

Viking Camps

Case Studies and Comparisons

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Chapter 2

Viking camps: A historiographical overview

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2 Viking camps

A historiographical overview

Gareth Williams

Introduction

As the range of papers in this volume makes clear, the subject of Viking camps is currently a thriving area of research, with both archaeologists and historians engaging with the subject from a range of perspectives. Both here and in other recent publications, approaches include detailed studies of a number of individual sites, studies of the camp phenomenon in different areas (particularly England, Ireland, and Francia) and discussion of particular thematic aspects of Viking camps and the groups who created and occupied them. This level of interest has developed over the last two decades as a result of the investigation within that period of major sites at Torksey (Lincs) and Aldwark (N. Yorks) in England and Woodstown (Co. Waterford) and Annagassan (Co. Louth) in Ireland, as well as the reinvestigation of Repton (Derbs) and the discovery of ninth-century phases in Dublin. Prior to that, although a number of potential sites of interest had been identified either from historical sources, or from features in the landscape, or a combination of the two, the only substantial site which had been investigated was Repton, excavated between 1974 and 1988 (Biddle & Kjølbye-Biddle 1992; 2001; Biddle, this volume), together with the nearby cemetery at Heath Wood, excavated between 1998 and 2000 (Richards et al. 2004). In the absence of other sites, the interpretation of Repton provided a model for Viking camps in wider studies of the Viking expansion. Cemeteries at Kilmainham and Islandbridge in Dublin were also linked with documented ninth-century activity in the area, including a possible camp, although until recently there was no evidence of the settlements with which they might be associated, and the likely location of such a camp (or camps) was disputed (Clarke 1998; O'Brien 1998; Ó Floinn 1998; Simpson 2005).

The aim of this paper is to provide an overview of how the study of Viking camps has developed, and how this has been influenced both by the earlier investigations at Repton, and by the more recent discoveries as well as by wider trends in Viking research. I will begin by looking at the definition and scope of the subject, then review the study of Viking camps in different historical regions and will finally consider some of the thematic approaches to the subject.

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Defining a Viking camp

The term ‘Viking camp’ is a loose one, and is here extended to cover all temporary settlements occupied by Viking forces in territories outside the Scandinavian homelands, with particular emphasis on England, Ireland, and Francia. The majority were at least partially of military character, although not all were fortified, and (as discussed further below, and elsewhere in this volume) both archaeological and historical evidence points to a range of non-military activities taking place in individual camps. The term is not entirely satisfactory, especially as a variety of contemporary terminology was used, and the surviving evidence does not suggest any standardisation of form or function. In some cases, the camps involved the occupation by force or negotiation of existing towns (eg York, London, Le Mans), often with surviving Roman walls. Others made use of monastic or royal centres (eg the monasteries of Áth Cliath and Repton, the West Saxon royal estate of Chippenham, and the Frankish palace of Nijmegen), but in most if not all cases must have expanded and established temporary accommodation beyond any existing enclosures. Others again seem to represent the occupation of sites (eg Torksey, Aldwark), selected for their strategic location and natural defences.

There is also considerable variation in the duration of occupation of individual camps. Much of the modern literature concerning the camps of the so-called ‘great army’ of 865–79 (see pp. 42–3) describes them as ‘winter camps’. This is a fair translation of Old English *wintersetl*, a term found in the near-contemporary *Anglo-Saxon Chronicle*, but understates the duration of the recorded camps, since in each case the Vikings arrived in one winter and remained there until the next, thus necessarily involving an extended period of occupation and exploitation both of the sites themselves and the surrounding land. These may technically be defined as temporary settlements, but the notion that the occupants chose to spend many months in tents or bivouacs rather than creating anything more substantial is no more than an assumption (see below, pp. 53–4). By contrast, a camp at Emly, Co. Tipperary in Ireland in 968 is recorded as lasting only two days (Ó Floinn 1998, 161). Some sites apparently saw either continuous or repeated occupation over many years. There are repeated references to Viking forces at Dublin in the ninth century, and clear traces of occupation from this period have now been discovered (Simpson 2004; 2005; 2010; 2012), but it remains far from certain from the textual evidence that Dublin was continuously occupied from the first recorded over-wintering in 841–2 to the establishment of a permanent town in the tenth century.

This raises a further issue of chronology. Much of the recent interest in Viking camps has been focused on the late ninth century. As already noted, a series of ‘winter camps’ are identified in historical sources with the campaign of the Viking ‘great army’ in 865–79, and these include both Torksey and Repton, while the undocumented site at Aldwark and a recently identified site at East Thirston, Northumbria (see p. 26) can both plausibly be identified

with the transition towards permanent settlement in the kingdom of Northumbria in the mid-late 870s. The phenomenon of Viking over-wintering in England is first recorded on the island of Thanet in Kent in 850–1, with a further wave of campaign camps in the 890s, and direct mention of a camp at Tempsford in Bedfordshire as late as 917 (Edgeworth 2008), meaning that camps of one sort or another can be traced across the whole of the second half of the ninth century and into the tenth. Over-wintering began slightly earlier in Ireland, with a fleet active in Lough Neagh from 839 to 841, with the first explicit reference to camps at Duiblinn (Dublin) and Linn Dúachail (Annagassan, Co. Louth) also in 841. Reference to camps again continues in the historical sources throughout the late ninth century and beyond (Valante 2008; Downham 2010; this volume). This is consistent with the dating of the early phases of occupation in Dublin, and with the associated cemeteries, while the sites at Woodstown and Annagassan also appear to indicate activity in the second half of the ninth century and perhaps into the tenth (see p. 31). A site at Llanbedrgoch, Anglesey (see pp. 33–4) which shares some characteristics with the recognised camps, shows activity in Wales in the same period (Redknap 2004; Williams 2020, 90; Griffiths, this volume). In Francia, the first over-wintering is recorded in 843, and the second half of the ninth century again saw extended periods of occupation by Viking forces along different river valleys, with both implicit and explicit references to camps and over-wintering throughout the remainder of the century (Cooijmans 2020, this volume; Deutsch-Dumolin, this volume). Repeated references to the movement of Viking forces from Francia to England and vice versa indicate that these campaigns and the associated camps represent a single phenomenon spread over an extended area.

All of this suggests a fairly consistent pattern of activity across these areas. However, while over-wintering may be a feature of the mid-late ninth century, more temporary camps may have begun to be used considerably earlier. As early as the 790s, Offa of Mercia (757–96) and his successor Coenwulf (796–821) demanded military service *contra paganos marinos* and records of this on occasion explicitly include the destruction of Viking camps. It is likely that the apparent widespread expansion and normalisation of military service in southern England in the early ninth century was driven by the need to respond to repeat Viking incursions, many of which may have involved the use of unidentified camps (Brooks 1971; Abels 1988; Williams 2001; Downham 2017). As Clare Downham has noted, there may have been other unrecorded camps in this period, as recorded early raids extended to the Irish Sea as well as the coast of Northumbria, all a long distance from the Scandinavian homelands. It has previously been suggested that some of these attacks may have been launched from permanent bases in the Northern Isles (Crawford 1987, 39–41) but recent consensus is that settlement there is unlikely so early, in which case temporary camps are likely, there or elsewhere. In this context it is interesting that later saga tradition places the permanent settlement of the Northern Isles in the 870s, around the same time as

settlement in England (and Iceland), but also at the peak of the ‘camp’ phenomenon, and there are also saga references to raiding bases and over-wintering in the Northern Isles in the ninth century (eg *OS*, ch. 4, 6) which may preserve a memory of the same phenomenon.

Also likely but unrecorded are early camps in the east. The boat burials at Salme on the island of Saaremaa in Estonia leave no doubt that the Viking expansion to the east had begun by the mid-eighth century at the latest, with permanent settlement established at Staraya Ladoga in Russia by the mid-eighth century, including both fortification and evidence of production and trade, although on a smaller scale than the later development of the town (Kirpichnikov 2014; Kirpichnikov & Sarabyanov 2013). The eastward expansion largely depended on the exploitation of the river systems connecting the Baltic with the Black Sea and the Caspian, and both raiding and the establishment of long-term trade routes would have required temporary bases while penetrating so far inland. It is notable that the later towns of the Rus were located along the river networks, while an account of a late raid on Bardaa on the Tartar river in Azerbaijan in 943–4 (Lunde & Stone 2012, 147–52) appears to bear a marked resemblance to Viking over-wintering in Britain in the late ninth century (see p. 37). This use of rivers in the east parallels another recurrent significant feature of Viking camps in the west, which is that they were almost invariably accessible by ship. While a small proportion were coastal or estuarine (eg ‘a certain island’ off the western coast of Aquitaine [probably but not certainly Noirmoutier] in 843, Exeter in 877, and Appledore in Kent in 892), the majority were located inland along navigable rivers in England, Ireland, and Francia, permitting the penetration inland of Viking fleets as well as Viking armies. This is important for reasons of both strategy and logistics (Williams 2008) and also prefigured the development of the major permanent Viking settlements in both England and Ireland.

Terminology

A variety of terms are used to refer to temporary settlements or camps of the Vikings in north-western Europe. Many of these are words normally used to refer to forms of fortification, although the precise nuances are not always entirely clear – a term used with a very specific meaning in one source may have a more general meaning in another, or even at a later date in the same source, especially those like the various Anglo-Saxon, Frankish, and Irish annals which were composed over a period of many years, often by multiple authors. Such terms include OE *geweorc*, *fæsten*, and *byrig*, OI *dūmad* and *dūn*, and Latin *castrum*, *castellum*, *firmitas*, and *munitio*. Also implying an element of fortification or defence is Latin *receptaculum* (‘refuge’), while terms such as *sedes* (‘seat’), *station* (‘abode’), and *diversorium* (‘lodging place for travellers’) merely imply residence, temporary or otherwise (Cooijmans 2020, 142, 193; 2021, 190–91; Deutsch-Dumolin, this volume). However, two

terms have been particularly significant in their impact on modern discussion of the subject. The first of these is OE *wintersetl*, indicating a place of residence over the winter. This is normally translated as ‘winter camp’, which is adequate as a literal translation, but which I would argue is slightly misleading. The term appears to be used in preference to others because it highlights the fact that it was still considered unusual for a raiding army to over-winter in hostile territory, rather than either conquering fully or withdrawing the bulk of the army to bases behind its own borders for the winter before renewing the attack the following campaign season. As will be seen, repeated over-wintering was key to the strategic success and logistical support of the campaigns of the ‘great army’, so it is right that it should attract notice both from contemporary chroniclers and from modern scholars. However, it is misleading in that the ‘great army’ seems generally to have moved on each year from one *wintersetl* to the next, and over-emphasis on the winter aspect risks ignoring the fact that the site(s) would generally be occupied for close to a full year, with implications not just for the duration of occupation of the site, but for exploitation of the surrounding countryside (see p. 51).

A final important term is OI *longphort* (pl. *longphuirt*). This appears to be a borrowing into Irish of two Latin words, perhaps indicating that the term was coined in ecclesiastical circles. The two words are (*navis*) *longus*, indicating a warship, and *portus*. Depending on context, *portus* may indicate a fortification, or town, or port, or place of trade, or simply an enclosure. *Longphort* may therefore be translated as ‘ship fortification’ or ‘ship camp’ or ‘ship enclosure’. Some *longphuirt* became permanent, others were very short-lived, but others seem to be associated with the same sort of (extended) over-wintering found in England or Francia, while some sites which are mentioned more than once may have been places of intermittent rather than permanent settlement. Like other terms, *longphort* was probably not always used with a consistent meaning, and although attempts have been made to draw firm distinctions between the use of *longphort* and more established native terms such as *dún* and *dúnad*, it is not clear that this is always possible (Bhreathnach 1998; Doherty 1998; Gibbons 2004; Maas 2008; Downham 2010, 97). However, partly as a result of the archaeological evidence from potential *longphort* sites in Ireland (and the sites of Torksey and Aldwark in England), and partly through re-examination of the etymology of the word *longphort*, recent surveys of the *longphort* phenomenon have moved away interpreting *longphuirt* purely as fortifications, and have argued for an element of economic activity within the *longphort* and/or between the *longphort* and the surrounding area (Sheehan 2008; Valante 2008; Harrison 2013; Kelly 2015; Williams 2015; 2020, 86–8, 90; see also below, pp. 38–41). The word *longphort* may also relate to the development of Langport place-names in Anglo-Saxon England (Williams 2015, fn. 20), where *port* is also used on occasion as an alternative to *burh*, a settlement type which in the tenth century often appears to have combined military, administrative, and economic functions. The term *portus* is also used the Annals of St Bertin in the context of the division of a Viking

fleet on the lower Seine in 861. The standard translation has them ‘allocated to various ports’ (*ASB*, *sub* 861), implying existing settlements, but the borrowings of *longphort* and *langport* perhaps suggest that some of the sites referred to in the annals may also have been newly constructed Viking camps.

Older works

Although the activities of the ‘great army’ in England and similar forces elsewhere have been extensively discussed as part of the wider national narratives of Viking impact in different countries, there has until recently been relatively little attention given to the camps themselves. For example, Sir Frank Stenton’s classic study of Anglo-Saxon England devoted 26 pages to Viking forces in England from the 850s to the 890s, and to Alfred the Great’s response, but while he noted the shift to over-wintering, and various individual camps are mentioned by name, the sole discussion of their character is that most ‘were placed near a navigable river, by which reinforcements could reach the army easily. But the whole history of the invasion shows that, once established in a base on English soil, the Danes were independent of waterways’ (Stenton 1947, 241–66, esp. 244–5), an interpretation which has been challenged by more recent research. In a more recent (and briefer) survey of Viking activity in Francia and England, Simon Coupland (1995, 193, 196) noted the shift to over-wintering in Francia from the early 840s and England from the early 850s, and also both an early tendency towards the use of islands as bases, followed by a move away from the rivers to fortified camps or existing strongholds, but didn’t discuss the function of the camps in detail.

Other accounts have also shown more interest in the measures taken to counter the impact of the strategy of over-wintering than on the camps that made it possible. Thus, for example, Coupland (1991; 1995, 198) has drawn attention to the attempts (with mixed success) by Charles the Bald to use fortified bridges to deny strategic mobility along the Loire and the Seine, while numerous authors have commented on the military reforms of Alfred of Wessex in response to the Viking incursions of the 870s, but with minimal discussion of the role of camps within the strategy that Alfred was attempting to counter (eg Brooks 1971; Abels 1988; Rumble & Hill 1996; Haslam 2005). From this approach, the most valuable contribution of that era was probably that of Richard Abels (1997), who recognised that the success of the Viking strategy of over-wintering depended on their ability to supply themselves in enemy territory and that the camps were key to this (see below, pp. 49–51), and argued that Alfred’s burghal system was designed to establish a level of control of resources that would make this model of campaigning difficult if not impossible from a logistical perspective.

The camps typically also received only cursory attention from scholars more interested in the Viking conquest and settlement of England rather than the Anglo-Saxon response. Peter Sawyer (1971, 129–31) also noted the use of both purpose-built fortifications and islands as Viking camps, but used the

lack of surviving earthworks at most of the historically documented sites as evidence that these could never have been very substantial in the first place, thereby supporting his view (see below p. 43) that the Viking ‘great armies’ were much smaller than the sources appeared to indicate. Even Dawn Hadley, who has more recently become one of the leading commentators on the camps, in her 2000 survey of the background to the Viking settlement of England limited her discussion of the camps to an uncritical repetition of the West Saxon tradition of an accommodation between the ‘great army’ and Ceolwulf II of Mercia (874–c. 879), set in the context of a summary of the excavations at Repton by Martin Biddle and Birthe Kjølbjæ-Biddle (see below) and the critique of elements of their interpretation by Julian D. Richards (Hadley 2000, 12–15).

The camps have received rather more interest in the past in the form of attempts by local antiquarians and historians to identify the locations of specific camps mentioned in the historical records within the landscape of the nineteenth and twentieth centuries. This has met with only very limited success. In some cases this is because the earlier camps were located within modern towns and cities, with the relevant archaeology concealed or destroyed by later developments, with only limited opportunities for archaeological investigation. In others, the tendency was to identify any large feature in the general area with the historical camp, regardless of whether either historical or archaeological evidence pointed to these features being of later date. In his survey of the archaeology of the ‘great army’ in England, James Graham-Campbell (2004) was unable to suggest precise locations for most of the camps historically recorded in the period 865–79 except those for which direct archaeological evidence exists, although he did follow Grenville Astill’s (1984) suggested location for the camp at Reading, where a single linear earthwork would have been sufficient to protect a headland at the confluence of the Thames and the Kennet, forming a roughly triangular area protected by the rivers on the other two sides (see also Griffiths, this volume). In a more detailed study, Ben Raffield (2013) examined the evidence for each of the sites identified in Anglo-Saxon sources for the two campaigns of the 860s–70s and the 890s, and subsequently identified in antiquarian literature. He concluded that in some cases the evidence was simply insufficient and not particularly implausible, while noting that in several other cases features identified as Viking camps by antiquarians can now be firmly assigned to other periods either on typological grounds or as a result of direct archaeological investigations, although he noted that some structures of earlier date may have been re-used by the Vikings.

Archaeologists (and metal detectorists) have continued to search for documented camp sites with mixed success. It was metal detecting followed by targeted archaeological investigation which led to the identification and mapping of the site at Torksey, just to the north of the later Anglo-Saxon town (see below), which is now one of the best recorded Viking camp sites to date. By contrast, a mapping exercise followed by a small-scale targeted

excavation near Tempsford in Bedfordshire failed to produce any evidence of a camp documented in the area in the early tenth century (Edgeworth 2008), although a plausible potential site had been identified by analogy with Repton and other D-shaped enclosures. D-shaped enclosures along rivers have also been used as potential indications of Viking camps in Ireland (eg Sheehan 2008; Kelly 2015), although few of these have been investigated in detail. Nevertheless, a small number of potential sites have been proposed in various countries, whether through archaeology or metal detecting or a combination of the two, and I will next survey the main sites.

Camps by country

England

Three sites in England have to date been identified with relative certainty as Viking camps. The first of these to be investigated was Repton in Derbyshire. Repton was a major double monastic community for both men and women, under the patronage of the Mercian royal house, and was apparently the burial place of at least three Mercian kings. A space which probably represents the Mercian mausoleum survives below the apse of the later medieval church. Although Repton is almost as far from the sea as it is possible to be in England, it lies on the south side of a branch of the River Trent, which was navigable at least to this point. It is recorded as a *winterseil* of the ‘great army’ in 873–4. The site was excavated between 1976 and 1988 by Martin Biddle and Birthe Kjølbye-Biddle, and although their initial intent was to focus on the monastic settlement, excavations revealed extensive evidence which appeared to relate to the Viking occupation. The first element of this was clear evidence for destruction of the Anglo-Saxon monastery, represented by the smashing, probably deliberately, of a number of stone sculptures. Secondly, several graves of Scandinavian character were found near to the church, with grave goods consistent with the recorded occupation date of the 870s. Thirdly, traces of a substantial ditch and bank defence were discovered at both ends of the church, aligned with the east-west orientation of the church. Although investigation was hampered by the presence of the modern churchyard around the church itself, and by the presence of Repton School to the east and north-east, the Biddles were able to reconstruct through a combination of excavation and resistivity surveys a D-shaped enclosure curving back to the river on both sides of the church, enclosing a space of c. 1.46 hectares. A final important element was the presence in the vicarage garden of a mass interment of the disarticulated remains of at least 264 individuals, contained within the walls of an earlier two-cell building to the west of the D-shaped enclosure. This was covered with a mound, which also included intrusive burials of Scandinavian character. The mound was opened in 1686 and apparently contained a central burial surrounded by the other bones, although no traces were found of the central burial when the mound was re-

opened in 1984. It was suggested that this also dated from the period of the Viking occupation of the site, although the initial calibration of carbon dating suggested that some of the skeletons might have been somewhat earlier (Biddle, Kjølbye-Biddle, Northover, and Pagan 1986; Biddle and Kjølbye-Biddle 1992; 2001; for more extended discussion see Biddle, this volume).

Despite its relatively small size, the initial interpretation of the site saw the D-shaped enclosure as representing the Viking camp of 873–4, especially as two groups of coins were consistent with this dating (Biddle, Kjølbye-Biddle, Northover & Pagan 1986; Biddle, Blunt, Kjølbye-Biddle, Metcalf & Pagan 1986) and this interpretation was repeated with minimal critical discussion by most authors concerned with Viking England and/or Viking warfare until the discovery of the more recent sites of Torksey, Woodstown, and Aldwark. It must be remembered here that at the time that the enclosure was discovered, Peter Sawyer's (1957–8; 1971) minimalist interpretation of the size of Viking armies was still extremely influential, so the small size of the enclosure was not viewed as being as problematic as in more recent literature (see pp. 43–4), while the D-shaped enclosures around the Viking towns at Birka and Hedeby (and to some extent elsewhere) were widely taken to be typical of both temporary and permanent Viking settlements (eg Clarke & Ambrosiani 1991, 54, 57–61, 63, 73–4). This discovery was therefore extremely influential and in the absence of evidence to the contrary set the paradigm for what Viking camps looked like.

In 1998–2000, Julian D. Richards and Marcus Jecock led excavations at a mound cemetery at Heath Wood, a few miles to the east of Repton. The site had previously been investigated on three occasions between 1855 and 1955, involving the excavation of at least twenty mounds, while a survey of the site was undertaken by the RCHME in 1992–3, confirming a total of 59 barrows. This survey also included the suggestion that the site might be linked with Viking activity at Repton (Richards et al. 1995). The excavations in 1998–2000 covered a further three barrows, and the publication by Richards et al. (2004) provided summary accounts of the earlier investigations of the site as well as a more detailed discussion of the new discoveries. These demonstrated that the site was used for furnished cremations, including weapons and other items consistent with Scandinavian activity in the late ninth century, and the authors also pointed out that cremation at such a late date in England was itself an indicator of Scandinavian involvement. The publication explicitly linked the cemetery at Heath Wood with the Viking activity at Repton, and after discussing the alternative possibility that the cemetery might be linked with permanent settlement in the area a few years later, firmly rejected this in favour of association with the winter camp of 873–4 (Richards et al. 2004, 102–8). This article also highlighted the place-name Foremark, between Repton and Heath Wood. This appears in Domesday Book as 'Fornewerke', or 'old fortification', from ON *forn* and *verk*, although this use of *verk* may be influenced by OE (*ge*)*weorc* (Richards et al. 2004, 25–6), and the whole may possibly represent a hybrid name including both ON and OE elements. The

potential significance of this name in relation to the Viking camp had not passed unnoticed by local historians, who had considered the possibility that this, rather than Repton itself, may have been the location of the winter camp (I am grateful to Julian Hawtree, former deputy headmaster of Foremark school, for discussion of this point).

Aspects of Repton have been revisited on a number of occasions since the early interpretations. The first area of significant development regards the mass burial. Although full publication of the skeletons from this burial has not yet appeared, analysis of the bones indicates significant evidence of perimortem trauma (Cat Jarman, pers. comm.), consistent either with victims of the ‘great army’ or with members of the ‘great army’ having been killed in battle. Furthermore, isotopic analysis of a sample of the bones indicates that a number (but not all) of the individuals involved (including both males and females) were of Scandinavian origin (Budd et al. 2004). More recently, the radiocarbon data has been retested to take account of the Marine Reservoir Effect, whereby a high quantity of marine diet is now recognised as having the potential for skewing the dating by appearing to suggest artificially early dates because of residual carbon in the ocean entering the food chain. This phenomenon was not yet recognised when the original carbon dating was carried out, and the calibration of the dating could not take this into account. Taking account of this the figures are now consistent with the late ninth century, and therefore with the over-wintering of 873–4 (Jarman et al. 2018). This was part of a larger programme of reinvestigation of the site by Cat Jarman, which has revealed additional evidence of activity outside the D-shaped enclosure, in proximity to the mass grave, including small finds comparable to those from Torksey and Aldwark, but without revealing much in the way of additional information about activity within the enclosure itself (Jarman 2021; Biddle, this volume). However, DNA examination of the weapon grave (511) and the adjacent burial of a younger male armed with a knife (295) has shown that the two were closely related, probably father and son, although possibly buried on two separate occasions. This has led both to the suggestion that the site acquired a special status over a more extended period than 873–4 as a monumental burial place for former members of the ‘great army’ even if they died elsewhere in Britain or Ireland, and to the positive identification of the two graves as those of Olaf (said to be one of the sons of the semi-legendary Ragnar Lothbrok) and his son Eysteinn, killed in Scotland in 874 and Northumbria in 875 respectively (Jarman et al. 2019; Jarman 2021). At the time of writing this is too recent for there to have been much reaction in print, but this last interpretation appears to push the evidence too far, given that there is nothing about either grave to suggest royal status, and no evidence that Vikings other than those who settled in the immediate area retained any sort of relationship with Repton after the ‘great army’ moved on.

A final area in which research on Repton has developed is that it is now clear that the activity in and around the enclosure and monastery is only part of a larger ‘Repton’ settlement. As noted above, a possible link has been

suggested between the cemetery at Heath Wood and the site in Repton itself, although this association cannot be considered to be certain, given that it is clear from place-name evidence that this was an area of permanent settlement. In addition, a growing awareness that the ‘great army’ was likely to be a composite force made up of several smaller forces joined together (see below, pp. 44–5), combined with the logistical challenges of supporting a large force for months in hostile territory, has led to the suggestion that the ‘great army’ was probably dispersed over a wider area during its over-wintering, and that the Repton enclosure was only a citadel or emergency refuge within a wider landscape of temporary occupation (Williams 2008, 198; 2011, 88). This view has been reinforced in recent years by comparison of the size of the Repton enclosure with the much larger sites at Torksey and Aldwark (see below), as it seems inconceivable that a force which utilised c. 55 hectares in Torksey in 872–3, and part of which probably occupied a site of c. 31 hectares at Aldwark two or three years later, could have been contained in only 1.46 hectares at Repton (Hadley & Richards et al. 2016; 2021; Williams 2020; Biddle, this volume). Dawn Hadley and Julian Richards (2018, 8) have drawn attention to a concentration of finds of approximately the right date a few miles upstream at Catton, which may well have been occupied by one unit of the ‘great army’ as part of a larger dispersed ‘camp’, although as with Heath Wood there is the caveat that the area was settled shortly afterwards, and these finds may reflect permanent Anglo-Scandinavian settlement at Catton rather than the over-wintering of 873–4. Hadley and Richards (*idem*) also note a smaller concentration of finds downstream at Stanton-by-Bridge.

More conclusive, however, is the discovery through metal detecting of large numbers of late ninth-century finds at Foremark, just to the east of Repton and bridging the gap between Repton and Heath Wood, along a ridge above the Trent. The name indicates an ‘old fortification’, although no earthworks have yet been positively identified, and archaeological investigation is at an early stage, but assuming occupation along a substantial part of this ridge, the size and the topography provide a much better match for Torksey and Aldwark than the more concentrated settlement at Repton itself. The finds, including *inter alia* a Thor’s hammer, at least one silver dirham, weights, and other metalwork, also parallel those from the other Viking camps, so the evidence now seems convincing that the documented camp at Repton covered an extended area including both Foremark and Repton itself, and possibly beyond (Jarman 2018; 2019; 2021; Biddle, this volume). What remains less clear is exactly how much of the activity in and around Repton relates to the over-wintering of 873–4, and how much to permanent settlement shortly thereafter, as there are several Scandinavian or hybrid place-names in the area, including both Foremark and Ingleby, adjacent to Heath Wood.

A second documented over-wintering place which has attracted significant archaeological attention is Torksey in Lincolnshire, which was occupied the winter before Repton. Torksey lies further down the River Trent, close to the confluence with the Foss Dyke, a Roman canal providing a direct connection

to Lincoln and also close to a major Roman road connecting to the north and south, so well positioned in terms of transport links across the entire surrounding area and beyond. Torksey went on to become an Anglo-Scandinavian town, and the centre of a major pottery industry, rising to become the third town in Lincolnshire by the eleventh century, although it subsequently declined in importance. Previous archaeological work at Torksey had focused on the Anglo-Scandinavian town and the development of the pottery industry. This can be seen to be focused in the modern village, with a number of kilns located close to the later castle, but no trace of the Viking camp was found in this vicinity (Barley 1964; 1981; Hadley & Richards et al. 2016). Unlike Repton, there is no record of a previous high-status settlement at Torksey itself, although Hadley and Richards (2013; 2016) have pointed to a number of sites of economic significance in the surrounding area which may have influenced the selection of this location.

In the course of the 1990s, it became clear that extensive metal detecting was taking place in fields to the north of the village, sometimes with the permission of the landowner but often without. As a result, many of the early finds were unrecorded and were dispersed through sale. However, some of the legitimate detectorists began recording finds with the voluntary Portable Antiquities Scheme (PAS), especially with Kevin Leahy and Rachel Atherton, then Finds Liaison Officers for North Lincolnshire and Nottinghamshire respectively. This included assorted metalwork of late ninth-century date, including *inter alia* Anglo-Saxon and Islamic coins, weights, and personal ornaments, especially strap-ends. Other material from the site was purchased by the Fitzwilliam Museum, Cambridge, and Mark Blackburn, Keeper of Coins and Medals at the Fitzwilliam, began to record finds from the site as systematically as possible, liaising with colleagues in the PAS and other institutions, but also talking directly with the finders and establishing exactly where the finds came from. Blackburn was able to establish that the finds were concentrated in a group of fields just to the north of the later settlement, and that the dating of many of the objects were consistent in date with the documented over-wintering of 872–3. These included finds of specifically Scandinavian character, including Thor's hammer pendants and weights of various types, both lead weights (with or without insets made from re-used Anglo-Saxon coins and fragments of insular jewellery) and small cubo-octahedral weights found in large numbers from the settlement of Birka in Sweden and Hedeby in Denmark. The assemblage also included fragmentary Islamic dirhams and hack-silver, also associated with the Viking bullion economy, Anglo-Saxon coins from south of the Humber, as well as copper-alloy stycas from Northumbria, a coinage rarely found south of the Humber, but which the 'great army' could plausibly have acquired in Northumbria in the late 860s. There was also evidence of metalworking on the site, including lead trial-pieces for the manufacture of imitative Anglo-Saxon and Frankish coins and Insular Scandinavian jewellery. Much of this could be dated to the late ninth century, while some of the coins pointed more precisely to the early

870s, and even in the absence of archaeological investigation, Blackburn (2002; 2011) was able to argue convincingly that the fields producing this material must be the site of the Viking winter camp, which he estimated at c. 26 hectares, considerably larger than the enclosure at Repton.

Following Blackburn's death in 2011, archaeological investigation was taken forward in a series of research projects, initially led jointly by the universities of Sheffield and York and the British Museum, and subsequently carried forward by the University of York. This included limited excavation, as well as a more substantial geophysical survey by Hannah Brown, who had earlier written an MA thesis on the site (Brown 2006). Neither the excavations nor the geophysics revealed structural remains from the ninth century, although evidence was found of Roman structures at the centre of the site, but the investigations showed that a combination of agricultural disturbance and drifting sand were likely to have destroyed or obscured anything but the most substantial of structures on the site, although human remains were recovered which could be identified as likely graves. At the same time, further work was undertaken on the systematic recording and mapping of both new and earlier metal-detected finds from the site. Nevertheless, it was striking that no evidence of an earthwork could be found to match the defences of Repton, which were seen as the model for what would be expected of a Viking camp, especially since the same force was known to have moved from Torksey to Repton the following year. The answer was provided by Samantha Stein, who carried out a geoarchaeological and landscape study of the site for her PhD, including soil coring in and around the fields from which the metal-detected finds were recovered. Stein (2014) was able to show that the site, which was on high ground above the Trent on one side, was surrounded on the other sides by paleochannels, meaning that it was effectively an island, especially in the winter when these would become impassable. These channels also separated the camp site from the later settlement to the south. The presence of this natural defence removed the need for the Vikings to construct earthworks to defend the site, with parallels in textual references to other island camps in England and Francia.

The spread of finds, combined with the area defined by the river and the paleochannels, established that the site covered a total of c. 55 hectares, while the finds confirmed the late ninth-century date, and the almost certain identification of the site as the *wintersetl* of 872–3 (Hadley & Richards 2013; 2016; 2021; Williams 2020, 84–6; Woods 2020). It has been argued, largely with reference to numismatic evidence, that the finds all date from that single period of occupancy (Hadley & Richards et al. 2016). That is certainly a possibility, but in the opinion of the current author the numismatic evidence does not permit such a precise dating, while dating all finds to the early 870s also conflicts with accepted datings for some of the other objects, notably the strap-ends. The range of finds now recorded from the site continues to demonstrate a wide range of activities, including metalworking, exchange using both coins and bullion, minting, the repair of boats and ships, fishing,

and textile working, along with large numbers of lead gaming pieces which may indicate how the ‘great army’ spent their time through the long winter months. Several of these activities may be seen as relating to the refitting of the army’s clothing and equipment between campaigns, although direct evidence for military activity in the form of weapons and armour is minimal (Blackburn 2011; Williams 2015; 2020, 84–6; Hadley & Richards et al. 2016; 2021, 86–113; Woods 2020). This may partly be explained by a tendency on the part of metal detectorists to discriminate against iron in favour of precious metals, although there is anecdotal evidence of unreported weapons from the site being sold privately. Amongst the finds, the presence of spindle whorls and loom weights points to a female presence, reinforcing the discovery of the skeletons of women and children at Repton, while references to a slightly later ‘great army’ moving with women and children can be found in the *Anglo-Saxon Chronicle* for 893 (*ASC, sub 893*; Blackburn 2002; 2011).

The third substantial camp in England does not appear in the historical record, unlike Torksey and Repton, but was apparently broadly contemporary to the two, with a core of activity c. 874–6, although at least some of the finds suggest possible continued or intermittent activity on the site over a longer period in the late ninth and even early tenth centuries, in addition to a small number of later stray finds from the site (Hall & Williams 2020). The site at Aldwark, North Yorkshire was originally discovered by metal detectorists Mark Ainsley and Geoff Bambrook, who detected the site for some years before bringing it to official attention. As a result, early finds from the site went unrecorded and although the finders claimed to have recorded large numbers of Northumbrian stycas with the late Elizabeth Pirie, formerly of Leeds Museum, no record of this could be found in Pirie’s archives while accounts from the finders of other finds before 2003 were conflicting and unsubstantiated. The finders reported the site to the PAS in late 2003, having discovered what they believed to be a hoard in a Viking boat burial, and this led to the development of a research project to explore the site. This was led by Richard Hall of the York Archaeological Trust (YAT), working in partnership with the British Museum. Both the original finders and YAT were given permission to investigate the site by the landowner on condition that the location of the site remained anonymous, and for this reason the site has been known under a variety of names. The pseudonym Ainsbrook, made up of elements of the finders’ surnames, was used for a few years, while for official purposes the vaguer term of ‘North Yorkshire area’ was used for the formal notice of the discovery in the Treasure Annual Report (Ager & Williams 2004). The landowner maintained this position when it came to the fuller publication of the site, which was therefore published by YAT and the British Museum as ‘A Riverine Site Near York’ to allow some sense of the character of the site without revealing the exact location (Hall & Williams 2020). However, the location of the site has been published by others with fewer constraints (Hadley & Richards et al. 2016; 2021), as a result of which it has become public knowledge, and it has therefore been recognised

that there is no longer any value in attempting to retain the anonymity of the site.

Like Repton and Torksey, Aldwark is located on a ridge of higher ground above a navigable river, in this case the Rive Ure, around seven miles north-west of York, close to a Roman road. The place-name Aldwark indicates ‘old fortification’ in Old English, suggesting that there might be structural defences to discover. As at Torksey the detected finds extended over a considerable area, so the site was investigated with an extensive geophysical survey, in addition to a small number of targeted excavations, while the finders also made several hundred objects previously found at the site available for study as part of the report. The investigation revealed a large sub-rectangular bank and ditch enclosure on the north-eastern bank of the river, which formed the fourth side of an enclosure of c. 31 hectares. The bank and ditch was of probable early medieval date, but so little remained that it was not possible to establish whether this was a pre-existing defensive structure occupied by the Vikings or a Viking defence. No trace could be found of any other structures, although a number of pits and hearths were located in addition to extensive finds from the topsoil, but the fact that the whole site had been heavily disturbed through agriculture means that as at Torksey it is impossible to say definitively whether there were timber structures during the period of occupation, or whether the occupation was based entirely on tents. Finds suggest that, again like Torksey, the site had been occupied in the Roman period, but a very small number of Anglian finds indicate little or no activity immediately before the Viking occupation of the site (Hall & Williams 2020, 79–80).

In addition to the defences, the site has yielded a number of weapons of late ninth-century date, reinforcing its interpretation as a Viking camp (Ager 2020; Rogers 2020). As at Torksey, other finds indicate a wide range of activities, including woodworking, metalworking, and the production of textiles, while the presence of large quantities of coins, weights, and hack-silver points to widespread exchange within the camp, and perhaps between the camp itself and the surrounding countryside (Hall & Williams 2020). As at Torksey, the coins include both Northumbrian copper-alloy stycas and silver coins from south of the Humber, as well as fragmentary Islamic dirhams. The presence of the stycas is more obviously explicable at Aldwark than at Torksey, since stycas may well still have been in regular use in Northumbria in this period, but the final phase of stycas (represented on both sites) includes a high percentage of coins with illiterate inscriptions. Although these have traditionally been dated to before the Viking conquest of York in 865, it is possible that they were manufactured between then and the late 870s either by the Vikings themselves or by the local population (Williams 2020a). In any case, a coin of Ceolwulf II provides a *tpq* for the occupation of the site of 874. The bulk of the objects cannot be so closely dated, but the presence of the Ceolwulf coin, along with coins of the first phase of the coinage of Alfred (871–4/5) have led to the suggestion that the site was active between the division of the great army on leaving Repton in 874 and the permanent

settlement of Northumbria in 876 (Williams 2020b). Another coin of Ceolwulf II is believed to have been included in a hoard of Southumbrian coins found at nearby Lower Dunsforth (Blackburn 2004; Williams 2020b), and Hadley and Richards (2021, 79) have plausibly associated this hoard with the occupation of a wider area around the Aldwark camp.

A final site, at East Thirston, Northumberland, has also been proposed as a Viking camp, primarily on the basis of similarities in metal-detected finds, but also the topography, between East Thirston and both Torksey and Aldwark (see Kershaw et al., this volume). It has been linked with the activities of the northern group of the ‘great army’ after the division of the larger force at Repton in 874, but before the permanent settlement of Northumbria in 876. Finds do not yet suggest a settlement on the scale of Torksey or Aldwark, but both the dispersed model of Viking camps and the fragmentation of the northern ‘great army’ before or around the time of settlement provide a context in which smaller camps are entirely plausible, although as with other sites there remains a fundamental problem with associating all late ninth-century sites with finds of Scandinavian character with the movements of the ‘great army’ rather than with the more extended period of settlement which followed. It is possible, and even likely, that a number of smaller sites such as this may emerge in Northumbria, eastern Mercia, and East Anglia, representing the transition from the migratory ‘great army’ to the settlement of smaller groups before these dispersed further into individual farmsteads. A progression of this sort is suggested at the site Cottam B in East Yorkshire, where an Anglian settlement was succeeded by a short phase with finds characteristic of the ‘great army’, and in turn by a more permanent Anglo-Scandinavian settlement. This would be consistent either with the temporary billeting of a smaller unit of the great army during one of their temporary occupations of Northumbria, or with the transition to more permanent settlement (Haldenby & Richards 2016; Hadley and Richards 2018, 5–8).

The *Anglo-Saxon Chronicle* and Asser’s *Life of Alfred* identify several other places at which the Viking ‘great army’ over-wintered between 865 and 879, but the precise sites have not to date been identified with any certainty. In the light of the more dispersed model of activity across a wider landscape now favoured for Repton (see above), it is perhaps more realistic to look for landscapes of occupation rather than individual campsites, but even that approach is hindered in most cases by modern development. As noted above, a plausible argument has been put forward for the location of the site of the fortification between the Thames and the Kennet at Reading, and since this was not an area of Viking settlement in the late ninth century, a grave at Sonning, Berks may also be plausibly identified with the over-wintering at Reading (Evison 1969; Graham-Campbell 2004). Two weights with coin insets from Kingston, Dorset with similarities to inset-weights from Torksey and Aldwark have been provisionally identified with activity at the camp at Wareham in 876 (Archibald 1998; Williams 1999) but only with the wider landscape of occupation rather than with the camp itself (see p. 53). Similarly,

Nicholas Brooks and James-Graham-Campbell have identified a number of silver hoards with the documented over-winterings of the ‘great army’, whether as hoards deposited by elements of that force, or in some cases more probably by members of the local population through fear of the Vikings (Brooks & Graham-Campbell 2000). In addition to these, a hoard from Watlington, Oxfordshire found in 2015 can plausibly be linked with the movement of the ‘great army’ from Cirencester to East Anglia in 879 (Williams & Naylor 2016) and a partially recovered hoard from near Leominster, Herefordshire may be linked with more dispersed occupation of south-western Mercia linked either with the occupation of Gloucester (877) or Cirencester (878–9). However, although a large number of hoards are known from the 860s and 870s, caution is needed when associating some of these either with specific camps or with the movements of the great army between camps, as there may be other factors behind the deliberate deposition of hoards that are impossible to tell today, while some of the smaller hoards could easily be casual losses (Archibald and Williams, forthcoming). Hadley and Richards (2021; this volume) have suggested locations for the winter camps at London and Thetford, and that Aldwark represents part or all of the documented camp at York in 868–9, but the first two of these are conjectural at best on current evidence, while the presence of coins of Alfred (871–99) and Ceolwulf II (874–c. 879) at Aldwark and in the nearby hoard at Lower Dunsforth (Williams 2020b) make a date of 868–9 problematic, as well as completely inconsistent with attempts to use numismatic evidence to argue for only a single year of occupation at Torksey (Hadley & Richards et al. 2016; see above, p. 23).

Ireland

In Ireland, discussion of Viking camps has largely focused on a type of settlement labelled in historical sources as a *longphort* (pl. *longphuirt*). As noted above (pp. 15–16), the precise translation and significance of these settlements is subject to varied interpretation, and it is not certain that the term was always used with a single consistent meaning. However, there seems to be consensus that the term includes a reference to ships, and that *longphuirt* were typically riverine camps featuring some form of enclosure, whether or not all of them had significant defences. Several potential sites have been identified at least in part because of the presence of D-shaped enclosures, and this has been seen as typical of the *longphort* phenomenon (although not all *longphuirt* fit this pattern, see p. 38), while it has also been noted that many *longphuirt* appear to have been strategically sited on the borders of two or more kingdoms, partly to exploit rivalries between different kingdoms and partly to benefit from trading opportunities with different kingdoms (Kelly & Maas 1999, 140; Sheehan 2008, 283–6; Kelly 2015). These border areas, rather than being marginal in importance, were often areas with significant wealth, with major monasteries often endowed in such areas as a form of competitive

display with neighbouring kingdoms (I am grateful to John Sheehan for discussion of this point). Such monasteries might in some cases themselves be taken over as *longphuirt*, but would also provide potential opportunities both for plunder and for trade.

A number of sites are identified as *longphuirt* in historical sources (Bhreathnach 1998; Maas 2008; Downham 2010; this volume), but not all of these can be identified archaeologically. Conversely, several potential *longphort* sites have been identified by archaeologists, either on the basis of the typology of the sites, or the presence of finds of Scandinavian character, but not all of these can be firmly identified with historical references, and few have been excavated (for overviews see Sheehan 2008; Kelly 2015). The evidence is neatly summarised by John Sheehan (2008, 293), who notes that:

Though it is certain that very few *longphuirt*, if any, endured to become permanent multi-functional settlements like Duiblinn/Áth Cliath, it seems probable that most examples functioned solely or predominantly as raiding bases and may thus have been relatively short-lived. In most case historical records refer to a *longphort* only once, and consequently it is impossible on the basis of this evidence to gauge whether the use of an individual site extended over months, years or decades, or whether its occupation was continuous or periodic.

Despite the emphasis on raiding, Sheehan notes that a number of historical references to *longphuirt* appear more likely to indicate more sustained economic interaction, even if some of that trade may have related to raiding through the selling on of slaves and other plunder. An economic role also seems to be supported by finds from Dublin and Woodstown (Sheehan 2008; 2014; Wallace 2013; 2014), and there now seems to be consensus that like Viking camps elsewhere, *longphuirt* were characterised by economic as well as military activity (Clarke 1998; Sheehan 2008; Valante 2008; Harrison 2013; Williams 2015). Silver and even gold has been found at, or near, a number of proposed *longphort* sites, and with the bulk of ‘Viking’ hoards found in areas with little or no Scandinavian settlement, the *longphuirt* may have provided a gateway for the transmission of silver into native Irish hands (Sheehan 1998; 2015; Sheehan & Graham-Campbell 2009). In Ireland as elsewhere, the inhabitants of the Viking camps could not survive without supplies. John Bradley (1988; 2008) has stressed the importance of controlling the resources of surrounding hinterlands for the more established *longphuirt*, especially Dublin, while Mary Valante (2008) has drawn attention to multiple references to payments in cattle to and by the Vikings in Irish sources. While this may in part reflect the use of cattle as a measure of wealth in the predominantly coinless Irish economy, it is probably also an indication of the need for supply for *longphuirt* where the inhabitants lacked the land to maintain herds of their own.

A number of locations have been identified as potential *longphort* sites, based on a combination of archaeological characteristics, textual references to

longphuirt in the general area, and more occasionally place-name evidence. Of these, the majority fit the pattern of riverine sites with D-shaped defences, which has been seen as the key identifier of Viking camps in Ireland and elsewhere, although as in England not all sites fit a consistent model. Potential sites include Ballaghkeeran Little (Co. Westmeath), Dunrally (Co. Laois), Fairyhill near Athlunkard [*Áth Longphuirt*] (Co. Clare), Knoxspark (Co. Sligo), and Rathmore near Castlemaine (Co. Kerry) (Fanning 1983; Kelly & Maas 1995; 1999; Kelly & O'Donovan 1998; Mount 2002; Gibbons 2005; Sheehan 2008; Kelly 2009; 2015). All of these require further work to substantiate the possible identification, but three locations can be identified with some certainty, even if the precise interpretation of each site may be problematic.

The most important *longphort* in the historical sources is Dublin, which receives repeated references in the ninth century, first under the name *Duiblinn* and subsequently (and more frequently) as *Áth CLIath*. Both names seem to refer to settlements in the vicinity of the confluence of the Liffey and the Poddle, where the 'black pool' of the name *Duiblinn* offered a naturally sheltered harbour, but it is not certain that both originally referred to the same site, although it has been suggested that one or more monasteries may have provided a starting point for the Dublin *longphort*. Although references are frequent, they do not prove continuous occupation between the first recorded over-wintering in 841 and the expulsion of the 'foreigners' in 902, now thought to refer to the elite of the settlement, rather than the entire population. Occupation in Dublin in the ninth century is normally assumed to have been continuous, but the textual evidence would be equally consistent with repeated episodic activity. Permanent occupation is clear from the tenth century and a series of excavations in the 1970s and 1980s mean that the layout and character of the tenth- and eleventh-century Hiberno-Scandinavian town is exceptionally well recorded and understood (Wallace 2015).

By contrast, the ninth-century *longphort* was until recently archaeologically invisible, although cemeteries of late ninth-century date were discovered in the nineteenth century at Kilmainham and Islandbridge, some distance to the west of the later town. Many of the graves contain weapons, and the size of the cemeteries suggests association with a substantial settlement, whether temporary or permanent, probably to be identified with a *longphort*. This has led to speculation as to whether the historically documented *longphort* of Dublin was in the vicinity of Kilmainham/Islandbridge or underneath the later town further east, or whether there existed more than one *longphort*, perhaps reflecting the two names in the historical sources (O'Brien 1998; Ó Floinn 1998; Valante 2008; Harrison & Ó Floinn 2014).

Over the last two decades, a series of excavations have shown traces of what has been convincingly argued to be a *longphort* in Temple Bar and the surrounding area, including houses and a defensive rampart, well to the east of Kilmainham/Islandbridge (Simpson 2004; 2005; 2010; 2012). However, this does not preclude the possibility that there may have been a second *longphort*

further to the west. Furthermore, just as the small D-shaped enclosure of the original interpretation of Repton informed assumptions of the likely form of Viking camps for a generation, the new interpretation of Repton as a more dispersed settlement along the bank of the river may provide a possible model for the interpretation of the *longphort* phase at Dublin, with the cemetery placed at one end of a dispersed linear settlement. Certainly the repeated references to Dublin not just as a *longphort*, but as the base from which other *longphuir* were established and overseas raiding undertaken, suggests that we should be thinking in terms of a substantial site rather than the small D-shaped enclosure of the past. It is to be hoped that further development-led archaeology will continue to add to our understanding of Viking activity and settlement across the whole of what is now central Dublin.

This is not to disparage D-shaped enclosures, and the most extensively investigated *longphort* to date was defended by not one but two D-shaped enclosures, so that the overall shape is more of a B than a D. The site at Woodstown, Co. Waterford was investigated in 2003–4 as part of the development of a bypass around Waterford, itself an important Hiberno-Scandinavian town, although clues to the presence of something substantial were provided both by the discovery of a grave mound containing multiple skeletons in the course of the construction of the Waterford-Lismore-Dungarvan Railway in 1870 and by the name of the field where the mass grave was found. This was recorded as *Sean Dún*, meaning ‘old fortification’, a direct parallel both to Aldwark and to Foremark (*forn verk*) at Repton.

The modern investigation of the site was constrained by the development process (although some additional targeted excavation took place in 2007) and comprised a series of strip excavations complemented by geophysical surveys, as well as by metal detecting the spoil from the excavations. This means that, like Torksey and Aldwark, the site has been extremely productive of small finds, even if many of these lack a precise archaeological context, while after a somewhat acrimonious public debate, the site is now protected from further development, meaning that there may be opportunities for further investigations in future. In the meantime, while there has been some criticism of the circumstances and method, the investigation of Woodstown has nevertheless resulted in by far the most comprehensive publication of a Viking camp to date (Russell & Hurley, with Eogan 2014). A further phase of development-led investigations took place in 2018, including excavations and a GPR survey, and largely reinforcing but also clarifying the discoveries of the earlier phases of excavation.

Woodstown is discussed in more detail elsewhere in this volume by Ian Russell, one of the excavators of the site, so I will merely summarise some of the main features, as well as points of comparison with Torksey and Aldwark. Firstly, the two ditches together enclose an area of around 2.91 ha, much smaller than those at Torksey or Aldwark, but that is in no way problematic, as those camps are both associated with a force labelled as a ‘great army’, which implies that many forces were much smaller. Carbon dating indicates

suggests that Enclosure 2 may have been created in the late seventh or early eighth century, suggesting Viking re-use of a pre-existing site, with further carbon dates as well as the finds suggesting activity on the site in the mid-ninth to early tenth centuries. Enclosure 1 is not so precisely dated but has evidence for a wider ditch, with an inner bank and evidence for a palisade, and can probably be interpreted as a defence added during the Viking occupation of the site. Unlike Torksey and Aldwark it seems likely that there may have been activity on the site, whether continuously or intermittently, over a prolonged period. Russell (this volume) suggests repeated seasonal activity, with the main focus of activity in the mid-late ninth century, but with a recognisable early tenth-century phase, although it is less clear whether there was a gap in between.

In addition to the enclosures, the 2007 investigation revealed at least one structure in Enclosure 2, a rectangular building with rounded corners, measuring 9.4 x 5.4m, which from the finds was apparently used for industrial purposes rather than habitation. Geophysical surveys at the same time suggested the presence of further structures, and this was reinforced by the 2018 GPR survey, which demonstrated the presence of a number of sub-rectangular structures, across both enclosures, some of which were quite substantial, up to 17m in length (Russell, this volume). This is one of the most significant discoveries at the site, since no such structures have been identified at Aldwark or Torksey. This may reflect the more protracted occupation of the Woodstown site, or it may simply be that the conditions at Aldwark and Torksey have obscured similar structures rather than that no such structures existed, but it does correspond to references in the *Annals of St Bertin* that indicate the presence of buildings in at least two temporary camps in Francia (see below, pp. 51–2).

The finds indicate a range of activities. Firstly, a furnished weapon grave and a number of individual weapons suggest that the site had at least a partially military character. This aspect also has parallels in the weapons from the ninth-century graves at Kilmainham/Islandbridge (Harrison 2014a; 2014b). Secondly, there is extensive evidence for bullion-based exchange. Although coins are rare compared to Torksey or Aldwark, reflecting the absence of a native coin-based economy in Ireland, there are two dirhams (Rispling 2014), along with a more extensive range of silver bullion (Sheehan 2014; 2015) and the largest collection of Viking-age weights from Ireland (Wallace 2013; 2014). Finally, there is evidence to suggest the presence of industrial production onsite, and especially metalworking (Young 2014a; 2014b). There are other finds as well, but cumulatively the evidence thus points to a mixture of military activity, production, and exchange similar to the English sites.

A final potential *longphort* which has received a partial archaeological investigation in recent years is Annagassan, Co. Louth. This can be identified with the historically attested Linn Dúachaill, which was mentioned along with Dublin in the first reference to *longphuirt* in AD 841. It has been

suggested that this was also a monastic site, and it lies on a promontory contained within a curve of the River Glyde, just inland from the coast. Prior to archaeological investigation, it was suggested that the *longphort* was situated at Lisnarann, where a D-shaped enclosure backed onto the river towards the end of the promontory (McKeown 2005). However, a programme of geophysical surveys and trial excavations by Mark Clinton and Eamonn Kelly revealed that a much larger area of around 65 hectares was enclosed by a substantial bank and ditch defence across the narrow neck of the promontory (Clinton 2014; Kelly 2015). This means that the site is even larger than Torksey, but this may simply be because the neck of the promontory was easier and quicker to establish the earthwork defences, and the additional space does not necessarily imply a larger force than other sites. While the space may have been densely populated there is no evidence that this was the case, and the relatively small number of finds recovered from the site argue against this idea, although finds from the river, including two pieces of silver, support the idea of a Viking presence. Nevertheless, the space may within the enclosure may have been partly occupied by herds, or used for agriculture or for the housing of slaves, rather than to house a substantial fighting force.

If the interpretation of the overall size of the Linn Dúachaill *longphort* is correct, it raises the question of the function of the much smaller Lisnarann D-shaped enclosure. This may be an earlier enclosure re-used by the Vikings or it may have been a new construction from the *longphort* occupation. In either case, it now seems to offer a parallel to Repton not as an entire camp, but as a smaller citadel within a larger camp (see p. 21).

Scotland, Wales, and the Isle of Man

As yet, there are no complete parallels to the English and Irish camps in Scotland, Wales, or the Isle of Man, although there is clear evidence of Scandinavian settlement in all three. As noted above, later saga tradition suggests that the Northern Isles may have housed temporary bases for Viking raiders prior to their permanent settlement in the late ninth century, and both the Northern and Western Isles would have provided natural offshore bases for raids on the Scottish mainland, for raids on island targets such as Iona, as well as potential jumping off points for raiding further south either on the east coast of England or around the Irish Sea. However, in the absence of either clear contemporary accounts or archaeological evidence, this can only be speculation. The account in the *Annals of Ulster* of a raid on the royal centre of the Strathclyde Britons at Alt Clut (Dumbarton Rock) in 871 bears some similarity to attacks on high-status sites in England and Ireland, and the leaders of the attack, Olaf and Ivarr, have been identified with individuals involved in Viking activity in both those areas, with experience of the camp phenomenon (Jarman 2021). Unfortunately, the only contemporary account of the raid gives no indication of its duration, and any archaeological

evidence of this event has been obscured by later phases. It seems likely that Dumbarton was a camp with at least some analogies with Viking camps elsewhere, but at present this is again speculative, while in the Firth of Clyde as elsewhere, other archaeological evidence seems as likely to relate to permanent settlement as temporary encampment. It is notable that Alt Clut disappears from the historical sources following the raid of 871, and seems to have been replaced as the local power centre by a settlement at Govan, further up the river. Although the kingdom of the Strathclyde Britons survived, archaeological evidence for a significant Scandinavian presence in the tenth century is clear, possibly connected with the exploitation of trade along the river, although the exact nature of the interaction between Vikings and natives at Govan is unclear (Owen & Driscoll 2009)

Clear evidence of comparable camps is also lacking from the Isle of Man, although two beach markets have been located through metal detecting. As discussed by Griffiths (this volume), and throughout this paper, the relationship between market sites and the economic aspect of camps with a wider range of functions is somewhat blurred. On current evidence, there is nothing to suggest that the Manx market sites had a military function, but Viking raiders could have occupied existing earthwork fortifications, or there may have been fortified camps which have not yet been discovered. Here it is important to note that as an offshore island with access to coastlines around the Irish Sea, the Isle of Man as a whole was well suited to provide the sort of base seen in other island camps, such as the suggested camp at Noirmoutier, and further investigation of this possibility might be productive.

Although place-name evidence indicates Viking influence around much of the Welsh coastline, and Welsh annals record that Wales was also a repeated target of Viking raids, there are no references to camps like those in English, Irish, and Frankish sources, although it is noted that a force encamped at Buttington on the Severn moved briefly into Wales to escape their West Saxon besiegers, before crossing back into Mercia and then on to East Anglia. However, there is a single site which shows some similarities with Viking camps elsewhere, if on a much smaller scale. At Llanbedrgoch, in north-east Anglesey, an area of 1.2 hectares was defended by a shallow ditch of pre-Viking date, reinforced in the ninth century by a stone rampart inside the ditch. The site remained active into the tenth century. Five bodies of non-local origin deposited in the outer ditch appear to have suffered violent deaths. The defences show similarities with native Welsh defences of the early Middle Ages, but the site finds include imported coins, weights of Scandinavian character, and hack-silver, all of which are consistent with finds from Viking camp sites, while a hoard of Hiberno-Scandinavian arm-rings was found nearby. The site also includes both residential buildings and metal-working hearths. Interpretation of the site is disputed, and while the form points to it being an indigenous site, it may have been a purely native settlement visited by Viking traders, or it may fit the wider pattern of Viking forces occupying existing sites for a mixture of military and non-military purposes

(Redknap 2004; Seaman 2016; Williams 2020, 22–3, 90; Griffiths, this volume). While Llanbedrgoch is too small to have housed a substantial force, it is worth noting that Anglesey as an island on the Irish Sea again provided natural opportunities as a jumping off point around the Irish Sea, while Anglesey's status as the most fertile area of North Wales also offered potential advantages in terms of supply (see pp. 49–51)

Francia

As noted above, the phenomenon of Viking camps in Francia has been comparatively little studied until recently, although the movements of Viking fleets are well recorded in a number of textually independent Frankish annals, many of which include a level of detail usually absent from the *Anglo-Saxon Chronicle*. While over-wintering is documented frequently from the 840s to the 890s, and at times was almost an annual occurrence on rivers such as the Loire and the Seine, scholarly focus has largely been on other aspects of the interactions of Viking fleets and Frankish rulers, including the political accommodations (often involving payment of tribute) which enabled some of those over-winterings to be relatively peaceful (Coupland 1999; Leboutellier 2017), military counter-measures against the Vikings (Coupland 1995), the temporary granting of lands to Viking leaders in Frisia and northern Francia (Coupland 1998; Cooijmans 2020), and the settlement of Normandy (Bauduin 2005). The one major exception is the siege of Paris in 885–6, described in a lengthy eyewitness account by Abbo of St Germain (Dass 2007). However, this is atypical in that it was the Parisians who were on a fortified island, while the Viking forces established siege camps on either side, and attention has generally focused on the siege more than the camps (although see Cooijmans 2021, 193–4).

The negotiated settlements in both Frisia and Normandy are of interest for the phenomenon of Viking camps, since in both areas the grants of land were a response to an existing presence of Viking forces, and there may well have been camps analogous to others discussed here as a focus for Viking occupation both before and after periods of 'legitimate' settlement. Here there is a possible parallel with *longphuirt* such as Dublin which probably began as a temporary raiding camp but was then occupied intermittently or continuously before developing into a permanent town. In connection with this, by analogy with the association of hoards and camps in England and Ireland, two Viking silver hoards from Westerklijf in the Netherlands have been linked with possible camps on Wieringen c. 850 and c. 880, while a small hoard at Saint-Pierre-des-Fleurs (Eure) may be linked with a camp on the lower Seine a few years before the permanent settlement of Normandy (Besteman 1999; 2009; Cardon et al. 2008; Coupland 2011; 2022).

These hoards are of note, because there is such limited evidence for the Viking camps themselves in former Frankish territories (Cooijmans 2020; this volume). This in part reflects the fact that archaeological evidence for Viking

activity in France, Belgium, and the Netherlands is much slighter than in Britain and Ireland. Linked to this is the fact that metal detecting is legally restricted in France. It is worth remembering that both Torksey and Aldwark were detected for some years before being reported to the authorities. In France, a similar site would probably not be reported at all. The *Annals of St Bertin* also offer a model of much more dispersed over-wintering (*ASB*, sub 861), with the Viking force on the Seine dividing into individual *sodalitates* (see p. 41), each of which was billeted over the winter in a different *portus* along the river, as part of a negotiated truce with the Franks. This suggests that on this occasion at least, the archaeological footprint would be a series of much smaller camps rather than a single large camp like Torksey or Aldwark. It is also uncertain whether the term *portus* refers to purpose-built Viking camps or to existing Frankish settlements, but numerous other references to Viking fleets suggest the temporary occupation of towns, monasteries, and royal estates, in which case all that might be expected is a context indicating Scandinavian presence, rather than distinct Viking fortifications, with the usual caveat that in many places evidence of the Viking camps is probably obscured by later phases of occupation.

Although no major Viking camps have yet been clearly identified, the Frankish evidence is now very much part of the discussion, with regional studies of Viking activity in Brittany (Price 1989; 1991; 2013), Normandy (Bauduin 2005); Frisia (IJssennagger 2013) and the Rhineland (Simek & Engel 2004), as well as a broader picture of Viking activity across Francia (Ridel 2014). Particularly important in the current context is the recent work of Christian Cooijmans (2020; 2021; this volume), who examines the activities of Viking fleets in France against the background of the recent wave of research in England and Ireland discussed above, and therefore addresses the theme directly, while Christophe Deutsch-Dumolin (this volume) also discusses Viking over-wintering in Francia in the broader context of Viking camps. A number of small sites have also now been identified which show clear evidence of Scandinavian activity. Given the breadth of what is now considered normal activity in Viking camps, beyond the narrowly military interpretations of the past, these can now be considered as likely Viking camps. They include Camp de Péran and Trans in Brittany (Price 1991; 2013; Nicolardot 2002; Nicolardot & Guigan 1991) and Taillebourg on the Charente (Dumont et al. 2014) and are discussed in more detail in this volume by Cooijmans and Deutsch-Dumolin.

Spain and Portugal

Viking activity in the Iberian peninsula has traditionally received relatively little attention. The area has been seen as peripheral to Viking studies, while the Vikings have largely been seen as peripheral to Spanish history. This is despite the fact that Ibn al-Qūṭīyya's account of a Viking raid on Cordoba in 844 shows some similarities to the strategies of Viking fleets in England,

Ireland and Francia in the mid-ninth century, in which camps played a prominent part (Lunde & Stone, 2012); see above; however, the accuracy of this account, written over a century after the event, is questionable (Christys 2015), while later Icelandic tradition linked the sons of Ragnar Lothbrok with raiding in Spain as well as with the activities of the ‘great army’ in England, and raiding elsewhere in Britain and Ireland.

In recent years, surveys have drawn attention to the fact that Viking activity in Spain and the Mediterranean was more extensive, and more similar to Viking activity further north, than the limited discussion in most modern secondary literature would suggest, including penetration along large rivers by fleets of significant size (Price 2008; Pires 2013; Christys 2015). Irene García Losquiño (2019) has specifically noted that the recent work Viking camps of England and Ireland in the late ninth century provide a likely model for the archaeology of documented Viking raids along navigable rivers in Spain, and has suggested areas for potential investigation. The argument that Viking expeditions in Spain and elsewhere in southern Europe probably involved camps similar to those documented archaeologically and historically elsewhere is persuasive in principle, and was one of the ideas that underpinned the workshop in Santiago de Compostella which led to the publication of this volume. However, at the time of writing no clear archaeological evidence has yet been discovered of Viking camps in Spain (for more detailed discussion, see García Losquiño, this volume), although it is to be hoped that this will change now that scholars are actively seeking such sites.

Eastern Europe and Central Asia

The Viking expansion in the east has sometimes been characterised as being driven by peaceful trade in contrast to more violent expansion in the west, although more recent work tends to recognise a more complex mixture of military and economic activity in both areas. It is now clear that the expansion to the east began well before the main period of the Viking camps in the west in the mid-ninth century, but as noted above, camps seem to have been used on a smaller scale in the west from the late eighth century as well (see pp. 13–14). The expansion in the east was largely focused on the successful exploitation of navigable rivers, and this led to the development of a series of riverine towns, beginning with Staraya Ladoga in the eighth century, but expanding over the next two centuries into a substantial network of towns along the rivers of Russia and Ukraine. Many of these share the characteristics both of Viking camps and of permanent Viking towns, in that they combined elements of defence with important economic functions and in some cases roles as important power centres within the surrounding areas (Kazanski et al. 2000; Duczko 2004).

However, while a number of settlements (and/or their associated cemeteries) have now been excavated, the emphasis within the literature (at least the literature published in English) has been on these as permanent settlements,

while the possibility of temporary camps appears to have been considered very little. This partly reflects the politically driven ‘anti-Normannist’ position in Russian history during the Soviet era, but also the likelihood that the best sites for temporary camps during the phase of initial Scandinavian expansion to the east were also those which were later selected for permanent settlement, and archaeological evidence for pre-urban camps may well be obscured by (or confused with) later towns of the Viking-age Rus, as well as by later development. This is especially true given the limited structural evidence from Viking camps in the west which might otherwise provide a basis for comparison. The difficulties until recently of recognising archaeologically the *longphort* phase of Dublin and the pre-settlement phase of York have already been noted (see pp. 27, 29–30), and there is no reason to assume that the comparable phases of Viking camps in the east should be easier to recognise.

Nevertheless, a ‘camp’ phase prefiguring permanent settlement seems likely. The riverine journeys to the Black Sea and the Caspian were long, and must have involved many weeks of travel, presumably involving many overnight stays, quite apart from any additional pauses to interact with the other peoples active in the region, whether through conflict or trade or a combination of the two (Jarman 2021). The *longphort* model of sites which may have been occupied periodically by different groups rather than permanently by a settled population (see pp. 28–31) could have facilitated the development of regular trade routes (reflected in the large quantities of Islamic silver dirhams found both along those routes and in Scandinavia) before the establishment of towns as more permanent stopping points along the river routes, and Cat Jarman (2021) has suggested that sites at Shestovitsa and Vyposzyv show some similarities with Viking camp sites in the west.

Although somewhat later than the main period of Viking ‘great armies’ in England and Francia, the occupation of Bardaa in modern Azerbaijan in 943–44 also bears comparison with the documented activities of Viking forces in the west. According to a detailed account by the geographer ibn Mis-kawayh, a substantial fleet of the Rus seized the town, taking women and children as slaves, and ransoming others. They remained there for several months (including over-wintering) in large enough numbers to defeat repeated attempts to remove them by force, before eventually moving on the following year, leaving burials of their dead as a legacy of their occupation (Lunde & Stone 2012, 147–52). This account is rather more detailed than any of the surviving accounts of Viking camps and over-wintering in the west, but is consistent with the more cursory descriptions in Anglo-Saxon, Irish, and Frankish sources. Furthermore, while the strategy of long-term campaigning involving repeated over-wintering in north-western Europe in the mid-late ninth century appears to be unprecedented either in Scandinavia or in the kingdoms attacked by the Vikings, it may perhaps be inspired by the semi-nomadic activity of the various Steppe peoples with whom the Vikings came into contact in the east. A conscious attempt to locate Viking camps in the east, and to compare them to the same phenomenon in the west, may

therefore be fruitful in the long term. Unfortunately, it seems unlikely in the current political circumstances that major developments in this field will be possible in the near future.

Thematic approaches

Variation in size and form

As noted in discussion of a number of individual sites, the D-shaped enclosure at Repton, combined with evidence for D-shaped defences in some Scandinavian towns, has led to the expectation that this was a standard form for Viking camps, and this has at times been used as a model for the identification of possible camp sites. A number of proposed *longphort* sites in Ireland appear to be at least partially consistent with this, including Woodstown with its two overlapping D-shaped enclosures (see pp. 30–31). However, even where this is argued to represent the norm, the list of potential sites includes some do not confirm to this pattern (Kelly 2015, *passim*). In the light of recent research, even the D-shaped enclosure at Repton can now be seen to be only one element of a larger encampment, while the same appears to be true of the D-shaped enclosure of Lisnarran within the larger enclosure of Linn Dúachaill, suggesting that in both cases these may be citadels within larger camps (see pp. 21, 33). Other camps are defended by sub-rectangular enclosures (Aldwark) or straight fortifications cutting off promontories (Linn Dúachaill and probably Reading), while Torksey relied on natural defences, and textual sources mention a number of other islands, as well as the re-use of existing walled towns and other fortifications. There is also considerable variation in size. While the D-shaped enclosure may therefore still provide a possible starting point for the identification of potential Viking camps, it now seems clear that there is no standard size or form that can be used as an indicator of ‘typical’ Viking camps. Future attempts to locate further camps will therefore need to look more flexibly at potential sites, although overlapping groups of find types at sites such as Torksey, Aldwark, Foremark, Woodstown, and Llanbedrgoch suggest that further potential camps may plausibly be located through the presence of similar finds assemblages, whether or not these are supported by textual references. The site at East Thirston discussed by Kershaw et al. (this volume) provides a valuable test case for this approach, and it will be interesting to see how investigation and interpretation of that site develop.

Economic activity and relation to market sites

While the main emphasis in both the primary and secondary literature has until recently been on the camps in their military context, the investigation of Torksey, Aldwark, and Woodstown has highlighted the fact that Viking camps also had economic roles as centres of production and exchange. This

was not apparent in the early investigation of Repton because of the constraints discussed above (p. 18), but all three of the more recent sites have revealed extensive archaeological evidence of economic activity. In particular, all three have produced extensive assemblages of hack-silver and weights, pointing to the existence of a bullion economy, while Torksey and Aldwark have also yielded evidence of coin use, and in the case of Torksey, minting (Blackburn 2011).

It was also noted by Nicholas Brooks and James Graham-Campbell (1986) that there was a correlation between the winter camps in England documented in the *Anglo-Saxon Chronicle* in the 860s and 870s and silver hoards deposited in the same period. Some of those may have been deposited by Anglo-Saxons for security in the face of the disruption caused by the ‘great army’, but others contain a characteristically ‘Viking’ mixture of material, such as the Croydon hoard of c. 871 (linked with over-wintering in London in 871–2), which suggested the presence of significant quantities of silver in the hands of the ‘great army’. This included coins from a variety of sources, together with hack-silver and ingots, pointing to the existence of a bullion economy, in addition to intact items of jewellery which may have had more symbolic or social functions (Brooks & Graham-Campbell 2000; Williams 2011b)

This pattern of hoarding has been reinforced by a number of more recent discoveries, including important Viking hoards from Watlington, Oxfordshire and Eye, Herefordshire (Williams & Naylor 2016). A number of hoards in Ireland have also been linked with historically documented Viking camps (Sheehan 1998; 2015; Sheehan & Graham-Campbell 2009). However, while these hoards point to the fact that the Vikings in the ‘great army’ were in possession of quantities of silver and, to a lesser extent, gold, they do not in themselves prove the existence of economic activity in the camps, as this could be explained purely by the gathering of loot. However, the widespread distribution of bullion, coins, and weights across the sites at Torksey, Aldwark, and Woodstown clearly suggests extensive exchange, while the small size of many of the silver items and of many of the weights points to transactions at a relatively low value. An assemblage from the River Blackwater in Ireland points towards the existence of another similar site, although the site itself has not been located (Bourke 2010; Williams 2020, 44–5, 90).

This phenomenon was first noted by Mark Blackburn (2002; 2011) in the course of his study of the Torksey assemblage, but has also formed a major component of the publication of both Woodstown (Sheehan 2014; Wallace 2014) and Aldwark (Williams 2015; 2020). The presence of comparable material in smaller quantities has also been noted at Llanbedrgoch (Redknap 2004; 2009) and is one of the elements that has led to Llanbedrgoch being considered together with the ‘camp’ sites. Hack-silver has also been noted at Annagassan (Kelly 2015; Williams 2015), while more recent investigations of the wider landscape around Repton also point to the presence of a bullion economy, with finds recorded nearby at Catton (Hadley & Richards 2018) as

well as at Foremark (Jarman 2021). The presence of Northumbrian copper-alloy stycas was noted as an unusual feature at Torksey by Blackburn (2002–2011), and their presence in Viking camps as well as copper-alloy ingots, along with the presence of large numbers of small and relatively uniform lead pieces, has also led to the suggestion that there may have been bullion economies based on copper alloy and even lead in addition to silver and gold (Williams 2011b; 2015; 2020). Torksey continues to produce new material indicative of economic activity, and this has been the subject of a recent survey by Andrew Woods (2020), who also reiterates the possibility of a copper-alloy bullion economy, while Hadley and Richards (2018; 2020; 2021) have used the presence of stycas outside Northumbria as part of their model for tracing the ‘great army’ beyond the camps themselves (see p. 51). A more comparative approach discussing economic activity in and around multiple sites has been provided in an Irish context by John Sheehan (2008; 2013) and across both English and Irish sites by the current author (Williams 2015, 2020).

These finds reflecting coin-based or bullion exchange stand in stark contrast to the scarcity of finds of Anglo-Saxon and Frankish coins of the mid-late ninth century in Scandinavia. This also contrasts with the presence of large quantities of Islamic dirhams in the same period (indicating that the Vikings had no aversion to imported silver at that time), and with a high volume of English coins finds (especially in Denmark and Sweden) corresponding to a later period of documented Viking raids in the late tenth and eleventh centuries. As discussed by Simon Coupland (1999; 2011), textual sources indicate that Viking fleets in north-western Europe were in receipt of several large payments in the late ninth century, in addition to other likely payments concealed under the euphemism of ‘making peace’, and while some of these payments may have been recycled into jewellery or ingots, the almost total absence of Anglo-Saxon and Frankish coins in Scandinavia may in part reflect these payments re-entering the local economy around the camps through trade.

The fact that economic activity took place at these sites is not in itself surprising. Two small groups of coins had earlier been discovered at Repton (Biddle, Kjølbye-Biddle, Northover & Pagan 1986; Biddle, Blunt, Kjølbye-Biddle, Metcalf & Pagan 1986) and both Frankish and Irish annals refer to exchanges taking place between the Vikings and the population of the surrounding areas (Valante 2008). The *Annals of St Bertin* specify that a Viking fleet requested permission to hold a market on an island in the Loire following their defeat at Angers in 873, while the *Annals of Fulda* describe Franks entering a Viking camp at Asselt for the purposes of trade in 882 (*ASB*, sub 873; *AF*, sub 882). It seems likely that markets for interaction with the local population formed a regular part of the activity of Viking camps, at least when temporary truces could be agreed (see also Cooijmans, this volume; Griffiths, this volume). A similar ambiguity can be seen in the riverine settlements of the Rus. Although both academic literature and more popular interpretations of the Vikings have tended to draw a firm distinction between

‘raiders’ and ‘traders’, the distinction between the two is often blurred, and the choice between conflict and ‘peaceful’ trade, and between ‘camps’ and temporary markets probably depended on the decision of both/all parties in any particular situation on whether a peaceful accommodation was more beneficial than a more violent resolution.

Urbanisation and settlement

Building on the economic aspect of the camps, both the size and the diverse character of camps invite discussion of whether and how they fit into the evolution of towns. It is striking that the Vikings came from a predominantly rural society in Scandinavia and the Baltic, with very few sites that could be described with confidence as towns by the mid-late ninth century (Williams 2020, 101), but that although there was extensive rural settlement overseas, towns played an important and even defining role in the development of Scandinavian settlement in England, Ireland, Russia, and Ukraine, although not in other areas such as Scotland, the Isle of Man, and the islands of the North Atlantic. This is all the more notable, as there was little urban tradition to build on in those areas where towns did develop, with Viking influence being an important driver in the development of the Anglo-Saxon *burh* as well as the Anglo-Scandinavian town (Williams 2013a; 2013b). This may in part be the result of exposure to the more urbanised society of Francia, and as Shane McLeod (2014, 132–58) has noted, a significant proportion of the Viking armies who were active in England and Ireland in the late ninth century had previously spent time in Francia, and may have been influenced by the Franks in various aspects of the society that they brought to their own settlements, including the development of a pottery industry at many of the new Anglo-Scandinavian towns. However, the camps bridge the transition between rural society and the development of important towns like Dublin, Lincoln, and York, and may themselves have provided a partial model for urbanisation (Williams 2013a; 2014; 2020, 99–102).

This needs to be seen against the background of a larger debate on the character of urbanisation, and whether or not it is helpful to discuss sites which share some but not all urban characteristics as pre-urban or proto-urban societies. Such settlements potentially also include large monastic sites, secular estate centres which also functioned as centres of production and exchange, and trading emporia, and Viking camps have long featured in the discussion of ‘proto-towns’ as a phase in the development of towns in Ireland, Russia, and Ukraine (Clarke 1998; Kazanski et al. 2000; Hall 2011), but a new dimension is added to the debate by both the size and character of the camps at Aldwark and Torksey, reinforced by the size of Annagassan, and the character of Woodstown, as well as the emerging evidence from Foremark. In an influential article on Anglo-Saxon towns, Martin Biddle (1976, 100) offered as a minimum definition of an early medieval town any site which showed any three or four of the following characteristics: defences; a planned

street-system; a market(s); a mint; legal autonomy; a role as a central place; plots and houses of ‘urban’ type; social differentiation; complex religious organisation; and a judicial centre, to which might also be added permanence, as a differentiation between towns and temporary or seasonal market sites (see Griffiths 2003; 2010; this volume; Griffiths, Philpott & Egan 2007). Some of those elements cannot be proven or disproven in the case of the camps, but others can, and it seems likely that all of the camps which have been investigated in detail would meet at least three of those criteria (Williams 2013a; 2020, 99–100). Mary Valante (2008, 48–53) has suggested that some of the Irish *longphuirt*, sharing some but not all of the characteristics of towns and lacking permanence, should be seen as ‘gateway communities’ or emporia rather than towns, while accepting urban status for some of the more successful (and durable) examples, including Cork and Limerick as well as Annagassan and Dublin.

In terms of size, Torksey (c. 55 ha) and Aldwark (c. 31 ha) were both considerably larger than the towns of Hedeby and Ribe in Denmark, Birka in Sweden, and Wolin in Poland, as well as several Anglo-Saxon and Anglo-Scandinavian towns (Williams 2020, 199), while Annagassan (c. 65 ha) was even larger than Torksey (Clinton 2014). The extended settlement at Repton, including both Repton itself and Foremark, would also have been substantial, although more work is required before the full size can be indicated with certainty. The same is true of Dublin if occupation was more or less continuous from the area of the ninth-century layers in the east to the cemeteries at Kilmainham/Islandbridge in the west. Woodstown is much smaller, at 2.91 ha, but the others would certainly have been capable of housing a population of several thousand each although, as discussed, the lack of structural remains means that we cannot be certain whether any of the sites were occupied to anything like full capacity, and there are reasons (see below) to suppose that they were not. Nevertheless, it seems likely that population in the larger camps, especially those of the ‘great army’ and the larger campaigns in Francia (eg the force which besieged Paris in 885–6) were equal to or greater than those of many permanent towns in this period.

The size of the camps, combined in many cases with occupation over a long duration, and with the evidence for specialised production and exchange taking place in the camps, ties into a final important element of the role of camps in urbanisation. I have suggested elsewhere that, however unconsciously, the inhabitants of the camps were effectively socialised to living in confined areas with large groups over extended periods (Williams 2013a). As discussed below, the ‘winter camps’ in England, Ireland, and Francia were occupied not just for a few months over one winter, but for approximately one year from one winter to the next, followed by a transit period of days or even a few weeks, followed by another year of occupancy in another camp. This process could last for years at a time. The great army in England was active from 865–79, while comparison of English and Frankish sources suggests that elements of the ‘great army’ in England had already been over-wintering for

several years on the Continent, and the same was true of a second wave of activity in England in the 890s. This means that by the time that different elements of the 'great army' settled in Northumbria, East Anglia, and eastern Mercia respectively, they had effectively been living in a town-like environment for a number of years, so permanent urban settlement would have been far less unfamiliar than it would for individuals arriving directly from Scandinavia.

This links to another active area of research reflected in the interpretation of the camps, which is the size and composition of the armies or fleets who occupied them. Contemporary accounts indicate forces of hundreds of ships and thousands of men, and these were largely accepted at face value until the 1960s, especially since place-name scholars felt that the impact of Scandinavian place-names in various areas could only have been achieved by significant numbers of settlers. This interpretation was challenged by Peter Sawyer, first in an article, then more influentially in his 1962 book, *The Age of the Vikings*, republished in 1971. Sawyer's argument was based on the fact that the word 'here', normally translated as 'army', appears in a seventh-century law code, where it is defined as a group of more than 35 men. On that basis, Sawyer (1957–8; 1971, 127–8) argued that a normal *here* was often less than 100 men, and that even the '*micel here*' or 'great army' was no more than a few hundred men, and that the contemporary accounts indicating larger numbers routinely exaggerated and gave large round numbers of men or ships in order to sensationalise the impact of the Vikings. A minimalist approach was also taken by Carroll Gillmor (1988), who argued from a logistical perspective that it would have been impossible for the Vikings to have supplied large armies in the field, although, as discussed below reconsideration of the wider strategy and logistics of the Viking armies challenges this view.

Sawyer's view was also convincingly countered by Nicholas Brooks, who noted that in many cases the figures dismissed by Sawyer are found in multiple textually independent sources, and consistent with other indications of the size of early medieval armies, and argued that the larger Viking armies were numbered in the thousands. While both rejecting the idea of massive armies, Richard Abels (2003) and Guy Halsall (2003, 16, 57–9) have independently pointed out that the passage used by Sawyer, defines the *here* as a group of more than 35 men not in the context of warfare, but on a sliding scale of robbery with violence, and that its application in the *Anglo-Saxon Chronicle* was more a reflection of the wider condemnation of the Vikings as robbers than a commentary on size. Latin sources tend to use the more neutral *exercitus* or *classis*, with no connotations of size. This does not mean that all fleets or armies were particularly large – an attack on the Dorset coast in 896 is recorded as comprising only six ships, and therefore probably fewer than 300 men (*ASC*, *sub* 896) – but the size of the larger camps is also difficult to reconcile with Sawyer's minimalist position. Recent commentators have tended to suggest figures in the low thousands (Williams 2008; Hadley &

Richards 2016), although Shane McLeod (2006; this volume) favours a slightly more cautious view of ‘more than 1000’.

Assuming that figures in the thousands are correct, this raises a question of how such forces were raised, even allowing for the presence of non-combatants within the total figures (see below). While conflict between Frankish rulers and ‘kings of the Danes’ in the late eighth and early ninth centuries appear to have something of the character of state warfare, this does not appear to be the case with the forces of the mid-ninth centuries. These appear to have been flexible forces, under multiple leaders, and while accounts in both Frankish and Anglo-Saxon annals often describe the activity of individual forces over a period of years, the detail of their accounts sometimes explicitly shows component forces joining or leaving existing recognised armies or fleets, and sometimes forces which campaigned together one year in conflict the next. A clue to the composition of the larger forces may be provided by the description of a Viking force on the Loire dividing into smaller *sodalitates* (‘brotherhoods’) to over-winter (*ASB*, *sub* 861). Neil Price (2014a; 2016; this volume) has drawn parallels with pirate fleets of the seventeenth and eighteenth centuries, for which more detailed historical accounts are available, as well as with more modern urban gang culture. These pirate fleets were also based around individual ships, which might band together temporarily under the leadership of one or more individuals, while some smaller units can be traced moving from one fleet to another, with different individuals establishing primacy at different points. Within these fleets there were strong in-group identities within the smaller self-contained units, but potentially across a larger fleet, and the notion of ‘brotherhoods’ of various sizes with strong in-group identities within larger composite fleets has also been developed by Ben Raffield (Raffield 2016; Raffield et al. 2016). The idea of fleets within fleets explains various references to multiple leadership of Viking forces (eg in Wessex in 871 [*ASC*, *sub* 871; Williams 2017]) and Price has borrowed the concept of ‘hydrarchy’, implying many-headed leadership, from the study of the later pirate fleets. This term has also been taken on by Christian Coijmans (2020; 2021), who explores the composite nature of Viking fleets in detail in his extended study of the Vikings in Francia. The major implication of this for the camps is the reminder that the larger camps were not occupied by a single unitary force with the shared identity and military discipline of a formal national army. Different ‘brotherhoods’ probably had their own territories within the camps, and the overall size of larger camps like Torksey may have needed to accommodate neutral or buffer zones to avert conflict between different groups. The presence of different and distinct elements within larger forces may also explain camps’ apparent diversity of religious practice at individual sites (see below), while the potential for conflict between different groups within camps needs to be considered. The mass grave and weapon grave 511 at Repton, both of which show clear evidence of perimortem injuries to the skeletons, may provide evidence that the Mercians provided more resistance to the ‘great army’ in 873–4 than West

Saxon sources would suggest, but they may equally represent conflict between different elements of the army, especially given that the army separated into two immediately on leaving Repton (*ASC*, *sub* 874).

It is also now apparent that not all of the occupants of the camps were male warriors. Skeletal remains at Repton reveal the presence of women and children, and this is reinforced by the presence at several sites of objects such as spindle whorls and loom weights, which may also be taken to indicate a female presence (see pp. 20, 24). This is reinforced by occasional specific mention of the presence of women and children in the written sources, including repeated references in the *Anglo-Saxon Chronicle* to the presence of women and children in the second wave of ‘great armies’ in the early 890s, so it is now recognised that there was a significant female presence within the camps, even if the precise proportions cannot be quantified and indeed may not have been consistent (Blackburn 2002; 2011; McLeod 2011). Analysis of skeletal remains at Repton suggests that individuals concerned, including the women, came from a range of different places, including but not limited to Scandinavia (Budd et al. 2004; Jarman et al. 2019), and McLeod (2011; 2014) notes that since significant elements of the ‘great armies’ had spent years on campaign in Ireland and Francia before moving to England, it would be unsurprising if they had picked up female companions along the way, in addition to any who may have set out from Scandinavia together with the men, while many of the children were probably born in the camps rather than in the Scandinavian homelands, while others may also have been acquired en route. Although the women have traditionally been seen in the context of wives and other willing partners, and some authors have allowed for more or less willing camp followers, more recent interpretations have placed a greater emphasis on the importance of the slave trade as a factor in Viking raids of the ninth and tenth centuries (eg Raffield 2022). The taking of slaves is mentioned repeatedly in Irish sources, while ibn Miskawayh, in his account of the Rus over-wintering at Bardaa in 943–4, indicates that the enslavement of women and boys was at least in part for sexual purposes (Lunde & Stone 2012, 149).

Regardless of their origins, the presence of the women and children ties into another aspect of the camps, which is their interpretation as a stage on the road to planned permanent settlement. With the benefit of hindsight, it is indisputable that the main phase of activity involving camps in the mid-late ninth century in both England and Ireland was followed by permanent settlement. As discussed, the camps were probably precursors to towns both in housing a range of economic activities and in socialising people of diverse backgrounds to living together in significant numbers in a confined space (see also Williams 2013a; 2013b). There is a widespread assumption in the literature that this was planned from the outset. This is sometimes merely a tacet assumption, but in other cases it is more explicitly stated. For example, Hadley and Richards (2020) interpret agricultural tools from Torksey and other camps in terms of plans for long-term settlement despite the fact that it was not until several years after the over-wintering at Torksey that the

settlement occurred. In some cases the assumed intention of permanent settlement was so clear that the long sequence of movement and over-winterings by the ‘great army’ is interpreted in the light of ‘migration theory’, developed to conceptualise the mass migrations of the nineteenth century rather than movements in the Viking Age (Trafford 2000; McLeod 2014).

However, there is no direct evidence that this was the initial intention when the ‘great army’ first over-wintered in East Anglia in 865–6. Northumbria was conquered in 866–7, but not settled until ten years later, and there was again a ten-year gap before the settlement of East Anglia after its conquest in 869. As McLeod himself notes, many of the participants had spent time in Francia and Ireland before campaigning in Ireland, while some of those who campaigned in England chose to move on to campaign elsewhere rather than settle, so the idea that all those in the camps were intent on the settlement of England is hard to sustain. McLeod finds support for a long-term plan for settlement in the idea that Anglo-Saxon ‘puppet kings’ held the kingdoms of Mercia, Northumbria, and East Anglia on their behalf, an interpretation also found in Hadley and Richards, but while there is some evidence for this in the case of Mercia in near-contemporary West Saxon sources, it is difficult to reconcile this with the numismatic evidence, and it has been suggested that these sources represent a deliberate misrepresentation of history to support West Saxon claims to Mercia in the 890s (Williams & Naylor 2016; Williams 2020b). There are no contemporary sources for puppet kings in Northumbria and East Anglia, and the sources for this in Northumbria are late and unreliable, while in East Anglia this interpretation is based on stylistic analysis of the coins of the otherwise unattested rulers Æthelred and Oswald (Blackburn 2005), but the evidence is more ambiguous than most commentaries on this suggest. The current author has suggested the alternative interpretation that permanent settlement was not planned from the outset in the 860s, but represents a change of strategy over time in reaction to observing how the camps permitted the Vikings to dominate regions for extended periods before this became permanent.

Beliefs

Following on from the issue of settlement, older works on the Vikings in Britain and Ireland have tended to characterise the Vikings simply as ‘pagans’ or ‘heathens’, settling within existing Christian societies. Although there are references to individual Viking leaders and their immediate followers at least nominally accepting Christianity as part of ‘making peace’ while on campaign in both England and Francia, the assumption was that the bulk of the settlers only converted in the period after settlement. As a result, studies of beliefs in this period tended either to focus on the process of conversion and assimilation after settlement (eg Abrams 2000; 2003) or on the impact of the Viking raids and settlement on the existing church (eg Barrow 2000). However, the increased focus on Viking camps and ‘great armies’ has also

coincided with a re-examination of Viking beliefs. Whereas earlier work tended to see these in terms of a single religion or belief system in Viking-age Scandinavia, more recent interpretations have emphasised diversity and variation in both beliefs and practice, not just across Scandinavia as a whole but within relatively small regions (eg Svanberg 2003; Andrén 2005; Artelius & Svanberg 2005; Price 2014b; 2019), with no single form of paganism which can be placed in direct opposition to Christianity. The natural corollary of the interpretation of ‘great armies’ as composite forces made up of smaller units with distinct in-group identities rather than as national armies with shared cultural identity (see p. 44) is that the sort of religious diversity characteristic of the wider Viking world should also be expected within the ‘great armies’, and reflected within the material evidence from the camps and surrounding areas.

One of the most visible aspects of this diversity of belief is variation in funerary practices. The limited evidence for burial at most of the identified ‘camp’ sites means that this is not generally visible on current evidence. However, the more extensive record in and around Repton does offer evidence for at least three distinct practices, with individual and small group inhumations and the mass grave at Repton itself, and the cremation cemetery at Heath Wood. Further distinctions may be made within the inhumations, with individual burials and the paired burial of two genetically related males adjacent to the church (see p. 20) apparently buried with honour and respect, while another small group of bodies, including children, may represent human sacrifice (Biddle & Kjølbye-Biddle 1992; 2001; Jarman 2021; Biddle, this volume). It has been suggested that the diversity in practice reflects the divergent beliefs and identities of different groups within the ‘great army’, and even that the proximity of the paired burials next to the church may represent a greater degree of Christianisation (Richards 2001; 2003; Richards et al. 2004). The first point is consistent both with current interpretations of the ‘great army’ and of Viking beliefs, although subject to the caveat that some of the evidence cited may relate to later settlement rather than to the occupation of Repton in 873–4. The second point is more problematic, as grave 511 is a furnished burial, with no obvious Christian associations, and containing a Thor’s hammer pendant as well as other items of possible non-Christian ritual significance. Proximity to the church may therefore relate more to associations of power and status than to Christianity, although there is nothing in the grave to indicate a particularly high status, still less the royal identity which has been suggested.

The presence of a Thor’s hammer pendant in grave 511 at Repton does, however, point to an area of commonality in belief and practice across the camps. A second hammer pendant is recorded as a stray find from Foremark (Jarman 2021), indicating that the individual in grave 511 was not unique in his beliefs. A number of hammer pendants were also recorded at Torksey, although there is some doubt as to the exact number found there (Blackburn 2011; Hadley & Richards et al. 2016; 2020). It has been suggested that a

hammer-shaped fragment of a balance from Aldwark may also have been repurposed as a hammer pendant (Ager & Williams 2004; Ager 2020), and a second very similar balance fragment from the same site may also have had a similar purpose, although this was not suggested in the publication of finds from the site (Rogers 2020). These form part of a growing corpus of Thor's hammers from England. A study currently in progress by this author lists 45 examples, and while some of these come from find-spots which can more obviously be associated with permanent settlement than with camps and the activities of the 'great army', it is certainly possible that others of these should be associated directly with the 'great army'. Even if this is not the case, given the fact that much of the primary Scandinavian settlement in England in the late ninth century can probably be associated with the various components of the 'great army', these finds suggest that the worship of Thor was widespread within the army, and uniquely within the range of Scandinavian beliefs, is clearly represented in the archaeological record.

A final important development in the literature concerns the Christianisation of the Vikings who made up the 'great army'. Rather than assuming that all Christian influence came after settlement, recent work on 'great armies' has suggested that extended contact during the many years of over-wintering in the mid-late ninth century means that there must have been an element of influence and acculturation, with exposure to Christianity in particular in England, Ireland, and Francia, as well as in less well-documented areas of activity such as Scotland and Wales. Conversion (whether genuine or nominal) seems in some cases to have been deliberately used as part of the negotiated peace associated with over-wintering. It is therefore entirely possible that there may have been elements within the camps who had been Christianised before settlement took place, as opposed to the traditional interpretation that conversion largely took place post-settlement (McLeod 2014; Coonjans 2020; Abrams, forthcoming; this volume). While recent work on this topic represents a significant shift in understanding, this is one aspect of the study of camps and great armies which appears to have particular potential for further research.

Strategy, logistics, and over-wintering

As noted above, camps had a strategic role in the Viking expansion. Any army campaigning in hostile territory was likely to require some form of base, whether this was constructed by the army itself or involved the capture of existing towns, palaces, or other fortifications. Short-lived campaign camps were therefore not unusual. However, military campaigns in the early medieval period were typically seasonal, owing to the difficulties of fighting in winter, expecting troops to serve for long periods in the field, and maintaining effective extended supply lines in hostile territory, which was again especially problematic in winter. Even rulers as powerful as the Frankish emperor Charlemagne engaged in seasonal campaigns beyond his borders, plundering

or forcing the payment of tribute before returning to their own territories for winter unless the campaigns had actually resulted in the conquest and subjugation of new territory (Reuter 1985). In this, the early Viking raids (and smaller scale raids throughout the Viking period) were typical of a wider pattern of early medieval warfare.

The establishment of camps over a longer period, and especially over winter, represented a change of strategy based on a combination of speed of movement combined with effective control of supply over extended periods. As noted by both contemporary and modern writers, the Vikings were not necessarily any more effective on the battlefield than the Franks, the Anglo-Saxons, or the Irish, and the annals contain numerous accounts of Viking defeats as well as victories, but it was a strategy based on over-wintering that set them apart, hence the emphasis on this in contemporary annals, and the use of terms such as *wintersetl*, although over-wintering is recorded in Ireland and Francia as well as England. The strategy relied on moving quickly in winter to seize sites which they could defend, typically choosing major estate centres which would already have gathered supplies for the winter. In addition to gaining the ready harvested crops for themselves, Richard Abels (1997, 259) notes that excess livestock were normally slaughtered and preserved for the winter in October and November. The recorded movements from one camp to another typically take place between mid-November and early January, meaning that the Vikings would be able to take advantage both of the winter supplies in the place that they were leaving, and from the area around the new camp.

Attacking in winter also made it difficult for whatever kingdom they arrived in to muster and supply an effective counter-attack, although there were exceptions, such as the series of battles fought within weeks of the 'great army' seizing the West Saxon royal estate of Reading around the end of 870 (Abels 1998, 124–34; Williams 2017).

As noted above, the camps might involve the use of pre-existing fortifications, such as Roman city walls or Iron Age hill-forts, or on the natural defences of islands such as Torksey, but in most cases will have involved the construction or modification of defences by the Viking forces themselves. Eric Christiansen (2002, 170–78) has suggested that the spade should be considered the third essential component of the Viking campaigns alongside the ship and the horse because of the significance of the fortifications. These camps could then be used to dominate and exploit the surrounding countryside, and as bases from which raids for both plunder and additional resources.

The choice of riverine sites meant that it was possible to resupply by ship, with ships providing greater carrying capacity than any form of land transport in this period, and it is notable that the forces involved are often described as 'fleets' in the sources, while others refer to a 'land army' and a 'ship army' operating in tandem. This strategy relied on a combination of horses for strategic speed and mobility over land (although they added to the problems of supply), ships to carry additional supplies, plunder (including slaves),

and non-combatants as well as additional warriors, and the camps as both defensive and logistical centres (Williams 2008). This strategy relied on maintaining the horses and ships, and on the difficulty of dislodging the Vikings from their camps. The first two were not always possible. A force encamped at Buttington on the River Severn in 893 were besieged by a superior force and were obliged to eat their horses, as in such circumstances the horses became a supply liability, rather than an asset. The Vikings were then forced to move across the border into Wales and to travel back to East Anglia via Mercia to avoid pursuit by the West Saxons (*ASC, sub* 894[893]; 896[895]). In early 877, a Viking force moved by land from Wareham to Exeter, outdistancing pursuit, but a supporting fleet of 120 ships was lost off Swanage (*ASC, sub* 877), and that particular Viking force was never able to entirely regain the same level of strategic mobility, while in 895 Alfred was able to block the River Lea north of London, downstream of a Viking camp, forcing the Vikings to abandon their fleet and, a year later, to disband (*ASC, sub* 895; 896).

Maintaining large forces in camps would certainly have involved foraging across a wide area, as the resources of the immediate area would have been finite, even if supplemented by supplies brought by ship from the previous camp, plus stockpiled food rents at royal and ecclesiastical centres. Carroll Gillmor (1988) pioneered a logistical approach to the study of Viking armies in western Francia, using calculations of consumption derived from the study of ancient warfare to argue for a minimalist approach to the size of Viking armies, but also to argue that foraging and resupply was an essential component of Viking campaigning in hostile territory. Shane McLeod (2006; this volume) has applied a similar approach to the feeding of the ‘great army’ in England, while the necessity for foraging beyond the immediate environs of the camps is also part of the model proposed by Hadley and Richards (2018; 2020; 2021; this volume) for the identification of traces of the ‘great army’ beyond the camps themselves (see further below). Securing additional supplies was probably the reason for one component of the ‘great army’ to venture south almost immediately after the establishment of a camp at Reading at the beginning of 871, only to be defeated and driven back to the camp by local forces (*ASC, sub* 871; McLeod 2006; Williams 2017).

However, foraging was only one aspect of the supply for the camps. Sources from England, Ireland, and Francia all mention Vikings routinely ‘making peace’ with the local authorities after establishing camps in their territory, often associated with payment of tribute. Such tribute almost certainly often included payments in grain and livestock, which might be provided over a period of time rather than at the beginning of the occupation, with the trade-off that such agreements reduced the incentives for the Vikings themselves to pillage, while also allowing local rulers to redistribute the cost of supporting the Viking incomers across the whole kingdom rather than just the immediate area vulnerable to pillaging from the base provided by the camp (Coupland 1999; McLeod 2006; this volume; Valante 2008; Leboutellier 2017;

Cooijmans 2020; 2021; this volume), and tribute payments may also have been enhanced by commercial payments for additional supplies. With or without such peace agreements, the occupying forces also in many cases gained control of the surrounding area, and the opportunity to exploit agricultural resources over a period of time, much as a permanent town depends on supply from the surrounding hinterland (Williams 2013a). Several of the sites identified as camps have produced evidence of grain storage, and in some case agricultural tools (McLeod, this volume; Cooijmans 2021; this volume; Deutsch-Dumolin, this volume) and, as noted above, despite the textual emphasis on over-wintering, the sources in many cases indicate occupation from one winter to the next, permitting at least one harvest in each location. Diet was also supplemented on occasion by both hunting and fishing, as reflected in both written and archaeological evidence (McLeod, this volume).

It is this combination of different sources of supply that allowed the Vikings to campaign so effectively, but as with horses and ships, the overall strategy could be defeated by denying access to supplies. The construction of a network of garrisoned fortifications in Wessex by Alfred (871–99) was probably intended as much to protect gathered supplies as it was for the protection of the population, and the development of this system was probably a major factor in Alfred's greater success in containing Viking 'great armies' in the 890s than in the 870s (Abels 1997; Haslam 2005; Williams 2013b). The same period also saw Alfred station troops to protect the harvest from the occupants of a Viking camp on the River Lea in 895, while besieging forces at Chester in 893 'ate up the crops with their horses' or destroyed them, again forcing the Vikings to move on from lack of supply (*ASC*, *sub* 894[893]; 896 [895]).

Another issue associated with the long duration of the over-wintering process relates to accommodation. Much of the literature in recent years has emphasised the temporary nature of the occupation, and it has been suggested or implied that much if not all of the accommodation in the camps took the form of tents. This is reflected in the title of the ongoing 'Tents to Towns' project at the University of York. This largely reflects the absence of structural remains within the camps at Repton, Torksey, and Aldwark, although there are reasons at all three sites why such evidence of such structures may not have survived (see pp. 18, 23, 25). In contrast, there is now evidence of multiple structures at Woodstown (see p. 31; for more detail see Russell, this volume). Furthermore, the repeated selection of palaces, monasteries, towns, etc. as the locations for camps provided access to pre-existing accommodation as well as supplies, although this may not always have been sufficient for the numbers involved. There are also annalistic references to the construction of buildings as accommodation in winter camps. The *Miracles of St Benedict*, written in the 870s, describe the Vikings 'putting up huts in a sort of village in which to keep their gangs of prisoners in irons and to rest their bodies from their labours for a time, ready to serve on campaign', clearly

indicating that even the salves were provided with proper shelter, as well as the Vikings themselves. The *Annals of St Bertin* (sub 843) are even more explicit in their description of one of the earliest recorded winter camps, at which the Vikings ‘brought houses from the mainland [*convectis a continenti domibus*], and decided to spend the winter there as if in a permanent settlement’ (Coupland 1995, 193, 196; Cooijmans, this volume). It may well have been necessary to construct buildings *ab initio* at many camps, but the Vikings were not short of labour, and the reference to houses being brought ‘from the mainland’ is a reminder that the carrying capacity of ships might be used for timber buildings as well as for other supplies, perhaps an early form of Scandinavian flat-packing.

Beyond the camps

A final recurrent theme which has assumed an increasing prominence in the literature is the importance of looking beyond the camp itself at the wider landscape in which the camp was situated. There are several different aspects to this. The first is the choice of location within the landscape. As noted above, sites for camps were apparently selected on a range of criteria. These included the taking over of existing centres of wealth and supply, accessibility by river and road and defensibility, while in Ireland there is a recurrent pattern of location in border areas to exploit weaker political authority, and also to provide trading opportunities on either side of the border.

The importance of a hinterland has long been recognised in the supply of long-term settlements as these developed into towns (Bradley 1988; 2009), but it is now also clear that control of an extended hinterland was essential in supplying a large force camped in hostile territory from one winter to the next (McLeod 2006; this volume; Williams 2008; 2013), while the reinterpretation of Repton and the surrounding area also offers a more dispersed view of what constituted a camp (see p. 21). One may also expect what may effectively be regarded as a temporary hinterland in terms of tribute and other economic activity when peace terms were agreed, or of plunder and extortion when this was not the case.

While hinterlands for long-term settlements may in some cases be identified in the historical record, areas of influence associated with more temporary camps are more notional, and perhaps best tracked through finds. In their 1986 article (republished with revisions in 2000), Brooks and Graham-Campbell highlighted a correlation between the locations of hoards of the 860s and 870s in England and the documented wintering places of the ‘great army’. Other hoards may be linked less directly to the camps themselves, but more to likely routes between them (Williams and Naylor 2016; Archibald and Williams, forthcoming). A similar model has been applied to Irish *long-phuir* (Sheehan 1998; 2015), while in some cases, following the same approach, camps have been inferred in Frankish territory even where direct historical references do not exist, on the basis of hoards alone (see p. 34).

Hoardings are not the only possible indication of Viking activity in the wider landscape. Marion Archibald (1998) plausibly suggested that two lead weights of Viking type with coin insets found near Kingston, Dorset could be linked to over-wintering and Helen Geake (2010) noted a spread of single finds of cubo-octahedral weights like those at Torksey and Aldwark. Dawn Hadley and Julian Richards (2018; 2020; this volume) have proposed a wider approach in which various categories of object known from Torksey and Aldwark can be used as ‘signature’ items of the ‘great army’, including weights, silver and gold bullion, imported Frankish and Islamic coins, Northumbrian stycas and other Anglo-Saxon coins found outside their normal circulation areas, Insular accessories and mounts re-used as jewellery, and lead gaming pieces. They argue that these can be used to identify the camps themselves, but also activity in areas of activity around and between the camps, including the routes between one camp and the next, and wide areas around each camp which may have been visited or occupied in search of plunder, tribute, or supplies. Shane McLeod (this volume) offers a refinement of this model, suggesting that the same model, combined with estimated journey times, may be used to identify overnight camps along the routes between the documented over-wintering camps mentioned in the *Anglo-Saxon Chronicle*.

This approach offers valuable possibilities. It is essentially this approach which has led to the discovery of a potential camp site at East Thirston (see above, p. 26; Kershaw et al., this volume), and such objects do indeed appear to be significant when they appear in areas such as Wessex where there is otherwise little evidence archaeologically or historically to suggest much in the way of a Scandinavian presence in the late ninth and early tenth centuries beyond the movements of the ‘great army’. However, as with the interpretation of the dating of various sites discussed above, there is a fundamental problem in distinguishing between the ‘great army’ itself and the subsequent phase of settlement in the final quarter of the ninth century and beyond, when such finds occur in regions such as Yorkshire and Lincolnshire where there are other forms of evidence indicating extensive Viking settlement in the region. For example, Jane Kershaw’s work on single finds relating to imported coins and bullion shows widespread extended use of a bullion economy in rural areas well into the tenth century (Kershaw 2017; 2020), so weights, bullion, and imported coins cannot necessarily be used to indicate or define a ‘great army’ phase in regions which also saw later settlement. There are also issues with the assumption that stycas necessarily provide an indication of Viking activity south of the Humber, as the character and extent of monetary interaction prior to 865 between Northumbria and other Anglo-Saxon kingdoms are not well understood, especially in areas such as Lindsey where the wider extent of Northumbrian influence in the ninth century remains unclear. Furthermore, reassessment of the character of hoards and hoarding suggests that it would be rash to associate all hoards of the 860s and 870s too directly with the great army unless there is clear evidence to do so (Archibald and Williams, forthcoming).

Conclusion

The study of Viking camps has moved forward considerably over the last 20 years, when the subject was overly influenced by the early interpretations of Repton. This change reflects both wider advances in scholarship across a range of disciplines, and the discovery and interpretation of a number of camps, as well as continued work in and around Repton itself. As a result, I think that there have been five main areas of development, all of which offer substantial potential for continued research in future.

Firstly, there has been an important shift from a narrowly military interpretation of the origin, character, and function of Viking camps. Both archaeological and historical evidence points to a range of activities, including production and exchange, and involving the complex interactions of multiple groups (including women, children, and non-combatants as well as warriors), often over extended periods, in ways which may prefigure the permanent urban settlements which followed. The groups within the camps were probably also often diverse in origins and beliefs, as opposed to the earlier blanket view of all Vikings being 'pagan' and of Scandinavian origin. The extent to which these camps represent a conscious intention towards permanent migration and to which that was an accidental effect of the success of the camp phenomenon remains a subject for debate. Secondly, and closely related, it seems clear that there is no single pattern in the form, size, or duration of camps even within a single country or region, and still less when comparing across boundaries. The D-shaped riverine enclosure is still a perfectly valid interpretation for Viking camps, but it no longer provides a single diagnostic model, and Viking forces can now be seen to have taken a more opportunistic approach to the establishment of camps in individual landscapes.

Following on from this, it is now clear that we need to move on from focusing only on the area within and immediately around specific enclosures (whether fortified or natural), and to consider the camps as part of a landscape of temporary settlement. The new model of more extended settlement in the Repton area provides a new example of how a range of different individual sites within a relatively small area may have co-existed across a short period of time, and a similar possibility at Dublin would explain some of the apparent contradictions of the past. In addition to these immediate localities, study of both the logistical requirements for Viking camps and the political accommodations formed around them suggest the need to consider wider hinterlands for camps of any extended duration, even if the exact extent of these may not be possible to identify.

Broadening again, the model of 'signatures' for the 'great army' offers a valuable tool for studying the activity and movement of Viking forces between and around the camps, including the possible of tracing the existence of secondary camps along the routes between documented camps, but also the engagement of the occupants of the camps with the wider landscape beyond the areas under their control, over the often extended periods (not just

winter) that they were based there. However, while valuable, this is something of a blunt tool, and more work is required to refine what burden of evidence can realistically be placed on the different categories of ‘signature’ items. Another important area for further research is developing a clearer distinction between the temporary activity around Viking camps and the more permanent settlement which in some cases followed.

A final point, as illustrated by this volume as a whole, is the significance of comparative studies and thematic approaches rather than trying to build too much on a single site. Detailed work on individual sites remains important, and it is to be hoped that further new sites will continue to change the picture, while the new discoveries at Repton demonstrate that re-examination of more established sites also has the possibility to re-shape our understanding. Despite the emergence of Torksey, Woodstown, and Aldwark, Repton remains important, but as one of a number of sites which continue to inform the interpretation of each other rather than providing a single model for the identification and interpretation of all other camps.

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