Trade & Travel

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## TRADE AND TRAVEL (SPACE AND SOCIETY III)

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In the eleventh century, a new urban sector of the economy began to develop in many regions of north-western Europe. Though international trade had emerged by the eight century, it fell into a nadir during the ninth as attested by the decline and disappearance of trading places around the North Sea littoral.[1] By the time of William the Conqueror, new patterns and networks had taken root,[2] and it would be on these very foundations that the economic expansion and accompanying foundation of new towns in the twelfth and thirteenth centuries would be built, thus cohering the urban network of modern Europe.[3] This chapter explores the age of William the Conqueror and his contemporaries from the closely-linked perspectives of trade and travel, of commerce and communication, tracing the movement of goods as well as people across north-western Europe and its consolidating travel landscapes and exchange networks. In doing so, three themes are discussed in turn. The chapter opens with a broader overview of trade and the development of commercial sites before analysing, as a second step, the nature of overland travel with specific reference to research on medieval routes in England (for which the available data is particularly rich and has given rise to a prolific tradition of recent and ongoing scholarship) and, finally, treating selected aspects of inland and maritime navigation in a wider north-western European context. Thus, whilst much of the primary data comes from England, many of the conclusions

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[1] See also the chapter by Michael Gelting in this volume.

[2] Martin Carver, *Formative Britain: An Archaeology of Britain, Fifth to the Eleventh Century AD* (London: Routledge, 2019), pp. 250–87; Pam J. Crabtree, *Early Medieval Britain: The Rebirth of Towns in the Post-Roman West* (Cambridge: Cambridge University Press, 2018); Adriaan Verhulst, 'The Origin of Towns in the Low Countries and the Pirenne Thesis', *Past & Present* 122 (1989), 3–35.

[3] François Neveux, 'La constitution d'un reseau urbain en Normandie', in *Les ville Normandes au Moyen Âge*, ed. Pierre Bouet and François Neveux (Caen: Presses universitaires de Caen, 2006); Maurice Beresford, *New Towns in the Middle Ages: Town Plantation in England, Wales and Gascony* (Gloucester: Sutton, 1988).

derived from it are, as we will see, transferable to other parts of the world inhabited by William and his contemporaries.

## Trade and Commerce

The formal distinction between a medieval town and a rural settlement as social and intuitional spaces can be difficult to pin down,[4] but from an economic perspective burgeoning towns provided a link with international commerce and acted as points of demand and supply for the surrounding areas. The wide reach of such major centres or hubs attracted attention from chroniclers: for example, the *Encomium Emmae Reginae* written *c.*1041–42 for Emma of Normandy (*c.*984–1052), wife of Æthelred II and Cnut, mother of Harthacnut and Edward the Confessor, referred to Bruges as of 'very great fame for the number of its merchants and for its affluence in all things upon which mankind places the greatest value'.[5] And commenting on London's early-twelfth-century supply chains, William of Malmesbury would note that '[a]s a result [of trade], when food is expensive everywhere else in England because the crops have failed, in London the necessities of life are bought and sold cheaper than elsewhere: buyers spend less and sellers make lower profits'.[6] Writers during both the Norman and Anglo-Norman periods placed great emphasis on the wealth

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[4] Susan Reynolds, *An Introduction to the History of English Medieval Towns* (Oxford: Oxford University Press, 1997), with more recent explorations of urban-rural interconnections in *Town and Country in the Middle Ages: Contrasts, Contacts and Interconnections, 1100–1500*, ed. Kate Giles and Christopher C. Dyer (Leeds: Maney, 2005); see also the chapter by Katherine Weikert in this volume.

[5] *Encomium Emmae Reginae*, ed. Alistair Campbell with a supplementary introduction by Simon Keynes (Cambridge: Cambridge University Press, 1998), p. 46: '[Q]uod tum frequentia negotiatorum tum affluentia omnium quae prima mortales ducunt famosissimum habetur'; also cf. the chapter by Benjamin Pohl and Elisabeth van Houts in this volume.

[6] *William of Malmesbury: Gesta Pontificum Anglorum – The History of the English Bishops*, ed./tr. Michael Winterbottom and Rodney M. Thomson, 2 vols. (Oxford: Oxford University Press, 2007), I, 222.

that trade had brough to Rouen, turning it into a great and prosperous city.[7] Perhaps the most dramatic such description is that provided by Orderic Vitalis, who in his *Historia ecclesiastica* has the future King Henry I take a defeated rebel leader named Conan to a high tower overlooking the town of Rouen and, in a display of cruel irony, point out the lands he had failed to capture before executing him by defenestration: 'Admire, Conan, the beauty of the country you tried to conquer […] See how the river Seine, full of fishes, laps the walls of Rouen and daily brings in ships laden with merchandise of many kinds'.[8]

Important aspects of trade and maritime travel within the Channel region are also described in some detail in a document commonly known as *Æthelred IV*, traditionally dated to *c*.978–1016, though parts of it were likely composed after the Norman Conquest and therefore reflect the mercantile concerns of William's age.[9] In a section dealing with tolls in London, the text states that

> [i]f a small ship arrived at Billingsgate, one half-penny was paid as toll; if a larger ship with sails, one penny was paid. If a keel [*ceol*] or hulk [*hulcus*] arrived and lay there, fourpence was paid. From a ship with a cargo of planks, one plank was given as toll. On three days of the week a toll for cloth [was paid, namely] on Sunday and Thursday and Tuesday. A merchant who came to the bridge with a boat containing fish paid one half-

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[7] Leonie V. Hicks, 'Through the City Streets: Movement and Space in Rouen as Seen by the Norman Chroniclers', in *Society and Culture in Medieval Rouen 911–1300*, ed. Leonie V. Hicks and Elma Brenner (Turnhout: Brepols, 2013), pp. 125–52 (pp. 125–26, 131, and 136–37).

[8] *The Ecclesiastical History of Orderic Vitalis*, ed./tr. Marjorie Chibnall, 6 vols. (Oxford: Oxford University Press, 1968–80), IV, 224–25. 'Considera Conane, quam pulchrum tibi patriam conatus es subicere […] Ecce Sequana piscosum flumen Rotomagensem murum allambit; nauesque pluribus mercimoniis refertas huc cotidie deuehit'; the episode related by Orderic is dated to 1090.

[9] Rory Naismith, 'The Laws of London? IV Æthelred in Context', *The London Journal* 44 (2019), 1–16.

penny as toll, and for a large ship one penny. Men of Rouen who arrived with wine or blubber fish paid a duty of six shillings for a large ship and a twentieth of their fish. The men of Flanders, Ponthieu, Normandy, and the Île-de-France exhibited their goods and paid toll. Men from Huy, Liège, and Nivelles who were passing through [London] paid a sum for exhibition [of their goods] and a toll. The subjects of the [German] Emperor who arrived in their own ships were entitled to the same privileges as ourselves. Besides the wool which had been unloaded and melted fat they were also permitted to buy three live pigs for their ship.[10]

These highly detailed customs arrangements describe merchants and their wares from England, northern France, the Low Countries, and Germany – most likely the Rhineland – drawn into a single network of commerce that supported the growth of urban communities. The size of this international commerce around the English Channel during the eleventh century is hard to calculate with precision, but it is recognised as critical to the institutional, social, and political development of the various communities in and bordering onto this region. One maximalist estimate puts the amount of foreign trade in late eleventh-century England as high as a quarter of the GDP, though definite measurements ultimately remain unobtainable.[11] From a longer-term perspective, the cross-Channel wool trade with northern France and Flanders emerged as a key sector of the English medieval economy, with wool turned into textiles and sold across Europe. The customs generated from this trade sector alone developed into a major source of royal

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[10] Translation adapted from *The Laws of the Kings of England from Edmund to Henry I*, ed./tr. Agnes J. Robertson (Cambridge: Cambridge University Press, 1925), p. 72.

[11] Graham Snooks, 'The Dynamic Role of the Market in the Anglo-Norman Economy and Beyond, 1086–1300', in *A Commercialising Economy: England 1086 to c.1300*, ed. Richard Britnell and Bruce M. S. Campbell (Manchester: Manchester University Press, 1995), pp. 27–54 (pp. 37–38).

income.[12] From as early as the eleventh century, concerted efforts were thus made to scale up cross-Channel wool trade,[13] and by the mid-to-late twelfth century, trading wool had become firmly ingrained in the popular imagination as a cultural point of reference for discussing England's identity as a commercial entity: English wool was what Henry of Huntingdon described as *lana pretiosissima*, and also what according to Jordan Fantosme's chivalric poetry drew bands of Flemish bandits into the country.[14]

Most transmarine travel across the English Channel and the North Sea was probably directed to one of the nearest ports, meaning that whilst shipping was international in character, its scope effectively remained regional.[15] Commercial exchange by foreign merchants was not limited to port towns, however. If Herman the Monk's story about a group of Flemish wool merchants encountered by the canons on Laon in 1113 on their way to England is at all indicative of the character of mercantile activity in this period, then such activity could be far-ranging indeed. Herman's Flemings did not acquire their goods wholesale from some portside middleman, but independently conducted a circuit of local production sites before gathering their collective purchases in a storage house in the English port town of Dover for the crossing back to the Continent.[16] A helpful theoretical perspective on medieval mercantile activity, and the role of

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[12] Bruce M. S. Campbell, 'Benchmarking Medieval Economic Development: England, Wales, Scotland, and Ireland, *c*.1290', *EcHR* 61 (2008), 915–19; Terry H. Lloyd, *The English Wool Trade in the Middle Ages* (Cambridge: Cambridge University Press, 1977); Eljas Oksanen, *Flanders and the Anglo-Norman World 1066–1216* (Cambridge: Cambridge University Press, 2012), pp. 152–55.

[13] Notably Peter H. Sawyer, 'The Wealth of England in the Eleventh Century', *TRHS* 15 (1965), 145–64.

[14] *Henry of Huntingdon: Historia Anglorum – The History of the English People*, ed./tr. Diana Greenway (Oxford: Oxford University Press, 1996), p. 10; *Jordan Fantosme's Chronicle*, ed./tr. Ronald C. Johnston (Oxford: Oxford University Press, 1981), p. 72, ll. 991–99.

[15] Mark Gardiner, 'Shipping and Trade between England and the Continent during the Eleventh Century', *ANS* 22 (2000), 77–80.

[16] Herman the Monk, 'De Miraculis S. Mariae Laudunensis', ed. Jacques-Paul Migne, in *Patrologia Latina CLVI* (Paris: Garnier, 1853), pp. 975–77.

economic exchanges in early urban formation in north-western Europe in general, is afforded by the application of modern network sciences and 'central place theory' to archaeological and historical evidence. Discussions frequently centre around coastal and riverine ports as nexuses connecting broad hinterlands to transnational trade, and a popular hierarchical model posits a system wherein rural settlements feed, and are themselves served by, local market centres, which in turn connect to interregional and transnational gateways. But this model may downplay important interconnections between these local sites, and thus a 'small-world model' wherein series of potentially complex regional networks are interlinked by travel hubs is perhaps a more satisfactory and accurate way to describe emergent commerce during the eleventh century.[17]

Written evidence does not identify the origins of regular local trade. Fortified and ecclesiastical sites were likely focal points of early commercial activity, as were waterside trading settlements such as pre-Conquest English *wics* and Continental emporia.[18] By the later eleventh century, market events – Latin *forum* or *mercatum*, Old English *ceping* – were beginning to be attested in significant numbers in England and Normandy, and they were recognised as franchises with associated rights and a legal identity.[19] This 'institution' of market events would continue to

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[17] Tom Brughmans, 'Connecting the Dots: Towards Archaeological Network Analysis', *Oxford Journal of Archaeology* 29 (2010), 278–80; Ulrich Müller, 'Networks of Towns – Networks of Periphery?', in *Raumbildung durch Netzwerke? Der Ostseeraum zwischen Wikingerzeit und Spätmittelalter aus archäologischer und geschichtswissenschaftlicher Perspektive*, ed. Sunhild Kleingärtner and Gabriel Zeilinger (Bonn: Haber, 2012), pp. 55–78; Søren Sindbæk, 'Networks and Nodal Points: The Emergence of Towns in Early Viking Age Scandinavia', *Antiquity* 81 (2007), 119–32.

[18] Cf. the chapter by Weikert in this volume.

[19] Richard H. Britnell, 'Commerce and Markets', in *A Social History of England 900–1200*, ed. Julia Crick and Elisabeth M. C. van Houts (Cambridge: Cambridge University Press), pp. 179–87; Carver, *Formative Britain*, pp. 246–52; Neil Middleton, 'Early Medieval Port Customs, Tolls and Controls on Foreign Trade', *EME* 13 (2005), 313–58; Lucien Musset, 'Foires et marchés en Normandie a l'époque ducale', *AN* 26 (1976), 3–23; on early medieval Continental harbours, see the recent collection *Harbours as Objects of Interdisciplinary Research: Archaeology + History + Geosciences*, ed. Claus von Carnap-Bornhem et al. (Regensburg: Römisch-Germanisches Zentralmuseum, 2018).

develop further throughout the central Middle Ages. As franchises awarded to an urban community, ecclesiastical institution, or lord, markets were not regularly chartered by Angevin kings until around the turn of the thirteenth century.[20] Prior to this, most markets seem to have developed and operated based on custom; indeed, many subsequent 'grants' probably represent little more than the co-option of an ancient market right by a local authority. Informality of establishment did not mean, however, that certain public and private rights had not become recognised as defining a market event. The chief characteristics were a fixed time (a given weekday, often a Sunday for the earliest events) and place for trading, as well as associated financial interests such as tolls and stall rents.[21] The development of new historical and archaeological databases in recent years has generated some important possibilities for understanding the development of medieval trade and travel. For example, Samantha Letters' extensive catalogue of market events in medieval England and Wales estimates that by *c.*1100 there were no fewer than one hundred and seventy-eight market sites in England, with a further seven in Wales. Most of these markets are recorded no later than *Domesday Book*, either with explicit reference to a location or function, such as tolls, or based on the reasonable supposition that a recorded town is likely to have hosted such an institution.[22] Indeed, the location of a

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[20] Richard H. Britnell, 'The Proliferation of Markets in England, 1200–1349', *EcHR* 34 (1981), 209–21 (p. 211); it was also during this period that the distinction between a market (weekly) and a fair (annual) became concrete.

[21] Richard H. Britnell, *The Commercialisation of English Society, 1000–1500*, 2nd ed. (Manchester: Manchester University Press, 1996), pp. 8–19.

[22] Samantha Letters, *Online Gazetteer of Markets and Fairs in England and Wales to 1516* (London: Institute of Historical Research, 1998–2002), http://www.history.ac.uk/cmh/gaz/gazweb2.html; available in printed as Samantha Letters, *Gazetteer of Markets and Fairs in England and Wales to 1516*, 2 vols. (Kew: List and Index Society, 2005); see also Samantha Letters, 'Markets and Fairs in Medieval England: A New Resource', *Thirteenth Century England* 9 (2003), 209–23.

*ceapstow* ('marketplace') can be inferred from the archaeological topography and the layout of several pre-Conquest English boroughs.[23]

This list is undoubtedly incomplete, but it nevertheless affords both a view of a large-scale distribution of sites of regular commerce that is unavailable for England's neighbours and an appreciation of their dense coverage, especially in the half of England closest to the continent. Indeed, south and east of the line running from the mouth of the River Severn to the Humber estuary, over eighty percent of the places listed in *Domesday* are located within ten miles of a market site, compared to only forty percent for places to the north and east.[24] Patterns in archaeological evidence agree with the general picture that emerges from this documentary evidence,[25] including thousands of small metal-work objects that have been brought to light by hobbyist metal detecting and recorded into cultural heritage databases.[26] Such 'small-find archaeology' offers a material culture evidence base for assessing economic and demographic trends with unprecedented spatial and chronological reach. Coins are usually the most common and most easily datable recorded find, and 'big-data' analysis using Geographic Information Systems (GIS) shows how patterns of late-eleventh and early-twelfth-century coin deposition broadly match with demographic data taken from *Domesday Book*, revealing regions of more

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[23] Britnall, 'Commerce', pp. 181–83; Jeremy Haslam, *Anglo-Saxon Towns in Southern England* (Chichester: Phillimore, 1984).

[24] *Electronic Edition of Domesday Book: Translation, Databases and Scholarly Commentary, 1086*, ed. John Palmer, 2nd ed. (UK Data Service, 2010), http://doi.org/10.5255/UKDA-SN-5694-1.

[25] Chris Green et al., 'Understanding the Spatial Patterning of English Archaeology: Modelling Mass Data, 1500 BC to AD 1086', *Archaeological Journal* 174 (2017), 244–80.

[26] Notably the Portable Antiquities Scheme in England and Wales (finds.org.uk) and the Early Medieval Corpus of Coins / Sylloge of Coins of the British Isles (emc.fitzmuseum.cam.ac.uk). Private metal detecting is legal, with varying restrictions, in Britain and several other countries in north-western Europe including Denmark, the Netherlands, and Belgium, but forbidden in France and Ireland; *Aspects of Non-Professional Metal Detecting in Europe*, ed. Pieterjan Deckers et al., special issue of *Open Archaeology* (2016).

intensive economic activity in the south, with less activity in the north.[27] Throughout the central Middle Ages, both coin use and market-foundation patterns continue to show how the northern regions lagged several generations behind their southern equivalents in the development of economic institutions and infrastructure. Of course, this interpretation favours more formal structures of trade (recorded markets, monetary economy, etc.) over informal commercial infrastructures that, though more difficult to evidence, were nevertheless important in the age of William the Conqueror. These patterns were ancient, and they ultimately rested on the influence of topography, climate, and soil geology on human habitation.[28]

## Landscapes and Roads

Whilst trading centres facilitated the easy flow of commercial goods via an increasingly well-developed transport network, it is important also to consider the landscapes that underpinned it. Travel always begins with geography, as can be seen in an 'omnidirectional' surface map of England and Wales that depicts the underlying large-scale structures of the topographical landscape and reveals corridors of greater vs. lesser ease of movement (**Fig. B6_01**).[29] In recent years, techniques based on computational approaches such as network and GIS analysis have gained prominence for their ability to cast interdisciplinary perspectives on geospatial and

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[27] Andrew Bevan, 'Spatial Methods for Analysing Large-Scale Artefact Inventories', *Antiquity* 86 (2012), 496–500.

[28] Eljas Oksanen and Michael Lewis, 'Medieval Commercial Sites: As Seen through Portable Antiquities Scheme Data', *Antiquaries Journal* 100 (2020), 109–40 (pp. 111–13); for a longer-term diachronic assessment, see Anwyn Cooper and Chris Green, 'Big Questions for Large, Complex Datasets: Approaching Time and Space Using Composite Object Assemblages', *Internet Archaeology* 45 (2017), n. p.

[29] Alessio Palmisano et al., *Omnidirectional Map of England and Wales* (London: UCL Institute of Archaeology, 2015), https://www.ucl.ac.uk/early-medieval-atlas/map-data/omnidirectional-map-england-and-wales.

diachronic investigations of the medieval world.[30] At the same time, new methodologies and techniques have been developed on other fields of scientific inquiry – including medicine, geography, and the social sciences – that can be brought to bear on humanities research. For example, electronic circuit theory has been used to study migration and animal movement in heterogenous landscapes, and similar approaches have been applied on an even larger scale to reveal the impact of different topographies on the economy and people's mobility in the past.[31] The lighter-coloured parts of our map thus represent regions requiring less energy to traverse thanks to, for example, little or no changes in elevation. To visualise this further: if we were to place this map on a level surface such as a table and flush it with a bucket of water, the liquid would flow most naturally and effortlessly through these lighter areas, and the same would have been true of the movement of medieval people.

[Insert **Fig. B6_01**]

Travel landscape of England and Wales during the early Middle Ages

*Adapted from Palmisano et al.,* Omnidirectional Map *and Oksanen,* Inland Navigation

The map also helpfully picks out river valleys in detail: sharp, lightening-shaped routes pierce much of Wales, for example, highlighting the relative difficulty of passage through most of its terrain when compared to other parts of the map. On a broader scale, the catchment area of the Severn channels movement from the Midlands into the Atlantic, and that of the Trent into the

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[30] Mark Gillings et al., *Archaeological Spatial Analysis: A Methodological Guide* (London: Routledge, 2020); Barbara J. Mills, 'Social Network Analysis in Archaeology', *Annual Review of Anthropology* 46 (2017), 379–97.
[31] Brad McRae et al., 'Using Circuit Theory to Model Connectivity in Ecology and Conservation', *Ecology* 89 (2008), 2712–24.

Humber. Somewhat less distinct but still clearly visible is the east-west corridor of the Thames River Valley, as well as, in the north, the connection linking Carlisle on the west coast with Newcastle-upon-Tyne on the east. Relying on satellite-produced elevation model data alone, however, risks ignoring some landscape features that would have impeded direct travel. Most importantly, and most clearly visible on the map, these include the marshy areas of the Somerset Levels at the crook of the Bristol Channel and the Fenlands to the north of Cambridge. In both these cases, a multitude of waterways would have facilitated travel and transport, and thus the notion of internal connectivity is not entirely misleading, even if some detail is lost amongst the surrounding and uniformly flat landscape. The combination of palaeogeographical data with archaeological observations has been piloted in the Netherlands to the effect of producing a predictive model for settlement locations that can serve as a model for other locations, too, potentially helping future researchers to fill in the gaps in the historical travel landscapes of eleventh-century Europe.[32] The important point to make here is that approaching landscapes of travel and trade holistically can take us towards a more comprehensive appreciation of long-distance movement, especially when combined with studies of other environmental features such as soil quality, elevation, and land coverage that influenced the geography of human activity historically. Even a cursory comparison with the locations of vills (the smallest units in the administrative system) recorded in *Domesday Book* reveals a marked scarcity of settlements in many of the less traversable regions visible on the map, particularly in the north.

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[32] Rowin van Lanen et al., 'Best Travel Options: Modelling Roman and Early-Medieval Routes in the Netherlands Using a Multi-Proxy Approach', *Journal of Archaeological Science: Reports* 3 (2015), 144–59.

Perhaps the longest continuous and roughly linear structure in Britain's travel landscape is the corridor of relatively easy movement running north-west to south-east across southern England, encompassing a series of ridgeways and other natural pathways from the shore of the Wash at Norfolk through Thetford, past Bury St Edmunds and Cambridge towards the Thames crossing near Wallingford, then due west past Wantage, and eventually turning south towards Salisbury, thus corresponding with the historical route known as the Icknield Way. Almost certainly in use for several millennia, the Icknield Way is best conceptualised not as a single road – no singular path can be defined that covers its entire length –, but as a zone of movement that in some places contracted to an optimal river crossing or a narrow passage through an otherwise difficult landscape (natural or deliberately created by humans), whilst extending significantly in other places to several kilometres in width. The name itself is suggestive of the zone's antiquity, or at least of a desire to adorn it with a sense thereof, and the *Icen* name element may refer to the pre-Roman tribe of the Iceni in Norfolk. The Icknield Way's name and general description are recorded as a major thoroughfare in several twelfth-century sources, locating it firmly as an organising element in the Anglo-Norman geographical imagination (see below).

As with the Icknield Way, the concept of a medieval route was not necessarily determined by a specific physical pathway. A route was a direction of travel, the space between two points along a journey, and it also encompassed a variety of legal and customary concepts related to rights of way.[33] Individual sections of the ridgeways must have seen varying amounts of use in different periods. The vicinity of the old way south of Wantage, for example, has yielded a lower relative

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[33] Catherine Delano-Smith, 'Milieus of Mobility: Itineraries, Route Maps, and Road Maps', in *Cartographies of Travel and Navigation*, ed. James R. Akerman (Chicago, IL: Chicago University Press, 2006), pp. 29–33; Sidney Webb and Beatrice Webb, *English Local Government: The Story of the King's Highway* (London: Fitts Press, 1913), pp. 5–6.

concentration of medieval metal-detected archaeology than elsewhere around the town, strongly suggesting local travel was differently oriented then than during the Iron Age and the Roman period.[34] The landscape of the Icknield Way invites us to reflect more broadly on the human experience of cross-country movement in the Middle Ages generally, and in the age of William the Conqueror specifically. And perhaps such reflections ought to be conducted not from the vertical birds-eye perspective typical of modern maps, but from the point of the travellers' own sensory experience embedded within the physical features of the landscape through which they were moving. Something of this experience is relayed to us through Old English place-name elements that in themselves constituted route markers guiding travellers on their journeys. Amongst the most obvious examples is the ending *-ford* ('shallow crossing'; as in Thetford, Wallingford, or, famously, Oxford), that conveniently alerted travellers to traversable crossing points. At the same time, there are placenames that would have issued warnings to those approaching, including *-stig* ('a narrow ascending path'; as in Corpusty in Norfolk) and *gelad* (denoting a difficult river-crossing; as in Linslade within the Buckinghamshire section of the Icknield Way).[35] Taken together, medieval travellers would have been guided by a multitude of signposts both natural and man-made, from placenames and natural landscape features imbued with cultural significance to earthworks, prehistoric hill figures, and monumental stones, all of which served as instruments of navigation through to the physical, historical, and mythological landscapes of the Conqueror's world.[36]

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[34] Oksanen and Lewis, 'Commercial Sites', p. 23.

[35] Ann Cole, *The Place-Name Evidence for a Routeway Network in Early Medieval England* (Oxford: Archaeopress, 2013), pp. 29–30 and 34–35.

[36] Andrew Reynolds and Alexander Langlands, 'Travel as Communication: A Consideration of Overland Journeys in Anglo-Saxon England', *World Archaeology* 43 (2011), 410–27.

A critical and impressively comprehensive reconstruction of England's early medieval road network has been made possible by recent research that uses interdisciplinary and digital humanities approaches, the structural findings of which can be shown on a map (**Fig. B6_02**).[37] These historical roads are attested in a rich variety of sources revealed and analysed through archaeological investigation, the detection of historic tracks on the ground from aerial photos or by remote sensing technology (such as LiDAR imagery to identify lost historic routeways), the surviving momuments of travel infrastructure (bridges, causeways, wayside stones, etc.) or references to them in written sources such as boundary clauses (land grants describing notable landscape features, often including roads), and historic placenames related to travel like those discussed in the previous paragraph.[38] To the latter we can add *weg* ('way'), *pæð* ('path'), and *strǣt* ('street'; see below).[39] One clear feature that instantly emerges from the tangle is the infrastructural advantage that London continued to enjoy within the south-east throughout the Conqueror's age, supported by a star-like formation of former Roman roads and other long-distance routeways. Taken together, the assembled evidence is unprecedented in its scope and detail, testifying not only to major long-distance routes, but also to local paths and roads that connected individual settlements and various sites of economic importance. Though spread somewhat unevenly for the time being, the potential density of coverage achievable by this ongoing research is showcased especially in two regions: in the road networks in the salt producing region around Droitwich in Worcestershire,[40] and in the dense system of drove roads penetrating

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[37] I would like to thank Stuart Brookes and the Trade & Communications in Anglo-Saxon England project at UCL and the University of Nottingham, UK for the map data; the database is forthcoming at Archaeology Data Service, Early Medieval Atlas Projects: https://doi.org/10.5284/1055092.

[38] Recently considered by Alexander Langland, *The Ancient Ways of Wessex: Travel and Communication in an Early Medieval Landscape* (Oxford: Windgather, 2019); also cf. Cole, *Place-Name Evidence*, *passim*.

[39] See Cole, *Place-Name Evidence*, pp. 24–31; Margaret Gelling and Ann Cole, *The Landscape of Place-Names* (Stamford: Shaun Tyas, 2000), pp. 65–96.

[40] Again, cf. the chapter by Weikert in this volume.

into the Kentish Weald. In the case of the former, a sequence of salt transportation routes is attested by onomastic and written sources. Combined with boundary clause evidence, it describes a sophisticated commercial system linking the two river valleys of the Severn and Thames.[41] And in the case of the Kentish Weald, a remarkable network of drove ways, some of which may have been pre-medieval, served to connected pre-Conquest settlements in northern Kent to seasonal woodland pastures further south. Over the course of the Middle Ages, a long process of colonisation and land reclamation would develop the region's pasture sites into permanent habitations, with the drove ways standing witness to the historic relationship between parent and outlier settlements.[42] The identification of roads from documentary and excavated evidence probably only scratches the surface of what can be achieved, and future approaches that could yield yet more extensive results include the use of remote sensing data within a crowd-sourced, citizen-science framework seeking to identify and ground truth historic roads such as those in existence during William's lifetime.

[Insert **Fig. B6_02**]

Early medieval English road system

*Adapted from Brookes, Archaeology Data Service, Early Medieval Atlas Projects*

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[41] Della Hooke, 'The Droitwich Salt Industry: An Examination of the West Midlands Charter Evidence', in *Anglo-Saxon Studies in Archaeology and History*, ed. J. Campbell and C. Hawkes (Oxford: Archaeopress, 1981), pp. 123–53; Della Hooke, *Anglo-Saxon Landscapes of the West Midlands: The Charter Evidence* (Oxford: Archaeopress, 1981), pp. 300–17; also cf. Eleanor Rye, 'Place-Names and Travel in the Early Medieval Humber Region', in *Early Medieval Waterscapes: Risks and Opportunities for (Im)material Cultural Exchange*, ed. Rica Annaert (Wendeburg: Krebs, 2019), pp. 178–81.

[42] Kenneth P. Witney, *The Jutish Forest: A Study of the Weald of Kent from 450 to 1380 AD* (London: Athlone, 1976).

In the pre-Conquest period, the place-name element *strǣt* usually designated a place by an old Roman road, and there are thus several towns and villages called Stretton/Stratton or *Strǣttun*, literally meaning 'settlement *on* a Roman street'. There was an important survival of Roman interregional routes into the early and central Middle Ages. The Gough Map of *c*.1400, a magnificent cartographic depiction of Britain's urban and physical environment, still contains a sizeable number of connecting lines between towns that probably correspond to historic thoroughfares, even if strictly speaking they may have been intended, in the first instance, to represent distances between destinations.[43] Thirty-five percent of them correspond to Roman roads,[44] which is indicative of a continuation between ancient and medieval routes, though not necessarily of the paved roads themselves, as medieval roads often ran parallel to their older counterparts. Indeed, the location of such historic roads was not static across the centuries, but subject to changes in the settled landscape and its political organisation. Their quality and maintenance varied significantly, and many minor paths were maintained only by regular use. Some of them over time developed into sunken holloways still visible and accessible today, one of the most striking examples being the extensive Holloways of Dorset around North Chideock. Roads (or sections thereof) considered particularly important were improved and made more durable with gravel surfacing and kerb stones. The place-name element *here* ('army') has been connected to a deliberate and systematic programme of road improvements by the West Saxon kings in the ninth and tenth centuries, when 'herepaths' served fortified *burhs* as part of the kingdom's defensive strategy and continued to provide commercial infrastructure in subsequent

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[43] See Catherine Delano-Smith et al., 'New Light on the Medieval Gough Map of Britain', *Imago Mundi* 69 (2017), 15–18.

[44] Statistics from a new database on the routes and roads of the Gough Map by Eljas Oksanen and Stuart Brookes, forthcoming at Archaeology Data Service, Early Medieval Atlas Projects, https://doi.org/10.5284/1055092.

centuries.[45] Pre-medieval routes remained a vital component of eleventh-century travel both in England and abroad, constantly evolving and being incorporated into new networks of mobility and communication.

As mentioned above, Anglo-Norman sources name the Icknield Way as one of England's four principal long-distance routes, the other three being the former Roman routes of Watling Street (Canterbury through London to Shrewsbury, originally branching off to Chester), Fosse Way (Totness in Devonshire to Lincoln, ultimately to Scotland), and Ermine Street (perhaps better known as the Great North Road, London to York via Doncaster, originally passing through Lincoln). Called royal highways in the spurious law codes known as *Leges Edwardi Confessoris* and *Leis Willelme*,[46] these routes are singled out specifically in both Henry of Huntingdon's geographic description of twelfth-century Britain and, in the thirteenth century, Matthew Paris' great map *Schema Britannia*.[47] As long-serving routes between important centres they continued to be major throughfares, and one in five markets documented before *c*.1100 was within easy of reach (4 km or less) of one.[48] Still, we probably should not view the four royal highways as the medieval equivalent of our major modern motorways. The law codes promote a concept of the king's protection of travellers, explicitly developed after the Conquest but building upon a

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[45] Paul Hindle, *Medieval Roads and Tracks* (Oxford: Shire Publications, 2012), pp. 6 and 34–40; Langland, *Ancient Ways*, pp. 176–206; also cf. Frank M. Stenton, 'The Road System of Medieval England', *EHR* 7 (1936), 1–21; Christopher Taylor, *Roads and Tracks of Britain* (London: Dent, 1979), pp. 84–152.

[46] See the chapter by Emily Tabuteau in this volume.

[47] *HA*, ed./tr. Greenway, pp. 22–24; 'Schema Britanniae', in *Early Maps of the British Isles A.D. 1000–A.D. 1579*, ed. G. R. Crone (London: Royal Geographical Society, 1961), n, p. (= Plate 5); *Die Gesetze der Angelsachsen*, ed. Felix Liebermann, 3 vols. (Halle: Niemeyer, 1903–16), I, 510; *Leges Edwardi Confessoris*, ed. Bruce O'Brien, digital edition by the Early English Laws project (Institute of Historical Research and King's College London, 2009–11), www.earlyenglishlaws.ac.uk/laws/texts/ecf1; also cf. Taylor, *Roads and Tracks*, pp. 183–84, 187–88, and 191–95.

[48] Letters, *Gazetteer*, *passim*.

merchant's freedom to travel that was much older both in England and on the Continent.[49] These highways likely represent a literary and political argument to structure the national geography of travel, sketching out a network that bridged distances and concretised connections between provinces under the aegis of the king's control, meaning that roads were not just avenues of trade and travel, but also, and crucially, channels of ideology and power.[50]

## Inland Navigation and Maritime Travel

Most interregional and international trade as it developed during the Middle Ages dealt in bulk goods, which were cheapest to transport by water. Common items referred to in the Billingsgate tolls and many other sources are cloth, wool, timber, wine, fish, and various other foodstuffs.[51] Despite the reasonable assumption that trade across the English Channel and the North Sea had become a significant component of the European economy – at least for the growing urban communities and their local networks –, written sources offer only a fraction of the picture. Consistent references such as those to the continuous wine trade from Rouen in Normandy to England are a comparatively rare example.[52] Archaeologically, too, there is relatively little evidence of the traded goods themselves before the twelfth century, though pottery gives some evidence as to the direction of these exchanges. Excavated assemblages lend further support the

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[49] Langands, *Ancient Ways*, pp. 186–87.

[50] Sarah Harrison, 'The Icknield Way: Some Queries', *Archaeological Journal* 160 (2003), 1–22; Alan Cooper, 'The King's Four Highways: Legal Fiction Meets Fictional Law', *JMH* 26 (2000), 351–70.

[51] Michael Postan, 'The Trade in Medieval Europe: The North', in *The Cambridge Economic History of Europe, Vol. II: Trade and Industry in the Middle Ages*, ed. Michael Postan and Edward Miller, 2nd ed. (Cambridge: Cambridge University Press, 1987), pp. 168–74.

[52] OV, ed./tr. Chibnall, IV, 220–26; *Regesta Regum Anglo-Normannorum 1066–1154, Vol. 3: Regesta Stephani ac Matildis Imperatricis ac Gaufridi et Henrici Ducum Normannorum 1135–1154*, ed. Henry Cronne and Ralph H. C. Davis (Oxford: Clarendon, 1968), pp. 268–69 (= no. 729) confirms trade privileges dating to the reign of Edward the Confessor.

notion introduced earlier in this chapter that most eleventh-century journeys across the Channel occurred to the nearest port, and the large-scale distribution of ports on England's eastern and south-eastern coasts further suggests that Flanders had already emerged as a primary trading partner by the time of William the Conqueror.[53] A more comprehensive view has yet to be proposed that takes into account the totality of the known inland transportation system of the period, including roads as well as navigated inland waterways, though a comparative network analysis between the Roman and early medieval systems in England already indicates a gradual shift in preference and usage from roads to waterways. This shift is sometimes explained by the fact that many medieval towns were themselves centres of production and distribution, rather than being oriented primarily towards consumption in the manner of their Roman equivalents. Indeed, this also indicates the increasing importance of rivers – and ultimately maritime connections – in the emergence of successful towns and market centres at key locations in the medieval trading network.[54]

A little thought experiment that illustrates this point very well involves a play on common (mis)conceptions of place and relationships across space:[55] picture the world of north-western Europe, delineated by its scattering of Atlantic islands and the run of coastlines embracing the North Sea and the English Channel from Brittany to Norway (**Fig. B6_03**). Now rotate this map by 180° so it stands on its head. The position of familiar landmasses is rendered strange and unfamiliar by their dislocation, giving new meaning to the relationship between them. A small,

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[53] Gardiner, 'Shipping and Trade', pp. 73, 77–80, and 92–93.

[54] Stuart Brookes and Hoai Nguyen Huynh, 'Transport Networks and Towns in Roman and Early Medieval England: An Application of PageRank to Archaeological Questions', *Journal of Archaeological Science: Reports* 17 (2018), 477–90.

[55] Tom Williamson, 'East Anglia's Character and the "North Sea World"', in *East Anglia and its North Sea World in the Middle Ages*, ed. David Bates and Robert Liddiard (Woodbridge: Boydell, 2013), pp. 44–62 (pp. 44–48).

semi-enclosed sea separates the upside-down Isles from the Continental landmass at the top, narrowing into a strait and then opening into the wide North Sea basin after which its borders become marked by a scattering of island clumps reaching from Scotland towards Norway. What emerges in this way is practically an inland sea with porous coasts and waterways reaching deep into the interior of the bordering landmasses and tying their respective settlements and communities into webs of mutual connection. The often vast distances between these places are compressed significantly by the speed of maritime travel, so that a journey from one edge of the North Sea World to the other – say, from the trading centre of Ribe on the western coast of Denmark to the Atlantic port at St Mathieu in Brittany –, could be undertaken in just five days, whereas a crossing of the Channel was completed, fair weather permitting, within the daylight hours.[56] The Billingsgate tolls discussed earlier in this chapter are part of this picture, which is sketched more fully by the adoption of English weight standards in coinage in Normandy, Flanders, the Rhineland, and also in Scandinavia.[57] Eleventh-century English silver coinage maintained its high quality, and from the 1020s onwards England both adopted and became a vehicle for the re-introduction of Roman and Byzantine weight standards into north-western Europe. Imitation was not a one-way-street, though: the lighter coinage of King Edward the Confessor minted *c.*1048–51 may have been issued to maintain a convenient exchange ratio with the declining weight of contemporary Scandinavian types. Though as the tolls state merchants from the Paris region arrived in London, Capetian France stood clearly outside this common exchange area defined by its weight system and was bypassed by the major Anglo-Flemish-Rhineland trade routes.[58] The foundations for long-term alignment in north-western European

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[56] Gardiner, 'Shipping and Trade', pp. 74–75.
[57] See also the chapter by Michael Gelting in this volume.
[58] Pamela Nightingale, 'The Evolution of Weight-Standards and the Creation of New Monetary and Commercial Links in Northern Europe from the Tenth to the Twelfth Century', *EcHR* 38 (1985), 196–201.

commerce were laid in the eleventh century, allowing Henry of Huntingdon to observe that by 1130, a significant flow of currency ran westwards along this axis 'so that so that the wealth of silver [in Britain] seems greater than in Germany'.[59]

[Insert **Fig. B6_03**]

Digital elevation model of the North Sea basin with major river systems

*Adapted from NASA Shuttle Radar Topography Mission; HydroSHEDS*

In terms of hardware and vessels, the most common family of ship types to ply these waters was the keel or *ceol*. It was built using the clinker construction technology seen in both Viking longships and the carriers that brought William the Conqueror's army to Pevensey: to a long central spine were attached stem and stern posts, after which a sequence of overlapping planks brought up the curving sides. The ship had a mast and a single square sail, and it was equipped with a steering oar. A ship made in such manner and excavated at Skuldelev in Denmark is estimated to have had a carrying capacity of twenty-four tons, presumably conforming to the highest rate of four pence in the London tolls.[60] The hulk (*hulcus*) also mentioned in the written sources is a rather more mysterious vessel, as though its crescent shaped profile is depicted in medieval manuscripts illustrations and on seals, no wreck has ever been found.[61] Tolls on smaller coastal traders and fishing vessels complete the picture of a thronging port. And though logboats and dugout canoes had been used for inland, estuary, and probably coastal traffic for millennia,

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[59] *HA*, ed./tr. Greenway, p. 10: '[U]t maior ibi videtur copia argenti quam in Germania'.
[60] Emil A. Christensen, 'The Viking Ships', in *The Sea in History: The Medieval World*, ed. Michel Balard (Woodbridge: Boydell, 2017), pp. 547–60; Gustav Milne, *The Port of Medieval London* (Stroud: Tempus, 2003), pp. 60–61; Gillian Hutchinson, *Medieval Ships and Shipping* (Leicester: Leicester University Press, 1994), pp. 5–10.
[61] Hutchinson, *Medieval Ships*, pp. 10–15.

their most intense period of use in Ireland, Britain, and on the Continent – confirmed by radiocarbon dating of several hundred excavated examples – were the eleventh to thirteenth centuries.[62] For most of the eleventh century, many small and large landing-places that dotted the coasts and riversides of these territories remained fairly simple affairs: mud or sand platforms upon which vessels were pulled so that trade could take place directly from them. At Norwich, a major East Anglian town, successive layers of brushwood were laid down to improve the facility, forming archaeologically distinct layers, whilst a wharf also furnished the harbour.[63] In London, a beach market had been established at Queenhithe south of St Paul's as early as the ninth century, and archaeological excavations indicate that in the eleventh century landing was still restricted to a relatively narrow embankment between the old Roman walls and the river. Major building works at the port would not take place until the removal of these walls opened the waterfront for development.[64] But whilst London's new facilities had to wait until the twelfth century, a concentration of medieval place names ending in -*lād* ('lode') in the marshy regions of the Fenlands north of Cambridge indicates the scale of man-made improvements to local waterways possible in earlier periods. These lodes point towards a series of significant canalisation and drainage works undertaken by local monasteries around the turn of the millennium that shaped the marches' medieval land- and waterscape and would remain unsurpassed in scope until the installation of drainage ditches in the seventeenth century.[65]

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[62] See J. N. Lanting, 'Dates for the Origin and Diffusion of the European Logboat', *Palaeohistoria* 40 (1998), 627–50 (pp. 631 and 641).

[63] Brian Ayers and Peter Murphy, 'Waterfront Excavations at Whitefriars Street Car Park, Norwich, 1979', *East Anglian Archaeological Report* 17 (1983), 4–9; Susan Raich, 'The Sea in the Anglo-Norman Realm, c.1050 to c.1180' (Doctoral dissertation, University of Cambridge, 2014), pp. 95–138.

[64] Milne, *Port*, pp. 41–47 and 67–69.

[65] Cole, *Place-Name Evidence*, pp. 59–60; Susan Oosthuizen, *The Anglo-Saxon Fenland* (Oxford: Windgather, 2017); this will be explored at greater length in Michael Chisholm, *Anglo-Saxon Hydraulic Engineering in the Fens* (Donnington: Shaun Tyas, forthcoming).

Based on place-name evidence, written sources, and archaeological evidence, it is possible to reconstruct the maximum extent of known inland navigation in England and Wales during and after the age of William the Conqueror (**Fig. B6_01**). Most of the available evidence dates from between the eleventh and the mid-fourteenth centuries, with many of the documentary sources as late as *c.*1300, and as such does not depict the situation at any single point in time. But given that the general tendency was for the total extent of navigable waterways to shrink as the central Middle Ages progressed – owing to silting and the construction of mills, bridges, and fishing weirs –, the emerging picture can, with some caution, be considered a fairly reliable model for the eleventh century. The total combined length of all river and canal routes from their respective points of inland origin to the sea is *c.*5,300 km, though this again does not signify uninterrupted travel free from obstacles or take account of potentially unnavigable sections. With the major exception of the Severn, the waterways give out towards the east and the North Sea coasts, stimulating the economic development of both the interior and coastal regions, and, importantly, of the communities located on the opposing coasts. Throughout the Middle Ages, there was a vital connection between inland navigation and prosperity measured by, for example, wealth assessments and the locations of markets and fair sites.[66] The place-name element *ēa-tūn* ('river settlement') is usually encountered way upriver and associated with the function of keeping a waterway unobstructed for travel. Several such 'eatuns' occur at the upper reaches of the Severn and its tributaries near Watling Street, and even more by the Thames where the major roads descending from Worcestershire connect with it. Way downriver, around London, a collection of

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[66] Oksanen, 'Trade and Travel', pp. 187–99; Eljas Oksanen, 'Inland Waterways and Commerce in Medieval England', *European Journal of Post-Classical Archaeologies* 7 (2017), 7–32; the data is taken from Eljas Oksanen, *Inland Navigation in England and Wales before 1348: GIS Database* (York: Archaeology Data Service, 2019), https://doi.org/10.5284/1057497.

place names ending in *-hȳð* ('landing-place') mark a landscape of transhipment between sea-capable vessels, smaller river crafts, and overland routes.[67]

To conclude, places such as these located at intersections of travel routes and linking different economic zones were in a prime position to take advantage of the re-emergence of European commercial networks in the age of William the Conqueror. In the twelfth and thirteenth centuries, Flanders became known widely as Europe's main centre for textile production, leaning on international, especially English, wool imports. Yet in their earlier phases of development, Flemish riverside towns emerged near the junctures of agricultural regions, with interregional traffic in foodstuffs and produce supporting – and indeed enabling – their subsequent economic development and prosperity.[68] Alongside lodes, hythes frequently dot the navigable waterways in fenland areas, similarly describing landscapes active in exchanges between the coasts, the marshlands, and the interior, landlocked regions. The management of these waterways constitutes one of the most remarkable programmes of regional infrastructure improvement in north-western Europe at the time, and they attest to the era's need and capacity for economic expansion. Considerable challenges remain in assessing the full scope of this expansion, highlighting the necessity of scholarly approaches that are interdisciplinary in character and international in their outlook. In France, a recent large-scale survey of historical inland harbours based on archaeological and historical evidence from across Europe revealed the ninth and eleventh centuries as particularly dynamic periods for the establishment of new sites and the disappearance

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[67] See Ann Cole, 'The Place-Name Evidence for Water Transport in Early Medieval England', in *Waterways and Canal-Building in Medieval England*, ed. John Blair (Oxford: Oxford University Press, 2007), pp. 55–84; Cole, *Place-Name Evidence*, pp. 57–58 and 61–62.

[68] David Nicholas, 'Settlement Patterns, Urban Functions, and Capital Formation in Medieval Flanders', in *Trade, Urbanisation and the Family: Studies in the History of Medieval Flanders*, ed. David Nicholas (Aldershot: Ashgate, 1996), pp. 1–30.

of old ones.[69] This relocation of nodal sites in medieval European river networks after the turn of the millennium tallies with the broader picture of late-Carolingian deterioration followed by a large-scale revitalisation of long-distance trade and travel that – as the present chapter has shown – was fully underway during the age of William the Conqueror.

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[69] Marion Foucher et al., 'Inland Harbours: Preliminary Results and Perspectives for the French Section of the Project "Inland Harbours in Central Europe"', in *Inland Harbours in Central Europe: Nodes between Northern Europe and the Mediterranean Sea*, ed. Marion Foucher et al. (Mainz: Römisch-Germanisches Zentralmuseum, 2019), pp. 3–16 (pp. 12–13).
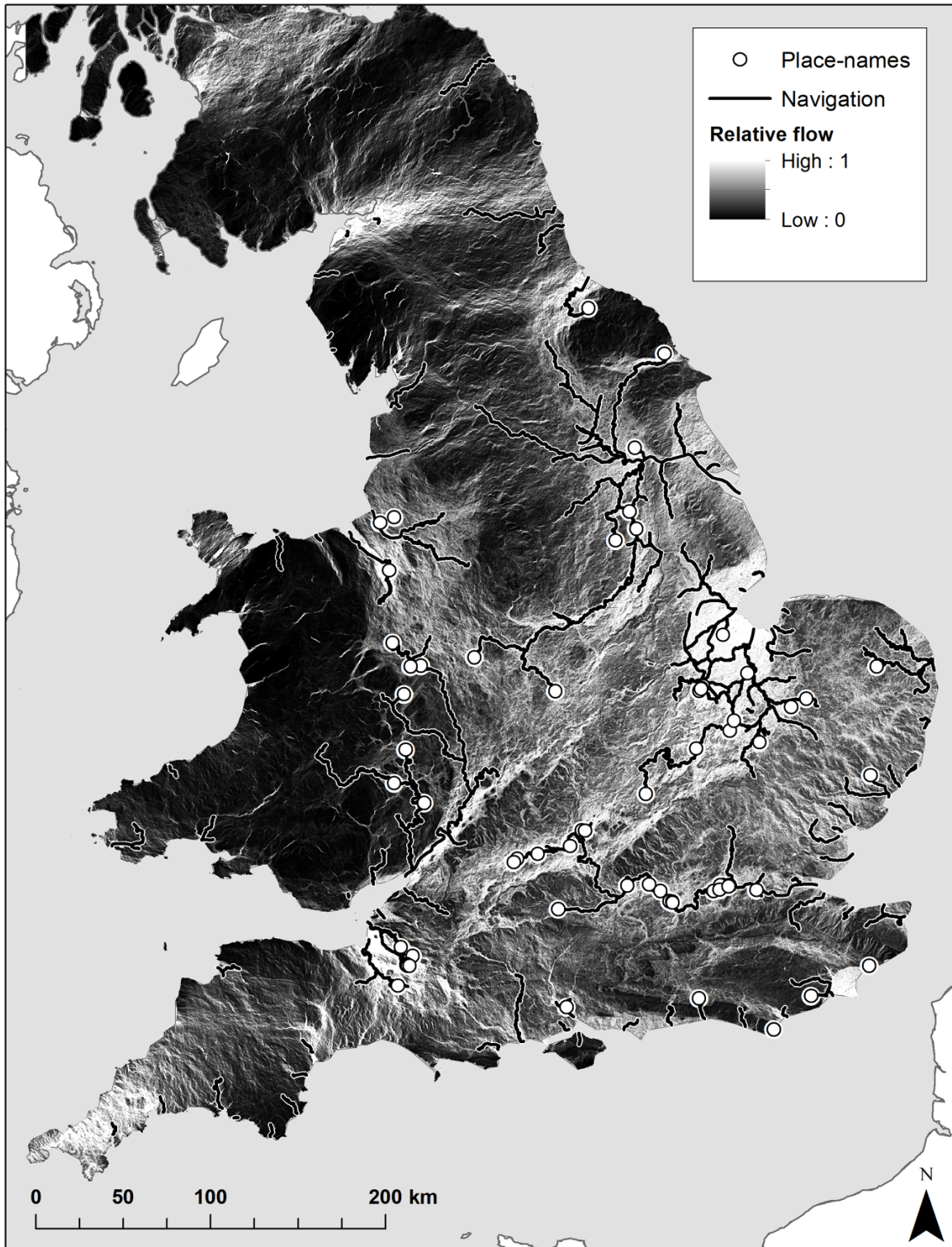
Figure 1. The travel landscape of England and Wales during the Early Middle Ages. The omnidirectional map surface describes connectivity as the flow of current (ease of travel) based on terrain slope, overlaid with known reach of medieval inland navigation and Old English place-names related to river traffic. Source: Alessio et al., *Omnidirectional Map*; Oksanen, *Inland Navigation*.
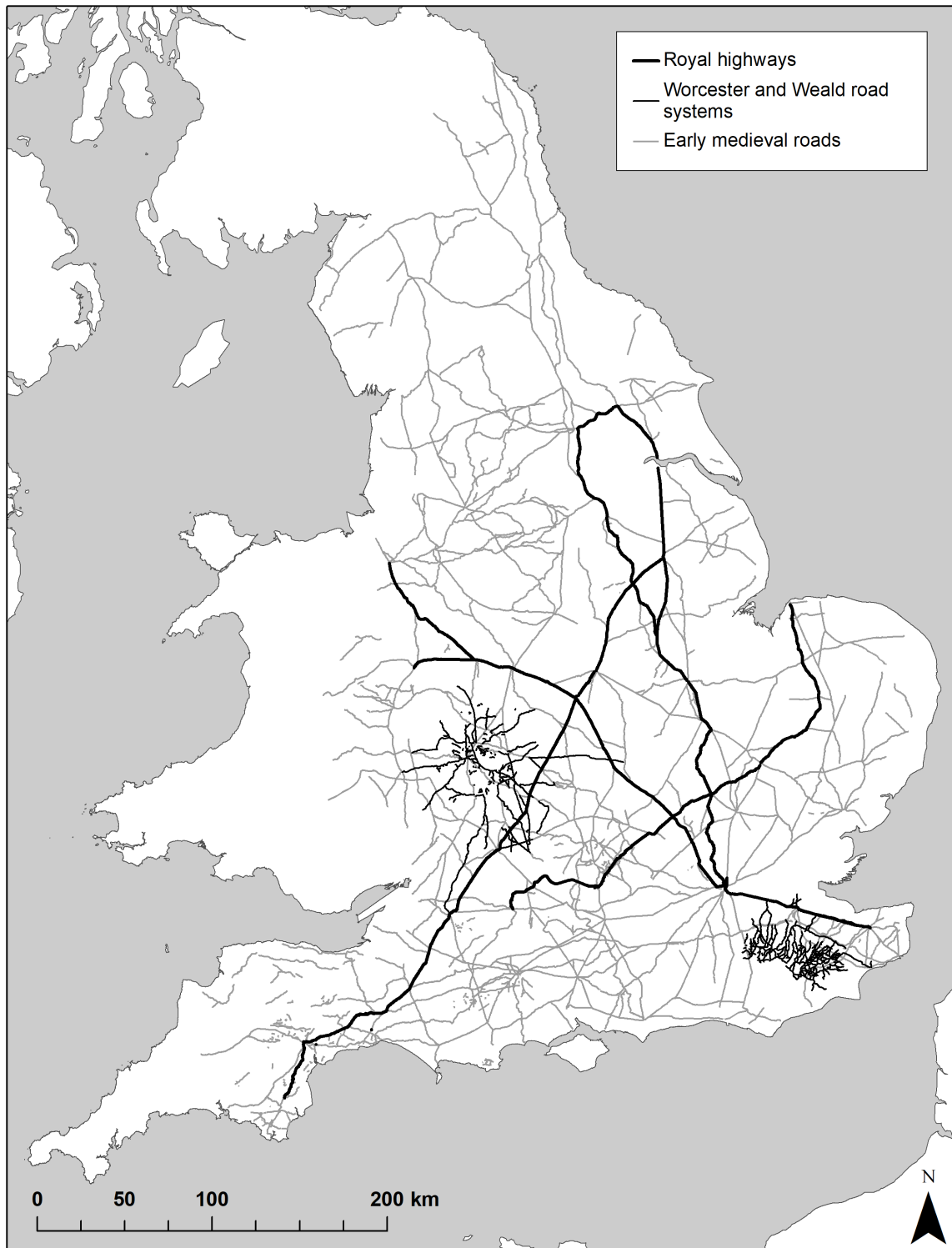
Figure 2. Early medieval English road system. Source: Brookes, forthcoming dataset at Archaeology Data Service, Early Medieval Atlas Projects.
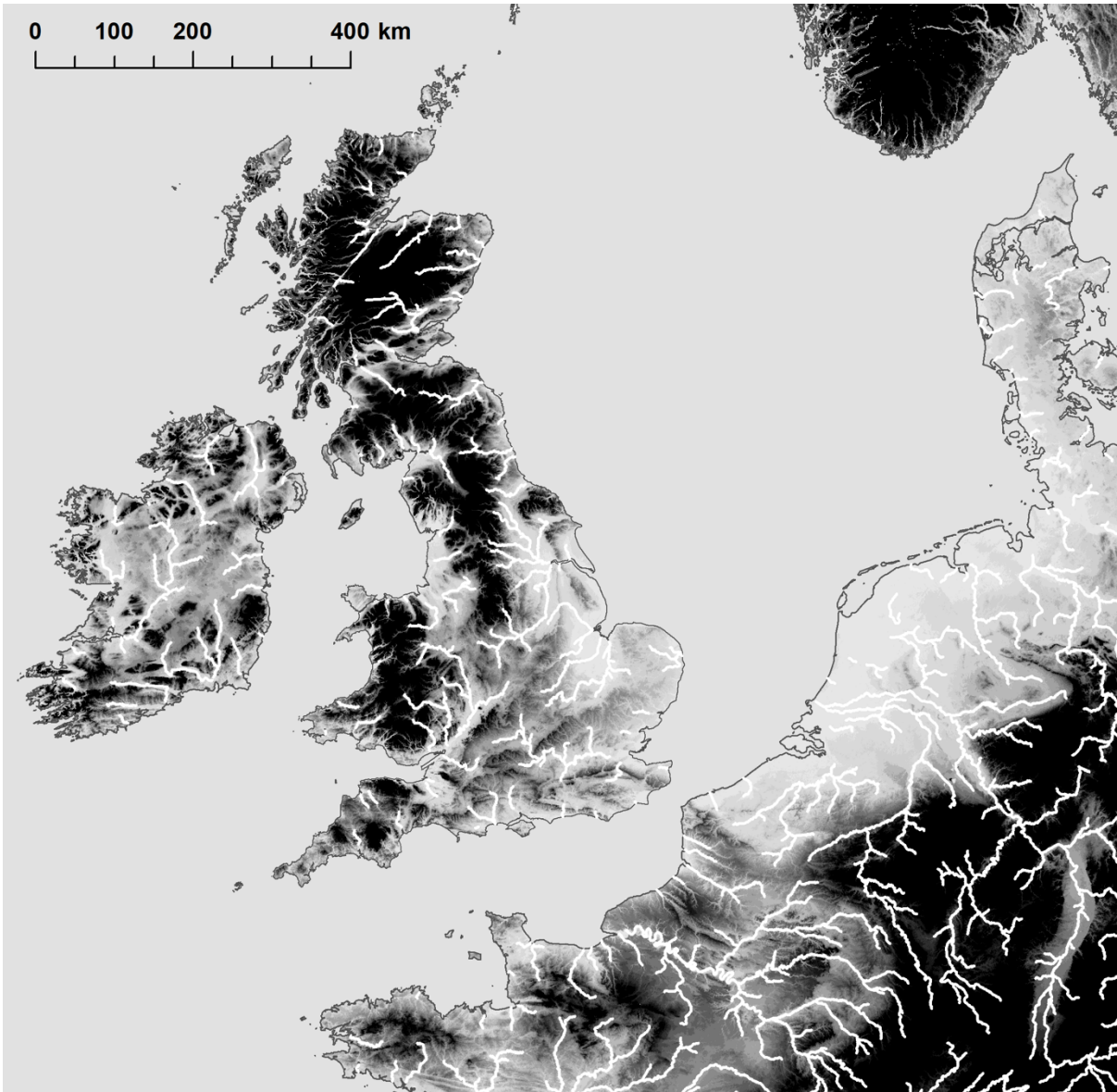
Figure 3. Digital elevation model of the North Sea basin with major river systems.

Source: NASA Shuttle Radar Topography Mission; HydroSHEDS.

**Recommended reading**

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