint at some of the ways in which territorial sovereignty, nationalism, and common identities became intertwined, but tantalizing hints discussed in this book suggest that both top-down and bottom-up processes were at play.

This may also be evident in the place-nomenclature. The apparent absence of a coherent terminology in the toponymy of late Anglo-Saxon strongholds suggests that there was no successful attempt to impose labels on the newly fortified settlements, almost all of which seem to retain existing names. Even where strongholds may have been renamed to reflect their function, as may be the case with *Weardburh*, there is no reason to suppose that this was a top-down imposition any more than it was a local recognition of the evolving role of the site. Lookout terminology also shows a great deal of variety, although in this case there is a striking difference between the West Saxon heartland, where the elements *weard* and **tōt* predominate, and Kent, where these terms occur alongside, for example, **prāw*, *waru*/**weru* (notably the compound **weru-horn*), and **cape*. Of course this may simply reflect different regional usage of the words involved, and it would be dangerous to read too much into it—the possibility that the West Saxon heartland had a more uniform terminology imposed on it than was the case in Kent is not necessarily the most obvious explanation of this difference.

Within the larger burhs the transition to boroughs proper was accompanied by the emergence over time of an urban mentality (Pirenne 1927). Common burghers used the market, they helped pay for its public utilities, and they defended the burh in times of crisis. These developments increasingly tied people to places rather than simply to one another, and, protected by the burghal fortifications, aided the growth of a concept of spatial exclusivity (Simmel's *Ausschliesslichkeit des Raumes*); in itself a precondition of the emergence of individual property rights (Cuttitta 2006, 31).

The emergence of burghal communities, naval "ship soke" districts, and perhaps other local defensive initiatives based on hundredal divisions and driven by the local nobility, developed rapidly alongside national policy

over the tenth century. The general impression of military (or potentially military) monuments of the later tenth and early eleventh centuries, such as turriform churches and enclosed settlements, suggests that by this time significant elements of military power had passed out of the control of kings. Large burghal citizenry such as those of London wielded power autonomous of the central state, whilst the military power of Æthelred II himself was restricted to more isolated pockets of resistance, as evidenced by the proliferation of small burhs and the removal of central-place functions to reoccupied hillforts. Seemingly, the more kings removed themselves from the civil role that had preoccupied Alfred and Edward the more there is a general tendency towards the emergence of quasi-independent military institutions, focused on localized armed forces. Perhaps paradoxically, this devolution of power both reflected and hastened the formation of territorially-based social relations, which themselves characterize territorial sovereignty at large. It must be remembered that even if the product of the Burghal Hidage network gives the impression of forming a delimited territory, this is probably misleading, at least in the pre-Conquest period. The existence of *Grenzräume* in southern Mercia, Kent, and elsewhere emphasizes that in the early tenth century political boundaries were not yet synonymous with territorial sovereignty. Burghal reorganization in many instances may well have led, over the course of the tenth century, to the centralization of authority over a range of domains: military affairs, marketing, justice, and taxation, but there is no evidence that these roles were anything but islands of jurisdiction amongst a raft of other loyalty relations. As elsewhere in Europe, medieval England demonstrates too many competing forms of jurisdictional control, including territorial sovereignty alongside personal obligations and loyalties, to be regarded as true territorial states (Febvre 1962); but in its coverage, scope, and ambition, Alfred's system of civil defence demarcated limits of West Saxon jurisdiction, thereby laying the foundations for a process—extended by his tenth-century successors—by which authority and loyalty could become wedded to territory.

Evolution and Innovation: The Impetus for Strategic Reorganization

It will be clear from the foregoing discussion that Anglo-Saxon civil defence in the late ninth and tenth centuries can be viewed not as the result of a single moment of inspiration, but as a series of innovations within a gradually evolving framework of defensive strategy, tied in with the demands of external threats and internal socio-political change, especially

the growing complexity encompassed by the move from sub-state to state level government. The strategic system of the late ninth and early tenth centuries looks very different from that of the seventh and eighth centuries, but some of its component parts are shared. The phase of the system represented by the Burghal Hidage, for example, includes modified folk-refuges/temporary forts, the bulwarks of high-status settlement complexes, and probably elite enclosures, alongside *de novo* strongholds. These different types of stronghold are the echoes of many phases of innovation, redeployed within a new evolutionary stage of defensive strategy in response to specific military demands. Aspects of later tenth-century strategy, on the other hand, may resemble much more closely those of the eighth. Because some earlier commentators have interpreted the Burghal Hidage either as the blueprint or the record of a long-term system that was the work of a single inspirational initiative, it has been assumed that its component parts were constructed or refortified in a single phase. In fact, the form and morphology of their defences contradict this view, and there is no strong reason to believe that the *de novo* strongholds, for example, were constructed at the same time as the defences at Chisbury and Winchester were first refurbished.

In this respect, arguments over the origin of "burhs", for example, are misleading. Most of the key elements within the evolving strategic systems are evident across southern England: defensible ecclesiastical and aristocratic precincts, refortified Roman or pre-Roman enclosures, stronghold and settlement complexes, and so on. In most cases, the dating does not allow an assertion of chronological primacy, and it would show a very blinkered outlook if developments in one area were not rapidly picked up on by neighbouring kingdoms. How and how successfully defensive works were used within an overarching military strategy are perhaps more significant questions, and depend not just on the organizational capacity of the polity, but on its defence requirements, the possibilities presented by geographical and territorial limitations, and the existing settlement and social structures. An evolutionary model, rather than an innovatory one, anticipates a two-way process of emulation and modification. Changes in the Frankish system may have been improved on by the West Saxons, who also learnt from Mercian models, with the Franks then modifying their own strategies to incorporate the successful elements used in England, and so on; each kingdom gearing the approach to cope with its specific and individual requirements. In that sense, strategic evolution may be more of an international dialogue of acquired experience, than a unilateral adoption of new approaches.

It is perhaps time to move away from the "big idea" interpretation of civil defensive organization. Certainly the Burghal Hidage is unlikely to represent the outcome of a single "big idea", but the culmination of a series of innovations and restructurings, and probably also the starting point for developments that occurred later. The variety evident in the range of defensive structures and networks suggests that a series of "big ideas" underpinned the effectiveness of strategic approaches. All military planners were a product of their environment and had to work within the parameters set by their predecessors. As soon as an existing system of defence had been shown to be ineffective, it is highly likely that military leaders would have started planning a new one. Even if a major strategic overhaul took place in the last three decades of the ninth century, planning for it may have begun earlier; and during the first three decades of the tenth century it was superseded by another evolutionary overhaul.

Wider Implications

Beyond understanding the chronological evolution of late West Saxon and Anglo-Saxon defensive arrangements, this study has much wider implications for the use of a multi-disciplinary approach in examining the landscape context of past institutions, and for the investigation of pre-industrial warfare, especially civil defence planning, in England and elsewhere. As an important aspect of the development of royal authority in early medieval society, the assertion of control of the landscape by means of a series of military innovations has implications for the study of governmental institutions and the origins of centralized kingship.

Multi-disciplinarity

The starting-point of this study was in no way a barren landscape—far from it. Indeed, Anglo-Saxon defensive organization has attracted considerable interest among academics and has been the subject of considerable scholarly research and debate. Narrative and documentary sources from the ninth and tenth centuries underline the importance of warfare in middle and later Anglo-Saxon society and identify a number of the principal elements of the defensive systems in place at that time. Yet these pieces of information, as is so often the case in the study of Anglo-Saxon history, have the appearance of snippets rather than detailed accounts. Many elements of Anglo-Saxon defensive organization are known to us only inas-

much as they were considered necessary or worth recording in documents that have survived to this day. To early medieval chroniclers, major political events such as set-piece battles, especially when decisive, would have seemed more important than the administrative arrangements that permitted such battles to take place at all—evolution of military obligations, detailed systems of muster, maintenance of bridges and roads, signalling and observation systems—and while the construction of major defences may have been noteworthy, local strongholds would have been too commonplace to be mentioned in most instances. Official scribes compiling governmental documents, on the other hand, are likely to be concerned predominantly with developments that had a legal, administrative, or financial impact, usually at a national rather than local scale, and at one specific moment in time, rather than over a century or more of changes.

The picture provided by documentary sources has been considerably added to by archaeological research, but in many cases this has focused on those sites that leave an impressive archaeological footprint or that are associated with a rich array of material remains. Consequently, discussion of civil defence in the ninth and tenth centuries has tended to concentrate on large-scale defensive earthworks and strongholds, and their financial and administrative context. The aim of the research set out in this volume has been to place these within their landscape context in order to understand the impact of national military policies on local areas, and such an approach has required a subtle and joined-up use of data from different disciplines that often employ disparate methodologies. This landscape-driven approach has provided a clearer understanding of the spatial positioning of defensive structures at national, regional, and local level, emphasizing their location within a landscape setting and relative to other important features such as the major vectors of military movement, thus helping to highlight the probable strategic rationale behind them. By considering a maximal view of defensive complexity, the approach has also broadened the physical and practical horizons of Anglo-Saxon military organization as we perceive it, identifying aspects of defensive systems not normally mentioned in written texts, such as early-warning systems, and further instances of the kinds of stronghold that often are mentioned.

The concentrated use of a multi-disciplinary approach in examining the three case-study areas has also moved us towards a better understanding of the meaning of terms such as **tōt* and *weard*. The frequent coincidence of these terms with vantage points and with late medieval and modern references (toponymic or documentary) to beacons is striking and dem-

onstrates the use of these sites for observation at later dates. In many cases they are demonstrably located on important roads and transport intersections, and on occasion can be associated with specific strongholds, underlining their martial usage and perhaps providing a late Anglo-Saxon context for this. It is in any case clear that such use dates back to before the period at which the **tōt* and *weard* names were first recorded. Even where a place-name's morphological development suggests that the first element was a personal name *Weard*(*a*) or *Tota*, as for example in Wardington and Tottenham, the evidence from the case studies suggests that these too could have been references to lookout sites. Their later formal development could be due to local misunderstanding of their meanings; or we should perhaps reckon with an official title of "Watchman". A third possibility is that the first element in some of these place-names means "the lookout place", so that formations of the **tōtan-hām* type might mean "settlement by the lookout-place". This, in turn, has implications for place-names of the Tooting type, where the group denoted by the name might not be "the people of *Tota*" but "the people of the Watchman or lookout-place". The wide range of "lookout" terms used in the Kentish case study is in contrast to the Thames and Kennet, where two terms predominate almost to the exclusion of others. At the very least, this highlights regional variation in terminology.

Roads called *herepæð* and similar names have a vital importance in understanding the structure and administration of civil defence and government in general. Beyond the still-usable Roman roads, these were the routes by which large groups of people could travel around the landscape. If nothing else, these are likely to have been routes that military planners took into consideration when laying out defensive networks. They might provide access to hostile armies, but could also be used to the advantage of defensive armies who may have had better local knowledge of them. This might be the case especially in instances where such roads offered an alternative route, more reliable than other roads in the area or perhaps known only to local forces. Whether any so-named tracks were redeveloped during this period to create wider and more durable pathways linking significant strongholds is much harder to say. It is difficult to make a case for such a road clearly serving the single purpose of linking two strongholds, even though some strongholds are located on the line of these routes. It is not, however, implausible that they were named at this time. The number of major engagements and lesser skirmishes fought in Berkshire and Hampshire in 870 to 871 alone would have meant the almost

continual use of these route-ways by enemy and friendly forces in the process of mobilizing, or marching to and from battles. The extension of this level of military activity over several decades, along with the usual journeys around the kingdom of royal and elite parties, which must also have been military in nature, may well have associated these roads with armed hosts in the minds of locals and administrators alike.

The meaning in place-names of Old English terms denoting strongholds—*burh*, (*ge*)*weorc*, and *fæsten*—has been questioned here and in recent publications (Chapters 1 and 2). Much of this discussion is probably right to highlight the non-military application of these terms, and the present survey has found no clear evidence to contradict the assertions that many middle to late Anglo-Saxon strongholds have names that do not incorporate these elements, and that place-names containing these elements often denote sites that did not serve as military strongholds in that period. Nevertheless, from a purely defensive viewpoint this is perhaps the wrong approach to the subject. The question here is not simply which sites were constructed or refortified in the ninth century, but which sites were conveniently defensible in periods of military emergency, and might therefore have been pressed into action as temporary refuges and military camps, or at least considered suitable for those purposes should the need arise. In the context of eighth-, ninth-, and early tenth-century defence, any site with a ditched or walled enclosure—whatever its primary status and function—is potentially significant. Nevertheless, that some sites may have been called *burh* because of their use as strongholds is implied by the name *Weardburh*, one of Æthelflæd's fortifications.

The difficulties with *burh*, (*ge*)*weorc*, and *fæsten* aside, this multidisciplinary approach has made possible a more detailed understanding of the strategic priorities of Anglo-Saxon rulers and has permitted the identification of possible strongholds not named as such in contemporary sources, nor necessarily called by a name incorporating a term meaning "stronghold". Old Windsor is an example of this—a site known archaeologically as a high-status settlement and positioned in a location of some strategic importance where a stronghold might have been expected. In the Kennet Valley and along the Thames are other similar examples, and in Kent, for which the Burghal Hidage is silent, this multidisciplinary approach is an important means of identifying likely strongholds.

Studies in (Anglo-Saxon) Civil Defence

The present study of civil defence in Anglo-Saxon England has emphasized the importance of infrastructure in understanding military arrangements. Control of both waterways and land-routes was vital to the establishment of an efficient system of defence, and within this context the nodal points, where land-routes crossed or where inlets and rivers intersected with roads held the key to the successful defence of Wessex and the early English kingdom. The significance of rivers alone has perhaps been overstated in the past. This is not to deny the important access rivers provided to inland regions, but it was in their use as a vector of entry to the overland road network that they were most significant in a military context. Travel along rivers did not automatically permit the pillaging of estate centres—in many places, a river such as the Thames is surrounded on one or both sides by a wide natural floodplain that probably consisted in the Anglo-Saxon period of heavy marshland. Disembarkation along these stretches of river would have been treacherous, and a ship-borne force would need to find appropriate places to come ashore—for example, established landing places or fords. Movement upstream could be slow and predictable from the viewpoint of defending forces. Roads, on the other hand, cut across important estates, regularly intersect with other roads, and allow more rapid movement by forces not excessively burdened with booty or equipment.

The fact that crossings were the priority of military planners can be seen from the location of strongholds throughout Wessex and especially along the Thames. The construction of forts at both ends of the same crossing simply provided a more reliable defence of that crossing and greater control of its use. The securing of major fords was important from both defensive and offensive perspectives. On the one hand, it allowed speedy and uninhibited movement of troops across Wessex and also, for campaigning purposes, into hostile territory; on the other, it denied enemy access to the same crossings into Wessex or easy movement within the kingdom. Later bridge-building at these fords was probably as much about improving the reliability of the crossings as blocking the rivers themselves. This should not be surprising given the available Frankish analogies,[8] and the fact that

[8] Two instances from the *Royal Frankish Annals*, one dated 789, the other 808, show the construction of bridges as part of Carolingian campaigns against the Slavs and Danes, not to block the rivers, but to secure lines of communication and to facilitate the more rapid crossing of rivers by the Frankish army. In the first of these, Charlemagne is described as constructing earth and timber fortifications at either end of the bridge (Scholz 1970, 68).

the burden of bridge-work was being reserved in charters granted from the late eighth century (Brooks 1971, 72–74), right at the start of the Viking Age and surely too early to be part of a strategy to deny easy access to rivers.

The securing of overland route-ways was not limited to the construction and maintenance of strongholds at nodal points, but demanded the implementation of a system of observation and signalling. It is clear from the case studies, especially those covering Thames and Kent (Chapters 5 and 6), that places considered to have had a role as a lookout or beacon, as evidenced principally by their early place-names, are normally positioned with vigilance over roads in mind, rather than over the sea and rivers. This contrasts with late medieval and early modern beacon systems, which show much more concern for the situation at the coast and on inland waterways.

The system of ninth-century fortification represents an adaptation of early systems of defensible sites with the addition of new purpose-built strongholds. The plethora of noble and royal defendable places is unlikely to have disappeared with the installation of the new system, so the known strongholds of the late ninth or early tenth century probably only represent a small portion of the total defensive capacity. In this sense late Anglo-Saxon changes only enhanced and rationalized the ability for collective action in the face of an organized enemy. On the face of it, this might be seen to downplay Alfred's innovation, placing greater emphasis on pre-existing modes of defence. In fact, it probably highlights Alfred's ingenuity, adapting existing administrative and physical structures to cope more efficiently with a new kind of threat.

That the strongholds listed in the Burghal Hidage represent only the key hard-points in a much more complex system is not a new suggestion (Reynolds 1995; Yorke 2012), nor should it take us by surprise. The *Chronicle* annals for the 910s provide a much more detailed account of the landscape practicalities of setting up a Burghal stronghold than is supplied by the Burghal Hidage, and the system outlined there should not be treated as atypical. Edward's first step was to construct a stronghold at Buckingham, soon supplemented by a second defensive structure on the opposite bank. Having secured the crossing, Edward's army would have been able to

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Of course, these were offensive campaigns, and Viking armies made considerable use of ships. If a bridge could block passage along a river, then so much the better from a defensive point of view, although its impact on trade by friendly vessels needed to be taken into account. There are continental examples of bridges built specifically for this purpose, but the primary purpose of most bridges was as part of an overland road system (e.g. Coupland 1991).

launch attacks into Viking-held areas with confidence in its supply-chains and line of retreat, but an isolated frontier stronghold could not bring security to the whole region on its own. Instead, Edward made use of the Roman defences at Towcester (Np.) to guard the northern approaches to Buckingham and perhaps also to apply pressure to the army based at Northampton (Haslam 1997, 126). At *Wigingamere*, perhaps somewhere near Old Linslade (Bu.), he constructed a second auxiliary stronghold to protect the important crossing of the Ouzel by the Ede Way. He also made use of the royal site at Passenham, which formed another buffer between Buckingham and the Danelaw, even if only on a very temporary basis. A suggested stronghold at or in the vicinity of Newport Pagnell (Robinson 1975, 6, 9; Baines 1986; Beamish and Parkhouse 1991; Haslam 1997, 124–25, fn. 22; Dodgson 1997, 384; Baker 2011, 260–62) stood approximately half way between Buckingham and another burh at Bedford, and a further defensible site at Aylesbury is attested archaeologically (Farley 1974 ; Farley and Jones 2012). Within close proximity to a known Burghal Hidage stronghold were several further fortifications for which evidence survives mainly because this formed the setting of a major offensive campaign. Smaller or temporary fortifications set up in the hinterland of other major strongholds used only for the more mundane and passive purpose of defence may not have seemed worthy of mention by chroniclers, but are likely to have existed nonetheless.

Even accounting for royal vills, minsters, and other defensible sites, it is likely that Greater Wessex still had a number of regions which were not afforded the same level of defence. The reasons may lie in general qualities of the terrain and also the coverage of settlement more generally. The lack of adequate defences in Wealden areas has already been discussed (Chapter 6), and it is probable that similarly poorly defended regions existed also in Cornwall and the north Devon coast, and New Forest area where Domesday settlement was more sparse.

The defensive structures discussed in this book are located across a wide variety of different landscapes, from chalk downland to marshy river plain and clay levels. Different locations presented different strategic challenges and demanded innovative solutions. Along the Dover coast, where impregnable cliffs are pierced by only a few safe anchorages, isolated lookout-beacons, such as St Mary-in-Castro, kept watch over individual landing places with no recourse for backwards communication inland. Along more vulnerable shorelines where enemy assault could spread itself over a larger front (e.g. Romney Marsh, the Somerset Levels) defending access to the

hinterland was more critical, with burhs such as *Eorpeburnan*, Lyng, and Axbridge located several kilometres inland at the intersections of river- and land-routes. In many cases the presence of wood, marsh, river, and cliff appears to have been considered a sufficient natural obstacle, with defensive measures scarce, if present at all. With the exception of Southwark, few lookouts or burhs are found on the lower reaches of the Thames. Neither is any stronghold known from the New Forest, despite the presence of a dense network of beacons.

Military Themes in the Study of Preindustrial Societies

Although this book has focused particularly on the form (physical characteristics and properties) and historical aspects (sequential transformations) of Viking Age civil defence, we would argue that "civil defence" as a theme also has much to offer the wider analysis of nation-states. Throughout this analysis "civil defence" has interwoven with themes of political power, nationalism, territoriality, and violence; themes that for a variety of reasons find relevance in the study of other places and times. As we noted in Chapter one, civil defence in this way provides an important opportunity for cross-cultural comparison of a variety of social and political realities.

It is our view that the study of military landscapes contributes important insights to the understanding of complex societies. Borders, military organization, and systems of civil defence are intimately related to the exercise of political power, but crucially also have a very real physical presence which can be approached through traditional archaeological means. They also have a major impact on people's lives, and while this may not always lead to their being recorded in written documents, it is possible, perhaps likely, that their existence and function was noted and commemorated in the names used to describe the landscape, so that they also leave a linguistic trace.

In the preceding analysis we have argued that every form of civil defence assumes a model of society. Military developments therefore unavoidably address issues of state formation, because changes in defence are related to changes in the operation of states. Furthermore, civil defence is also implicated in the emergence of collective action and ideologies of nationhood. In recent years, archaeology in general has eschewed opportunities to study the emergence of nation-states as entities because of the myriad problems in defining common culture, political ideology, and nationhood in archaeological terms. Yet the analysis of military landscapes allows for

an understanding both of how a state operates as a unitary whole, and of how local groups and regions contributed to and came into conflict with wider policies. This kind of study is inherently rooted in landscape, bringing together issues of logistics, mobility, visibility, administration, communication, and taxation. Many of these are accessible to modern scholarship, and particularly in the case of military agency, are arguably rooted in ahistorical and cross-culturally pragmatic concerns (Bachrach 1994, xx; but see Halsall 2003, 6 for a critique of these approaches).

In some sense this study provides a new basis for the study of Anglo-Saxon defence and there are several obvious areas on which to build. Appreciation of strategic concerns is of growing importance and has led to useful re-analysis of the defence of London under Alfred (Haslam 2010b) as well as Mercia in the eighth and ninth centuries (Bassett 2006; 2008). Beyond these, work has also proceeded to develop methods of enquiry into early medieval military geographies (e.g. Haldon 2006; various authors in Baker, Brookes, and Reynolds 2013).

Much work remains to be done. How defensive systems were organized in Northumbria, and in the Viking-controlled territories of York, East Anglia, and the Five Boroughs, has still to be the central subject of a multi-disciplinary study. Superficially at least, neither archaeological nor place-name evidence is strongly suggestive of carefully planned landscapes of defence in parts of England under Scandinavian control. More detailed analysis at a local level may be able to change this impression or reinforce and explain it. In toponymic terms, there need not be clear distinctions between Viking and Anglo-Saxon defensive elements, since those who named the features concerned may anyway have spoken Old English rather than an Old Scandinavian language. The nature of Viking polities may anyway have precluded the development of complex defensive networks. Those that are outlined in the present study of the West Saxon kingdom may only have been possible within a populous and powerful kingdom with sophisticated executive and administrative structures, in which extensive manpower could be carefully organized with a single objective in mind. Viking political organization in parts of England such as the Five Boroughs seems to have been more fragmented, and such a set-up may not have permitted complex defensive systems operating in conjunction with long-distance communications networks (Baker and Brookes forthcoming d).

A detailed multi-disciplinary analysis of these areas may reveal military features that are as yet unidentified, and it would be useful to examine the extent to which military innovations in one region influenced defensive

planning in another. How much did Viking strategy in the east midlands use and adapt earlier Mercian structures? Was military organization in Viking-controlled York and East Anglia based on a Scandinavian model, or was it influenced by developments in the Frankish empire and in southern England? These kinds of questions apply to other periods too. For example, the possibility of a well-established beacon system in conjunction with an advanced system of mobilization has implications for Harold's preparedness in 1066 and his ability to put armies in the field at the right time and place within a very short period. It is also worth considering how the late Anglo-Saxon system evolved in the post-Conquest period, and at times of internecine conflict and civil war (both before and after 1066), the vicissitudes of which might have threatened the coherence of a system designed primarily to confront external threats. One of the most significant findings of this research is how much work remains to be done identifying, classifying, and interpreting the place-names and material remains comprising military geographies of medieval England. It is the hope of the authors that the present study has given some recognition to this evidence and gone some way towards providing a platform for future research.

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ASB Annals of St Bertin; Nelson 1991.

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AU Annals of Ulster; Bambury and Beechinor 2000.

B Birch 1885–99.

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Bede *HE* The Venerable Bede, *Historia Ecclesiastica Gentis Anglorum*; Colgrave and Mynors 1969.

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Orkneyinga Saga
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NMR National Monuments Record
Polybius *Hist.*
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RCHME Royal Commission on Historical Monuments.
Rectitudines Singularum Personarum
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VEPN *The Vocabulary of English Place-Names* – see Parsons 2004 (VEPN:3); Parsons and Styles 2000 (VEPN:2); Parsons, Styles, and Hough 1997 (VEPN:1).
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