THE TRANSPORT SYSTEM OF MEDIEVAL ENGLAND AND WALES - A GEOGRAPHICAL SYNTHESIS

by

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A NOTE ON REFERENCES

References are generally given in the following forms:

Books:

AUTHOR, *Title* (Place, Date)

Volume numbers where necessary are given in lower case Roman numerals.

Articles in Periodicals:

AUTHOR, 'Title' *Name of Journal* Volume Number (Year)

Either type of reference may be followed by page numbers (in arabic numerals) or, where specifically indicated, by chapter or other reference numbers.

Abbreviations

All names of Journals are given in full with the following abbreviations:

Ann.	Annals	Bull.	Bulletin	ed.	editor	Ed.	Edition
esp.	especially	Journ.	Journal	Proc.	Proceedings		
Rev.	Review	Ser.	Series	Soc.	Society	Trans.	Transactions

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Notwithstanding all the assistance given to the author, the errors and shortcomings of this work are his alone.

ABSTRACT

This thesis is concerned with attempting to reconstruct the transport system of medieval England and Wales.

The thesis is divided into four parts. The first is an introduction which seeks to justify the research and to place it in the context of recent work in historical geography. This section also examines the previous research on medieval transport.

The second part expands the previously established medieval road network and attempts to clarify certain aspects relating to it. Cartographic evidence is examined together with a critical examination of various itineraries which have not been previously discussed in any great detail. An attempt is also made to clarify the vexed question relating to the significance of the medieval unit of distance. Some further evidence, including direct documentary evidence, is examined and then added to all the previous evidence to produce the basic framework of a national medieval road network. Direct documentary evidence is also used in an attempt to establish the most likely routes taken for the overland movement of goods and produce where only the starting point and destination are recorded.

The third part attempts to determine, using direct historical evidence, the extent of navigable water used during the medieval period. The initial chapters deal with the navigable rivers on a regional basis, and an attempt is made to establish their navigational limits. All this regional evidence is then brought together to produce a national picture of inland navigable waterways. An analysis of the

of the movement of goods along the rivers is carried out, and the link between inland and coastal navigation is also considered, together with an appraisal of medieval vessels. This section also examines the cartographic representation of waterways.

The fourth, and final part of the thesis is concerned with combining the road and waterway networks and also examines their affinity with the more prominent medieval trading centres to produce the basic structure of the whole national medieval transport system. Trends in the changing fortunes of the prominent medieval boroughs are analysed which puts into perspective temporal fluctuations and hence highlights the changing importance of the routes leading to them. Finally, further direct historical evidence is called upon to confirm utilisation of the system.

PART ONE

INTRODUCTION

"When you have a tale to tell
always start at the beginning"

Old Saying

CHAPTER ONE SETTING OUT

It may seem strange that someone who has spent the previous thirty years in an engineering discipline should suddenly become involved in the attempted reconstruction of the medieval transport system. However, as the author spends much of his leisure time walking in the country, he has developed a keen interest in the landscape.(1) Although this, combined with his interest in history, does not give him the academic background that a formal training in historical geography would produce, it can sometimes be benficial for someone to look at a particular problem with a 'fresh eye'.

Setting the Scene

The original area of research was confined to a local study of the county of Cheshire, but as work progressed at this local level it became clear that virtually all the previously published material pertaining to internal medieval transport, although not extensive, tends to concentrate on overland routes, with very little mention of waterborne movements. Further investigations revealed a similar gap at the national level, together with a surprising lack of research on medieval transport in general, much ofthe published material talking glibly about "growth of trade and towns" without considering how goods were moved from A to B. However, although two studies in particular do culminate in a fairly comprehensive reconstruction of the national medieval road network,(2) there is only scant appreciation of the part played by the navigable waterways and the links they had with the more established overland routes. These observations were instrumental in changing the direction which the research was to take; instead of a local study at the county level, the research was diverted to an attempt to reconstruct the whole medieval transport system at a national level.

The physical area covered by the study is limited to England and Wales. Scotland is excluded because during the medieval period it was a separate kingdom; whereas England and Wales, although involved in much conflict, could, in many respects, be considered as a single administration.

There is some debate regarding the time band covered by the term 'medieval period'. The medieval period in England conventionally begins with the advent of Norman rule in 1066, and, as far as this thesis is concerned, ends with the close of the fourteenth century. Occasionally, some later evidence is called upon in order to clarify certain points, albeit only in a very limited way. Direct documentary evidence is also used in an attempt to establish the most likely routes taken for the overland movement of goods and produce where only the starting point and destination are recorded.

Although a reconstruction of the medieval road network has already been established, the second part of the thesis expands this network and attempts to clarify certain aspects relating to it. Cartographic evidence is also examined together with a critical examination of various itineraries which have not been previously discussed in any great detail. An attempt is also made to clarify the vexed question relating to the significance of the medieval unit of distance. Some further evidence, including direct documentary evidence, is examined, and then added to all the previous evidence to produce the basic framework of a national medieval road network.

The third part of the thesis attempts to determine the extent of navigable water used during the medieval period. The main core of evidence used for this part of the research is that contained in the various State Rolls, supplemented by other forms of direct historical evidence. The initial chapters deal with the navigable rivers on a regional basis, and an attempt is made to establish their navigational limits. All this regional evidence is then brought together to produce a national picture of inland navigable waterways. An analysis of the movement of goods along the rivers is carried out and the link between inland and coastal navigation is also considered, together with an appraisal of medieval vessels. The cartographic representation of waterways is also examined.

The fourth, and final, part of the thesis is concerned with combining the road and waterway networks and also examines their affinity with the more prominent medieval trading centres to produce the basic structure of the whole national medieval transport system, which, it is hoped, will be useful to geographers and historians alike. Trends in the changing fortunes of the prominent medieval boroughs are analysed which puts into perspective temporal fluctuations and hence highlights the changing importance of the routes leading to them. Finally, further direct historical evidence is called upon to confirm utilisation of the system.

To attempt to place this research within the context of current developments in historical geographical research is not a straightforward exercise. It does not break, or attempt to break, any new ground in the methodology which it employs: it is simply the procurement of geographical information that can be derived from historical records. This involves the manipulation of a mix of cartographic evidence and historical evidence (direct and indirect), supplemented in some instances by actual observation. The reliance on surviving historical evidence is obviously of paramount importance.

> "The most typical feature of historical geographical research is that it has to rely upon historical evidence, either directly or indirectly, man-made features in the landscape, maps or written sources, more or less randomly preserved and inherited from past generations" (3)

However, this random preservation of historical material can often lead to a distorted view of the past by attributing an undue weight to the surviving data. For example, overseas trade during the medieval period has been given an exhaustive treatment and is extensively documented, due no doubt to the copious records generated by it. In contrast, because inland trade usually went unrecorded, it did not generate a similar amount of data upon which scholars could draw. Consequently, this has resulted in a curious neglect of the study of medieval inland trade with the result that historians, economic historians, and historical geographers alike, being susceptible to this error, have presented an imbalanced picture with the scales tipped far too heavily in the direction of external trade. It is only by searching out the scattered and disparate references to inland trade that this imbalance can be rectified. It is hoped, therefore, that the transport system described in this thesis at least goes some way to redressing this imbalance and will act as a stimulus for further research, especially at the local level. Only by building up a more detailed description of inland trade, and the transport system which made it possible, can internal trade expect to take its rightful place in the studies of the medieval economy as a whole. The remainder of this chapter will therefore give a brief sketch of the economic growth of medieval England and Wales.

Internal Trade and Urban Growth

The internal trade of medieval England and Wales was operating against an ever-changing backcloth of social and economic change. A key component of this change was urban growth. In order to analyse urban growth we must first of all consider the circumstances and conditions prevailing before the commencement of the medieval period.

Britain had retained little of its Roman urban legacy. Early Anglo-Saxon society appears to have had little use for the kind of towns that had once flourished, and only a few continued to function; effectively urban life ceased to exist. Many medieval towns had their origins in the fortified places or burhs, created by the warring Anglo-Saxon and Danish leaders in the ninth and tenth centuries. Although records from this period are scarce, a charter from the time of King Alfred shows that when Worcester was fortified, the rulers of Mercia granted part of the dues and tolls payable there to the cathedral - thus confirming that trade was being undertaken.(4) It is understandable that trade would be attracted to these 'safe' fortified places for, apart from being used for defensive purposes, the fortifications could also protect a market and its traders. Apart from reasons of defence and trade, these early urban cores also acted as political control centres, administrative centres and, as at Worcester, centres of the Church. During the period between the times of King Alfred and the Norman Conquest, and even allowing for a possible exaggeration caused by an increase in surviving sources, there was an undoubted growth in urban development. This growth appears to have been stimulated by a simultaneous increase in economic growth throughout Europe, thus boosting both international and domestic trade.

Fortification also boosted trade in the first uncertain century following the Norman Conquest. For example, in Nottingham - where there had been an Anglo-Danish fort, the Normans established a borough and castle alongside it. They laid out a market close by the castle; this pattern of a castle in close conjunction with a market is very common(5). Although the early burhs were, in effect, 'new' towns, the majority of new towns were created in the twelfth and thirteenth centuries. From the advent of Norman rule to the end of the thirteenth century no less than 233 'new' towns were established in England and Wales(6). The rate of creation gradually slowed down in England after about 1250 and after 1300 in Wales - where the campaigns of the first King Edward had led to the establishment of a number of new towns largely for military purposes. This levelling off in the creation of new towns reflects a similar trend in population growth. The medieval population probably peaked during the early years of the fourteenth centry and seems to have remained almost static until 1348-9, when the ravages of the Plague caused a drop approaching forty per-cent; during the second half of the fourteenth century the records show the creation of only one 'new' town.(7)

Until the time of the Plague, the society of medieval England and Wales was fundamentally 'feudal' in character.(8) The majority of the population consisted of the peasantry who were, in effect, 'tied', being forced to work on the land as tenants of their feudal masters. The towns of the medieval period were not large and although urban expansion had approximately mirrored the trends in population growth, perhaps as much as ninety per-cent of the population lived and worked in rural areas. Outside the feudal system there were individuals who were not tied to any master and it was these 'free men' who formed the basis of the urban population. Their class structure could be complex, but in simple terms they belonged to one of three classes: merchants, craftsmen, and servants or employees. In short the townspeople were mainly concerned with trade. Although there was intermittent civil war throughout the medieval period, once the old need for defence had diminished it is safe to conclude that the level of urban growth is a clear reflection of the level of trade - because trade could only be carried on by the 'free men' who were outside the feudal system. Hence, towns have been described as ' non-feudal islands in a feudal sea'. The majority of the new towns were created specifically to fill out the hieracrchy of existing trading centres.

The new towns were founded on the initiative of the King or feudal lords - who formed markets and often encouraged traders by offering reasonable terms of settlement. Equally, many towns were founded or enlarged by ecclesiastical lords with the prime objective of capturing trade. For example, at St. Ives in Cambridgeshire, the abbots of Ramsey built a bridge over the River Ouse together with an adjoining quay and market place in the hope that they could draw traders there by both road and river.(9) The choice of site was extremely important; there were obvious economic advantages to be gained by siting a new town or developing an existing one where good communications were available. Sites where a combination of both roads and navigable water were at hand were at a considerable advantage. Coastal sites had this advantage and many inland places had access to both overland routes and navigable water. Ferries, fords, and bridges were focal points which drew travellers to them and were logical places for development. The importance of river crossings in the creation of towns can be shown when the building of a new bridge sometimes caused the diversion of an old road to a new route, with the subsequent development of a town at the new crossing place. For example, during the twelfth century, when the bridge which carried the Great North Road over the River Ure at Aldborough was replaced by a new bridge further to the west, the new town of Boroughbridge flourished, whilst Aldborough declined.(10)

Whilst certain towns held a position of eminence throughout the medieval period, the fortunes of others waxed or waned. An idea of the relative importance of the more prominent places can be obtained by comparing certain published lists giving estimates of population or assessed wealth at particular dates. There are many complexities associated with the interpretation of such data (which are more fully discussed in Chapter Twenty-three). However, places like London, York, Norwich, Bristol and Lincoln were consistently prominent. On the other hand, Winchester, the former capital and the centre at which the Domesday Survey was compiled, clearly gave way to London as the political and administrative capital. Towards the end of the twelfth century Winchester was ranked eighth, but had slipped to thirtyfirst by 1377.(11) Thetford, ranked sixth at the time of Domesday, also declined - whilst the fortunes of Bury St. Edmunds, 12 miles to the south, and a centre of pilgrimage, grew. Some towns were totally unsuccessful and disappeared, some were ravaged by the elements, and others were relocated at more suitable adjacent sites. At Bere (in Wales), failure was probably due to a poor selection of site; it was in a sparsely populated area, it was not served by a river, and the road which connected it with the outside world came to a dead end at the head of the valley in which it was situated. The sea washed away Dunwich and Ravenserodd; whilst Old Sarum, on its exposed hill-top site, was abandoned in favour of the more accessible riverside site of New Sarum (Salisbury).

Towns, as centres of trade, relied on effective communications to sustain them; thus, the very fact that urban growth continued, directly as a result of trade, is testimony that medieval towns were the nerve-centres in a communications network on which the whole body of the medieval economy relied. Yet this network of roads, rivers and coastal navigations has hitherto not received the attention which it deserves, and the main aim of this present piece of work is to attempt to produce a synthesis of the whole network of communications in medieval England and Wales, on which the very growth of towns and trade depended.

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CHAPTER TWO PREVIOUS RESEARCH

Our knowledge of transport and communications in England and Wales during the medieval period is meagre. This becomes apparent when perusing the many books and articles which deal with general history, where it is the exception rather than the rule to find the topic discussed at any length - if at all! Even in the literature dealing exclusively with the medieval period it is unusual to discover more than a few passing comments relating to the topic.

Studies which do relate directly to transport during the medieval period rarely deal with a national system and hence tend to paint a rather scattered and fragmented picture. The majority deal with the condition of the roads and give accounts of such aspects as safety and road maintenance. Only a few of these writers concern themselves with the overall transport system which must have existed and been an integral and vital part of the nation's economic activity, which is surprising considering that many of the articles have been written by economists. As mentioned in the previous chapter, the studies by F.M. Stenton and B.P. Hindle are pre-eminent in the attempted reconstruction of the medieval road network. Both these studies specifically relate to road networks rather than an integrated road and water transport system although the importance of water transport is often acknowledged.

F.M. Stenton's article published in 1936(1) is the first comprehensive study of the road network of medieval England. One of the main sources of evidence used by Stenton is the medieval Gough Map which shows apparent lines of travel together with associated distances; indeed, part of his original article was reprinted when a facsimile of the Gough Map was made in 1958.(2) He also uses other sources and acknowledges the importance of medieval itineraries in reconstructing the road network.

> "The first direct evidence as to the course of the English roads along which long-distance travel was possible comes from the reconstructed itineraries of twelfth and thirteenth-century sovereigns." (3)

He notes the distinct lack of road-making during the medieval period and opines that the basic road network must have been in existence long before the medieval period.

> "It is probable that with few exceptions the roads which supported this traffic were already ancient when the Middle Ages began. They included stretches of prehistoric ridgeway, such as the medieval road between Salisbury and Shaftesbury, cart-ways which had originally formed the boundary of Saxon furlongs, like the first stage of the road from Wallingford to Gloucester, Roman roads which survived the collapse of Roman administration, and track-ways, generally of indeterminable date, which had once led through woodlands or across wastes". (4)

Although Stenton's article is primarily concerned with the road system, he does recognise the importance of the navigable waterways:-

> "There is abundant evidence that whenever possible the heaviest goods were sent by water rather than by road...." (5)

However, because his writings are concerned almost exclusively with the movement of individuals rather than the movement of goods and produce, this gives the impression that the role played by the navigable waterways was very much a secondary one.

> "All the evidence suggests, in fact, that for the ordinary medieval traveller, the waterways of England were never more than an occasional supplement to a road-system which on the whole was sufficient to his needs." (6)

This criticism apart, and the fact that he does not present any maps to supplement his writings, Stenton's article is a pioneering and scholarly work which points the way to further research:

> "It is only by collecting medieval itineraries, by following the clues supplied by medieval charters, above all, by that study on the actual ground, without which the investigation of ancient roads soon loses touch with reality, that it will ever be possible to trace the detailed course of medieval lines of travel." (7)

B.P. Hindle's doctoral thesis, written almost four decades after the work of Stenton, is concerned with the reconstruction of the road network of medieval England and Wales, and in particular its extent and geographical distribution.(8) Apart from using a theoretical approach based on borough population figures, Hindle relies on cartographic evidence including that of the Gough Map, and follows the advice of Stenton by carrying out an analysis of the published itineraries of King John, Edward I and Edward II. He constructs maps of their movements and concludes that if certain routes were used frequently then some reasonable track or road must have existed between the places visited, because the Kings took their households with them, and this required up to twenty carts and waggons.(9) He condenses these maps into one which shows all the routes travelled four times or more by more than one of the three Kings to produce a minimum aggregate route network, from which it is clear that the majority of their journeys were in central and southern England.(10) A criticism of this minimum aggregate network is that it is very subjective, and a comparison of all the routes travelled four or more times by all three Kings reveals a much broader route network. A further criticism is that the period of time covered by the three royal itineraries scrutinised by Hindle is not a continuous one. The period commences in 1199 with the accession of King John, and ends in 1327 with the demise of Edward II. However, almost half of this period is occupied by the fiftysix year reign of Henry III, who ascended to the throne in 1216 and died in 1272. Although Hindle analyses Henry's journeys in terms of the number of moves per month,(11) and records his journeys in Cheshire as part of a local study,(12) he does not plot his complete itinerary in map form as he had for the other three Kings. He acknowledges the influence of the Roman road system on various medieval routes and notes that many of the individual royal itineraries follow the line of Roman roads. However, his minimum aggregate route network shows that the only major lengths of Roman road in common with these extensively used routes were: Dover - London- Towcester; Doncaster - York; Northallerton - Newcastle; and Salisbury - Winchester.(13) Apart from his survey of the Roman road system, he goes on to evaluate ecclesiastical itineraries, travels to Parliament, and the evidence of place-names. He then uses a gravity model based on the borough population data of 1086 and 1348 to estimate traffic flow between pairs of boroughs. He uses this method not to prove the direct existence of roads but to give some idea of where the most likely routes should have been.

> "It must be stressed again that this method can only be used to supplement our knowledge of the actual roads rather than to supplant it." (14)

He produces maps showing the road networks of medieval England and Wales for both 1086 and 1348, and goes on to carry out two local studies of the counties of Cheshire and Carlisle.(15) The merit of Hindle's work is that it is the first to carry out a geographical study of the attempted reconstruction of the medieval road network that must have existed.

Hindle also includes in his thesis a comprehensive review of previous work relating to medieval roads and other aspects of medieval transport, including some references to water transport.(16) He cites, amongst many others, the valuable collection of references to legal cases brought before the King and translated and assembled by C.T. Flower under the title 'Public Works in Medieval Law'.(17) These two volumes represent an extremely useful source and provide an insight into many aspects of medieval transport. Nearly all the 'public works' fall under one of the following headings: roads, causeys and bridges, used for travel and transport by land, rivers, partly for travel but more extensively for transport by water, dykes, partly for travel and transport, but more extensively for drainage, and sewers, which were essentially constructed for drainage.(18) Unfortunately, the bulk of the material deals with six counties only - Essex, Gloucestershire, Lincolnshire, Middlesex, Surrey and Yorkshire. Flower puts this down to two possible reasons, the first being the peripatetic nature of the Court of King's Bench at this time.(19) It sat usually at Westminster, but was for long periods at York, Lincoln and Gloucester; the large number of entries for the other three counties due to its headquarters at Westminster. His second explanation is that processes of this nature would be most familiar in those counties where important waterways existed.

> "It would be in those parts of England where commissions of sewers most frequently ran that appeals to the Crown for a remedy to local negligence would be most likely to be found." (20)

He stresses the waterways as a means of communication.

> "There was in the Middle Ages little provision for communication by road where water transit was available, and rivers played a far more important and useful part in this direction than they do now." (21)

> "...rivers...are both highways of communication and integral parts of the drainage system of the country. But...it is chiefly in the former capacity that their use was recognised in the Middle Ages." (22)

Another study which touches on inland transportation as a whole is that by J.F. Willard.[23] Although his study is confined to the fourteenth century he cites a number of examples of the transportation of goods by both land and water. He notes that examples of water transport are rare:

> "notices of the employment of boats for local journeys would seldom find their way into the records of the time." (24)

However, from the evidence which he does scrutinise, he concludes that although;

> "The cart was ubiquitous. When, however, rivers and large streams were near, the boat disputed and probably overthrew the supremacy of its rival". (25)

He goes on to say that

> "Wagons, which were four-wheeled vehicles, and pack-horses supplemented, rather than competed with, the work done by the cart and boat". (26)

Although he does not mention the road network he does outline the navigability of certain rivers.

> "There were, so it was stated in the fourteenth century, four great rivers, the Thames, the Severn, the Ouse, and the Trent. Each of these had from ancient times been "open for the passage of ships and boats for the common profit of the people". ....In addition to the four great rivers named, there were many of lesser fame that played an important part in the transportation of goods." (27)

He goes on to cite examples of navigation on various rivers, including those of Yorkshire and Lincolnshire, and concludes that there was a

> "large amount of movement along the roads and streams, and with it, the lack of isolation of medieval towns and villages. " (28)

Another article which deals with medieval river navigation, and the rivers of Lincolnshire in particular, is that by M.W. Barley. (29) He points to the paucity of evidence relating to use of the rivers,

> "That Lincolnshire rivers were used for commercial purposes may be concluded from known arrangements for collecting tolls in various places, but evidence with which to implement that conclusion is disappointingly scarce". (30)

He briefly outlines the roads, bridges and ferries, and goes on to discuss the problems associated with keeping the rivers free from obstructions, both for navigation and drainage.(31) He notes that the Trent was navigable to Torksey, and possibly Nottingham, the Witham to Lincoln, the Yorkshire Ouse to Boroughbridge, and the Ancholme to Bishopbridge. He also notes that the Foss Dyke, originally constructed by the Romans to link the Witham at Lincoln with the Trent at Torksey was reopened in 1121 though there were problems with obstructions in 1335, 1365, 1376 and 1384.(32) Unfortunately, there are a number of mistakes in Barley's article, It was King Edward II who was on the throne in 1319, not Edward III(33); and Wansford is on the River Nene, not the Welland.(34) On the sketch-map which accompanies his article Barley shows Bawtry as being on the River Torne instead of the Idle, and he shows the Dutch River, which is an artificial cut made in the seventeenth century, as being in existence during the Middle Ages.(35) However, these mistakes apart, his article does indicate that the rivers of central eastern England did present an alternative to transportation by road.

Further examples of inland navigation together with an associated coasting trade are given by J.B. Blake.(36) He shows that coal was shipped along the waters of the Tyne and Tees,(37) and that coastal voyages carrying this same commodity were made from the ports of the north-east to such places as Dundee, Berwick, Sandwich, Great Yarmouth, Southampton, King's Lynn and London.(38) Blake also mentions a problem common to the research on inland trade; the paucity of recorded movements.

> "Unfortunately it is not possible to estimate accurately the value or volume of the considerable coastal trade in coal ... because, unlike foreign-going vessels, no customs payments were required for a voyage to another English port, and consequently no accounts were rendered at the Exchequer." (39)

H.C. Darby, in The Medieval Fenland,(40) deals with the navigability of the Fenland rivers.(41) He notes that

> "Upon the larger of these waterways sailed the merchant craft of medieval times, with produce from many countries." (42)

Darby also notes the situation of certain towns in relation to the Fenland rivers; Lincoln with the estuary town of Boston on the Witham, Stamford with the estuary town of Spalding on the Welland, Peterborough with the estuary town of Wisbech on the Nene, St. Ives and Cambridge with the estuary town of King's Lynn on the Great Ouse and Cam.(43) Darby goes on to discuss the "complicated physical history" of the Fenland rivers,(44) and shows that they were often used for personal transport as well as for the conveyance of a variety of commodities. He notes especially that the Fenland rivers were used for the transport of building stone and that the wide distribution of stone from the Barnack quarries (near Stamford), "serves as an index of the waterway traffic of the Fenland".(45)

Some useful data pertaining to medieval road and water transport were gathered by J.E.T. Rogers in his mammoth work relating to agriculture and prices in England between the years 1259 and 1400.(46) Although primarily concerned with produce and transport costs, he relates examples of both land and water carriage. He notes that

> "Whenever there was opportunity for water-carriage, produce was freely, and ... cheaply transported." (47)

He concludes that

> "while there were far greater facilities for land-carriage than has been ordinarily supposed, and that therefore the transmission of corn and other commodities to market was easy and obvious, there were still larger facilities for those who, living on or near the banks of navigable rivers, might seek a better market than their immediate neighbourhood".(48)

A prime source relating to the national route network of medieval England, and probably the earliest known English road-book, survives in the form of a manuscript which once belonged to the Premonstratensian Abbey of Titchfield in Hampshire. The manuscript, which dates from the first decade of the fifteenth century, contains thirty itineraries from Titchfield which cover a fair proportion of the country.(49) Its importance appears to have been previously overlooked, and although Hindle includes it in his Bibliography, he does not discuss its merits in his text.

During the fifteen years since Hindle's review of the literature relating to medieval transport, the publication of research material relating directly to the topic has been very limited. G.H. Martin, in his article 'Road Travel in the Middle Ages' (1975-6), relates the details of a group of seven accounts held at Oxford University, which date from the fourteenth and fifteenth centuries.(50) The primary objective of these records was to give an account of the expenses incurred by the Warden and Fellows of Merton College during their travels to and from Oxford. Places where meals were purchased en-route are given in many instances and this results in a fairly comprehensive record of the routes taken. The journeys involve visits to London, the north-east of England, and Canterbury. The journeys were undertaken on horseback and occasionally use was made of the navigable River Thames.(51) Martin concludes that

> "although travel by road in the Middle Ages was comparatively slow, it could be systematic and regular, and it was undertaken as a matter of course." (52)

In 1977, S. Uhler presented a well-documented account of the transportation of produce in Lincolnshire, Yorkshire, Hampshire, and Norfolk during the fourteenth century, as revealed by the Sheriffs' Accounts.(53) She notes that the conveyance of goods in all four counties showed a similar pattern and that

> "Carriage involved the utilisation of rivers and roads at hand, with heavy reliance upon the former."(54)

For example, the evidence for Yorkshire shows that in 1298, 1301 and 1309 grain, corn, oats, malt, flour, barley and peas were shipped to Scotland from Hull, Selby and Yarm. The produce completed the first leg of the journey by cart from a small inland centre to a larger one, from where the journey continued to the leading collection centres in the county, which were closely linked by river with the customs ports. The River Ouse was used time and again to take produce to Hull, and both the Don and Idle were utilised to take produce to Hull from Doncaster and Bawtry.

> "In all cases, small boats conveyed the victuals to Hull where transport was continued to Scotland".(55)

The rivers of Lincolnshire were well utilised, the Witham between Lincoln and Boston together with the Welland and the Glen.(56) Uhler notes that there was a lack of use of the River Trent, but that this is due to the nature of the evidence. In Norfolk use was made of the Yare, Waveney, Nar and Wissey,(57) whilst in Hampshire the evidence indicates utilisation of the Itchen, Test and Avon.(58) Uhler concludes that the evidence

> "highlights the importance of the cart in providing carriage to the commercial and administrative centres of the counties and the supremacy of the boat in conveying goods to the leading entrepots of the time - the customs ports".(59)

B. Waites in his article 'The Medieval Ports and Trade of North-East Yorkshire',(60) which was written in 1977, gives examples of navigation on the River Tees,(61) the Hull,(62) the Nidd and Yorkshire Ouse.(63) He outlines foreign and coastal trade and notes the origins of merchants trading with Whitby and Scarborough.

> "Although there were merchants from Chester and Wales engaged in trade with Scarborough and Whitby, the greatest proportion of English merchants came from the east and south-east coast ... three areas were predominant; the East Anglian coast, especially around the Orwell estuary; the north and east coast of Kent: and the Humber-Ouse district. The latter is most surprising since Pontefract, Snaith, Bawtry and York are so far inland. But river navigation was an extremely important means of transport in medieval times."(64)

S. Moorhouse, writing on 'The rural medieval landscape' in West Yorkshire : an Archaeological Survey to AD 1500 (1981) devotes two chapters to communications and their associated features.(65) He uses local charter evidence in an attempt to reconstruct the former road network, and mentions the commercial value of the roads, particular mention being made of salt which was brought from Cheshire and Lancashire along a series of well-defined routes over the Pennines, prior to its distribution throughout the county.(66) Apart from secular and commercial influences on medieval routes he notes that monastic influences were an important factor.

> "Frequent and rapid access was required between the mother house and its numerous local and more distant possessions and farm complexes."(67)

He relates the development of the medieval road system to a variety of influences, the most important being, access to the various components of the farming landscape, and, the numerous obligations imposed on the tenant by the manorial system - which often required frequent travel many miles beyond the township.(68) He goes on to stress the importance of the evidence of place-names and discusses bridges, fords, ferries, stiles, gates, hospitals, hermitages and chapels as features which can be used to establish lines of travel. A most surprising omission in such detailed chapters is the lack of reference to any form of river navigation system.

Conclusions

Although the studies of F.M. Stenton and B.P. Hindle, in particular, have given us a fairly comprehensive reconstruction of the national medieval road network, it is clear that more needs to be done in order to come still closer to the actual network of roads which must have existed during medieval times. Furthermore, it is evident that there is no available national representation of the extent of inland navigable waterways existing during the medieval period, and the links they must have had with the road network and with the coastal shipping trade.

This thesis is therefore concerned with expanding our knowledge of the road network, but its principal aim is to determine the extent of the navigable waterways, in order to describe and analyse the whole transportation system in medieval England and Wales.

Notes and References

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(2)	E.J.S. PARSONS,	*The Map of Great Britain, c A.D. 1360, known as the Gough Map,* Memoir with amended reprint of part of paper by F.M. Stenton (1936) and a colour facsimile (Oxford, Bodleian Library, 1958).
(3)	F.M. STENTON (op. cit.)	5
(4)	ibid,	6
(5)	ibid,	19
(6)	ibid,	20
(7)	ibid,	15
(8)	B.P. HINDLE,	'A Geographical Synthesis of the Road Network of Medieval England and Wales', *Unpublished Ph.D. Thesis, University of Salford* (1973).
(9)	ibid,	70
(10)	ibid,	91
(11)	ibid,	74
(12)	ibid,	166
(13)	ibid,	144
(14)	ibid,	123
(15)	ibid,	160-184
(16)	ibid,	9-23, and 214-24

(17) C.T. FLOWER, 'Public Works in Medieval Law' Seldon Soc., 32 and 40 (1915 and 1923)

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(19) ibid, i, xxix

(20) ibid

(21) ibid, xxvi

(22) ibid

(23) J.F. WILLARD, 'Inland Transportation in England during the Fourteenth Century' Speculum, 1 (1926) 361-74.

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(35) ibid, 22

(36) J.B. BLAKE, 'The Medieval Coal Trade of North-East England: Some Fourteenth Century Evidence' *Northern History*, vol.II (1967), 1-26.

(37) Ibid, 10

(38) ibid, 4, and 10-11

(39) ibid, 9

(40) H.C. DARBY, *The Medieval Fenland* (Cambridge, 1940).

(41) ibid, 93-106

(42) ibid, 94

(43) ibid

(44) ibid

(45) ibid, 106

(46) J.E.T. ROGERS, *A History of Agriculture and Prices in England*
Vol.I, (Oxford, 1866)

Vol.II, (Oxford, 1866)

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(51) ibid, 166

(52) ibid, 172

(53) S. UHLER, 'The Transportation of Produce in Lincolnshire, Yorkshire, Hampshire and Norfolk during the Fourteenth Century, as revealed by the Sheriff's Accounts', *unpublished B.Phil. Dissertation, University of St. Andrews* (1977).

(54) ibid, 44

(55) ibid, 45

(56) ibid, 5

(57) ibid, 40-3

(58) ibid, 34

(59) ibid, 46

(60) B. WAITES, 'The Medieval Ports and Trade of North-East Yorkshire', *Mariners Mirror*, Vol. LXIII (1977) 137-149.

(61) ibid, 139

(62) ibid, 140

(63) ibid, 147

(64) ibid

(65) S. MOORHOUSE, 'Communications', and 'Features associated with Communications', being chapters 23 and 24 of M.L. FAULL and S. MOORHOUSE (eds.), *West Yorkshire: an Archaeological Survey to A.D.1500* (Wakefield, 1981) 614-55.

(66) ibid, 620

(67) ibid, 621

(68) ibid, 633

PART TWO

THE MEDIEVAL ROAD NETWORK

"The road-system of medieval England provided alternative routes between many pairs of distant towns, united port and inland market, permitted regular if not always easy communication between the villages of a shire and the county town which was its head, and brought every part of the country within a fortnight's ride of London".

Sir Frank Stenton,
Economic History Review, 1936.

INTRODUCTION

The object of Part Two of this thesis is to outline and expand the postulated framework of the national medieval road network established by the various writers mentioned in Part One; in particular Stenton,(1) and Hindle,(2) and to attempt to clarify certain aspects relating to it.

The main source of evidence used by Stenton was the Gough Map, the importance of which was also recognised by Hindle, who also evaluated other types of evidence - in particular the interpretation of various royal itineraries together with a theoretical approach based on borough population figures.

The Gough Map, other extant cartographic evidence, and the evidence of royal itineraries is also discussed in this section of the current work. This evidence is then expanded by a critical examination of various itineraries which have not previously been discussed in any great detail. This was in order to establish additional lines of travel, and to confirm the contemporary use of some of the postulated routes. The routes and stage distances as set down upon the Gough Map are then compared against this other evidence and an attempt is made to clarify the vexed question relating to the significance of the medieval unit of distance. Some further evidence, including direct documentary evidence, is then examined in order to provide additional route data and to substantiate previously discussed lines of travel.

Finally, all the evidence is brought together to produce the basic framework of a national medieval road network which is used as a means of establishing the most likely routes taken for the overland movement of goods and produce where only the starting point and destination are recorded in the documentary evidence.

Notes and References

(1) F.M. STENTON, 'The Road System of Medieval England' *Economic History Review,* Vol.VII, No. 1 (1936) 1-21

(2) B.P. HINDLE, 'A Geographical Synthesis of the Road Network of Medieval England and Wales', *Unpublished Ph.D. Thesis, University of Salford* (1973).

CHAPTER THREE CARTOGRAPHIC EVIDENCE

The Gough Map(1)

The Gough Map, named after antiquarian Richard Gough who first noticed its existence in 1780, is an anonymous map of Britain believed to have been drawn c1360 (Figure 3:1). The map is drawn to a scale of approximately 1:1,000,000, and, although its overall depiction of the shape of the island is outstanding when compared with its contemporaries, certain geographical features are either exaggerated or missing altogether. The promontories at Aberdeen and Caithness are missing, as are the Wirral and Lleyn peninsulas. The omission of the latter, together with a rather reduced representation of the Pembroke peninsula results in the loss of Cardigan Bay. A facsimile of the Gough Map has been described in some detail by E.J.S. Parsons.(2)

The content of the map is remarkable and includes, apart from physical features:- placenames, apparent lines of travel - together with associated distances, rivers, castles, and settlement vignettes which appear, at first sight, to indicate status.

Hence, being the only such map extant from the medieval period, its importance cannot be over emphasised.

The apparent lines of travel (the roads) shown on the Gough Map, have been classified by Parsons into main, secondary and local roads.(3) This classification is given below in Table 3:1. The omission by Parsons of the road between Reading and Oxford, observed by Hindle,(4) appears in Table 3:1 as M2a.

The complete amended classification is mapped in Figure 3:2.

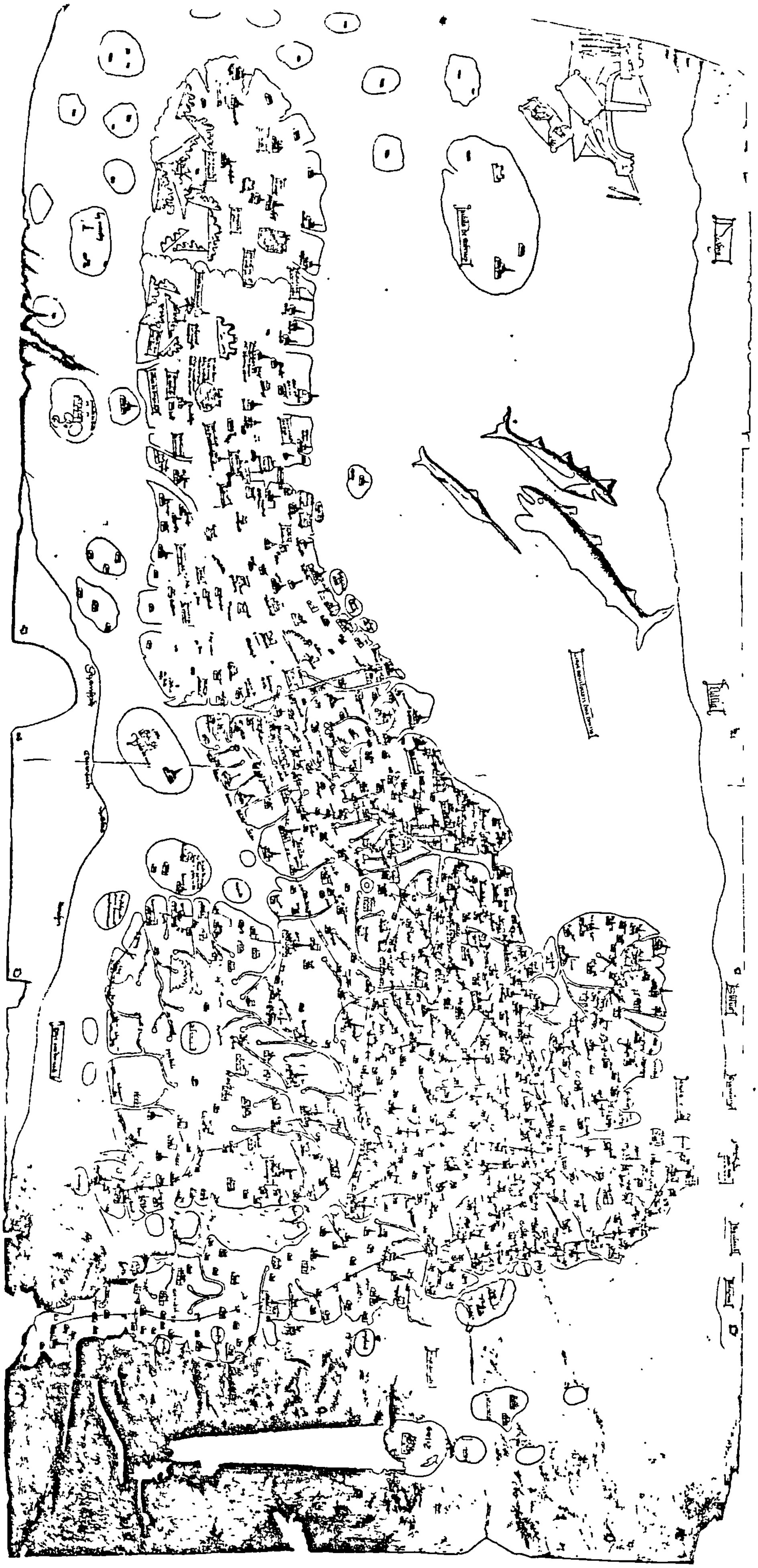


FIGURE 3:1 ANONYMOUS MAP OF GREAT BRITAIN KNOWN AS THE GOUGH MAP

Table 3:1 Gough Map: Roads and Distances

MAIN ROADS AND BRANCHES

M1 London X Kingston V Cobham XV Guildford IX Farnham VII Alton VII Alresford VII Winchester XX Salisbury XVIII Shaftesbury XII Sherborne XX Crewkerne XII Chard XI Honiton XII Exeter XX Okehampton XVI (Launceston) XX...Camelford XV Bodmin... St. Columb X...V St Ives

M2 London...Brentford XVII Colnbrook VII Maidenhead X Reading XV Newbury VII Hungerford VIII Marlborough XXX Chippenham XX Bristol

M2a Reading XX Oxford.

M3 London XV Uxbridge XII High Wycombe X Tetsworth X Oxford X Witney VII Burford VIII Northleach XV Gloucester VII Newent XVII Hereford XII Clyro X Brecon X Llywel XVIII Llangadock... Llandeilo X Carmarthen... St. Clears XI Llawhaden VIII Haverfordwest VII St. David's.

M3a Oxford XII Farringdon XX Malmesbury XX Bristol.

M3b Oxford V Abingdon.

M4 London X Barnet X St. Albans X Dunstable VIII Stratford... Buckingham VI Towcester XII Daventry XVI Coventry VIII Coleshill XII Lichfield... Stone VI Newcastle-under-Lyme XXIII Warrington VIII Wigan XII Preston XX Lancaster XVI Kendal XX Shap... Penrith XVI Carlisle.

M4a Stratford V Northampton XII Market Harborough XII Leicester.

M4b Stone... Stafford.

M5 London XII Waltham Abbey VIII Ware XIII Royston IX Caxton VIII Huntingdon XIIII Ogerston V Wansford V Stamford XVI Grantham X Newark X Tuxford X Blyth VIII Doncaster X Pontefract XX Wetherby VIII Boroughbridge XIIII Leeming X Gilling X Bowes XIII Brough XI Appleby X Penrith XVI Carlisle.

M5a Ware XII Barkway XII Cambridge X Newmarket X Bury St. Edmunds X Thetford XXXII Norwich.

M5b Doncaster XIII Wakefield...Bradford...Skipton X Settle XII Kirkby Lonsdale VIII Kendal.

M5c Kirkby Lonsdale.....Shap

SECONDARY ROADS AND BRANCHES

S1 Southampton...Havant XXII Chichester X Arundel X Bramber X Lewes XVIII Boreham Street...Battle VII Winchelsea VIII Rye... Appledore XVII Canterbury.

S2 Cardigan XXIIII Aberystwyth XII Aberdovey XII Barmouth XI Llanenddwyn...Harlech XII Criccieth XXIIII Caernarvon VIII Bangor XV (Capel Curig) VIII Conway...Abergele IIII Rhuddlan X Flint X Chester.

S3 Bristol XV Newport XV Gloucester VIII Tewkesbury XIII Worcester X Droitwich XIIII Solihull VIII Coventry XVI Leicester X Melton Mowbray X Grantham.

S3a Droitwich X Birmingham X Lichfield XVI Derby XV Chesterfield XVI Doncaster

S3b Worcester XII Kidderminster XII Bridgnorth XV Shrewsbury XII Ellesmere VII Overton XII Chester X Liverpool.

S4 Bristol X (V?)...

S5 Bristol XIII Axbridge

S6 Richmond X Bolton X Hawes X Sedbergh X Kirkby Lonsdale

S7 Bridport X Lyme.

LOCAL ROADS - LINCOLNSHIRE

L1 Lincoln XIIII Sleaford

L2 Lincoln XXVI Boston

L3 Lincoln X Spital-in-the-Street X Kirton...Brig VIII Barton

L4 Barton XII Caistor XVI Horncastle V Bolingbroke IX Boston

L5 Boston XII Spalding

L6 Boston XII Wainfleet.

LOCAL ROADS - YORKSHIRE

Y1 Leeming XII Helperby X York

Y2 York XIIII Malton V Pickering

Y3 York X Pocklington VII Market Weighton

Y4 York XVI Market Weighton VIII Beverley

Y5 York XVI Howden

Y6 Beverley XVI Bridlington XII Scarborough XII Whitby XVII Guisborough.

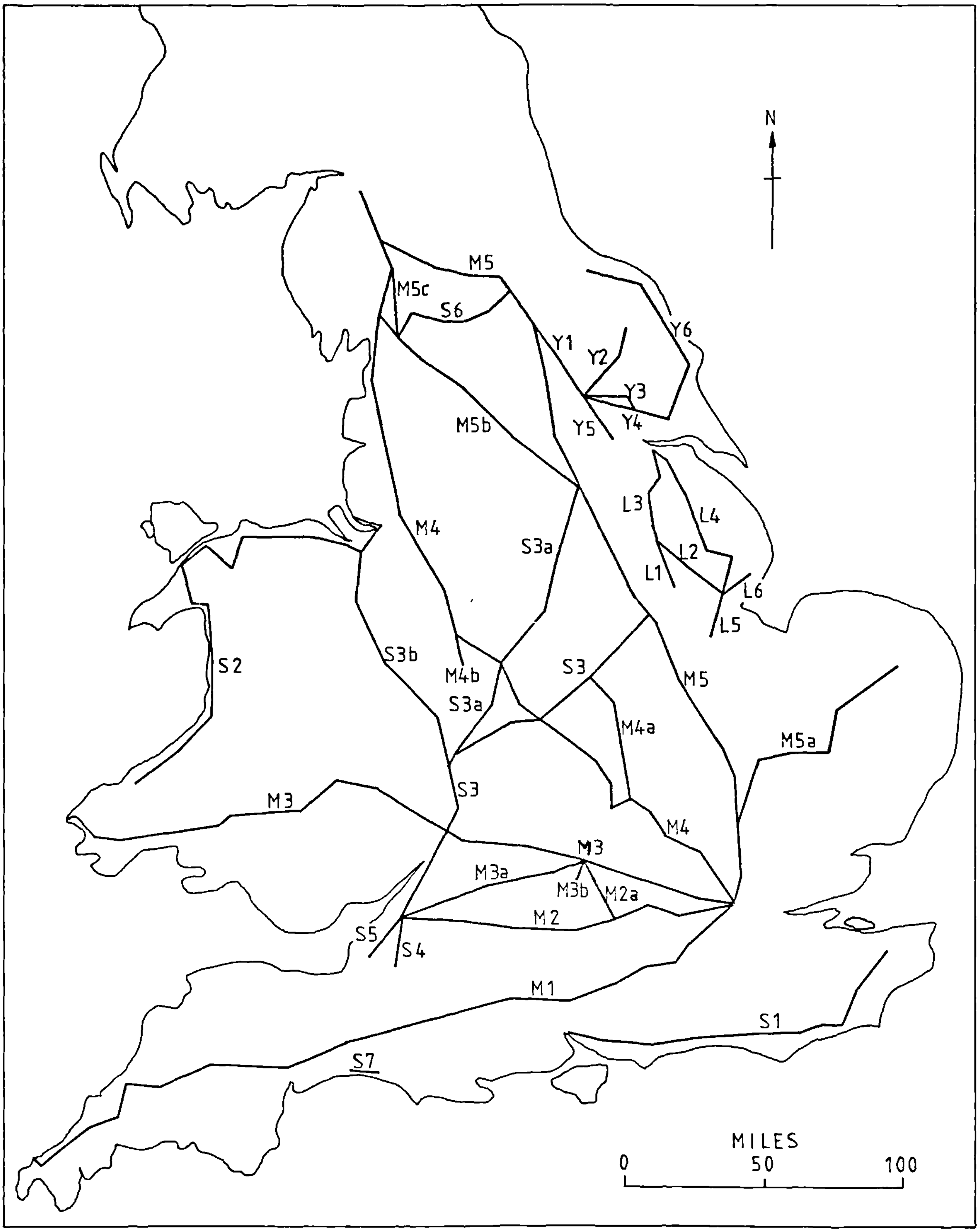

N
M5
M5c
S6
Y1
Y2
Y6
Y3
Y4
Y5
M5b
L3
L4
M4
S3a
L2
L1
L6
L5
S2
S3b
M4b
S3
M5
S3a
M4a
M5a
S3
M3
M4
M3
M3a
M3b
M2a
M2
S5
S4
M1
S1
S7
MILES
0
50
100

FIGURE 3:2 THE ROADS OF THE GOUGH MAP

The five main roads given in the above classification all radiate from London. The first, which terminates at St. Ives, goes via Guildford, Winchester, Shaftesbury, and Exeter. The second main road goes from London to Bristol through Brentford, Reading and Marlborough. The third main road runs from London to St. David's by way of Uxbridge, Oxford Gloucester, Hereford, Brecon, Carmarthen and Haverfordwest. Beyond Brecon, a section of this road differs from its modern equivalent where it makes a short cut avoiding Llandovery. The fourth main road connects the capital with Carlisle. The initial section goes through St. Albans and Dunstable to Stony Stratford - where there is a branch to Leicester. Between Stony Stratford and Towcester the route is shown passing through Buckingham, instead of continuing directly along Watling Street to Towcester. The route continues through Coventry, Lichfield, Newcastle-under-Lyme, Warrington, Preston, Lancaster, and Penrith. The final main road is the Great North Road through Waltham Cross to Ware, at which point there is a branch to Norwich - via Cambridge, Newmarket and Thetford. From Ware, the main medieval route keeps to the west of the modern road to Wansford, from where it follows the modern line through Stamford, Grantham and Newark to Tuxford. It continues, again to the west of the modern line, and goes by way of Blyth to Doncaster. At Doncaster there is a branch road which cuts across the Pennines and goes through Wakefield, Skipton, and Settle to Kirkby Lonsdale where it divides further with routes to Kendal, Shap, and Richmond. Beyond Doncaster, the main road is shown passing through Pontefract, Wetherby, and Boroughbridge to Leeming Bar, from where it turns westwards across the hills to Penrith.

Of the secondary roads, the first is completely independent of London and is, for the most part, a coastal route connecting Southampton with Canterbury via Chichester, Lewes, Winchelsea and Appledore. Another coastal route is that which initially hugs the shore of Cardigan Bay and then skirts the North Welsh coast connecting Cardigan with Chester via Caernarvon. Chester is linked directly with Worcester, and hence Bristol, by a route which passes through Shrewsbury and then follows the course of the River Severn via Bridgnorth and Kidderminster.

There are two cross-country routes, both of which are linked to Worcester through Droitwich. One goes through Solihull, then cuts across the London-Carlisle road at Coventry before passing through Leicester and Melton Mowbray to join the Great North Road at Grantham. The other goes by way of Birmingham, then crosses the London-Carlisle road at Lichfield, and on through Derby and Chesterfield to join the Great North Road at Doncaster.

The local roads depicted in the vicinity of York and Lincoln appear to be rather isolated from the main network of roads shown in other areas of the map. However, there is other evidence, which will shortly be mentioned, to suggest that these localised areas were linked into the main road network in a more positive manner.

Sir Frank Stenton, in his account of the Gough Map roads, states:-

> "The series omits many important highways which were obviously familiar to the compiler of the map, for it seems clear that he only drew the line by which he represented a road when he knew or believed himself to know the distance from point to point along it. He does not, for example, venture to represent a road from London to Dover, from London to Ipswich or from York to Newcastle, but he sets down in their proper order Gravesend, Rochester, Sittingborne, Faversham, Canterbury and Dover in the first case; Brentford, Chelmsford, Witham, Colchester, Cattawade Bridge and Ipswich in the second; and Thirsk, Northallerton, Croft, Darlington, Durham, Chester-le-Street and Newcastle in the third." (5)

Stenton also infers two routes to the channel ports:- via Dorking, Horsham and Shoreham in the first instance; and via Chiddingfold, Petworth and Arundel in the second.(6) He goes on to say that

> "it is clear from other evidence"

that a route existed between Leicester and Doncaster, via Nottingham;(7) and between Stone and Chester, via Nantwich.(8) He also describes a medieval road between Shrewsbury and Hereford, via Ludlow.(9) Hindle shows inferred Gough Map roads between Grantham and Lincoln and between Towcester and Fenny Stratford.(10)

Because all the intervening towns on these inferred routes are correctly shown in relation to each other, the absence of a line and distance does not render a particular area of the map useless, and a traveller would have little difficulty in following these routes. Therefore, the aforementioned inferred routes have been added to the Gough Map roads shown in Figure 3:2, and the resultant layout is mapped in Figure 3:3.

The Maps of Matthew Paris

Although responsible for a number of medieval maps, this thirteenth century monk of St. Albans produced a series of four detailed maps of Britain c1250. These four maps, which have been discussed in some detail by J.B. Mitchell,(11) are itemised as follows:-

Map A : Cotton MS Claudius. D. VI

Map B : Corpus Christi College, Cambridge, MS. 16

Map C : Cotton MS. Claudius. D.VII

Map D : Royal MS. 14.C7

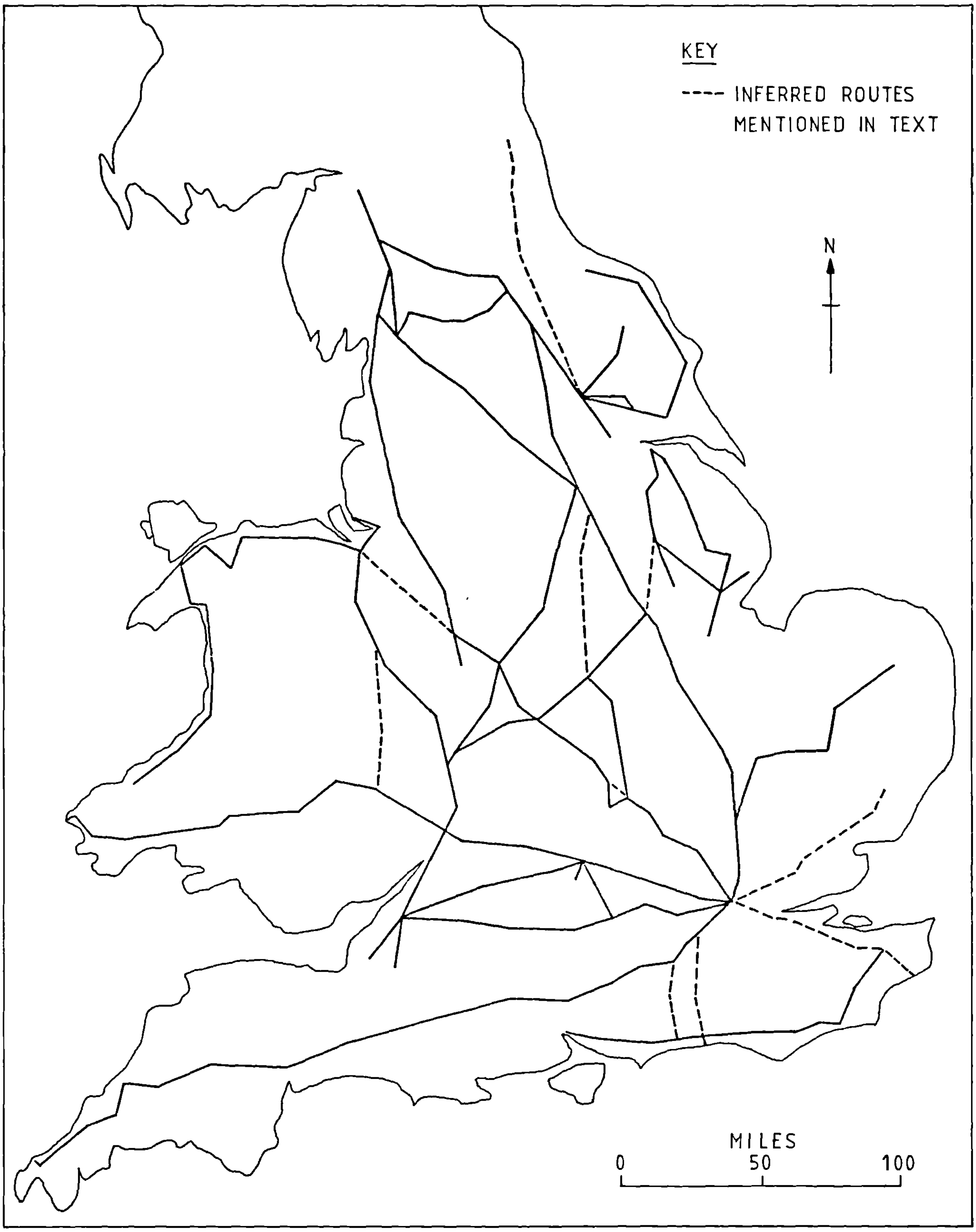

KEY
---- INFERRED ROUTES MENTIONED IN TEXT
N
MILES
0
50
100

FIGURE 3:3 THE ROADS OF THE GOUGH MAP PLUS THE INFERRED ROUTES

Two of these maps (A and B), appear to be constructed around an itinerary between Newcastle and Dover, whilst the other two, although both leading to Dover, commence in Berwick and Durham respectively.

The routes from all four maps are given below in Table 3:2.

Table 3:2 The Route Towns of the Matthew Paris Maps.(12)

	A	B	C	D
Berwick	-	-	Bere/wic	-
Bamburgh	-	-	Bamburc	-
Newcastle	Nouu Cast^{u}m	Nouū/Castrū	Noū Castr̄'	-
Durham	Dunelmū	Dunelmū	Dunelm̄	Dunelm̄
Northallerton	Alu'tona	Aluertona	Alu'ton	-
Boroughbridge	Pons Burgi	Pōs Burgi	Pōs Burgi	Monast̄ d'fōtib*
Pontefract	Pons f^{a}ct	Pōs fract	Pōs f^{a}ct	Pōs f^{a}ct
Doncaster	Denecast^{e}	Danecast^{e}	Danec/astre	Danecast^{e}
Blyth	Blie	Blie	Blie	Blie
Newark	Neuwerc	Neuwerc	Neuwerc	Neuwerc
Belvoir	Bealwar		Bealwair	Bealwer
Leicester	Legrecest'		Legrecestria	Stanford**
Northampton	Northamt'		Northamtona	Norhāton
Dunstable	Dunestap		Dunes/stapl'	Dunes/stapl̄
St. Albans	Cenobiū/ sel̄ Albani		Cuiutas S̄ Albi Cenob'	Seit Alban
London	Londōn		Lōdon	Londōn
Rochester	Rofa		Rofa	Rofa
Canterbury	Cantuar̄		Cantuar'	Cantuar̄
Dover	Dou'a		Cast^{u}m/... uer'	Dou'a

Footnotes

* Fountains Abbey. Boroughbridge is not shown

** 'Leicestr'is on a branch route.

Apart from slight deviations, the route between Newcastle and London follows the roads set down upon the Gough Map. Although the itinerary between Berwick and Newcastle only records one intermediate stage it does extend the inferred Gough Map route between York and Newcastle up to the Scottish border. Map A gives the clearest cartographic representation (Figure 3:4) and shows, as in all four maps, the itinerary depicted as a line of towns running down the centre of the country. Maps A, B, and C show the route as a string of boxed-in names; but Map D shows the towns connected by lines, this latter map also shows a branch route to Leicester with the main route proceeding via Stamford. The route is similar on all four maps (Figures 3:5 amd 3:6), with the exception of Map B - where only the northern part of the country is shown.

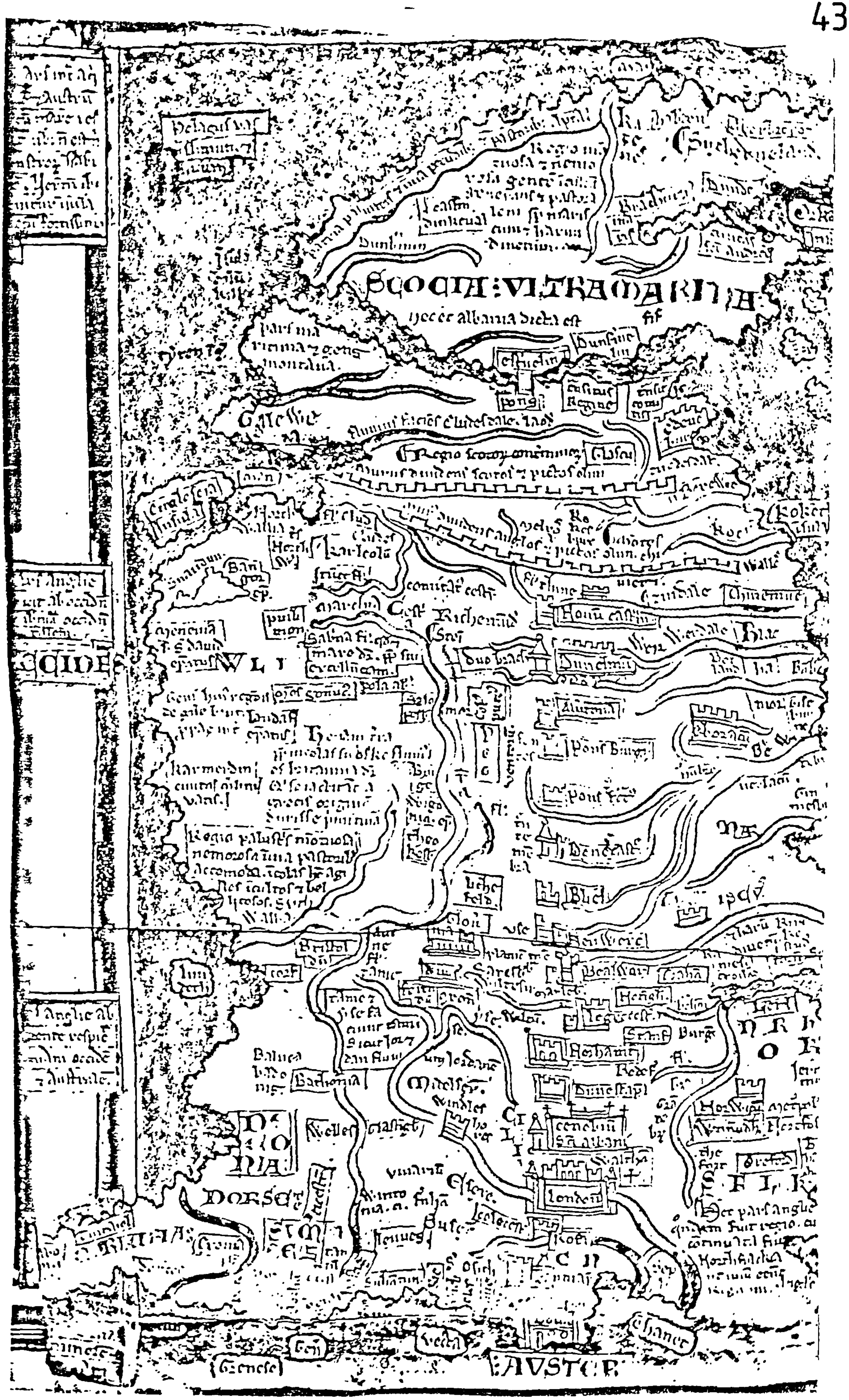

SCOCIA : ULTRAMARINA
hec et albania dicta est
DORSET
AUSTER

FIGURE 3:4 MATTHEW PARIS: MAP OF GREAT BRITAIN (version A)

MS ON VELLUM (c 1250) BRITISH MUSEUM

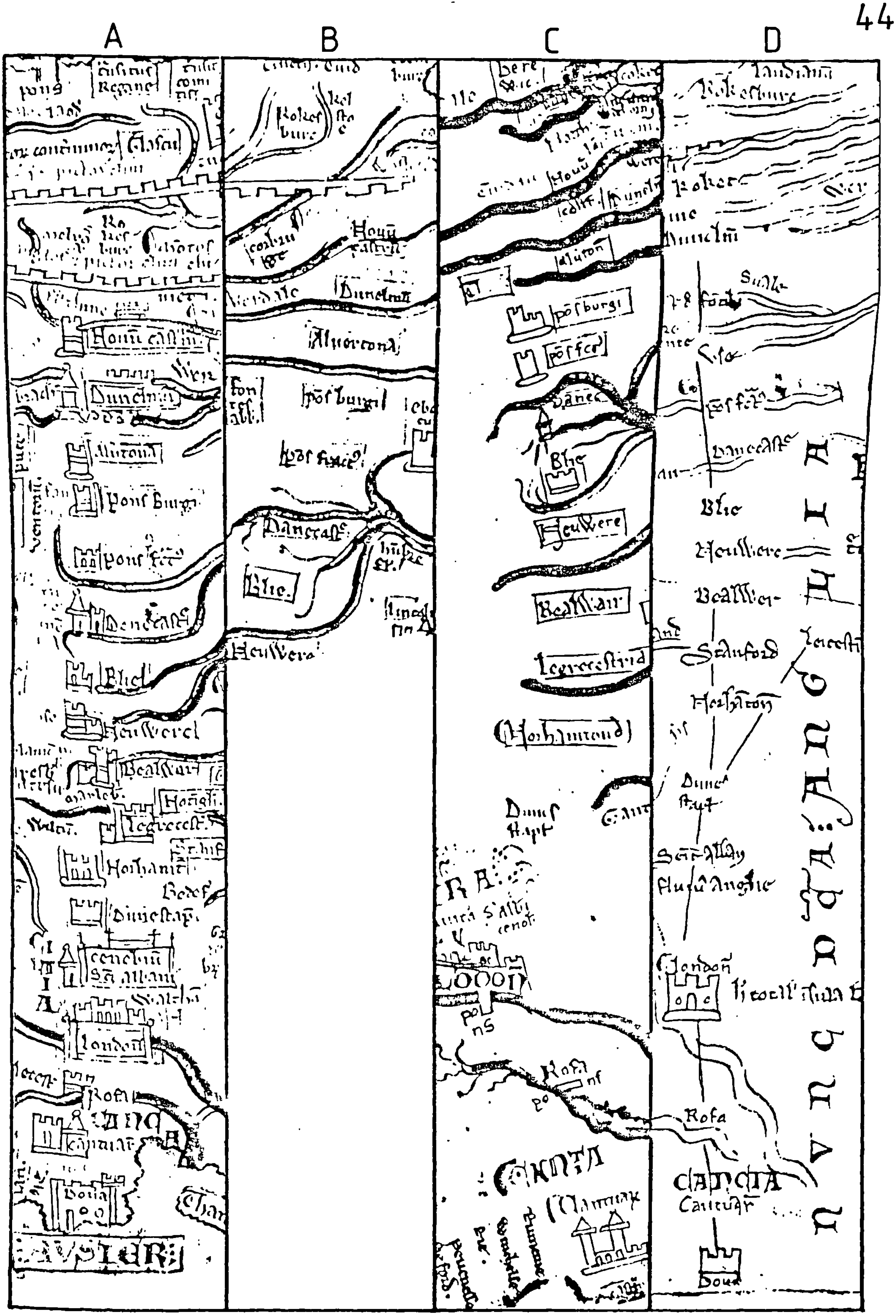


FIGURE 3:5 COMPARISON OF THE FOUR VERSIONS OF THE MATTHEW PARIS ROUTE

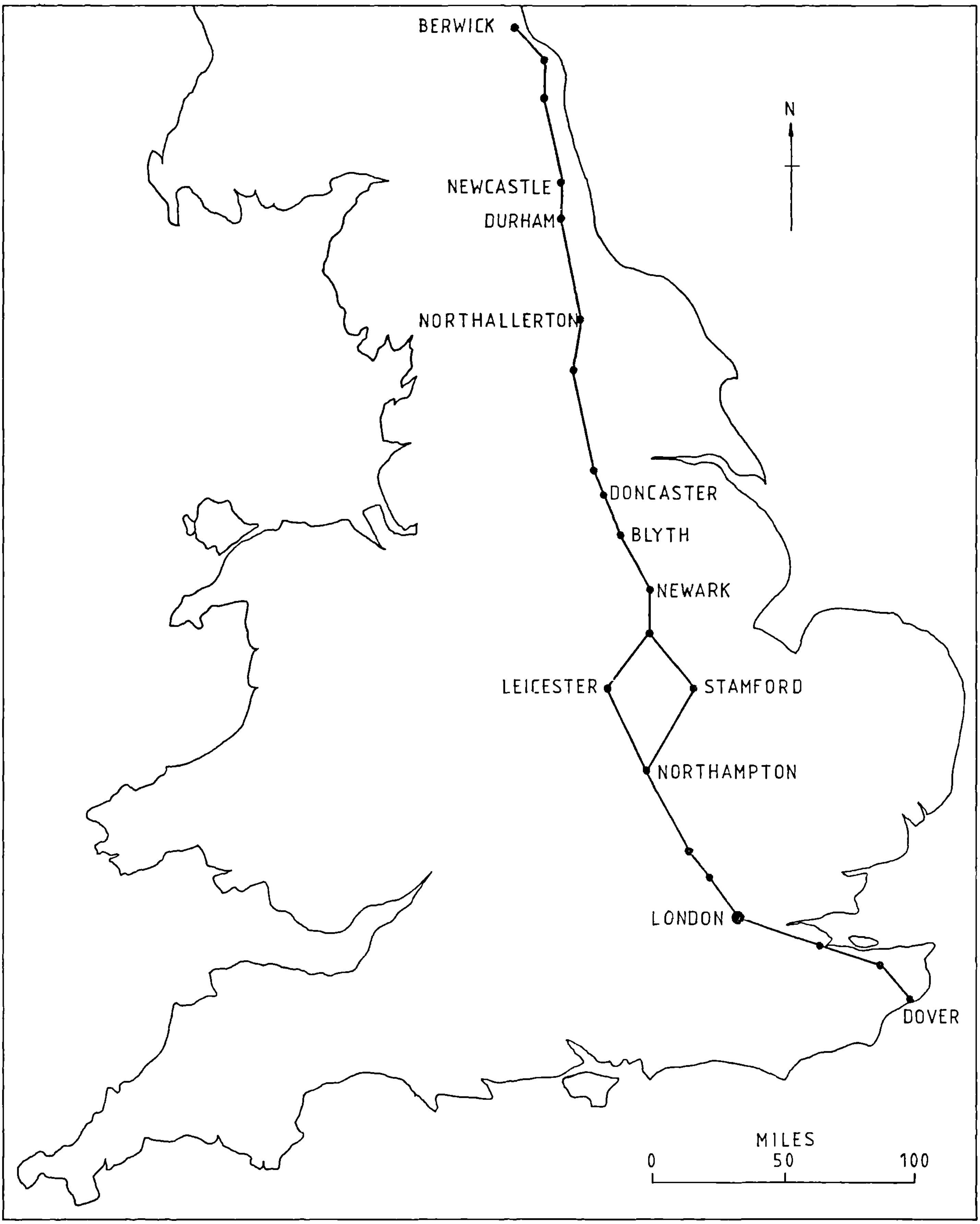

BERWICK
N
NEWCASTLE
DURHAM
NORTHALLERTON
DONCASTER
BLYTH
NEWARK
LEICESTER
STAMFORD
NORTHAMPTON
LONDON
DOVER
MILES
0
50
100

FIGURE 3:6 THE ROUTES OF MATTHEW PARIS

Notes and References

(1) R. GOUGH, British Topography, 2 vols (1780)

(2) E.J.S. PARSONS, The Map of Great Britain, c A.D. 1360, known as the Gough Map, 'Memoir with amended reprint of part of paper by F.M. Stenton (1936) and a colour facsimile (Oxford, Bodleian Library, 1958).

(3) ibid, 36

(4) B.P. HINDLE, 'The Towns and Roads of the Gough Map (c.1360)' Manchester Geographer. 1/1 (1980) 36.

(5) F.M. STENTON, 'The Road System of Medieval England' Economic History Review vol. VII, No. 1, (1936) 7-8.

(6) ibid, 8

(7) ibid, 9

(8) ibid, 10

(9) ibid, 5

(10) B.P. HINDLE, (op. cit.) 38

(11) J.B. MITCHELL, 'The Matthew Paris Maps' Geographical Journ. 81 (1933) 27-34.

(12) H. POOLE and J.P. GIBSON, Four Maps of Great Britain designed by Matthew Paris about A.D. 1250. (British Museum, 1928).

CHAPTER FOUR THE EVIDENCE OF ROYAL ITINERARIES

Although evidence relating to journeys at the local level can be gathered from many sources, systematic accounts of longer journeys - which cover a fair proportion of the country and as such are extremely important at the national level - are far less common. However, various itineraries relating to long journeys do survive from the medieval period, and these provide data from which it is possible to derive some common lines of travel.

Although itineraries do not prove the physical existence of roads, (or river routes), they do provide direct evidence of the movement of individuals, which is of great significance. These individuals obviously journeyed from place to place by some means or other and the options available to them would be:- to walk; to ride; to travel by carriage or cart, or to travel by boat - if navigable water was to hand.

Many ecclesiastical itineraries, generally relating to the travels of bishops and archbishops, survive from the medieval period, usually in the form of registers. A drawback of this type of record is that the bishops, visiting religious centres, tended to journey only within the confines of their diocese, with the result that their itineraries are rather limited when considering a national route network; also they are not detailed enough.

These problems do not apply to the movement of the royal household. Medieval Kings were very mobile and journeyed ceaselessly between manors, abbeys, castles and towns. Their itineraries, although not written down by contemporary writers, have been re-constructed using a number of different sources. Perhaps the most detailed of these is H. Gough's

Itinerary of King Edward the First, which is based on information from over thirty sources including the Wardrobe Accounts, Writs of Inquisitions Post Mortem, and various State Rolls.(1) B.P. Hindle used the published itineraries of King John, Edward I and Edward II to construct maps of their movements.(2) He concludes, quite logically, that if certain routes were used frequently, then some reasonable track or road must have existed between the places visited, because the Kings took their households with them, and this required up to twenty carts and waggons.(3) He condenses these maps into one which shows all the routes travelled four times or more by more than one of the three Kings to produce a minimum aggregate route network (Figure 4:1) from which it is clear that the majority of their journeys were in central and southern England.

As mentioned in Chapter Two, a criticism of this minimum aggregate network is that it is very subjective, and a comparison of all the routes travelled four or more times by John, Edward I and Edward II reveals a much broader network of routes (Figure 4:2). Many of these journeys were concerned with military and ecclesiastical business or were indicative of visits to royal hunting lodges. However, as Hindle suggests, the minimum aggregate network covers a network which would have been most useful to the movement of the three Kings and their court during their reigns, although there is no objective way of fixing the number of routes needed, or indeed the level at which the routes become important.(4)

A further criticism, also mentioned in Chapter Two, is that the three royal itineraries scrutinised by Hindle do not cover a continuous period of time. Hindle did not put into map form the movements of King Henry III during his fifty six year reign (1216 to 1271); he only analysed Henry's journeys in terms of the number of moves per month,(5)

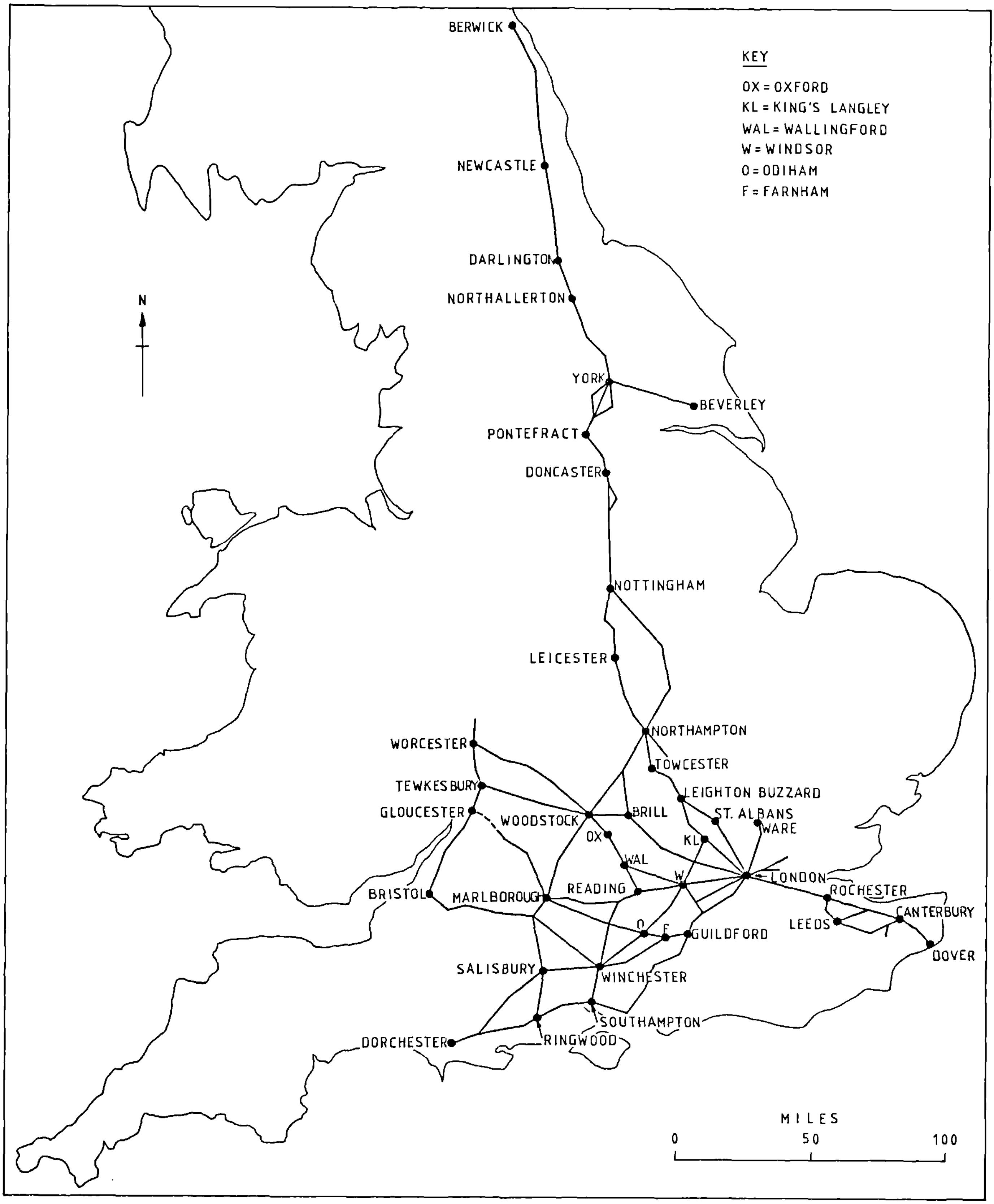

BERWICK
KEY
OX = OXFORD
KL = KING'S LANGLEY
WAL = WALLINGFORD
W = WINDSOR
O = ODIHAM
F = FARNHAM
NEWCASTLE
DARLINGTON
NORTHALLERTON
N
YORK
BEVERLEY
PONTEFRACT
DONCASTER
NOTTINGHAM
LEICESTER
NORTHAMPTON
WORCESTER
TOWCESTER
TEWKESBURY
LEIGHTON BUZZARD
GLOUCESTER
WOODSTOCK
BRILL
ST. ALBANS
WARE
OX
KL
WAL
W
LONDON
BRISTOL
MARLBOROUGH
READING
ROCHESTER
CANTERBURY
LEEDS
O
F
GUILDFORD
DOVER
SALISBURY
WINCHESTER
SOUTHAMPTON
RINGWOOD
DORCHESTER
MILES
0
50
100

FIGURE 4:1 MINIMUMUM AGGREGATE NETWORK BASED ON THE ROYAL ITINERARIES OF JOHN, EDWARD I AND EDWARD II

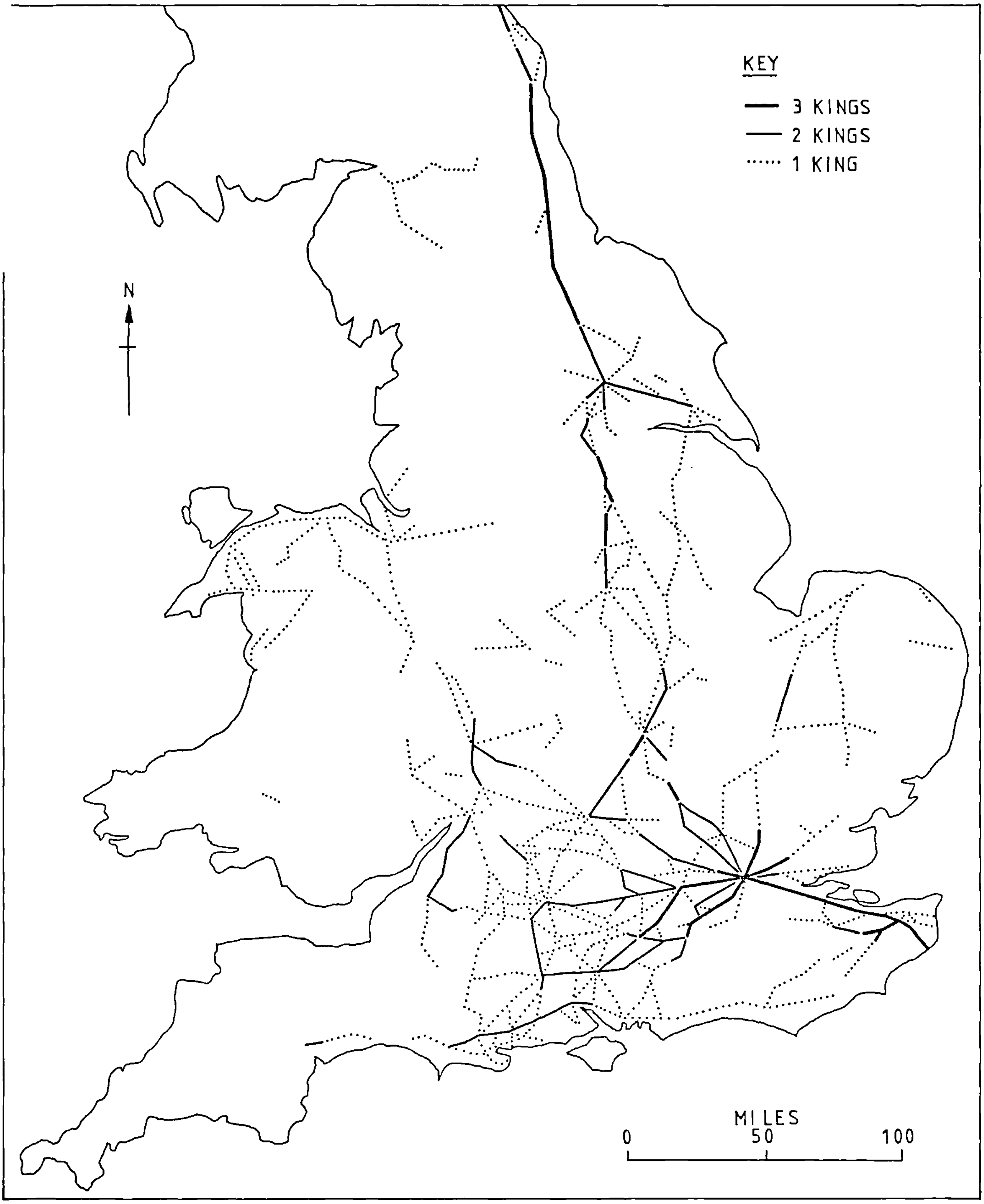

KEY
3 KINGS
2 KINGS
1 KING
N
MILES
0
50
100

FIGURE 4:2 COMPARISON OF THE ITINERARIES OF JOHN, EDWARD I AND EDWARD II : ROUTES TRAVELLED FOUR OR MORE TIMES

together with a cartographic description of some local journeys in the county of Cheshire(6).

Therefore, it was decided to carry out a plot of King Henry's movements to see if his routes were different in any way from the route network ascribed to the other three monarchs.

The Historical Setting

The son of King John and Isabel of Angoulême, Henry was born at Winchester in 1207 and succeeded to the crown in 1216 on the death of his father. At the time of his accession the Dauphin of France, Louis, at the head of a foreign army supported by a faction of English nobles, had assumed the reigns of government; but was compelled to quit the country by the Earl of Pembroke, who was guardian of the young King. On reaching his maturity Henry assumed responsibility for running the country and immediately began to bestow his chief favours upon foreigners. This made him unpopular, as did his marriage in 1236 to Eleanor of Provence. The Queen, not unnaturally, tended to favour members of her own family and this, coupled with Henry's reluctance to promote his English subjects, caused further discontent. The King received frequent grants of money from Parliament, on condition of confirming the Great Charter, yet his conduct after each ratification was as arbitrary as before. The barons having lost their foreign possessions, were English in outlook and although of Norman descent they disliked the introduction of foreigners into the chief positions of Church and State. Eventually, in 1258, the nobles rose in rebellion under Simon de Montfort, Earl of Leicester, and obliged the King to sign the body of resolutions known as the Provisions of Oxford.(7) Foreigners were to be removed; a council of bishops and nobles was set up to bring about reforms and to control the King; and all appointments were placed in the hands of this council. A feud arose, however, between Leicester and Gloucester, and Henry regained some of his power. War again broke out, and Louis was called in as arbitrator, but as his award was favourable to the King, Leicester refused to submit to it. A battle was fought near Lewes in 1264, in which Henry was taken prisoner. There followed a convention called the 'Mise of Lewes', which provided for the future settlement of the Kingdom and, in 1265, a Parliament consisting mostly of Knights and barons was summoned. Later the same year, Leicester was defeated and killed at the battle of Evesham and Henry was replaced upon the throne. He died in November, 1272, and was succeeded by his son, Edward I - who did not return to England until August 1274 after years of crusading and travelling. Evidently, the political situation had, by then, become much more stable.

The Itinerary of King Henry III

A typescript itinerary exists in the Public Record Office for the whole of King Henry's reign; commencing in October 1216, and continuing to his death in November, 1272.(8)

Hindle has already discussed the problems involved in interpreting this type of evidence.(9) There is the basic problem of locating some of the various placenames given in the itinerary. Many places contain the same name elements, and sometimes places of the same name are frequently not very far apart. Different forms of spelling can also cause confusion and the utmost care has to be exercised in order to assign many places correctly. The publications of the English Place-Name Society and old county maps were extremely useful aids in this direction. Although the itinerary becomes progressively fuller as King Henry's reign progresses, there are, as with most itineraries of this type, periods when gaps appear in the data. These gaps can sometimes be filled by studying previous and subsequent journeys along similar lines of travel, but there are occasions when it is impossible to say where the king may have been. Also, the itinerary does not necessarily give the places at which the King stayed overnight - only the fact that he was at a particular place at some time during the day, and, as the compiler of the itinerary does not list the sources used for its construction, it is impossible to be sure of the exact periods when his court moved with him. Furthermore, the itinerary gives no indication of the King's mode of transport, and hence it is impossible to ascertain to what extent use was made of navigable stretches of water. Difficulties also arise when attempting to determine the precise route taken between various places.

In spite of these problems it is possible to derive the King's general direction of movement by the simple method of connecting together by a straight line the places given in his itinerary in chronological order; and the resultant map produced by this method is given in Figure 4:3.

This figure reveals a number of areas of dense coverage. The large triangle between London, Salisbury and Worcester, the area to the south and west of Lincoln, East Anglia; and the area to the immediate south-east of London. The figure also reveals a number of gaps. The extreme south-west; vast areas of the north-west; and the Lincolnshire and Yorkshire coasts. Also, apart from some coverage along the western borders, and the coastal route between Chester and Deganwy, there appears to have been very little movement into Wales.

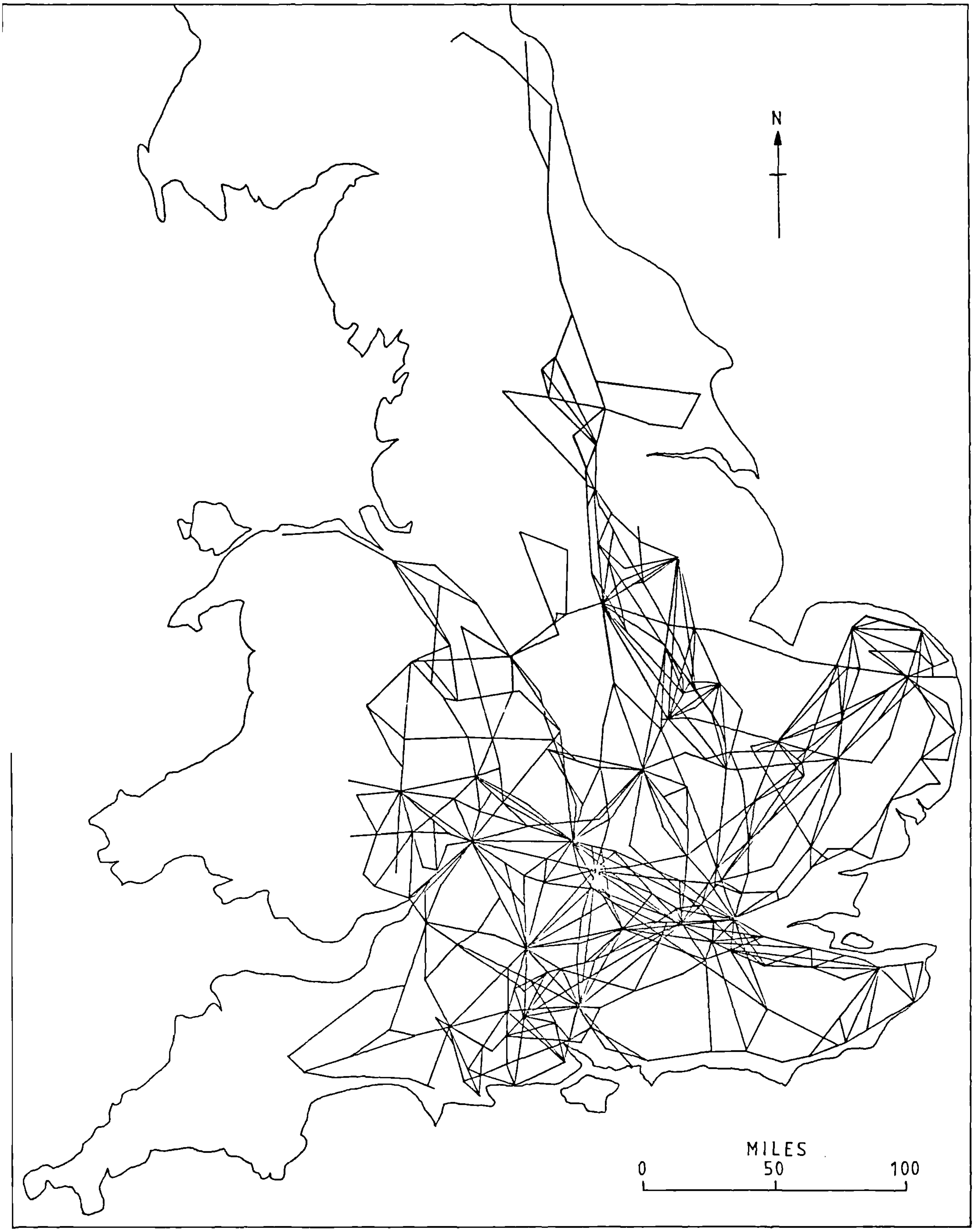

N
MILES
0
50
100

FIGURE 4:3 THE ITINERARY OF KING HENRY III

Henry travelled between London and Windsor no less than one hundred and eighty times, and one hundred and sixty four times on the route between Windsor and Reading. Table 4:1 reveals the number of routes travelled twenty or more times.

Table 4:1 Routes travelled by Henry III more than Twenty Times

No. of Journeys	Route
180	London - Windsor
164	Windsor - Reading
91	London - Merton
83	London - Kempton
82	Woodstock - Oxford
79	Reading - Oxford
70	London - Canterbury
68	Windsor - Kempton
64	London - Winchester
36	Reading - Marlborough
28	Canterbury - Dover
27	London - Reading
27	London - Oxford
25	Winchester - Marlborough
21	London - Havering
21	Winchester - Clarendon

Figure 4:4 depicts all the routes travelled three times or more, and this highlights a dense network of routes contained in the region between the triangle formed by London, Clarendon and Woodstock - which is reflected by the high number of journeys within this area shown in

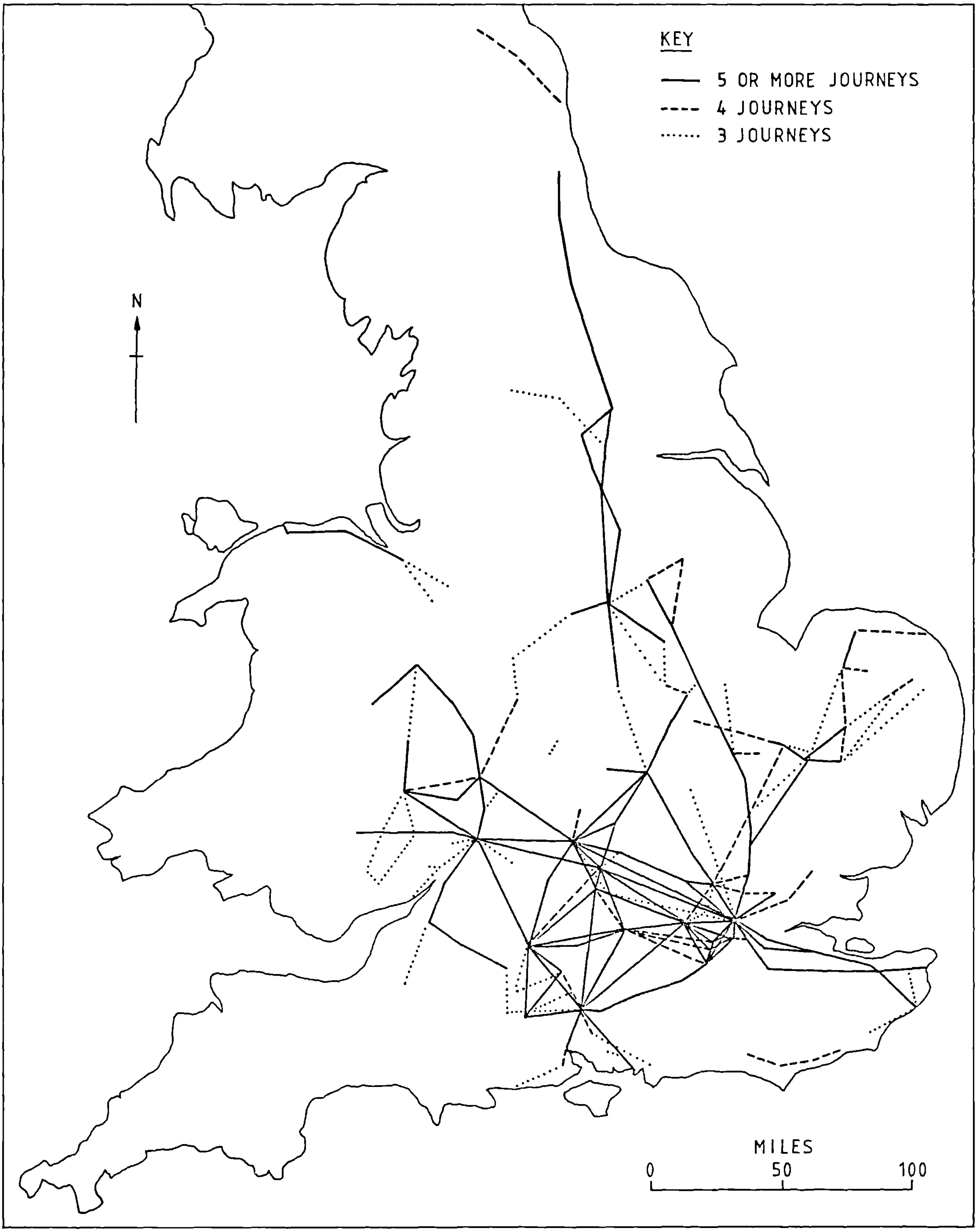

KEY
5 OR MORE JOURNEYS
4 JOURNEYS
3 JOURNEYS
N
MILES
0
50
100

FIGURE 4:4 THE ITINERARY OF KING HENRY III: ROUTES TRAVELLED THREE OR MORE TIMES

Table 4:1.

There are three variations of the route between London and Canterbury; 1) via Dartford, Rochester, Sittingbourne and Faversham, 2) via Sutton at Hone, Rochester, Sittingbourne and Faversham; 3) via Otford, Maidstone, Leeds and Faversham.

There is the positive indication of a route into Norfolk via Newmarket and Thetford towards Norwich, with an alternative way via Bury St. Edmunds. Ely is strongly linked with Newmarket and Bury St. Edmunds with Walsingham - via Thetford and Castle Acre.

The Great North Road is well utilised between London and Newark, and beyond between Blyth, Doncaster and Pontefract. Between York and Newcastle-upon-Tyne the route is very clearly defined as passing through Northallerton, Darlington and Durham.

The figure highlights the route to York, the initial stage of which was along Watling Street, then on through Northampton, Leicester, Nottingham and Doncaster; from where alternative routes passed through either Pontefract and Tadcaster, or via Sherburn in Elmet.

The route between Bristol and Shrewsbury follows the course of the River Severn - through Gloucester, Tewkesbury, Worcester, Kidderminster and Bridgnorth; and Gloucester and Worcester both emerge as being positively linked with Hereford, Woodstock, and Oxford. Hereford is also linked with Ludlow and Shrewsbury.

The Welsh coast route, the south coast route in the vicinity of Lewes, and the route in the north-east between Warkworth and Carham, have all become isolated. However, the majority of the other routes are reasonably well interconnected.

Figure 4:4 also highlights a number of nodal points where six or more route junctions occur, these being;- London, Windsor, Winchester, Marlborough, Woodstock, Gloucester, Nottingham, Northampton, Reading, St. Albans, Wallingford, Abingdon, Oxford, Worcester, Hereford and Guildford.

During his reign, Henry made several journeys to France, and the outline of his travels during these times is given in his itinerary. His usual port of embarkation was Dover, although for his first journey abroad, in August 1253, he appears to have embarked from Portsmouth. He spent a total of two years and four months abroad spread over five separate visits, the longest duration of which was sixteen months, and the shortest ten days.

The Influence of Henry's Travels on the Minimum Aggregate Network based on the Royal Itineraries

In comparing the generalised picture portrayed by Figure 4:1 of the most frequently utilised routes of John, Edward I and Edward II with the more frequently used routes of Henry III (Figure 4:4), many common routes are apparent.

The Great North Road, running southward from Newcastle-Upon-Tyne via Durham, Darlington, and Northallerton to York is a clear example; and Henry's journeys directly to the north were usually along the common route through Northampton, Nottingham, and Doncaster. However, the southern section of the Great North Road via Ware, Royston, Huntingdon, Stamford, Grantham, and Newark, was utilised more by Henry than the other three Kings; and the section of this route between London and Stamford and the adjacent links between Nottingham and King's Cliffe and between Northampton, Geddington, and King's Cliffe are significant.

As with the other three Kings, Henry did not enter the county of Cornwall, travelling no further west than Crediton, but he visited many more places in East Anglia and his route into Norfolk via Newmarket and Thetford, and on towards Norwich (a route also used by Edward I), is a prominent feature. Also prominent in this area are the routes between Ely and Newmarket, and Bury St. Edmunds and Walsingham.

Henry frequently journeyed between Gloucester and Marlborough, and Worcester and Shrewsbury. Abingdon and Oxford emerge as more prominent route centres from Henry's travels, and both are more strongly linked with Winchester and Northampton as Hereford is with both Worcester and Gloucester, and Woodstock with Brackley and Northampton.

All the aforementioned shared routes, plus the majority of the other routes shown in Figure 4:1, would suffice as the basis of a minimum network for Henry's travels. If these additional shared routes are added to the minimum aggregate network of Figre 4:1 an extended network is produced which, it is suggested, would have been most useful to the movement of the King and his court spanning the years 1199 to 1327 (Figure 4:5).

The lines on the maps relating to the royal itineraries do not necessarily represent roads; but, as has previously been stated, if these routes were used frequently, it is logical to expect that a reasonable track or road must have existed between the places visited.

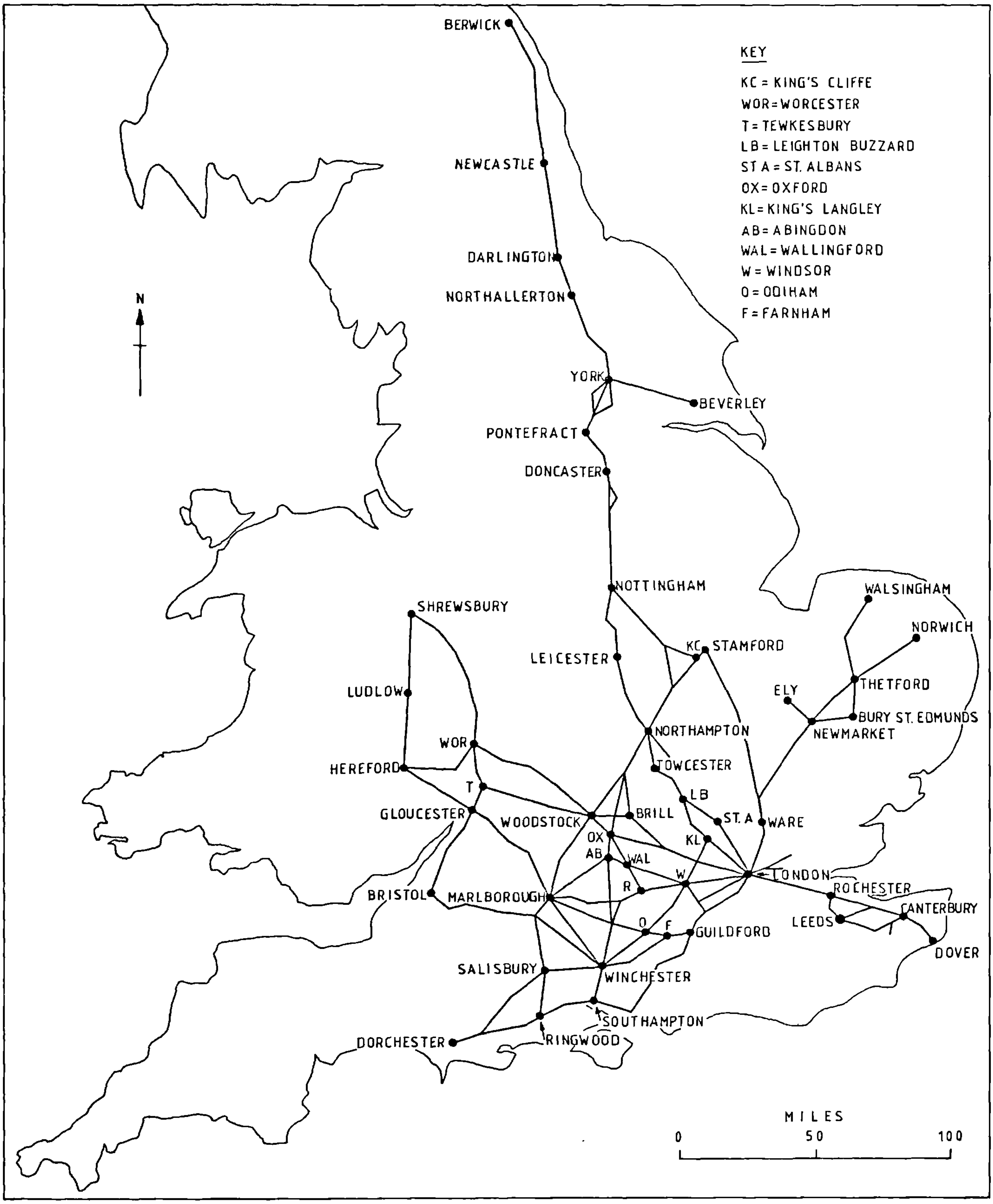

KEY
KC = KING'S CLIFFE
WOR = WORCESTER
T = TEWKESBURY
LB = LEIGHTON BUZZARD
ST A = ST. ALBANS
OX = OXFORD
KL = KING'S LANGLEY
AB = ABINGDON
WAL = WALLINGFORD
W = WINDSOR
O = ODIHAM
F = FARNHAM
N
BERWICK
NEWCASTLE
DARLINGTON
NORTHALLERTON
YORK
BEVERLEY
PONTEFRACT
DONCASTER
NOTTINGHAM
SHREWSBURY
LEICESTER
KC
STAMFORD
WALSINGHAM
NORWICH
LUDLOW
THETFORD
ELY
BURY ST. EDMUNDS
NEWMARKET
NORTHAMPTON
WOR
HEREFORD
TOWCESTER
T
LB
GLOUCESTER
WOODSTOCK
BRILL
ST. A
WARE
OX
KL
AB
WAL
LONDON
W
BRISTOL
MARLBOROUGH
R
ROCHESTER
CANTERBURY
LEEDS
O
F
GUILDFORD
DOVER
SALISBURY
WINCHESTER
SOUTHAMPTON
DORCHESTER
RINGWOOD
MILES
0
50
100

FIGURE 4:5 MINIMUM AGGREGATE NETWORK BASED ON THE ROYAL ITINERARIES OF JOHN, HENRY III, EDWARD I AND EDWARD II

Notes and References

(1) H. GOUGH, Itinerary of King Edward the First 2 vols. (Paisley 1900)

(2) B.P. HINDLE, 'A Geographical Synthesis of the Road Network of Medieval England and Wales'. Unpublished Ph.D. Thesis, University of Salford (1973) 59-93.

(3) ibid, 70

(4) ibid, 90

(5) ibid, 74

(6) ibid, 166

(7) D.C. DOUGLAS (ed.), English Historical Documents, Vol. III, 1189 - 1327 (London 1975) 361-67

(8) T. CRAIB, Itinerary of Henry III, 1215 - 1272 (Typescript) Public Record Office, Roundroom Press 22/44 (1923)

(9) B.P. HINDLE (op.cit.), 62-70.

CHAPTER FIVE PREMONSTRATENSION ITINERARIES FROM TITCHFIELD ABBEY

Probably the earliest known English road-book is that which survives in the form of a manuscript which once belonged to the Premonstratension Abbey of Titchfield in Hampshire. It contains itineraries from Titchfield to each of the other houses of Premonstratension Canons.

The itineraries cover a fair proportion of the country, fanning out in all directions from Titchfield. Hence, they are an extremely useful contribution towards the attempted reconstruction of a medieval national route network as they do not suffer from a typical fault associated with the more usual ecclesiastical itineraries - that of only staying within the precincts of a particular diocese.

Some thirty itineraries are recorded giving stage placenames and inter-stage mileages together with total mileages for each separate route. The manuscript has been printed by B. Dickins(1), who suggests that the itineraries may have been drawn up for the use of an abbot of Titchfield who was visitor of the Order. The date of the manuscript, which also contains the catalogue of the Titchfield Abbey library, is 1400 - 1405. However, it is probable, as has been suggested by J.H. Harvey(2), that the itineraries were copied from some earlier source.

Many of the itineraries share part of the same route. Therefore, it is easier to present them by route association rather than in alphabetical order, and this is the basis for the following table:-

Table 5:1 Premonstratension Itineraries from Titchfield Abbey

1 Titchfield XII Winchester X Whitchurch X Newbury IX East Ilsley VII Abingdon V Oxford IX Middleton Stoney VII Brackley XIIII Daventry XII Lilbourne XII Leicester VII Prestwold XIII Nottingham XII Blyth XII Doncaster X Pontefract XII Wetherby XII Boroughbridge XII Easby Abbey

2 Titchfield ... (as 1) ... Easby Abbey VII Egglestone XVI Blanchland Abbey.

3 Titchfield ... (as 1) ... Easby Abbey XI Coverham Abbey

4 Titchfield ... (as 1) ... Easby Abbey VII Egglestone Abbey

5 Titchfield ... (as 1) ... Boroughbridge XIIII Richmond VIII Grinton XII Hartley VIII Brough XII Appleby VIII Shap Abbey

6 Titchfield ... (as 1) ... Nottingham XVI Worksop X Tickhill X Doncaster XVI Wentbridge XVI York X Tollerton XV Northallerton XIIII Darlington XII Chester-le-Street VI Newcastle XII Morpeth XII Alnwick Abbey

7 Titchfield ... (as 1) ... Nottingham XVI Chesterfield VI Beauchief Abbey

8 Titchfield ... (as 1) ... Nottingham VI Dale Abbey

9 Titchfield ... (as 1) ... Nottingham XV Mansfield VI Welbeck Abbey

10 Titchfield ... (as 1) ... Brackley X Towcester VI Northampton X Rothwell V Rockingham XIIII Sewstern VII Grantham XII Navenby VIII Lincoln V Barlings Abbey

11 Titchfield ... (as 10) ... Lincoln V Langworth V Wragby X Horncastle X Markby II Hagneby Abbey

12 Titchfield ... (as 10) ... Lincoln X Spital-in-the-Street X Brigg IX Newsham Abbey

13 Titchfield ... (as 10) ... Lincoln VI Tupholme Abbey

14 Titchfield ... (as 10) ... Sewstern VIII Newbo Abbey

15 Titchfield ... (as 10) ... Northampton V Brixworth VII Rothwell XII Waltham-on-the-Wold II Croxton Abbey

16 Titchfield ... (as 10) ... Northampton XII Sulby Abbey

17 Titchfield ... (as I) ... Brackley VIII Stony Stratford IIII Olney I Lavendon Abbey

18 Titchfield ... (as I) ... Oxford XVI Deddington IIII Banbury X Southam X Coventry XX Lichfield XXII Newcastle-under-Lyne XII Holmes Chapel XII Warrington X Wigan XII Preston XX Lancaster V Cockersand Abbey

19 Titchfield VIII Havant VIII Chichester X Arundel X Bramber X Lewes XV Mayfield V Bayham Abbey

20 Titchfield ... (as 19) ... Mayfield X Cranbrook V Milkhouse Street X Fordmill Street VII Wye - West Langdon Abbey

21 Titchfield ... (as 20) ... Wye X St. Radegunds' Abbey

22 Titchfield VIII Exton II West Meon X Alton VII Farnham IX Guildford XV Kingston X London XV Brentwood V Ingatestone X Chelmsford VII Beeleigh Abbey

23 Titchfield ... (as 22) ... Chelmsford XIIII Colchester VI Cattawade VI Ipswich V Woodbridge IIII Eyke IIII Snape Bridge IIII Leiston Abbey

24 Titchfield ... (as 22) ... London XII Waltham Cross XII Ware VIII Puckeridge XII Barkway XII Babraham XIII Newmarket X Brandon Ferry X West Dereham Abbey

25 Titchfield ... (as 24) ... Brandon Ferry XII North Elmham II Wendling Abbey

26 Titchfield ... (as 24) ... Newmarket VIII Icklingham VIII Thetford X Attleborough VI Wymondham VII Norwich VIII Langley Abbey

27 Titchfield XII Winchester XX Inkpen III Hungerford VII Lambourn VIII Faringdon VIII Burford VIII Stow-on-the-Wold VIII Chipping Campden VIII Cank VII Foxlydiate IX Halesowen Abbey

28 Titchfield XII Romsey XII Salisbury XVIII Shaftesbury XII Sherborne IIII Yeovil VIII Crewkerne VIII Chard V Stockland V Honiton XV Exeter XII Newton Bushel IIII Torre Abbey

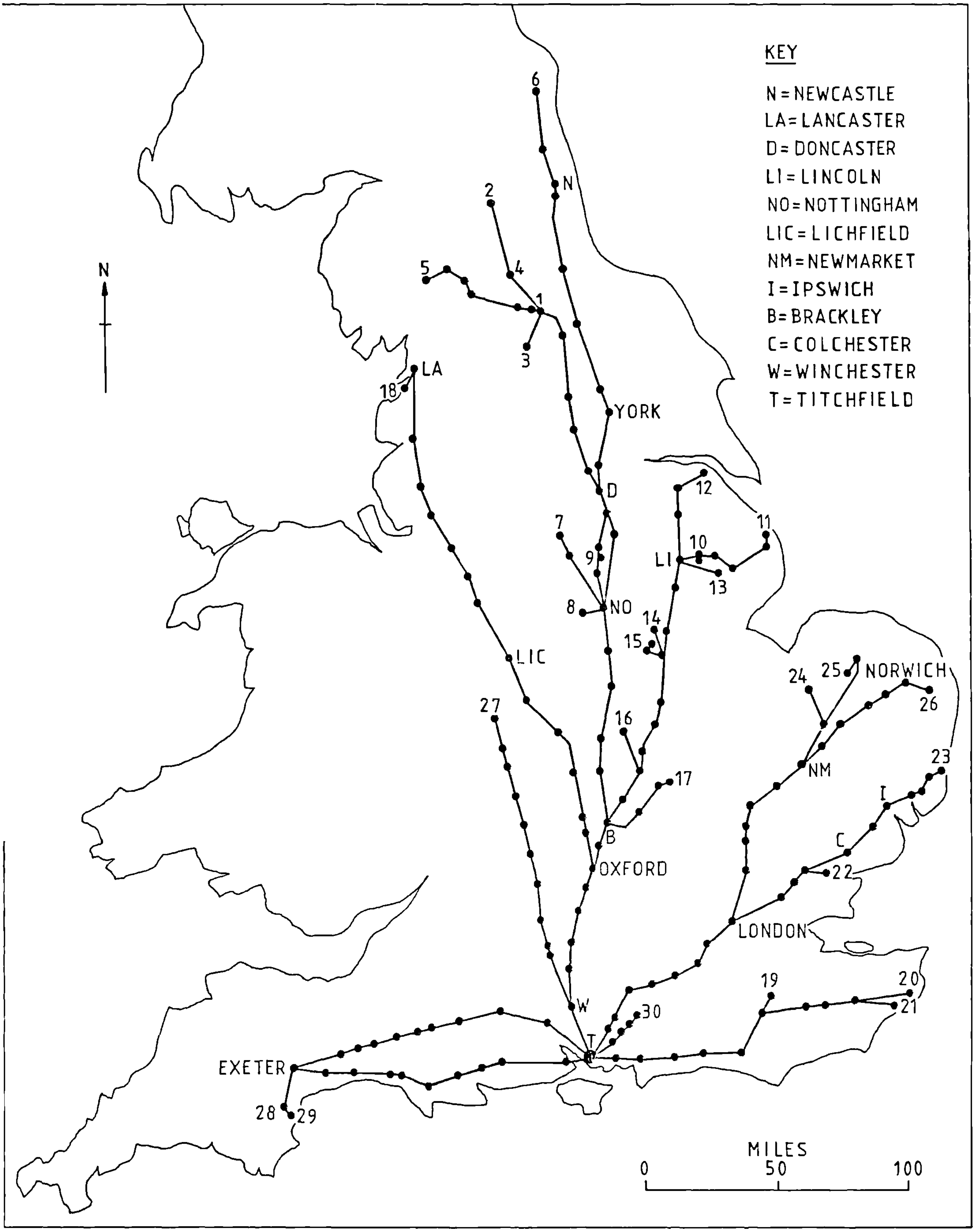
29 Titchfield V Cadlands XIIII Ringwood VIII Wimborne Minster VIII Bere Regis VIII Dorchester XII Bridport III Chideock IX Colyford X Newton Poppleford X Exeter XII Newton Bushel IIII Torre Abbey

30 Titchfield VII Denmead III Clanfield III Buriton III Dureford Abbey

The itineraries of Table 5:1 are mapped and shown in Figure 5:1. The numbers on this figure correspond with the terminus of each separate itinerary given in Table 5:1.

The total mileages given in the manuscript for each itinerary agree exactly with the addition of the individual stage mileages in twenty one cases. Five further itineraries have discrepancies not exceeding two miles, and two others have discrepancies of three miles and five miles respectively. The itinerary to Langdon Abbey omits the final stage mileage; however, the total mileage given for this route is eight miles more than the addition of the individual stage mileages. J.H. Harvey concludes that this shows that the itineraries in the manuscript are copied from some earlier source - and one cannot disagree with his conclusion.(2)

The total mileage given for the itinerary to Cockersand Abbey is 189 miles, but the addition of the individual stage mileages produce a total of 206 miles - a difference of 17 miles. This particular itinerary


KEY
N = NEWCASTLE
LA = LANCASTER
D = DONCASTER
LI = LINCOLN
NO = NOTTINGHAM
LIC = LICHFIELD
NM = NEWMARKET
I = IPSWICH
B = BRACKLEY
C = COLCHESTER
W = WINCHESTER
T = TITCHFIELD
N
6
N
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LA
18
YORK
D
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LIC
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NORWICH
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27
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NM
23
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B
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OXFORD
22
LONDON
19
20
21
W
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T
EXETER
28
29
MILES
0
50
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FIGURE 5:1 ITINERARIES FROM TITCHFIELD ABBEY

has been partly erased and altered in the latter stages and different placenames inserted in a later hand.(3) Perhaps the original itinerary made directly for Cockersand Abbey rather than proceeding to Lancaster and then back-tracking, and this would account for the mileage difference. If this were the case it is probable that whoever carried out the erasures and alterations omitted to adjust the total mileage figure given at the end.

The longest route is that between Titchfield and Alnwick. From Winchester the route goes via Newbury to Abingdon and Oxford then through Middleton Stoney to Brackley, and then via Daventry and Leicester to Nottingham. This latter stage by-passes Loughborough in favour of Prestwold. The route to Brackley is shared by seventeen itineraries whilst that to Nottingham is shared by nine. The route to Alnwick continues via Worksop to join the Great North Road at Tickhill which it follows as far as Doncaster before diverting to York. From York the route is via Northallerton, Darlington, Newcastle-upon-Tyne and on to Alnwick. This latter section confirms the inferred Gough Map route between York and Newcastle and also the routes of Mathew Paris. This route links York with the Great North Road at Doncaster; whilst the intermediate section confirms the existence of the inferred Gough Map route between Leicester, Nottingham and Doncaster. The complete itinerary between Titchfield and Alnwick follows the course of modern roads - except that the section between Brackley and Daventry follows what are today little more than country lanes.

The itinerary to Easby Abbey records another route between Nottingham and Doncaster via Blyth; and this section of the route probably went via Ollerton. It seems very likely that a stage has been omitted in this area of the itinerary because the distance between Blyth and Nottingham is recorded as being XII miles, whereas the minimum distance between these two places is 33 statute miles. The distance between Ollerton and Blyth is 14 statute miles - which equates with the manuscript distance set down between Blyth and Nottingham. From Blyth, the route to Easby Abbey follows the Great North Road via Doncaster, Pontefract, Wetherby and Boroughbridge.

From Easby there are routes to the abbeys of Egglestone, Blanchland and Coverham, whilst a route to Shap Abbey from Boroughbridge goes via Richmond, Brough and Appleby.

Dale Abbey is reached via an extension of the route leading to Nottingham, as are the abbeys of Beauchief and Welbeck, the former via Chesterfield and the latter via Mansfield.

Beyond Brackley, itineraries to Lincoln continued through Towcester and Northampton to cross the Great North Road at Grantham; this final section confirming the inferred Gough Map route between Grantham and Lincoln. The majority of these itineraries can be traced quite clearly along the course of modern roads, the only uncertainty being the exact course in the vicinity of Sewstern - where numerous country lanes provide a number of differing route options. Branches fron the route between Brackley and Grantham lead to the abbeys of Newbo, Croxton and Sulby. This route, between Northampton and Sulby, would no doubt have followed the line of the modern road which passes to the west of Market Harborough and thence to Leicester.

From Lincoln there are itineraries to the abbeys of Barlings, Hagneby, Newsham and Tupholme. Barlings would have been reached by the initial stage of the route which goes on to Hagneby through Wragby and Horncastle; whilst the route to Newsham follows Ermine Street - through Spital-in-the-Street and then to (Glanford) Brigg. Both these routes follow well established modern roads. The route to Tupholme would presumably proceed due east from Lincoln and pass through Fiskerton and Bardney.

From Brackley, the itinerary to Lavendon Abbey would possibly follow the line of the modern road through Buckingham before proceeding via Stony Stratford and Olney.

The itinerary to Cockersand Abbey goes due north from Oxford by way of Deddington, Banbury and Southam to Coventry, and continues via Lichfield, Newcastle-under-Lyme, Warrington, Preston and Lancaster; all of which can be traced along well-defined modern roads; whilst the latter section follows a Gough Map route.

Along the south-east coast the itineraries to the abbeys of Bayham, West Langdon and St. Radegunds' initially follow a coastal route through Havant, Chichester, Arundel, Bramber and Lewes before cutting inland to Mayfield and Wye.

The initial portion of the itineraries to the abbeys of Beeleigh, Leiston, West Dereham, Wendling and Langley all follow the same route to London; via Alton, Farnham, Guildford and Kingston. From the capital, the way to Beeleigh goes via Brentwood and Chelmsford, from where it would no doubt have turned due east along the road to Maldon. The way to

Leiston continues from Chelmsford and passes through Colchester, Cattawade, Ipswich and Snape Bridge. This latter section confirms the existence of the inferred Gough Map route between London and Ipswich. The initial stages of the itineraries from London to the abbeys of West Dereham, Wendling and Langley follow the Great North Road through Ware, and then proceed to Newmarket via Barkway and Babraham. The route to Langley then continues via Thetford, Attleborough and Norwich, whilst those to West Dereham and Wendling pass through Brandon Ferry. The route to West Dereham would probably follow the course of the modern road through Stoke Ferry, whilst that to Wendling would presumably pass through Watton.

The itinerary to Halesowen Abbey follows a course to the west of the Winchester-Oxford-Banbury-Coventry route. From Winchester it passes through Hungerford, Lambourn, Faringdon, Burford and Stow-on-the-Wold to Chipping Campden; from whence it may have followed a section of Icknield Street to Alcester, before turning slightly west through Foxlydiate and on to Halesowen. Much of this itinerary is traceable via modern roads although a fair proportion of the route is by way of minor roads and country lanes.

There are two separate itineraries to Torre Abbey. The first follows a route through Salisbury, Shaftesbury, Yeovil, Chard, Honiton and Exeter. The second takes a more southerly route to Exeter via Cadlands, Ringwood, Bere Regis, Dorchester, Bridport and Colyford. The initial stage of this itinerary, that between Titchfield and Cadlands, must have involved the crossing of Southampton Water by boat. The distance recorded for this stage is given as 5 miles which equates with the journey by water - whereas the same stage is about 22 statute miles by the shortest route over *terra firma*. The last section of both itineraries to Torre follow a common route from Exeter via Newton Bushel.

The final itinerary is a very local one which goes to Dureford Abbey via Denmead, Clanfield and Buriton.

Notes and References

(1) B. DICKINS, Premonstratension Itineraries from a Titchfield Abbey MS. at Welbeck *Proc. Leeds Philosophical Soc.* 4 (1938) 349-61

(2) J.H. HARVEY (ed.)., *William Worcestre - Itineraries* (Oxford 1969)xv

(3) B. DICKINS (op. cit.), 355

CHAPTER SIX THE SIGNIFICANCE OF THE TITCHFIELD ABBEY ITINERARIES

The Titchfield Abbey Itineraries are extremely useful for indicating some new lines of travel, for confirming part of the routes set down upon the Gough Map; and for confirming some of the inferred routes associated with the Gough Map.

It is a fortunate coincidence that Titchfield is situated close to several important channel ports and hence can provide valuable evidence for routes leading to them. Southampton, which throughout the Middle Ages carried out considerable international trade;(1) is situated nine miles to the north-west; Chichester, Sussex's custom port, lies to the east; as do Havant, Arundel, Bramber and Lewes; all of which are included in the itineraries. The significance of these ports inevitably increased the importance of the roads which led to them. Such a road is that which came down from the Midlands via Northampton, Brackley, Oxford and Newbury to Winchester, and hence to Southampton. This particular route forms the backbone of the repeated Titchfield Itineraries to the Midlands and the North, and its repeated usage can only confirm what must have been an important route.

The itineraries also link York and Lincoln into the national route network in a more positive manner than is shown on the Gough Map and the link with London to the east, and Exeter to the west, confirms the majority of the Gough Map route between these two places.

Many of the other itineraries have sections which are similar to routes set down upon the Gough Map. The initial stages of the Great North Road as it heads away from London are similar, as is a section further to the north between Blyth and Boroughbridge. The Gough Map route between

Coventry and Lancaster via Lichfield, Newcastle-under-Lyme, Warrington, Wigan and Preston is set down in the itineraries in its entirety. Other similar routes are those between Lincoln and Brigg; Thetford and Norwich; Brough and Appleby; and Oxford and Abingdon.

The stages associated with the similar routes of the Gough Map, together with their inter-stage mileages, are given as follows in Table 6:1. These similar routes are mapped in Figure 6:1.

Note: It should be stressed at this point that the term "mileage" applies to the distance set down in the medieval evidence. It is used at this stage of the work only as a convenient way of expressing distance and should not therefore be confused with the modern statute mile. The medieval unit of distance is more fully discussed in Appendix I.

Table 6:1 Titchfield Itineraries Similar to the Gough Map Routes

Stage	Titchfield Mileage		Gough Map Mileage
Abingdon - Oxford	V	*	V
Blyth - Doncaster	XII		VIII
Doncaster - Pontefract	X	*	X
Pontefract - Wetherby	XII		XX
Wetherby - Boroughbridge	XII		VIII
Brough - Appleby	XII		XI
Lincoln - Spital	X	*	X
Spital - Brigg	X		-
Coventry - Lichfield	XX	*	XX
Lichfield - Newcastle	XXII		-
Newcastle - Warrington	XXIIII	*	XXIIII
Warrington - Wigan	X		VIII
Wigan - Preston	XII	*	XII
Preston - Lancaster	XX	*	XX
Havant - Chichester	VIII		XXII
Chichester - Arundel	X	*	X
Arundel - Bramber	X	*	X
Bramber - Lewes	X	*	X
Alton - Farnham	VII	*	VII
Farnham - Guildford	IX	*	IX
Guildford - Kingston	XV		XX
Kingston - London	X	*	X
London - Waltham	XII	*	XII
Waltham - Ware	XII		VIII
Ware - Barkway	XX		XII
Thetford - Norwich	XXIII		XXXII
Salisbury - Shaftesbury	XVIII	*	XVIII
Shaftesbury - Sherborne	XII	*	XII
Sherborne - Crewkerne	XII		XX
Crewkerne - Chard	VIII		XII
Chard - Honiton	X		XI
Honiton - Exeter	XV		XII

Stages marked *, share the same inter-stage, or combined stage, mileages.

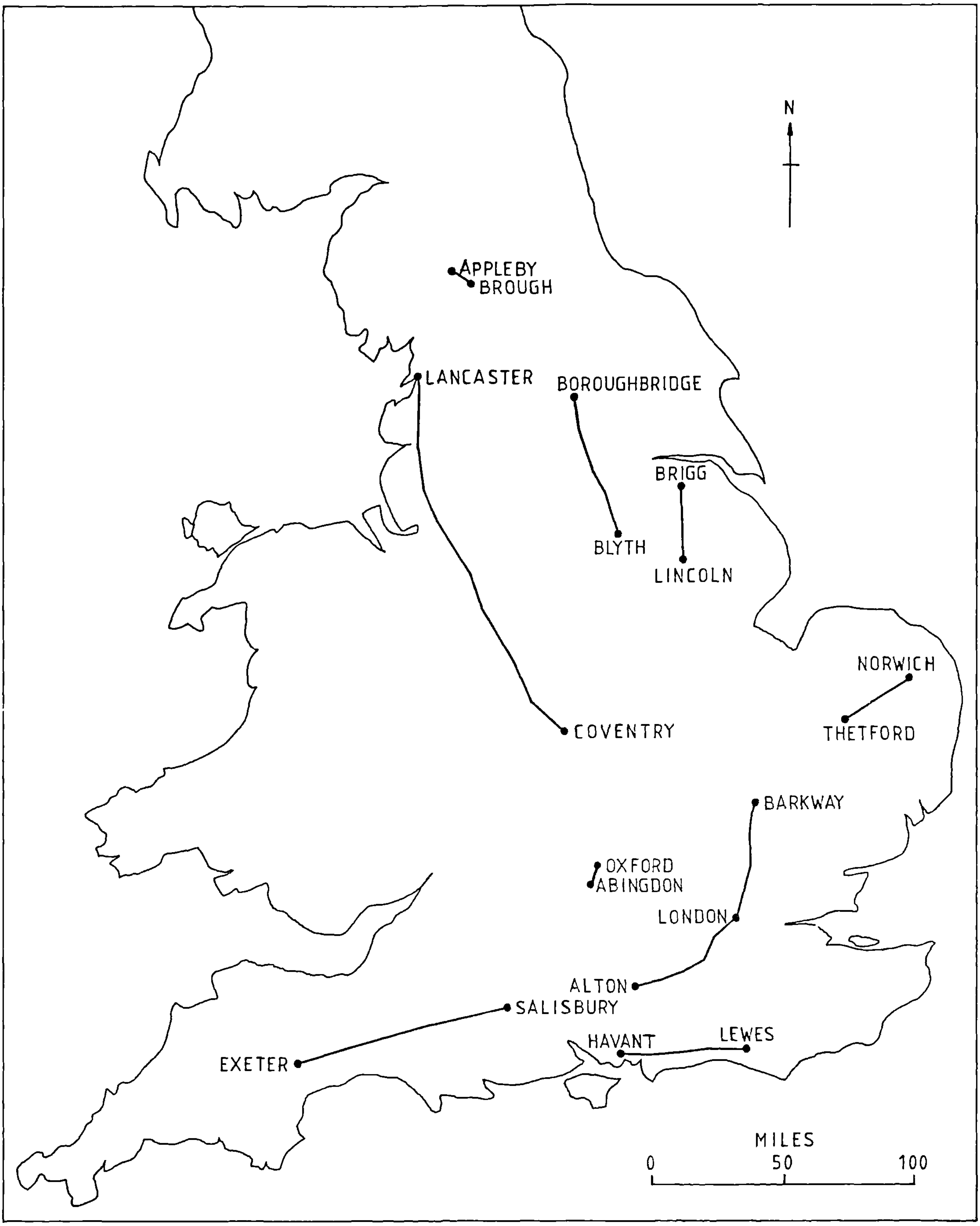

N
APPLEBY
BROUGH
LANCASTER
BOROUGHBRIDGE
BRIGG
BLYTH
LINCOLN
NORWICH
THETFORD
COVENTRY
BARKWAY
OXFORD
ABINGDON
LONDON
ALTON
SALISBURY
HAVANT
LEWES
EXETER
MILES
0
50
100

FIGURE 6:1 TITCHFIELD ITINERARIES SIMILAR TO THE GOUGH MAP ROUTES

From the mileage comparisons given in Table 6:1 it is evident that the two sets of distances have been derived from different sources. There are thirtytwo similar stages and only half of these share the same inter-stage, or combined stage, mileages. Most mileages would have been in agreement if a derivative of the Gough Map had been used during the preparation of the itineraries. One must therefore discount the possibility that the compiler of the Titchfield Itineraries used a source similar to the Gough Map as a basis for their construction. However, considering that one source is based on Titchfield, and the other apparently on London, the number of similar stages given in both sources is perhaps more than we would expect, and their geographical distribution is quite widespread, being indicative of the contemporary use of the routes depicted on the Gough Map.

Excluding all the repeated routes, the Titchfield Abbey Itineraries cover a total distance of 2009 statute miles spread over one hundred and sixtyseven stages; whilst the Gough Map routes show 2786 statute miles of route spread over one hundred and ninetytwo stages. A difference between the two sources of evidence is that the Titchfield Itineraries have a number of very short final stages. These reflect the rather isolated location of many abbeys which were built away from the main through-routes, no doubt in an attempt to obtain peace and solitude. (Eg. Markby to Hagneby 2 miles, Olney to Lavendon 1 mile, Buriton to Dureford 3 miles).

The number of stage lengths for differing increments of itinerary mileage, together with associated terminal digit data, are given in Figure 6:2, and the corresponding data for the Gough Map in Figure 6:3. Although the highest number of stages in both sets of data are those of 10 miles, it can be observed that those of the Gough Map are far more prominent in relation to those of the other recorded distances. There is

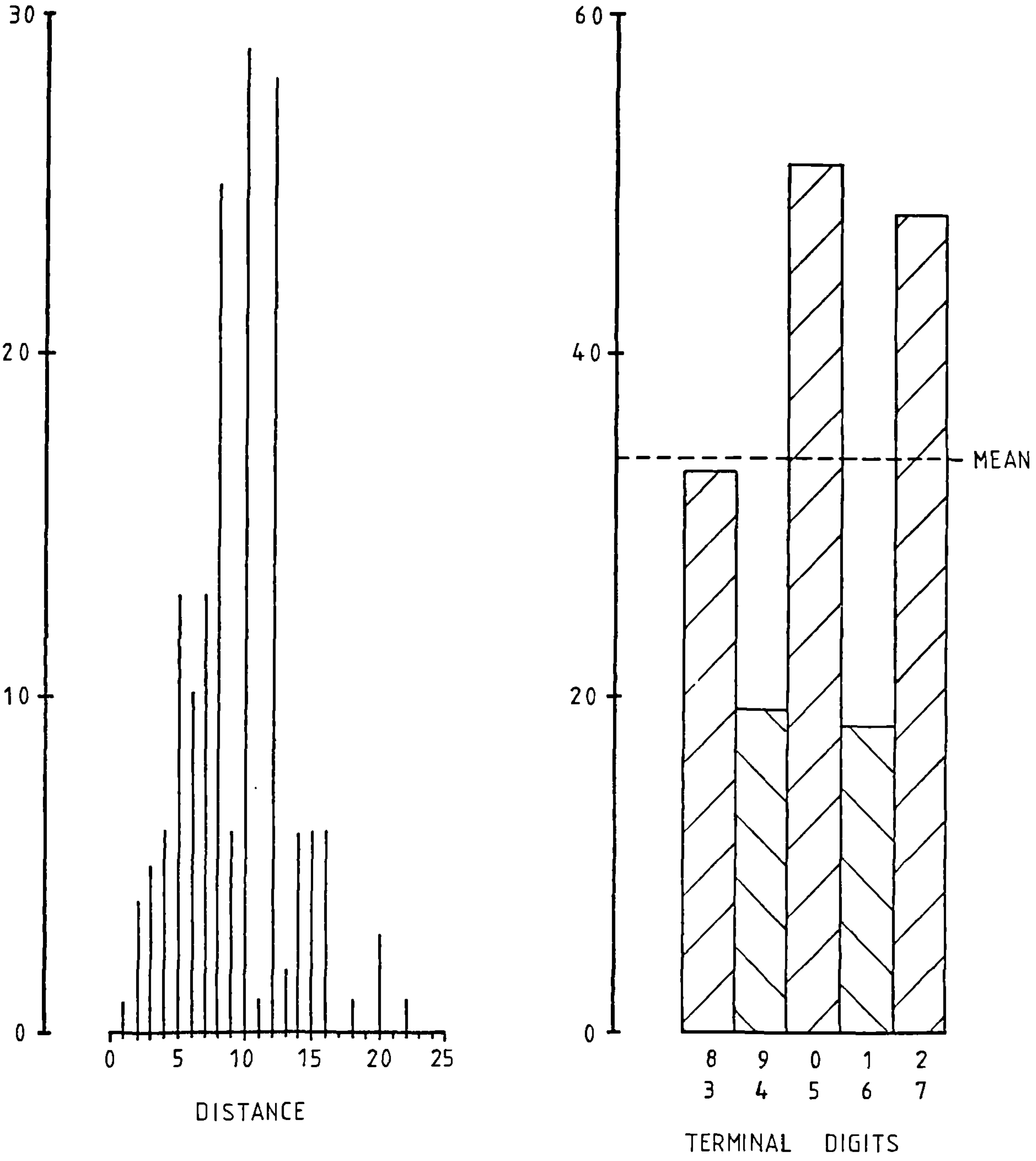


FIGURE 6:2 HISTOGRAM OF TITCHFIELD ITINERARY MILEAGES [EXCLUDING REPEATED ROUTES]

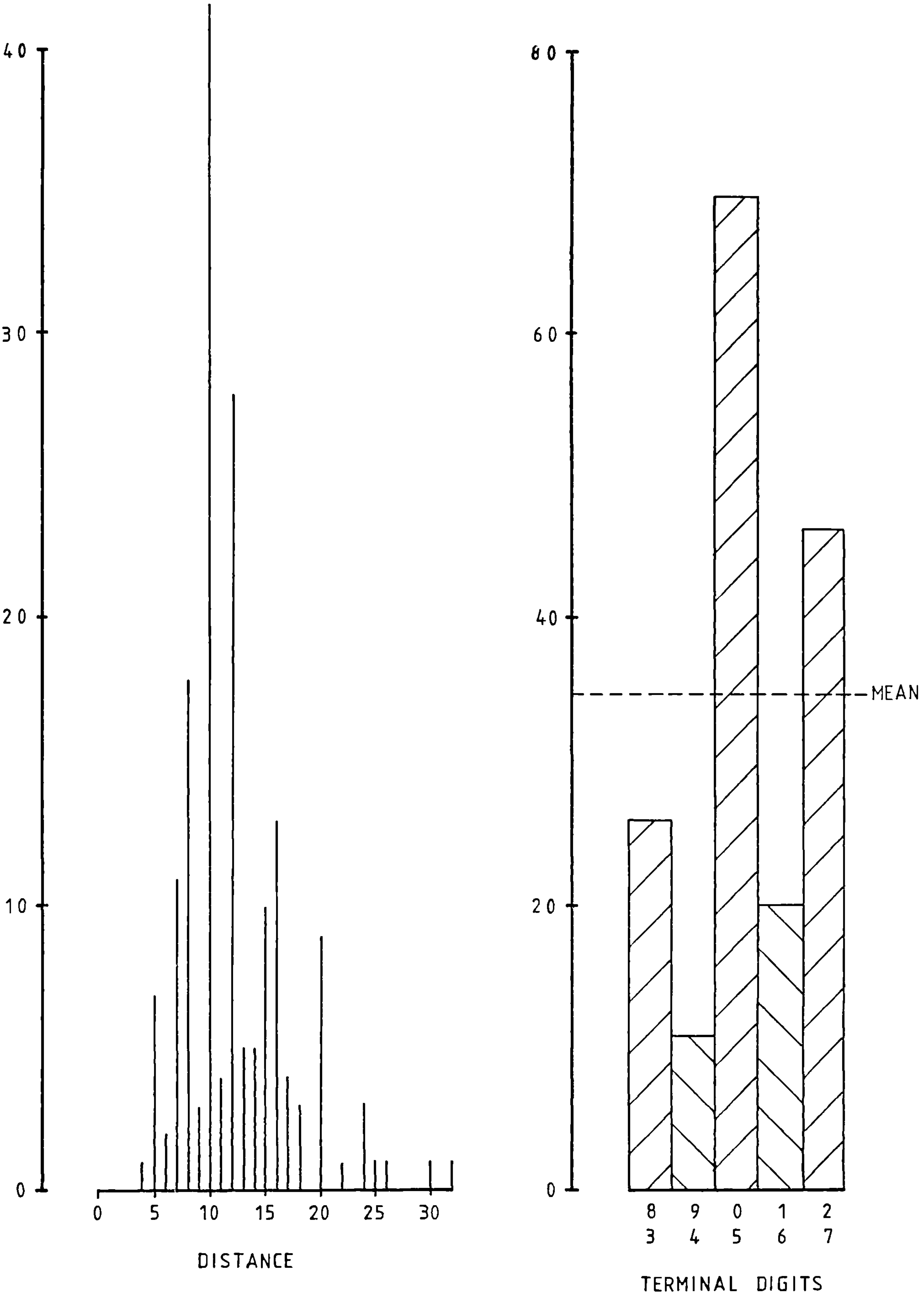


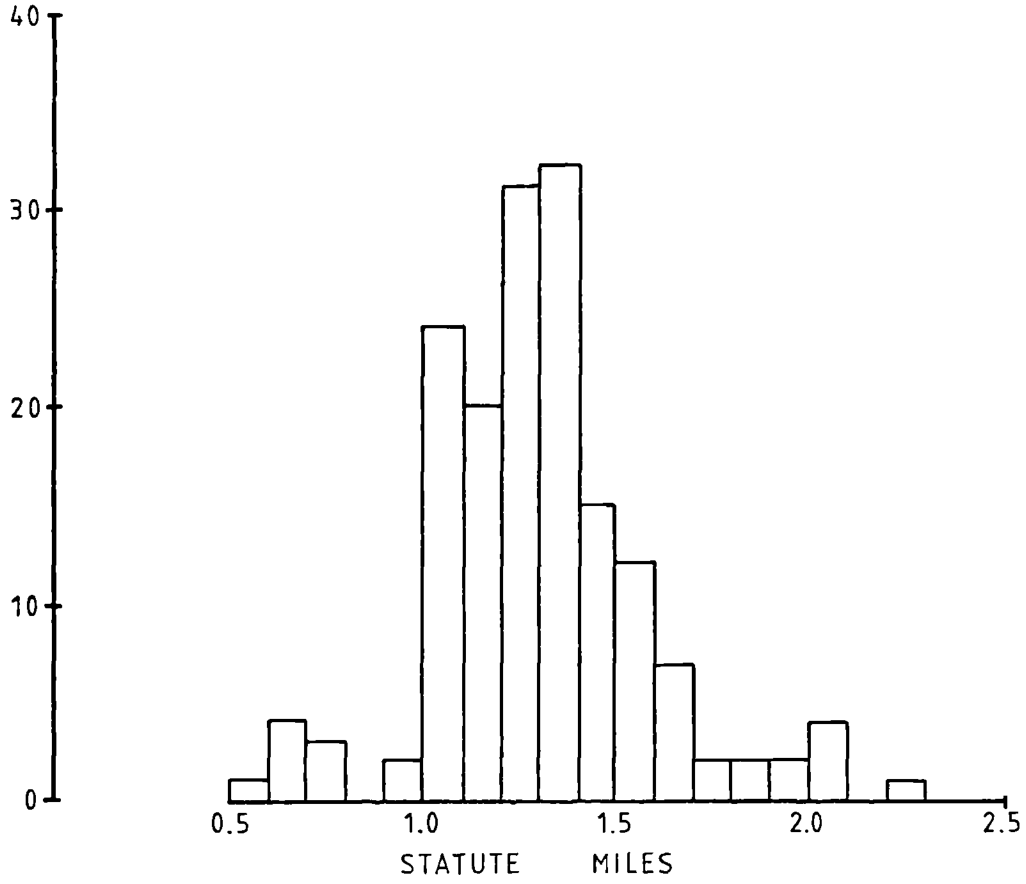
FIGURE 6:3 HISTOGRAM OF THE GOUGH MAP MILEAGES

also a much greater tendency on the part of the compiler of the Gough Map to round off distances to the nearest five or ten. The terminal digit data for the Gough Map show that units of five and ten account for twice the expected mean value, whereas for the Titchfield Abbey Itineraries this excess is halved and the values are more evenly spread about the mean value.

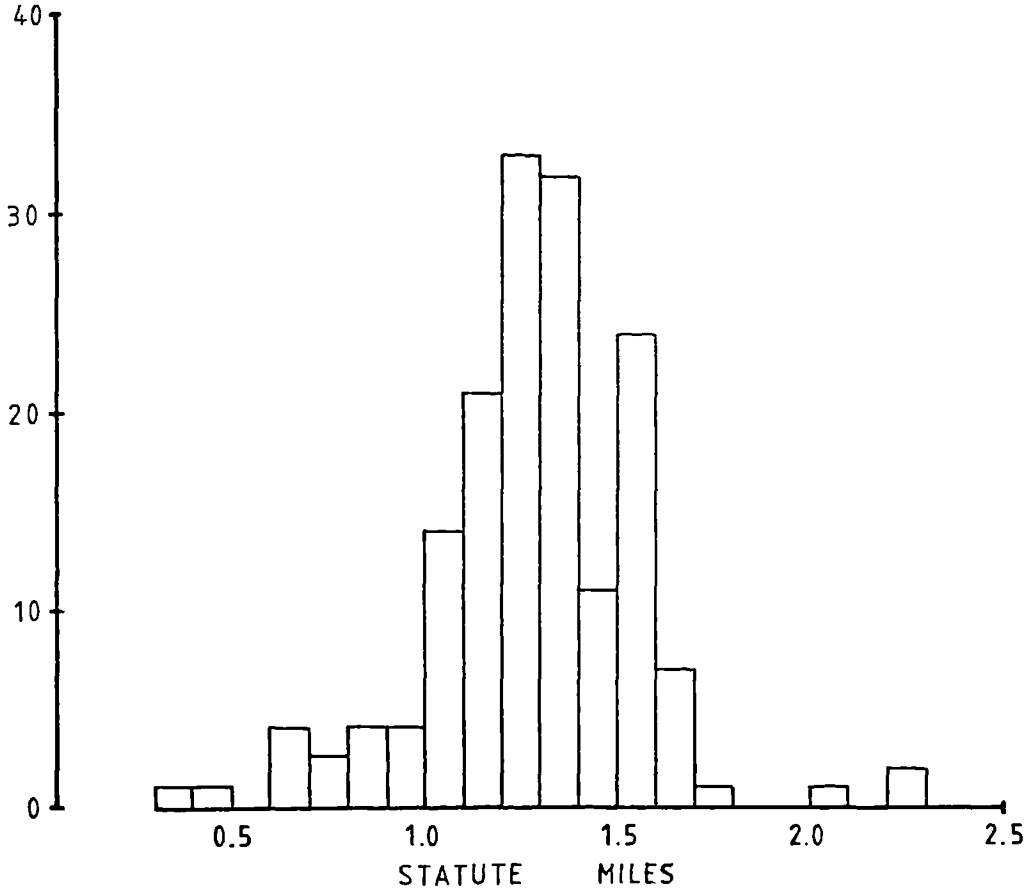
In virtually every case, the distances recorded in the Titchfield Abbey Itineraries and those set down upon the Gough Map are less than the equivalent distances in statute miles following direct modern routes between the same places. In order to attempt to quantify the relationship between these distances, and to compare their reliability, it was decided to carry out a statistical analysis of all the available data. Before proceeding with such an analysis it is obviously advisable to reject any data which may appear unsound. Five stages from the Titchfield Abbey Itineraries were rejected because it was considered probable that additional intermediate stages associated with them had been omitted from the manuscript, leaving a total of one hundred and sixtytwo stage distances for analysis. Although the placenames in the Titchfield Abbey Itineraries have been recorded with clarity, the same cannot be said for all the placenames written upon the Gough Map. Many of the Welsh placenames are difficult to read and there is some confusion relating to the interpretation of placenames in that section of the Welsh coastal route between Cardigan and Abergele. (An analysis of this route is carried out in Appendix II). The stages associated with this section of the route have therefore been rejected, leaving a total of one hundred and sixtythree Gough Map stage distances for analysis. (Some further general observations relating to the date of the Gough Map are discussed in Appendix III).

A similar process of analysis was carried out for both sets of data. For each stage the modern distance in statue miles was determined between each placename using the most direct route available. This was then numerically divided by the corresponding stage distance given in the medieval evidence - resulting in an average statute mileage for each unit of distance of each particular stage. By adding up all these averages and dividing by the total number of stages, an overall average figure in statute miles for each medieval unit of distance was obtained for each set of data. The total addition of these averages for the Titchfield Abbey Itineraries was 207.76 statute miles over the one hundred and sixtytwo stages:- producing an average of 1.28 statute miles per unit of itinerary distance. The one hundred and sixtythree stages of the Gough Map totalled 207.33 statute miles:- producing an average of 1.27 statute miles per unit of map distance.

For each set of data a frequency distribution histogram was constructed using a class interval of 0.10 statute miles over the full range of recorded distance (Figure 6:4). In both sets of data the distributions are spread on either side of the mean, with the majority of values falling within the range 1.0 to 1.6 statute miles. The distributions are both of the normal type and are only moderately skewed, enabling the Standard Deviation from the average unit of distance to be calculated in each case. The Standard Deviation (σ) for the Titchfield Abbey Itinerary data was calculated at 0.278, and that for the Gough Map date was very similar, working out at 0.273. These Standard Deviations can be used to assess the reliability of the distances recorded in the medieval evidence. By taking arbitrary tolerances of $\pm$o.5σ, $\pm 1.0\sigma$, and $\pm 2.0\sigma$ about the average unit of distance in statute miles, the reliability of the recorded distances can be mapped. The resultant mileage tolerances for each set of data is given as follows in Table 6:2.



TITCHFIELD ABBEY ITINERARIES



GOUGH MAP

FIGURE 6:4 THE LENGTH OF THE MEDIEVAL 'MILE' IN THE TITCHFIELD ABBEY ITERS AND ON THE GOUGH MAP

Table 6:2 Mileage Tolerances for Increments of Standard Deviation for the Titchfield Abbey Iters and Gough Map Data

Titchfield	Standard Deviation (σ)	Mileage Tolerance (statute miles)
	± 0.5	1.1410 to 1.4190
	± 1.0	1.0020 to 1.1409 and 1.4191 to 1.5580
	± 2.0	0.7240 to 1.0019 amd 1.5580 to 1.8360
OUTSIDE	± 2.0	< 0.7240 and > 1.8360
Gough Map		
	± 0.5	1.1335 to 1.4065
	± 1.0	0.9970 to 1.1334 amd 1.4066 to 1.5430
	± 2.0	0.7240 to 0.9969 and 1.5431 to 1.8160
OUTSIDE	± 2.0	< 0.7240 and > 1.8160

The above tolerances have been applied to the respective routes and are mapped in Figures 6:5, and 6:6 respectively. It can be observed that there is variation in the accuracy of the distances portrayed in these figures.

The Titchfield Itinerary routes between Titchfield and Oxford, Oxford and Lancaster, and Oxford and Lincoln are particularly accurate; whilst the routes from Titchfield to Brentwood (via London), Winchester to Halesowen, and Titchfield to Exeter are reasonably accurate. Elsewhere there is no particular pattern and the reliability appears to vary randomly from place to place.

Similar comments apply to the accuracy of the Gough Map distances. The Great North Road between London and Doncaster, the road from London to Bristol (via Oxford), the road between Oxford and Hereford, and the road

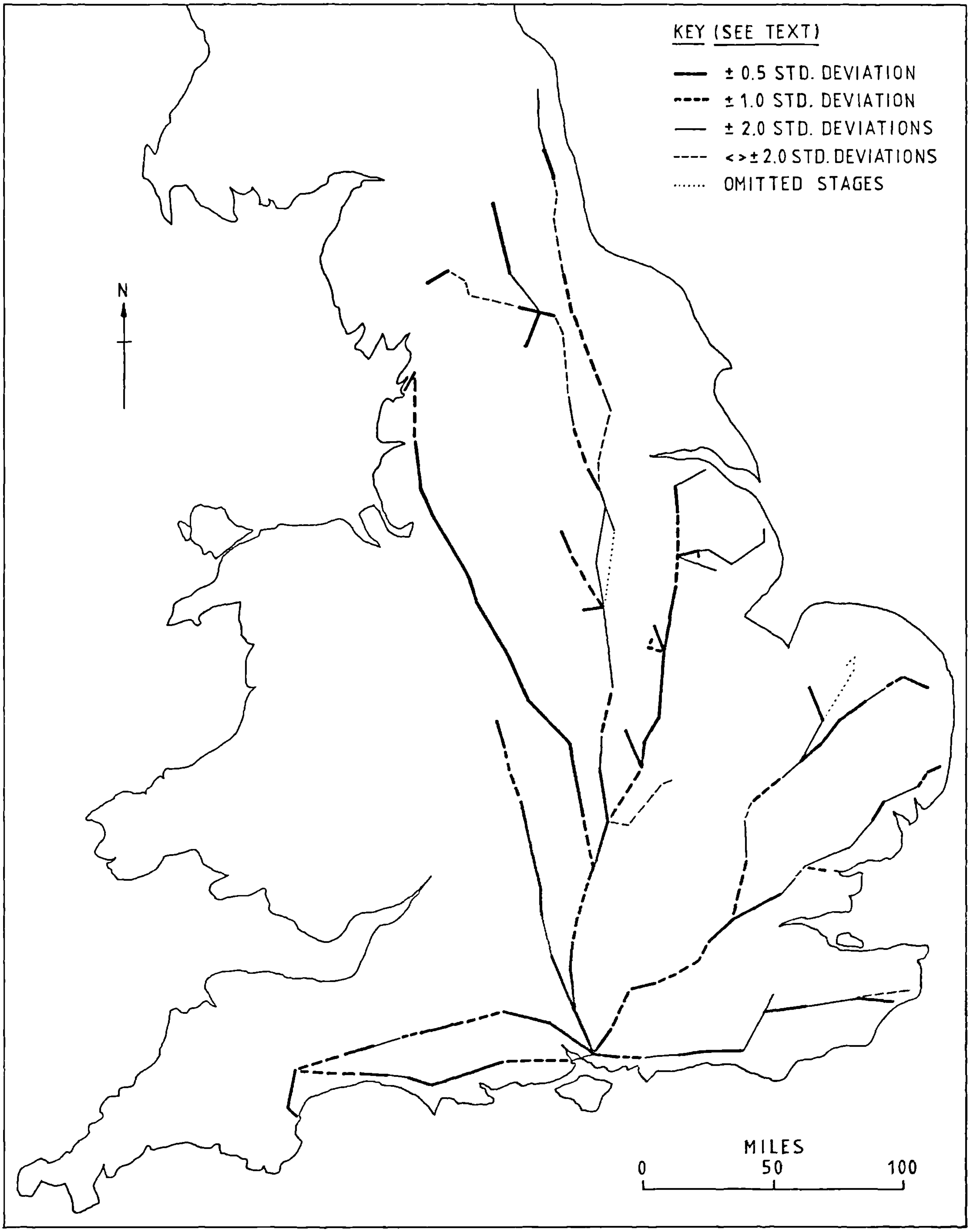

KEY (SEE TEXT)
± 0.5 STD. DEVIATION
± 1.0 STD. DEVIATION
± 2.0 STD. DEVIATIONS
<>± 2.0 STD. DEVIATIONS
OMITTED STAGES
N
MILES
0
50
100

FIGURE 6:5 THE RELIABILITY OF THE TITCHFIELD ABBEY ITINERARY DISTANCES

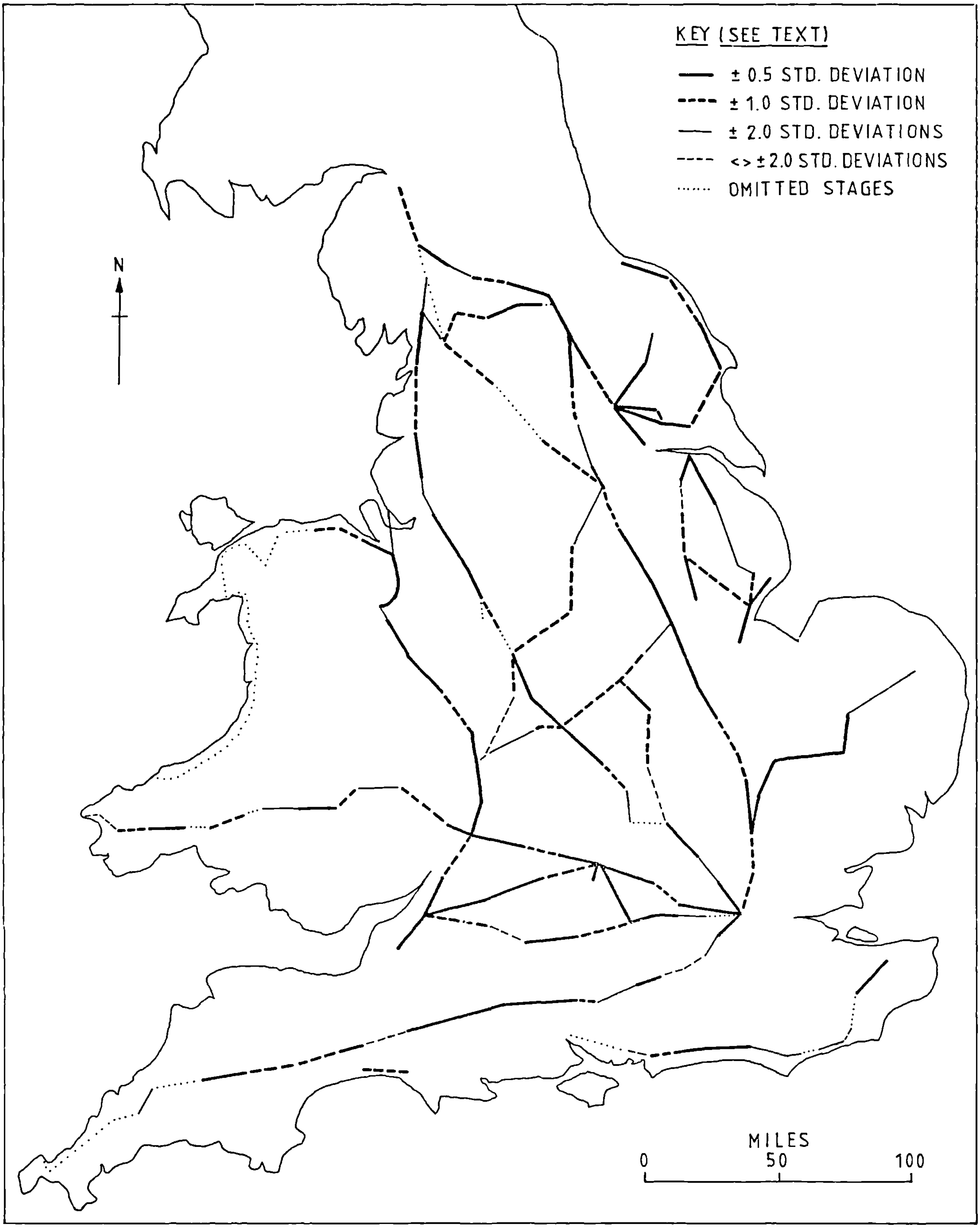

KEY (SEE TEXT)
± 0.5 STD. DEVIATION
± 1.0 STD. DEVIATION
± 2.0 STD. DEVIATIONS
<> ± 2.0 STD. DEVIATIONS
OMITTED STAGES
N
MILES
0
50
100

FIGURE 6:6 THE RELIABILITY OF DISTANCES ON THE GOUGH MAP

between Ware and Thetford are accurate. That section of road between Coventry and Lancaster which is similar to that in the Titchfield Itineraries is more accurate in the latter case; however, the similar route between London and Barkway is more accurately depicted on the Gough Map. The remaining routes share a similar degree of accuracy but there is no general tendency for accuracy to decrease from either Titchfield or London.

The information derived from both sets of data, both of which are of similar size and values, produced similar results. The overall average figure in statute miles for each medieval unit of distance; the Standard Deviation from the average figure; and the reliability of the distances recorded in the medieval evidence were all of the same order.

Notes and References

(1) C. PLATT, *Medieval Southampton* (London 1973).

CHAPTER SEVEN SOME FURTHER EVIDENCE

Before attempting to establish the basic road network which must have existed to cater for the movement of travellers such as those already discussed, it is worth considering two further areas of evidence:-

The first involves some journeys which were undertaken from Oxford by the Warden and Fellows of Merton College. These journeys, which span a period approaching one hundred and fifty years, provide some useful route data.

The second concerns the irrefutable direct references to roads as set down in contemporary medieval documentation.

Some Journeys by the Warden and Fellows of Merton College, Oxford, 1315 - 1461

The primary objective of the records which relate to these journeys was not route detail, but to give an account of the expenses incurred during them. However, apart from listing expenses, the records also state, in chronological sequence, where the expenses were incurred.(1) Places where meals were purchased en-route are given in many instances and this results in a fairly comprehensive record of the routes taken. The places passed through during each particular journey from Oxford are given as follows in Table 7:1.

Table 7:1 Journeys from Oxford 1315-1461

1. (1315) Oxford, Tetsworth, High Wycombe, Uxbridge, Acton, London, Uxbridge, High Wycombe, Oxford,

2. (1325) Oxford, Maidenhead, Colnbrook, Kingston-(via the Thames) - London, Uxbridge, High Wycombe, Oxford.

3. (1330) Oxford, Middleton Stoney, Brackley, Lilbourne, Willoughby, Waterlys. Prestwold, Nottingham, Ollerton, Blyth, Doncaster, Wentbridge, Pontefract, Aberford, Boroughbridge, Northallerton, Yarm, Durham, Chester-le-Street, Newcastle, Ponteland-(Damaged Manuscript).

4. (1330) Oxford, Middleton Stoney, Brackley, Daventry, Pulteney, Leicester, Nottingham, Mansfield, Worksop, Blyth, Doncaster, Pontefract, Wetherby, Boroughbridge, Northallerton, Stillington, Seaton, Durham, Ponteland. Northallerton, Bilborough, Selby, Wentbridge, Blyth, Worksop, Hucknall, Nottingham, Brooksby, Willoughby, Lilbourne, Daventry, Brackley, Middleton Stoney, Oxford.

5. (1331) Oxford, Brackley, Northampton, Farndon, Brooksby, Bingham, Blyth, Doncaster, Wentbridge, Aberford, Northallerton, Stillington, Durham, Newcastle, Ponteland, Seaton, Northallerton, Ripon, Wetherby, Wentbridge, Doncaster, Worksop, Mansfield, Hucknall, Nottingham, Leicester, Daventry, Brackley, Middleton Stoney, Oxford.

6. (1332) Oxford, Middleton Stoney, Brackley, Daventry, Lilbourne, Leicester, Prestwold, Nottingham, Ollerton, Blyth, Doncaster, Cawood, York, Easingwold, Thirsk, Yarm, Durham, Newcastle.

7. (1461) Oxford, Tetsworth, High Wycombe, Uxbridge, London, Dartford, Faversham, Canterbury, Faversham, Sittingbourre, Rochester, London, Uxbridge, High Wycombe, Tetsworth, Oxford.

The main route structure of the above journeys is mapped in Figure 7:1.

The first journey, that between Oxford and London and back, faithfully follows the route set down upon the Gough Map - where all the places mentioned en-route are given as inter-stage placenames - with the addition of Acton, which is situated mid-way between Uxbridge and London. The route coincides with the modern road between Oxford and London in its entirety.

The second journey shares much of the route of the first, but deviates to Maidenhead and then Colnbrook - both of which are represented as stages on the Gough Map road between London and Bristol. From Colnbrook the route was to Kingston, from where the ensuing journey to London was by boat along the River Thames.

The series of journeys to the north-east, the backbone of which is the route through Middleton Stoney, Brackley, Daventry, Lilbourne, Leicester, Prestwold and Nottingham, is the same as that given in the Titchfield Abbey Itineraries. The routes to the north of Nottingham are also similar, and there are two different routes to Blyth; one through Ollerton and the other via Mansfield and Worksop. York is linked into the Great North Road at Doncaster, via Cawood; and to Yarm through Thirsk and Easingwold. To the north of Doncaster the route passes through Pontefract and Wetherby, then on to Northallerton and Yarm, from where the way to Newcastle-upon-Tyne is via Durham and Chester-le-Street. The

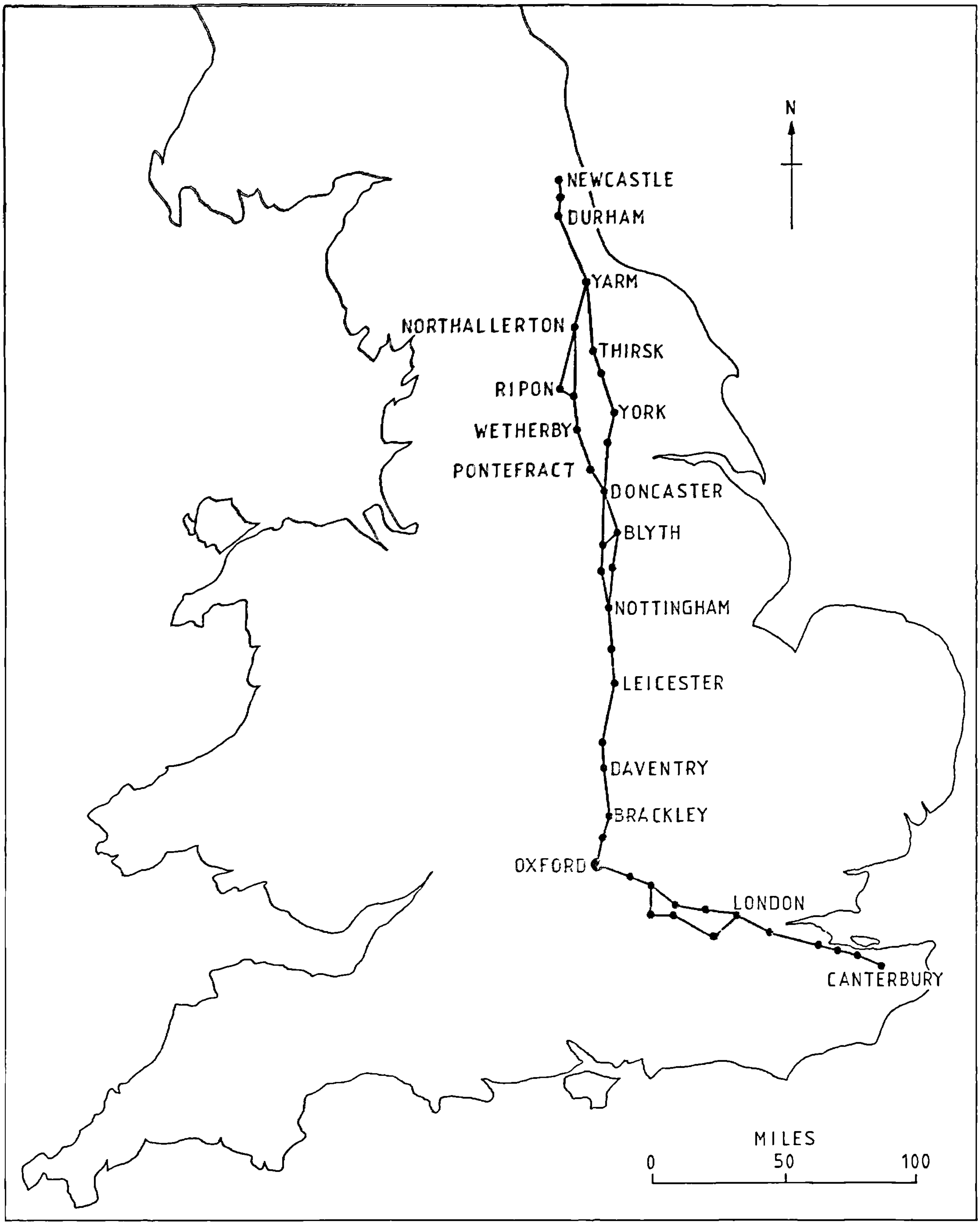

N
NEWCASTLE
DURHAM
YARM
NORTHALLERTON
THIRSK
RIPON
YORK
WETHERBY
PONTEFRACT
DONCASTER
BLYTH
NOTTINGHAM
LEICESTER
DAVENTRY
BRACKLEY
OXFORD
LONDON
CANTERBURY
MILES
0
50
100

FIGURE 7:1 JOURNEYS BY THE WARDEN AND FELLOWS OF MERTON COLLEGE, OXFORD, 1315-1461

entire section of this latter route - between Newcastle-upon-Tyne and Doncaster - follows the route shown on the maps of Matthew Paris, although, in the absence of a stage between Durham and Northallerton, it is impossible to say whether the route depicted by Matthew passed through Darlington or Yarm.

The mid-stages of the final journey in the series confirms the inferred Gough Map and Matthew Paris routes between London and Dover - at least as far as Canterbury. (The final stage between Canterbury and Dover, as mentioned by Higden in his Polychronicon of 1344, is discussed in Appendix I). The route follows the course of the modern road through Dartford, Rochester, Sittingbourne and Faversham.

Direct Documentary Evidence

Direct references to roads during the medieval period are often to be found in legal presentments before justices of the peace, sheriffs, or the judges of the King's Bench. Many of these references deal with roads only in a very localised way, often failing to record any adjoining placenames, thus making it impossible to construct a route. However, adjoining places are sometimes mentioned, and Table 7:2 lists, in chronological date sequence, some of those particular routes which are important in a national sense.

Table 7:2 Routes Recorded in Contemporary Medieval Records

Date	Description	Reference
1240	Road, from MERTON to CARSHALTON	(2)
1248	Road; from WANSFORD to STAMFORD	(3)
1274	Highway; between STOKE FERRY and BRANDON FERRY	(4)
1278	Roads and Passes; between CARMARTHEN and BRECON	(5)
1282	Public Highway; between NORTHWICH and CHESTER	(6)
1289	Way; from KENILWORTH to COVENTRY	(7)
1293	Road; from PENRITH to LAZONBY	(8)
1301	High Road; between WORKSOP and WARSOP	(9)
1314	Road, from EXETER to TEIGNMOUTH	(10)
1315	Highway; between LONDON-EDGWARE-BUSHEY-WATFORD-RICKMANSWORTH	(11)
1318	Highway; between CAMBRIDGE and SAWSTON	(12)
1335	Way; between OGERSTON and WESTON	(13)
1343	King's Highways; from HOWDEN to YORK, and from SELBY to YORK	(14)
1351	Road; between COGGESHALL and COLCHESTER	(15)
1352	Street; from HADDENHAM to AYLESBURY	(16)
1368	Highway; between CHARING CROSS and BRAYNFORD	(17)
1368	High Road; from EGHAM to STAINES	(18)
1368	Road; from FARNHAM to READING	(19)
1375	King's Highway; between WHATTON and BINGHAM	(20)
1378	Road; from LITTLE YARMOUTH to NORWICH	(21)
1384	King's Road; between MARLBOROUGH and SHAFTESBURY	(22)
1387	Causey; from FARINGDON to RADCOT BRIDGE	(23)
1389	Road; from NEWPORT PAGNELL to FENNY STRATFORD	(24)
1391	High Road; between OXFORD and WOODSTOCK	(25)
1392	King's Highway; from TOWCESTER to SILVERSTONE	(26)
1397	King's Road; between ATHERSTONE and TAMWORTH	(27)
1398	King's Road; from BASINGSTOKE to ABINGDON and from BASINGSTOKE to READING	(28)

It must be stressed that the list given in Table 7:2 is only representative of many such routes mentioned in contemporary records. Also, the terms used to describe such routes, Eg:- King's Highway; King's Road; (Royal Road); (*via regis*); etc., were used indiscriminately.(29) However, the routes given in Table 7:2 are obviously positive evidence for the existence of roads between the places mentioned. Various sections of these roads were traversed by the royal household. Henry III, for example, journeyed between Reading and Basingstoke; Oxford and Woodstock; Towcester and Silverstone; Marlborough and Shaftesbury; and Egham and Staines. He also passed along a section of the road between Northwich and Chester, and made frequent use of the roads in the immediate vicinity of London. The road between Wansford and Stamford, which was used by Robert of Nottingham (See Appendix I), is also shown as a stage on the Gough Map roads - as is that between Howden and York; and the road between Carmarthen and Brecon covers four stages. The road between Worksop and Warsop would be utilised by the visitors from Titchfield Abbey, and by the Warden and Fellows of Oxford University. The highway between London and Rickmansworth via Edgware, Bushey and Watford, was described in 1315 as being

> "wearisome to travellers and very deep"

and tolls were permitted to be taken for its repair.(11)

Sometimes, surveys were carried out involving quite long stretches of road. In 1339, certain persons were commissioned

> "to survey the King's highway called 'Watlingstretē'
> which is reported to have many great breaches in
> the roadway and in the bridges in it as it runs
> through the counties of Northampton, Leycestre,
> Warwick and Stafford..." (30)

Watling Street ran from Dover via London to the West Midlands and possibly on to Chester.

Bridges are also mentioned in many references to legal cases, and these form a large part of C.T. Flower's collection of medieval court cases concerning public works.(31) Grants of pontage, either in money or in kind, are also referred to in the various Court Rolls. The location of bridges can be used as supportive evidence for the existence of a road, although it is perhaps unsafe to use them in isolation in this respect as they only indicate one particular point on a route (or routes).

Notes and References

(1) G.H. MARTIN, 'Road Travel in the Middle Ages - Some Journeys by the Warden and Fellows of Merton College, Oxford, 1315-1470'. *Journ. Transport History*. Vol. III (1975-76) 159-78.

(2) *Calendar of Liberate Rolls*. 1226-40, 474

(3) *Calendar of Inquisitions Miscellaneous*, 1219-1307. 23.

(4) *Calendar of Patent Rolls*, 1272-81, 66.

(5) *Calendar of Various Chancery Rolls*, 1277-1326, 171.

(6) *Calendar of Patent Rolls,* 1281-92, 49.

(7) ibid, 320

(8) *Calendar of Inquisitions Miscellaneous*, 1219-1307, 623.

(9) *Calendar of Patent Rolls*, 1292-1301, 597.

(10) *Calendar of Inquisitions Miscellaneous*, 1307-49, 41.

(11) *Calendar of Patent Rolls,* 1313-17, 220.

(12) *Calendar of Patent Rolls,* 1317-21, 169.

(13) *Calendar of Patent Rolls*, 1334-38, 207.

(14) *Calendar of Inquisitions Miscellaneous*, 1307-49. 454.

(15) C.T. FLOWER, 'Public Works in Medieval Law'. Vol. I. *Seldon Soc.* 32(1915) 66.

(16) *Calendar of Close Rolls,* 1349-54, 378.

(17) *Calendar of Fine Rolls*, 1356-68. 380.

(18) C.T. FLOWER, 'Public Works in Medieval Law' Vol. II, *Seldon Soc*. 40(1923) 207.

(19) *Calendar of Close Rolls*, 1364-68, 503.

(20) *Calendar of Inquisitions Miscellaneous,* 1348-77. 360.

(21) *Calendar of Inquisitions Miscellaneous*, 1377-88, 32-33.

(22) C.T. FLOWER, (op. cit.,) Vol. II, 236

(23) C.T. FLOWER, (op. cit.), Vol. I, 4.

(24) ibid, 28

(25) *Calendar of Close Rolls,* 1389-92. 332-33.

(26) *Calendar of Patent Rolls,* 1391-96, 233.

(27) C.T. FLOWER (op. cit.), Vol. II, 230.

(28) C.T. FLOWER (op. cit.) Vol. I, 9.

(29) B.P. HINDLE, *Roads and Trackways of the Lake District*, (Ashbourne 1984) 59.

(30) *Calendar of Patent Rolls*, 1338-40. 362.

(31) C.T. FLOWER (op. cit.), Vols. I and II.

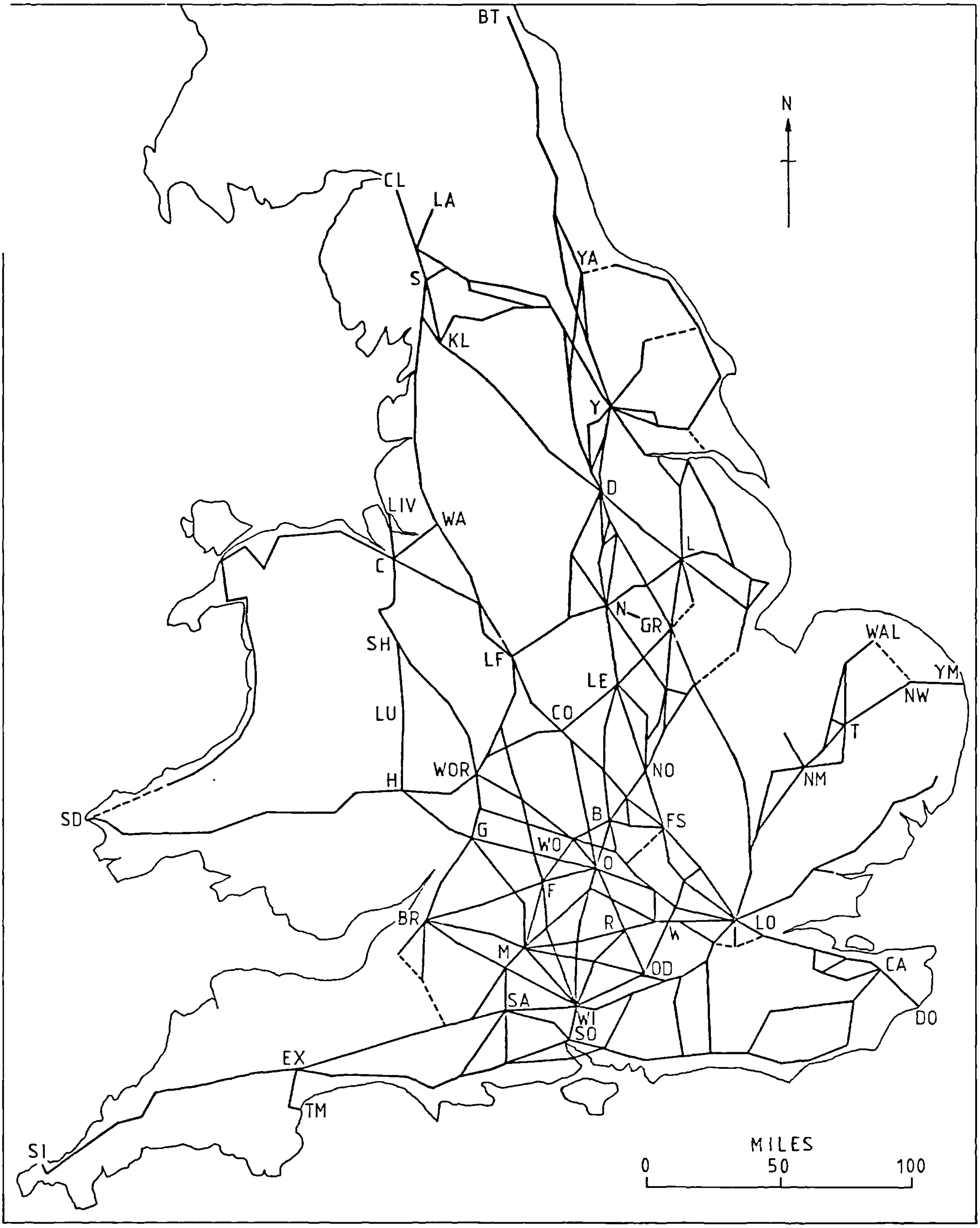
CHAPTER EIGHT THE BASIC MEDIEVAL ROAD NETWORK

All the aforementioned evidence mentioned in Part Two of this thesis can now be brought together in an attempt to produce the framework of a national medieval road network. The cartographic evidence of the Gough Map and Matthew Paris routes; the minimum aggregate network based on the royal itineraries of John, Henry III, Edward I and Edward II; the routes of the Titchfield Abbey Itineraries; the journeys from Oxford University; the direct documentary evidence; all are combined and mapped in Figure 8:1.

It should be pointed out that the Titchfield Abbey Itineraries are not shown on this map in their entirety as it was considered that certain sections of the routes, usually the final stage to a remote location, were too localised to be of national importance. Therefore only the main structure of these particular routes is depicted.

The combination of routes given in Figure 8:1 highlights a number of important route junctions in the network. The principal centres are London, Oxford, Winchester and Marlborough; closely followed by York, Doncaster, Nottingham and Lincoln. Also very prominent are the junctions at Leicester, Bristol, Salisbury, Grantham, Faringdon, Brackley and Woodstock. Other prominent junctions are at Northampton, Worcester, Gloucester, Lichfield, Newmarket, Chester, Fenny Stratford, Reading and Odiham.

The basic road network shown in Figure 8:1 is, by its very method of construction, subjective; and if all the routes discussed in the previous chapters had been mapped in their entirety, then the resulting network would have been one of much denser route coverage. For example,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100
SI

FIGURE 8:1 THE BASIC MEDIEVAL ROAD NETWORK

Key to Figure 8:1

BT = Berwick-upon-Tweed
CL = Carlisle
LA = Lazonby
YA = Yarm
S = Shap
KL = Kirkby Lonsdale
Y = York
D = Doncaster
LIV = Liverpool
WA = Warrington
L = Lincoln
C = Chester
N = Nottingham
GR = Grantham
SH = Shrewsbury
WAL = Walsingham
LF = Lichfield
YM = Yarmouth
NW = Norwich
LE = Leicester
T = Thetford
CO = Coventry
LU = Ludlow
NM = Newmarket
NO = Northampton
WOR = Worcester
H = Hereford
B = Brackley
FS = Fenny Stratford
SD = St. David's
G = Gloucester
WO = Woodstock
O = Oxford
F = Faringdon
LO = London
BR = Bristol
W = Windsor
R = Reading
M = Marlborough
CA = Canterbury
OD = Odiham
DO = Dover
WI = Winchester
SA = Salisbury
SO = Southampton
EX = Exeter
TM = Teignmouth
SI = St. Ives

the routes of the royal itineraries when mapped in their entirety produce a dense cover; but only those routes known to have been used repeatedly have been included in the basic network. This was because it is impossible to conclude, especially from the evidence of itineraries, whether a traveller journeyed directly from one place to another; therefore it is only when repeated use of a particular route is observed that a degree of confidence can be applied to its specific course. These limitations do not apply to the same extent when considering itineraries where the inter-place distances are recorded, as in the Titchfield Abbey Itineraries, because these can be used to establish the directness, or otherwise, of a particular route. Bearing this in mind, it is suggested that the basic national road network shown in Figure 8:1 would have been most useful to cater for the general movement of travellers during the medieval period.

Due to the fact that they indicate intermediate stopping places, the recorded itineraries of royalty, ecclesiastics, and scholars, are extremely useful sources for indicating lines of travel. However, individuals apart, the roads of medieval England and Wales were used mainly for the purposes of trade. Because the recorded movements of goods and produce usually state that movement took place only between A and B, they are of little use when attempting to reconstruct the road network - especially in the case of long journeys. However, having defined the road network by other means, it is now possible to establish the most likely routes taken for such journeys when both the starting point and destination are given.

A useful number of references relating to the overland transport of wine during the fourteenth century has been assembled by M.K. James.(1)

Although the transport of this commodity was usually effected by water (as we shall see later on), it is certain that large quantities were also sent overland.(2) Wine is a bulky commodity to transport overland and although there are records of small casks being carried by pack horse, large barrels, containing up to one tun (252 gallons), could only be moved overland by horse-drawn carts or waggons. Hence reasonable roads or tracks must have existed to ensure that it reached its destination in good condition.

Wine was imported at many different places; however, it was London which undertook the major task of distribution, not only to its local markets but also to distant markets throughout the Kingdom. Wine was sent overland north-westwards from the capital to Oxford and Wallingford; westwards to Marlborough and then on to Swindon and Cricklade; and south-westwards to Farnham and Portsmouth. In the Midlands, Northampton, Leicester, Lichfield and Stamford all received consignments of wine brought overland from Westminster; whilst in Kent, Canterbury also received supplies. Southampton imported a great deal of wine and distributed it by overland routes to London, Windsor, Worcester, Woodstock, Marlborough, Salisbury and Havant; and wine imported at Bristol was sent overland to London, Hereford and Coventry. Hull imported wine and sent it overland to York and Scarborough; whilst wine imported at Boston was sent to Northampton and York. Yarmouth sent wine overland to Norwich; and wine imported at Newcastle-upon-Tyne was sent by road to Durham. The inland ports of Nottingham, Newark, York and Worcester despatched wine by overland routes to Coventry, Woodstock, Newcastle-upon-Tyne (Barnard Castle),(3) and Pontefract, respectively.

The starting point and destination for each of these overland journeys, together with the probable places passed through en-route, are given in Table 8:1; and the corresponding routes are mapped in Figure 8:2.

The transport of produce in Yorkshire, Lincolnshire, Norfolk and Hampshire between 1298 and 1339 - as revealed by the Sheriffs' Accounts - gives examples of overland journeys.(4) The transport pattern in all four counties was similar; a mixed assortment of agricultural produce was taken by cart to a local collection centre from where the journey continued to the leading collection centres in the county. Hence, none of these journeys was over any great distance, but nevertheless, some of the movements would be along the routes shown in the basic road network. These particular routes are given in Table 8:2, and are also mapped in Figure 8:2.

Other scattered references refer to overland transport. In 1334, lead was taken overland from Banbury to Oxford(5); whilst during the last decade of the fourteenth century, Oxford received overland consignments of cloth from both London and Winchester.(6) During 1279, millstones were taken overland from Southampton to Marlborough(7); whilst early in the fourteenth century there are records of millstones being transported overland between Ipswich and Oxford, and between Stony Stratford and Cheddington (near Leighton Buzzard).(8) Dyestuffs, imported at Southampton were, amonst other places, taken overland to Exeter via Salisbury and Honiton.(9) The roads were used for the transport of wool; in 1338, when a large amount of wool was gathered for export, it was brought overland to the main collection points in the various counties. Although the route

Table 8:1 Probable Trade Routes for the Transport of Wine

Starting Point	Places en-route	Destination
London	High Wycombe, Tetsworth	Oxford
	Windsor	Wallingford
	Windsor, Reading, Marlborough	Cricklade
	Guildford	Farnham
	Guildford, Petersfield, Havant	Portsmouth
	Fenny Stratford	Northampton
	Fenny Stratford, Northampton	Leicester
	Fenny Stratford, Coventry	Lichfield
	Ware, Huntingdon	Stamford
	Dartford, Faversham	Canterbury
Southampton	Farnham, Guildford	London
	Winchester, Odiham	Windsor
	Winchester, Faringdon, Stow	Worcester
	Winchester, Newbury, Oxford	Woodstock
	Winchester	Marlborough
	Romsey	Salisbury
	Fareham	Havant
Bristol	Marlborough, Reading, Windsor	London
	Gloucester	Hereford
	Gloucester, Worcester	Coventry
Hull	Beverley	York
	Beverley	Scarborough
Boston	Spalding, Stamford	Northampton
	Lincoln, Doncaster	York
Yarmouth	Acle	Norwich
Newcastle	Chester-le-Street	Durham
Nottingham	Leicester	Coventry
Newark	Nottingham, Leicester, Brill	Woodstock
York	Yarm (or Darlington), Durham	Newcastle
Worcester	Lichfield, Derby, Doncaster	Pontefract

Table 8:2 Routes Associated with the Transport of Agricultural Produce between 1298 and 1339

County	Route
Yorkshire	Guisborough - Yarm
	Northallerton - Yarm
	Pickering - Scarborough
	Sherburn-in-Elmet - York
Lincolnshire	Barton-upon-Humber - Lincoln
	Wainfleet - Lincoln
	Sleaford - Lincoln
	Grantham - Lincoln
	Barlings - Lincoln
	Horncastle - Boston
Norfolk	Foxley - Norwich
	Norwich - Yarmouth
	Thetford - Norwich
Hampshire	Vernham Dean - Winchester
	Odiham - Winchester
	Alton - Winchester
	Winchester - Southampton
	Romsey - Southampton
	Havant - Southampton

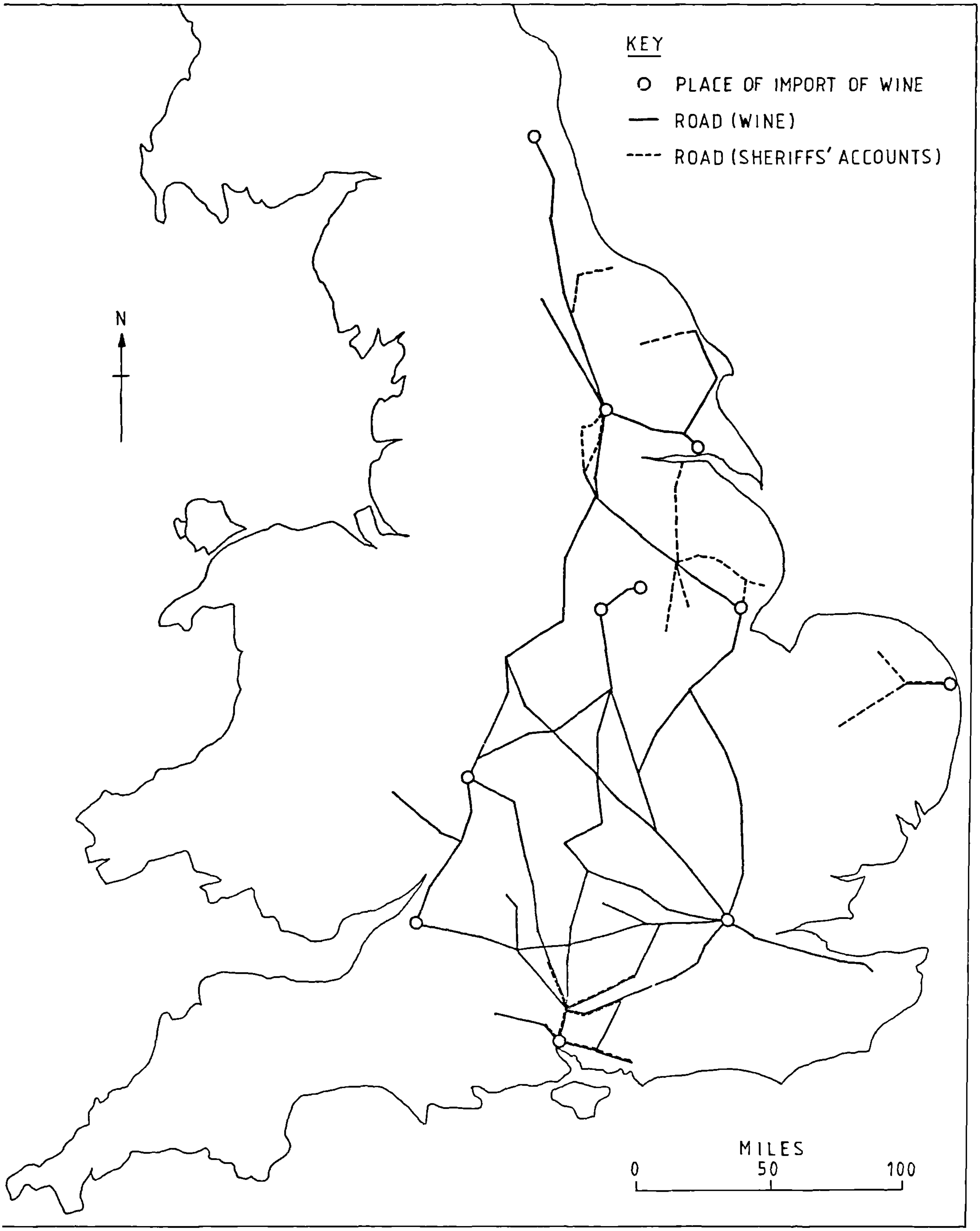
KEY
PLACE OF IMPORT OF WINE
ROAD (WINE)
ROAD (SHERIFFS' ACCOUNTS)
N
MILES
0
50
100

FIGURE 8:2 OVERLAND ROUTES ASSOCIATED WITH THE DISTRIBUTION OF WINE IN THE FOURTEENTH CENTURY; AND WITH THE SHERIFFS' ACCOUNTS BETWEEN 1298 AND 1339

detail is lacking, it is known that the counties involved were Warwickshire, Westmorland, Oxfordshire, Wiltshire, Herefordshire, the North Riding of Yorkshire, Shropshire and Northamptonshire.(10)

Although, as we have already seen, the records usually only give the starting point and destination of most journeys, there is an interesting record of a journey undertaken during 1294 which gives a clue to the intermediate places en-route. During that year, a consignment described as 'treasure', was taken from Westminster to Norwich.(11) The journey took nine days, required twenty-one carts and involved an escort of twenty mounted soldiers and eighteen foot soldiers. Although perusal of the original document gives no details of the places through which the treasure was transported, certain interesting aspects are revealed. First, because the journey was undertaken in haste, the drivers hiring assistance on several occasions, it is likely that no rest days were taken by the convoy. Second, the route between Westminster and Norwich as depicted on the Gough Map shows eight stages as follows:-

London XII Waltham Abbey VIII Ware XII Barkway XII
Cambridge X Newmarket X Bury St. Edmunds X Thetford XXXII Norwich.

The final stage between Thetford and Norwich is approximately double the average distance of any previous stage. However, close scrutiny of the Gough Map shows that mid-way between Thetford and Norwich, and positioned virtually on the line joining the two towns, is Attleborough. The distance between Thetford and Norwich via the modern and direct All road is twenty-eight statute miles, with Attleborough situated mid-way, splitting this distance almost exactly in half. Taking Attleborough as an intermediate stage, these nine stages could possibly represent the distance travelled during each day of the journey taken by the convoy transporting the treasure; for such a convoy, consisting of at least sixty men and a similar number of horses, would require substantial victualling and safe overnight accommodation, which could only be obtained in the towns en-route. The Gough Map depicts such places and the symbols shown upon it would indicate to medieval travellers where food and overnight accommodation could be secured during a particular journey. An outline representation of the Gough Map route between London and Norwich, with the inter-stage distances given in statute miles, is given in Figure 8:3.

All the evidence makes it clear that the medieval roads were well utilised and that movements along them, sometimes over considerable distances and at all times of the year, were undertaken by a variety of traffic.

Whether for reasons of trade or administration, the travellers in medieval England and Wales had at their disposal a network of roads which allowed, and indeed was an integral part of, a continuing social and commercial expansion.

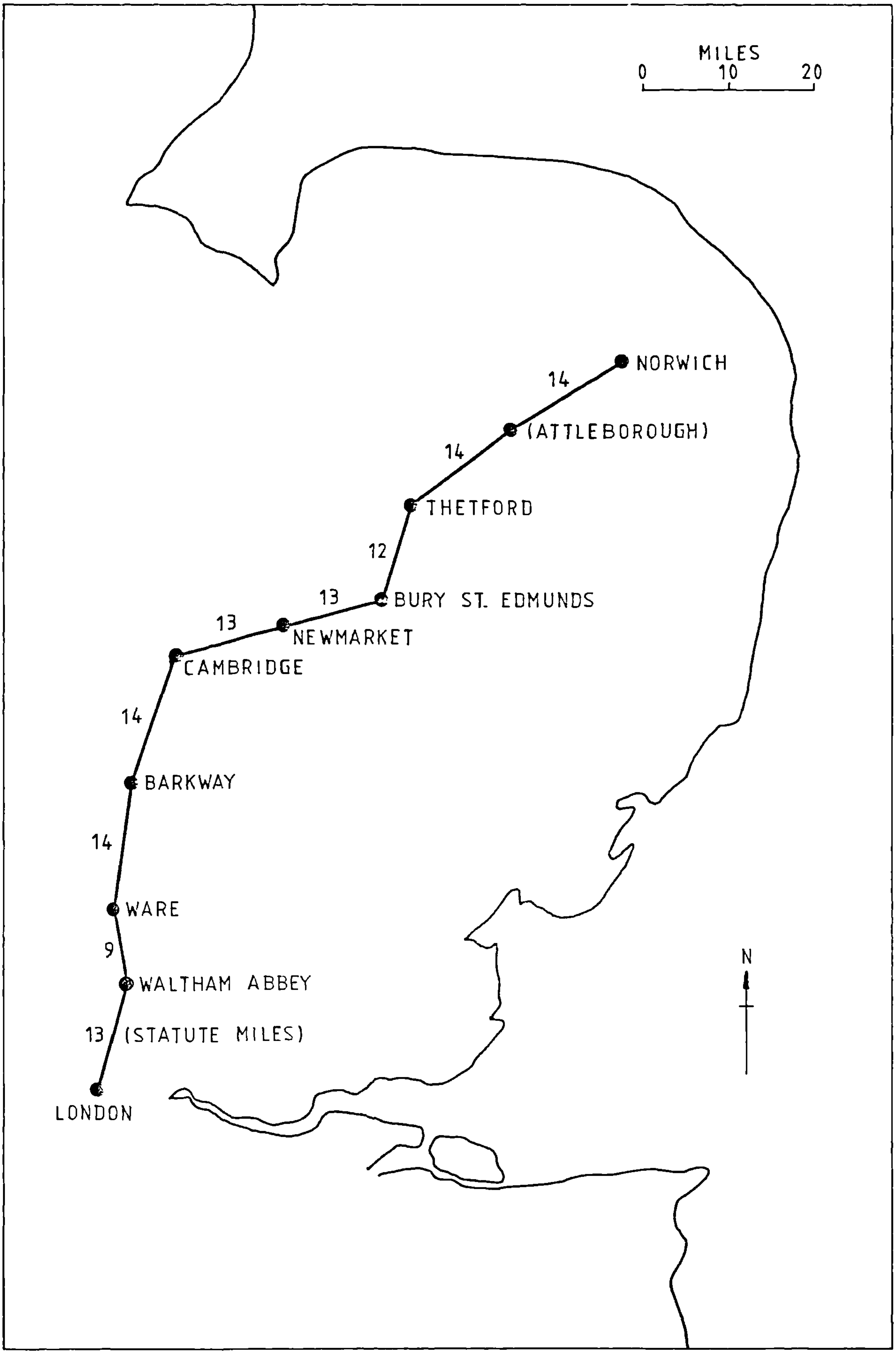
MILES
0
10
20
NORWICH
14
(ATTLEBOROUGH)
14
THETFORD
12
BURY ST. EDMUNDS
13
NEWMARKET
13
CAMBRIDGE
14
BARKWAY
14
WARE
9
WALTHAM ABBEY
13 (STATUTE MILES)
LONDON
N

FIGURE 8:3 THE GOUGH MAP ROUTE BETWEEN LONDON AND NORWICH

Notes and References

(1) M.K. JAMES, *Studies in the Medieval Wine Trade* (Oxford, 1971) esp. Appendix 21, 157-59

(2) ibid, 149

(3) J.F.T. ROGERS, *A History of Agriculture and Prices in England, Vol. II* (Oxford, 1866) 602

(4) S. UHLER, 'The Transportation of Produce in Lincolnshire, Yorkshire, Hampshire and Norfolk during the Fourteenth Century, as revealed by the Sheriffs' Accounts', *unpublished B. Phil, Dissertation, University of St. Andrews* (1977)

(5) J.E.T ROGERS, (op. cit.), 603

(6) J.E.T ROGERS (op. cit.), 604-5

(7) J.E.T. ROGERS (op. cit.), 600

(8) J.E.T. ROGERS (op. cit.), 602

(9) C. PLATT, *The English Medieval Town* (London, 1976) 78

(10) *Public Record Office*, E 372/183

(11) *Public Record Office*, E101/308/18

THE MEDIEVAL ROAD NETWORK - CONCLUSIONS

Although various types of historical evidence have been investigated in Part Two of this thesis, the direct cartographic record of the Gough Map, and to a lesser extent that of Matthew Paris, were pre-eminent. Being the only two such examples of their type known to have survived from the medieval period they were, in effect, used as a base onto which the building-blocks of other types of evidence were placed.

The maps resulting from the plotting of the itinerary of King Henry III had a significant influence on the minimum aggregate network based on the royal itineraries of John, Edward I and Edward II, postulated by Hindle.(1) The southern section of the Great North Road and its adjacent links; the routes into East Anglia, the routes on the western borders of Wales, and additional links in the southern counties, all had a significant influence on the network.

The Premonstratensian Itineraries from Titchfield Abbey were a rich and valuable source, and proved extremely useful for indicating some new lines of travel and for confirming routes established in other forms of evidence. The fact that inter-place distances were recorded in these itineraries meant that a comparison with the evidence of the Gough Map could be undertaken which showed that both sets of evidence must have been derived from different sources. A subsequent statistical analysis carried out for both sets of data, both of which are of similar size and values, produced extremely close correlation in terms of the average figure in statute miles for each medieval unit of distance. This medieval unit of distance was shown to be approximately 1¼ miles, or 10 furlongs.

The perusal of additional itineraries relating to the movement of other medieval travellers also provided some useful route data.

The mapping of the various itineraries confirmed many of the common lines of travel set down upon the Gough and Matthew Paris maps. Additional lines of travel were also identified, which, when added to the cartographic evidence, expanded the network shown on those maps. A significant addition to the network is the route which connects the Channel ports with the Midlands; via Northampton, Brackley, Oxford and Newbury, through Winchester and Southampton. The itineraries also support the existence of the inferred Gough Map routes, and positively link York and Lincoln into the network as well as high-lighting the link between Leicester and Doncaster, via Nottingham.

Finally, although direct documentary evidence for the existence of medieval roads is rather limited, certain references were located and built into the final map to complete a basic road network which, it is suggested, would have been most useful to cater for the general movement of travellers during the medieval period. The basic road network also provided a means of establishing the most likely routes taken for the overland movement of goods and produce where only the starting point and destination are recorded in the documentary evidence.

Having established a basic medieval road network, Part Three attempts to move towards a view of the whole transport system by attempting to establish the extent of navigable water utilised by travellers and merchants during the medieval period.

Notes and References

(1) B.P. HINDLE, 'A Geographical Synthesis of the Road Network of Medieval Egnland and Wales'. Unpublished Ph.D Thesis, University of Salford (1973) 91.

PART THREE

THE NAVIGABLE MEDIEVAL WATERWAYS

"There is not any Town or City, which hath a Navigable River at it, that is poore; nor scarce any that are rich, which want a River with the benefit of Boats."

John Taylor
A Discovery by Sea, 1623

Introduction

The object of Part Three of this thesis is to attempt to determine the extent of navigable water used by travellers and merchants during the medieval period.

Waterborne trade was of three types; overseas, coastal, and inland; and all three types were often interdependent. There is an abundance of surviving evidence in support of overseas trade, and the number of places given in the surviving medieval port-lists show that coast-wise traffic must also have been extensive. However, there is a distinct paucity of published material relating to inland waterborne movements. With the exception of some local tolls, traffic of this kind was not subject to any duties and so went unrecorded in medieval customs accounts. Even in the surviving port toll-books, inland vessels are rarely identified as such, making it virtually impossible to separate the ships on inland, coastal, or overseas voyages; hence medieval inland navigation has not been the subject of very much research. It is this paucity of systematic work on early inland waterways which is the justification for Part Three of this thesis.

In Part Two the basic framework of a national medieval road network was established and as a logical progression it is the primary objective of this section of the thesis to establish the extent of navigable water utilised by travellers and merchants during the medieval period. The initial chapters deal, on a regional basis, with waterways for which there is documentary historical evidence, and an attempt is made to establish their navigational limits. All this regional evidence is then brought together to produce a national picture of inland navigable waterways existing during the medieval period. An analysis of the movement of goods along the navigable rivers is carried out, and the link between inland and coastal navigation is also considered, together with an appraisal of medieval vessels. Finally, cartographic evidence is discussed, including that of the Gough Map which proved so useful in the previous section dealing with roads.

Sources

Frequent reference is made in this thesis, but more especially in Part Three, to the various state calendars which have been published by the Public Record Office.(1) These were chosen as a primary source of reference because of their value on a national basis. They contain a precis, usually in English, which is full enough for most purposes. Individual volumes can be quite substantial, often exceeding seven-hundred pages of text, and although normally indexed, the author discovered, after a number of random checks, that the index alone could not be relied upon to render all the relevant information contained within each calendar. Therefore, the author set about the rather laborious task of reading through every individual page of text in each volume in order to ensure that any relevant detail was not overlooked.

The sources consulted in this way were as follows:-

Calendar of Charter Rolls(2)

The royal charter was the solemn instrument whereby the Sovereign made original and confirmatory grants in perpetuity of lands, liberties, privileges, etc., to both corporations and invididuals.

11 Henry III to 5 Henry V, 1226-1417, 5 vols.

Calendar of Patent Rolls(3)

Letters patent, so called from being issued 'open', with the Great Seal pendent, announce royal acts of the most diverse kinds, including grants and leases of land, appointments to office, licences and pardons, denization of aliens, and presentations to ecclesiastical benifices.

17 Henry III to 2 Henry IV, 1232-1401, 37 vols.

Calendar of Close Rolls(4)

Writs and orders under the Great Seal addressed by the Sovereign to individuals were folded or closed up and are hence known as Letters Close. The Close Rolls contain royal instructions for the performance of multifarious acts: the observance of treaties, the levying of subsidies, the repair of buildings, the payment of salaries, the provision of Household requirements, the delivery of their landed inheritances to heirs, and the assignment of dower to widows, and so forth.

1 Edward I to 20 Henry VI, 1271-1441, 38 vols.

Calendar of Fine Rolls(5)

The 'fines' from which the Fine Rolls take their name were payments made for writs, grants, licences, pardons, etc., of various kinds, most of them under the Great Seal, relating to matters in which the Crown had a financial interest.

1 Edward I to 6 Henry IV, 1272-1405, 12 vols.

Calendar of Liberate Rolls(6)

On these rolls were entered the writs of liberate (Latin 'deliver ye') whereby the officers of the Exchequer were ordered to make payments on behalf of the Crown and they deal with expenditure and accounting on an almost infinite variety of matters.

1 Henry III to 56 Henry III, 1226-1272, 6 vols.

Calendar of Chancery Rolls, Various(7)

These contain; Supplementary Close Rolls - which include licenses to export wool, orders for resumption of crown lands, orders to suspend process in pleas of right where tenants had put themselves on the Grand Assize; Welsh Rolls - which include letters relating to Wales, Scutage Rolls - which refer to grants of scutage.

6 Edward I to 20 Edward II, 1277-1326, 1 vol.

Calendar of Chancery Warrants(8)

These are Warrants unrepresented, or incompletely represented, by calendared Enrolments.

29 Henry III to 20 Edward II, 1244-1326, 1 vol.

Calendar of Inquisitions Miscellaneous(9)

In this series are a number of Inquisitions returned in the Chancery, of too varied a nature to allow further classification.

4 Henry III to 10 Henry V, 1219-1422, 7 vols.

Calendar of Memoranda Rolls(10)

The Memoranda Rolls maintained by the clerks of the King's Remembrancer and the Lord Treasurer's Remembrancer contain entries of notes of matters arising either during the viewing or auditing of accounts or in the course of routine Exchequer business, and especially that of recovering payments owing to the Crown.

20 Edward II, 1326-1327, 1 vol.

Coastal Changes

There have been many changes to the coastline, both during, and since the medieval period, especially in the vicinity of Holderness and the Humber Estuary, the Lincolnshire coast and the Wash, the coast of East Anglia, the Thames Estuary, the south-east coast, the Somerset Levels, the Dee Estuary and the Lancashire coast. Except where otherwise indicated, the maps presented in the following chapters show the present day shorelines; however, coastal changes are discussed in the text, especially where they affect the navigational courses of rivers.

Notes and References

(1) British National Archives - Sectional List 24 (Revised Jan. 1984, HMSO)

(2) ibid, 6

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CHAPTER NINE THE RIVERS OF NORTH-EASTERN ENGLAND

The rivers considered in this chapter are those contained within, or bordering, the counties of Northumberland and Durham. The area covered stretches from the Scottish border to the borders of Yorkshire, and from the watershed formed by the Cheviots and Pennines to the North Sea.

River Tweed

For the most part a river of Scotland, the Tweed rises in the south part of Peebleshire and passes by or near to Peebles, Melrose, Kelso and Coldstream, from near which place it forms the boundary between England and Scotland for 16 miles, runs through England for a short distance, and then enters the North Sea at Berwick-upon-Tweed; a total length of 97 miles.

At the beginning of the twelfth century, during the reign of King Alexander I of Scotland, Berwick was a part of Scotland, but in 1216 the town and castle were taken by King John. During the period which followed, Berwick found itself constantly alternating between English and Scottish rule, and it was not until 1482, after undergoing various sieges and vicissitudes, that it finally became an English town.

Throughout this long period of conflict, Berwick, when in English hands was a port to which provisions from all over England were frequently shipped. For example, in 1298 Yorkshire produce was shipped to Berwick(1) in order to sustain the troops of King Edward I who, between 1291 and 1307, conducted no less than four expeditions and five major campaigns against the Scots.(2) His initial expeditions were only of a diplomatic nature, but the third, extending from May to August, 1296, was hostile - during which he beseiged and took Berwick.(3) To cater for this type of activity landing stages and buildings were constructed as is revealed in a grant of 1299 to Henry le Galeys, mayor of the city of London:-

> ".....of these houses with a quay and other appurtenances in Briggestrete adjoining the Tweed". (4)

Yorkshire produce was again shipped to the town in 1301,(5) and again in 1309(6); whilst produce from Lincolnshire was shipped to Berwick in 1311,(7) and 1336.(8)

Apart from this type of utilisation at the port at the mouth of the Tweed, there was also activity along the course of the river.

In July, 1244, the sheriff of Northumberland received a consignment of wine from the keepers of the King's wine in ships at Newcastle-upon-Tyne. Ten tuns of this consignment were then taken by ship to Norham Castle, 9 miles up river from Berwick.(9)

In February, 1367, certain persons were:-

> "....instructed to make inquisition in the town of Berwick-upon-Tweed and the county of Northumberland touching on information on behalf of Thomas, bishop of Durham, that whereas the water of Twede is the boundary between the realms of England and Scotland, and the bishop is lord of the soil of the river as far as the thread in the middle of the said water wherever it adjoins his demesne, and he and his predecessors were ever seised of the same where the said water adjoins the land of their lordship of Norham and Tweedmouth, and took all profits arising from the same, as fisheries, fixing of weirs, and mills, and passage tolls of ships and boats, as of the

> right of their church of St. Cuthbert, Durham, Master John de Bolton, late chamberlain of Berwick-upon-Tweed, had taken all the profit of the passage of ships and boats in the bishop's lordship and seized it into the King's hand without reasonable cause." (10)

Berwick, Norham and Roxburgh are amongst places listed in Commissions dated March 24th 1401, relating to a subsidy of 2s. on each tun of wine and 8d. in the pound to be collected in "ports and places adjacent". (11)(12)

In June 1412, the captain of Roxburgh Castle successfully petitioned to have a vessel of his 'de-arrested'. The vessel, a balinger of 30 tuns burden called 'la Katerine', had been on a voyage

> "to be loaded with victuals and other things needful for the castle",

but had been driven by a storm into the port of Sandwich (Kent) and arrested.(13) Roxburgh Castle stands on a narrow strip of land between the rivers Tweed and Teviot, one mile to the west of their confluence at Kelso, and some 35 miles up river from Berwick.

River Aln

From its source near Alnham on the eastern slopes of the Cheviots, the River Aln flows in an easterly direction through Whittingham to Alnwick, from where, after a further 5 miles, it enters the North Sea at Alnmouth; a total length of 18 miles.

Although direct documentary evidence is lacking it is likely that the River Aln was navigable at least as far as Alnwick during the medieval period.

River Coquet

Rising in the Cheviots on the border between Northumberland and Roxburgh, the Coquet flows past Alwinton, Rothbury, Felton and Warkworth, to enter the North Sea after a course of almost 40 miles.

The lower reaches of the Coquet were navigable during the medieval period as is substantiated by the mention of Warkworth in a list of ports and maritime places compiled during the year 1326.(14) The river forms a loop almost enclosing the town, which must have acted as a natural moat, fortifying the town and protecting its castle.

It is likely that the river was also navigable for a further 6 miles, to Felton, during the medieval period.

River Wansbeck

From its source to the east of Bellingham, the River Wansbeck flows in an easterly direction to Morpeth, from where, after a further 7 miles, it enters the North Sea; a total course of 27 miles.

It is likely that the River Wansbeck was navigable to Morpeth during the medieval period.

River Tyne

The North Tyne rises in the Cheviots on the borders of Roxburgh, and flows for 26 miles passing Bellingham and Wark, to be joined by the South Tyne near Hexham. The South Tyne rises at Tynehead Fell in the extreme east of Cumberland and flows for 34 miles past Alston, Haltwhistle and Haydon Bridge to its confluence with the North Tyne near Hexham. The combined rivers form the River Tyne which flows past Corbridge, Prudhoe, Newcastle, Gateshead, and North and South Shields, and enters the sea at Tynemouth after a course from Hexham of nearly 30 miles.

Soon after North Shields was first established in 1225, there seem to have been twenty-seven houses, a quay, mills, and a small port. The fishermen who came to settle on the demesne provided the local monks with fish in return for the privilege of having houses and their own boats.(15)

The first distinct reference to the coal trade on the Tyne is in a charter of King Henry III dated 1239, which allowed the freemen of Newcastle to dig coals in the Castle Field and the Forth, and about this time coal is referred to, from its passage to London by sea, as sea coal.(16) The medieval coal trade of north-eastern England has been fully documented and reveals an increasing use of the River Tyne as a means of transporting this bulky commodity.(17) The prior of Tynemouth was shipping coal from his wharf at North Shields, certainly by 1269, for in that year the burgesses of Newcastle, led by their mayor, carried off a ship from that place which was laden with coal and other goods.(18) This obvious rivalry between North Shields and Newcastle shows itself again in 1290, when the prior was charged with obtaining money through taking tolls and prizes of wine, herring, and other goods, brought into Tynemouth which ought to have been collected at Newcastle. Following this, the prior was ordered by the King to remove all those wharves which had extended below high-water mark, and vessels were forbidden to unload at North Shields.(19)

The conveyance to Newcastle during 1244 of wine in ships has already been alluded to,(9) and, as general trade progressively increased during the thirteenth century, we find reference to the existence of a custom house at Newcastle. During 1281, duties charged include 6s. 8d. upon 300 woollen skins and the same sum upon a sack of wool.(20)

Apart from trade, the river was also utilised for more serious affairs. In March 1301, officers were appointed to expedite the sending of two ships from Newcastle-upon-Tyne to Berwick-upon-Tweed, which the King had specifically ordered to be used against the Scots,(21) and it is possible that they were specially constructed in the port. Ships were certainly being built in Newcastle at this time as is shown by an order of 1304 to the mayor and bailiffs for

> "a barge suitable for twenty-four oars to be built as speedily as possible, and cause it to be sent with suitable armament and tackle for twenty-six men to the port of St. John, Perth, paying to the men bringing the barge their expenses and costs in this matter to be allowed to them in their ferm at the exchequer." (22)

The Crown also commandeered the vessels of merchants to purvey corn, victuals and other goods from the south to be brought to Newcastle. These merchants were specifically ordered not to take their cargoes elsewhere, or to communicate with the Scots or Flemings.(23)(24)(25)

In 1323, a ship of Flanders, carrying a cargo of wine, cloth, wax and other wares, was forcibly entered and seized whilst proceeding between Tynemouth and Newcastle. The King subsequently ordered that the ship be released and its cargo returned to its owners in line with a truce which had been made between the King's subjects and the men of the Court of Flanders.(26)

The river was also instrumental in generating an income to provide for the walling and defence of Newcastle town and the parts adjacent to it. A Murage Grant of 1327 allowed the mayor, bailiffs and men of Newcastle to levy customs on goods brought for sale into the town.(27) An extract from this grant is as follows:-

On every ship laden with merchandise other than wine - 4d.
On every boat laden with merchandise - 1d.
On every last* of herrings - 2d.
On every thousand herrings - ¼d.

*A modern last consists of 13200 fresh herrings. It is used in certain ports on the east coast of Great Britain as an alternative to the cran which is used in other ports.

(Note - The Murage Grant of 1327 quoted above is important in that it is very comprehensive and lists many of the diverse commodities brought for sale to an early fourteenth century town; therefore it is presented in its entirety at the end of the chapter).

The navigation of the river was impeded by obstructions during 1344, when various persons, including the mayor of Newcastle, were commissioned by the King to

> "survey weirs and kiddles across the water of Tyne, which are said to be now made beyond the number ordained and longer than they ought to be so as to obstruct the passage of boats and ships to the said town, to remove all that they find to exceed the number ordained or to be longer, broader or higher than they ought to be, and to punish by amercements or otherwise as shall be expedient all those whom they shall find making such weirs and kiddles." (28)

In carrying out their commission the persons appointed met with resistance from the bishop of Durham who maintained that he had jurisdiction over that part of the river flowing through his bishopric. On hearing of this, the King ordered the bishop to desist.(29) Apart from acting in the public interest, it was in the King's own interest to keep the river open, for he mentions, in his order to the bishop, that obstructions to navigation result in a loss of profit from his fisheries.(30)

Records of the attempted evasion of customs duty reveal considerable activity along the river by a varied assortment of vessels. In 1362 it was stated that

> ".....merchants and others cause wools and woolfells and other merchandise liable to custom, not customed or cocketed, to be hidden under coals and stones in ships, barges and other craft, in the port of Newcastle-upon-Tyne,....." (31)

Gateshead, on the south bank of the river opposite Newcastle, was active in shipping coal from the bishop of Durham's mines there,(32) and considerable trade with the port of Newcastle was taking place.(33)

Just how far the river was navigable up-stream of Newcastle during the medieval period is difficult to assess. It was certainly navigable to Wickham,(34) and Winlaton(35) four miles up-stream from Newcastle; and a commission of 1371, again relating to obstructions, reveals that ships and boats reached Prudhoe, mid-way between Newcastle and Hexham. This latter commission refers to work carried out by a previous inquisition(36) and says:-

> "whereas the King lately appointed the (commissioners) to remove all weirs, mills, stanks, piles and kiddles in the water of Tyne between Prudhowe and Newcastle-upon-Tyne, and thence to the sea, which were put there in the time of Edward I or afterwards, he has now learned from the complaint of men of the county of Northumberland and other counties that although the said weirs were removed

> by the said commissioners, nevertheless divers men of those parts have raised them and others anew so as to totally obstruct the river for the passage of ships and boats;...." (37)

Although the River Tyne was probably navigable up-stream of Prudhoe, possibly to Corbridge and Hexham, this cannot be confirmed by any surviving documentary evidence. However, there is a wealth of surviving material relating to activity along the river between the customs port of Newcastle and the sea, especially during the second half of the fourteenth century. Therefore, as this section of the thesis is directed only towards the extent of navigable water utlised during the medieval period, and in order to avoid repitition, this material is given as reference (38) at the end of the chapter.

River Wear

The joint waters of a number of streams on the remote moors close by the borders of Durham and Cumberland form the beginnings of the infant River Wear. From Weardale Head, the river flows by Stanhope, Bishop Auckland, Durham and Chester-le-Street to enter the sea at Wearmouth; a total distance of 60 miles.

As with the Tyne, the Wear was utilised for the transport of coal during the medieval period. Its medieval navigability certainly extended 12 miles from the sea to Biddick (near Chester-le-Street), for it was at this point that staithes were made and coal taken out.(39)

Documentary evidence indicative of any navigational activity up-stream of Chester-le-Street is lacking, although it is worth mentioning that at a date later than the medieval period (1533), it appears that ten barrels of herrings were taken from Berwick to Durham by water.(40)

River Tees

Less than 10 miles separate the origin of the Tees from that of the Wear (and the South Tyne). Indeed, initially they follow parallel courses as they descend from the high fells on the borders of Cumberland and Durham. From Tees Head, the river flows by Middleton-in-Teesdale to Barnard Castle, then meanders past Darlington, Yarm, Thornaby, and Middlesbrough to emerge into the estuary of Tees Mouth; a total distance of 70 miles.

Historically, the River Tees formed the county boundary between Durham and Yorkshire, and as early as 1182, the port of Yarm, 17 miles up the river, was shipping lead from the Richmondshire mines.(41) Yarm is also mentioned in 1301 as being the only other port of shipment, besides Hull, shipping grain to Newcastle and Berwick.(42) Certain deputies were appointed in 1347 to collect 2s. on each tun and 12d. on each pipe, due to the King on wine imported by merchant strangers in the port of Yarm.(43)

During 1358, a complaint was made

> "by the commonalty of the ports of the county of York adjoining the water of Tese that, whereas there ought to be in the said water and hath been from time whereof there is not memory from the sea as far as the town of Thormotby (Thornaby) in Clyveland a common passage of ships and boats and a common fishery for all, some disturbers of the peace claiming the lordship in the water between the said bounds and appropriating to themselves several fisheries in the same water, by force prevent the passage of such ships and boats and lie in wait day and night for the said men wishing to fish in the water, follow those whom they find fishing there and destroy their nets and other instruments, and have assaulted many of them when fishing." (44)

Problems were again encountered in 1361-62, when three men of Middlesbrough were accused of forestalling a cargo of 24 chaldrons of coal in the River Tees.(45)

That there was navigational access along the Tees between Yarm and the sea is therefore well established; however, there are indications that the river was navigable much further up-stream during the medieval period.

In 1361, the King was carrying out building works at his castles of Hadleigh (Essex), and on the Isle of Sheppey (Kent). Some of the stone for these works was quarried at Stapleton, near Darlington, and thence transported to the building sites by water.(46) Although not specifically mentioned by name in the record, it must be concluded that the River Tees was utilised for this purpose. Stapleton is some 17 miles up-stream from Yarm.

Before completing this account of the rivers of north-eastern England it is worth considering the views of R. Selkirk who, in a book dealing with the Roman period, claims that virtually every river and stream in the area was made navigable, in many cases almost to their sources.(47)

One is tempted, at first sight, to summarily dismiss his conclusions; however, although most of his conclusions are based on supposition, his theories are not totally unconvincing. He uses as a 'model' for other Roman sites in the area the remains at Piercebridge,(48) where he concludes that the Romans built a dam across the River Tees and to one side an access channel for vessels, together with an integrated pound-lock. The dam would provide the necessary depth of water to enable navigation to be carried on up-stream of it, whilst utilisation of the adjacent channel and pound-lock would enable vessels to negotiate the change in water level. He goes on to record numerous examples of 'Piercebridge type' sites all over the north-east and concludes that they must have been constructed by the Romans because masonry found in their construction is Roman in origin.

He postulates that the Tweed was navigable to Newstead; the Aln to Whittingham; the Coquet to Sherperton; the Wansbeck and Font to Pigdon; the North Tyne and Rede to Rochester; the South Tyne to Whitley Castle; the Tyne and Derwent to Ebchester; the Wear at least as far as Binchester; the Wear and Browney to Lanchester; the Tees to Barnard Castle; and the Tees and Greta to Bowes.(49)

On the western side of the country he postulates that the Romans ascended the Eden and Swindale to Brough; the Eden and Eamont to Brougham; the Eden and Petteril to Old Penrith; the Eden and Irthing to Birdoswald; and the Leven to Ambleside, at the head of Lake Windermere.(50)

Although many of Selkirk's theories seem appealling, his whole case is nullified unless it can be shown that the Romans had knowledge of, and used, the pound-lock.

Unfortunately, there is no evidence to show that they did; for as far as is known, the invention of the pound-lock is attributed to Chhiao Wei-Yo, assistant commisioner for transport on a section of the Grand Canal of China in AD.983.(51)

Selkirk's assumption, that the use of Roman masonry in the various river constructions proves that they were built by the Romans, is pure conjecture. These river works could, and possibly were, constructed during later times using the readily available building materials from the adjacent Roman sites. Indeed, there are records which show that medieval man constructed and repaired many dams, as at

Knottingley and Castleford, for example, between 1322 and 1324.(52) Consequently, the technique of building up a navigable depth of water by constructing dams, or weirs, may well have been pursued during medieval times. However, the majority of these medieval works were probably associated with the sites of adjacent water mills.

Therefore, one has to conclude that Selkirk does not provide enough supportive evidence in order to substantiate his theories, and the present author prefers to rely on the direct documentary evidence relating to medieval navigations as recorded, for example, in the various state rolls of the period.

The rivers of north-eastern England are mapped in Figure 9:1, and their navigational limits, in medieval times, indicated. This figure also shows the possible limit of Roman navigation according to R. Selkirk.

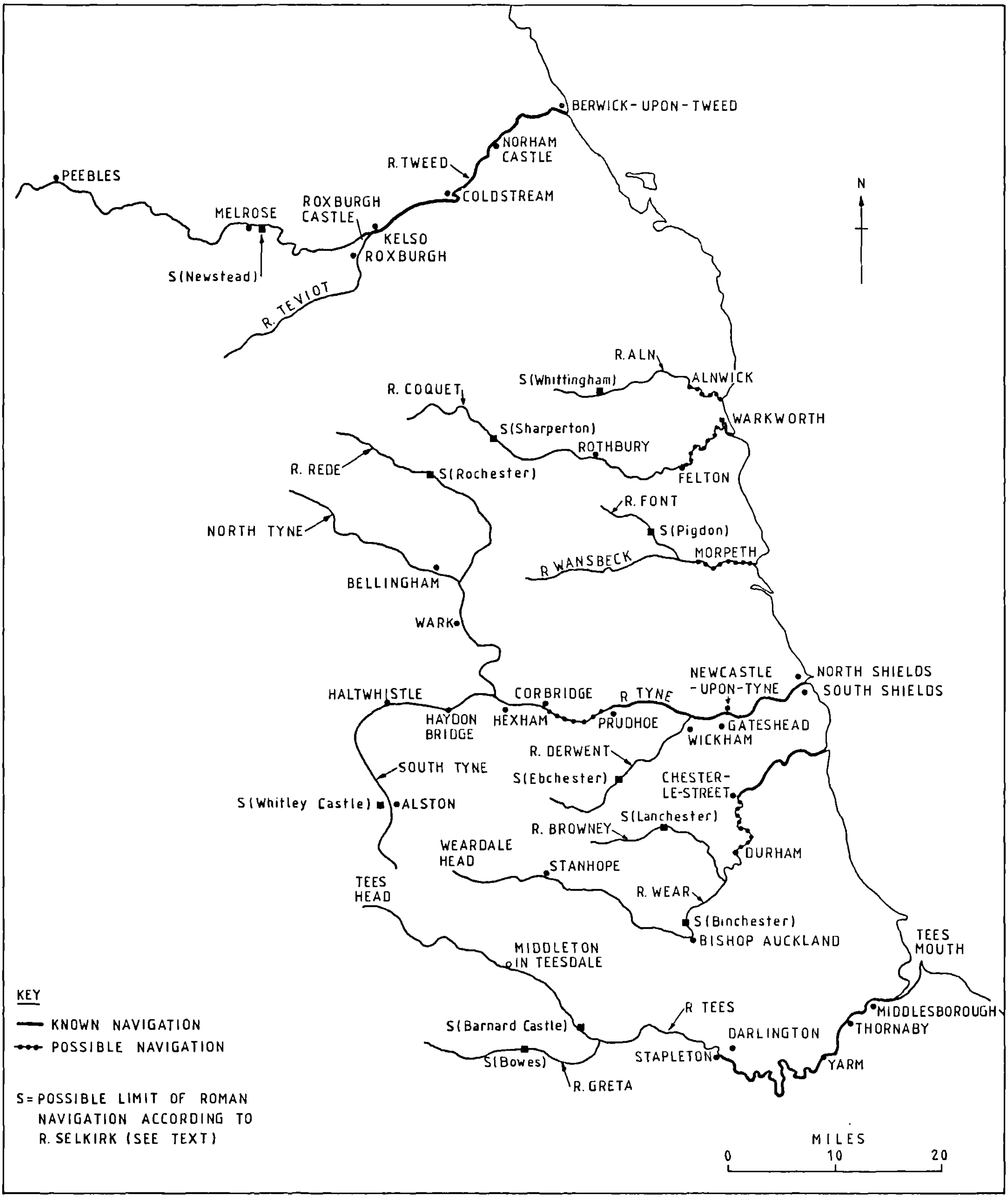
BERWICK-UPON-TWEED
NORHAM CASTLE
R. TWEED
PEEBLES
COLDSTREAM
N
ROXBURGH CASTLE
MELROSE
KELSO
ROXBURGH
S(Newstead)
R. TEVIOT
R. ALN
S(Whittingham)
ALNWICK
R. COQUET
WARKWORTH
S(Sharperton)
ROTHBURY
R. REDE
S(Rochester)
FELTON
R. FONT
NORTH TYNE
S(Pigdon)
MORPETH
R WANSBECK
BELLINGHAM
WARK
NEWCASTLE -UPON-TYNE
NORTH SHIELDS
SOUTH SHIELDS
HALTWHISTLE
CORBRIDGE
R TYNE
HAYDON BRIDGE
HEXHAM
PRUDHOE
GATESHEAD
WICKHAM
R. DERWENT
SOUTH TYNE
S(Ebchester)
CHESTER-LE-STREET
S(Whitley Castle)
ALSTON
S(Lanchester)
R. BROWNEY
WEARDALE HEAD
DURHAM
STANHOPE
TEES HEAD
R. WEAR
S(Binchester)
BISHOP AUCKLAND
TEES MOUTH
MIDDLETON IN TEESDALE
KEY
KNOWN NAVIGATION
POSSIBLE NAVIGATION
S=POSSIBLE LIMIT OF ROMAN NAVIGATION ACCORDING TO R. SELKIRK (SEE TEXT)
R TEES
MIDDLESBOROUGH
S(Barnard Castle)
THORNABY
DARLINGTON
STAPLETON
S(Bowes)
YARM
R. GRETA
MILES
0
10
20

FIGURE 9:1 THE RIVERS OF NORTH-EASTERN ENGLAND

Notes and References

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(5) *Public Record Office*, E101/597/5

(6) *Public Record Office*, E101/597/17

(7) *Public Record Office*, E101/568/30

(8) *Public Record Office*, E101/569/3

(9) *Calendar of Liberate Rolls*, 1240-45, 255

(10) *Calendar of Patent Rolls*, 1364-67, 427

(11) *Calendar of Fine Rolls*, 1399-1405, 122

(12) *Calendar of Patent Rolls*, 1399-1401, 465

(13) *Calendar of Close Rolls*, 1409-13, 278

(14) *Calendar of Patent Rolls*, 1324-27, 311

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(18) ibid, 24

(19) ibid, 24-25

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(21) Calendar of Patent Rolls, 1292-1301, 583

(22) Calendar of Close Rolls, 1302-07, 122

(23) Calendar of Patent Rolls, 1321-24, 86

(24) ibid, 134

(25) ibid, 268

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(27) Calendar of Patent Rolls, 1327-30, 3-4

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(32) Calendar of Patent Rolls, 1364-67, 31

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(38) Calendar of Patent Rolls, 1364-67, 400 (Newcastle)

ibid, 410 (Newcastle)

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Calendar of Patent Rolls, 1374-77, 159 (Water of Tyne)

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Calendar of Close Rolls, 1402-05, 329 (Newcastle)

Calendar of Charter Rolls, 1341-1417, 290-91 (Newcastle area)

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(43) *Calendar of Patent Rolls*, 1345-48. 253

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(47) R. SELKIRK, *The Piercebridge Formula: A Dramatic New View of Roman Britain* (Cambridge, 1983) esp. 72-161

(48) ibid, 99-111

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Murage Grant, dated February 3rd., 1327(27)

1327. Feb. 3. Westminster. Licence for the mayor, bailiffs, and men of Newcastle-upon-Tyne, in aid of the walling of the town and for the defence of the same and the parts adjacent, to levy, for seven years, by the hands of Adam de Galewaye, Richard de Acton and John de Denton, or two of them, the following customs on goods brought for sale into the town:-

On every ship laden with merchandise other than wine	4d.
On every boat laden with merchandise	1d.
On every last of herrings	2d.
On every thousand herrings	¼d.
On every horse-load of sea fish	1d.
On every sack of wool	2d.
On every wey (256 lb.) of wool	½d.
On every horse, mare, ox and cow	½d.
On every hide of horse, mare ox and cow, fresh salt, or tanned	¼d.
On every last of ox hides	12d.
On ten sheep and pigs	1d.
On every load of corn	¼d.
On every chaldron of corn	1d.
On every chaldron of salt	1d.
On four loads of charcoal	¼d.
On every cart-load of peat and brushwood	¼d.
On every wey of grease, tallow, butter and cheese	¼d.
On every chaldron of sea coal	½d.
On every hundred weight of wax	2d.
On every hundred weight of pepper	2d.
On every hundred weight of almonds	1d.
On every hundred weight of cumin	½d.
On every frail of figs and raisins	½d.
On every load of garlick	¼d.
On every load of onions	¼d.
On every tun of wine	2d.
On every tun of ashes	1d.
On every assize of woad	1d.
On every thousand thistles	¼d.
On every hundred weight of kitchen utensils (bateria)	2d.
On every bale of cloth bound (trussello pannorum ligato) of the value of 20s. and no more	1d.
On each cart-load of lead	2d.
On every bale unbound	¼d.
On every tun of white peas	2d.
On every tun of pitch, oil and tar	1d.
On every bacon pig	¼d.
On every hundred weight of alum	2d.
On every thousand of grey-work (grisei operis)	6d.
On every packet of squirrel skins	½d.
On every hundred weight of linen cloth and canvas	1d.
On every hundred weight of nets	1d.
On every whole cloth	½d.
On every hundred weight of woolfells of sheep	2d.
On every packet of skins of foxes	2d.
On every hundred weight of skins of lambs, rabbits and hares	½d.
On twenty salmon	1d.
On every hundred weight of dried melwells (mulvellorum)	1d.

On every hundred weight of green boards - - - - - - - 1d.
On every hundred weight of boards de Mureff - - - - - 4d.
On every hundred weight of estrich boards - - - - - - 1d.
On every hundred weight of felt - - - - - - - - - - - - 1d.
On every sheaf of steel - - - - - - - - - - - - - - - ¼d.
On every mill stone - - - - - - - - - - - - - - - - - ½d.
On every hundred weight of oars - - - - - - - - - - - - ½d.
On every bale of all kinds of merchandise exceeding the value of two shillings - - - - - - - - - - - - ¼d.

Richard de Emeldon, Thomas de Frismareys and Thomas Danlyn are appointed to see that the above customs are applied only to walling the town, By K & C.

CHAPTER TEN THE RIVERS OF YORKSHIRE

An unusual feature of the Yorkshire river system is that, almost without exception, the rivers eventually find an outlet to the North Sea via one channel - the estuary of the River Humber. The catchment area of this system is vast, stretching from the North York Moors to the Midlands, and from the Pennines to the Yorkshire Wolds. This chapter deals with the Yorkshire rivers, whilst the Trent and its tributaries are dealt with in Chapter Eleven.

River Humber

The large river estuary of the Humber divides the historic counties of York and Lincoln. It varies in breadth from 1 to 7 miles and is about 35 miles long.

Being so wide, and hence not capable of being bridged until modern times, the estuary of the Humber acted as a natural barrier to overland routes and hence put a great emphasis on the various ferries which plied between the two counties. The main crossing in the thirteenth and early fourteenth centuries appears to have been that between Barton-upon-Humber and Hessle. An order to the bailiff of Barton to cause the King's 'great barge' appointed for the ferry between Barton and Hessle to be repaired was issued in 1299.(1) One year later a similar order was issued relating to the repair of the King's 'smaller barge'.(2) In 1293, Edward I began to develop the port of Hull and hence created the town of Kingston-upon-Hull,(3) and as its importance grew a ferry to Barton was established. There was also a ferry between Barrow Haven and Hull, and as Barrow is to the east of Barton this resulted in a shorter crossing. Rivalry between the two ferries was fierce and disputes were common.(4) Another significant crossing was that between North and South Ferriby,(5) and there were other ferries at Winteringham,(6) Paull,(7) Brough and Faxfleet.(8)

To cater for the increase in trade brought about by the development of the port of Hull, a new quay was ordered to be built in 1297,

> "for loading, unloading and weighing goods and wares there." (9)

From this point on, to the close of the fourteenth century, there are numerous references to the port of Hull.(10-24)

Although Hull, even before its development by Edward I, was a prominent Humber port, Grimsby, Hedon, Barton and Immingham were all active. An early indication of their relative importance can be gained from comparing the amount of tax, known as the 'fifteenth', which the merchants paid in each port. A Pipe Roll of 1204, in the sixth year of the reign of King John, when rearranged in decreasing value of tax paid, is instructive. Allowing for all the complexities associated with the interpretation of this kind of record, the list is nevertheless indicative of the relative importance of these ports. The rearranged list is given below in Table 10:1; with the Humberside ports underlined.

TABLE 10:1 The Fifteenth from Seaport Merchants of 1204(25)

Rank	Port	£	s.	d.
1	London	836	12	10
2	Boston	780	15	3
3	Southampton	712	3	7½
4	Lincoln	656	12	2
5	Lynn	651	11	11
6	Hull	344	14	4½
7	York	175	8	10
8	Newcastle	158	5	11
9	Grimsby	91	15	0½
10	Winchelsea	62	2	4½
11	Hedon	60	8	4
12	Yarmouth	54	15	6
13	Fowey	48	15	11
14	Yarm	42	17	10
15	Barton-upon-Humber	33	11	9
16	Dover	32	6	1
17	Chichester	23	6	7
18	Scarborough	22	0	4½
19	Shoreham	20	4	9
20	Immingham	18	15	10½

Amount of Tax Paid (columns £ s. d.)

In 1311, grain and malt was shipped along the river from Grimsby to Barton.(26) In 1341, the mayor and bailiffs of Grimsby arrested 27 sarplars of 'non-coketted' wool which they had discovered in a ship and in two little ships called 'Keles'.(27) The port of Barton was suffering from obstructions in 1364, for in that year the town was allowed to take certain specified customs on goods brought to or from the port to be taken for three years, in aid of the cleansing of their port.(28)

Ravenserodd, a small town created in 1240 and located on a sandbank somewhere in the vicinity of Spurnhead, also saw the benefit of waterborne trade. In 1290, the men of Grimsby complained that Ravenserodd was taking trade away from their port.

> "...ships laden with diverse kinds of merchandise began to unload and sell at the town. And now, inasmuch as the island is nearer the sea than Grimsby and as ships can unload there more easily, nearly all ships do stay, unload and sell there." (29)

However, the inundations of the water caused havoc at Ravenserodd, and by 1346 two thirds of the town had been washed away.(30)

Goods were sometimes sold from vessels on the water of the river rather than being brought to land for sale. In 1314 it was said that merchants

> "...dispose of their merchandise in the water, whereas they should come to land as at London and other places in England, whereby the King loses his rents and the profit which should come to him and his people,..." (31)

Searches of vessels in the river were often carried out, as in 1341, when officers were appointed to

> "search ships, and boats and other vessels in the Humber,....freighted with wool and other customable wares, coming from any parts of coasts of the realm, and to take into the King's hands in like manner all uncustomed wool or other wares found therein;.....(32)(33)

There is also evidence of the perils of navigating the river and also the hazards of stormy weather. In 1360, Ralph of Alford was giving evidence concerning the age of an heiress; he remembered her birth well, because on the Monday after it his father had set off on pilgrimage to the shrine of St. James of Compostella; he had made a vow to do it

> "on account of a danger in which he had been in the waters of Humber." (34)

In 1366,

> "...Thomas Smyth of Whittyn was taking certain men in his boat over the water of Humbre to Gaynesburgh, John Rymay of Notingham, 'mariner', sailing in his ship passed over the said boat and totally smashed it, whereby Thomas and the others in the boat were in such peril that three of the men were drowned;....(35)

In 1386, herrings, oil and other merchandise were lost from a ship which

> "was split by a storm in the river Humbre". (36)

River Hedon

The River Hedon, or Hedon Haven, is a narrow creek which cuts into the marshy lowlands of Holderness between Spurn Head and Kingston-upon-Hull.

The town of Hedon, 2 miles up-stream from the shores of the Humber, was the first attempt at establishing a port in the area. The site of the town was probably occupied soon after 1138, and in this respect it pre-dates the foundation of Hull.(37)

A record of 1338 shows that the river was navigable up-stream of Hedon, for a commission of that year, investigating an unlawful diversion of the watercourse, reported that ships and boats were unable to pass to the town of Burstwick because of the diversion.(38) In 1345, the keeper of the manor of 'Brustwyk' was ordered

> "...to receive toll and custom in the parts of Holderness from ships laden with merchandise and other things coming there....." (39)

Towards the end of the fourteenth century (post 1392), a jury of Hedon was told that

> "...a ditch...whereby from time immemorial boats laden with merchandize passed from the high sea to the Humber, then to Hedon ...and ought so to pass, has becom dry for lack of repair and cleaning and because it has been stopped up, so that boats cannot pass along it.." (40)

River Hull

Rising to the west of Great Driffield, which it then flows past before turning south near Wansford, the River Hull follows a generally north-south course past Beverley, prior to entering the Humber at Hull; a total length of 25 miles.

As early as the twelfth century, Archbishop Thurstan of York persuaded the merchants of Beverley to deepen the creek which led from their town to the River Hull, thus enabling sea-going vessels to come and go.(41) Early in the thirteenth century the Archbishop of York claimed right of passage in the river for a width of 24ft;(42) and in 1268, or 1269, attempts were made to clear the river of obstructions.(43)

In 1298, a member of the crew of a ship died on board whilst the vessel was on the water of Hull near Beverley. The Archbishop of York attempted to obtain money to allow the ship to proceed on its journey by claiming that the crewman had died by misfortune; however, the Archbishop's claim was rejected.(44)

Also during 1298, Yorkshire produce, including oats and peas was taken down the river to Hull from Wansford, Beverley and Leven.(45) In 1309, grain was taken overland from Malton and Pocklington to Wansford and then by river to Hull.(46) Wool from the Vale of Pickering was taken to Wansford in 1338, prior to being taken to Beverley and Hull via the river.(47) During the same year, the Archbishop of York again claimed rights in the river, this time between Hull and Aike.(48) Orders

> "to arrest non-coketted and non-customed wool
> in ships in the water of Hul",

were issued in 1342.(49) In 1343, a ship was orderd to be sold

> "as forfeit to the King, because wool found
> therein was not coketted or customed,....";

the ship had been arrested near Grimsby and was taken to Hull, from where it was taken to Beverley and afterwards brought back to Hull.(50)

In 1361, a commission was appointed

> "...to survey kiddles and weirs in the waters
> and rivers of Use, Ayre, Derwent, Querf, Yore,
> Swale, Nidd, Hull and Don, and to make inquisition
> ....whether any of these obstruct the passage." (51)

The members of this same commission were also asked to determine whether the owners, masters and mariners of ships and boats passing along the rivers were guilty of charging

> "excessive stipends, wages and other sums for carriage in their ships and boats, contrary to the form of the statutes of labourers and workmen, by covenants made in advance, and refuse to carry for a reasonable sum." (52)

Although the River Hull did not present so great a physical barrier to overland travel as the River Humber, there are records of ferries across it.(53) One such ferry linked the villages of Brandesburton and Rotsea; this no doubt would be in the vicinity of Hempholme, where lanes lead down to the riverside.

That the river was still used for the transport of merchandise towards the end of the fourteenth century is revealed by a commission set up in 1379

> "to survey all weirs, mills, pools, pales and kidels which have been set up in the river Hull... to the obstruction of ships and boats". (54)

River Ouse

Formed by the junction of the Swale with the Ure near Boroughbridge, the River Ouse flows south-east past York. Cawood, Selby and Goole, 8 miles east of which it unites with the Trent to form the estuary of the Humber. Its total course is 60 miles, York being 45 miles up-river from the confluence with the Trent and Humber.

From the very beginning of the medieval period there is reference to navigation along the River Ouse, for in 1066, as the Domesday Book informs us, the burgesses of Torksey near Lincoln on the River Trent, had the duty of conducting the King's messengers to York with their ships and other aids.(55)

In 1236, a charter was confirmed which gave the monks of Jervaulx

> "...the liberty of the water from Boroughbridge to York, so that they may bring and take all things needful to them in one ship,...." (56)

During 1245, the constable of Pontefract was asked

> "...to make two lime-kilns (rogos) wherever they may be most sufficiently made and nearest to the water in his bailiwick for the works of York castle, which the King has ordered to be refortified; and to carry the lime to the water, to be carried on to York castle by the sheriff." (57)

Both the Ouse and the Humber were utilised in 1256 when 36 tuns of wine, bought on behalf of the King at Boston was taken to York by water and delivered to the sheriff.(58)

In 1298, grain and oats were taken by water from Cawood to Hull; malt from York to Hull; and grain and malt from Selby and Howden to Hull.(59) Similarly, in 1301, oats were transported along the river from Boroughbridge to Selby.(60)

A minister's account of 32 - 33 Edward I (1303-04), gives details of freightage charges of boats carrying merchandise. and divers other things between Boroughbridge and York.(61)

In 1311-12, Queen Isabella journeyed along the Ouse between York and Howden. Four boats were hired for herself, her damsels. squires and the equipment of the small wardrobe, a trip which took the masters and their assistant boatmen two days.(62)(63)

In 1331, it appears that a ship conveying the goods of the bishop of Durham was wrecked at the junction of the Ouse and Humber; his goods being cast ashore at Ousefleet, Blacktoft and Faxfleet.(64)

Shipbuilding was carried out in York, for in 1337, the mayor and bailiffs of the city were requested

> "..to cause a great barge with boats and all other necessaries pertaining thereto to be constructed with all possible speed in that city at the common expense of the men of the city for the defence of the realm.' (65)

Various references relate to the obstructions in the river, as in 1348, when presentments were made by jurors of Selby that the abbot of York had let

> "...part of the said water between Selby and the river Wharfe..., and in a place called le Hard by Selby they have set nets across from midstream to the bank, on the archbishops side to the great danger of passing ships." (66)

This type of obstruction seems to have presented a serious threat to navigation for, towards the end of the fourteenth century (c1394), a presentment by jurors of York relating to such obstructions over a number of years is framed in the following language:-

> "...whereas the water of Ouse is a highway and the greatest of all the King's rivers within the Kingdom of England, and is for the use of merchants in ships with divers merchandise from the high sea to the city of York and other places within the county, to the great increase of the Kingdom and especially of the King's city of York and the county of York and of other counties, cities, boroughs and towns in the northern parts of England, to wit from the sea to the Humber, thence to the Trent, thence to the Ouse and so to York, there are in the said waters divers hindrances, stoppages and weirs called fishgarths and in the said weirs are divers spaces called rowmes set strongly across the whole depth of water with poles, stones and hedges, whereby the common course of the said river and the carriage of merchandise as aforesaid is wholly stopped for a few years now past and very often the said spaces were endangered and submerged:...no ship can pass in the summer season...by reason of the obstruction...lost two ships fully laden with woollen cloth to the value of sixty pounds,..." (67)

Throughout the fourteenth century there are many references to obstructions along the course of the river.(68-71)

Nevertheless, all the aforementioned obstacles to navigation must have been overcome for, throughout the fourteenth century, there are numerous references which testify to shipping movements along the course of the river, together with extensive use of the port of York.

For example, in 1339, ships from Newark journeyed to York,(72) and in 1341, a ship of York, laden with corn and other merchandise, was sent to Kingston-upon-Hull to make a profit there.(73)

Grievances arose in 1350, for, in that year the abbot and convent of St. Mary's, York, were given, in view of the insolence of the men of the city of York and their accomplices, protection for carrying their victuals and other things by the water of Ouse.(74)

Shipbuilding was still under way in 1358, as is revealed by a record relating to a dispute over a plot of land which was situated between the castle and the river. It was stated that the plot

> "...is now occupied by Nicholas Taverner of York, William de Crulle of York and Roger de Whiteley of York, and many others who there carpenter (carpentant), make and work divers ships and boats,..." (75)

In 1369, the mayor and citizens of York were allowed to take customs from goods for five years in

> "...aid of maintenance of a quay newly built in their city on the water of Use between the bridge of that water and the inn of the Friars Minors."(76)

This grant was renewed in 1377 for three years, when details of the charges are recorded,

> "...from every ship of 20 tons burden and upwards, laden with goods for sale, 2d., from every ship of 10 tons up to 20 tons burden, so laden, 1d., and from every boat of less burden than 10 tons, ½d." (77)

This first quay was probably made of wood, but by 1388 it appears that stone was being used to make it anew, for in that year a grant was made

> "...to the mayor, bailiffs and other citizens of York, who intend with stone and lime to strengthen and make a new quay between the house of the Friars Minors of that city and Use bridge, of the following customs as quayage for six years, viz:- (78)

For every quarter of corn brought by strangers to the city	½d
For every quarter of salt so brought	½d
For every thousand of turves or peats so brought	¼d
For every foreign vessel of the burden of 20 tuns of wine and more, with whatever merchandise laden	6d
For every foreign vessel of less burden	3d.

In 1370, William Tundu of York, was ordered to load 300 quarters of wheat, 100 quarters of beans and peas and 300 quarters of malt in the water of Ouse, and bring them to London.(79)

The aforementioned material was selected to demonstrate the fact that throughout the medieval period, although periodically prone to obstructions and the like, the River Ouse remained navigable throughout its whole course. However, there is a wealth of surviving material relating to activity along the river throughout the fourteenth century, and this is given as reference (80) at the end of the chapter.

River Derwent

The River Derwent rises on Fylingdales Moor to the north-west of Scarborough and initially flows in a southerly direction prior to turning due west near Ganton from where it passes by Yedingham to Malton.

From Malton the river flows in a southerly direction to Stamford Bridge and on past Kexby, Elvington, Wheldrake, Ellerton, Bubwith and Wressle to enter the Ouse at Barmby-on-the Marsh; a total length of 65 miles.

A record of a dispute relating to an incident which occurred in 1317 is revealing:-

> "Robert Garinge of Halton by Kylingholm in a dispute with Walter son of William Mekan of Ludington, killed himself with a pair of tongs in a ship of the abbot of Thorneton on Humber called 'Blome' on St. Martin in the winter of 10 Edward II, in the water of Derwent near Wresill: neither the ship nor anything belonging thereto was in anyway the cause of the death of the said Walter; the ship was taken into the King's hand by reason of the said felony in Lent following, at Swinflete in the water of Ouse". (81)

Wressle is 3 miles up-river from the confluence with the Ouse.

An inquisition of 1332, relating to obstructions, shows that the river was navigable for at least 20 miles, to Stamford Bridge:-

> "Ships and boats, laden with victuals and other goods, used to pass by the water of Derwent to Staynfordbrig and elsewhere along the banks of the said water from time beyond memory." (82)

The record goes on to mention obstruction by weirs at specific places, these being:- Duffield, Ellerton, Cottingworth, Wheldrake, Sutton and Elvington all of which are situated between the mouth of the Derwent and Stamford Bridge. Obstructions in these same places are mentioned again in 1356.(83)

Obstructions to navigation were mentioned in 1341, when it was said that there were divers weirs, kiddles and sewers in the river in the area of Stamford Bridge

> "...so that ships and boats laden with merchandise cannot pass for the common good of the men of those parts, as they used to do..." (84)

It is this frequent reference to obstructions which probably led to a number of surveys of Yorkshire rivers carried out between 1353 and 1361 which included the River Derwent.(85-88) These surveys appear to have been reasonably effective for, after 1361, records of obstructions in the river diminish, and, apart from a weir at Bubwith and a stake at Wressle,(89) the navigation appears to have stayed clear and it was not until 1390-91 that the river was further obstructed and a subsequent survey commissioned. (90-92)

It is likely that the River Derwent was navigable 14 miles up-river of Stamford Bridge, to Malton, during the medieval period.

River Foss

The River Foss rises in the Howardian Hills and flows in a southerly direction through Stillington and Strensall and on to York, where it enters the River Ouse after a course of 18 miles.

In 1314, the prior and friars in the city of York were given permission to

> "...construct a quay in their own soil within their dwelling place (mansum) upon the bank of the King's stew of the 'Fosse', which they may hold to them and their successors for ever, and further that they may have one boat in the stew to carry to their said dwelling place stone, brushwood and other necessaries of theirs, as well under the bridge of the Fosse as elsewhere in the stew.". (93)

The river was navigable for about 6 miles up-river towards Strensall for, in 1323, the owners of land adjoining that part of the river complained that the King's

> "Keeper ought not to mow grass in the lands or meadows adjoining thereto, and that neither the King nor his Keeper ought to receive any other profit except from so much grass or rushes (cirpis) as the Keeper can mow from his boat in the summer time by having one foot in the boat and one on shore;..." (94)

It is likely that the River Foss was navigable for a further 7 miles up-river of Strensall to Stillington, during the medieval period.

River Swale

The River Swale rises in the hills to the north of Thwaite and then flows east along Swaledale to emerge into the Vale of York at Richmond, from where it follows a more southerly course past Catterick. It passes within 4 miles of Northallerton and Thirsk before its confluence with the Ure to the south of Boroughbridge; a total length of 53 miles.

Throughout the medieval period timber was regularly shipped from Topcliffe, 9 miles up-river, to York.(95) In 1317, mention is made of a boat upon the water of Swale at Morton, 4 miles to the west of Northallerton.(96) Morton is 21 miles up-river from the confluence of the Swale and Ure. In 1357, mention is also made of a boat at Myton on Swale, which is a short distance up-river from the confluence with the Ure.(97)

There is an interesting reference of 1380 which implies that the river may have been navigable as far as the town of Richmond, 34 miles up-river. In that year

> "The King's bailiffs of the city of Lincoln were attached to answer Peter de Sabaudia touching his plea why they demand toll of his men of the honor of Richemond coming into Lincoln with things for sale, they having been heretofore quit of toll throughout England from the time of the Conquest. He complains that in the twelve years last past the said bailiffs have demanded the following tolls from them, viz. for every horse sold or bought 1d., for every ox ½d., for every cart 2d., for every vessel (navi)4d.,..." (98)

It was finally agreed that the men of the honor of Richemond

> "...will pay for every vessel with 'helmrother' coming within the metes of the city 2d., and for every vessel with 'handrother' 1d., and this is to be understood of ships carrying merchandise previously bought by any merchants and afterwards exposed for sale and not of other things." (99)

Although the 'Honour of Richmond' was extensive,(100) Richmond Castle, situated atop a cliff beside the River Swale, was the centre of its economic administration.

That the river was probably navigable for the greater part of its course is hinted at by the commission of 1361 previously alluded to, relating to obstructions, which included a survey of the River Swale.

River Ure

Rising near Hawes, the River Ure flows east through Wensleydale then gradually turns to the south passing Middleham, Jervaulx Abbey, Masham and Ripon to Boroughbridge, after which it is joined by the Swale to form the River Ouse; a total length of 45 miles.

The town of Boroughbridge, which appears to have been founded c1145,(101) is 3 miles above the confluence with the Swale. The river was certainly navigable to this point for, in 1218-19, the jurors at the eyre of Boroughbridge declared that

> "No ship can pass without payment" (102)

The charter of 1236 which gave the monks of Jervaulx

> "...the liberty of the water from Boroughbridge to York so that they may bring and take all things needful to them in one ship...."

has already been alluded to. Throughout the medieval period lead was regularly shipped from Boroughbridge to York.(103) Of the lord's income from Boroughbridge in 1300 the tolls of market and river freight contributed almost a third.(104) The abbot and convent of Fountains Abbey were allowed to fish in the water between Boroughbridge and York in 1312; they could use one fisherman and his servant together with two boats and a drag-net provided they did not make weirs, nor fix piles. The abbot and convent of Fountains were also allowed free transit in the water between Boroughbridge and York.(105) There is the record of a ferry across the water of Ure at Boroughbridge.(106) A grant of 1310 records that the Earl of Cornwall and his wife Margaret

> "...shall have the water of Yore and Use between the said town of Boroughbridge and the city of York in several, so that none shall fish there or pass in ships or boats without their licence." (107)

In 1318, Boroughbridge was burned and wasted by the Scots, and this resulted in a reduction of revenue from freightage along the river due to the fear of merchants.(108) Similarly, in 1322, it was stated that

> ".....ships could not pass for fear of the King's enemies....." (109)

Wool was shipped from Milby, near Boroughbridge, to York in 1338.(110)

The charter which gave the monks of Jervaulx Abbey the liberty of the water between Boroughbridge and York in 1236 was granted by Richard, earl of Cornwall who, as is shown by a similar grant of his descendant in 1310, held the rights of the water between the two places. This does not necessarily mean, therefore, that the monks of Jervaulx only navigated the water between Boroughbridge and York, it only confirms the rights of the earl of Cornwall to this section of the water and it is very likely that the ship of the monks actually plied between Jervaulx and York. The Abbey, which is situated mid-way between Middleham and Masham, was built on the green levels adjacent to the river. The commission of 1361 which called for a survey of Kiddles and weirs in the water of Ure,(111) and asked for information as to whether any of these obstruct the passage; it is doubtful that this survey would apply only to the 3 mile section of the river between its confluence with the Swale and Boroughbridge. The terminology used in many of the medieval references to Boroughbridge: 'no ships can pass'; 'ships could not pass'; etc., implies that the river was navigable above the town.

River Nidd

Rising on the slopes of Great Whernside, the River Nidd flows in a south-easterly direction through Nidderdale to Pateley Bridge. It then turns in a more easterly direction past Ripley and Knaresborough to enter the River Ouse at Nun Monkton; a total length of 44 miles.

During the medieval period lead was the major commodity associated with Nidderdale and the River Nidd. Lead was mined in the hills around Pateley Bridge and also at Knaresborough.(112) B. Waites, in an article relating to the medieval trade of North-East Yorkshire, says:-

> "...lead was regularly sent from Nidderdale to York and thence to Hull entirely by water...." (113)

That the Nidd was navigable during the medieval period is shown by the number of surveys undertaken to ensure that the passage was kept clear of obstructions.(85-88)

Exactly how far the river was navigable is not clear, but it would be safe to assume that it would have been navigable to Knaresborough, 15 miles up-river, and possibly as far as Pateley Bridge.

River Wharfe

From Oughtershaw Moss to the north of Pen-y-ghent, the River Wharfe flows in a south-easterly direction past Kettlewell, Grassington and Bolton Abbey before turning east past Ilkley, Otley, Wetherby and Tadcaster to enter the River Ouse near Cawood; a total length of 65 miles.

In 1322, when the city walls of York were in need of repair, stone was sent by water from a quarry near Tadcaster.(114) Stone was sent by water from Tadcaster again in 1333, when a writ of aid was granted to one Thomas de Papeham

> "...in buying stones in the quarry near Tadcastre for the King's use, for his engines, and in carrying them to the water of Wharf, near Tadcastre" (115)

In 1338, the collectors of wool in Lancashire were directed to send an allocation to Hull; they transported it in carts to Tadcaster, and then shipped it the rest of the way.(116)

A grant of 1346 makes it clear that the river was used to transport all kinds of merchandise:-

> "Grant to the good men of Tadcastre of pontage for three years for repair of their bridge, to be taken by the hands of Adam, Vicar of the church of Berdeseye, and Robert de Bradeley on wares coming to the town by land as well as water". (117)

As with various other rivers of Yorkshire, the Wharfe was the subject of a number of surveys undertaken to ensure that the passage was kept clear of obstructions.(85-88) Further obstructions are also recorded; in 1362, there was a stake set in the river at Kirkby Wharfe - near Tadcaster;(118) in the same year the archbishop of York was accused of setting up divers stakes across the mouth of the Wharfe - in his defence the archbishop claimed that there had always been

> "....sufficient passage for ships...." (119)

That there was access for ships along the Wharfe, at least as far as Tadcaster which is 8 miles up-river, has therefore been well established; however, it is highly probable that the town of Wetherby, 6 miles further up-river and situated on the Great North Road, could also have been reached by medieval vessels.

River Aire

Rising near Malham, to the south-east of Pen-y-ghent, the River Aire flows in a south-easterly direction passing to the west of Skipton and on past Keighley, Bingley, Shipley, Leeds, Castleford (where it is joined by the Calder), Ferrybridge, Knottingley and Snaith to enter the Ouse near Hook; a total length of 70 miles.

Ferrybridge was the point at which the 'Great North Road' crossed the river before dividing - one way to York, the other to Wetherby and Boroughbridge.

In 1218-19, Rannulf de Fery accused Nigel de Fareburn, of drowning Simon de Fareburn by throwing him overboard from a ship at Fairburn,(120) which is some 20 miles up-river from the confluence with the Ouse. Knottingley; the adjacent township, was a port and ship-building centre throughout the medieval period,(121) sending timber on numerous occasions by water during the construction of York Minster.(122)

Pontefract, 2 miles from the river, was listed as a port in 1274,(123) and, as previously mentioned, the constable of Pontefract was asked to send lime by water for the re-fortification of York Castle in 1245.(57)

There is a record of wages paid to the Keepers of the King's ships at Cowick, near Snaith, for the years 1324-25.(124)

A Pontage Grant of 1340 allowed the bailiffs and 'good men' of Ferrybridge, near Knottingley, to take custom

> "...on things for sale brought to their town
> as well by land as by water." (125)

A similar grant of 1359 allowed men of Pontefract and Ferrybridge to take custom

> "....on things for sale passing by the water of Eyre from Kelynglsy to Queldale as well as by the bridge of Ferybrigge for the repair of that bridge and the causeway between the said town and Brotherton, which are in a dangerous state." (126)

Wheldrake is situated 2 miles up-river of Ferrybridge, near Fairburn; and Kellingley 3 miles down-river, near Beal.

Records of obstructions on the Aire are few; however, in post 1392, the jurors of York were told that a bridge called Tunbridge, by Cowick,

> "...is made so low that no ship can pass beneath it towards York and that the men of Cowick, Rawcliffe, Snaith and Hook ought to raise and mend it." (127)

The River Aire was included in the previously mentioned surveys of Yorkshire rivers undertaken to ensure a clear navigational passage.(85-88)

In 1367, a man was assaulted at Brotherton, near Ferrybridge, and his assailants were said to have

> "....chased him to the church of that town and besieged him there so that he dared not for a long time come out for fear of death, took away his wagon with two oxen yoked therein; worth 60s., sank his ship there loaded with lime worth 20 l.,..." (128)

A record of 1394 reveals that there was a ferry at Airmyn, near the confluence with the Ouse. (129)

There are indications that the River Aire was navigable up-river of the Knottingley area. In 1246, buildings in the manor of Leeds

> "...which fell down through the cleaning of the waterways;..."(130)

had to be repaired. Much further up-river in the Skipton area, a pontage grant of 1384 is recorded as follows:-

> "Grant to Nicholas de Scardeburgh, John de Malghom and Robert Ledes of Skipton of pontage for three years for repair of 'Engeweybrigges' over the Eyre by Skipton in Craven, to be taken upon things for sale passing by that river between Cononlaye and Conyston." (131)

Coniston is 6 miles up-river from where the Thornton-in-Craven to Skipton road passes over the River Aire, and presumably where the bridge mentioned in the pontage grant was located; Cononley is 4 miles down-river from the bridging point. If this 10 mile stretch of the upper river was navigable, and it appears from the detail given in the record that it was, then in all probability the section of river between Cononley and the known medieval port of Fairburn may have been navigable also. This latter section of river covers a distance of 35 miles as it flows past the townships of Keighley, Bingley, Shipley and Leeds to Castleford, where it is joined by the River Calder, 3 miles from Fairburn.

River Calder

Rising in the Pennines on the slopes of Boulsworth Hill, the River Calder follows an easterly course via Hebden Bridge, Sowerby Bridge, Brighouse, Dewsbury and Wakefield to join the River Aire at Castleford after a course of 35 miles.

It is likely that the River Calder was navigable for the first 8 miles up-river from its confluence with the Aire, from Castleford to Wakefield, during the medieval period.

River Don

The River Don rises in the Pennines near Dunford Bridge at the border of Yorkshire and Cheshire. Initially, it flows due east to Penistone then turns south to Sheffield from where it changes course to a north-easterly direction and continues past Rotherham to Doncaster and Stainforth after which, in medieval times, it split into two different courses. One course flowed due east from Stainforth via Thorne and the Isle of Axholme to join the River Trent; the other course continued in a northerly direction from Stainforth and entered the River Aire near Snaith; a total length of 70 miles.

In 1314, the monks of Louth Park were given permission to cut turf by the town of Swinefleet and to

> "...carry it and other goods to the waters of the Use and Don, and there load ships and take them thence freely and without disturbance." (132)

In 1322, the

> "King lately appointed Thomas de Roassale to keep the bridge and water of Roderham, and to arrest the King's enemies trying to pass the same, together with their goods and chattels:-" (133)

That the river was navigable at least as far as Rotherham is confirmed by the Fabric Rolls of York Minster, which show that timber was sent by river from Aldwark, near Rotherham, to York Minster throughout the medieval period.(134)

In 1326, the course of the Don between Thorne and the Isle of Axholme and the River Trent was obstructed.(135) This section of the river was still suffering from obstructions in 1343 when a commission, which refers to the earlier obstruction, was asked

> "...to make inquisition in the counties of York and Lincoln touching petitions of the men of the parts of Merskland, co. York, and the island of Haxholme, co. Lincoln, before the King and council in the present Parliament, shewing that Edward II at their suit setting forth that the river Done, which is the bound between these counties, where there used to be a course of water for the passing of ships from the town of Donecastre to the water of Trent, and for making sewers for the adjacent lands, was then obstructed, by letters patent appointed John de Donecastre and others to remove the obstructions and cause the river to be brought back to its ancient course, and they caused the river to be dug at the charges of the men of the said parts from a place called 'Crullflethill' to a place called 'Donmyn' to a breadth of 16 feet and one grain of barley and the course of the water to be brought back to the ancient course, and now the river is again obstructed by bridges, weirs and other things so that the said breadth is not kept, whereby the passing of ships is impeded and the land adjoining is flooded, and praying him to cause the obstructions to be removed." (136)

These obstructions, which relate to the dual use of rivers as a means of transport and for drainage of the land, were still being referred to as late as 1382.(137)

Apart from these specific references to obstructions, the Don, along with various other Yorkshire rivers, was the subject of a number of surveys undertaken to ensure that the navigational passage of the river was maintained.(85-88)

Yorkshire stone was used in the palace of Westminster, for, in 1394, a certain William Bleburgh was appointed

> "...to arrest ships and other vessels sufficient for the carriage of free stones from a place called 'Le Mar' by Doncastre to the palace of Westminster by water for the King's works there,..." (138)

It is probable that the River Don was navigable 6 miles up-river of Rotherham, to Sheffield, during the medieval period.

In a book dealing with the Don Navigation, T.S. Willan writes;

> "The Don was one of those rivers of eastern England whose courses were radically changed by the land-drainage schemes of the seventeenth century. Before the drainage of Hatfield Chase, the Don had no direct outlet into the Yorkshire Ouse; one branch flowed into the Aire, and the other into the Trent. As part of his drainage scheme, Vermuyden cut off this latter branch and forced all the water of the Don into the Aire. This naturally caused flooding, and Vermuyden was compelled to cut the Dutch River at a cost of £20,000 to give the Don an outlet into the Ouse." (139)

The rivers of Yorkshire are mapped in Figure 10:1, and their navigational limits in medieval times, are indicated.

The general coastline, and the shoreline of the Humber Estuary depicted in Figure 10:1 is the modern one. However, as with other areas of the British Isles, there have been certain changes both during, and since, the medieval period. The coast of Holderness has suffered constant erosion since Anglo-Saxon times, and the distribution of alluvium shown on the geological map indicates that in general, the land alonside the rivers leading into the Humber Estuary was of a marshy nature. (140)

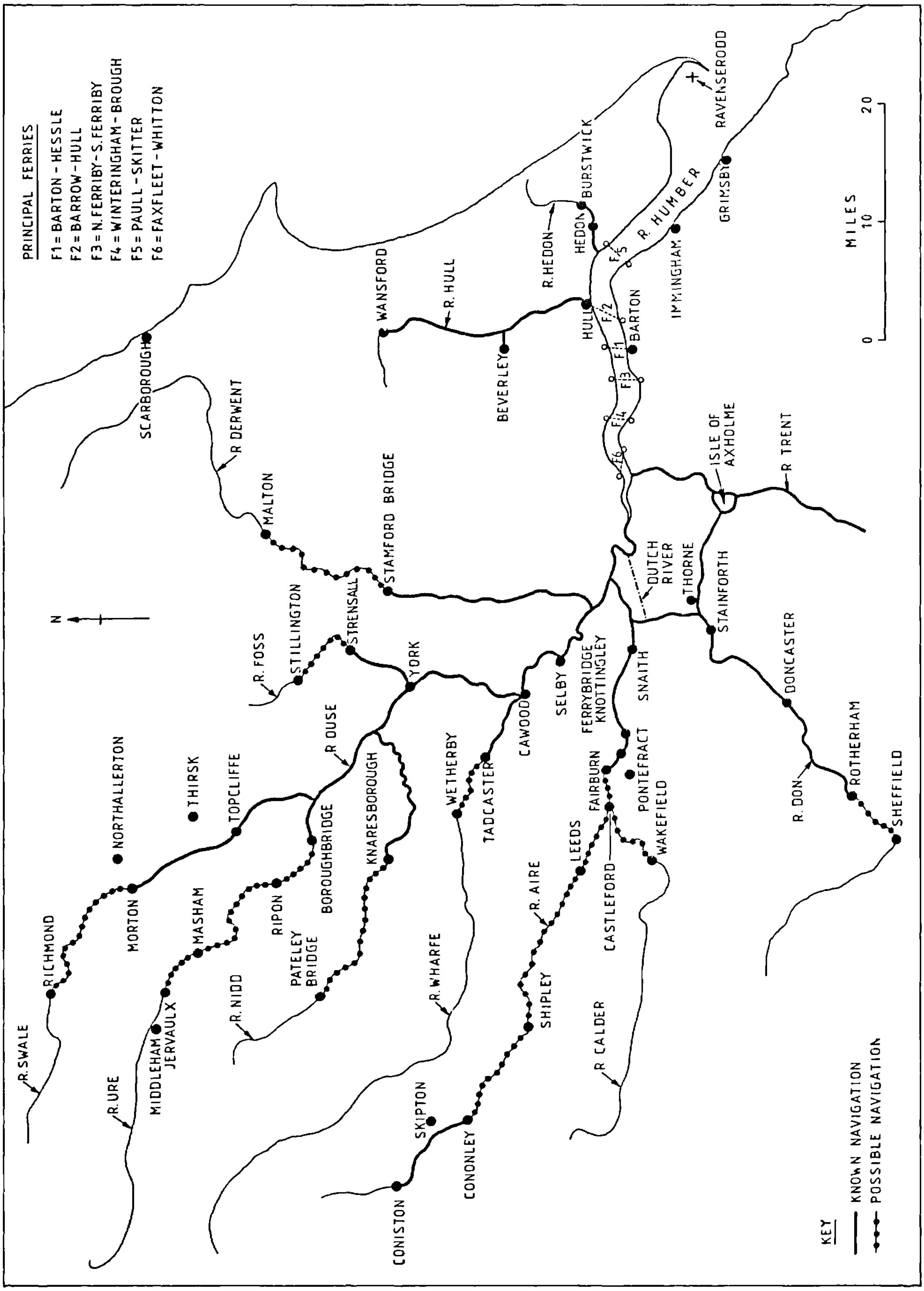
PRINCIPAL FERRIES
F1 = BARTON - HESSLE
F2 = BARROW - HULL
F3 = N.FERRIBY - S.FERRIBY
F4 = WINTERINGHAM - BROUGH
F5 = PAULL - SKITTER
F6 = FAXFLEET - WHITTON
N
SCARBOROUGH
R DERWENT
MALTON
STAMFORD BRIDGE
WANSFORD
R. HULL
BEVERLEY
HULL
R. HEDON
HEDON
BURSTWICK
R. HUMBER
RAVENSERODD
GRIMSBY
IMMINGHAM
BARTON
F1
F2
F3
F4
F5
F6
ISLE OF AXHOLME
R TRENT
DUTCH RIVER
THORNE
STAINFORTH
DONCASTER
R. DON
ROTHERHAM
SHEFFIELD
SNAITH
FERRYBRIDGE
KNOTTINGLEY
SELBY
CAWOOD
YORK
STRENSALL
STILLINGTON
R. FOSS
R OUSE
TADCASTER
WETHERBY
KNARESBOROUGH
BOROUGHBRIDGE
RIPON
PATELEY BRIDGE
R. NIDD
TOPCLIFFE
THIRSK
NORTHALLERTON
MORTON
RICHMOND
R. SWALE
MASHAM
MIDDLEHAM
JERVAULX
R. URE
R. WHARFE
R. AIRE
LEEDS
SHIPLEY
SKIPTON
CONONLEY
CONISTON
FAIRBURN
PONTEFRACT
CASTLEFORD
WAKEFIELD
R CALDER
MILES
0
10
20
KEY
KNOWN NAVIGATION
POSSIBLE NAVIGATION

FIGURE 10:1 THE RIVERS OF YORKSHIRE

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CHAPTER ELEVEN THE TRENT AND THE OTHER RIVERS OF CENTRAL EASTERN ENGLAND

The rivers considered in this chapter are those contained within an area which stretches from the southern shores of the Humber Estuary to the Wash, and from the eastern coast across most of Lincolnshire, Nottinghamshire, Derbyshire and Staffordshire.

River Trent

From its Staffordshire source on Biddulph Moor, the River Trent initially flows in a south-easterly direction to reach its most southerly point near Alrewas, from where it turns north-eastward to Burton-upon-Trent and Shardlow, after which it is joined first by the River Derwent and then by the River Soar. The river proceeds to Nottingham and then shortly before Newark, divides into two channels. These channels re-unite after Newark and the river continues in a northerly direction to Torksey - where it is joined by the artificial cut of the Foss Dyke. After passing Gainsborough the Trent is joined by the River Idle and continues to its confluence with the River Ouse and Humber Estuary.

The total length of the River Trent is 170 miles.

Throughout the medieval period the River Trent was regarded as a major physical landmark. Terms such as "beyond Trent", and "this side of Trent", were frequently used in medieval records, and various stretches of the river formed the county boundaries between Lincolnshire and Nottinghamshire; Derbyshire and Leicestershire; and Derbyshire and Staffordshire.

Domesday Book informs us that, in 1066, messengers of the King journeyed between Torksey and York in their ships.(1) There was also movement further up-river. The Domesday entry for Nottingham says

> "the water of the Trent, and the Foss and road towards York are so regulated that if anyone impedes the passage of boats or if anyone ploughs or makes a ditch within two perches of the King's road, he has to pay a fine of £8" (2)

Further up-river still, past the confluence with the River Derwent, there was a ferry at Weston-upon-Trent.(3) Domesday also records three ferries between Nottingham and Newark at Gunthorpe, Fiskerton, and another to the east of Southwell.(4) Further down-river, between Torksey and Gainsborough, there was a ferry at Lea.(5)

In 1228, the lord of Torksey was entitled to take certain tolls on the Trent between Susworth, near Scotter, and Newton-upon-Trent. Ships with oars paid 4d., those without oars 2d., and a small boat 1d. Various goods were listed for tolls and these included fish, corn, wine, timber, stone, wool, ashes, woad, alum and teasels. However, the men of London, Lincoln, Nottingham, York, Beverley and Torksey were exempt from these tolls and nothing was charged on coal, turves, hay, manure, chalk and thatch.(6)

During the period 1260-70, the export of wool was prohibited; however, it appears that a large amount was shipped out from Torksey.(7)

In 1265, one Gilbert de Preston was commissioned

> "...to enquire touching a complaint made on behalf of the burgesses of Nottingham that whereas the waterway in the water of Trent between the town of Nottingham and Thorkese ought to be of the breadth of one perch on each side of the middle of that water, certain persons of those parts have raised weirs in divers

> places in the said stream without their assent and thereby so narrowed the waterway that ships cannot get to the said town as they used to do; and to hear and correct the said trespasses..." (8)

Obstacles to navigation occurred on this same stretch of river in 1292 when it was said before a jury that

> "Thomas de Chaworth has erected afresh and heightened his old weirs at Marnham, to the damage of the town of Nottingham of half a mark because ships cannot pass so conveniently as they were wont; the master of Eykel likewise his weirs at Grettonhoke to its damage of 40s.; the master of the hospital of Neuwerk likewise his weirs at Bersholmhoke to its damage of half a mark; the bishop of Lincoln likewise his weirs at Tolneybroke to its damage of 100s. The fishery of the King's weir at Nottingham is not damaged by the erection and heightening of any of the said weirs. The jurors know no other weirs between Thorkesey and Nottingham by which the ancient course of the water (of Trent) is obstructed or slackened." (9)

The bishop of Lincoln, who was fined at the above mentioned hearing, also had a free fishery on the Trent near Newark and during the year 1292 he complained that certain persons had

> "...carried away the boats, nets and engines which his men of the said manor (Newark) had there for the capture of a porpoise there, fished there themselves, took the said fish, and when his bailiffs and men arrested the said fish and raised the hue and cry to attack them, assaulted them, recovered the said fish and carried it away." (10)

In 1298, the 'good men of Gainsborough' were allowed to take custom on goods passing over their quay.(11)

The mayor and commonalty of Nottingham complained in 1299

> "that whereas by charters of the King's progenitors, and confirmation thereof by the King, they have the liberty that the

> water-way of the Trent should be free for persons navigating it for one perch on each side of the middle of the stream, William de Colewyk has by weirs in mid-stream , made by himself and his ancestors, prevented persons navigating so that they cannot come to the town and castle with goods and merchandise." (12)

These same complaints were raised again in 1300,(13) 1302,(14) and 1303.(15)

In 1307, John de Britannia, earl of Richmond, was ordered

> "...to have in the King's forest of Shirewode twelve oaks fit for timber of the King's gift for the repair of his vessels that were sunk and broken at Torkeseye." (16)

In 1313, one Henry de Stuterville complained

> "that John, parson of the church of Clifton, and Joilinus de Wodeburgh, with others, assaulted him at Barton, co. Nottingham, and carried away a boat of his and his nets of the price of ten marks, cut the nets up into small pieces..." (17)

Barton (in Fabis) is 6 miles up-river from Nottingham and four miles down river from the confluence between the Trent and the Derwent.

In 1316, Walter de Chaumberlayn was given a protection grant for one year for

> "..carrying corn and other victuals to the city of York by water from the Church of Estdraiton, co. Nottingham, for the sustenance of John de Merkyngfield and his household." (18)

The church of East Drayton is situated by a tributary of the Trent some 3 miles to the west of the main course of the river. This tributory enters the Trent 2 miles up-river from Torksey and it appears from the wording in the protection grant that it was used to transport the cargo.

Problems with weirs and obstructions, once again in the area of Colwick, arose in 1316 when men of the counties of Nottingham and Derby complained

> "that, whereas the course of the river Trente, from the mid stream of the said river, from the river Humbre, to the castle of Nottingham, ought to be of the breadth of one perch at least, and of old time, whereof the memory of man exists not, was accustomed to be, so that ships laden with goods and merchandise could freely pass by the said river Trent from the Humber to the said castle, nevertheless, William de Colwyk and his ancestors diverted its course by weirs, and piles fixed in its waters to his watermill at Overcolewyk whereby such ships cannot pass to the castle, and that by such weirs a great part of the profit which the King ought to receive from the fishery in his weirs and mills at Nottingham have failed him, to his loss, and the loss of all dwelling in those parts." (19)

Although Colwick is only about 3 miles down-river from Nottingham, the journey along the River Trent from the Humber Estuary to Colwick is some 72 miles, therefore these obstructions must have proved extremely frustrating for those wishing to proceed to Nottingham and beyond as is borne out by their persistent complaints.

Apart from the hazards presented by physical obstructions the navigators sometimes had to contend with more sombre distractions. In 1321 a ship was proceeding along the Trent with a cargo for Nottingham and had only journeyed some 17 miles along the river when it was seized by the men of Sir John de Mowbray at Kinnard Ferry.(20) This sort of incident must have led the King to issue merchants with grants of safe-conduct especially when transporting cargoes for the Crown, the production of which was probably enough to deter the less ardent evildoers from engaging the wrath of the King. In 1322, Nicholas le Taverner of Newark was granted safe-conduct for one year in

> "going with his ship southwards to buy corn and victuals, and to bring the same to Newark and from thence in his ship to York, he having found security that he will not take the goods elsewhere, and that he will not communicate with the Scots or Flemings." (21)

Similarly, in 1332, John de Kelm of Newark was granted safe-conduct for one year for

> "...his men and ships, while procuring and bringing to York corn, victuals and other goods for the sustenance of the King and others there." (22)

As in modern times, the masters of medieval ships would be reluctant to return home with empty holds and they must have sought out cargoes which they could sell in their local area. That this type of two-way trade was carried on is shown by a protection grant of 1339,

> "...for Almot Flemmying of Neuwerk or his men and servants going with certain ships to York and Kyngeston-upon-Hull to sell corn there and buy herrings and other victuals to be brought to Neuwerk." (23)

It would appear that both channels of the river in the vicinity of Newark were navigable during the fourteenth century. The course of the Trent divides about 2 miles up-river of Newark and re-unites about the same distance down-river from that town. The eastern channel passes through the town and the western channel through Kelham. Therefore, ships visiting Newark would do so via the eastern channel. However, that the western channel was also utilised is shown by a pontage grant of 1346:-

> "Grant to the good men of Kelm by Newerk of pontage for three years on wares for sale passing over or under their bridge...." (24)

Although sea-going vessels navigated the river, vessels constructed solely for use on inland waterways were constantly in use. This distinction is made clear by a writ of 1341 to the mayor and bailiffs of Grimsby:-

> "Twenty-five sarplers of wool were found in two ships, called 'Keles' of Newark, which belonged to William Peny and Thomas Croyser; these ships were incapable of conveying the wool or other goods beyond seas so as to be liable to custom. The wool ... came by the river Humber near to the water of Hull, and was driven by a contrary wind and the ebbtide to Iminghame Crik and thence to Grimesby, where the mayor arrested it, suspecting that it was not cocketed,..." (25)

Throughout the remainder of the fourteenth century there are many references to navigation along the River Trent, especially between Nottingham and the Humber Estuary, and to prevent a repetitious text these are given as reference (26).

Although Nottingham was an important port of call, the River Trent was certainly navigable for a number of miles further up-river during the medieval period. This is confirmed by a record of 1338 which says:-

> "Grant to the good men of Swerkeston of pontage for four years, to be taken by Hugh del Calk and John son of Adam on things for sale coming to the town as well by land as by water for repair of their bridge." (27)

This bridge is at the point where the Derby to Melbourne road crosses the Trent.

Swarkeston is 18 miles up-river from Nottingham past the confluence of the Soar and the Derwent, and only 9 miles from Burton-upon-Trent. It would seem reasonable to conclude therefore, that if boats were reaching the relatively small town of Swarkeston, they were also navigating at least as far as the more important market centre at Burton.

River Soar

Commencing in Warwickshire to the north-east pf Coventry, the River Soar flows in a generally northerly direction through Leicester and Loughborough to enter the River Trent between Shardlow and Barton in Fabis; a total length of 35 miles.

In 1318, various persons were appointed to take

> "certain customs from goods for sale passing by the bridge of Keggeworth and by the towns of Keggeworth and Radeclif and the fields of the same and coming to the town of Keggeworth to be applied to the repair and maintenance of the said bridge...." (28)

Although this record does not specifically mention vessels, it could be interpreted as including goods for sale being moved along the river. Ratcliffe and Kegworth are 2 and 4 miles respectively up-river from the confluence with the Trent.

It is likely that the River Soar was navigable for a further 6 miles up-river from Kegworth, to Loughborough, during the medieval period.

River Derwent

Rising in the southern Pennines on the eastern slopes of Bleaklow Hill, the River Derwent flows through hilly country in a generally southerly direction to be joined by the River Wye at Rowsley; it then flows through Matlock and passes to the east of Wirksworth, through Belper, then on across much more level surroundings to Derby, from where it turns more easterly to unite with the Trent near Shardlow; a total length of 55 miles.

In 1204, King John's charter to the town of Derby makes it clear that the River Derwent was navigable directly to that town. He gave the townsmen the right to use the

> "Darent, navigable from ancient times" (29)

A grant of 1229, in which the burgesses of Derby were given

> "all the free customs which the King's burgesses of Nottingham have and had in the time of King Henry I and King Henry II;"

included the following:-

> "...the Derwent shall be open to navigation by the length of a pole on each side of mid-stream;" (30)

Towards the end of the thirteenth century Simon, abbot of Dale, built his mills at Borrowash, between Derby and the Trent, and so obstructed the river with weirs that no boat could pass; however, Edward I appears to have resolved this situation.(31)

There are indications that the Derwent was also navigable for about 10 miles up-river of Derby. During the reign of Edward II there were lead mines in the vicinity of Wirksworth and Hartington. At this time the mines were administered directly by the crown officers and there survives from this period an account of one William of Birchover, who was the deputy responsible for administering the accounts. His records of 1322 show that £143 was received for 65 barge-loads of lead which had been sold to William de la Pole and Richard his brother.(32) This works out at 44s. the barge-load, which is exactly the rate recorded in a record of 1325, referring to these same lead mines. On this occasion the King had ordered that as much lead be delivered

> "...as might be needed for covering certain houses in Nottingham castle at the price contained in their commission, viz. 44s. the barge-load." (33)

It is therefore clear that this lead arrived at Nottingham aboard barges, and although the initial stage of its journey was probably by road, one can only conclude that the River Derwent must have been utilised somewhere to the north of Belper, otherwise if the lead had been taken overland to either Derby, or the Trent, then, when considering the distances involved, it would have been more practical to have taken it directly to Nottingham overland also.

It appears that the Derwent was still navigable in 1378, for in that year the town of Derby was

> "charged with making a balinger" (34)

for the crown, which after construction, would no doubt be floated the 9 miles down-river to the Trent, for delivery to the King's officers.

River Idle

The River Idle begins its course near Elkesley and flows through Retford and Mattersey to Bawtry near which it is joined by the River Ryton before turning east by Misson and Misterton to enter the Trent at Stockwith; a total length of 25 miles.

Although, in earlier times, it is known that the Idle had three outlets into the Trent, the chief and navigable course of the river was that as outlined above.(35)

Consignments of wool were shipped from Bawtry during the period 1260-70,(36) and in 1267, the sheriff of York was asked

> "...to receive 60 fothers of lead to be delivered at Bautr' by the sheriff of Nottingham and Derby, and carry it by water to Westminster without delay and without fail." (37)

In 1298, eighty-six quarters of grain and twenty-nine quarters of malt were shipped from Bawtry to Hull and then on to Berwick.(38)

In 1322, one Thomas de Donestable was granted a

> "...common fishery in the water of Iddel, and his pasage over or within the water, in the town and territory of Scaftworth and Marresey near Everton, co. Nottingham." (39)

Scaftworth, Mattersey (Marresey) and Everton are situated up-river from Bawtry.

During 1337, various persons were accused of diverting the course of the Idle at Sutton, which is 3 miles to the north of Retford.(40)

Wool and lead were again shipped from Bawtry in 1341, and taken to Grimsby for transhipment to Holland.(41)

The port of Bawtry is 10 miles up-river from the confluence with the Trent; however, it appears that the River Idle was completely navigable throughout its course from Elkesley to the Trent as is shown by commissions of 1363 and 1373 where various persons were asked

> "...to make inquisition in the county of Nottingham touching the water of Idel descending by the towns of Elkeslay, Gamelston, Eton, Ordeshale, Estretford, Westretford, Bolum, Tilne, Sutton, Lound, Mathersay, Thorp, Scoby, Skaftworth, Claworth, Everton, Harwell and Hayton, which, as the King is given to understand, is so obstructed by weeds and other dirt...." (42-43)

M. Beresford, in his description of the foundation of Bawtry, comments that:-

> "The Idle was navigable upstream into Nottinghamshire and downstream to the Trent;.." (44)

In 1380, Henry Marchant of Retford was granted a licence

> "..to load one last of hides at each of the ports of Newcastle-upon-Tyne, Hartilpool, Whiteby and Scardeburgh and take them to Bautre..." (45)

Obstructions in the river are mentioned again in 1396,(46) and 1397.(47) The earlier reference imples that the Idle was navigable up-river of Bawtry; it asks various persons

> "...to inquire who have placed kidels, bridges, nuisances and other obstructions in the river Edelle on the borders of the counties of York and Nottingham flowing into the water of Bekerdyk and thence to the Trent, thereby hindering the common passage of ships and boats to Bautre and other towns on the said river."

River Eau

Rising near Harpswell, to the west of Gainsborough, the River Eau flows in a generally northerly direction to Scotter, where it turns west then enters the River Trent near Susworth after a course of 14 miles.

In 1375, the abbot of Peterborough was accused of causing obstructions in the river at Scotter. It was said that he had set piles and stakes in the water there,

> "so that passing ships have no notice thereof.." (48)

Scotter is 3 miles up-river from the confluence with the Trent.

River Ancholme

From near Market Rasen, the River Ancholme flows through that town to Bishopbridge and proceeds in a northerly direction past the town of Brigg to a junction with the River Humber between Winteringham and Barton-upon-Humber; a total length of 31 miles.

The Ancholme was navigable during the thirteenth century as is shown by a commission of 1290 when instructions were given

> "...to clear of obstructions the water of Ancolne from Bishop's Bridge to the Humbre, at the cost of those who will benefit by such clearance, the sheriff having certified that if this is done ships and boats laden with corn and other merchandise might then go from Humbre to the parts of Lindeseye, as they were wont to do." (49)

There are similar references to obstructions to the end of the thirteenth and throughout the fourteenth centuries.(50-59)

Hence, although the river was definitely navigable from the Humber to Bishopbridge a commission of 1375 stated that the water of Ancholme should be

> "40 feet broad from its source to the water of Humbre." (60)

What the commission exactly meant by the 'source' of the river is not clear, but it must have been in the vicinity of Market Rasen. Bishopbridge and Market Rasen are 21 and 27 miles up-river from the Humber, respectively. A record of 1395 shows that the river ought to be 40 feet wide from West Rasen to the Humber.(61) West Rasen is mid-way between Market Rasen and Bishopbridge, therefore it is safe to conclude that the river was navigable for at least 24 miles of its course and probably to Market Rasen.

River Great Eau

The River Great Eau rises on the southern slopes of the Lincolnshire Wolds and flows in a north-easterly direction through Claythorpe, Withern and Theddlethorpe All Saints, to enter the sea at Saltfleet; a total length of 14 miles.

A reference of 1347, although specifically referring to drainage, implies that the river was navigable for 9 miles, from Withern to the sea. Various persons were asked

> "...to survey the course of the water by Witherne, which runs from the bridge of Wythern as far as Herleholm, thence to Thedelbrigge, thence to Salflethaven and so to the sea. For the safety of the parts adjacent, the said water has of ancient time been ordained to be of a breadth and depth defined by certain limits, but now is so obstructed and narrowed by the planting of trees and by dung and refuse thrown in in divers places by men dwelling by the water that the lands and holdings adjoining the same are inundated. They are, therefore, to find by inquisition in the county of Lincoln the names of those who have caused such inundations and to distrain and compel all those whom they shall find to have caused the obstruction to enlarge the course of the water to its ancient size." (62)

River Steeping

The River Steeping follows a south-easterly course from its source at the southern end of the Lincolnshire Wolds and passes close to Spilsby and on to Wainfleet before entering the sea to the south of Skegness; a total length of 18 miles.

In 1301, various provisions were taken from Wainfleet, 4 miles up the river, to Lincoln, entirely by water.(63)

River Witham

Rising where the counties of Lincolnshire, Rutland and Leicestershire meet, the River Witham flows directly north to Grantham after which it turns west for a short distance before resuming a northerly heading through Claypole, Beckingham, and Bassingham to be joined by the River Brant before reaching Lincoln. At Lincoln the artificial cut of the Foss Dyke connects the river with the Trent, but the Witham proceeds in an easterly direction to Bardney, and then flows in a south-easterly direction by Stixwould, Kirkstead, Tattershall Bridge, Dogdyke and Langrick to Boston, before entering The Wash; a total length of 78 miles.

In 1066, the King's messengers navigated the Witham from the Wash to Lincoln and on through the Foss Dyke to Torksey and the Trent.(64)

Foreign merchants were navigating the river in the thirteenth century for, in 1243, merchants of Rouen complained that they had been robbed of £29 in the Witham at Langrick.(65)

Tolls were being taken on the river at Dogdyke in 1269,(66) and there was a wreck in the water near Fiskerton the following year.(67)

In 1272

> "Sir Philip Marmeon and his men took two hundred and fourscore pieces of lead at Boston belonging to Robert Rast, burgess of Nottingham, in the name of Peter Cosyn, and took them by water to Lincoln..." (68)

In 1275 the bailiffs of Lincoln explained that the Lord of Kyme had driven them away and forcibly seized the tolls they ought and used to take.(69)

Lincoln and Boston were extremely busy ports during the thirteenth and fourteenth centuries. Writing at the time of Henry I, William of Malmesbury speaks of Lincoln as one of the most populous places in England,

> "an emporium of men coming by land and sea", (70)

The tax on seaport merchants at the commencement of the thirteenth century, and previously alluded to, shows the relative importance of the two ports, Boston ranking second only to London, and Lincoln ranking fourth. (See Table 10:1).

During the period 1301 to 1336 much varied produce was taken to Lincoln and Boston by water from Stixwould, Wainfleet, Spalding, Crowland, Sutton, Kyme Eau, Catebridge and Sleaford.(71-73)

In 1308, the earl of Richmond was given a grant

> "of pontage and pavage for the town of Boston upon wares brought for sale into that town, either over or under the bridge." (74)

In 1323, certain persons

> "....took away four ships...in the water of Wyme at Tymberlond," (75)

(Timberland Dale is mid-way between Boston and Lincoln).

Lincoln is 36 miles up-river from the sea and the navigation to this point during the medieval period is well established. However, it appears that the Witham was navigable for a further 17 miles to Claypole, as is implied by a commission of 1328 asking certain persons to check

> "...on information that the water of Wythum and certain dykes and places through which divers waters in the moorland district in the Wapentakes of Lovedon, Newark, Boby, Grafhou, Flaxwell and Langhou, in the counties of Lincoln and Nottingham, flow from Claypol as far as Lincoln into the said water of Wythum, are so narrowed and obstructed with earth, sand and gravel that on that account, as well as on account of certain wears and mill-ponds on the Wythum between these points, inundations frequently occur, and that bridges and causeways are so broken up that in winter scarcely any passage is open - to survey the premises, remove obstructions and, where necessary, enlarge the channel, so that it is made 40 or 30 feet deep; also to enquire by whose default this damage has arisen..." (76)

Similar references appear in 1363,(77) and 1382.(78)

A further indication that the river was navigable between Lincoln and Claypole is given by a protection grant of 1336 to the men of Thomas de Sibthorpe, parson of the church of Beckingham, Lincolnshire, who was sending them

> "...to York with a ship laden with corn for the sustenance of himself and others, and for their men and servants." (79)

Beckingham is situated at the point where the Newark to Sleaford road crosses the Witham, 4 miles down-river from Claypole.

Throughout the fourteenth century there are many references relating to navigation along the Witham, mainly between Boston and Lincoln, and between these two places and the sea.(80)

Foss Dyke

Originally constructed by the Romans,(81) the Foss Dyke is an artificial channel some 10 miles long connecting Lincoln and the River Witham with Torksey and the River Trent.

As previously mentioned, the Foss Dyke was being navigated in 1066. It appears that by 1086 there may have been obstructions in its channel;(82) however, in the year 1121 it was cleared and reopened for navigation.(83-84)

Tolls were being charged on the Foss Dyke in 1228, and some years later the bailiffs of Torksey were accused of wrongly levying toll from the ships of merchants of Lincoln; complaints were also raised around this time against one Robert of Dunham who was accused of similar offences.(85)

Early in the fourteenth century the evidence suggests that the navigation was open only for small boats, for in 1299 and 1316 when the Bursar of Durham was buying large amounts of cloth and provisions in Boston the goods were taken to Lincoln by water and then transferred to carts to be taken on to Torksey from where they once again were loaded onto ships.(86)

Positive action was taken in 1335 to ensure that the channel would be navigable for larger vessels, for in that year a commission was asked

> "... on petition by the men of the county of Lincoln before the King and council setting forth that the dyke called 'Fossedyke' from the city of Lincoln to the river Trente is so obstructed that the passage of boats and ships is no longer possible, to survey the same, to enquire by oath of good men of the county how and when it became obstructed, and to compel the persons interested to cleanse the same." (87)

Monies were raised later the same year from the parties responsible for causing the obstruction and the channel was made navigable. However, it appears that monies in excess of what was required to remove the obstruction were appropriated by the collectors, for in evidence given before the King it was stated

> "...that, whereas certain men of the counties of Lincoln and Nottingham have received divers sums of money for removing an obstruction of the dyke called 'Fossdyke' running through the said counties from the city of Lincoln to the river Trente from those who caused the obstruction, they have converted the greater part thereof to their own use, to make inquisition in those counties what men received the money, how much they applied in the removal of the obstruction, and how much they retain." (88)

In 1365 obstructions are once again mentioned,(89) and ten years later, presentments to a jury emphasise the importance of the navigation to the towns on the adjacent river systems, for they are told

> "...that a dyke called Foss Dyke extending from the King's water of Trent at Torksey to Lincoln was once open and full of water so that ships from Nottingham and York and Kingston on Hull and elsewhere with victuals and other merchandise could come thereby from the Trent to Lincoln and thence to Boston to the amendment of the King's city of Lincoln and the adjacent country and is now stopped for the lack of repair and cleaning,.." (90)

Towards the end of the fourteenth century, the city of Lincoln asked to be exempt from certain payments and taxes due to the cost incurred in

> "...scouring of a canal whereby boats come to the city with divers victuals in greater numbers than they used to do..." (91)

In modern times a lock was constructed at Torksey to enable vessels to rise from the Trent. How this change in level was catered for in medieval times can only be guessed at for there is no surviving documentary evidence which mentions a lock; however, some means of access must have existed between the two waterways.

River Slea

The River Slea, or Kyme Eau as it is also called, rises to the west of Ancaster, flows by that place, and follows an easterly course through Wilsford to Sleaford after which it passes by Haverholme Priory and South Kyme to its junction with the River Witham near Dogdyke; a total length of 20 miles.

In 1311, produce was sent in bulk from Sleaford to Boston by land and ship.(92) From Sleaford to Boston by water, via the Slea and Witham, is about 24 miles, whereas the distance between the two places by road is 17 miles. The greater part of the journey of 1311 must therefore have been by water, otherwise it would have been much more practical to have made the complete journey overland. The river was certainly navigable to within 3 miles of Sleaford in 1316, for, in that year, the Prior of Haverholme had responsibility for its navigation from Haverholme to South Kyme; and the navigation from South Kyme to the Witham was under the auspices of one Philip of Kyme.(93) There were obstructions in the river at this time, but, in 1342, the earl of Angus informed the King that as the Kyme Eau was so obstructed that ships laden with merchandise could not pass as they used to do, he offered to scour out the channel provided he was allowed to take certain dues from the goods passing in ships.(94) His offer was accepted and he was granted tolls which were fixed for vessels carrying cargoes of wool, wine, corn, herrings, cattle or other goods.(95) In 1375 his rights were questioned but he was able to produce his grant which read as follows:-

> "By a petition of Gilbert de Umframvyll, earl of Anegos, it is shewn that there is a passage by the water called 'le Ee' of Kyme, passing through the lordship of his manor of Kyme, between Dokdyk and Brentfen, as far as the water of Wytham on both sides, very convenient for ships and boats of those parts, but in the channel thereof mud and sedge have increased to such an extent that ships cannot pass unless it be cleansed, and the banks are fallen in, so that when the water is swollen by rain, there is no adequate passage for it, and that he will cleanse the said water and raise and keep in repair the banks for the common good if the King will grant to him and his heirs certain customs for their expenses herein, and the King, out of consideration for the earl, who has many times held a good place in his affairs and for the public good, after inquisition ad quod damnum, has granted to him and his heirs, lords of the said manor, for ever, certain specified customs on ships and boats laden with goods and merchandise passing by the said water through the lordship of the manor from Dokdyk to Brantfen." (96)

The customs on ships passing through the said manor were:- 4d. on every sack of wool, 2d. on every pocket of wool, 4d. on every tun of wine, 2d. on every pipe of wine, 1d. on every four quarters of corn, ¼d. on every thousand of herring, ¼d. on every ship carrying cattle worth over 6s. 8d. and ¼d. on every additional sum of 6s. 8d. and ¼d. on every 5s. for ships carrying aught else.(97)

There are indications that the river was navigable as far as the town of Sleaford during the fourteenth century. In 1374, a certain William Tolous broke open a barrel of herrings belonging to Adam de Walton of Sleaford, on navigable water near that town. The herrings had probably been bought at Boston and were being taken to Sleaford by water.(98) In 1393, a jury heard that John Wadster of Sleaford had made an unjust course of the common water between Haverholme and Sleaford.(99)

In the area to the west of Sleaford were the Ancaster stone quarries and the close proximity of the river would have presented an ideal medium for transporting such a heavy commodity; indeed, one of the quarries was situated at Wilsford, directly on the river and only 4 miles up-river from Sleaford.

River Bain

Rising on the Lincolnshire Wolds to the west of Louth, the River Bain flows in a southerly direction by Donington and Hemingby to Horncastle, from where it passes through Coningsby and Tattershall to enter the Witham at Dogdyke; a total length of 24 miles.

Around 1200, Geoffrey the Fisherman of Coningsby,(2 miles up the river), received from William of Keal the grant of a toft, in return for which he was to carry the said William or his men by boat 'as far as the sweet water of Witham'.(100)

The waterways outlined in this chapter are those known to have been navigable during the medieval period as derived from documentary evidence. However, apart from the rivers, there was, and is, an extremely complex system of dykes and channels in the fens of South-Lincolnshire. Many of these were used for drainage but they would no doubt also have been utilised for their navigational capabilities. For example, in 1301,(101) and again in 1336,(102) produce was taken from Bridge End, mid-way betweem Boston and Grantham, to Boston entirely by water. The navigable water used for these journeys was possibly that of Hammond Beck which, in quite modern times, was utilised by the inhabitants of Holland Fen to bring their dairy and other produce down to Boston market.(103)

However, in the absence of any substantiating documentary evidence, it is impossible to draw any firm conclusions regarding the exact course of these navigable routes or the extent to which the various dykes and channels may have been utilised during the medieval period.

The rivers of central-eastern England are mapped in Figure 11:1, and their navigational limits, in medieval times, are indicated.

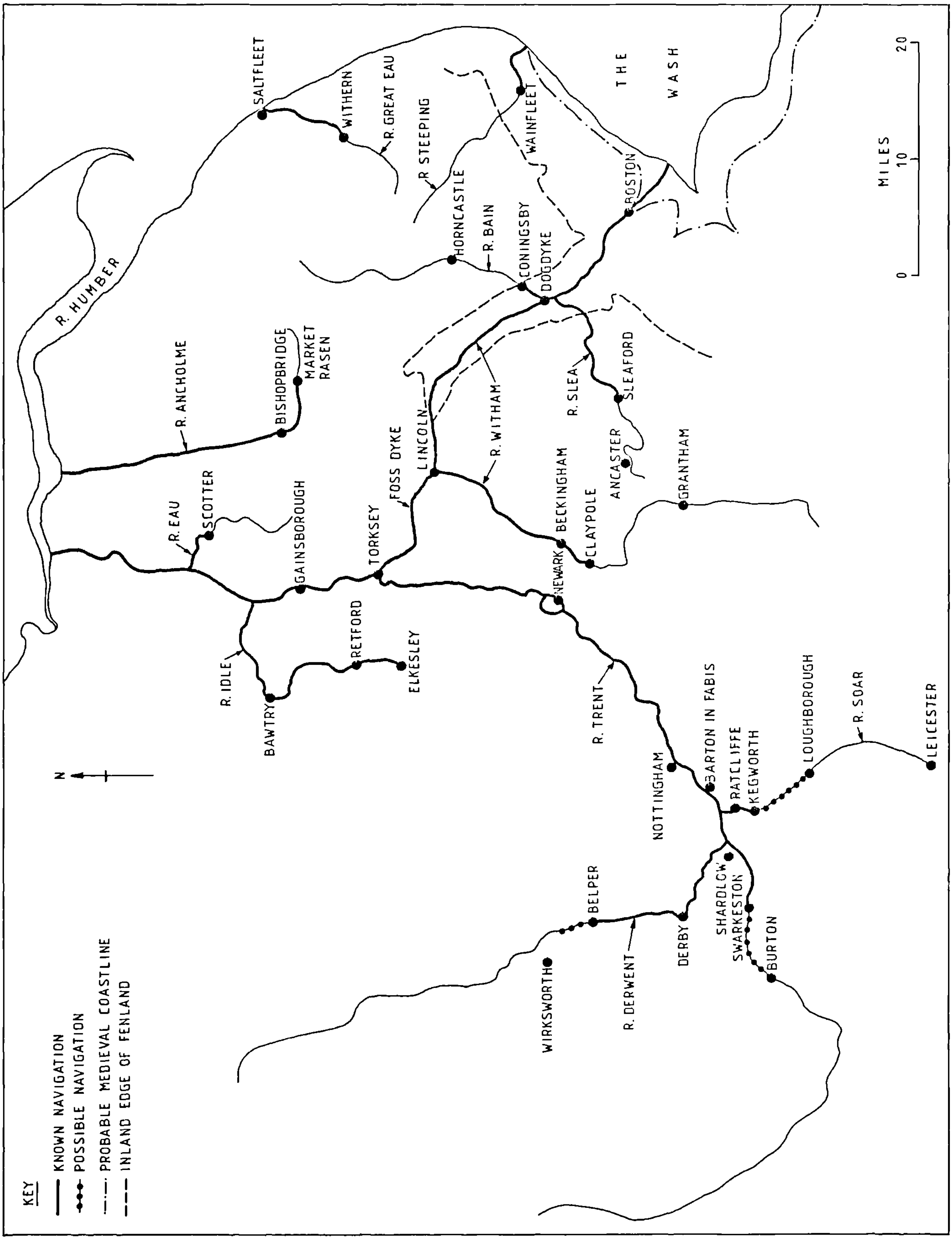
KEY
KNOWN NAVIGATION
POSSIBLE NAVIGATION
PROBABLE MEDIEVAL COASTLINE
INLAND EDGE OF FENLAND
N
MILES
0
10
20
THE WASH
R. HUMBER
SALTFLEET
WITHERN
R. GREAT EAU
R. STEEPING
WAINFLEET
BOSTON
HORNCASTLE
R. BAIN
CONINGSBY
DOGDYKE
R. ANCHOLME
BISHOPBRIDGE
MARKET RASEN
LINCOLN
FOSS DYKE
R. WITHAM
R. SLEA
SLEAFORD
ANCASTER
GRANTHAM
BECKINGHAM
CLAYPOLE
R. EAU
SCOTTER
GAINSBOROUGH
TORKSEY
NEWARK
RETFORD
ELKESLEY
R. IDLE
BAWTRY
R. TRENT
NOTTINGHAM
BARTON IN FABIS
RATCLIFFE
KEGWORTH
LOUGHBOROUGH
R. SOAR
LEICESTER
SHARDLOW
SWARKESTON
BURTON
DERBY
BELPER
R. DERWENT
WIRKSWORTH

FIGURE 11:1 THE RIVERS OF CENTRAL EASTERN ENGLAND

Notes and References

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CHAPTER TWELVE THE RIVERS OF THE FENS

The rivers considered in this chapter are the Welland, the Nene, and the Great Ouse, together with their tributaries.

These fenland rivers are interlinked with a complicated network of drainage channels which have seen many alterations and diversions since the early Middle Ages, culminating in the more ambitious drainage schemes of the seventeenth century.(1) It is known that even the courses of the rivers themselves have undergone some change;(2) therefore it is impossible to ascertain, from the paucity of available documentary evidence, the exact network of navigable waterways existing during the medieval period and where there is a lack of such evidence the modern courses of the rivers are employed.

A consideration of the "complicated physical history" of the southern Fenland rivers is given by H.C. Darby in his book The Medieval Fenland.(3)

River Welland

Rising in Leicestershire, to the west of Market Harborough, the River Welland flows in a generally north-easterly direction. It passes through Stamford and Market Deeping and close to Crowland, where in medieval times, it was joined by the South Eau, continues to Spalding and is then joined by the River Glen near Surfleet to enter The Wash below Fosdyke Bridge after a total course of 66 miles.

In 1301, 336 quarters of oats and a quantity of grain were sent from Spalding, 13 miles up-river, to Lincoln and during the same year victuals were also sent to Lincoln from Crowland, 22 miles up the river.(4)

The river was navigable for sea-going vessels as far as Stamford, 36 miles up-river for, in the winter of 1303, Eustace Malherbe, a burgess and merchant of Stamford, sent a ship of his loaded with corn and other wares to Brabant, Belgium;(5) unfortunately, the ship was entered by force whilst in the foreign port and taken away together with its cargo.(6)

In 1311, 290 quarters of mixed grain, oats, beans, peas and malt were sent from the abbeys of Spalding and Crowland to Lincoln by water.(7)

Spalding was listed as a maritime town in 1326,(8) and later the same year the King ordered

> "all the owners of ships of that town of the burthen of 30 tuns and upwards to come with their ships, arms, victuals, and other necessaries to Erewell..." (9)

The Welland must have been a busy river in the fourteenth century for, in 1332, no less than six boats, which must have been proceeding in convoy, were arrested on the river near Crowland.(10)

An indication of the complexities associated with the many diverse waterways within the fenlands is given by a commission of 1334 which asks certain persons

> "to survey divers lodes leading from the towns of Peterborough, Yakesle and Spaldying, in the great marsh of the county of Huntingdon, as far as the town of Lynn, whereby men, merchants, and others of that county and the counties of Norfolk, Cambridge and Northampton time out of mind have used to navigate their ships in winter, which are now so obstructed that navigation on them is impossible at any season of the year to the great loss of persons passing with ships by the waters of Ramesmere, Ubmere and Wytlesmere, to make inquisition as to the persons who should cleanse and repair these lodes, and by whose default the obstructions have been allowed to form, and to compel the persons who should

> contribute to the removal of the same, whether on account of lands which they hold, or of a right in the common pasture or fishery there, to have the work done." (11)

In 1336, 500 quarters of grain were shipped from Crowland to Boston.(12)

In 1337, a petition was shown before the King stating that the ways between Crowland and Spalding were in a very dangerous state. The abbot of Crowland was asked to construct a causeway on his soil on the understanding that he and his successors should take tolls for making and maintaining it from the persons using it and the King commanded the abbot to certify him whether he would bind himself to do this. The abbot replied that it would be difficult to make a causeway by the River Welland

> "since the bank is liable to be flooded in winter, the land whereon it would be made is at such times greatly loosened as well by the passing of sailors and boatment as by the force of the wind."

Bridges built would also have

> "to be high enough for laden ships and boats to pass under them." (13)

Stone was shipped from the large medieval quarries at Barnack, mid-way between Stamford and Market Deeping, for the construction of many medieval buildings. Ely Cathedral, for example, is built almost entirely of Barnack stone which was brought to the building site by water.(14)

In 1349, replying to a complaint regarding roads in the vicinity of Crowland, the abbot stated

> "that there was no King's road from the Brotherhous to Crowland except by the river Welland for persons travelling by ships or boats:" (15)

Brotherhouse is some 4 miles down-river from Crowland.

In 1367,

> "...certain evildoers killed an unknown mariner at Fossedyk....discharged a ship of the same mariner, anchored in the water at Fossedyk, of goods which should have pertained to the King, Put up the same for sale and converted the proceeds to their own use..." (16)

The River Welland was probably navigable during the medieval period for at least a further 5 miles up-river from Stamford, to Duddington, where the Leicester to Peterborough road crosses the river.

River Glen

The River Glen rises to the south-east of Grantham and initially flows in a southerly direction to where, 3 miles to the north-east of Stamford, it turns north-eastwards and passes to the south of Bourne and on to Pinchbeck and Surfleet - shortly after which it enters the River Welland after a course of 34 miles.

In 1311 and again in 1336, grain was shipped from Catebridge to Boston via the Glen, the Welland, The Wash and the Witham.(17) Catebridge is 16 miles up-river from the confluence with the Welland at the point where the Market Deeping to Bourne road crosses the river near Baston. There is also the point where the Roman Car Dyke cuts across the river from which point it heads north towards Lincoln and south towards Peterborough.

South Eau

It appears that South Eau was a navigable drainage channel connecting the Welland with the Nene. It entered the Welland to the north of Crowland and joined up with one of the courses of the Nene to the west of Crowland, then continued to the south of Gedney Hill where the course of the Nene turned south to Guyhirn and South Eau continued north-eastwards to join up once again with the Nene to the east of Tydd St. Mary.

In 1349, presentments were made at Lincoln

> "...that a sewer called Shepeau Currere used to flow out of South Eau from Dowesdale through the precinct and close of Crowland abbey and thence to an old sewer called Oldee, and thence westward beneath the gates and bridge of the Brotherhous to the abbot's pond, and that Henry abbot of Crowland has built a cowhouse over the course of the said water and sewer of Oldee, whereas it formerly ran into the Welland to the advantage of the counties of Cambridge, Lincoln, Northampton, Huntingdon and of all the lands from Tydd St. Mary to Baston and Surfleet, and that it ought to be 20 feet wide, and that the obstruction of the sewer Shepeau was first made by Richard abbot of Crowland and maintained by the present abbot:" (18)

The abbot replied

> "...that the sewer of Oldee was not a common sewer but a sewer to drain the precinct of the abbey:" (19)

The probable interpretation of this record is that South Eau was navigable from the Nene, near Tydd St. Mary, to where it entered the Welland to the north of Crowland, but that the sewer called 'Oldee' was probably used as a short cut to the Welland via Crowland.

River Nene

The River Nene rises on the Northampton Uplands to the south-west of Daventry and flows in an easterly direction to Northampton after which it turns north-eastwards and passes to the east of Wellingborough and on to Thrapston, Oundle, Wansford and Peterborough where it divides into three courses:- one heading north-east to South Eau and Guyhirn then on to Wisbech; one heading due east to a point north of Benwick then on via March, Outwell and Wisbech; one heading south through Yaxley and Holme to connect with the Great Ouse at Benwick before continuing to join up with the previous course north of Benwick.

From Wisbech, the modern course of the Nene is due north to enter The Wash, however, it appears

> "that in the reign of King John the Ouse and Nene followed in their lower reaches the course of the present River Nene and that by the time of Edward I the present lower course of the Ouse had come to be regarded as the estuary of both rivers. Although the changes may have been to some extent of nomenclature and not physical, it is obvious that the course of these two rivers through the marshland area has always been liable to diversion whether by man or the forces of nature." (20)

From its source to Peterborough the distance is 60 miles, and from Peterborough to Wisbech it is about 25 miles via South Eau and Guyhirn; 27 miles via the course to the north of Benwick: and 34 miles via Yaxley and Holme. From Wisbech it is a further 11 miles to The Wash.

In 1147, when the abbey of Sawtry was founded, one of the first works carried out by the monks was to make a navigable channel from their site to Whittlesey Mere in order to provide contact with the waterways of the fens.(21)

In 1184, a certain Thomas Bardolf commenced a voyage to France from Wansford, 9 miles up-river from Peterborough.(22)

At Alwalton, mid-way between Wansford and Peterborough, the toll of ships was granted in 1227 to the monks of 'Radinges'; who at this same time, were also granted two ships in the vicinity of Whittlesey, 5 miles to the east of Peterborough.(23)

The toll of ships at Alwalton was later granted to other religious foundations in the area:- in 1270 to Burgh(24); in 1300 to Peterborough(25); and in 1332 again to Burgh.(26)

The influence of the religious settlements in the fenland area is also shown in 1348 when a certain grant was confirmed:-

> "the grant of Gilbert son and heir of John clerk of Eylesworth to Odo late abbot and the convent of Thorney of power to repair a quay on the soil of the said Gilbert which abutts on the water between that quay and the mill of Neuton at the head of a half acre of meadow lying in the meadow of Eylesworthe with free access to the said half acre of meadow for all passing by the boat of the said abbot at all times of the year without any refusal or claim from the said Gilbert and his heirs." (27)

Ailsworth and Water Newton are situated on the stretch of river between Peterborough and Wansford.

In 1228, wine was carried along the river from Yaxley to (King's) Lynn.(28)

An interesting record of 1258 reveals the absolute reliance on water for the transport of bulky commodities. The sheriff of Cambridge was asked

> "...to carry 34 tuns of wine, which the King lately sent from Boston to Peterborough, to Cambridge with all speed by water, and thence by land to Ware, by view and testimony of Philip, yeoman of the buttery, the bearer hereof, for delivery to the sheriff of Essex to carry by water to Westminster as enjoined; not failing hereof as he loves himself and all his possessions." (29)

The combination of inland waterways used during this journey involved the Rivers Nene, Great Ouse, Cam, Lea and Thames.

In 1314 complaints regarding an obstruction at Outwell were raised and the King appointed commissioners to look into this:-

> "Commission to John Butehurte, Robert de Maddingle and Walter de Mollesworthe, as the King has heard that a certain river by which merchants were accustomed to pass from Lenne to Welle, and thence to divers parts of the counties of Cambridge, Huntingdon and Northampton with their ships laden with victuals, goods, wares and other necessaries, to the great gain of the men of those parts, and especially of the King's town of Holm, situated upon that river, and of his market and fair there, has lately been obstructed at the town of Welle by some men of those parts, so that no ship can pass beyond that town, to the great injury of the town, market, and fair of Holm. The commissioners are to view the obstructions, and to enquire by oath of good men of the counties on the confines of which the obstruction was made touching the same, and the persons by whom it was erected." (30)

The river was again obstructed in 1329,(31) and 1331,(32) thus stopping the usual route to Lynn.

> "The common passage of boats from the places in the western fens such as Crowland, Peterborough, Holme and Yaxley, had been along South Eau or the Nen to Outwell, and from there along Well Creek to the Ouse at Salters Lode; this passage was no longer possible and boats were compelled to go from Outwell up the Oldcroft River by Welney to the Ouse at Littleport - fifty leagues further than necessary. The result, according to the verdict of Norfolk, was a rise in the price of the commodities which used to go by water - corn, timber, fish, turves, stone, etc." (33)

The town of Wisbech was awarded a grant in 1316 which allowed for the collection of tolls, to be taken towards the cost of paving the town, on all wares brought there by land or water.(34)

In the winter of 1318 ships of March, mid-way between Benwick and Outwell, were given protection for loading divers victuals in the counties of Cambridge and Huntingdon, Norfolk and Suffolk, and elsewhere within the realm.(35)

In 1322, the abbot of 'Thorneye' was ordered to cause

> "proclamation to be made within his town of Jakesle (Yaxley) and elsewhere....prohibiting any one leading suspected men - at - arms, horsemen or footmen into the Isle of Ely by land or water...and not to permit any ships or boats to go from that town by night to the Isle..." (36)

In 1325, when provisions were required by the King in Gascony, 30 quarters of oats were taken by water from Wisbech to King's Lynn where they were transferred to a larger vessel for shipment overseas.(37)

There are notifications of obstructions to navigation in the vicinity of Peterborough and Yaxley in 1334,(38) and in the lodes near Sawtry in 1342.(39)

In 1338, the abbot of Ramsey was appointed

> "...to provide for the custody of the rivers and arms of the sea reaching to the marshes by Rameseye that no ship or boat of aliens or enemies of the King may find an entrance to these. The King has appointed men to the custody of ports, coasts and places where ships can put in but those appointed for this in the counties of Huntingdon and Cambridge cannot conveniently get at the aforesaid marshes and places." (40)

Although it has been shown that the River Nene was navigable to Wansford during the medieval period, it is likely that navigational access continued for a further 16 miles, at least as far as Thrapston, where the Kettering to Huntingdon road crosses the river. The previously mentioned commission of 1314 which stated that merchants used the river to pass

> "to divers parts of the counties of Cambridge, Huntingdon, and Northampton,"

is indicative of navigation into the latter named county and Wansford is at the county border from which point the river flows into Northamptonshire.

Car Dyke

Originally constructed by the Romans, presumably for navigation and drainage, the Car Dyke was a canal which linked Peterborough with Lincoln. From Peterborough and its junction with the River Nene, it proceeded north, cutting across the River Welland near Market Deeping and the River Glen at Catebridge, from where it continued to the east of Bourne, Swaton and Heckington. Near South Kyme it cut across the River Slea then gradually turned west to Lincoln, where it gave access to the Foss Dyke and the River Witham after a total course of 55 miles.

Some initial sections of its course are still intact today, however, to the north of Bourne it gradually becomes lost in fields and from Swaton towards Lincoln only short sections of its course are traceable.

Exactly which portions of the Car Dyke were in use during the medieval period is difficult to ascertain. However, it appears that the section between Swaton and Market Deeping was in use for it is mentioned in a disafforestment grant of 1230.(41) As most of the section between Market Deeping and Peterborough is still in existence today, it is reasonable to conclude that the Car Dyke was in use between Swaton and Peterborough during the medieval period.

The only positive evidence pointing to the use of the Car Dyke during the medieval period is that a boat-load of dressed stone was found in its bed at Morton, 3 miles to the north of Bourne.(42)

As J.M. Steane points out, the link between the Welland and the Nene would greatly have shortened the distance between Stamford and Cambridge.(43)

The Great Ouse

Rising in Northamptonshire to the north-west of Brackley, the Great Ouse flows in a north-easterly direction through Buckingham, Stony Stratford, Newport Pagnell, Olney, Bedford, St. Neots, Huntingdon, St. Ives, and Earith. In early medieval times, the course of the river from Earith was to Benwick were it joined the previously described course of the Nene to Outwell. From Outwell there was the outlet to The Wash via Wisbech. However, by the time of Edward I, it appears that the outlet to The Wash via Wisbech was silting up and that at this same time, a small stream which had connected the Great Ouse with the River Cam south of Ely, developed into a larger channel which could be navigated.(44) This channel, called the Old West River, gave access to Ely and Littleport from where an artificial cut was made to the Little Ouse at Brandon Creek, and hence to Salters Lode and King's Lynn. Littleport could also be reached from Outwell by the previously mentioned Oldcroft River. About this same time, a connection with the combined waters of the Rivers Cam, Little Ouse and Wissey was formed via the Well

Creek - between Outwell and Salters Lode, and hence to Downham Market, King's Lynn and The Wash.

The total course of the Great Ouse via Earith, Benwick, Outwell, Salters Lode and King's Lynn is 130 miles, and the course via Earith, the Old West River, Ely, Littleport and Salters Lode is only a couple of miles shorter.

In the tenth century, the Danes had penetrated probably as far as Bedford, for they had constructed 'docks' at Willington 5 miles to the east of the town.(45)

If Danish longboats, which had a draught of 2 to 3 feet, were in the vicinity of Bedford, it is logical to conclude that shallow draught medieval vessels could also operate in the same rivers.

In 1228, wine was carried by water from Yaxley to King's Lynn.(46)

As previously mentioned, Ely Cathedral is built almost entirely of Barnack stone which was brought to the site by water.

The Isle of Ely, so called because the Great Ouse separated it from the rest of the county of Cambridgeshire, was used as a retreat by the King's enemies. In 1267, the King ordered that

> "...the stronger and more approved men of the towns of the said shore (of Norfolk and Suffolk) come to Len and go against the isle of Ely with barges and men armed and well founded to aggrieve the King's enemies in that isle,..." (47)

In 1274, the King ordered the bishop of Ely

> "...in consideration of the losses sustained by the Kings father, the King, the bishop and others by the last occupation of the isle of Ely, and of a secret attempt to occupy it now, as the King hears - to sink all boats along the water of that island, if necessary, keep watches and ambushes day and night there, and arrest malefactors and suspected persons at his discretion." (48)

In 1319, certain persons,

> "...all of the town of Ely, men and tenants of the bishop of Ely, going with ships laden with ale and other goods to the parts of Lenne, Boston, and elsewhere in the realm to trade, and to purchase other goods",

were given safe-conduct for one year.(49)

There were obstructions in the river in 1287 when the men of the borough of Huntingdon complained

> "...that the water of the great river (aqua magne riparie) between the said borough and the town of St. Ives is so diminished by reason of watercourses, therefrom and obstructions in the said stream, that ships and boats laden with merchandise can no longer pass as they were wont,..." (50)

King's Lynn, 3 miles up the river, was an extremely busy port during the medieval period and its history has been well documented.(51)

In 1300, the King issued an order

> "...to restore to Baldwin de Insula, clerk and a servant in the King's court, his lands, goods and chattels, which were taken into the Kings hands upon his being charged....with robbing two merchants on the water near Littleport, as .... the King learns...that Baldwin is of good fame and was never a public or notorious malefactor." (52)

In 1338, a large quantity of wool was sent from Huntingdon to St. Ives in boats, and then transferred to shutes and shipped on to King's Lynn.(53)

St. Ives was famous for its medieval fair and there was extensive traffic coming up the Ouse at fair time from all parts of England and western Europe.(54)

St. Neots, 15 miles further up-river from St. Ives, also held a medieval fair which was visited by merchants in boats.(55)

It appears that the river was navigable 20 miles up-river of Bedford for, in 1339, the abbot of Lavendon, near Olney, complained that various persons had buried a boat of his in the sand at Lavendon.(56)

The diversity of merchants using the river for transport is shown by a commission of 1370 which was asked to look into the complaints

> "...by merchants and others of the counties of Leicester, Derby, Northampton, Bedford and Huntingdon that very many weirs, mills and stanks have been newly placed and erected in the water of Husee between the towns of Huntingdon and St. Ives, through which ships and boats used to pass with victuals and other merchandise, so that by the erection thereof the stream is totally turned aside and obstructed,..." (57)

River Cam

From its source to the west of Thaxted in Essex, the River Cam follows a northerly course passing to the west of Saffron Walden and on via Cambridge to where, 4 miles south of Ely, it combines with the Old West River after a course of 36 miles.

The transport of wine in 1258 from Peterborough to Cambridge by water has already been mentioned; the route taken would no doubt have been along the Nene via Yaxley and Holme to Benwick, along the Great Ouse to Earith, along the Old West River, then 13 miles down the River Cam to Cambridge. In 1316, the servants of John de Sandale, the King's clerk, were given safe-conduct in taking

> "...divers goods...from the parts of Lincoln to Cambridge by water, and from thence to London." (58)

In 1322, the mayor and bailiffs of Cambridge were ordered

> "...not to permit any ships or boats to go from that town by night to the Isle" (of Ely). (59)

In 1325, 92 quarters of corn were taken from Burwell to King's Lynn by water.(60) Burwell, and the adjacent hamlet of Reach 9 miles to the north-east of Cambridge, were connected to the River Cam by an artificial channel. This channel is known to have run parallel with the main street of Burwell and running from it were a series of smaller inlets to the back of the merchants houses.(61) A quay at Reach is mentioned in a record of 1331.(62) In 1382, the prior of Barnwell, Cambridge, was accused of obstructing the River Cam

> "...so that the course is much narrowed to the hurt of the whole community of Cambridge passing there with ships and boats,...." (63)

A collection was taken in 1384 to provide for a measure

> "to measure corn etc. in every ship or boat coming to the town..." (64)

There are records of a ferry across the river operated by the prior of Barnwell.(65) In 1390, the mayor and commonalty of Cambridge were ordered by the King to deliver to John Angold of Chesterton

> "...a boat of his, suffering him to have, use and enjoy a ferry over the river of Chesterton, according to a grant thereof lately made by the prior of Bernewelle to him..." (66)

It appears that the River Cam was navigable for at least 3 miles up-river from Cambridge and then for 4 miles along an un-named tributary running in a westerly direction away from the main river; a record of 1397 mentions a boat worth 20s. which came from Great Eversden - 4 miles up the un-named tributary.(67)

River Lark

From the south-east of Bury St. Edmunds, the River Lark flows through that town and on in a north-westerly direction through Barton Mills and Mildenhall to enter the Ouse between Ely and Littleport; a total length of 33 miles.

An inquisition of 1253 stated that various persons, including Adam the fisherman of Worlington,

> "...and others unknown, came on the Friday night before St. Bartholomew to the park of Edmund de Sardelowe in Middehal and carried away his hay in boats." (68)

Mildenhall is 13 miles up-river from the confluence with the Ouse close to where the Newmarket to Thetford road crosses the river; Worlington is 2 miles down-river from Mildenhall.

It is likely that the River Lark was navigable for a further 12 miles up-river from Mildenhall, to Bury St. Edmunds, during the medieval period.

Little Ouse

The Little Ouse rises to the south-west of Diss and flows in a north-westerly direction to Thetford and on to Brandon, after which it meanders through the Hockwold Fens to enter the Ouse at Brandon Creek; a total length of 37 miles.

It has been shown, from archaeological evidence, that Thetford, 21 miles up-river from the confluence with the Ouse, was a port in late Saxon times,(69) and also into the medieval period.(70)

River Wissey

From its source to the south-west of East Dereham, the River Wissey flows in a south-westerly direction to Mundford and then turns north-westwards to Stoke Ferry and Hilgay, after which it enters the Ouse between Brandon Creek and Salters Lode; a total length of 34 miles.

The River Wissey was certainly navigable for the first 10 miles of its course for, in 1325, 136 quarters of divers grains were transported by boat from Oxborough, 2 miles up a tributary of the river which joined the Wissey 2 miles up-river from Stoke Ferry, to King's Lynn.(71)

It is likely that the River Wissey was navigable for a further 6 miles, to Mundford, where the roads between Thetford and Stoke Ferry and between Brandon and Swaffham meet.

River Nar

The River Nar rises between Fakenham and East Dereham and for most of its course flows in a westerly direction. It passes through Castle Acre, Narborough and Setchey after which it turns due north to join the Ouse near King's Lynn; a total length of 24 miles.

In 1275, an inquisition was told that

> "If the great hithe of Secheth was completely cleansed of wreck, rubbish and siltings there would be a wider watercourse towards the sea, ...the weirs in the said hithe should be removed." (72)

Setchey is 5 miles up-river from the confluence with the Ouse.

However, the river was navigable for a further 13 miles up-river of Setchey, to Castle Acre, for in 1304, 4 doles of wine were carried from Castle Acre by boat to King's Lynn.(73)

The rivers of the Fens are mapped in Figure 12:1, and their navigational limits in medieval times are indicated.

Because of the complexities associated with the physical history of the area it is impossible to present a static medieval picture of Fenland navigation. Hence Figure 12:1 illustrates the general course of the navigations as discussed in the aforegoing text.

The great tract of marshland contained within the fens saw a continual programme of drainage and land reclamation throughout the medieval period, much of this work being undertaken by the local monasteries. The earliest seaward reclamation belongs to the period 1090-1110; reclamation in the medieval Fenland of Lincolnshire has been

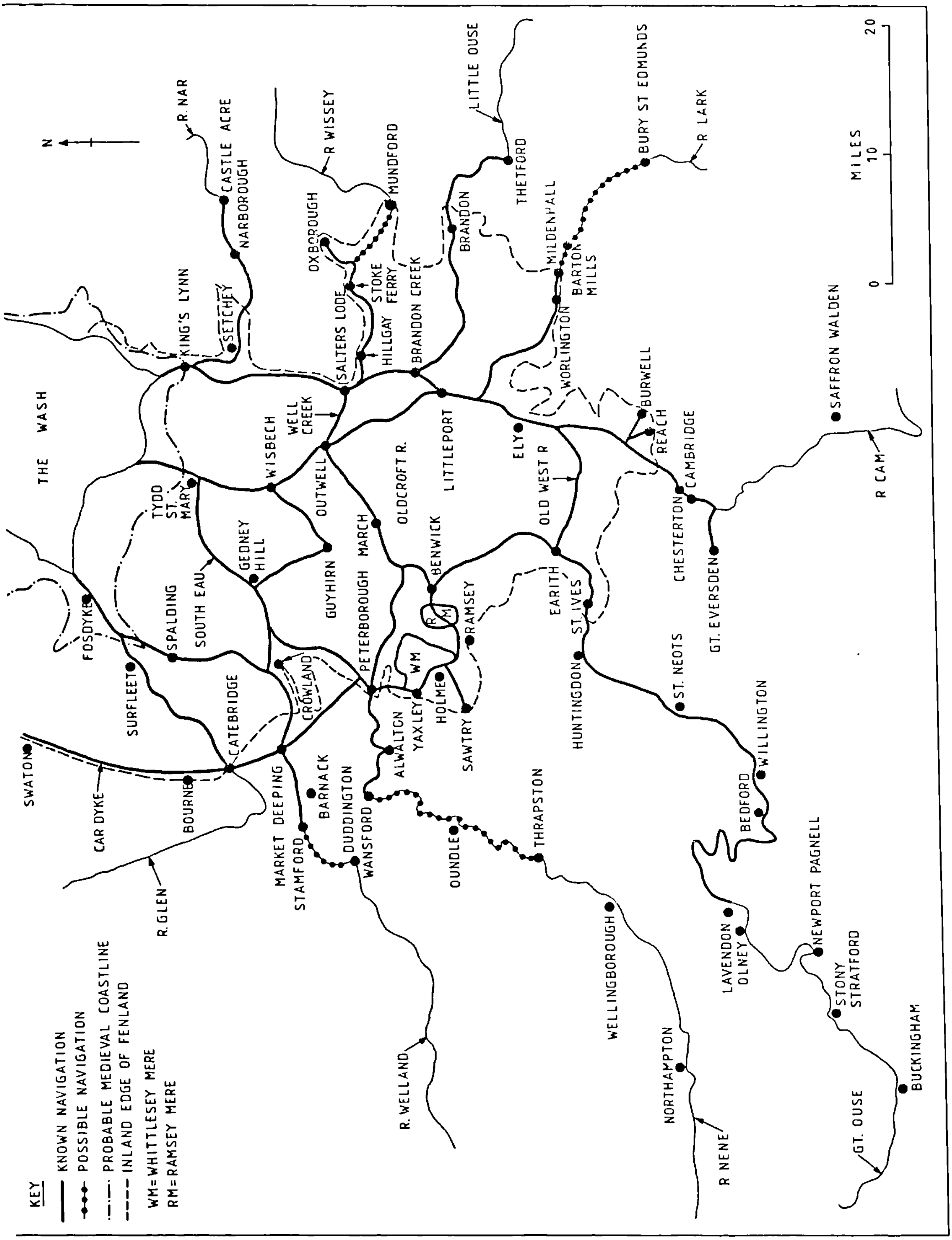
KEY
KNOWN NAVIGATION
POSSIBLE NAVIGATION
PROBABLE MEDIEVAL COASTLINE
INLAND EDGE OF FENLAND
WM=WHITTLESEY MERE
RM=RAMSEY MERE
N
MILES
0
10
20
THE WASH
R. NAR
CASTLE ACRE
NARBOROUGH
KING'S LYNN
SETCHEY
R WISSEY
MUNDFORD
OXBOROUGH
STOKE FERRY
SALTERS LODE
HILLGAY
BRANDON CREEK
WELL CREEK
LITTLE OUSE
THETFORD
BRANDON
BURY ST EDMUNDS
R LARK
MILDENHALL
BARTON MILLS
WORLINGTON
BURWELL
REACH
SAFFRON WALDEN
R CAM
CAMBRIDGE
CHESTERTON
GT. EVERSDEN
ELY
LITTLEPORT
OLD WEST R
OLDCROFT R.
WISBECH
OUTWELL
TYDD ST. MARY
GEDNEY HILL
GUYHIRN
MARCH
BENWICK
EARITH
ST. IVES
HUNTINGDON
ST. NEOTS
RAMSEY
RM
WM
HOLME
YAXLEY
SAWTRY
PETERBOROUGH
CROWLAND
SOUTH EAU
SPALDING
FOSDYKE
SURFLEET
CATEBRIDGE
DEEPING
MARKET DEEPING
SWATON
CAR DYKE
BOURNE
R. GLEN
BARNACK
ALWALTON
DUDDINGTON
WANSFORD
STAMFORD
OUNDLE
THRAPSTON
WELLINGBOROUGH
NORTHAMPTON
R NENE
R. WELLAND
WILLINGTON
BEDFORD
NEWPORT PAGNELL
LAVENDON
OLNEY
STONY STRATFORD
BUCKINGHAM
GT. OUSE

FIGURE 12:1 THE RIVERS OF THE FENS

discussed by H.E. Hallam.(74) As reclamation has continued up to the present day the coastline around the Wash has been constantly changing and continually moving seawards.

There were many islands in the fen, the largest of which was the Isle of Ely. For reasons of clarity these are not shown in Figure 12:1, but a localised picture depicting the Isle of Ely and its immediate environs is given in Figure 12:2. This also shows three medieval causeways which linked the island with the firmer ground at the edge of the fen.(75) Causeways, which were constructed from the twelfth century onwards, have been defined as "bridges over dirt" (76) and were usually built up with earth, stone and timber, thus providing a roadway across treacherous ground.

> "Through the foul and treacherous mud of the Fenland the causeways ran, making as much use as possible of the safer patches and of the islands." (77)

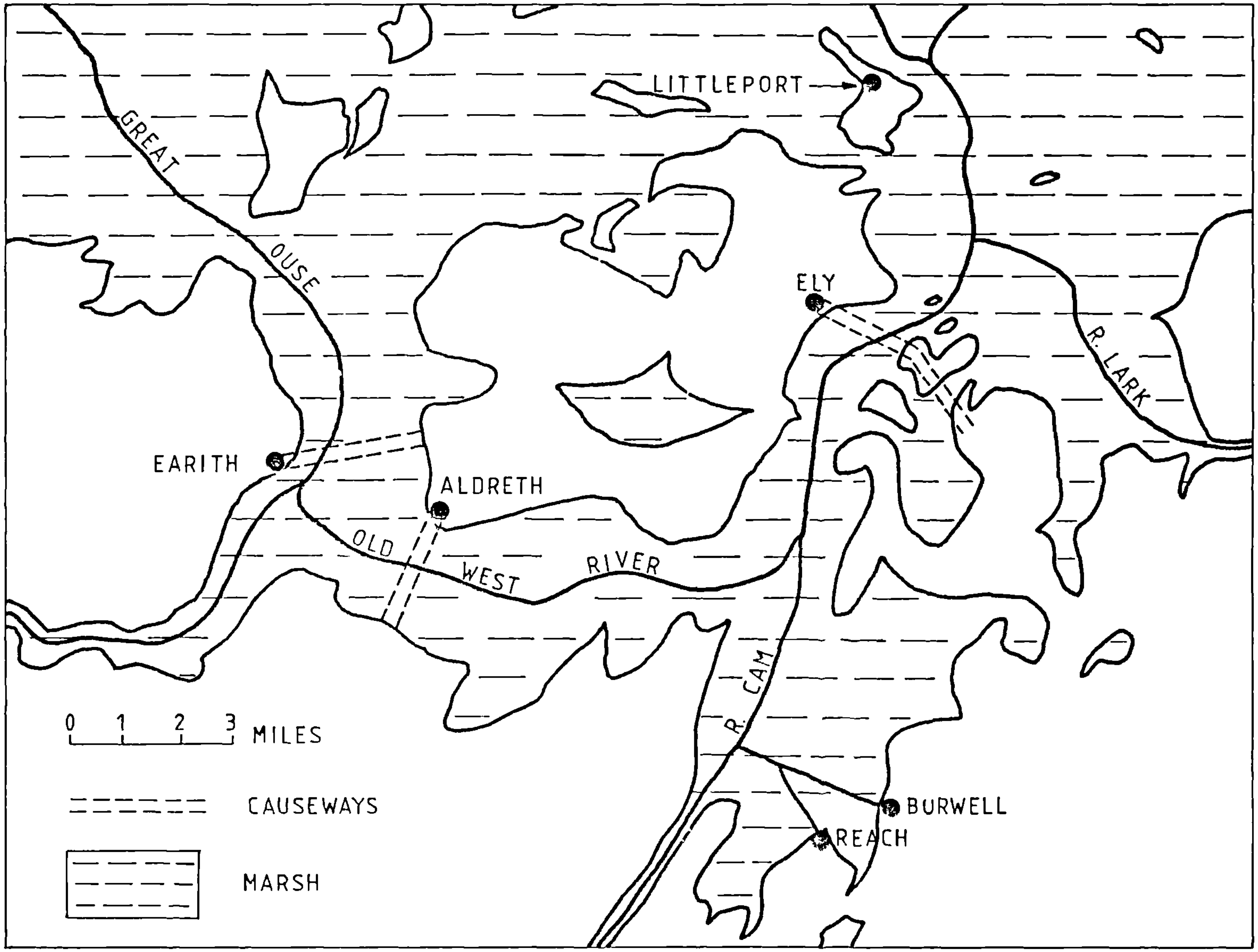
LITTLEPORT
GREAT
OUSE
ELY
R. LARK
EARITH
ALDRETH
OLD
WEST
RIVER
R. CAM
0 1 2 3 MILES
CAUSEWAYS
MARSH
BURWELL
REACH

FIGURE 12:2 THE ISLAND OF ELY

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CHAPTER THIRTEEN THE RIVERS OF THE COAST OF EAST ANGLIA

The rivers considered in this chapter are those of Norfolk, Suffolk and Essex which discharge into the North Sea between the Wash and the Thames Estuary.

The distribution of alluvium shown on the geological map indicates that in earlier times the River Yare, together with the Waveney, Bure, Ant andThurne, were part of a large estuary which had at least three separate estuarine mouths discharging into the North Sea. The main outlet was between Great Yarmouth and Caistor and was, in effect, the lower estuary of the River Yare. There was another outlet near Lowestoft where the Waveney enters the sea, and another in the vicinity of Horsey which connected with the River Thurne.(1)

Mention should also be made regarding the origins of a number of inland lakes, collectively known as the 'Broads'. It was originally thought that these were the result of natural processes but they have since been shown to be flooded medieval peat - workings dug out by man.(2) The peat industry flourished during the twelfth, thirteenth, and early fourteenth centuries and demand was particularly heavy in the town of Norwich. Some of the excavated peat was carried to its final destination by water.(3)

River Yare

Rising between East Dereham and Watton, the River Yare follows an easterly course and then passes around the southern precincts of Norwich, after which it is joined by the combined waters of the Rivers Wensum and Tud. It then follows a more south-easterly course to Reedham, before turning north-east to be joined by the River Waveney at Burgh Castle. The river widens into Breydon Water, no doubt a remnant of the earlier larger estuary, before narrowing again near Great Yarmouth, where it is joined by the River Bure. It then turns due south, passes through Great Yarmouth, and enters the sea at Gorleston after a total course of 47 miles.

Norwich, situated just above the junction of the Yare and Wensum and 26 miles from the sea, was throughout the medieval period, an extremely important trading town. In terms of population it is estimated to have ranked third behind London and Winchester in 1086,(4) and by 1348 it ranked fourth behind London, York and Bristol.(5) The River Yare was therefore, a very important navigation which gave Norwich and its hinterland a far-reaching trading link. There was a daily market, and fairs were held in the town twice a year which were attended by foreign as well as English merchants whose

> "ships came up by an arm of the sea".(6)

It is difficult to assess the state of the river during medieval times, but it seems that during the fourteenth century its estuary was becoming narrower and gradually silting up making it ever more difficult for sea-going vessels to reach the port of Norwich. By 1422, efforts were being made to improve the obstructed navigation but trade, nevertheless, declined.(7)

Norwich Cathedral, which is built entirely of stone brought from Caen in Normandy, was constructed during the period AD 1094 - 1178.(8) The building stone was shipped along the Yare and Wensum to link up with a short canal which had been made in order to facilitate the delivery of the heavy blocks of stone directly to the building site. The entrance of this canal was guarded by a water-gate which gave protection to the town precincts.(9)

During 1256, the sheriff of Norfolk and Suffolk was ordered by the King to buy

> "30 last of good herrings"

in the town of Norwich

> "and to carry it by water to Westminster for delivery to the Keepers of the larder".(10)

Further purchases of herring were made in Norwich for the royal household the following year, and these were also taken to Westminster by water.(11) These journeys would obviously involve navigating the River Yare to the sea, followed by a coast-hugging voyage to the Thames Estuary and hence up that river to Westminster. There was also much localised traffic on the river, and in 1270 a millstone was taken from Yarmouth to Norwich by water at a cost of 4d.(12) In 1295 one Robert de Malteby was appointed to take into his custody

> "...the maritime parts of the city of Norwich ...with power to compel all persons to assist in the defence."(13)

During 1316, Norwich Cathedral Priory purchased 400,000 peat turves and many of these would undoubtedly have been delivered by water.(14)

> "At the beginning of the fourteenth century, Yarmouth began to be a rival port to Norwich, and levied duties on vessels and goods passing up to Norwich. But after much litigation, Yarmouth was for a time compelled to desist from exacting such tolls."(15)

In 1325, the village of Postwick, 6 miles down-river from Norwich, sent oats to Yarmouth by boat and also oats, grain and peas to Norwich.(16) During the same year produce was sent by water from Yarmouth to Norwich and to Yarmouth from Beccles.(17)

Much diverse produce was also shipped between Norwich and Yarmouth in 1340.(18)

Conflict between Great Yarmouth and Norwich regarding the export of wool from the latter place came to a head in 1333, when the King ordered that the bailiffs of Great Yarmouth should

> "desist from such hindering and to permit merchants and others to take their ships and boats by that port to the staple at Norwich,..."(19)

In 1343, a large boat travelling between Yarmouth and Norwich, loaded with various commodities and carrying 40 people capsized, resulting in a total loss of life and merchandise.(20)

In 1375, licences were granted to certain citizens of London enabling them to load 100 quarters of barley, 100 quarters of wheat, and 50 quarters of peas and beans in the city of Norwich and to take the same to London by water.(21)

It is likely that the River Yare was navigable for a further 14 miles from its confluence with the Wensum near Norwich, to Coston.

River Wensum

From the west of Fakenham, the River Wensum passes by that place and follows a south-easterly course through Guist and Attlebridge to Hellesdon, where it is joined by the River Tud. It continues to Norwich, shortly after which it enters the Yare, after a total course of 33 miles.

The river was certainly navigable for at least 7 miles above Norwich to Taverham, for, in 1295, that village was listed as a 'maritime' place.(22)

It is likely that the river was navigable for a further 4 miles above Taverham to Attlebridge, where the Norwich to Fakenham road crosses the river.

River Tud

Commencing near East Dereham, the River Tud flows due east to Honingham and on to join the River Wensum at Hellesdon; a total length of 15 miles.

It is likely that during the medieval period, the River Tud was navigable for 7 miles, to Honingham, where the Norwich to East Dereham road crosses the river.

River Waveney

From the east of Thetford, the River Waveney flows east through Diss and then turns north-eastwards to pass through Harleston, Bungay and Beccles after which it is connected to Oulton Broad and the North Sea at Lowestoft and also continues in a northerly direction to join the River Yare at Burgh Castle. The total length of the river from its source to Burgh Castle is 46 miles.

Throughout the entire length of its course the River Waveney forms the county boundary between Norfolk and Suffolk.

The river was navigable for at least 28 miles of its course from Burgh Castle, for, in 1309, mention is made of a theft of boats at Mendham, near Harleston.(23)

In 1306, the river, and its combined waters with the Yare are partly described in a charter of Edward I to the burgesses of Great Yarmouth;

> "There is a single water descending from the high sea between the towns of Great and Little Yarmouth to Beclys and Bungeye, which divides the counties of Norfolk and Suffolk, and there is a landing place for ships as well on the side of Little Yarmouth and Gorleston as on the side of Great Yarmouth."(24)

In 1325, 600 hurdles were transported from Beccles, 18 miles up the river, by boat.(25)

There was a ferry across the Waveney near St. Olaves Priory to the south-west of the village of Fritton. It is mentioned in a record of 1378 which goes on to say;-

> "The King's highway from Little Jernemuth to Norwich and other parts of Norfolk extends to this ferry; and a quay 34 feet long and 18 feet wide has been built for the ferry in the water on the King's land. ...There was never a bridge across the said water, but there has been a ferry in this place ever since the time of King John..."(26)

It is likely that the River Waveney was navigable to a point 8 miles up-river of Mendham, where the Norwich to Ipswich road crosses the river.

River Bure

Rising to the east of Fakenham, the River Bure flows south-eastwards to Aylsham, then on to Coltishall, Wroxham and Horning, shortly after which it is joined first by the River Ant and then by the River Thurne. It continues and passes to the north-east of Acle, and then enters the combined waters of the Yare and Waveney at Great Yarmouth; a total length of 43 miles.

In 1360, there were several fisheries in

"the town of Horning"(27)

and at a later date, in 1437, 100½ quarters of barley were taken by water from Wroxham, 20 miles up-river to Great Yarmouth.(28)

The River Bure was probably navigable for a further 10 miles up-river of Wroxham, to Aylsham, where the Norwich to Cromer road crosses the river.

River Ant

Commencing near to North Walsham, the River Ant flows in a south-easterly direction passing to the east of North Walsham and continuing to Smallburgh, after which it enters Barton Broad. On leaving Barton Broad it continues to its confluence with the River Bure to the south-east of Horning; a total length of 17 miles.

A presentment before the sheriff of Norfolk in 1360 was concerned with 'the stoppage of a river called Smalee'. It was said that

> "...the river fell out of use at the time of the pestilence and nothing was carried on it so that weeds continually grew in it from that time until the present time: that it was not known who ought to clean it because none had cleaned it since the memory of man; that the towns that had advantage and profit from the said river were Stalham, Sutton, Catfield, Ludham, Smallburgh, Barton Turf and Irstead: and that from Wayford Bridge to Barton Geoffrey son of Oliver Wyth, Knight, has a several fishery, and the fishery between Barton and Catfield belongs to Walter le Smyth, William de Smallburgh and the Countess of Huntingdon, and the fishery of the remainder of the river to Mellcroft stakes in Ludham belongs to the abbot of St. Benet Holme in severalty."(29)

It was further said that the abbot of St. Benet Holme

> "...has stopped and reversed the course of a water called Smale Ee for twenty years past between Ludham and his several fishery and the town of Horning and refuses to amend it, though many presentments have been made."(30)

From the description of the river called 'Smalee' given in the presentment it is clear, from the villages mentioned, that the river in question is in fact the River Ant. Also, Wayford Bridge is a bridge over the River Ant between Smallburgh and Stalham.

It would appear, therefore, that prior to the Black Death of 1348-9 there was traffic on the river at least as far as the most northerly place named, which is Smallburgh, 7 miles up the river from its confluence with the River Bure.

There are indications that the river was navigable to within the vicinity of North Walsham. In 1367 complaints were made that the prior of Bromholme had

> "...stopped and diverted a common watercourse...
> between Ridlington and Witton."(31)

Both these places are situated to the east of North Walsham. The watercourse in question was probably a navigable channel leading into the River Ant.

At East Ruston, between Smallburgh and North Walsham, two boats were damaged in 1374.(32)

River Thurne

The River Thurne commences very close to the coast near Horsey, and is connected into Horsey Mere and the broads of Hickling and Martham. It flows south-west by Potter Heigham and enters the River Bure near Thurne; a total length of 7 miles.

Hickling Broad and the River Thurne is about the same distance from the village of Sutton as is the River Ant. Therefore, grain, oats and peas transported from Sutton, presumably to Yarmouth, in 1325,(33) could just as easily have passed along the River Thurne as the River Ant.

River Blyth

The River Blyth rises near Laxfield and flows north-eastwards to Halesworth and then due east to Blythburgh and on to enter the sea at Walberswick. Prior to entering the sea it is joined by another watercourse which keeps parallel to the coast and flows from Dunwich 4 miles to the south. In early medieval times, Dunwich was a flourishing port at the point where the Rivers Blyth and Dunwich entered the sea; however, the port was always susceptable to erosion. In 1336, tons of sand and shingle were thrown up across the harbour mouth and this had the effect of reversing the flow of the River Blyth back to Walberswick where it found its way into the sea. This drastically affected the town's trade and in time Dunwich was abondoned to the elements.

From its source to where it enters the sea at Walberswick the length of the river is 15 miles.

The original course of the River Blyth, viz.;- flowing from Walberswick to Dunwich - and entering the sea there, is graphically described in a record of 1281;-

> "...touching a complaint by the burgesses and other men of Dunwich, that whereas they hold the town to farm and merchandise, victuals and other goods for sale putting in their port, ought, as in other ports, first to be exposed for sale in their port, before being taken to market or other towns, and to pay the customary toll, some men of Walberdeswik of Robert son of Roger, putting on there with their ships laden with fish, frequently go up by the channel of the river of the port to the said Roger's town, where there is no market or fair, and sell there, whereby buyers render toll to Robert to the loss of the men of Dunwich; and touching a complaint by the said Robert that some men of Dunwich lately came to his said town and carried away sails, anchors and other goods."(34)

Similar complaints were being made in 1331 when the bishop of Norwich was asked

> "... to settle all disputes between John de Claveryng who claims to have a right to the port or hithe at Walberdeswyk, co. Suffolk, and to receive anchorage and other dues from ships putting in there, and the burgesses of Dunwich who assert that such ships should discharge at the port of their town; ..."(35).

Following the disaster of 1336, the burgesses of Dunwich found it increasingly difficult to pay their taxes to the crown and, in 1357, they were discharged of their arrears and their current rates were reduced.(36)

The River Blyth was navigable to Blythburgh, 4 miles from the sea, for men of that place are mentioned in 1390 as having

> "...ships, vessels and boats laded with fish and other merchandise ..."(37).

It is likely that the river was navigable for a further 4 miles, to Halesworth, where the Bungay to Saxmundham road crosses the river.

River Alde

Rising to the south of Laxfield, the River Alde flows in a south-easterly direction between the towns of Framlingham and Saxmundham to Rendham and Stratford St. Andrew. At Snape the river broadens and then turns due south near Aldburgh, running parallel with the coast to Orford, after which it is joined by the River Butley, the combined waters of which form the River Ore - which enters the sea near Hollesley; after a total course of 28 miles.

At various times throughout the medieval period, Orford is mentioned as a port; for example in 1309,(38) 1322,(39) and 1342.(40) Orford is 7 miles up-river from the sea.

The River Alde must have been navigable for 18 miles to Snape - after which it narrows, and probably for a further 3 miles to Stratford St. Andrew; whilst the River Butley was probably navigable for 3 miles from its confluence with the Alde, to Chillesford.

River Deben

From near Debenham, the River Deben flows through that place and on in a south-easterly direction to Wickham Market and Woodbridge from where its estuary proceeds by Hemley and Ramsholt to enter the sea to the north of Felixstowe; a total length of 26 miles.

In 1349,

> "...two crayers laden with corn, tan and other customable wares not customed,"(41)

were arrested in the waters of the town of Woodbridge, 9 miles up-river from the sea.

In 1390, ships loaded with corn were arrested at Woodbridge and accused of evading customs duty.(42)

It is likely that the river was navigable for a further 6 miles up-river of Woodbridge, to Wickham Market, where the Woodbridge to Saxmundham road crosses the river.

River Orwell

Formed by the waters of the River Gipping - which runs down from Rattlesden and through Stowmarket to Ipswich, the River Orwell is an expanse of estuarine water extending for 12 miles from Ipswich to a confluence with the River Stour and the sea near Harwich.

Throughout the medieval period the port of Ipswich, at the head of the river, was an important centre of trade and commerce.

In 1301, 'the bailiffs and good men' of Ipswich were asked to send two ships to Berwick-upon-Tweed to assist Edward I in his Scottish Campaigns.(43)

In 1322, Ipswich was again asked to prepare two ships

> "to be prepared and found with men-at-arms, victuals, and other necessaries ..."(44)

Ships in excess of 50 tons were ordered to leave the port of Ipswich in 1326 and join the rest of the English fleet at Portsmouth.(45)

A commission of 1335 was asked to make inquisition

> "touching a petition of the burgesses of Ipswich that, whereas they be charters of the King's progenitors, Kings of England, hold their town of the King at fee farm, with all the liberties, free customs and other things pertaining to the same, by the rent of 60l. at the Exchequer, and their port of Orwell, with the arm of the sea and the river leading from the mouth of the port towards the sea as far as the town, belongs to the King and his said town, and whereas they receive divers customs and profits in aid of their said farm on the ships and merchandise coming to the town and port, and have used to receive these from the time of the making of the charters, but the port and river are not specified in the charters, the King will confirm their charters and in such confirmation specify the port and river, and grant the burgesses shall hold the port and river as annexed to the town, and shall receive customs and profits on ships and merchandise as hitherto;"(46)

The River Orwell is often referred to as the 'port of Orwell' which, in effect, as is confirmed by the previous reference, relates to all places along its shores from its mouth to Ipswich.

An important reference of 1340 relates to the course of the Rivers Gipping and Orwell and lists details of various commodities passing through the port; therefore, it is worth relating the relevant content of this reference;-

> "The port of Erewell with all the arm of the sea... to Ipswich belongs to that town and to the crown, and in all past times so belonged. The port takes its name from a well called 'Erewell', in Ratlesdene, 15 leagues from Ipswich towards St. Edmund's, forming a running river through the midst of the town; which was first appointed the capital of Suffolk by reason of the port by a pagan King, 'Ypus' by name, who called the town Ypeswich. The bailiffs and ministers of the King's ancestors all the time the town has been in the hands of the Kings have made distraints and attachments in the port and arm of the sea and have taken there toll and customs on imported and exported goods as belonging to the town, viz. from every tun, pipe or barrel of wine, honey, vinegar, ointment, cider, ale, wood, ashes, copperas, teasels, steel, orchil, and such like merchandise 2d.; from every load, barrow, or truss of cloth, canvas, or linen cloth, bound with cords 4d., not so bound 2d.; from every last of wool or millstones 8d.; from every last of hand millstones, and bale of alum, brazil, almonds, and such like merchandise 4d.; from every ship with shelter and 100 of gross salt 4d.; from every ship with benches and bilges 2d.; from every boat with rowlocks 2d.; from every boat with oarpins ½d.; from every last of herrings and 100 of estrich board 4d.;"(47)

In 1373, the town of Ipswich was asked to construct

> "a barge fit for war made for the defence of the realm"(48).

It is likely that the River Gipping was navigable for small vessels to Stowmarket, 12 miles up-river from Ipswich.

River Stour

Rising to the south of Newmarket, the River Stour flows in a generally south-easterly direction through Clare, Sudbury, Bures, Nayland and Stratford St. Mary to Maningtree - from where the broad expanse of its estuary proceeds to a confluence with the River Orwell and the sea at Harwich; a total length of 54 miles.

Ships in excess of 50 tons were ordered to leave the port of Maningtree in 1326 and were then directed to Portsmouth to join the English fleet which was assembling there.(49)

Maningtree is 11 miles up-river from the sea, at the point where the estuary narrows.

In 1349, ships laden with various assorted victuals were ordered to be arrested at Maningtree.(50)

In 1371, a ship loaded with wool in the water at Maningtree was said to have attempted to escape custom duties,(51) and in 1378, the town of Maningtree was charged, along with various other places, with making a balinger for the King.(52)

The River Stour was probably navigable for small vessels to Bures, 15 miles up-river from Maningtree, where the Colchester to Sudbury road crosses the river.

River Colne

From the south-east of Haverhill, the River Colne follows a south-easterly course through Halstead, Earls Colne, West Bergholt and Colchester, to be joined by the River Roman at Wivenhoe. At Wivenhoe the river broadens into an estuary containing many creeks, and continues past Brightlingsea and Mersea Island to enter the sea after a course of 35 miles.

Colchester, the oldest recorded town and the first major Roman settlement in Britain, was an important port during the medieval period.

In 1326, various persons were appointed in certain ports, including Colchester, to ensure that ships were sent to join a fleet which was assembling in the north.(53)

In 1341, deputies were appointed in the River Colne between Colchester and the sea with the power

> "to search ships and boats and arrest as forfeit any wool, wool-fells and otherwares liable to custom, whereon custom had not been paid, found in any ships or boats, together with the ship or boat."(54)

The evasion of customs duty on wool was still rife in 1351 when the King's serjeant at arms was ordered -

> "on information that very many wools, hides and woolfells are daily loaded in ships and boats on the water of Colne and elsewhere on the sea-coast in Essex without being customed or coketted, and are taken across to foreign ports to the loss and deception of the King, - to arrest as forfeit all such wools, hides and woolfells found in ships, crayers or boats on the water of Colne and elsewhere on the said sea-coast, together with the vessels in which they are placed, and bring them to London for delivery to the treasurer there."(55)

Complaints were made by the burgesses of Colchester in 1353 when they petitioned the King

> "complaining of forestalling of wines and other victuals in their town and of the obstruction of the King's river there by wears, mills, stanks, palings and kiddles contrary to the act of 25 Edward III and to punish pursuant to the act such as are found guilty herein."(56)

This reference clearly demonstrates the strong measures put forward by Edward III in 1351, when he passed an act for the removal of all obstructions placed in rivers since the time of Edward I.(57)

A reference of 1361 highlights some of the diverse cargoes carried by small river and coastal vessels. A petition of that year stated that a certain John Spogg and William le Hunte

> "loaded a small crayer in the port of Colcestre with coals and herring for transport to the town of Middelton, and having discharged and sold the said cargo at Middelton they loaded the crayer with 40 quarters of wheat and 10 quarters of barley which they had bought in the county of Kent for transport to Colcestre, ..."(58)

The place referred to in this reference, 'Middelton', is in fact the village of Milton, near Sittingbourne which is situated at the head of Milton Creek which runs into the River Swale opposite the Isle of Sheppey.

Indications that the River Colne was navigable up-river of Colchester are contained in a reference of 1365 which states that a certain Lionel de Bradenham and others,

> "made divers purprestures, stoppages and obstructions by raising weirs, driving stakes, enclosures and other works ...in...waters flowing down to the port of Colcestre,..."(59).

Colchester is 4 miles from where the river narrows at Wivenhoe and 12 miles from the sea; however, it is probable that the River Colne was navigable to Halstead, a further 13 miles up-river from Colchester and at the point where the Braintree to Sudbury road crosses the river.

The River Roman, which joins the Colne at Wivenhoe, was probably navigable to Stanway, where the Colchester to Braintree road crosses the river.

River Blackwater

The River Blackwater begins to the east of Braintree and is formed by the waters of the River Pant. From Braintree the river flows through Coggeshall to Witham, where it is joined by the River Brain. It continues to Maldon, near which it is joined by the River Chelmer, then enters a broad estuary which leads into the sea to the south of Mersea Island; after a total course from Braintree of 30 miles.

Maldon, at the head of the Blackwater Estuary, was described as a port in 1326,(60) and in 1378 was asked to construct a 'balinger' for the King.(61)

Heybridge, in the suburbs of Maldon, was another place where ships put in. In 1338, an order was issued permitting

> "merchants, mariners, and others, who are crossing with their ships by the inlet at Hebregg to load and unload their ships upon the land within the precinct of the manor of Hebregge at will,..."(62)

Maldon and Heybridge are some 12 miles from the sea but it is probable that the river was navigable for a further 6 miles to Witham, where the Chelmsford to Colchester road crosses the river.

Chelmsford, 10 miles by water from Maldon, was also within the reach of small river vessels.

River Crouch

Rising to the south-east of Brentwood, the River Crouch flows in an easterly direction to Wickford and Battlesbridge after which it widens and proceeds by Hullbridge and North and South Fambridge to Burnham-on-Crouch after which it is joined by the River Roach, the joint waters of which enter the sea between Foulness Island and Holliwell point; a total course of 26 miles.

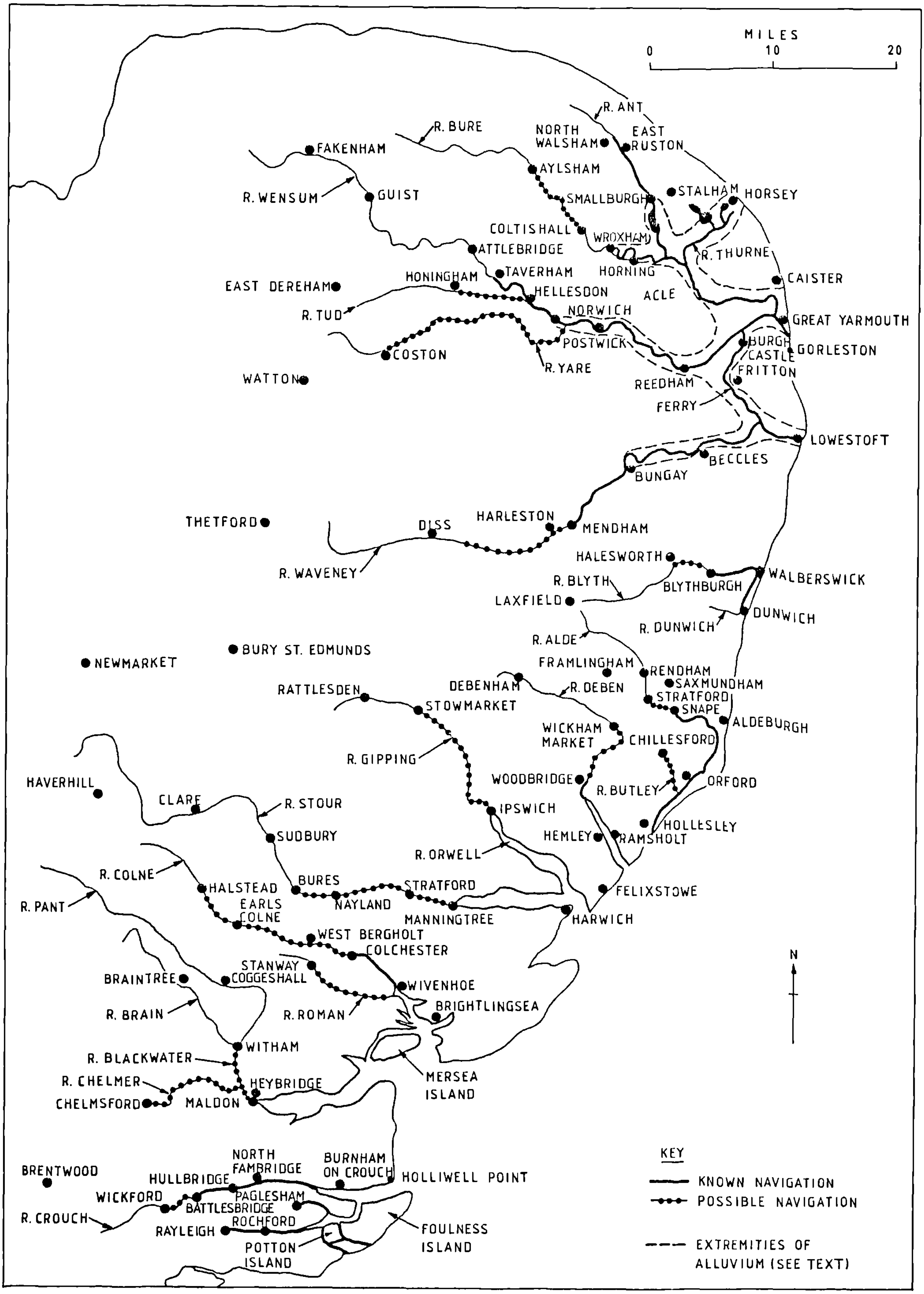
The river would certainly be navigable for 17 miles, to Battlesbridge, and probably for a further 3 miles, to Wickford.

River Roach

The River Roach commences near Rayleigh and flows through that place in an easterly direction to Rochford. It then widens and flows past Potton Island, where a number of creeks lead southwards to the sea. On the northern side of the river, and opposite Potton Island, is Paglesham Creek, a navigable inlet which flows down from Paglesham 3 miles to the north. The River Roach continues to where, after a course of 15 miles, it joins the River Crouch.

In 1267, Master William de Saundon, the King's cook, was given permission to transport 50 quarters of corn from Wallingford to his house at Rayleigh by water.(63) This journey would be via the River Thames, on which Wallingford is situated, and then out into the Thames Estuary and into the River Roach, probably through the creeks to Potton Island - then along the River Roach to Rayleigh.

The rivers of the coast of East Anglia are mapped in Figure 13:1. and their navigational limits in medieval times are indicated.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HORNING
CAISTER
EAST DEREHAM
HONINGHAM
HELLESDON
ACLE
R. TUD
NORWICH
GREAT YARMOUTH
POSTWICK
BURGH CASTLE
GORLESTON
COSTON
R. YARE
FRITTON
WATTON
REEDHAM
FERRY
LOWESTOFT
BECCLES
BUNGAY
THETFORD
HARLESTON
DISS
MENDHAM
R. WAVENEY
HALESWORTH
WALBERSWICK
R. BLYTH
BLYTHBURGH
LAXFIELD
DUNWICH
R. DUNWICH
R. ALDE
BURY ST. EDMUNDS
NEWMARKET
FRAMLINGHAM
RENDHAM
SAXMUNDHAM
DEBENHAM
R. DEBEN
RATTLESDEN
STRATFORD
STOWMARKET
SNAPE
ALDEBURGH
WICKHAM MARKET
CHILLESFORD
R. GIPPING
WOODBRIDGE
ORFORD
HAVERHILL
R. BUTLEY
CLARE
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IPSWICH
HOLLESLEY
SUDBURY
HEMLEY
RAMSHOLT
R. ORWELL
R. COLNE
HALSTEAD
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STRATFORD
FELIXSTOWE
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EARLS COLNE
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MANNINGTREE
HARWICH
WEST BERGHOLT
COLCHESTER
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BRAINTREE
COGGESHALL
WIVENHOE
BRIGHTLINGSEA
R. BRAIN
R. ROMAN
WITHAM
R. BLACKWATER
R. CHELMER
HEYBRIDGE
MERSEA ISLAND
CHELMSFORD
MALDON
NORTH FAMBRIDGE
BURNHAM ON CROUCH
BRENTWOOD
HULLBRIDGE
HOLLIWELL POINT
KEY
WICKFORD
PAGLESHAM
KNOWN NAVIGATION
BATTLESBRIDGE
POSSIBLE NAVIGATION
R. CROUCH
ROCHFORD
RAYLEIGH
FOULNESS ISLAND
POTTON ISLAND
EXTREMITIES OF ALLUVIUM (SEE TEXT)

FIGURE 13:1 THE RIVERS OF THE COAST OF EAST ANGLIA

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CHAPTER FOURTEEN THE RIVER THAMES AND ITS TRIBUTARIES

River Thames

Having a length of 210 miles, the River Thames is the longest river in England. It rises to the north of Malmesbury from where its infant course flows eastwards to Cricklade and Lechlade - near which point the combined waters of a number of lesser streams, flowing down from the eastern side of the Cotswold Hills, unite to produce a significant flow. From Lechlade the river passes under Radcot Bridge and continues to meet the combined waters of the Cherwell and Ray at Oxford. The river proceeds via Wallingford, Reading and Windsor to London, then on past Gravesend to where it receives the River Medway - shortly after which it merges with the North Sea off the Isle of Sheppey.

The chronicle of Abingdon Abbey, written at the time of the Norman Conquest, relates that

> "Abingdon monastery has the Thames flowing along its southward parts, up and down which navigation is conducted." (1)

Domesday Book informs us that navigation was carried out at Wallingford and Reading in 1066.(2) A charter of 1197 put the care of the river in the hands of the 'City of London'. It is possible that the whole course of the river was intended, but in practice the city's jurisdiction did not extend beyond Staines.(3) In 1205, the river was navigable between Oxford and London for, during that year, one William, son of Andrew, was granted freedom from toll and hindrance for one ship between Oxford and London.(4) Magna Carta, signed and sealed alongside the Thames at Runnymede in 1215, states as its twenty-third clause:-

> "all weirs from henceforth shall be utterly put down in Thames and Medway, and through all England, except only by the sea coasts." (5)

In 1227, twelve tuns of Gascony wine was taken in ships from Sandwich to Westminster and there transferred to a boat for transport to Windsor.(6) In 1238, bucks and does from Havering Park were taken south by cart to the River Thames and loaded aboard ships for the voyage to Flanders.(7)

Brushwood, to be used as fuel, was taken by river from London to Windsor in 1239.(8) In 1243, five boat-loads of sea-rushes were transported from Kent to Westminster.(9) In 1246, the bailiff of Kenington was ordered

> "to make a barge to carry horses and people across the Thames." (10)

Wine was carried in four boats from the port of Sandwich to London in 1249.(11) Two thousand boards were carried by water from London to Windsor in 1253.(12) In 1254, 5 fothers of lead, and 2000 pounds of tin were shipped from London to Reading;(13) and two shiploads of corn were taken by the river from Goring to the capital.(14) In 1256, two pipes of clove-scented wine were carried by water from London to Henley;(15) and during the same year herrings were taken from Norwich to Westminster by water.(16) In 1258, the keeper of the forest of Windsor was ordered

> "to let the keepers of the King's works at Westminster have 6 boatloads of brushwood from old leafless trunks in the forest, and to carry them by the water of Thames to Westminster for delivery to the said keepers to make a limekiln fortheir works." (17)

Sixty-three fothers of lead were shipped from Boston to Westminster in 1259,(18) and the following year coals and firewood from Windsor,(19) and venison from Scarborough,(20) were also shipped to Westminster.

Apart from Westminster, some building work was also being carried out at the Tower of London. In 1261, the sheriff of Kent was asked

> "to send 20 boatloads of good freestone and 20 other boatloads of stone and chalk without delay by the water of Thames to the Tower of London to make a turret there.." (21)

Lead was transported from Boston to the Tower later the same year, entirely by water.(22)

There was a lock in the river at Bray near Maidenhead, for, in 1265, Thomas de la Lok - farmer of the lock, received compensation of 26s. 8d.

> "sustained by reason of the prohibition of the use of locks on the Thames during the disturbance in the realm, so that ships could not cross or go down to London as they used to do in past times..." (23)

This prohibition does not appear to have lasted for any great length of time for, early the next year, ships were passing down the river from Wallingford to the Thames Estuary.(24) The lock referred to at Bray would probably be a 'flash' lock - whereby a head of water was formed by holding back the flow of the river, usually with timber boards. Once the boards were removed, the subsequent rush, or 'flash' of water could be utilised to enable vessels to negotiate shallow, or rock-strewn, riverbeds.

The River Thames was probably navigable to Lechlade, 6 miles up-river from Radcot Bridge. It was certainly navigable for the first 185 miles of its course during the thirteenth century, to Radcot, as is shown by a record of 1271 when Matthias de Bezilles, the King's yeoman, was granted

> "the boat wherein Gilbert son of Walter le Messer was lately drowned by misadventure in the Thames at a place called 'La Juresherd' within the said Matthias's liberty of Radecote, with 5½ quarters of wheat, an iron chain, a lock and eleven sacks found in the said boat". (25)

Throughout the fourteenth century, navigation continued as far as Radcot Bridge as is shown by numerous surveys of the river and the consequent removal of all

> "weirs, mills, stanks, stakes and kiddles whereby the passage of ships and boats may by hindred... in the river Thames between Rotecote...and London." (26)

Ships regularly plied between London and Oxford during the thirteenth and fourteenth centuries(27); a distance of 113 miles.

When examining the records of the period relating to navigation on the River Thames one feature always emerges - the predominance of London. In an early account of the city, written some time before 1183, William FitzStephen said:-

> "To this city, from every nation that is under heaven, merchants rejoice to bring their trade in ships." (28)

Below London, the Thames must have been a very busy river, catering for the movements of foreign, coastal, and river vessels.

At the capital itself there was also a large amount of local traffic; and on the numerous occasions when the treasure of the crown was transferred from Westminster to the Tower of London boats were always utilised for this purpose.(29)

In 1272, safe conduct was granted to the men of Master John de Chishull, dean of St. Paul's, London, who were

> "bringing his corn and other goods from his church of Brawatre to St. Paul's London, by sea." (30)

During the same year, timber belonging to the King was carried by ship from Kent to Westminster.(31)

With so much traffic plying to and fro, it was inevitable that accidents should occur and in 1279 a ship was wrecked ' by accident' near London Bridge.(32)

In 1282, millstones were taken from London to Faversham by water.(33)

The ease of access which the River Thames gave to London was, in times of conflict a problem. This is shown by a record of 1295 when David le Graunt, the King's clerk, was appointed to the custody of the priory of Lewisham,

> "as the number of foreigners staying there constitutes a danger to the realm in these days, on account of the situation of the priory on the river Thames, which leads to the sea; and he is to render an account of the issues to the Exchequer." (34)

In 1310, a pontage grant was made

> "upon all goods passing under or over"

the bridge at Marlow(35); and in 1314, the keepers of the King's ships and boats were commanded

> "that as often as they, or any one of them, with his ships or boats shall pass through the bridge of Windsor towards London, indentures or tallies are to be made with the King's bailiffs of the town of the custom from ships and boats due to the men of the town, so that it can be known to what sum the said custom so due, which the keepers wish to retain in their power, amounts to every year." (36)

The charge for passing under the bridge at Marlow was

> "one penny for each vessel passing under the bridge laden with goods for sale exceeding in value 40s." (37);

and at Windsor:-

> "Every ship passing under the bridge, laden with wares for sale exceeding the value of 100s., is to pay two pence." (38)

Charges were also made at the bridge of Maidenhead:-

> "1d. on every ship or boat laden with merchandise passing under it." (39)

Charges were also made at London Bridge on vessels passing beneath it.(40)

In 1330, a ship was loaded with five millstones at London and these were transported up-river to Henley;(41) later the same year 2½ cart-loads of lead were shipped down the river and on to Sandwich.(42)

Whenever there appeared to be a risk of hostilities the river could, in effect, be closed off. This is shown by a record of 1338 when the mayor, aldermen and sheriffs of London were ordered

> "to cause that city to be defended on the water side with stone or bords, with all possible speed, against hostile attacks, and to cause piles to be fixed across the river Thames..." (43)

The River Thames was utilised for the transport of wool and, in 1338, part of the wool of Oxfordshire was taken from Henley and shipped to London in 'shutes'. (44)

The Crown appointed officers to search and inspect cargoes which were due for export to ensure that customs duty was not evaded. In 1342, a certain Andrew de Shorne was accused of taking two sacks of 'non-customed' wool in his own boat to the parish of Lessness between Erith and Woolwich.(45) The risks of attempting to evade customs duty were high, and owners could have their vessels confiscated; officers were ordered

> "to make scrutiny of ships crossing to parts beyond the sea, by the River Thames, and to take into the King's hand as forfeit all ships in which wool, fells or hides are found not coketted or customed,..." (46)

Complaints were made in 1348

> "that, whereas the four great rivers, Thames, Severn, Ouse and Trente, from ancient time have been open for the passage of ships and boats for the common profit of the people, of late, in the river Thames, between London and Henlee, co. Oxford, and in the other rivers aforesaid there are so many and so great obstructions and impediments by undue erections, building of wears and mills, and fixing of piles and palings athwart the rivers by magnates and others having lands contiguous to such rivers that ships or boats can only pass to London or other cities and good towns of the realm by these rivers in time of excessive abundance of water, and divers ransoms imposed at will and unaccustomed are exacted from those passing with ships and boats at the wears and levied by grievous distraints, and so the common carriage of victuals by ship is greatly impeded and victuals daily grow dearer,.." (47)

Although, as is shown by the records of numerous shipping movements along the upper river, these complaints may have been somewhat exaggerated, the weirs being erected by mill-owners were becoming a definite nuisance to navigation. However, the culmination of such complaints was the strong measures put forward by Edward III in 1351, when he passed an act for the removal of obstructions placed in all rivers since the time of Edward I.(48)

Throughout the thirteenth and fourteenth centuries there are numerous references relating to navigation on the River Thames both above, and below, London; therefore, to prevent a repititious text, these are given as reference (49).

The Swale

Although not a river in the conventional sense, The Swale connects the estuary of the River Medway at Queenborough with the North Sea at Whitstable and hence separates the Isle of Sheppey from the mainland. It gives acces to Milton, and hence Sittingbourne via Milton Creek; there is also a navigable channel leading to Faversham; and another leading into the interior of the Isle of Sheppey.

The distance between Queenborough and Whitstable is 15 miles.

The port of Faversham is included in many early lists recording ports and maritime places. The transport of millstones from London to Faversham in 1282 has already been mentioned.

In 1342, the mayor and bailiffs of Faversham were ordered

> "to permit the attorny of John de Pulteneye, who has mainperned before the King in chancery that he will take the 43 sarplars of wool which he has in that town, from thence to London, by water, to be coketted there and not elsewhere, to place that wool in a ship in the port of Faversham and take it thence to London by the said mainprise." (50)

In 1357, one Reynold de Sholdham - who had been appointed to make search in the port of London and the River Thames for wool, hides and other customable merchandise, not coketted or customed - was ordered

> "to deliver to Giles Baterel and William Godewyn of Sidyngbourne, tanner, the boat and hides arrested by him and to permit William to take those hides and 3 other ox-hides bought by him in that city, to the town of Sidyngbourne, to be

> tanned there, as the King ordered Reynold to certify why he arrested a boat of the said Giles with 32 ox-hides of William, and Reynold returned that he had arrested the boat and hides because Giles and William had taken them towards the sea in the River Thames without warrant, and Giles and William have made oath before the council that they took the hide to the town of Sidyingbourne to be tanned and not elsewhere, and did not intend to defraud the King of the custom and subsidy,.." (51)

The route taken for these voyages between Faversham and London could have been by one of two routes; west to Queenborough, the Medway Estuary and the River Thames; or initially east towards Whitstable and then north-west to join the Thames Estuary.

In Chapter Thirteen, under the heading of the River Colne, reference was made to the transport, in 1361, of coal, herrings, wheat and barley to and from Milton - which is situated two miles from The Swale, at the head of Milton Creek, and within one mile of Sittingbourne.

In 1361, a grant was made to the prioress and convent of the Isle of Sheppey - which was situated at Minster on the seward side of the island - of two wells

> "by the water of Swale in which the rainwater falls and is received."

Licence was given for the prioress and convent

> "to draw off the water or part thereof at any time of the year as they will and carry the same by ships or boats...and bring the water to the priory or other places as they will." (52)

In 1364, when orders were issued

> "that noone cross the sea from the realm without the King's special licence, "

Faversham was included in the list of maritime places.(53)

A licence was issued in 1388

> "notwithstanding the late prohibition against any vessel, barge or balinger passing out of any port in the kingdom, for Richard Nevill of London, 'grosser' to pass out of Faversham with his three crayers laden with fruit, one for Boston, one for Hull and the third for London;..." (54)

River Medway

From its source to the south-east of East Grinstead, the River Medway flows between the North Downs and the Forest Ridges through Tonbridge, Yalding, Maidstone, Aylesford and Rochester, after which it widens into an estuary at Gillingham, and then enters the Thames Estuary between the Isles of Grain and Sheppey; a total length of 65 miles.

The reference to putting down obstructions in the River Medway at the time of Magna Carta (1215) has already been mentioned, and further orders of a similar nature were issued in 1281 and again in 1286.(55)

In 1282, when Rochester Bridge was broken, the prior and convent of Rochester were allowed

> "to receive and were wont to receive the fourth penny from the ferry over the water there,... It is provided that they shall satisfy the King for the crossing or passage of their things or men over the water, as others passing there do, except corn, victuals and other necessaries of the prior and convent that they cause to be carried from their places and manors by the water to their priory,..." (56)

Rochester Bridge was broken again in 1310 as is shown by a grant to

> "Otto Ferre, King's yeoman, of the ferry over the Medewaye at Rochester, the rights of others preserved, until the bridge, now broken, shall be repaired. He is to find and maintain boats and other necessaries." (57)

In 1326, Maidstone, 27 miles up the river, was included as a port in a list of towns and places where all

> "ships over 50 tons"

were ordered to join a fleet which was gathering at Portsmouth.(58) During the same year, timber was felled

> "in Tonbrugge forest"

then carried to the river and shipped to Rochester Castle.(59) Tonbridge is a further 16 miles up-river from Maidstone and hence 43 miles from the mouth of the river.

At Aylesford, 3 miles down-river from Maidstone, a grant of pontage was made in 1331

> "on wares passing over or under the bridge over the river Medeweye." (60)

In 1349, a ship was loaded at Gillingham - 10 miles from the mouth of the river,

> "with 10 quarters of wheat, 3 quarters of rye, 2½ sacks of wool, 10 cloves of lamb's wool and 307 wool-fells...and 42 quarters of barley... to be taken to Sandwich..." (61)

Stone was shipped to London from quarries in the vicinity of Maidstone and Aylesford during 1354.(62)

In 1356,

"a small ship"

of Maidstone was arrested in the River Medway whilst on its way to Westminster.(63) During the same year an order was issued to the bailiffs of Rochester

> "to permit all ships and crayers which serve for bringing to the palace of Westminster timber and stone for the King's works in that palace to pass through that bailiwick without hindering them at the bridge of Medeweye or taking anything from the masters or mariners of those ships and barges for their passage under that bridge." (64)

At this same time, the constable of Rochester Castle was ordered

> "to cause all obstructions at the bridge of that town in the water of Medeway whereby the passage of ships is impeded to be amoved without delay,..." (65)

Timber was also shipped at this same time from New Hythe, near Aylesford, to Westminster.(66)

In 1379, wool was taken by ship from Maidstone to Westminster, and the following year a ship loaded with "salt fish" was arrested and held at New Hythe.(67)

An interesting feature of the bridge at Rochester is revealed in a record of 1388 when the sheriff of Kent was ordered

> "to cause proclamation to be made in the city of Rochester and elsewhere, that all who will bring ships, crayers, barges, balingers, boats or other vessels through Rochester bridge shall under pain of forfeiture thereof bring them through the drawbridge and through no other part of it." (68)

It appears that pilots were sometimes used to guide ships through the estuary of the River Medway. Towards the end of the fourteenth century, in 1390, a ship was wrecked off the Isle of Grain near the mouth of the river

> "through lack of a pilot...and all the men therein but one came safe to land on the isle of Grean. Lawrence Hendyman had one tun of wine from the ship when she was lost, John atte Mersch of Gillingham one tun and John Wepere of Faversham two pipes." (69)

River Len

The River Len rises near Lenham and flows in a north-westerly direction past Leeds Castle to Maidstone where it joins the River Medway after a course of 10 miles.

The river was navigable for 5 miles of its course to Leeds Castle for, in 1359

> "timber, stone, iron, boards, tiles, charcoal and all other necessaries"

were taken to that place

> "by land and water". (70)

River Darent

Rising near Westerham, the River Darent flows eastwards through that place and then turns northwards near Sevenoaks and passes through Otford, Shoreham, Eynsford, and Farningham to Dartford, after which it enters the River Thames to the west of Erith; a total length of 23 miles.

The river was certainly navigable to Dartford, 3 miles up-river, for, in 1376, certain persons were ordered

> "to take carpenters, hewers of stone and other craftsmen and labourers for the repair of a 'wharf' in Dertford..." (71)

It is likely that the river was navigable for at least a further 4 miles, to Farningham, where the London to Maidstone road crosses the river.

River Ingrebourne

The River Ingrebourne flows in a southerly direction from a point to the west of Brentwood and passes through Havering and Rainham, after which it enters the River Thames after a course of 10 miles.

In 1266, timber felled at Havering, 6 miles up-river, was taken by water, via the Ingrebourne and Thames, to Westminster.(72)

In the period 1351-52 mention is made relating to the 'cleansing' of the river between Havering and Rainham.(73)

River Lea

Rising in the Chiltern Hills to the north-west of Dunstable, the River Lea flows in a south-easterly direction through Luton to Hatfield from where it turns north-east to Hertford and Ware. After Ware the river turns due south and passes Hoddeson, Waltham, Tottenham and Walthamstow to enter the River Thames after a total course of 51 miles.

The earliest record of navigation on the River Lea is contained in a grant of 1220, when Margaret, Countess of Winchester, allowed the Canons of Holy Trinity free passage for their corn between Ware and London.(74)

In 1258, 34 tuns of wine were transported from Ware, 26 miles up-river, to Westminster by water.(75)

In 1268, one Robert Walleraund was reimbursed the sum of 60s.

> "lent by him to the King....for carrying his wines..by water to the abbey"

of Stratford, 3 miles up the river.(76)

In 1300, there was rivalry between the towns of Hertford and Ware, and the men of Ware caused obstructions in the river. Hence a commission was set up

> "to survey...the obstructions leading from the town of Ware to the Thames, caused by mariners and boatmen placing their vessels across the water and purposely keeping them so as to prevent merchants coming with their goods and victuals to London, and to have them removed." (77)

Thus the men of Hertford, 28 miles up-river, would once again be able, on removal of these obstructions, to navigate down to London.

In 1344, there were further complaints regarding obstructions in the river. It was said that the prioress of Stratford had

> "set eighteen piles in the said river by Stratford Bridge"

and that a former abbot of Stratford had diverted the river

> "for a space of twelve and a half perches of sixteen feet in length and the earth so raised that ships

> can scarcely pass and fish can scarcely enter the Thames." (78)

A commission was set up in 1355

> "to enforce the statute of 25 Edward III of the removal of obstructions of rivers, in the water of Leye between Ware and London..." (79)

These are set out in some detail in another record, which shows that at the mouth of the river the abbot of Stratford had made a barrier of piles in midstream

> "so that neither fish nor boats can pass".

The prior of the Hospital of Hackney had made a new bridge

> "in consequence there is a 'sandbed' in midstream to the nuisance of ships".

Also at Hackney the bishop of London had a weir

> "the foundation whereof is so high that boats can scarcely pass";

he also had a second weir below the first which was in midstream

> "to the great danger of ships".

Near Nazeing there was

> "a watercourse called 'Pypelory' which ought to be open for the passage of boats on three days a week, but is open throughout the week."

Also as Nazeing there were "kiddles" and a weir

> "too narrow for the passage of boats by two feet"

and an unrestrained watercourse

> "to the serious damage of boats".

At Roydon there was a

> "Kiddle...which is an impediment to boats,"

near which was a weir

> "not sufficiently deep for the passage of boats".

At Stanstead Abbots the abbot of Waltham had

> "a weir out of repair and his mill is so much dilapidated that the water of 'la Leygh' cannot be arrested by either, as used to happen, and boats are unable to pass." (80)

In 1360, a commission was asked

> "to survey some sluices on the river of La Leye... by the breaking of which the passage of the river is now totally obstructed,..." (81)

Obstructions between Ware and London were again the subject of surveys in 1364(82) and 1396(83).

In 1366, a commission was set up to determine

> "the names of those who have taken tolls, customs or other prises, on their own authority and without title, of all ships and boats passing ...also of all owners of ships and boats, shoots, of all masters, governors and mariners who have taken excessive wages, against the statute of labourers, or excessive payment for carriage of goods by the said river,..." (84)

Similar complaints were again raised in 1369(85), 1380(86), 1382(87) and 1388(88).

River Fleet

Although today it is little more than a half-hidden stream, the River Fleet, which flows south from Hampstead to central London, was used for navigation during the medieval period.

The earliest record of navigation along the river dates from between 1110 and 1133, when building stone was transported to 'Old' St. Paul's.(89)

In 1307, a commission was set up to

> "survey the water-course of Flete running under the bridge of Holeburn to the Thames, which is said to be obstructed and straitened by mud and filth being thrown into it and by the new raising of a quay by the master and brethren of the New Temple, London, for their mills on the Thames by Castle Baignard, so that boats with corn, wine, firewood and other necessaries cannot go from the Thames by means of the water-course as they have been accustomed, and to cause the obstructions to be removed by those they think liable, and the water-course to be made as broad and deep as anciently it used to be." (90)

Vessels used to navigate the river to Holborn Bridge, about half a mile from the confluence with the Thames, and there "discharge cargo".(91)

In 1338, one John le Brewere, a thief, escaping from his victims, some merchants,

> "took to flight to the quay of St. Paul's and the river Thames, and intending to escape by the river upon the quays to the Flete Bridge, plunged into the water and was drowned under the quays by the rising tide." (92)

A ditch, which left the Fleet in an eastward direction and turned again westward to rejoin it further down its course, completely surrounded the Fleet Prison. In 1355, it was said

> "that the Fleet ditch ought of right be ten feet wide and to run in such volume towards the east and back towards the west that boats laden with a tun of wine can float theron." (93)

Welsh cheeses were brought up the river in 1377

> "and disposed of...secretly against the ancient custom of selling openly either at Leadenhall or Newgate shambles." (94)

River Effra

Another of London's 'half-hidden' rivers, the Effra flows north from Norwood to Brixton, after which it enters the River Thames near Lambeth Palace.

Although direct documentary evidence relating to navigation along the Effra during the medieval period is lacking, both King Canute and Queen Elizabeth in the eleventh and sixteenth centuries respectively, sailed up the river for two miles - to Brixton.(95)

Therefore it is safe to conclude that the same stretch of river would be utilised during the medieval period.

Rivers Cherwell and Ray

From its source to the north of Banbury, the River Cherwell flows due south through that place and on to Steeple Aston and Islip - where it is joined by the River Ray. It then continues to Oxford, where it enters the River Thames to the south of the city after a course of 35 miles.

The River Ray rises to the north-west of Aylesbury and flows in a south-westerly direction to Blackthorn, Ot Moor and Islip, where it flows into the River Cherwell; a total length of 18 miles.

The River Cherwell was navigable for 7 miles, from its junction with the Thames to Islip, where it is joined by the River Ray; the latter river was navigable to Ot Moor, 3 miles up-river from its confluence with the Cherwell. These details are revealed by a commission of 1294 which was instructed

> "to view the gorces and weirs in the Thames in the counties of Middlesex, Surrey, Berks, Buckingham and Oxford, as it appears that divers magnates and others having tenements by the river Thames and the river of the moor of Ottemor, between the city of London and the said moor, have erected gorces and weirs where they were not wont to be, and have straitened and raised the height of others, and that fishermen and others take small fish with narrow nets and kidels contrary to the assize in these parts and other rivers in the said counties; by reason whereof vessels cannot pass as they were wont. They are to remove all weirs made or raised contrary to the assize, and to burn such nets and destroy the kidels." (96)

A commission was set up in 1375

> "to survey the hythe called La Ree of Ottemore, co. Oxford, which is said to be so choked in divers places by the planting of trees and making of sluices of timber, stone and earth therein that the water is flowing out everywhere in the neighbourhood and meadows and lands are inundated; and to make inquisition in the said county touching those who have made such obstructions and compel by distraints, amercements and otherwise those who ought to repair the hythe to do so." (97)

It is likely that the River Cherwell was navigable for a further 9 miles from Islip, to Steeple Aston, where the road from Middleton Stoney to Chipping Norton crosses the river.

River Kennet

The River Kennet flows off the Marlborough Downs and passes through the town of Marlborough and on in an easterly direction through Hungerford and Newbury to Reading, where it enters the Thames after a course of almost 50 miles.

It is likely that, during the medieval period, the River Kennet was navigable for 17 miles from Newbury, to its confluence with the Thames at Reading.

River Wey

The River Wey follows a north-easterly course from its source near Alton, to Farnham, Guildford and Weybridge, where it flows into the Thames after a course of 40 miles.

During the medieval period the River Wey was probably navigable for 14 miles, from the Thames to Guildford.

Apart from the aforementioned tributaries of the River Thames, there are many others along which navigation during the medieval period would have been quite feasible but which have an absence of documentary evidence. The following rivers fall into this category:- Beault, Brent, Colne, Evenlode, Loddon, Mole, Roding, Thame, Windrush and Wye.

The River Thames together with its tributaries are mapped in Figure 14:1, and their navigational limits, in medieval times, indicated.

The coastline depicted in Figure 14:1 is that existing at the present time. However, the distribution of alluvium shown on the geological map indicates the extremities of the coastline in earlier times.(98) Exactly what stage the coastal profile had reached during the medieval period is difficult to ascertain, except that it appears that

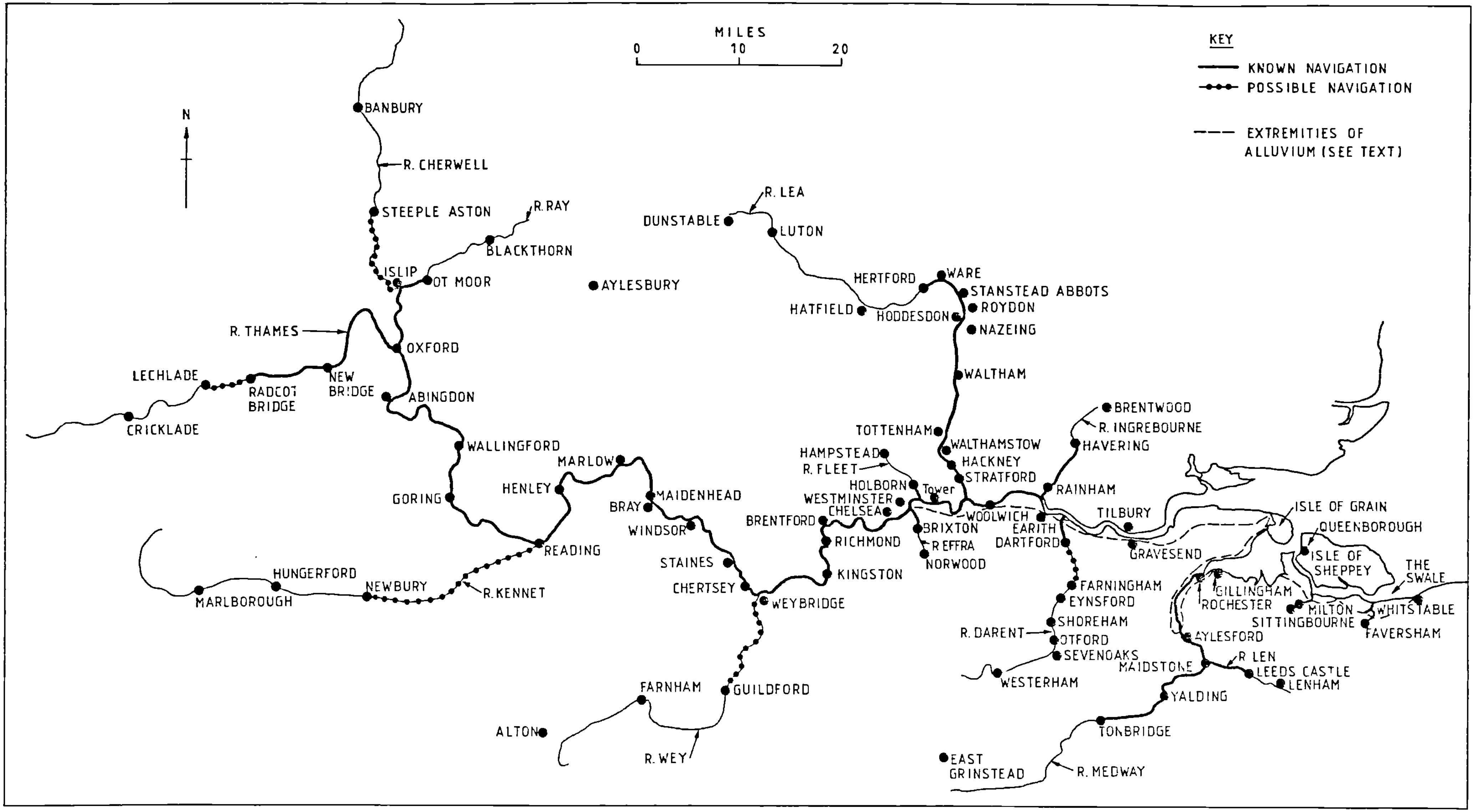
MILES
0
10
20
KEY
KNOWN NAVIGATION
POSSIBLE NAVIGATION
EXTREMITIES OF ALLUVIUM (SEE TEXT)
N
BANBURY
R. CHERWELL
STEEPLE ASTON
R. RAY
BLACKTHORN
ISLIP
OT MOOR
AYLESBURY
R. THAMES
OXFORD
LECHLADE
RADCOT BRIDGE
NEW BRIDGE
ABINGDON
CRICKLADE
WALLINGFORD
GORING
MARLOW
HENLEY
BRAY
MAIDENHEAD
WINDSOR
READING
HUNGERFORD
MARLBOROUGH
NEWBURY
R. KENNET
STAINES
CHERTSEY
WEYBRIDGE
FARNHAM
GUILDFORD
ALTON
R. WEY
R. LEA
DUNSTABLE
LUTON
HERTFORD
WARE
STANSTEAD ABBOTS
HATFIELD
HODDESDON
ROYDON
NAZEING
WALTHAM
TOTTENHAM
WALTHAMSTOW
HACKNEY
STRATFORD
HAMPSTEAD
R. FLEET
HOLBORN
Tower
WESTMINSTER
CHELSEA
BRENTFORD
RICHMOND
KINGSTON
BRIXTON
R EFFRA
NORWOOD
WOOLWICH
EARITH
DARTFORD
BRENTWOOD
R. INGREBOURNE
HAVERING
RAINHAM
TILBURY
GRAVESEND
ISLE OF GRAIN
QUEENBOROUGH
ISLE OF SHEPPEY
THE SWALE
WHITSTABLE
FAVERSHAM
MILTON
SITTINGBOURNE
GILLINGHAM
ROCHESTER
AYLESFORD
R LEN
LEEDS CASTLE
LENHAM
MAIDSTONE
YALDING
TONBRIDGE
R. MEDWAY
EAST GRINSTEAD
FARNINGHAM
EYNSFORD
SHOREHAM
R. DARENT
OTFORD
SEVENOAKS
WESTERHAM

FIGURE 14:1 THE RIVER THAMES AND ITS TRIBUTARIES

the Thames and Medway were wider than at present in their lower reaches, and the Swale, which separates the Isle of Sheppey from the mainland, was also wider. Although some of this extra width was no doubt occupied by marshland, it is probable that Faversham, Milton, Rochester and the mouth of the Medway were more accessible to vessels during medieval times than at present.

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CHAPTER FIFTEEN THE RIVERS OF THE SOUTH COAST OF ENGLAND

The rivers considered in this chapter are those which find their outlets into the sea in the counties of Kent, Sussex, Hampshire and Dorset.

There have been many changes to the coastline of south-east England especially in the areas of Sandwich, Hastings, Romney and Pevensey.(1) As D. Hill points out:-

> "as yet there is no definitive work on the changes of the coast of South-east England," (2)

therefore, the modern coastline is the one shown on the river map. However, coastal changes are discussed where they affect the navigational courses of rivers.

The Great Stour and Wantsum Channel

Rising to the south of Ashford, the Great Stour flows through that place and on in a north-easterly direction through Canterbury and Fordwich. The river turns due east at its confluence with the Wantsum near Sarre, and then winds south past Richborough to Sandwich - after which it turns due north and enters the sea at Pegwell Bay after a total course of 40 miles.

In Roman times, the channel formed by the Great Stour and the Wantsum was much wider than it is today with the result that the Isle of Thanet was a true island. The Romans constructed substantial fortresses at Richborough and Reculver to guard each end of this channel, which was an important navigable link to the River Thames and London. The Wantsum

Channel was navigable during the Anglo-Saxon period but appears to have silted up between Sarre and Reculver some time during the second half of the eleventh century, leaving the Great Stour as the main naivgational waterway during medieval times.(3)

Fordwich, 19 miles up the Great Stour and within 3 miles of Canterbury, was reached by sea-going vessels during the thirteenth century. In 1246, 10 tuns of wine

> "from the port of Fordwiz"

was housed in the cellar of the archbishop of Canterbury for the King.(4)

The records show that the river was also navigable to Canterbury, but probably for smaller vessels. In 1264, the Friars Minors of Canterbury were given permission

> "to build a bridge over the water of Stoure,
> ...so that little ships may pass under it
> without impediment:" (5)

Forty-five years later, in 1309, these same friars were again given permission to build a bridge

> "to be so built as to allow a clear passage for
> boats underneath it" (6)

Sandwich, 5 miles up the river and, along with Hastings, Romney, Hythe and Dover, one of the Cinque Ports, was an extremely busy port during the medieval period. In 1249, for example, the sheriff of Kent was ordered to ensure that 74 tuns of wine were carried from Sandwich to London and to

> "hire 4 boats therefor." (7)

The port of Sandwich is mentioned in the records throughout the medieval period.(8) An interesting record of 1330, relating to the transport of lead, shows that the cargo was carried from London to Sandwich by water and then transferred, presumably to smaller vessels, before being taken to Fordwich.(9)

Sarre, between Fordwich and Sandwich, was also classed as a port. In 1313, one William de Insula, a merchant, complained that a ship he had loaded

> "at London with cloths, wines, spices and other wares"

which he had sent to Sarre was boarded near that place and siezed

> "with all his goods and wares and carried ....away". (10)

In 1364, both Fordwich and Sarre were still listed as ports.(11)

It is likely that during the medieval period the river was navigable for a further 10 miles up-river of Canterbury, to Wye, for it is known that boats were reaching this place in the sixteenth century.(12)

Rivers Rother and Brede

The River Rother rises to the south-west of Mayfield and flows in an easterly direction via Etchingham, Robertsbridge, Udiam, Bodiam and Newenden. After Newenden, the main course of the river turns south-east towards Rye, but there is a link with Appledore by a circuitous channel which forms the Isle of Oxney. There was also a link with New Romney and the sea.(13) At Rye the Rother is joined by the River Brede which flows down from Winchelsea. Two miles after Rye the river enters the sea at Camber. The length of the main course of the river, between Mayfield and the sea, via Rye, is 33 miles.

In 1243, the King ordered the sheriff of Sussex

> "to enlarge the building at La Rye where the King's galleys are stored, so that it may contain 7 galleys, and then to store the King's galleys therein with all their equipment". (14)

Galleys and barges were also constructed at Winchelsea during this period.(15)

In 1258, the port of Romney was silting up and it was recorded that

> "the course of the river of Newenden upon which the said port was founded"....

> "is diverted." (16)

It appears that about 1300, a trench was cut to link Appledore with Romney in an attempt to overcome the problems associated with the silting up of the river.(17) However, by 1337, this trench was

> "so obstructed by shingle and sand that ships can no longer pass by it to Romeneye (from Appledore) as they used to do, as there is another trench made by the sea better adapted for the passage of ships." (18)

In 1327, timber and stone was carried by ships between Newenden and Dover.(19)

There were also problems with the inundations of the sea at Winchelsea. In 1287 a storm rendered th old port uninhabitable and the residents were transferred to New Winchelsea near Iham on the River

Brede.[20] In 1344 the King sent the following order to the bailiffs of Winchelsea:-

> "The men of the town of Ihamme near Wynchelse have shown the King that although they and their predecessors from time out of mind have had free access and egress by the port of water leading from their town to the sea, with their ships and boats, for fishing and other affairs and to return to that town at will, yet the bailiffs strive to prevent them from doing so by putting stakes in the water and iron chains, wherefor those men have besought the King to provide a remedy: the King therefore orders the bailiffs to desist from such impediment, and to permit those men to come and go as they and their predecessors have been wont to do.." (21)

The river was certainly navigable for 23 miles of its course to Etchingham, 3 miles up-river from Robertsbridge. This is revealed by a commission of 1348 which was investigating the building of a wall across the river, when it was said that

> "it will be to the great damage of the King ...especially as by the passage of ships and boats with victuals from divers..manors ...to (the) manor of Echyngham will be hindered, as well as to the destruction of (the) market town of Salehurst, situated on that water..." (22)

Small Hythe, which is situated on the north side of the Isle of Oxney, between Appledore and the main course of the Rother, was visited in 1354 by ships and boats carrying cargoes of wool and brushwood.[23]

Firewood was taken by ships to Bodiam and Newenden in 1357 - for sale to the local community. This practice had been carried out over a number of years.[24]

In 1382, certain persons petitioned the King

> "alleging that divers goods of the King's enemies in ships, some belonging to the King's friends

> and some to his enemies, captured by them in war in the year 46 Edward III (1373) and taken to Dover, Rye and Apoldre, were unjustly taken from them by Richard Lyons, now deceased, and that no restitution has been made by him or his executors..." (25)

The King ordered that Robert de Asshton, constable of Dover Castle and Warden of the Cinque Ports should look into the matter.

By the close of the fourteenth century the main course of the river, between the sea at Camber and on up to Bodiam, was being obstructed by ballast thrown overboard from ships and a commission was set up in 1400

> "to survey the port of Wynchelse from a place called Camer to Bodyham and appoint certain convenient places where stones, sand and other ballast may be shot and to proclaim that such shall not be shot in the channel, which in this manner been filled up and blocked, and to certify thereon to the King." (26)

River Ouse

From its source to the south-west of East Grinstead, the River Ouse flows in a generally southerly direction by Lindfield, Isfield, Offham and Lewes to Newhaven, shortly after which it enters the sea after a course of 30 miles.

The town of Lewes, an important centre of the wool trade and 8 miles up the river from the sea, was a frequent port of call during the medieval period.(27)

At the turn of the fourteenth century there were 'quarrels and debates' between the archbishop of Canterbury and the earl of Arundel regarding certain ancient rights in the river. It was said that the earl had been hindering the arrival of vessels in the river near the town of Lewes. The King's Bench confirmed that

> "every man coming with a boat or boats or other vessel in the said river may freely arrive"

and that the earl should desist from any such hindering in the future. It was further stated

> "that no custom shall be taken of the archbishop, his tenants or any other, or be paid for any arrival on the side of the river by the town or hamlet of Clyve, and as to the side towards Lewes they will be advised." (28)

Clyve or Cliffe, was situated on the opposite side of the river to Lewes and both places were interconnected by a bridge.(29)

River Adur

From a point to the south of Horsham, the River Adur flows south by Knepp Castle and Bines Green to Bramber, 5 miles after which it enters the sea near Shoreham after a course of 17 miles.

The river was navigable to Bramber, for, in 1304, William de Brewosa - lord of the castle of Bramber, complained that he ought to receive the 'dock dues' taken from vessels berthing at that place.(30)

River Arun

From its source to the north-east of Horsham, the River Arun flows through that place in a westerly direction and then turns south to pass Billingshurst, Pulborough and Arundel - 5 miles after which it enters the sea at Littlehampton after a course of 35 miles.

The river was navigable to Arundel,(31) and probably for a further 10 miles to Pulborough, where there was a ferry across the river.(32)

River Hamble

The estuary of the River Hamble, which flows into Southampton Water between Hamble and Warsash, would have been navigable for 6 miles, to Botley, during the medieval period.

River Itchen

Rising near Bramdean, the River Itchen initially flows in a northerly direction to Ovington near where it is joined by the River Alre. It then turns west and then south to pass through Winchester and Bishopstoke and on between the easterly suburbs of Southampton and Itchen, to enter Southampton Water after a course of 26 miles.

The River Itchen was made navigable up to New Alresford in about 1200.(33) The River Alre was canalised for about one mile, and a reservoir constructed at the head of the navigation to provide the necessary water supply. The bishop of Winchester, one Godfrey de Lucy, was the driving force behind this work and King John rewarded him with the right to collect tolls on goods;

> "that shall or may hereafter be conveyed up
> or down the river Itchen which the said
> Bishop hath now caused to be first trenched
> and made navigable at his own expense." (34)

Thus the canal wharves at New Alresford, which is 21 miles from the sea and 8 miles up-river from Winchester, created a market centre on the road between Winchester and London.(35)

Mills were built across the River Itchen at Winchester during the medieval period and hence, in common with other rivers on which such obstacles existed, goods were probably trans-shipped in order to continue navigation on the upper reaches of the river.

Apart from Southampton, Winchester and New Alresford, the port of Itchen, one mile from the mouth of the river, was receiving ships in 1326.(36)

River Test

Flowing down from the southern slopes of the Hampshire Downs the River Test flows in a generally southerly direction through Whitchurch, Stockbridge, Romsey and Redbridge, after which it broadens into an estuary and joins with the River Itchen at Southampton to form Southampton Water. The total course of the river is 35 miles.

Although not considered as a river port within the context of the current work, Southampton was the greatest medieval port on the south coast. Its history, trading links and especially is associations with the wine and wool trades during the medieval period have been comprehensively discussed by others.(37)

Romsey, 7 miles up the river from Southampton, was the collection centre for grain and oats which, it appears, was sent down the river in 1339.(38)

Redbridge, at the point where the river narrows and 3 miles up-river from Southampton, is mentioned in a grant of 1358 which allowed pontage to be taken

> "on things for sale passing over or under the
> bridge of Rudbrigge." (39)

River Medina (Isle of Wight)

The River Medina, which flows due north from the southern side of the Isle of Wight, was navigable during the medieval period for the final 5 miles of its course - between Newport and The Solent; for Newport is given as a port in various medieval port lists.(40)

River Beaulieu

From its source to the west of Lyndhurst, the River Beaulieu flows in an easterly direction through that place and then turns south to Beaulieu, where it widens, and enters The Solent near Lepe after a course of 15 miles.

The river was navigable for the 5 miles between The Solent and Beaulieu, for, in 1272, the men of Master John de Chishull, dean of St. Paul's London, were granted safe conduct for

> "bringing his corn and other goods from his church of Brawatre to St. Paul's, London, by sea, and to the abbey of Beaulieu." (41)

River Avon

The River Avon, which flows in a southerly direction from the Vale of Pewsey, passes through Upavon, Amesbury, Salisbury, Fordingbridge, Ringwood and Christchuch, shortly after which it enters the sea after a course of 48 miles.

The river was navigable for the final 16 miles of its course - between Fordingbridge and the sea, as is shown by the Sheriff of Hampshire's Accounts.(42)

It also appears that the river was navigated for a further 12 miles up-river of Fordingbridge, to Salisbury. In 1372, the King ordered that a barge

> "be made at Salisbury...to resist the malice of his enemies of France." (43)

As this order specifically states that the barge 'be made at Salisbury' it must be concluded that the waters of the River Avon were utilised to enable the barge to reach the sea. In 1378

> "the mayor, bailiffs, and good men of Salisbury"

were given exemption from

> "making a small barge, called a 'balinger' for the King's fleet now at sea."

as the earl of Salisbury had undertaken to carry out the work instead.(44)

Whether Salisbury was ever established as an inland port during the medieval period is difficult to ascertain, although certain later records do hint at this possibility. In 1408, the bailiffs of Gloucester were ordered to set free one John Milbourne who had been imprisoned for obstructing the Avon by setting certain pales

> "in the bed of the river at New Sarum". (45)

Eight years earlier, certain persons were ordered

> "to make inquisition by whose default the passage of ships and boats in the rivers of Wiltesir was hindered." (46)

This latter reference would most likely include at least part of the course of the River Avon.

Although documentary evidence is rather thin, the town of Salisbury would be accessible to small vessels.(47) In 1623, and prior to any previously known improvement schemes to the navigation, a certain John Taylor demonstrated the navigability of the River Avon by taking his wherry from London to Christchurch and on up the river to Salisbury.(48)

River Frome

Rising to the south of Evershot, the River Frome initially flows in a south-easterly direction to Maiden Newton and then bears east to Dorchester and Wareham shortly after which it enters Poole Harbour after a course of 30 miles.

Wareham, 2 miles up the river from Poole Harbour, was a port during the medieval period. However, as the size of vessels increased it appears that trade gradually declined due to the difficulties experienced by the larger vessels attempting to navigate the narrow access channel of the river.(49)

Dorchester, 16 miles further up-river from Wareham, was probably reached by small vessels during the medieval period. It appears that, in much earlier times, the Romans carried stone, which had been quarried in the Swanage area, to Dorchester by water.(50)

The rivers of the south coast of England are mapped in Figure 15:1, and their navigational limits, in medieval times, are indicated.

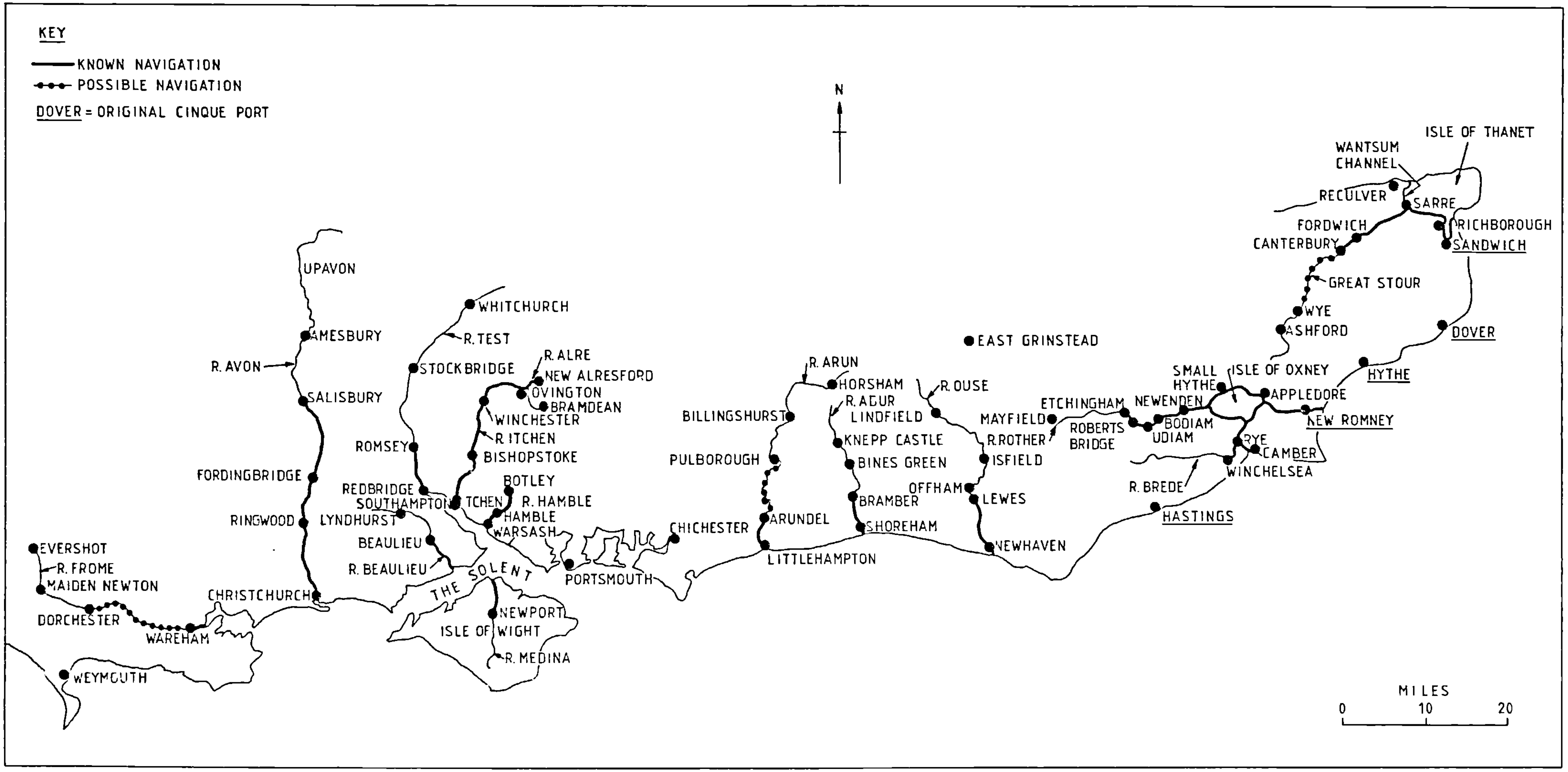
KEY
KNOWN NAVIGATION
POSSIBLE NAVIGATION
DOVER = ORIGINAL CINQUE PORT
N
ISLE OF THANET
WANTSUM CHANNEL
RECULVER
SARRE
FORDWICH
RICHBOROUGH
CANTERBURY
SANDWICH
GREAT STOUR
WYE
ASHFORD
DOVER
EAST GRINSTEAD
SMALL HYTHE
ISLE OF OXNEY
HYTHE
APPLEDORE
ETCHINGHAM
NEWENDEN
NEW ROMNEY
MAYFIELD
ROBERTS BRIDGE
BODIAM
UDIAM
R. ROTHER
RYE
CAMBER
WINCHELSEA
R. BREDE
HASTINGS
R. OUSE
ISFIELD
OFFHAM
LEWES
NEWHAVEN
R. ARUN
HORSHAM
R. ADUR
LINDFIELD
KNEPP CASTLE
BINES GREEN
BRAMBER
SHOREHAM
BILLINGSHURST
PULBOROUGH
ARUNDEL
LITTLEHAMPTON
CHICHESTER
PORTSMOUTH
UPAVON
WHITCHURCH
AMESBURY
R. TEST
R. AVON
STOCKBRIDGE
R. ALRE
NEW ALRESFORD
OVINGTON
BRAMDEAN
SALISBURY
WINCHESTER
R. ITCHEN
ROMSEY
BISHOPSTOKE
FORDINGBRIDGE
BOTLEY
REDBRIDGE
SOUTHAMPTON
ITCHEN
R. HAMBLE
HAMBLE
WARSASH
RINGWOOD
LYNDHURST
BEAULIEU
R. BEAULIEU
THE SOLENT
EVERSHOT
R. FROME
MAIDEN NEWTON
CHRISTCHURCH
DORCHESTER
WAREHAM
NEWPORT
ISLE OF WIGHT
R. MEDINA
WEYMOUTH
MILES
0
10
20

FIGURE 15:1 THE RIVERS OF THE SOUTH COAST OF ENGLAND

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CHAPTER SIXTEEN THE RIVERS OF SOUTH-WESTERN ENGLAND

The rivers considered in this chapter are those contained within the counties of Cornwall, Devonshire and Somerset.

River Exe

Rising on Exmoor, the River Exe flows in a south-easterly direction to Exton, and then turns due south via Tiverton, Exeter and Topsham-- where it broadens into an estuary which narrows as it enters the sea at Exmouth, after a course of 55 Miles.

The River Exe was navigable for 10 miles, from the sea to the city of Exeter, during the reign of Edward I. However, towards the end of the thirteenth century, a weir was built across the channel above Topsham which prevented vessels from visiting Exeter. An inquisition of 1290 ordered that an opening should be made in this weir to allow vessels to pass.(1) This restored navigational access to the city and Exeter once again received goods brought in by water.

In 1317, the citizens of Exeter complained

> "that although they had received by their bailiffs tolls and anchorage and divers other customs in the port of Toppesham, co. Devon, within the liberty of their city from all ships putting in there, and that they and their ancestors were accustomed to be quit of such tolls for their own ships or boats putting into the said port, and for their wares laden or unladen there, certain men of those parts hinder them from collecting the same, and distrain from such toll, anchorage and other customs upon the ships and boats of the citizens of Exeter putting in there, and upon their wares laden or unladen in the port of Toppesham as though that port did not pertain to the city of Exeter." (2)

Topsham was thus becoming a serious rival for the trade brought up the river. However, it appears that vessels were still reaching Exeter in 1320 for, in that year, the city was granted pavage for two years

> "upon all wares for sale brought into that city
> by land or water." (3)

Exeter eventually succumbed to the rivalry of Topsham however, for by 1327, the river between the two places was once again obstructed by weirs.(4)

Hence Topsham, some 4 miles down-river became Exeter's port. (5)

River Dart

Formed by a number of streams flowing down off Dartmoor, the River Dart follows a south-easterly course to Buckfastleigh and Totnes after which it widens and then enters the sea shortly after passing between Dartmouth and Kingswear; a total length of 30 miles.

Apart from the places on the estuary, Totnes, 10 miles up the river from the sea, was sustained during the medieval period by the traffic on the River Dart.(6)

River Tamar

The River Tamar rises to the north-east of Bude and forms, for virtually its whole course, the boundary between the counties of Devonshire and Cornwall. During its southerly course it passes close to Launceston and within 3 miles of Tavistock to Gunnislake. It gradually widens into an estuary and is joined by the River Tavy after which it passes Saltash, is then joined by the River Lynher, and enters Plymouth Sound near the port of Plymouth after a course of 50 miles.

From the twelfth century onwards the river was navigable for at least 12 miles to Morwellham, below Gunnislake, and this place, in effect, acted as the port of Tavistock.(7)

In 1339, an inquisition, dealing with land near a silver mine which belonged to the King, stated that

> "The abbot of Tavystoke has the wood of Morwelham, which is nearest the King's mine on the other side and contains 80 acres, whereof 30 are appraised for the King's use at 40s. an acre...beginning from a way from Tavystok towards the quay of the water of Tamar on the north side, and thence in length and breadth on the north side until the King has received 30 acres." (8)

Vessels were constructed at Saltash towards the end of the fourteenth century,(9) and at this same place there was a ferry across the river.(10)

River Fowey

Flowing down from the southern slopes of Bodmin Moor, the River Fowey swings west, then south, to Lostwithiel and Fowey - shortly after which it enters the sea after a course of 24 miles.

The 6 miles between Lostwithiel and the sea were navigated by medieval vessels. In 1326, Lostwithiel was listed as a port where

> "all owners and masters of ships of smaller burthen than 50 tuns to keep, under pain of forfeiture, all such ships in their ports, and not leave the ports for the sake of fishing, trading, or for any other cause, and not to send the ships anywhere, and the mayor and bailiffs are ordered not to permit any such ships to leave the ports until further orders." (11)

River Torridge

From its source to the south-west of Clovelly, the River Torridge flows in a south-easterly direction to where, near Hatherleigh, it turns northwards and passes through Great Torrington and Bideford, after which its estuary merges with that of the River Taw and enters the sea after a course of 42 miles.

Bideford, 5 miles up the river from the sea was asked in 1364, along with many other maritime places

> "that no one cross the sea from the realm without the King's special licence and that in the case of all persons who cross diligent scrutiny be made that they do not take with them gold or silver in money or mass, jewels or letters of exchange, and that, in case any such be found on any one crossing on the sea or an arm of the sea or on water running to the sea, the bearer shall be arrested and sent before the King and council,..." (12)

The River Torridge was probably navigable during the medieval period for a further 7 miles up-river of Bideford, to Taddiport and Great Torrington. The river was certainly navigable for 4 miles up-river of Bideford prior to the canal age:- when coal and limestone were carried to Weare Gifford to be burnt in the kilns there.(13)

River Taw

From the northern slopes of Dartmoor, the River Taw follows a generally north to north-easterly course via North Tawton, Eggesford, Bishops Tawton and Barnstaple, after which its estuary merges with that of the River Torridge and enters the sea after a course of 45 miles.

Barnstaple, 8 miles up the river from the sea, is mentioned in a port-list of 1331,(14) and was also one of the maritime places given in the previously mentioned record excluding the export of gold and silver etc., in 1364.

In 1383 a commission was set up to inquire into

> "the construction of divers weirs, mills, pools, stakes and kiddels in the river Towe." (15)

Similar obstructions are again mentioned in 1394.(16) These obstructions were in that part of the river up-stream of Barnstaple. Just how far the river was navigable is difficult to ascertain, but it was certainly navigable 3 miles up-river of Barnstaple, to Bishops Tawton, for in 1398, there is a record of boats at that place.(17)

River Parrett

Rising to the south-east of Crewkerne, the River Parrett follows a northerly course to Langport, at which point it is joined by the River Yeo flowing down from Ilchester. The river then follows a north-westerly course through Stathe to Burrow Bridge, where it joins with the River Tone which flows down from Taunton. The river continues to Bridgwater, after which it gradually widens and winds to enter the sea to the south of Burnham after a course of 38 miles.

In 1233, the tiny port of Stathe, 21 miles up the river from the sea, and 4 miles below Langport, is mentioned in an episcopal record.(18)

In 1301,

"the bailiffs and good men"

of Bridgwater were asked to expedite the sending of a ship to Berwick-upon-Tweed

> "which the King ordered to be prepared against the Scots" (19)

The town also supplied a ship for the same purpose the following year.(20)

Bridgwater, 13 miles up the river, was a busy port during the fourteenth century. In 1317, sea-going vessels were venturing from the port to France,

> "to carry wine and other goods." (21)

In 1347, the constable, mayor, bailiffs and lawful men of 'Briggewauter' were ordered

> "to cause ships coming to that town laden with merchandise of value and passing thence with wool, hides and wool-fells, to be laded and unladen at the quay of the town or at the quay of Bristoll, and not elswhere, as the King is informed that he is defrauded of a great part of the customs due on such merchandise because such ships are laded and unladed in the River Peret and not at the quay of the town, as is customary in other ports of England." (22)

In 1365, certain persons were given a licence

> "to take from the port of Bruggewauter 100 quarters of wheat and 200 quarters of beans and peas to the city of Bayonne, and 100 quarters of beans and peas to Ireland, and sell them to buy other merchandise there." (23)

In 1371, a certain Walter Blaunkpayn was given a licence

> "to load 300 quarters of beans in the port of Briggewauter and carry them to the ports of Wales to make his profit thereof;" (24)

Bridgewater was certainly the premier port, but as the River Parrett is tidal for almost 25 miles, to near Langport,(25) it would be safe to conclude that vessels were reaching that place during the medieval period.

River Tone

The 11 mile course of the River Tone, which flows in a north-easterly direction between Taunton and its confluence with the River Parrett at Burrow Bridge, was navigable during the fourteenth century.

In 1384, it was said that the abbot of Glastonbury

> "maintains in Monketon trees hanging over the Tone right across it, so that boats cannot pass as they were wont." (26)

Monkton is 2 miles down-river from the town of Taunton. At the same hearing it was said that Richard de Acton, Knight, had caused an obstruction by erecting a fulling mill in the same river such that

> "the passage of boats and fish between Bridgewater and Taunton alike (is) prevented" (27)

Both parties answered that they had, since the hearing, removed the obstructions.

Early in the next century (1414), an inquisition was informed that

> "Before, within and after the time of memory Walter, last predecessor of the present abbot of Glastonbury, while abbot made a water-gate in a pond of a mill...on the King's soil at Taunton adjoining and annexed to the mill, making it so high and narrow by fixing of timbers and heaping of stones across the middle of the King's deep river running from Taunton to the town and port of Bridgewater that boats and small ships called 'botes' and 'trowys' suitably laden with divers wares called 'avoir de poirs' and other necessaries, viz. wood for fuel, timber, coal, pitch, salt, iron,

> lime, grain, malt, wine and other victuals, for the King's people in the town of Taunton and the country adjoining, which used to be brought up to Taunton from Bridgwater by the force of the water from time immemorial, to the great relief and aid of the said people and country, could not be so brought in any way since the said water-gate was evilly made so high and narrow on account of the said purpresture, to the manifest enfeeblement of the King's right and the great and grievous nuisance and public damage of the people and country..." (28)

This latter reference, although recorded early in the fifteenth century, is retrospective, and is important as it details many of the diverse commodities which were carried by river. It implies that the transport of such commodities, in bulk, was extremely difficult by any other method.

River Yeo

It is likely that the 7 mile course of the River Yeo, which flows in a north-westerly direction between Ilchester and Langport, was navigable during the medieval period.

Apparently, in much earlier times, the Romans ascended the river to Ilchester, for the remains of two wharves from that period have been found there.(29)

The Rivers Axe and Brue

The River Axe rises to the north-west of Wells and runs in a north-westerly direction through Panborough and Weare, passes close to Axbridge, and enters the sea to the south of Weston-super-Mare after a course of 21 miles.

In 1189, Richard I granted a charter which enabled the bishop of Bath to create the port and borough of Radeclive, now Rackley, which is some 10 miles up the river from the sea and about a mile downstream from Weare.(30) The course of the river has altered somewhat in this area and Rackley is now isolated and away from the main course of the river. In 1347, the sheriff of Somerset was ordered

> "to cause proclamation to be made that no merchant or other person whatsoever shall cause any ships or boats to be laded or unladed with wool, hides and merchandise in the water of Radecliff,... in that county, or elsewhere except at the quay of Briggewauter or Bristol upon pain of the forefeiture of such wool and merchandise, and if he find any doing this after the proclamation, he shall cause them to be arrested together with the ships, wool and merchandise, and kept safely until further order, and he shall not omit this upon pain of forefeiture, as the King is informed that he is defrauded of a great quantity of the customs and subsidies on wool, hides, fells and merchandise because several ships are laded and unladed in the said waters." (31)

A record of 1390 shows that ships docked at Rackley loaded with salt, iron, fish and other cargoes.(32) The river was also used for shipping lead from the Mendip mines and small vessels could reach Panborough, some 7 miles further up-river from Rackley.(33)

The River Brue rises to the east of Bruton, flows through that place, and continues in a westerly direction past Glastonbury and Meare to enter the sea to the south of Burnham after a course of 35 miles.

The waterways in this area have seen a number of changes since the medieval period. In medieval times the Rivers Axe and Brue were interconnected by a channel which ran for 3 miles in a south-westerly direction from a point on the River Axe mid-way between Weare and the sea; to Rooks Bridge. From Rooks Bridge what was known as the Pillrow

Cut ran south to Mark and then south-east to join the River Brue near Burtle; the length of the Pillrow Cut between Rooks Bridge and Burtle being about 6 miles. It appears that the section between Mark and Rooks Bridge was canalised for both navigation and drainage during the first half of the fourteenth century. It also seem likely that the Pillrow Cut was not connected with the present lower course of the River Brue but took the water from the upper course of the river, and the outlet of a lake called Meare Pool.(34)

Thus navigational access to Glastonbury Abbey was achieved, and many varied goods could be carried on the 16 miles of waterway linking the abbey with the River Axe.(35) In later times the Pillrow Cut and Meare Pool slowly disappeared, and the Rivers Axe and Brue were separated.

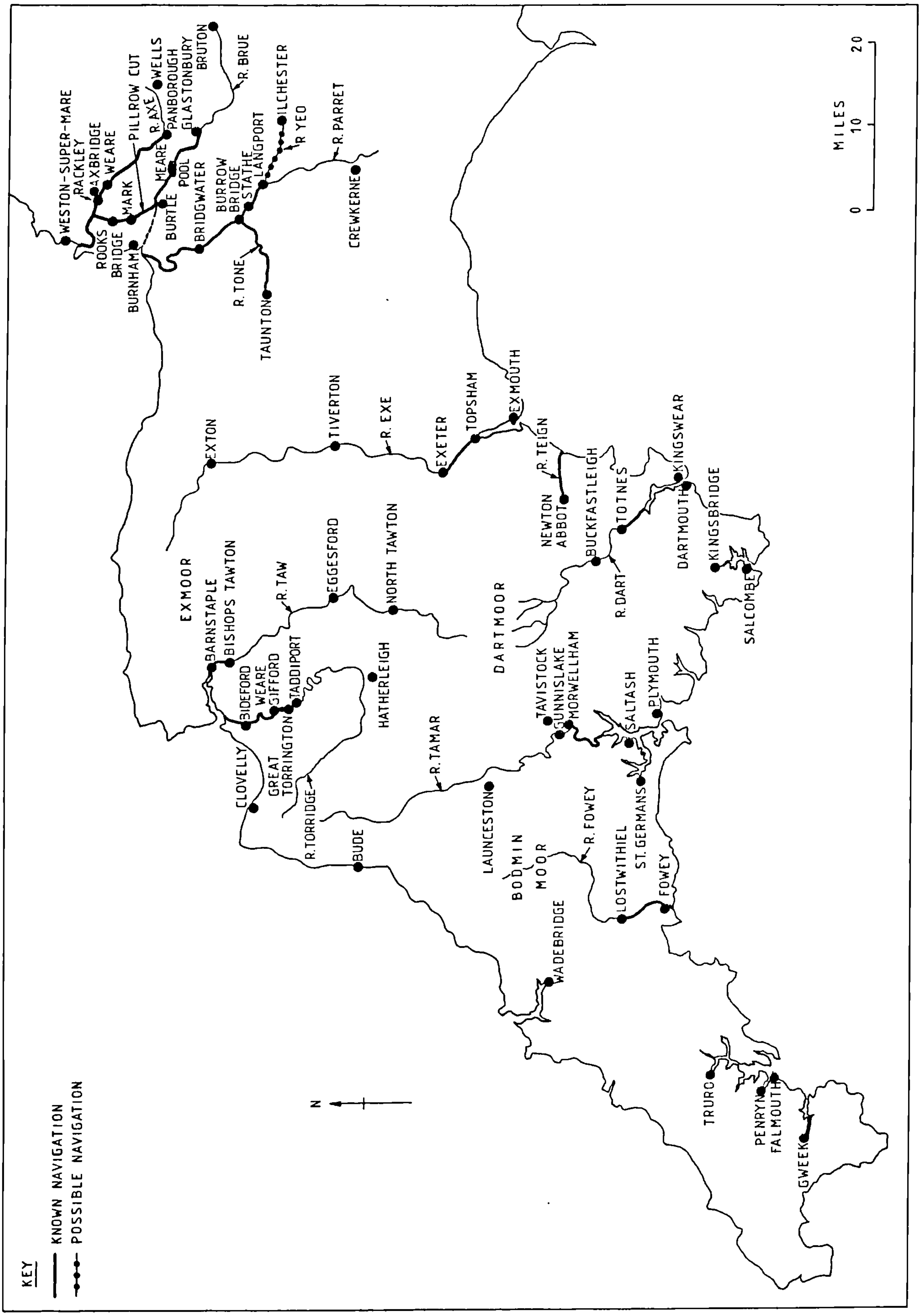
The landscape of the coastal region of central Somerset was, during medieval times, similar in nature to that of the Fen. Much of it was marshy and waterlogged and considerable drainage and reclamation work was carried out, mainly by the local abbeys.(36)

Navigable Inlets

The rugged coastline in the south-west also has many navigable inlets which gave access to the sea. Kingsbridge, on the long estuary which enters the sea near Salcombe is named as a port in 1347; Penryn, near Falmouth, and Truro further up the main estuary are also listed as ports in the same record.(37)

Ships would also have reached Newton Abbot on the Teign; St. Germans on the Lynher; Gweek on the Helford and Wadebridge on the Camel.

The rivers of south-western England are mapped in Figure 16:1, and their navigational limits, in medieval times, are indicated.


KEY
KNOWN NAVIGATION
POSSIBLE NAVIGATION
N
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WESTON-SUPER-MARE
RACKLEY
AXBRIDGE
WEARE
PILLROW CUT
R. AXE
WELLS
PANBOROUGH
GLASTONBURY
BRUTON
R. BRUE
ILCHESTER
R. YEO
R. PARRET
CREWKERNE
LANGPORT
STATHE
BURROW BRIDGE
BRIDGWATER
POOL
MEARE
BURTLE
MARK
ROOKS BRIDGE
BURNHAM
R. TONE
TAUNTON
EXTON
TIVERTON
R. EXE
EXETER
TOPSHAM
EXMOUTH
R. TEIGN
NEWTON ABBOT
BUCKFASTLEIGH
TOTNES
KINGSWEAR
DARTMOUTH
KINGSBRIDGE
SALCOMBE
R. DART
EXMOOR
BARNSTAPLE
BISHOPS TAWTON
R. TAW
EGGESFORD
NORTH TAWTON
DARTMOOR
BIDEFORD
WEARE GIFFORD
TADDIPORT
GREAT TORRINGTON
HATHERLEIGH
TAVISTOCK
GUNNISLAKE
MORWELLHAM
SALTASH
PLYMOUTH
CLOVELLY
R. TORRIDGE
R. TAMAR
BUDE
LAUNCESTON
BODMIN MOOR
R. FOWEY
LOSTWITHIEL
ST. GERMANS
FOWEY
WADEBRIDGE
TRURO
PENRYN
FALMOUTH
GWEEK

FIGURE 16:1 THE RIVERS OF SOUTH-WESTERN ENGLAND

Notes and References

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CHAPTER SEVENTEEN THE RIVER SEVERN AND ITS TRIBUTARIES

River Severn

The River Severn rises on the eastern slopes of Plynlimon in Montgomeryshire and initially pursues a north-easterly course through Newtown and Welshpool, after which it turns due east to Shrewsbury. The river gradually turns south to Bridgnorth and then passes through Bewdley, Stourport and Worcester, shortly before which it is joined by the River Salwarpe flowing down from Droitwich. Below Worcester the Severn receives the River Teme and continues to Tewkesbury where it is joined by the Warwickshire Avon. The river flows past Gloucester and then begins to widen and receives the River Wye near Chepstow; it then receives the Bristol Avon and merges with the Bristol Channel after a total course approaching 210 miles.

Henry II, between 1163 and 1174, granted a charter to the city of Gloucester which stated that

> "all those who wished to use the river Severn, were to have the right of free passage along the waterway with their coal, wood, timber, and other merchandise, without any disturbance from anyone." (1)

The privileges regarding the free passage on the Severn given by Henry II were confirmed by Richard I in 1194.(2)

The river was used for the conveyance of passengers in the twelfth century; in 1198 the Sheriff of Shropshire paid 6s. 3d. for the hire of a barge to carry the wife of one Griffin ap Rese from Bridgnorth to Gloucester. (3)

Shrewsbury, 138 miles up the river, was receiving ships in the thirteenth century. In 1228, the Sheriff of Shropshire was asked

> "to take with him lawful men of the town of Shrewsbury and go in his own person to the bridge of Shrewsbury, and to cause to be appraised by their oath for the King's use 5 tuns of wine that are there in a ship that lately came from Worcester by the King's order,"..(4)

During the same year there is a record which shows that 20 tuns of wine were carried along the river between the same two places.(5)

Wine was conveyed up the river to Gloucester Castle in 1240 and stored in the King's cellar there.(6)

In 1270, there was a dispute between the abbots of Pershore and Flaxley regarding fishing rights in the vicinity of Gloucester Castle. A weir had been used to trap the fish, but this had been damaged some time before and it was said that

> "When the weir was whole it stretched across the stream, so that the said abbots fished there with nets only;...since the weir was broken, they have fished there with nets from boats." (7)

Weirs such as this were an obvious hazard to navigation on the river, and in 1277, the Sheriff of Gloucester was ordered

> "to enlarge and open the banks of the Severn near certain weirs and elsewhere, so that there may be everywhere twenty-six feet of width near the said banks, by the view and testimony of two lawful men of the town of Gloucester and two others of the city of Worcester, specially elected for the purpose by the aforesaid counties, the King having been informed that, owing to the narrowness of the said weirs, ships and boats cannot pass through the said river without impediment and danger; such persons as resist the said sheriff in the matter to be brought before the King in Parliament on the quinzaine of Easter to receive the penalties to be provided against their contempt." (8)

At Montford Bridge, 10 miles up the river from Shrewsbury, the Sheriff of Shropshire was granted, in 1284,

> "the power of fining, by view of lawful men, rafts of firewood or timber damaging the bridge." (9)

Apart from these rafts, trading vessels were passing Montford Bridge as is revealed by the tolls taken there between 1285 and 1412. These tolls record a wide range of goods being traded, including Spanish leather, tin, iron, wool, lead, and Cyprus silks and spices.(10)

There were problems with obstructions again in 1286 when a commission was set up

> "to enquire touching the magnates and others who have narrowed and increased in height their weirs on the river Severn between the towns of Gloucester and Shrewsbury, so that vessels cannot pass through as they were wont, and to pull the same down where necessary." (11)

In 1292, a charter was confirmed in favour of the abbot and monks of Buildwas Abbey, mid-way between Shrewsbury and Bridgnorth. This confirmed their rights to have

> "access to the Severn for washing their sheep, and loading and unloading ships." (12)

In 1326, when works were being carried out at Hanley Castle, 9 miles below Worcester, the "King's boat" was "assigned for carriage" and was employed in carrying various building materials to the site.(13)

Goods were exported from the various ports along the river. For example, in 1333, John Gorewy, a merchant of Worcester, was given a licence

> "to export 500 quarters of corn from Worcester to Ireland" (14)

During the same year, the collectors of the customs of wool, hides and wool-fells in the port of Shrewsbury were ordered

> "to arrest all wool, hides and wool-fells which they shall henceforth find merchants or others to be carrying out of the said port unless the custom, due to the King thereupon, has been paid, and to detain them under arrest until further orders, and to inform the King of the names of those who so carried away their wool, and of those who have carried them away in times past, and to whom the said wool belong, because the King understands that divers merchants, and others carry their wool out of the said port without having satisfied the King for the custom due thereupon, and that they continue to do so to the King's damage, and against the ordinance of the staple made thereupon by the King and his council". (15)

The town of Shrewsbury was allowed to take pontage in 1336, and again in 1346,

> "on goods for sale coming to the town by land and water, for the repair of the bridge called 'Walshebrugge', now in a dangerous state for those passing over or under it." (16)

The estuary of the river could be a dangerous place for the boatmen as is shown by a record of 1365 regarding the ownership of twelve tuns of wine which had come from

> "a boat wherein were the said tuns was by a storm sunk in the river Severn between the lordship of Berkeley and the forest of Dene, when no man escaped alive therefrom." (17)

In 1387, in a presentment before the King at Gloucester, it was said that the course of the River Severn had been stopped at Elmore, 5 miles below Gloucester. One Anselm le Gyse was accused of building a weir across the river

> "to the damage of all passing by that river".

In his defence the accused stated

> "that the Severn had from time immemorial been a river in which many weirs were built, a space of eighteen feet in breadth being always reserved for the passage of boats, and that he and his ancestors, lords of the manor of Elmore, had from time immemorial a weir... eighteen feet being left for the passage of boats on the west side of the river."

The accused was acquiited of the charge in 1389 when it was confirmed that a passage of eighteen feet had indeed been maintained for the passage of boats.(18)

The prevalent practice of customs evasion led to the setting up of a commission in 1387

> "on information that very many goods and wares are often taken from the town of Gloucester and the adjacent parts by the water of Severn to foreign parts, and vice versa, without payment of customs, subsidies or other duties,- to search in person or by deputies all ships and boats passing to or from the realm through the said water, compel the merchants and mariners therof to find security that they will not import or export any goods or wares through the said water without payment of customs, and arrest as forfeit to the King all customable goods and wares which they shall find being imported or exported in the said water." (19)

Similar commissions were again set up in 1388,(20) 1396(21) and 1398(22).

The limit of navigation on the River Severn during the medieval period was probably as high as Welshpool, 166 miles up the river. Vessels were passing Montford Bridge, 18 miles below Welshpool certainly from the late thirteenth century onwards, and in order to justify the tolls paid at this bridge it must be concluded that they proceeded at least as far as the next important market centre above Shrewsbury; which would have been Welshpool.

River Avon (Bristol)

Rising near Tetbury, the River Avon flows south through Malmesbury and Chippenham to Melksham, after which it turns west through Bradford on Avon and Bath to Bristol. From Bristol the river passes through the high cliffs of the Avon Gorge and merges with the confluence of the River Severn and Bristol Channel after a course of 68 miles.

The port of Bristol, 8 miles up the river, was a prosperous port from early times. During the reign of King Stephen (1135-1154) it was described as

> "nearly the richest of all cities of the country, receiving merchandise by sailing vessels from foreign countries; placed in the most fruitful part of England, and by the very situation of the place the best defended of all the cities of England." (23)

The port of Bristol during the medieval period has been well documented.(24) Apart from foreign trade, shipping movements between Bristol and the various ports along the River Severn were frequent during the thirteenth and fourteenth centuries.

In 1228, the bailiffs of Bristol were ordered

> "to cause to be bought at Bristol for the King's use 20 tuns of wine, and to place them in good barges, and to cause them to be carried with speed to Worcester for the King's use." (25)

In 1245, 40 tuns of wine were taken by water from Bristol to Shrewsbury,(26) and later the same year, 12 cables

> "for hoisting timber were taken in the same manner from Bristol to Bridgnorth." (27)

In 1266, 50s. was spent in loading, unloading and transporting 20 tuns of wine by boat between Bristol and Worcester.(28)

The perils of the Severn Estuary in stormy weather is revealed by the record of a commission of 1284

> "touching a complaint by Robert de Handesun, burgess of Gloucester, that, having lately freighted two little ships with wines, cloths and fish at Bristol for Gloucester, the said ships were in danger of being cast away in a tempest near the town of Aure (Oare), and the said goods having been washed ashore, came into the hands of the burgesses there, from whom he cannot recover them, although he has followed them in due course; and to cause the same to be restored unless they prove to belong to the King as wreck." (29)

In 1308, a vessel which had been loaded at Bewdley with

> "brushwood, merchandise and goods for Bristol",

was

> "seized in the River Severn, near Worcester." (30)

In 1348, a commission was asked to investigate allegations that, although merchants and others daily shipped corn at Tewkesbury for Bristol, instead of always selling it there

> "they have often taken such corn to great ships and crayers, anchored at sea before the port of Bristol",

to be carried to the King's enemies.(31)

Apart from the frequent interaction between the Avon below Bristol and the Severn, there was shipping movements up-river of Bristol. This is revealed by a record of 1276 which was in the form of an order

> "to cause the banks of the water of Avene near the weirs mentioned below and elsewhere to be widened and opened by the view and testimony of two men

> of Bath and two of Bristol specially elected by the men of those parts, so that boats and ships may freely pass without hindrance or danger throughout the whole water in those parts, as the King understands that he and his men sustain considerable damage and that danger threatens those passing because ships and boats cannot pass by the water of Avene between the city of Bath and the town of Bristol by reason of the narrowness of the weirs of that water; provided that the opening and widening of the water do not damage or prejudice the men of the adjoining parts." (32)

The navigation between Bath and Bristol was again obstructed in 1365

> "by weirs, piles and palings and land raised on both sides of it that the adjacent lands, meadows and pastures are flooded and the passage of crayers and boats with victuals impeded." (33)

Similar obstructions are again mentioned in 1383.(34)

Bath is 17 miles up-river from Bristol and 25 miles from the confluence with the River Severn and Bristol Channel.

River Avon (Warwickshire)

Rising to the west of Market Harborough, the River Avon flows in a south-westerly direction and passes close to Coventry and Kenilworth, then on through Warwick, Stratford-upon-Avon, Evesham and Pershore to Tewkesbury, where it enters the River Severn after a course of 90 miles.

M. Beresford, in his New Towns of the Middle Ages, acknowledges that the prime advantage of Stratford-upon-Avon, 45 miles up-river from Tewkesbury, was its position at the junction of a number of roads with the navigable Avon, then a part of the great waterway system of the Severn valley, looking to Bristol and Gloucester'. (35)

In 1266, during the Baron's War, Kenilworth Castle was subjected to seige which lasted for six months. The castle had extensive water defences in the form of a large lake which had been created by blocking a stream which flowed through the area. During the seige, it is known that barges were carried overland from Chester to be used in a naval assault carried out from the lake.(36) However, apart from these barges, which would be small and hence capable of being carried overland, a ship was brought to the seige from the Gloucester area.(37) It seems likely that this vessel would have been used to transport supplies rather than to take part in the assault, and its obvious route from the Gloucester area would be along the Severn to Tewkesbury and then up the Avon for about 60 miles, to the vicinity of Kenilworth.

In 1348, during an enquiry into the responsibility for the repair of Pershore bridge it was said

> "that the abbot of Westminster ought to repair it for carts, waggons, horsemen and footmen, and that the soil on which it stood and on either side of it and the course and profits of the river Avon there belonged to the said abbot, and that none could work in the said soil and river without the aforesaid abbot's licence,..." (38)

The accounts of the monastery at Pershore, as analysed by J.E.T. Rogers, describe the purchase of goods at Evesham, Tewkesbury and Bristol which were transported to the monastery by water; these goods included salmon and oil.(39) Evesham and Pershore are 28 and 15 miles respectively up the river from Tewkesbury

It is probable that, during the medieval period, the River Avon was navigable for 10 miles up river of Kenilworth, to Bretford, where the Foss Way crosses the river; this probability is also hinted at by Beresford.(40)

River Salwarpe

The River Salwarpe, which enters the Severn above Worcester, was navigable for 6 miles to Droitwich, for, in 1378, Richard II granted to the bailiffs of that town the right to levy tolls on the river.(41)

River Teme

Entering the Severn below Worcester, the River Teme would certainly have been navigable for at least 4 miles, to Bransford Bridge - where the Worcester to Hereford road crosses the river.

River Wye

As with the River Severn, the River Wye rises on the eastern slopes of Plynlimon in Montgomeryshire. The river initially flows in a south-easterly direction through Rhayader and Builth Wells and then turns north-eastwards to Hay-on-Wye after which it bears east to Hereford. After Hereford, the river pursues a more southerly course and is joined by the River Lugg, then winds its way through Ross-on-Wye and Monmouth where it is joined by the waters of the River Monnow. After Monmouth, the river flows past Tintern Abbey to Chepstow and then enters the estuary of the River Severn after a course of 130 miles.

Shipping in the vicinity of Chepstow, 3 miles up the river from the Severn, is mentioned in Domesday Book.(42)

In 1171, Henry II gave orders for a fleet to be constructed near Chepstow which later sailed for Ireland.(43)

In 1228, the bailiffs of Bristol were ordered

> "to buy,...50 tuns of wine at Bristol for the King's use, and to cause them to be carried in good barges to Munemuthe,..." (44)

Monmouth is 17 miles up the river from Chepstow, and 20 miles from the Severn Estuary.

Wine was carried to Monmouth in barges in 1241,(45) and again in 1245, when it was brought from Gloucester.(46)

Tintern Abbey was used for the storage of wine taken up the Wye on its way to Monmouth Castle in 1258, when a warehouse charge of 2d. a day was made.(47) The Abbot of Tintern had other investments in the river trade as is shown by an inquiry of 1267 set up to discover

> "what men of Bristol and elsewhere seized and plundered a ship of the said abbot on the Wye." (48)

It was subsequently recorded that

> "the ship was seized by Robert Arken of Bristol and others, and taken to Bristol." (49)

A commission of 1301 reveals that during the thirteenth century the River Wye was navigable for at least 63 miles of its course, from its confluence with the River Severn, to Hereford. Various persons were asked

> "to survey the weirs, dykes and stakes in the water of Weye between Hereford and Monemuth, as it appears that ships and boats cannot pass as they were wont by reason of the erection thereof so that they extend into the channel,..." (50)

Obstructions occurred again when

> "a new weir was raised by Gilbert, last earl of Gloucester, in the year 5 Edward II across the whole of the river Weie at Gayeshom,...to the incalculable damage and nuisance of others

> of the adjacent parts because their way is obstructed thereby so that they cannot carry their victuals and merchandise by the said river to Monmouth and elsewhere in the march and to the great danger of the forest of Dene because in case of war the Welsh could go and return by the said weir at will and rob and destroy the said forest." (51)

The weir at Wyesham (Gayeshom) was situated below Monmouth and from this point down-river the Wye formed the boundary between England and Wales which accounts for the apprehension relating to the Welsh expressed in this record.

There were further problems with weirs in the river; between 1331 and 1334 the Abbot of Tintern was accused by the Earl of Lancaster of raising eight weirs between Chepstow and Monmouth, and various persons were appointed to survey these weirs and to determine whether they

> "had been raised and enhanced to the common damage of Henry, earl of Lancaster, and of all the men of those parts and to the annoyance of men wishing to pass with boats and ships by that water,... and to cause them to be brought back to their former state if they found that they had been raised,...and that the abbot by raising of the weirs had obstructed certain openings that always used to stand open in all the weirs...to the depth of the water and that ought to be open, to the disturbance of men with boats and ships wishing to pass by the said water." (52)

In 1342, the King appointed officers

> "to collect, during pleasure, his custody, to wit ½ mark on each sack, a mark on each last of hides, ½ mark on every 300 wool-fells and other small customs and prests on all things taken out of the port of Cheppestowe..." (53)

However, merchants were continually attempting to evade customs duty and in 1347 the King was

> "informed that divers merchants and others lade wool, hides and fells to no small quantity at the town of Chepstowe and at other places in Wales, defrauding him of the custom and subsidy thereon." (54)

The King proclaimed that the penalty for such evasion was to be the forfeiture of goods and vessels.

It appears that the river continued to be navigable as far as Hereford well into the fourteenth century for, in 1378 a vessel was constructed for the King at that place.(55)

The River Severn and its tributaries are mapped in Figure 17:1, and their navigational limits, in medieval times, are indicated.

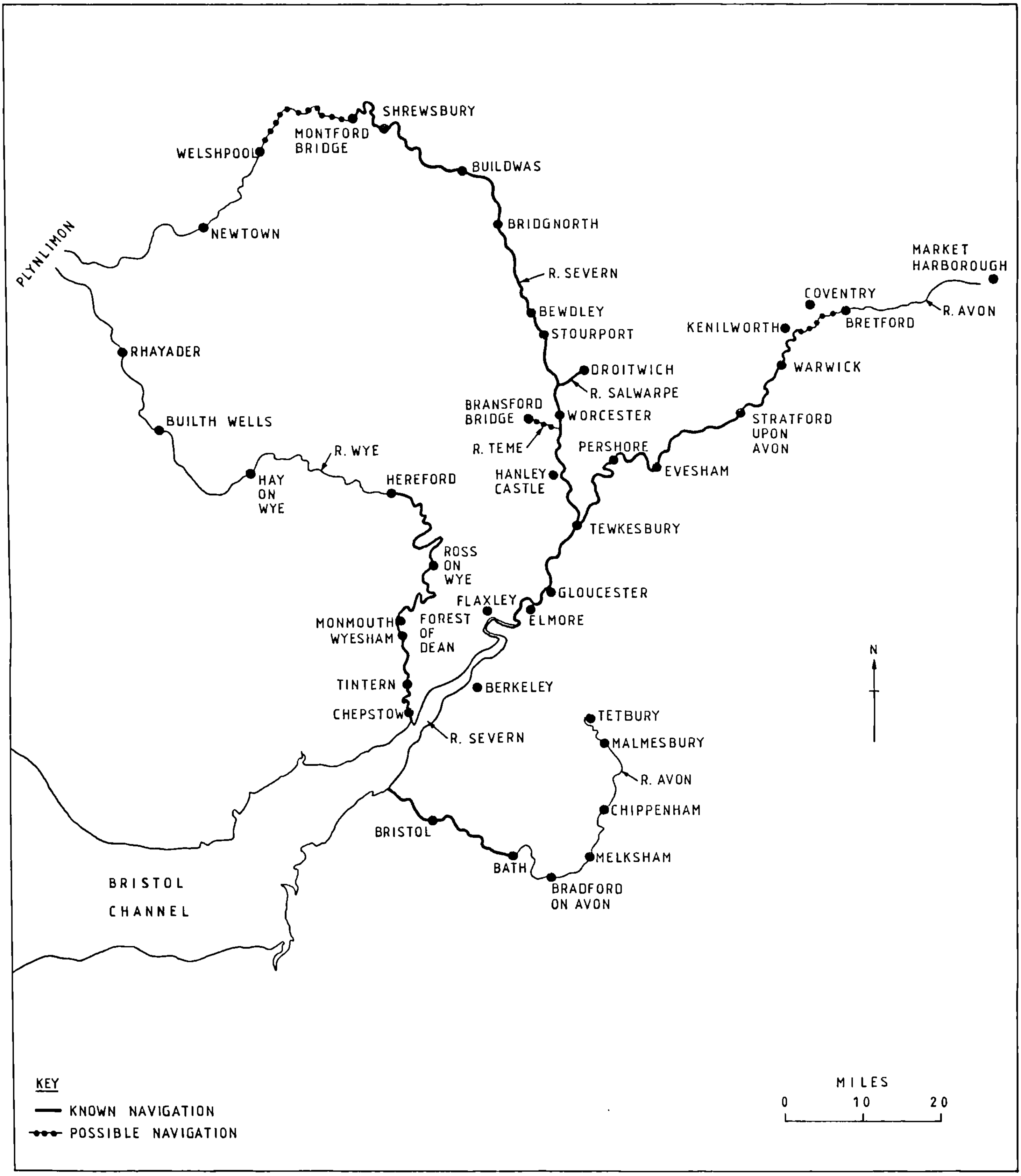
SHREWSBURY
MONTFORD BRIDGE
WELSHPOOL
BUILDWAS
BRIDGNORTH
NEWTOWN
PLYNLIMON
R. SEVERN
MARKET HARBOROUGH
COVENTRY
BEWDLEY
STOURPORT
KENILWORTH
BRETFORD
R. AVON
RHAYADER
WARWICK
DROITWICH
R. SALWARPE
BRANSFORD BRIDGE
WORCESTER
STRATFORD UPON AVON
BUILTH WELLS
R. TEME
PERSHORE
R. WYE
HANLEY CASTLE
EVESHAM
HEREFORD
HAY ON WYE
TEWKESBURY
ROSS ON WYE
FLAXLEY
GLOUCESTER
ELMORE
MONMOUTH
WYESHAM
FOREST OF DEAN
N
TINTERN
BERKELEY
CHEPSTOW
TETBURY
R. SEVERN
MALMESBURY
R. AVON
CHIPPENHAM
BRISTOL
MELKSHAM
BATH
BRADFORD ON AVON
BRISTOL CHANNEL
KEY
KNOWN NAVIGATION
POSSIBLE NAVIGATION
MILES
0
10
20

FIGURE 17:1 THE RIVER SEVERN AND ITS TRIBUTARIES

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CHAPTER EIGHTEEN THE RIVERS OF WALES

Compared with England, there was very little inland navigation along the Welsh rivers during the medieval period. The mountainous interior of the country produces, in general, fast-flowing and steeply descending rivers which precluded much penetration by medieval vessels.

River Usk

From its source on the northern slopes of the Brecon Beacons, the River Usk flows east to Brecon and then south-east to Abergavenny after which it follows a more southerly course to Usk, Caerleon and Newport, prior to entering the Bristol Channel after a course of 69 miles.

The River Usk was navigable for 20 miles during medieval times, to Usk, for the town is listed as a port in 1297,(1) 1324 and 1342.(2) In 1324, the bailiffs of Usk were ordered

> "to cause all the ships of that port and of its members, capable of carrying 40 tuns of wine and upwards, to be prepared and found without delay, so that they shall be ready to set out in the King's service on three days' summons, and not to permit such ships to go to parts beyond sea hereafter, and to cause such ships as are now without the port to be retained and prepared as above upon their return, certifying the King of the number of such ships now in the port and outside the port, and to warn the mariners and others of the port who are absent to proceed cautiously during their stay and return so that they do not fall into the hands of their adverversaries, pirates, or others."(3)

Rivers Taff, Neath, Tawe, Loughor, Taf and Gwendraeth

Along the coast of South Wales it appears that the River Taff was navigable for about 2 miles to Cardiff, the River Neath for 5 miles to Aberdulais, the River Tawe for 4 miles to Morriston, the River Loughor for 4 miles to Pontardulais, and the River Taf for 7 miles to St. Clears.(4) The estuary of the River Gwendraeth was navigable for 3 miles, to Kidwelly, in 1297.(5)

River Towy

Rising on the southern slopes of the Cambrian Mountains to the east of Tregaron, the River Towy flows south to Llandovery, and then south-west to Llandeilo and Carmarthen, after which it turns south and enters Carmarthen Bay between the estuaries of the Rivers Taf and Gwendraeth after a course of 60 miles.

The River Towy was navigable for 10 miles, from the sea to Carmarthen, during the thirteenth century. In 1244, the bailiffs of Bristol were asked

> "to choose and pay for 40 tuns of wine in the town of Bristol by the view and in the presence of Peter the Poitevin, to buy 200 quarters of wheat and 200 pigs there, to put the whole on board one or two good ships, and to carry one-half to the castle of Kaermerdin (Carmarthen) and the other to that of Kardigan for the equipment thereof."(6)

Towards the end of the thirteenth century, in 1297, the King sent a request to a number of places asking that all ships of the burthen of 40 tuns and upwards assemble at Winchelsea; the port of Carmarthen was included in this request.(7)

In 1326, there was a ferry across the river at Carmarthen, for in that year the bailiffs were given a licence

> "for them to have for three years in the water of their town a boat for the passage of those who wish to pass over there and to apply the profits arising from such passage to the repair of their bridge, which is broken down."(8)

Carmarthen was functioning as a port in 1342 when close scrutiny of all those wishing to travel overseas was undertaken.(9)

Milford Haven Estuary

The long inlets of the Western Cleddau and Eastern Cleddau, together with the River Pembroke, flow into and form the estuary of Milford Haven.

During the medieval period ships could pass up the River Pembroke to Pembroke,(10) the Western Cleddau to Haverfordwest,(11) and the Eastern Cleddau to Canaston Bridge;-(12) which are 10, 21 and 20 miles from the sea respectively.

River Teifi

From its source on the western slopes of the Cambrian Mountains to the north-east of Tregaron, the River Teifi flows in a south-westerly direction through that place and on to Lampeter, after which it gradually turns westwards and passes through Newcastle Emlyn and Cardigan before it widens and enters the sea after a course of 70 miles.

The port of Cardigan, 5 miles up the river, is frequently mentioned in medieval records; the transport of wheat and pigs from Bristol in 1244 being an example. (See River Towy).

However, the river was navigable above Cardigan and past Cilgerran to Cenarth, where a waterfall in the course of the river would have precluded further navigational progress. Cenarth is 3 miles below Newcastle Emlyn and 14 miles from the sea. A record of 1314 states;-

> "As the ancestors of John de Hastynges had a weir at Kilgaran, in the river Theyvy ... until the time of King Edward I, who caused the weir to be levelled because he was given to understand that the weir was very prejudicial to the town and castle of Cardigan, because stone, brushwood and timber could not on account of it be carried by water to the town and castle for the works, as is now found by an inquisition made by Roger de Montuo Mari, justice of Wales, and as by the same inquisition King Edward II understands that it is not to his prejudice, or to that of any other person, if a weir should be constructed anew in the place in which the weir was before, provided that a sufficient passage is left for ships and boats, except in this, that the King's weir of Kennarth and fisheries of that place and Leyghtred would be of less value by the year by 20s. than they are now worth, the King, wishing to do John de Hastynges a special favour, grants him leave to erect a weir in the same place, provided a sufficient passage is left for boats and ships, and that he and his heirs shall render yearly at the Exchequer of Kaermerdyn 20s ..."(13)

The river was obstructed at the weir of Cilgerran in 1340,(14) and in 1383 the King issued an order

> "to cause the water or river running beneath Kilgaren castle in Wales, ...to be made and kept wide and open, making no weirs therein, according to an agreement made between the late prince of Wales and a deceased earl of Pembroke, whereby it ought to be kept open, so that ships and boats may pass to and fro, and weirs formerly therein made ought to be abated and removed as the King is particularly informed that they now are, none being new made".(15)

Rivers Dovey, Mawddach and Traeth Bach

Along the coast of Cardigan Bay, the estuary of the River Dovey would be navigable for 8 miles to the vicinity of Pennal, the Mawddach for 9 miles towards Cymmer Abbey, and Traeth Bach for 7 miles towards Maentwrog.

In 1288, in an order to his Welsh castles, Edward I mentions

"his spies on the water of Dewy",(16) or Dovey.

River Conwy

In North Wales, the River Conwy rises near Glasfryn, flows north-westwards to Betws-y-Coed and then northwards to Llanrwst. It gradually widens into an estuary and passes the town of Conwy, shortly after which it empties into Conwy Bay after a course of 33 miles.

The river would have been navigable for 15 miles, to Llanrwst, for in 1332, the King appointed

> "William de Swynmor, on information that men of Snoudon, Coneway, Creudyn and parts adjacent cause the timber and brushwood in the King's forest and woods of Snoudon to be taken away by the river Coneway and otherwise, to arrest all timber and brushwood conveyed along the river by any persons whatsoever, and to keep the same in safe custody until sufficient proof of purchase be shown."(17)

Llanrwst would be the nearest navigable place for loading the timber in the area mentioned in this record.

River Clwyd

The final 2½ miles of the River Clwyd, between Rhuddlan and the sea, were canalized by Edward I in 1277.(18) This provided a direct link for sea-going vessels which would allow ships to sail right up to the castle to discharge their cargoes.

In 1279, the canal and 'port' of Rhuddlan were inspected by the King's clerk with a view to having them cleaned.(19)

In 1280, a barge sailed from Rhuddlan and was given protection for buying

> "the things that are necessary ... during the King's pleasure."(20)

River Dee

Rising in Bala Lake, the River Dee flows north-eastwards to Corwen, then eastwards through Llangollen and Overton, where it turns northwards.

The river then passes through Holt and reaches Chester, at which point it turns north-westwards then broadens into a wide estuary which separates Flintshire from the Wirral and discharges into Liverpool Bay between Point of Ayr on the Flintshire side and Hilbre Point. For some of its course the River Dee forms the boundary between England and Wales and its total length is about 80 miles.

At the time of Domesday, Chester, 22 miles up-river from the sea, was an established port. It was, at this time, under the jurisdiction of Earl Hugh and his successors, and as such was the administrative centre of a large earldom.(21) The entries for the City of Chester in the Domesday Book give an indication of shipping movements into the port.

> "If ships arrived at the City port or left port without the King's permission, the King and the Earl had 40s. from each man in the ships. If a ship arrived against the King's peace and despite his prohibition, the King and the Earl had both the ship itself and its crew, together with everything in it. But if it came with the King's peace and permission, those in it sold what they had without interference. But when it left the King and the Earl had 4d. from each cargo; if the King's reeve instructed those who had marten-skins not to sell to anyone until they were first shown to him and he made his purchase, whoever did not observe this instruction was fined 40s.".(22)

In 1241, when Henry III was encamped at Rhuddlan, 3 tuns of wine and various 'wooden works', were carried to him by water from Chester.(23)

In 1245, the bailiffs of Bristol were given the option of carrying

> "to Chester by land or by sea, as may best and most safely be done, 40 tuns of wine, which Peter the Poitevin will take for the King,..."(24)

Lead and victuals were carried by water from Chester to Deganwy in 1246,(25) and during the same year the prioress and nuns of St. Mary, Chester, were granted

> "the right to have a boat on the water of Chester to fish where they will above or below the bridge ..."(26)

In 1257, 2000 salt congers and 6000 hake were brought to the port of Chester by sea from Devon,(27) and

> "corn and victuals by water from Bristol to Chester against the arrival of the King and his army, ..."(28)

In 1282, during his campaigns in Wales, Edward I issued an order to the warden of the Cinque Ports

> "to cause to be chosen by the counsel of the barons of those ports as shall seem most expedient ten or twelve good and strong carpenters, discreet and skilled in making barges and punts, whom he shall cause to take the road to Chester with their tools."

These carpenters were instructed to make

> "two good and new barges, each being thirty-two oared, which ...

> shall ... be manned with strong and able men, and shall ... come thus manned to the King with the said barons and their service to Wales".(29)

Chester had trading links with Ireland during the thirteenth century. In 1284, protection and safe-conduct were granted to

> "the men whom Reginald de Grey is sending to Ireland with a ship to buy corn and victuals, and to return to Chester with the same for the maintenance of himself and his family".(30)

As well as Ireland and North Wales, waterborne traffic came to Chester from Spain and Gascony, carrying such commodities as timber, lead, coal, skins, wines and cloth.(31)

In the spring of 1322 a ship loaded

> "with 105 tuns and seven pipes of wine and other goods",

was attacked near Anglesey whilst on a voyage from Bordeaux to Chester.(32)

In 1342 the port of Chester came under an order from the King which encompassed all the Welsh ports. Collectors were appointed

> "to collect, during pleasure, his custody, to wit ½ mark on each sack, a mark on each last of hides, ½ mark on every 300 wool-fells and other small customs and prests on all things taken out of the port of Cheppstowe and all places thence to Chester."(33)

Throughout the remainder of the fourteenth century there are frequent references to the port of Chester.(34)

In the Dee Estuary and prior to later silting, there were small ports at Burton,(35) Shotwick,(36) and also in the vicinity of Hoylake.(37) On the Welsh side the castle at Flint could, in common with many of the other castles built in Wales by Edward I, be supplied by sea.(38) In 1394, a ship was commandeered in the Dee Estuary and used for the passage of the King's clerk to Ireland.(39)

The River Dee appears to have been navigable for 20 miles above Chester, to Overton, during the medieval period, for there are records of an occasional quantity of timber being sent down the river to Chester from that place.(40)

There are also details relating to fishing boats in the vicinity of Eaton, 4 miles above Chester, for in 1330, the abbey of Pulton and the monks there were granted

> "a boat to be had by them free in the water of Chester, for fishing below and above the bridge of Chester, wherever any of the other free boats fishes, with all kinds of nets in the water of De by night and day at Ethun and elsewhere; ..."(41)

The rivers of Wales are mapped in Figure 18:1, and their navigational limits, in medieval times, are indicated.

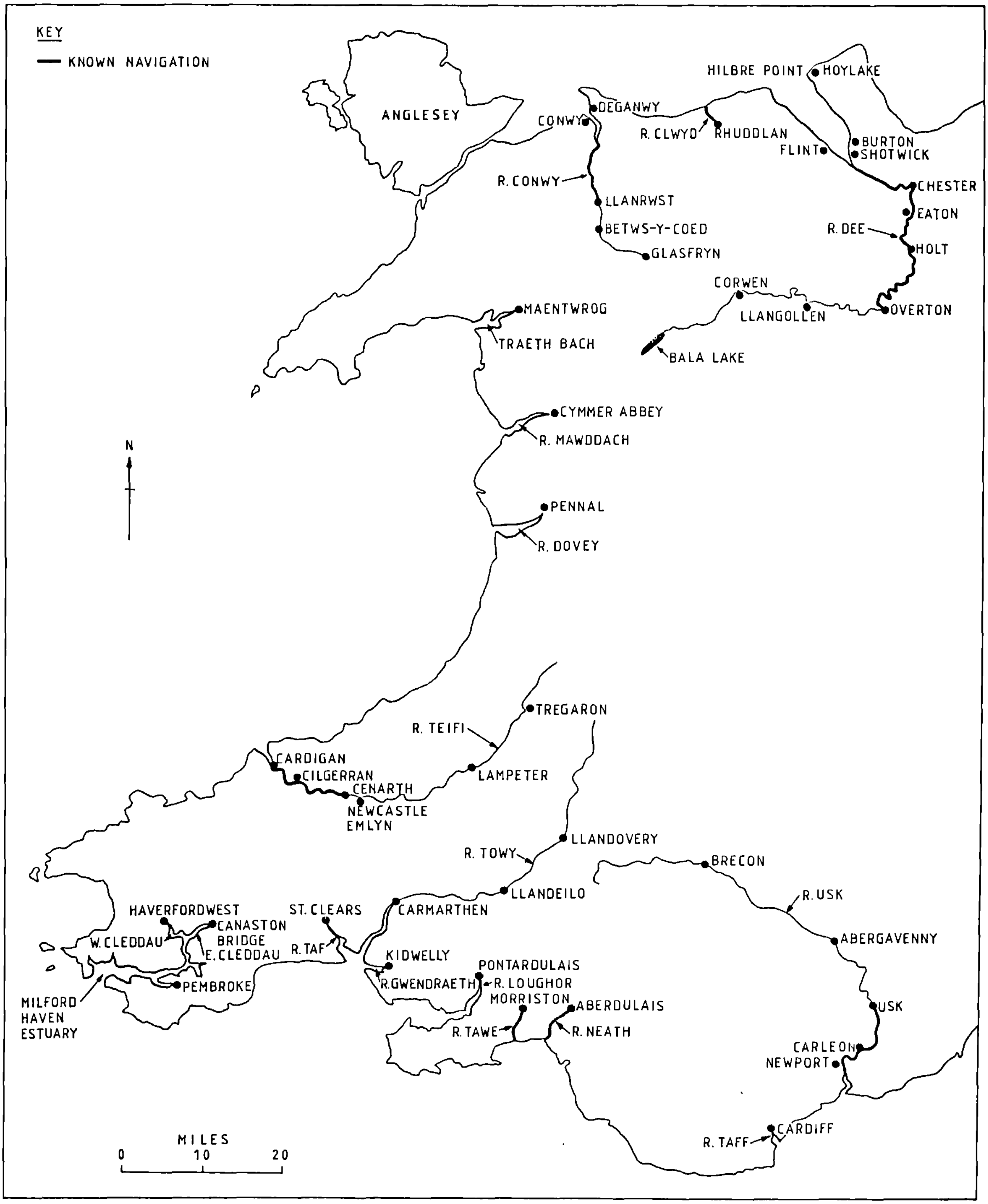
KEY
KNOWN NAVIGATION
ANGLESEY
HILBRE POINT
HOYLAKE
DEGANWY
CONWY
R. CLWYD
RHUDDLAN
FLINT
BURTON
SHOTWICK
CHESTER
R. CONWY
LLANRWST
EATON
BETWS-Y-COED
R. DEE
HOLT
GLASFRYN
CORWEN
LLANGOLLEN
OVERTON
MAENTWROG
TRAETH BACH
BALA LAKE
CYMMER ABBEY
R. MAWDDACH
N
PENNAL
R. DOVEY
TREGARON
R. TEIFI
CARDIGAN
CILGERRAN
LAMPETER
CENARTH
NEWCASTLE EMLYN
LLANDOVERY
R. TOWY
BRECON
LLANDEILO
R. USK
HAVERFORDWEST
ST. CLEARS
CARMARTHEN
CANASTON BRIDGE
ABERGAVENNY
W. CLEDDAU
E. CLEDDAU
R. TAF
KIDWELLY
PONTARDULAIS
R. GWENDRAETH
R. LOUGHOR
PEMBROKE
MORRISTON
ABERDULAIS
MILFORD HAVEN ESTUARY
USK
R. TAWE
R. NEATH
CARLEON
NEWPORT
MILES
0
10
20
CARDIFF
R. TAFF

FIGURE 18:1 THE RIVERS OF WALES

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CHAPTER NINETEEN THE RIVERS OF NORTH-WESTERN ENGLAND

The rivers considered in this chapter are those which discharge into the sea in the counties of Cheshire, Lancashire, Westmorland and Cumberland. The area covered stretches from the Dee Estuary to the Scottish Border.

Because the north-west was economically unimportant during the medieval period, there was little navigation along its rivers.

River Mersey

Formed by the waters of the Rivers Etherow, Goyt and Tame flowing down from the western slopes of the Pennines, the River Mersey flows in a westerly direction through Stockport. It receives the River Irwell and proceeds via Irlam and Warrington after which it gradually widens then expands into an estuary at Runcorn. The estuary receives the River Weaver and turns north-westwards where it separates the Wirral from Lancashire. The estuary narrows slightly between Liverpool and Birkenhead and then enters Liverpool Bay after a course of 55 miles. (It should be noted that eighteenth century improvements, together with construction of the Manchester Ship Canal in the late nineteenth century - when portions of the Rivers Mersey and Irwell were absorbed into it - have altered to some extent the original courses of these rivers).

The infant port of Liverpool, founded by King John in 1207,(1) and barely 4 miles from the open sea, was visited by a few boats(2) which had ventured across the Irish Sea.

In 1297, the bailiffs of Liverpool were told that

> "the King wills that no one, whosoever he may be, clerk or laymen, shall go out of the realm in any way without his special licence, he orders them not to permit anyone to pass the sea from the port without such licence". (3)

There was a ferry between Liverpool and Birkenhead and in 1318 Edward II gave permission for

> "the prior and convent of Birkheved to construct and hold, in their own soil at Birkeved at the ferry, or as near thereto as convenient, sufficient houses for the entertainment of... travellers, and that the men about to remain in the houses may buy and sell, without hindrance, victuals for the sustenance of the persons about to cross the arm of the sea." (4)

Edward II himself is known to have sailed the 11 miles up the estuary between Liverpool and Ince.(5)

During the fourteenth century the River Mersey was certainly navigable to Warrington, 27 miles from the sea, as is shown by a record of 1367:-

> "On the petition of John Danyel, Knight, showing that he has three boats often loaded with victuals, timber and stone for the construction of a bridge between Weryngton and Lacheford, and with goods, passing on the water of Merse between Lacheford and Weryngton for the quiet and recreation of the people of those parts, the King has taken the said boats and their mariners, and the victuals, timber, stone and goods into his protection for two years." (6)

The Mersey is also shown to have been navigable for at least a further 7 miles up-river of Warrington to Warburton, as is revealed by a record of 1364 which also relates to the construction of a bridge:-

> "Protection for one year for John le Botiller, Geoffrey de Werburton and Matthew de Rixton, who purpose to build a bridge over the water

> of Mercy in their lordship, and for the carpenters, masons, hewers of stone and other workmen employed, a boat called la Cristofre which they are ordering for the carriage of stone, lime and other things required and the mariners in it." (7)

This type of record obviously relates to the use of conventional medieval vessels; however, the earliest medieval evidence relating to the use of vessels on the River Mersey is that provided by the extant remains of logboats.

Of thirteen logboats discovered in the environs of the river, and described by S. McGrail, eleven were in the vicinity of Warrington, together with finds at Irlam, and Barton on the River Irwell.(8) Very little remains of four of these boats, but samples for radiocarbon dating were taken from the surviving remains of the others. These samples were taken near to the outside of the original log in order to get as close as possible to the felling date. The results revealed that six boats, including those from Irlam and Barton, could be assigned to the period AD 1060 to AD 1205.(9) A seventh boat is probably of an even later date but still within the medieval period.(10)

It is safe to conclude therefore that navigation on the River Mersey extended at least to its confluence with the River Irwell 40 miles from the open sea, during the medieval period.

River Irwell

As is shown by the surviving evidence of logboat finds, the River Irwell was navigable for at least the final 3 miles of its course, from Barton to its confluence with the River Mersey, during the medieval period.

River Weaver

Rising to the south of Audlem, the River Weaver flows northwards via Nantwich and Northwich at which point it turns north-westwards and continues to Frodsham - 3 miles after which it enters the estuary of the River Mersey below Runcorn, after a course of 40 miles.

The port of Frodsham, 3 miles from the confluence with the River Mersey, recorded profits valued at £10 per annum from the tolls of ships in 1280.(11)

Trading links between Frodsham and Ireland are evident from a record of 1309 relating to quayage rights in the port. It was said

> "that nobody ought to load or unload merchandise there...and certain Irish and other merchants have come there in ships laden with corn and other merchandise..." (12)

In 1324, Frodsham was included in a port-list, together with Liverpool, whereby ships capable of carrying 40 tuns and upwards were ordered

> "to be prepared and found without delay, so that they shall be ready to set out in the King's service." (13)

It appears that the River Weaver was navigable for 9 miles above Frodsham, to Weaverham, for there is a record relating to fishing on the river there in 1241.(14)

It is likely that the River Weaver was navigable for a further 4 miles up-river of Weaverham, to Northwich, during the medieval period.

River Ribble

Formed by the confluence of a number of small streams to the north-west of Peny-y-Ghent, the River Ribble flows generally south and south-west through Settle and close by Clitheroe to Preston, after which it gradually expands into an estuary and flows into the Irish Sea after a course of 75 miles.

> "In 1359, Adam de Skillycorn, coroner for the county, took a lease for six years of the fishings near Preston, and in consequence of his exercise of this right certain of the justices were appointed in 1360 to enquire into the stoppages of the passages in the Ribble, which not only injured the fisheries, but impeded ships on their way to the Port of Preston. This is direct evidence that Preston was at this time a port frequented by ships, although probably of small tonnage and not very numerous." (15)

Thus writes J. Barron regarding the earliest record relating to navigation along the River Ribble.

Towards the end of the fourteenth century, in 1398, the King gave

> "Exemption until further order, by advice of the Council, of the Knights, esquires, burgesses, merchants and commonalty of the county of Lancaster, on their petition, from customs and imposts to be paid and levied to the King's use on corn, malt, flesh and fish imported at Lancaster, Preston..." (16)

Although vessels were reaching Preston, 16 miles from the open sea, it is likely that small medieval vessels could also have reached Ribchester, 10 miles further up-river.

River Wyre

The estuary of the River Wyre, which cuts into the Fylde and enters the sea to the east of Fleetwood, would have been navigable at least as far as Out Rawcliffe - 8 miles from the sea.

River Lune

Rising to the east of Tebay, the River Lune turns due south and on to Kirkby Lonsdale. The river gradually turns south-westwards and passes through Hornby and Lancaster, after which it widens and enters the sea after a course of 50 miles.

From the end of the thirteenth century, the port of Lancaster, 7 miles up the river from the sea, is frequently referred to in medieval records.(17)

A record of 1365 indicates that the Lune was navigable for at least a further 18 miles up-river of Lancaster, to Kirkby Lonsdale, for, during that year, a grant was made to

> "Richard de Wisebeche, vicar of the church of Kirkeby in Lonesdale, and Thomas Banes, of pontage for six years in aid of the repair of the bridge of Kirkeby in Lonesdale on things for sale passing by or under that bridge between the priory of Horneby and Gràtrehals." (18)

The exact location of the place called Gratrehals is not certain but from the description given in the record it appears to have been up-river of Kirkby Lonsdale.

River Kent

The estuary of the River Kent, which enters Morecambe Bay below Arnside, would be navigable almost to Levens - 12 miles from the sea.

River Leven

Flowing out of Lake Windermere and descending past Low Wood, the River Leven broadens into an estuary which enters Morecambe Bay to the south-east of Ulverston.

The estuary of the river would be navigable almost to Low Wood - 8 miles from the sea.

River Duddon

The estuary of the River Duddon, which enters the Irish Sea to the south-west of Millom, would be navigable for 9 miles to Broughton.

An indication that the Rivers Kent, Leven and Duddon were navigated during the medieval period is given by the inclusion of Dalton-in- Furness and Cartmel in a general order to a number of English ports in 1323.(19)

River Esk

The small estuary of the River Esk was navigable for 2 miles to Ravenglass, for, in 1324 ships capable of carrying 40 tuns of wine and upwards were ordered to be prepared at that place.(20)

River Derwent

From its source above Derwent Water the River Derwent flows into Derwent Water then enters Bassenthwaite Lake from where it flows in a westerly direction through Cockermouth to Workington, at which place it enters the sea after a course of 28 miles.

Workington, and Cockermouth - 11 miles up the river, were included in the previously mentioned record of 1324 asking for various places to prepare ships capable of carrying 40 tuns of wine and upwards.

An inquisition of 1394 was informed that William de Albmarle, formerly lord of Cockermouth, and his descendants, were entitled to certain liberties within the precincts of the lordship. One of these liberties was that

> "they have had search,...and amendment of the water of Derwent...from the sea to the head of those waters, as well in mill-ponds as elsewhere (with power) to close the said waters in close time and to punish transgressors by burning their nets and other engines and imprisonment and other punishments as the King and his ministers do elsewhere, taking the fines, amercements and other profits to their own use. Of every ship coming within the precinct of the manor they have had an anchorage-due called 'yeveltol', and no ship may unload there without leave of the lord or his ministers." (21)

River Waver

The final 5 miles of the River Waver, from Abbey Town to Moricambe Bay on the Solway Firth, were navigable during the medieval period.

Abbey Town was previously called Holm Cultram, and in 1322, safe conduct was granted to

> "Ralph de Warham, merchant of Aymer de Valencia, earl of Pembroke, whom the earl is sending with a ship called La Garlsund of Holm to the south of the realm and to foreign parts to buy corn and other goods and to bring the same to the earl in the north or elsewhere." (22)

Holm Cultram was included in the previously mentioned record of 1324 asking for various places to prepare ships capable of carrying 40 tuns of wine and upwards.

River Eden

Rising to the south of Kirkby Stephen, the River Eden pursues a north-westerly course through Appleby, Langwathby, Lazonby and Warwick after which it turns westwards via Carlisle and Beaumont to enter the Solway Firth after a course of 65 miles.

In 1373, two boats were destroyed at Beaumont, 5 miles up the river from the Solway Firth.(23)

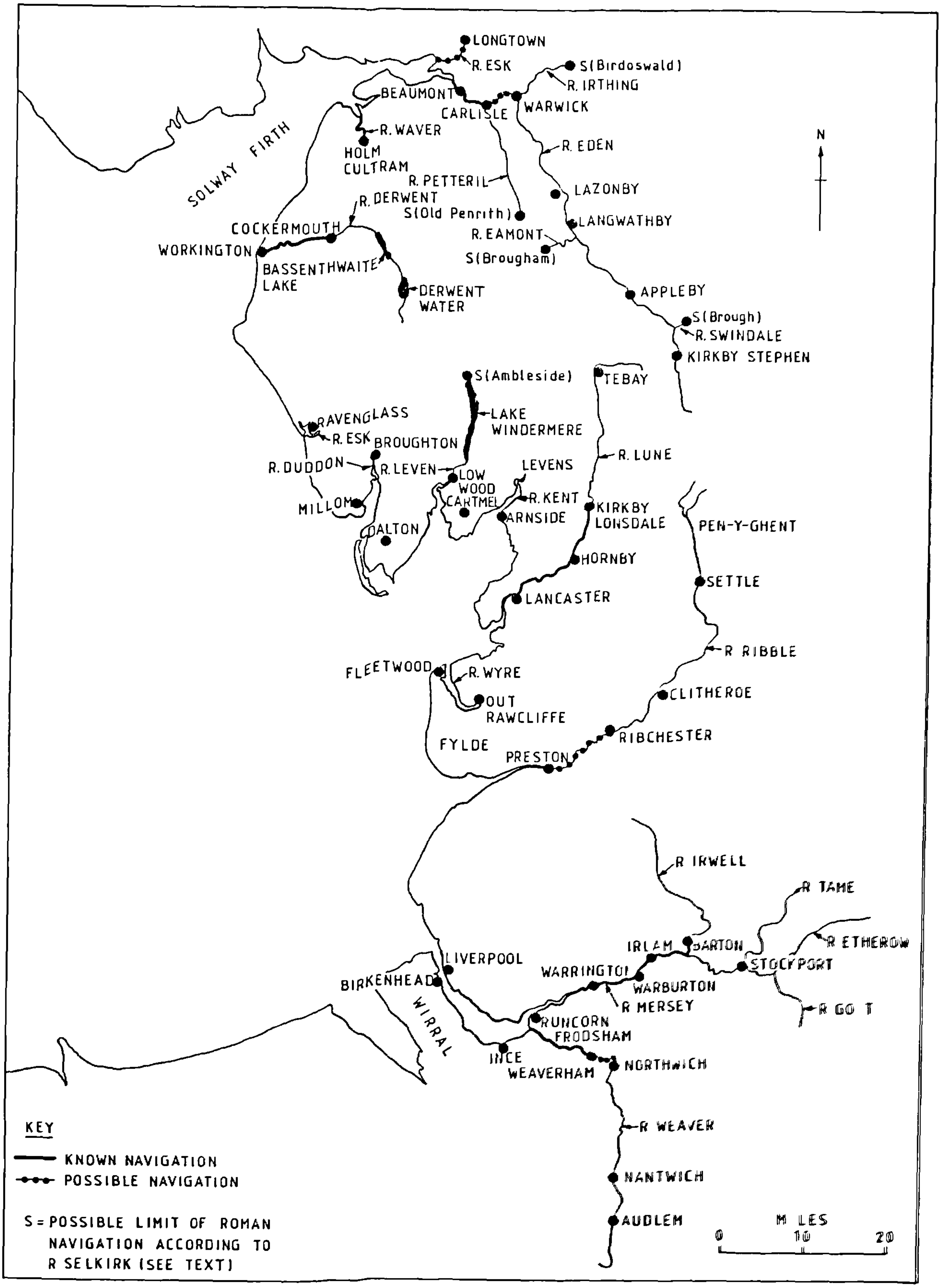
There were obstructions in the river in 1399,(24) and in 1401 there is a record which relates to further obstructions and 'customable merchandise' being taken to Scotland via the river from Carlisle to the sea.(25)

It is likely that, during the fourteenth century, the River Eden was navigable for a further 7 miles up-river of Carlisle, to Warwick Bridge - where the Carlisle to Brampton road crosses the river.

River Esk

For the most part a river of Scotland, the River Esk flows through England for the final 10 miles of its course prior to entering the Solway Firth above the estuary of the River Eden. It was probably navigable for at least 7 miles to Longtown, during the medieval period.

The rivers of north-western England are mapped in Figure 19:1, and their navigational limits, in medieval times, indicated. This figure also shows the possible limit of Roman navigation according to R. Selkirk, as discussed in Chapter Nine.


LONGTOWN
R. ESK
S(Birdoswald)
R. IRTHING
BEAUMONT
CARLISLE
WARWICK
R. WAVER
HOLM CULTRAM
SOLWAY FIRTH
R. EDEN
R. PETTERIL
LAZONBY
R. DERWENT
S(Old Penrith)
LANGWATHBY
COCKERMOUTH
R. EAMONT
WORKINGTON
S(Brougham)
BASSENTHWAITE LAKE
DERWENT WATER
APPLEBY
S(Brough)
R. SWINDALE
KIRKBY STEPHEN
N
S(Ambleside)
TEBAY
LAKE WINDERMERE
RAVENGLASS
R. ESK
BROUGHTON
R. LUNE
R. DUDDON
R. LEVEN
LEVENS
LOW WOOD
CARTMEL
R. KENT
MILLOM
KIRKBY LONSDALE
ARNSIDE
PEN-Y-GHENT
DALTON
HORNBY
SETTLE
LANCASTER
R RIBBLE
FLEETWOOD
R. WYRE
OUT RAWCLIFFE
CLITHEROE
RIBCHESTER
FYLDE
PRESTON
R IRWELL
R TAME
IRLAM
BARTON
R ETHEROW
LIVERPOOL
WARRINGTON
STOCKPORT
BIRKENHEAD
WARBURTON
R MERSEY
R GOYT
WIRRAL
RUNCORN
FRODSHAM
INCE
WEAVERHAM
NORTHWICH
R WEAVER
NANTWICH
AUDLEM
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KEY
KNOWN NAVIGATION
POSSIBLE NAVIGATION
S = POSSIBLE LIMIT OF ROMAN NAVIGATION ACCORDING TO R SELKIRK (SEE TEXT)

FIGURE 19:1 THE RIVERS OF NORTH-WESTERN ENGLAND

Notes and References

(1) M. BERESFORD, New Towns of the Middle Ages (London 1967) 124

(2) H.J. HEWITT, Medieval Cheshire (Manchester 1929) 76

(3) Calendar of Close Rolls, 1296-1307, 81-83

(4) Calendar of Patent Rolls, 1317-21, 108-09

(5) H.J. HEWITT (op. cit.) 76

(6) Calendar of Patent Rolls, 1364-67, 379

(7) Calendar of Patent Rolls, 1361-64, 518

(8) S. McGRAIL and R. SWITSUR, Medieval Logboats of the River Mersey - A Classification Study - Being Chapter 6 of 'The Archaeology of Medieval Ships and Harbours in Northern Europe'. National Maritime Museum, Greenwich, Archaeological Series No.5, BAR International Series 66, (1979)

(9) ibid, 105

(10) ibid, 104

(11) H.J. HEWITT (op. cit.) 76

(12) Calendar of Inquisitions Miscellaneous, 1307-49, 15

(13) Calendar of Close Rolls, 1323-27, 183

(14) Calendar of Liberate Rolls, 1240-45, 21

(15) J. BARRON, A History of the Ribble Navigation From Preston to the Sea (Preston 1938) 46

(16) Calendar of Patent Rolls, 1396-99, 329

(17) Calendar of Close Rolls, 1296-1302, 81-83 and 100-102

Calendar of Close Rolls, 1323-27. 183

Calendar of Close Rolls, 1341-43, 485-88

Calendar of Patent Rolls, 1396-99, 329

(18) Calendar of Patent Rolls, 1364-67, 129

(19) Calendar of Close Rolls, 1323-27, 147-48

(20) ibid, 183-84

(21) Calendar of Inquisitions Miscellaneous, 1392-99, 23-24

(22) Calendar of Patent Rolls, 1321-24, 107

(23) Calendar of Patent Rolls, 1370-74, 311

(24) Calendar of Close Rolls, 1396-99, 437

(25) Calendar of Close Rolls, 1399-1402, 317

CHAPTER TWENTY THE NAVIGABLE RIVERS OF MEDIEVAL ENGLAND AND WALES

All the aforementioned regional evidence mentioned in Part Three of this thesis can now be brought together in an attempt to produce a national picture of inland navigable waterways existing during the medieval period.

The rivers for which there is documentary historical evidence of navigation are given as follows in Table 20:1, together with their corresponding heads of navigation.

Table 20:1 The Navigable Rivers of Medieval England and Wales and their Heads of Navigation

	River	Head of Navigation
1	Tweed	Roxburgh Castle
2	Coquet	Warkworth
3	Tyne	Prudhoe
4	Wear	Chester-le-Street
5	Tees	Stapleton
6	Humber	River Ouse
7	Hedon	Burstwick
8	Hull	Wansford
9	Beverley Beck	Beverley
10	Ouse	Rivers Swale and Ure
11	Derwent	Stamford Bridge
12	Foss	Strensall
13	Swale	Morton
14	Ure	Boroughbridge

	River	Head of Navigation
15	Nidd	Knaresborough
16	Wharfe	Tadcaster
17	Aire	Fairburn (plus Cononley to Coniston)
18	Don	Rotherham (plus Thorne to River Trent)
19	Trent	Swarkeston
20	Soar	Kegworth
21	Derwent	Belper
22	Idle	Elkesley
23	Eau	Scotter
24	Ancholme	Market Rasen
25	Great Eau	Withern
26	Steeping	Wainfleet
27	Witham	Claypole
28	Foss Dyke	Lincoln to Torksey
29	Slea	Sleaford
30	Bain	Coningsby
31	Welland	Stamford
32	Glen	Catebridge
33	South Eau	Crowland to Tydd St. Mary
34	Nene	Wansford
35	Car Dyke	Peterborough to Swaton
36	Great Ouse	Lavendon
37	Well Creek	Outwell to Salters Lode
38	Oldcroft	Outwell to Littleport
39	Old West	Great Ouse to River Cam
40	Cam	Great Eversden
41	Lark	Mildenhall
42	Little Ouse	Thetford

	River	Head of Navigation
43	Wissey	Oxborough
44	Nar	Castle Acre
45	Yare	River Wensum
46	Wensum	Taverham
47	Waveney	Mendham
48	Bure	Wroxham
49	Ant	North Walsham
50	Thurne	Horsey
51	Blyth	Blythburgh
52	Alde	Snape
53	Deben	Woodbridge
54	Orwell	Ipswich
55	Stour	Maningtree
56	Colne	Colchester
57	Blackwater	Maldon
58	Crouch	Battlesbridge
59	Roach	Rayleigh
60	Thames	Radcot Bridge
61	Swale	Whitstable to River Medway
62	Medway	Tonbridge
63	Len	Leeds Castle
64	Darent	Dartford
65	Ingrebourne	Havering
66	Lea	Hertford
67	Fleet	Holborn
68	Effra	Brixton
69	Cherwell	Islip
70	Ray	Ot Moor

	River	Head of Navigation
71	Great Stour	Canterbury
72	Wantsum	Great Stour to Sarre
73	Rother	Etchingham
74	Brede	Winchelsea
75	Ouse	Lewes
76	Adur	Bramber
77	Arun	Arundel
78	Hamble	Botley
79	Itchen	New Alresford
80	Test	Romsey
81	Medina	Newport
82	Beaulieu	Beaulieu
83	Avon	Salisbury
84	Frome	Wareham
85	Exe	Exeter
86	Teign	Newton Abbot
87	Dart	Totnes
88	Tamar	Morwellham
89	Lynher	St. Germans
90	Fowey	Lostwithiel
91	Truro	Truro
92	Penryn	Penryn
93	Helford	Gweek
94	Camel	Wadebridge
95	Torridge	Weare Gifford
96	Taw	Bishops Tawton
97	Parrett	Langport
98	Tone	Taunton

	River	Head of Navigation
99	Axe	Panborough
100	Pillrow Cut	River Axe to River Brue
101	Brue	Glastonbury
102	Severn	Montford Bridge
103	Avon (Bristol)	Bath
104	Avon (Warwick)	Kenilworth
105	Salwarpe	Droitwich
106	Wye	Hereford
107	Usk	Usk
108	Taff	Cardiff
109	Neath	Aberdulais
110	Tawe	Morriston
111	Loughor	Portardulais
112	Taf	St. Clears
113	Gwendraeth	Kidwelly
114	Towy	Carmarthen
115	Pembroke	Pembroke
116	W. Cleddau	Haverfordwest
117	E. Cleddau	Canaston Bridge
118	Teifi	Cenarth
119	Dovey	Pennal
120	Mawddach	Cymmer Abbey
121	Traeth Bach	Maentwrog
122	Conwy	Llanrwst
123	Clywd	Rhuddlan
124	Dee	Overton
125	Mersey	River Irwell
126	Irwell	Barton
127	Weaver	Weaverham

	River	Head of Navigation
128	Ribble	Preston
129	Wyre	Out Rawcliffe
130	Lune	Kirkby Lonsdale
131	Kent	Levens
132	Leven	Low Wood
133	Duddon	Broughton
134	Esk	Ravenglass
135	Derwent	Cockermouth
136	Waver	Holm Cultram
137	Eden	Carlisle

The rivers given in Table 20:1 are mapped in Figure 20:1. For clarity of presentation, the individual rivers are identified by the corresponding numbers given in Table 20:1.

The national network of navigable rivers, produced by plotting the regional evidence, is a minimum one. As discussed in the previous chapters, it is likely that many rivers were navigable above the heads of navigation determined by historical evidence. Other rivers, for which evidence is lacking, were also possibly utilised, perhaps, as appears to be the case with the River Aire in Yorkshire, along local stretches of navigable water below which navigation may not have been continuous. However, only the navigations as determined from historical evidence are included in Figure 20:1 which shows about 2400 miles of navigable inland water along which medieval cargoes were carried.

Analysis of the Movement of Goods by River

Apart from revealing the extent of inland navigable water utilised

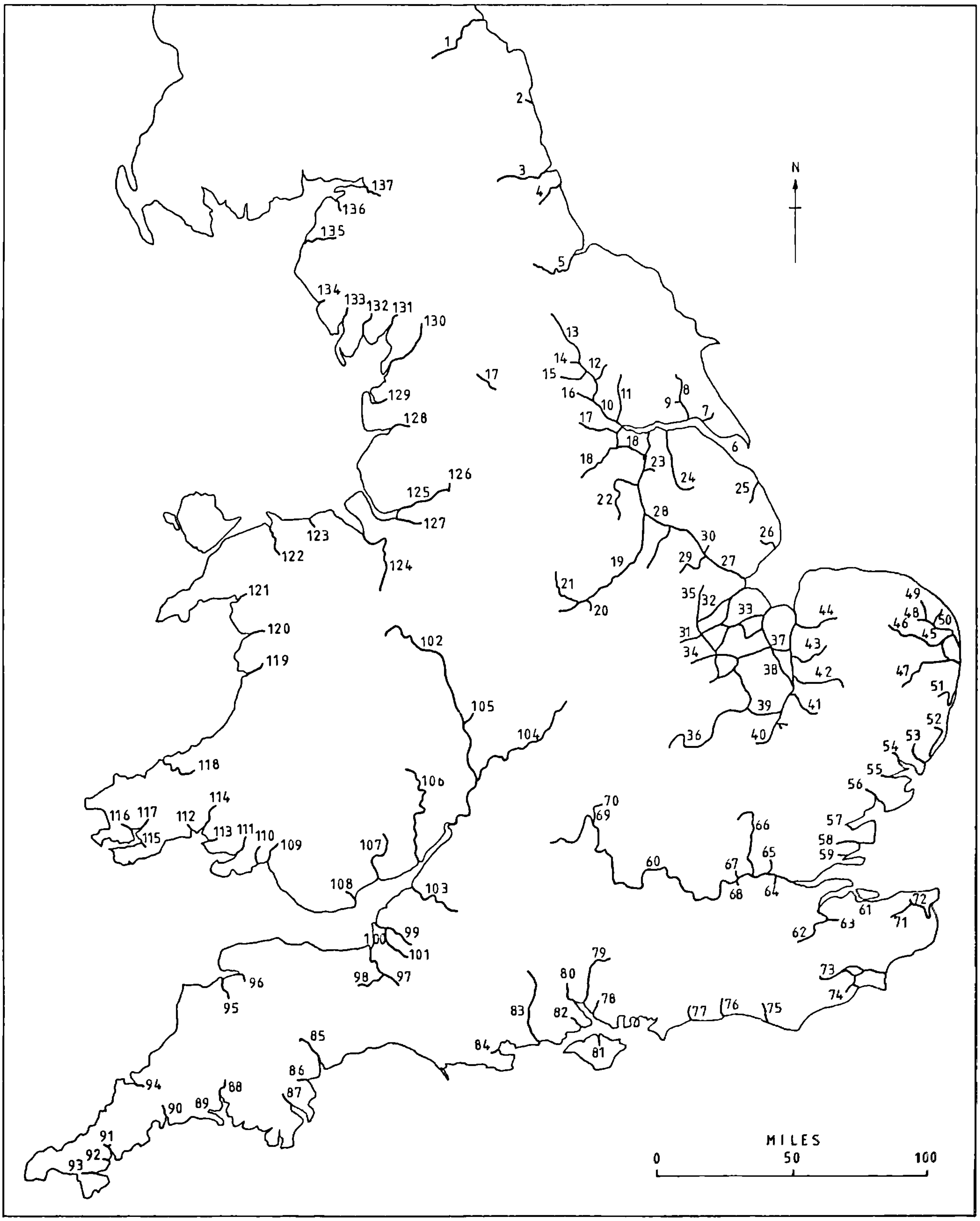
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FIGURE 20:1 THE NAVIGABLE RIVERS OF MEDIEVAL ENGLAND AND WALES

during the medieval period, the historical evidence presented in the preceding chapters of Part Three of this thesis also gives some idea of the contents of the cargoes transported along the rivers of medieval England and Wales. The records show that a diverse range of miscellaneous merchandise was transported along the rivers, and virtually every conceivable commodity appears to have been carried, although the emphasis is on heavy and bulky commodities.

Where cargoes are specifically identified, over a quarter of the recorded movements refer to agricultural produce such as corn, oats, wheat, barley, rye, beans and peas; wool and wine each account for about one sixth of these cargoes. There are also repeated references to the movement of fish, timber, stone, lead, coal, turves, livestock, lime, metals and salt. Figure 20:2 shows the breakdown of these specifically identified river cargoes. Other cargoes mentioned include such commodities as ale, almonds, alum, ashes, cables, chalk, charcoal, cheese, cider, fruit, honey, hurdles, leather, manure, marten skins, oil, ointment, pitch, spices, tan, teasels, thatch, venison, vinegar, wax and woad.

In terms of temporal variations, it must be remembered that the data sources consulted cover only the thirteenth and fourteenth centuries (Fig. 20:3), though this period does include the run up to the high point of the medieval economy around 1300, and the drastic decline of population following the arrival of the Black Death in 1348. Thus the time span covered is potentially very interesting. But, as will become obvious, although the references are adequate for trying to establish the extent of the navigable rivers, once they are broken down

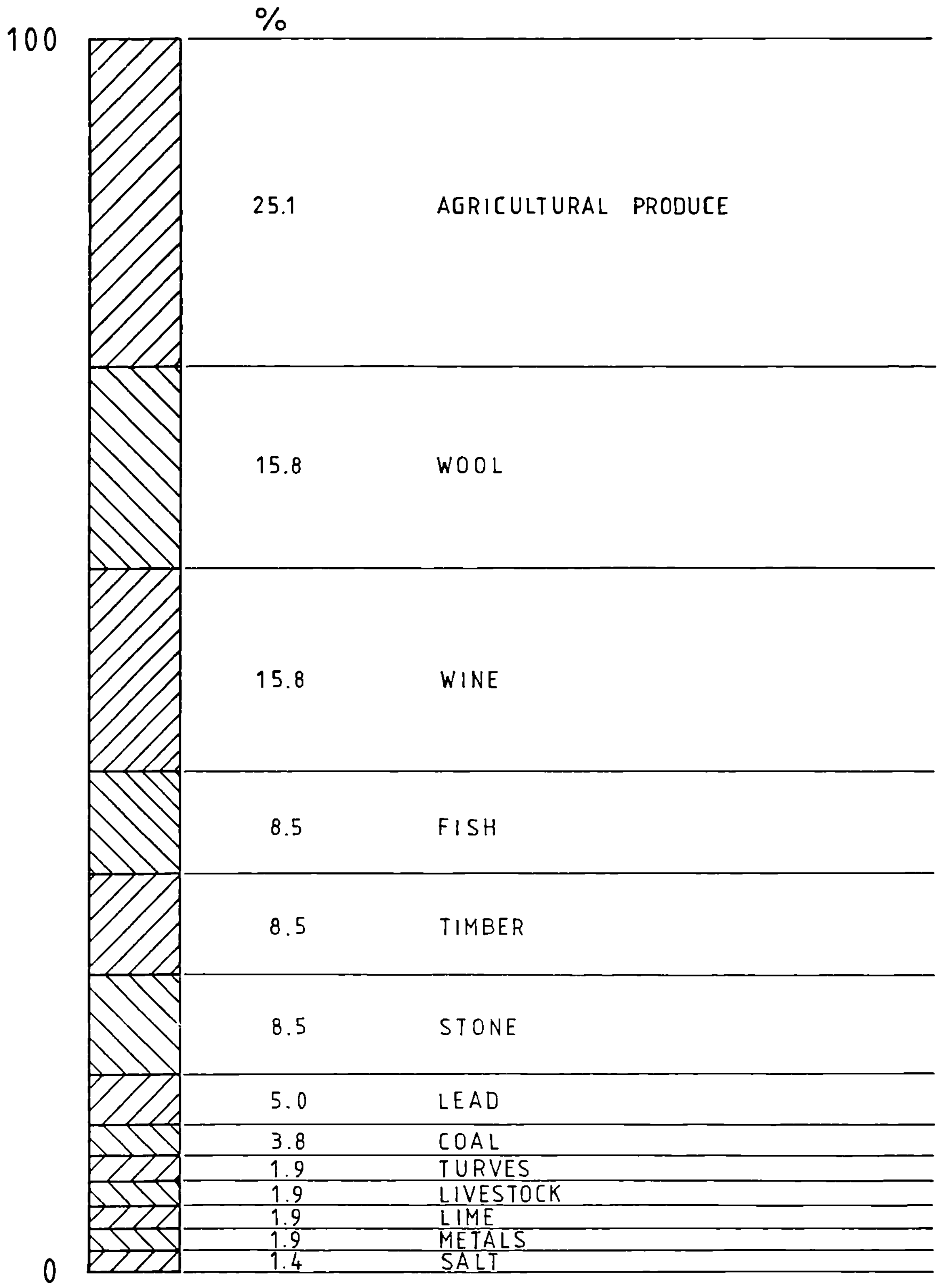

FIGURE 20:2 SPECIFICALLY IDENTIFIED RIVER CARGOES

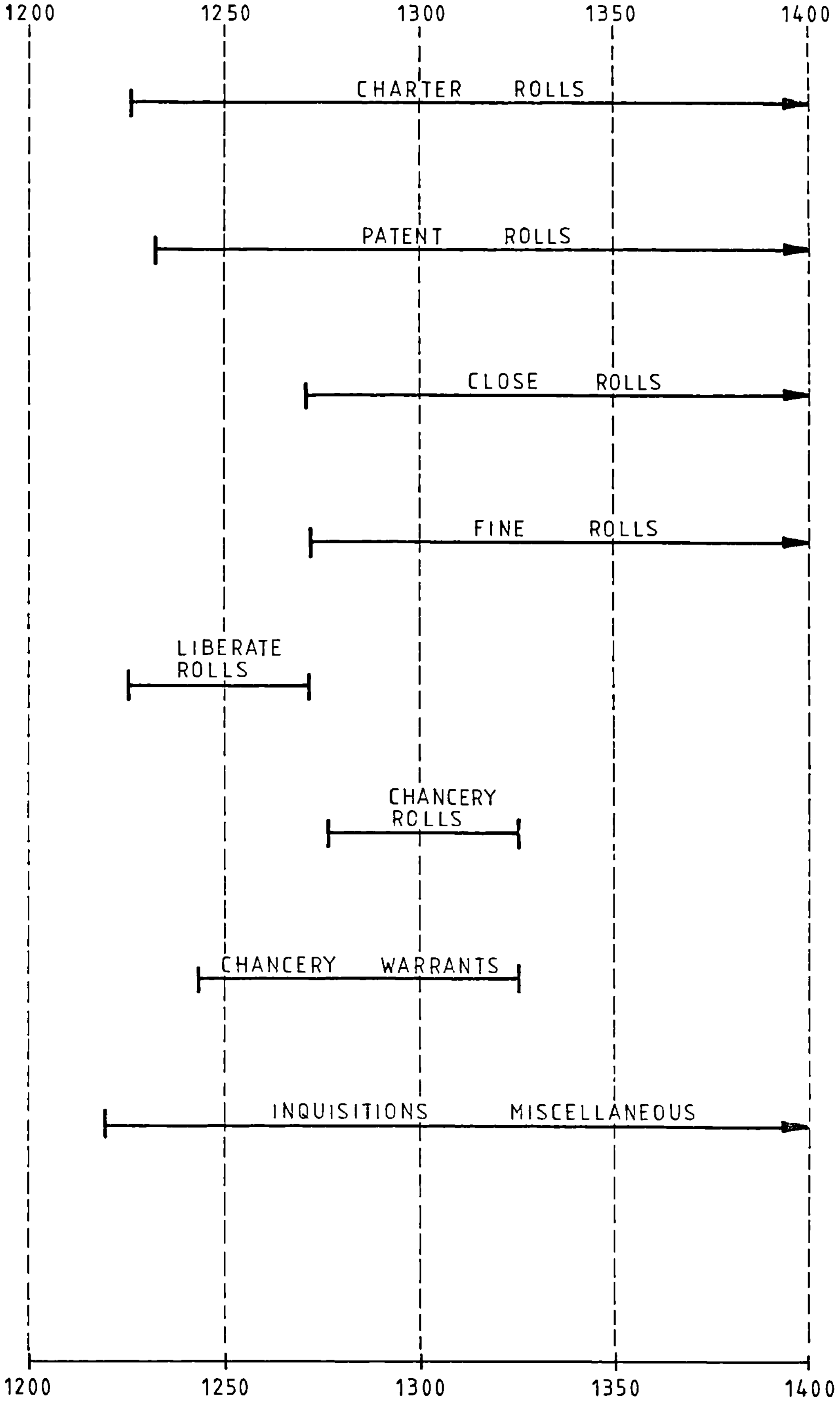

FIGURE 20:3 TIME-SCALE OF MAJOR SOURCES

by types of goods and/or by date, they become much less reliable, simply because the number of references to a particular commodity in a particular decade are few in number, and widely scattered geographically.

Figure 20:4 shows the total number of inland cargoes recorded in the sources used, irrespective of whether the contents of the cargoes are specifically identified or not, plotted against time for the period 1220 to 1400. The histogram shows recorded cargo movements during each decade. It can be observed that the recorded cargo movements are more numerous throughout the fourteenth century compared with the previous eighty years and, taken as a whole, do not appear to diminish significantly in the period after the arrival of the Plague. However, the same cannot be said of the individually recorded cargoes, such as wool and agricultural produce which are shown on the same figure. With this latter commodity there is a marked reduction in cargo movements after 1350, which is hardly surprising considering the dramatic fall in the population due to the Plague. Fewer mouths to feed would result in a reduced demand at the domestic markets during the second half of the fourteenth century, especially in the light of the fact that there were further large scale outbreaks of plague in 1360-1, 1369 and 1379.(1)

The histogram relating to agricultural produce also reflects increased activity during the first decade of the fourteenth century, when it is known that exports of grain were high. During this period Hull, King's Lynn and Sandwich exported around 10,000 quarters between them in some years; and Boston, Bristol, Ipswich and Southampton were also vigorous in the export of grain and dairy produce.(2) This export activity must have been seriously curtailed by the poor harvests of 1315-17 and,

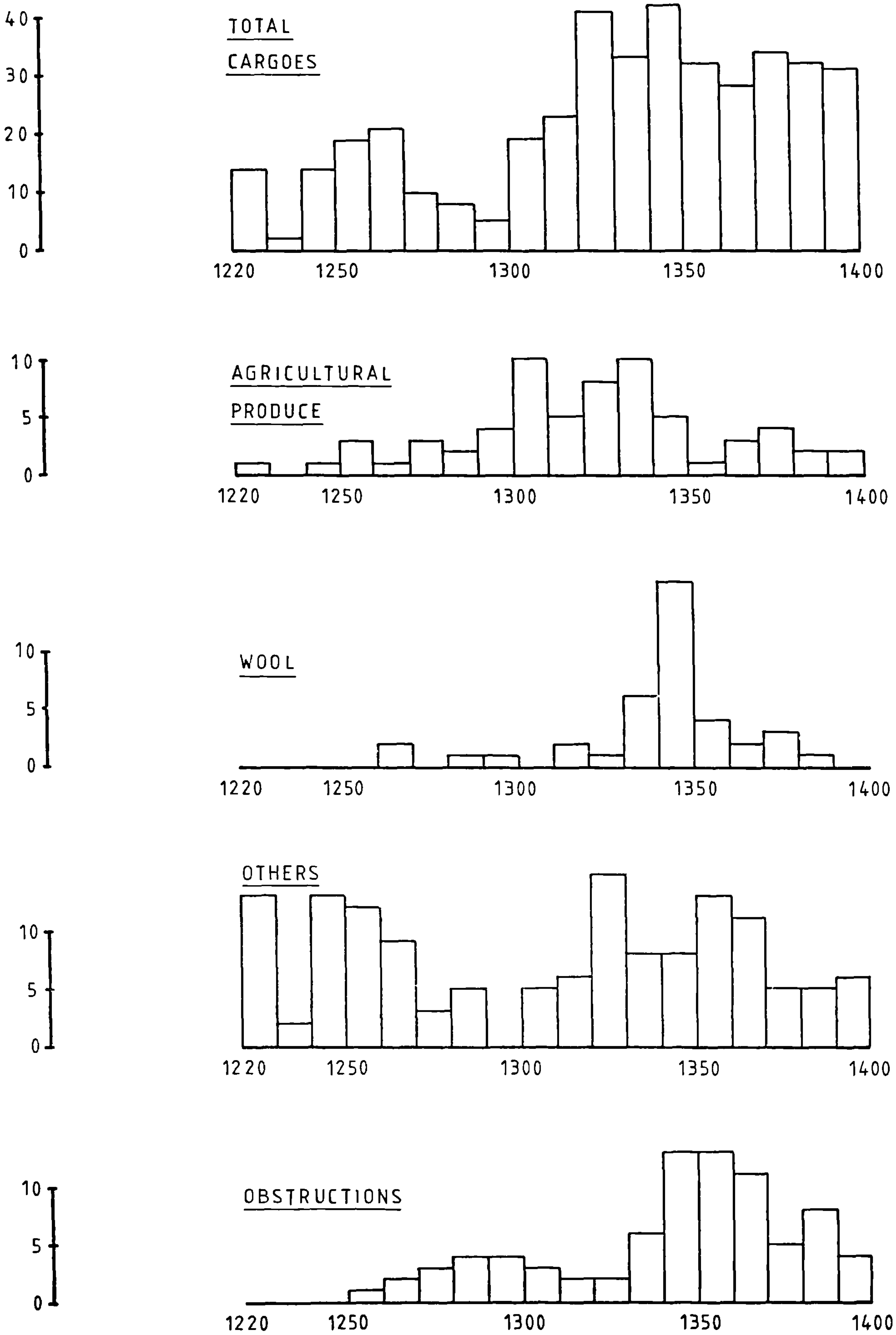

FIGURE 20:4 RECORDED CARGOES AND OBSTRUCTIONS FOR THE PERIOD 1220 TO 1400

although attempts were made to import agricultural produce from such places as France and Spain, there appears to have been a deficiency at the domestic markets resulting in a reduction in cargoes (both domestic and foreign), a trend that is shown for the second decade of the fourteenth century in the histogram.

Although the histogram for agricultural produce would appear to fit in approximately with the known changes in fortunes experienced during the thirteenth and fourteenth centuries, the dangers inherent in the attempted manipulation of such meagre and fragmented evidence is clearly shown by observing the trends of the recorded evidence for the cargoes of wool (Fig. 20:4). Inland waterborne movements of wool are scarcely mentioned in the records prior to the 1330's yet it is known that exports reached an average approaching 36,000 sacks yearly in the first decade of the fourteenth century and were still running at over 30,000 sacks a year in the 1350's.(3) Therefore, it is reasonable to assume that we would have expected to observe sustained activity in the movement of wool along the navigable rivers to the various customs ports during the first decades of the fourteenth century. This activity is not reflected in the histogram for wool and the reason is, quite clearly, that there are simply too few recorded instances of its transport along the inland rivers to enable any meaningful trends to be observed, making it virtually impossible to arrive at any firm conclusions regarding the possible variation in waterborne movements across the time-scale under consideration. These same comments would also apply to the other commodities taken on an individual basis, as their recorded cargoes are even less frequently mentioned than those of wool (see Fig. 20:2), thus making any further analysis along similar lines futile.

Figure 20:4 also shows the recorded instances of obstructions to inland navigation. The number peaks in the two decades between 1340 and 1360. The increase in complaints during the 1340's must have greatly increased the pressure on the King to provide legislation in an attempt to rectify the situation which culminated in the statute of 1351 when Edward III passed an act for the removal of obstructions placed in all rivers since the time of Edward I. The maintained level of surveys and commissions mentioned during the 1350's and 1360's reflects the pressure brought to bear by navigators and ship-owners who would no doubt be anxious to exercise their rights under the new legislation.

In order to observe any possible regional variations, the specifically identified river cargoes can be tabulated in relation to geographical location. Table 20:2 lists these cargoes by quantity and identifies the regions in which they are recorded, these being the same regions used in Chapters Nine to Nineteen. Although the evidence on which it draws is far from extensive, Table 20:2 is instructive because it shows that certain commodities were transported along the medieval inland waterways in virtually every region of England and Wales. Commodities in this category are:- agricultural produce, wool, wine, fish, and the basic building materials of timber, stone and lead.

There would be no point in attempting to enter into a comprehensive description of the medieval industries involved in the production of these commodities; this has been accomplished elsewhere. However, certain aspects of their conclusions are relevant and assist in evaluating the geographical distribution of the various cargoes.

TABLE 20:2 REGIONAL DISTRIBUTION OF SPECIFICALLY IDENTIFIED RIVER CARGOES

COMMODITY	REGION										
	NORTH EAST	YORKS.	TRENT	FENS	EAST ANGLIA	THAMES	SOUTH COAST	SOUTH WEST	SEVERN	WALES	NORTH WEST
AGRICULT. PRODUCE	6	7	10	11	9	6	3	3	2	4	4
WOOL	2	6	7	3	4	5	2	2	5	5	
WINE	5	4	3	4	2	6	2	2	7	5	1
FISH	2	2	3	1	4	2	2	2	2	1	1
TIMBER	1	3	2	1	1	5	2	1	2	3	1
STONE	1	3	2	3	2	5	1	1	1	1	2
LEAD	1	1	3	1	1	2	1	1	1	1	
COAL	4		1			1		2	1	1	
TURVES		2	1	1	1						
LIVESTOCK			1			2				2	
LIME		3						1			1
METALS					1	1		2	1		
SALT		1						2			

In the primarily agricultural society of medieval England and Wales, supply and demand for agricultural produce would fluctuate in relation to the size of the harvest and to any geographical variations in it which there might have been. In years of surplus, such as the first decade of the fourteenth century, there would be an increase in the number of cargoes to the customs ports for export. Conversely, in years when the harvest was poor, and attempts were made to obtain produce from abroad, vessels would be carrying such cargoes in the opposite direction, as imports. Apart from cargoes that were stimulated by external market forces there was trade in agricultural produce between different regions of the country. Travelling merchants, traders in corn and victuals, came into local districts and transported their purchases to other localities to be sold.(4) Also, in some years, a portion of the harvest might be taken by the King's purveyors seeking sustenance for the army or navy, as was shown during the various campaigns of Edward I for example. It has been estimated that towards the end of the thirteenth century, about forty per-cent of England's peasant population were small-holders who, in order to feed their families, had to buy corn on the market using money obtained by working as wage labourers for lords and the relatively new class of wealthier peasants.(5) This type of situation would generate movement of agricultural produce not only involving local market centres but also others which were sometimes a considerable distance away. For example, when various cargoes of corn were taken by water from Newark to York in the 1330's, the distance travelled was in excess of 100 miles.(6)

As with agricultural produce, wool was produced to a greater or lesser extent all over England and Wales, and by the close of the thirteenth century it has been estimated that there were more sheep in

Britain than people.(7) Both lay and ecclesiastical landowners increased their flocks of sheep through the twelfth and thirteenth centuries with a view to the export of wool abroad.(8) The high export of wool at the beginning of the fourteenth century has already been mentioned; London handled almost half of this, followed by Boston, Hull, Southampton, Ipswich, King's Lynn, Newcastle and Yarmouth.(9) The bulk of the wool of the larger producers, having first been inspected and bought by foreign merchants, appears to have been despatched directly to agreed shipping points rather than disposed of through local markets,(10) and there is evidence to show that the navigable rivers were employed. For example, in 1338 when a large export order was fulfilled, part of the wool of Oxfordshire was assembled at Henley and then sent down the Thames to London; Yorkshire wool was sent down the Hull, Ure, Wharfe and Ouse to Hull; and the rivers of the Fen were utilised to transport wool gathered at Huntingdon to King's Lynn.(11)

Although there is evidence to confirm the domestic production of wine in England during the medieval period, Gascon wines had captured the English market; by the early fourteenth century some 20,000 tuns were coming into England each year.(12) (one tun = 252 gallons). Although the main importing centres were London, Hull, Southampton and Bristol, wine was brought into ports all around the coast of England and Wales.(13) It was a fragile and awkward commodity to carry overland and a cart carrying a tun of wine might require as many as six horses at a time.(14) Thus, for reasons of both preservation and cost, transport via navigable water would be an attractive method of distribution to medieval merchants; hence it is not surprising to observe that cargoes of wine were to be found on the navigable rivers in every region of England and Wales. The early fourteenth century accounts of the royal butler show that wine was generally transported via navigable water and it was usually only the last stage of the journey that was completed by road.(15) For example, the waterways radiating from the River Humber were utilised in the early fourteenth century when the royal butler bought wine in bulk at Hull and distributed it throughout a wide range of royal manors, castles and religious houses. In this way wine was sent to Burstwick, Colwick, Nottingham Castle and on by road to the manors of Clipston and Sherwood; it was also sent from Hull to Pontefract, York, Rievaulx, Knaresborough and Durham Abbey.(16)

Cargoes of fish, from both river and sea, were also carried along the navigable waterways in every region throughout the medieval period. Even though the Domesday Book gives only scant mention to sea-fisheries it does record inland fisheries along the Thames, the Severn, the Nene, the Trent, the Great Ouse, the Dee, the Medway and others; salmon were caught in the Severn, the Dee and the Dart, whilst the Fenland rivers produced great numbers of eels.(17) River fishing continued apace during the remainder of the medieval period as the number of obstructions to navigation caused by the various devices employed by the fishermen, and mentioned in the aforegoing chapters, can testify. Apart from these inland fisheries, which in themselves would generate a trade in freshwater fish, there were countless places all around the coast involved in sea-fishing. Many coastal towns had monopolies or exclusive rights of landing and selling fish, taking toll from the boats which came in with fish. For example, during the middle years of the fourteenth century the bailiff at King's Lynn demanded two salmon from ships carrying thirty-two or more salmon and even attempted to take money from boats laden with fish which were passing through that port on their way to Cambridgeshire, Northamptonshire, or elsewhere.(18) Herrings were a popular catch of the east coast ports and a large industry was centered on Yarmouth. Consignments of herrings were regularly sent from Norwich to Westminster entirely by water during the thirteenth century.(19) The widespread medieval trade in fish is born out by the remains of sea-fish at inland sites. At Barnard Castle, Durham, fragments of six different types of sea-fish were found in a blocked-up drain; whilst at Northampton the remains of herring, cod, ling and flatfish have been discovered.(20)

The heavy basic building materials of timber, stone and lead were obvious candidates for transport by water. Although timber and stone would quite often be available locally, these materials were sometimes transported considerable distances for the construction of the more important medieval buildings. The Tower of London has Kentish ragstone and stone from Caen in Normandy in its walls, all of which was shipped up the River Thames.(21) Caen stone was also shipped to Norwich between 1094 and 1178 for the construction of the cathedral. The great medieval quarries at Barnack, near Stamford, provided stone which was taken by boat for the building of abbeys at Ramsey, Crowland, Sawtry, Bury St. Edmunds and Peterborough.(22) Stone from near Tadcaster was shipped to York Minster, and Purbeck marble was taken up the Thames to Westminster. Cotswold stone from Taynton, near Burford, was taken down the Thames to Windsor and London, whereas the stone extracted from the Bath quarries was mainly used locally.(23) When building operations of any importance were undertaken, it was usual to build a limekiln for burning the lime to produce mortar. Lime burnt in this way was transported from Pontefract to the works at York Castle in 1245.(24) Lead used for roofing and piping, was mined in several areas during the medieval period. The mines in the Peak District of Derbyshire appear to have been the most important,and there were other mines in Weardale, Teesdale, Wensleydale, Wharfedale, Rossendale, North Wales, Mid-Wales, the Mendips and Devon.(25) During the twelfth century, lead, from the mines of Alston Moor on the borders of Cumberland, Yorkshire, and Northumberland, dominated the market. However, following the Scottish incursions of 1172-3 the output of the more southerly mines increased. The thirteenth and fourteenth centuries witnessed lead from the Welsh mines passing along the Severn and the Dee; that from the Yorkshire and Derbyshire mines passing along the Tees, the Yorkshire rivers, the Trent, the Derwent, the Idle and the Witham; that from the Mendip mines passing down the Axe; whilst the bulk of the export trade was conducted via London, which received shipments from all the lead producing areas.(26)

In considering the overall picture of inland trade it must be said in conclusion that although the references relating to the internal movement of waterborne cargoes exposed in Part Three of this thesis are invaluable in determining the extent of inland navigable water utilised during the medieval period, and hence add to our knowledge of internal trade, they are not sufficient to allow much detailed analysis of spatial or temporal variations of different types of cargo.

Having determined the minimum extent of inland navigable water utilised during the medieval period and examined the types of cargoes carried, the next logical step is to consider the medieval coasting trade, and to attempt to discover something about the vessels which plied along inland and coastal waters.

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(20) J.M. STEANE (op.cit.), 261

(21) J.M. STEANE, (op.cit.)9,

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CHAPTER TWENTYONE THE MEDIEVAL COASTING TRADE, COASTAL PORTS, AND VESSELS

Although this thesis is directed towards internal transport, the internal trade of the realm was, by its very nature, supplemented by the coasting trade. When navigable rivers were at hand goods were frequently moved to and from the coastal ports by that means, or taken from one river system to another via coastal waters. Coastal movements were often integrated with overseas voyages and cargoes were often transferred to, and from, sea-going ships using small coastal and river vessels. Although the medieval coastal trade could be given a very exhaustive and segregated treatment in its own right, this is not the place for such a study, and it is the object of the current chapter only to give an insight into such trade, to identify coastal ports, and to give a brief description of medieval vessels.

The Coasting Trade

The previous chapters, apart from highlighting the navigability of a number of waterways, also cited many examples relating to the coasting trade;- the medieval coal trade of north-eastern England and the shipment of lead and stone out of the Tees, the shipment of Yorkshire produce to various places around the coast, the transport of provisions out of the many ports of the east coast, the interaction between the ports of the south coast, the links between the ports of the south-west and Wales; all around the coast there are examples of local shipping movements. To these previous examples others can be added, in order to demonstrate the use of coastal waters.

Apart from its obvious connections with inland waterways, coastal trade was often directly associated with voyages to and from foreign parts -

as in 1227, when wine shipped to the port of Sandwich from Gascony was then transferred into small boats for its onward journey to Windsor.(1)

Heavy cargoes such as lead were often carried via coastal waters - as in 1259 when the commodity was carried from Boston to Westminster

> "...for the King's works there." (2)

Venison was carried by water from Scarborough to Westminster in 1260(3) and the next year stone was transported from Kent to the capital using the same method.(4) Timber was carried by water from the forest of Essex to Dover in 1261,(5) and from Portchester to Corfe during the same year.(6) In June 1274, a ship was loaded

> "...at Hedon with 15 sacks of wool, 23 cartloads of lead, and a last of hides, and on the same day the ship started towards Sandwich.(7)

Corn and other victuals were conveyed by water from the towns of Bridgwater, Totnes and Dartmouth to Pembroke, Carmarthen, Kidwelly and Swansea in 1277.(8)

Throughout the fourteenth century there are many recorded examples relating to the coasting trade. Grain, peas, beans and barley were shipped between North Coates and Saltfleet in 1311.(9) Two ships loaded with various victuals were sent from King's Lynn to Berwick in 1315.(10) In 1329, a small ship conveyed victuals from Falmouth to Fowey, where a 'great ship' was loaded.(11) Protection was granted in 1338 to

> "Stephen de Hexham of Newcastle-upon-Tyne, merchant, who has the King's licence to buy 300 quarters of wheat in the county of Kent and ship the same..." (12)

Certain merchants of Norfolk were granted safe-conduct in 1350 for

> "..crops, malt and other victuals loaded in some small boats in the said county and brought by sea to London..." (13)

A licence was granted in 1361 to the parson of the church of Huntspill in Somerset allowing him

> "to put the crops arising from his church in ships and boats and take them by water to Wales to sell them there for his profit." (14)

Hides were shipped from Newcastle-upon-Tyne and Hartlepool to Blyth in Northumberland in 1366,(15) and during the same year 300 quarters of corn were taken by ship from Liverpool to Scotland.(16) Hides were also shipped from Newcastle-upon-Tyne to King's Lynn, Yarmouth and London in 1368(17) and malt and flour was taken from Great Yarmouth to Newcastle-upon-Tyne during the next year.(18) Various cargoes of wheat, malt and barley were shipped from Norfolk and Lincoln to London in 1370,(19) and during the same year 300 quarters of beans were loaded in the port of Bridgwater and carried to Wales for sale.(20) During 1382, Robert Gamelston of Retford, a mason, was

> "appointed by the King to take two ships and as many mariners, masons, quarrymen and diggers as may be necessary for the carriage of the stone which he has agreed to bring from the counties of York and Nottingham to Westminster for the King's use." (21)

This same mason was again appointed to procure stone in a similar manner in 1391.(22) In 1384, wool was transported by ship from Shorham to Southampton,(23) and during the next year this same commodity was taken by water to the capital from the Isle of Thanet.(24) During 1387 an order was issued:-

> "To the collectors of customs and subsidies in the port of London. Order... to lade twelve short cloths in two packs, two cloths of 'raye', sixteen pieces of strait cloths of

> Essex containing four cloths, and one piece of cloth of 'raye' of 'candelwykstrete' for livery of the King's hired soldiers and of his household..., two beds of 'worstede' in one 'clothseke', and one barrel with two saddles ... in a ship... in that port, and without taking custom or subsidy thereupon, to suffer him to take them to Newcastle-upon-Tyne." (25)

A licence was granted in 1388

> "...notwithstanding the late prohibition against any vessel, barge or balinger passing out of any port in the Kingdom, for Richard Nevill of London, 'grosser', to pass out of Faversham with his three crayers laden with fruit, one for Boston, one for Hull and the third for London;... after discharging them at the said places, the said Nevill will with all haste bring them to the Dounes by Sandwich, there to await the King's commands." (26)

The variety of produce transported via the coasting trade is given by a record dating from the spring of 1391, when the sale of such produce in the port of Kingston-upon-Hull was exempt from paying the subsidy of 12d. in the pound. The collectors in the port were ordered

> "to suffer merchants whatsoever, native and alien, and others who will bring thither wheat, barley, malt, rye, oats, beans, pease, fresh fish and other victuals for relief of the people to sell the same without further order, taking no custom or subsidy to the King's use or their own or to the use of any other; as in consideration of the daily increasing dearness of corn and victuals in the realm,..." (27)

Berwick-upon-Tweed was supplied with victuals from Hull, Barton-upon-Humber and Grimsby in 1391.(28)

A licence was granted in 1392

> "for John Ray of Bristol to buy 36 sacks of wool of the growth of la Westmarche by Carlisle, load a balinger of Dertemuth, whereof John Kent is master, therewith, and bring the same to Bristol for purposes of gain." (29)

It is well worth quoting in its entirety the final paragraph from T.S. Willans introduction to his book, River Navigation in England 1600-1750, as it so succinctly puts into perspective the relationship between river navigation and the coasting trade, and would apply, in general terms, to the medieval period:-

> "It is not so much the importance of the coasting trade that must be emphasized as its connexion with river navigation. The physical connexion is indeed obvious. Coal that left the staithes at Newcastle was unloaded from barges at Cambridge or Abingdon, cheese from Cheshire either passed down the Dee and the west coast, or the Trent, the Humber, and the east coast, to London; butter from the Yorkshire dales reached the metropolis by the Ouse and the sea; London goods for Beverley Fair went north by coasting vessel, by the Humber, the Hull, and Beverley Beck. Even where this physical connexion did not exist, it must be emphasized that, paradoxical as it may sound, coasting trade and river carriage were both different aspects of the same system of inland navigation. These aspects may be separated for convenience of treatment, but basically they are indivisble. From the point of view of inland navigation the sea becomes merely a river round England, a river with peculiar dangers, peculiar conditions, and peculiar advantages. This fact, economically so obvious, geographically so absurd, has not entered into the judgements of those who dismiss so lightly the water transport of England in all but its overseas connexion. Yet any consideration of the importance of inland navigation, any attempt to show what area of the country was within a day's journey of navigable water, must take into account both the rivers and the sea. Only when this interconnexion is realized can inland navigation be placed in its correct perspective in the general development of English economic life." (30)

Coastal Ports

The notion that inshore waters could be considered as a river around the coast is substantiated by the numerous places listed in medieval records which were classed as either 'ports', or 'places where ships may call'. As M. Beresford points out:-

> "The multiplication of sea ports in the twelfth and thirteenth centuries was stimulated not only by the export trade in corn, wool and minerals from the hinterlands of these ports but also by the use of the sea as a highway linking one place in England with another." (31)

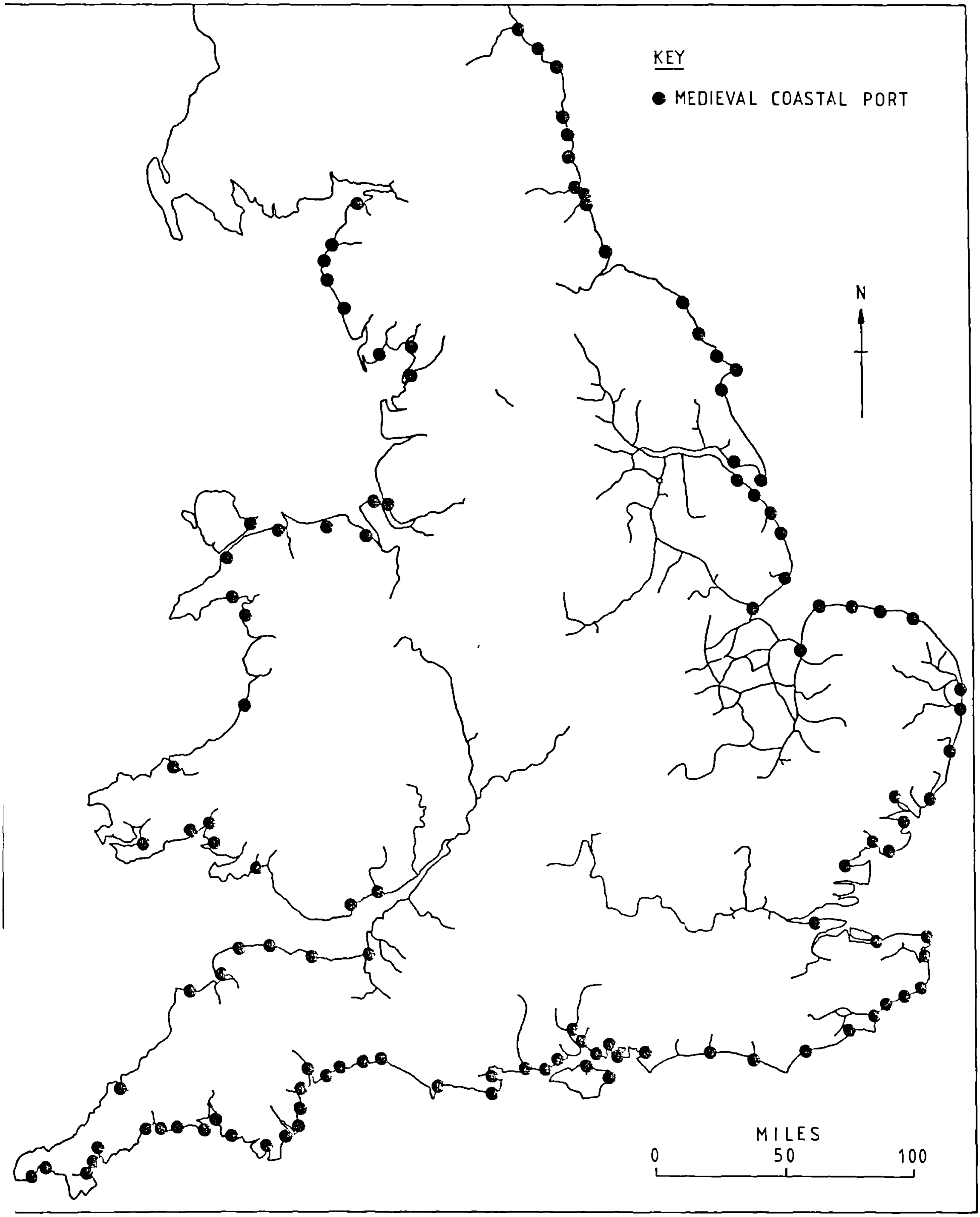
The most graphic method of demonstrating that such a highway existed is by plotting these coastal maritime places(32) on a map. By adding these to the navigable river map of Figure 20:1; the resultant representation given in Figure 21:1 also graphically illustrates the obvious physical connection between the coasting trade and river navigation.

The Vessels

Although medieval waterborne trade was of three distinct types, it is difficult, in many ways, to make a distinction between inland, coastal, and sea-going vessels. The interdependence between the three types of waterborne trade has already been discussed, and this interdependence also applied to the vessels. Where a distinction can be made however, is between sea-going vessels and those vessels which did not venture out of the rivers. Sea-going vessels would no doubt make use of the great tidal reaches of certain rivers to assist their passage; the River Severn was certainly tidal to Worcester, the Trent to Newark, the Ouse to York, and the Wye to Tintern for example. Although sea-going vessels were capable of penetrating many of the navigable rivers, there were other types of vessel whose design restricted them to the inland waterways.

River Vessels

It must be said that evidence relating to medieval river-type vessels is scant, and one can only obtain, from the surviving records,


KEY
● MEDIEVAL COASTAL PORT
N
MILES
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50
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FIGURE 21:1 THE COASTAL PORTS AND NAVIGABLE RIVERS OF MEDIEVAL ENGLAND AND WALES

a brief impression of what these vessels were like.

The most basic river craft in use during the medieval period were coracles, logboats, and rafts.

The simple skin-covered coracle was used on the Rivers Cleddau, Dee, Severn. Taf, Teifi, Towy and Usk.(33) An early mention of coracles is made by Giraldus Cambrensis who toured Wales in 1188 in the train of Archbishop Baldwin. He says:-

> "The boats which they employ in fishing or in crossing the rivers are made of twigs, not oblong, nor pointed, but almost round or rather triangular, covered both within and without with raw hides: when a salmon thrown into one of these boats strikes it hard with its tail, he often oversets it, and endangers both the vessel and its navigator." (34)

There is positive evidence which shows that logboats were used on the rivers and lakes of England and Wales from very early times up to, and including, the medieval period. In Logboats of England and Wales(35) S. McGrail records the location of the remains of over one hundred and seventy such vessels, together with details of their construction and various other attributes. The heaviest concentration of finds occur in:- the Thames Basin, the Lea and the Wey, the Arun, the Lincolnshire rivers, the rivers flowing into the Wash, the Trent - in the vicinity of Nottingham, the Ribble, the Mersey, the Somerset Levels and to a lesser extent the Tyne and the Tees. The Yorkshire rivers flowing into the Humber Estuary have yielded little in the way of finds, as have the River Severn and its tributaries. Twentyone of these logboats have been dated by radiocarbon techniques and range in age from 1570 BC (± 100) to 1300 AD (± 20), thus showing that logboats remained in use well into the medieval period. Of the thirteen logboats discovered in the environs of the River Mersey, and briefly discussed in Chapter Nineteen, those from Walton Lock (near Warrington), Barton and Irlam have been analysed in detail by McGrail.(36) He concludes that the Irlam and Walton Lock boats are 1st rate bulky-cargo carriers and that the Walton Lock boat is equally good at carrying people. The Barton boat on the other hand is assessed as a 2nd rate high-density cargo carrier.(37) The deadweight capabilities at standard freeboard of the three boats range from 85Kg. (Irlam) to 658 Kg. (Barton). Their size falls within the range:- length (2.77m to 4.65m) and beams (0.85m to 0.91m). There is no surviving evidence for the use of oars or sails in these boats, hence it is assumed that paddles, or poles, were used to propel them.(38) McGrail suggests that it is probable that medieval logboats were generally used for ferrying, fishing, fowling, and the collection of reeds.(39) However, the significant difference in load-bearing capabilities of the three boats analysed by McGrail indicates that the Barton boat in particular would have been capable of carrying a much denser cargo than the Irlam boat - perhaps building stone for example.

Rafts, the most basic form of water transport, are known to have been used on the upper reaches of the River Severn during the medieval period. It has already been mentioned in Chapter Seventeen how, in 1284, the Sheriff of Shropshire was granted

> "the power of fining by view of lawful men,
> rafts of firewood or timber"

damaging Montford Bridge(40) In later times Leland described the rafts on the River Severn as

> "many flatt and long vessels to carry up and downe
> all manner of merchandise." (41)

Apart from logboats, there is little archaeological evidence relating to the remains of vessels found in English and Welsh rivers which date from the medieval period. In 1824, a boat was found under an old bed of the River Rother and though her remains have since been destroyed, a model made at the time of excavation, survives (Fig. 21:2). This boat thought to have been abandoned as early as the thirteenth century, was 64 feet long, had a beam of 14 feet, was flat bottomed and clinker built on the sides with iron rivets and moss luting. Her timbers were secured to the strakes by oak trenails and she had fittings for a main mast and probably a bowsprit.(42) The model shows that the sides of the boat were steep, there were decks fore and aft of a stepped midship section which consisted of a hold across which ran a couple of strengthening beams. The blunt fore and aft sections were symmetrical and hence it appears that the vessel could move through the water in either direction. The construction of the River Rother boat is surprisingly similar to the 'Keels' still in use on the River Humber and for inland transport into Yorkshire. These generally carry a single mast with a square mainsail and sometimes a topsail, are stepped amidships and are clinker built. Keels, possibly similar in design to the boat found in the River Rother, are mentioned in medieval records. One such record, briefly mentioned in Chapter Eleven, makes it clear that this type of vessel was constructed solely for use on inland, and perhaps coastal, waters. An inquisition at Grimsby in 1341 was informed that:-

> "Twenty-five sarplers of wool were found in two ships, called 'Keles' of Newark, which belonged to William Peny and Thomas Croyser; these ships were incapable of conveying the wool or other goods beyond seas so as to be liable for custom. The wool belonged to William Suthirn and William Ode and was of the sort of Houdenschire in Co. York, and came by the river Humber near to the water of Hull, and was driven by a contrary wind and the ebbtide to Iminghame Crik and thence to Grimesby, where the mayor arrested it, suspecting that it was not cocketed,...seven sarplers of wool and five fothers of lead were found in a ship of John Swartheek of Holand called Godeyere

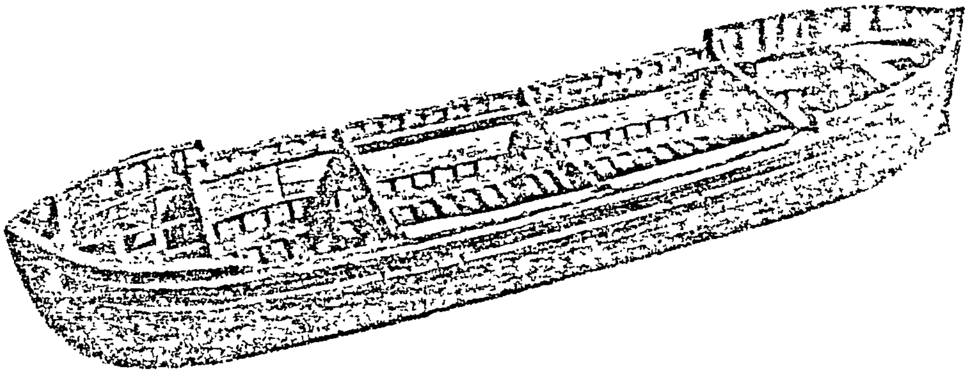

FIGURE 21:2 A MODEL OF THE RIVER ROTHER BARGE

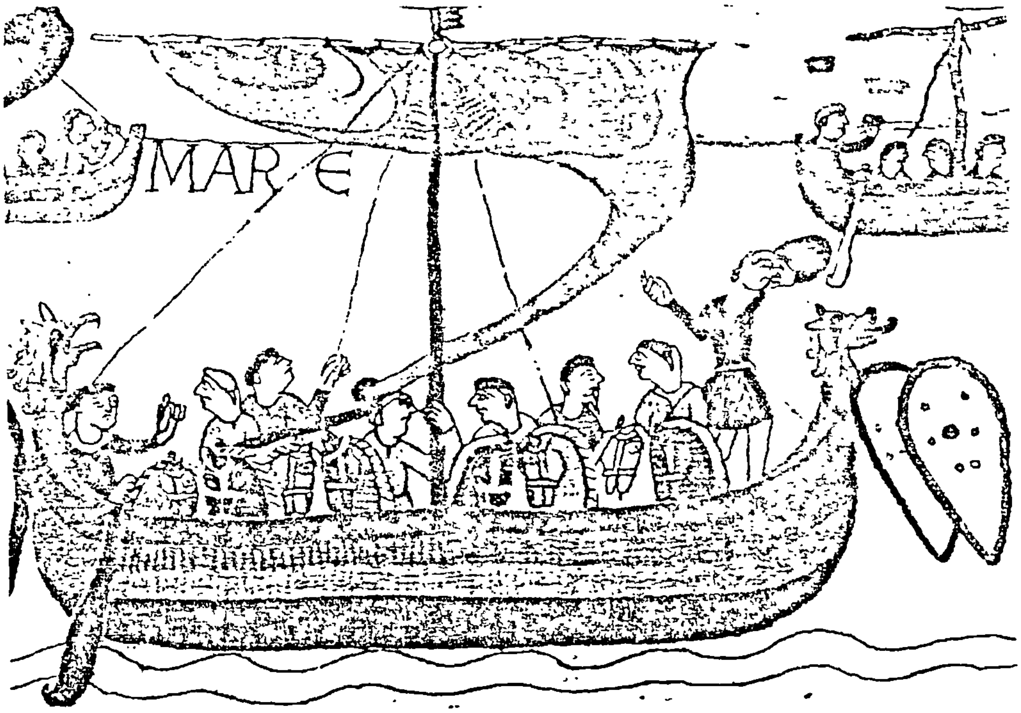

FIGURE 21:3 SCENE FROM THE BAYEUX TAPESTRY

> which was capable of conveying them beyond seas, ... the wool and lead were placed in a lugger at Bautre and conveyed by William Ryvet and John de Buttirwik by the river Humbre to Grimesby, where they were transhipped into the said ship of Holland..." (43)

This reference, apart from showing that 'Keles' were operating on the Rivers Trent and Humber, makes it clear that such vessels were not capable of undertaking voyages on the open sea. Therefore it must be concluded that this type of vessel was restricted to inland, and perhaps coastal waters. This same conclusion is probably applicable to the 'lugger' which is mentioned in the same record. This vessel had taken lead and wool from Bawtry to Grimsby via the Rivers Idle, Trent, and Humber; the cargo then being 'transhipped' to the sea-going vessel. J. Hornell describes the building of a large fishing lugger which he observed under construction at Rye in Sussex. He was impressed by the very close resemblance the boat had to those constructed by the Vikings. The boat was built on the clinker system having a high stem and stern post.(44) Very little in the way of plans are used by these Sussex boatbuilders and one can only speculate as to the origins of such traditional vessels. Perhaps the vessel referred to in the reference of 1341 was a smaller version of this type of vessel.

> "Small ships called 'botes' and 'trowys' suitably laden with divers wares" (45)

were operating on the Rivers Parrett and Tone. Trows were also in use on the River Severn. The name 'trow' has, over the centuries, been used to describe a wide variety of craft, but generally refers to a sailing barge.(46) As A. Burton points out, the earliest barges were little more than flat-bottomed wooden boxes, with a central mast and a single square sail.(47) This simple vessel was ideal for river work for it had a shallow draught and needed only a shallow shelf or 'hard' for anchorage. The flat-bottomed shutes used on the Rivers Thames and Lea during the medieval period were another derivative of the barge.(48)

As well as sails, oars were used to propel medieval river vessels. On the River Trent ships with oars were charged higher tolls than those without,(49) and on this same river vessels were sometimes hauled by ropes from the shore when the water became shallow.(50) A reference of 1340, relating to tolls taken on vessels arriving at the port of Ipswich on the River Orwell, mentions:- ships 'without shelter', ships 'with benches and bilges', boats 'with rowlocks', and boats 'with oarpins'.(51)

Vessels called 'balingers', which in effect were barge-type vessels of larger build, were, as discussed earlier, used in the coasting and river trade.(29) This type of vessel, of which some versions were capable of carrying 100 men or more,(52) was widely used, and was sometimes constructed initially for military service.(53) Smaller vessels called 'crayers' were also used in the coasting and river trade.(26) The variety of vessels visiting Rochester, near the mouth of the River Medway, is revealed by a record of 1388 when 'ships, crayers, barges, balingers, boats, and other vessels' are mentioned.(54)

Sea-going Vessels

Although a description of overseas trade routes has no place in this chapter, a brief mention should be made of the vessels employed in this trade, for, as discussed earlier in the text, such vessels were quite capable of penetrating many of the larger navigable rivers. In contrast to the distinct lack of available information relating to river vessels, the development of sea-going vessels has, from early times and throughout the medieval period, been well documented.(55)

The influence of the longships of the Viking Age is apparent at the commencement of the medieval period. The ships used by William of Normandy were, if the evidence of the Bayeux Tapestry can be accepted, longships(56) (Fig. 21:3). As time went on, the clinker-built vessels following on from the Viking Age became larger and more complicated. Thirteenth century seals of British seaport towns depict large clinker-built vessels; a seal of Winchelsea, dated AD 1274, (Fig. 21:4) shows a double-ended ship with quarter rudder.(57) The wreck of a clinker-built merchant ship found in Bergen and dating from AD 1250 was 85 feet long and almost 30 feet wide.(58) Warships continued to be made as round-hulled, clinker-built vessels, but were at a disadvantage compared with a new type of vessel which was coming into use. This new vessel was called a cog, whose high, usually clinker-built sides, meant that her occupants could direct their arrows directly down onto the old longships. In an effort to overcome this the longships were fitted with 'castles' at stem and stern. However, the cogs also had castles built into their design which effectively brought the era of the clinker-built warship to an end during the fourteenth century. The cog was the leading merchant ship of North Europe throughout the thirteenth and fourteenth centuries and, in contrast to the round-hulled clinker-built vessels, was a flat-bottomed, high-sided, deep draughted sailing vessel. The cog was probably able to carry more cargo than the round-hulled types in the same overall length and was more suited to shallow tidal waters.(59) A cog, dating from AD 1400, was excavated at Bremen, Germany, in 1962. She was 77 feet long and 23 feet wide.(60) It is fitting that this well preserved example of a cog was discovered in Germany, for in that country, during the thirteenth century, was set up

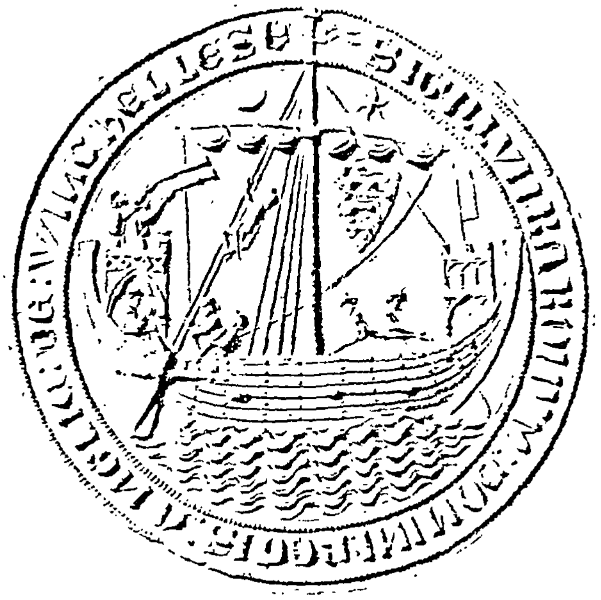

FIGURE 21:4 THE SECOND SEAL OF WINCHELSEA (1274)

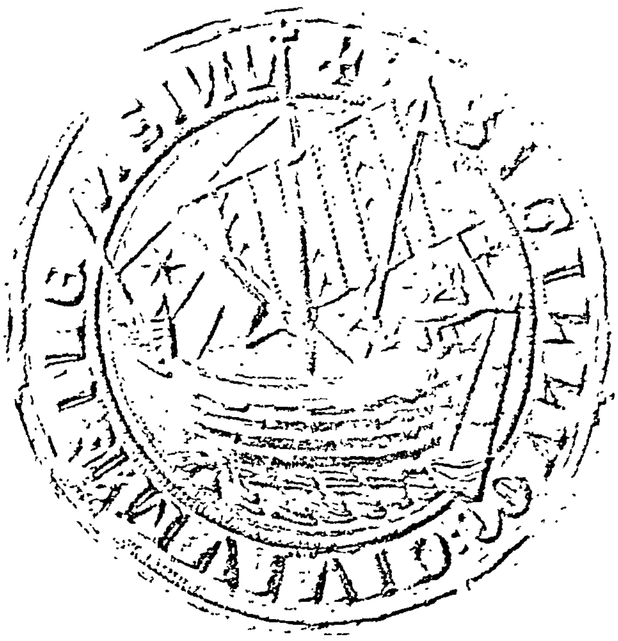

FIGURE 21:5 THE SEAL OF KIEL (c1365)

a federation of maritime towns which became known as the Hanseatic League.

> "The main method of stimulating and attracting trade was to set up 'hansas' in the trading countries and, bargaining from federated strength, extract preferential treatment and, if possible, monopolies in certain classes of goods. As early as 1226 the merchants of Cologne set up a hansa in London, followed in 1266 and 1267 by hansas established by the merchants of Hamburg and Lübeck. Eventually, all three combined in 1282 to form the Gild-hall of the Germans, in order to speak with a single voice.--- All these hansas enjoyed special trade facilities, the Gild-hall in London setting up 'counters', or trading settlements, in Lynn, Boston, Hull, York, Norwich, Ipswich, Yarmouth and Bristol, virtually controlling most of the foreign trade in these towns." (61)

The vessel evolved by the members of the federation to carry out their seaborne trade was the 'Hansa cog'. This type of vessels is depicted on various town seals of the period, the illustrations of which are similar to the vessel excavated at Bremen.(62) (Figs. 21:5 and 21:6).

Another type of merchant vessel in use during the medieval period was the hulk.

> "She was curved both longitudinally and transversely, sometimes, probably, with a long narrow flat bottom curved up at the ends and without a stem or stern post, her general form determined at least to a degree by the treatment of the plank ends. The type is illustrated on the font at Winchester Cathedral...(Fig. 21:7). Most of the illustrations suggest clinker-laid planking. Although the evidence is so scanty it suggests that the hulk developed to a point at which in the late 1300s it began to replace the cog, as the cog had replaced the round-hulled clinker-built ship. This was perhaps because it was more seaworthy and trade was expanding, and because the type was susceptible to development into larger vessels than the cog, a form which has definite size limits. At this stage, with the development of commerce, vessels with greater cargo-carrying capacity were beginning to be needed." (63)

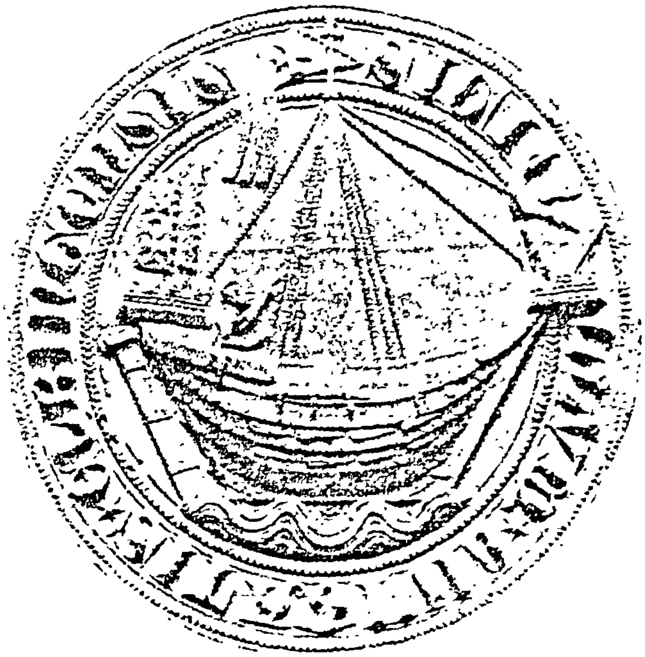

FIGURE 21:6 THE SEAL OF ELBING (c1360)

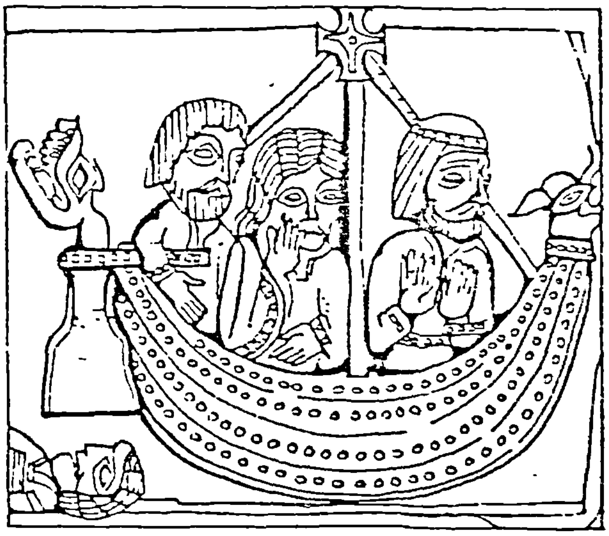

FIGURE 21:7 DRAWING OF THE HULK ON THE FONT OF WINCHESTER CATHEDRAL (c1180)

Notes and References

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(2) Calendar of Liberate Rolls, 1251-60, 458

(3) Calendar of Liberate Rolls, 1260-67, 6

(4) ibid, 23

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(8) Calendar of Patent Rolls, 1272-81, 195

(9) S. UHLER, 'The Transportation of Produce in Lincolnshire, Yorkshire, Hampshire and Norfolk during the Fourteenth Century as revealed by the Sheriffs Accounts', unpublished B.Phil. Dissertation, University of St. Andrews (1977) 7-8

(10) Calendar of Close Rolls, 1313-18, 175

(11) Calendar of Inquisitions Miscellaneous, 1307-49, 269

(12) Calendar of Patent Rolls, 1338-40, 173

(13) Calendar of Patent Rolls, 1348-50, 487

(14) Calendar of Patent Rolls, 1358-61, 554

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(21) *Calendar of Patent Rolls,* 1381-85, 147

(22) *Calendar of Patent Rolls,* 1388-92, 400-01

(23) *Calendar of Close Rolls,* 1381-85, 383

(24) ibid, 630

(25) *Calendar of Close Rolls,* 1385-89, 349

(26) *Calendar of Patent Rolls,* 1385-89, 405-06

(27) *Calendar of Close Rolls,* 1389-92, 257

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(31) M. BERESFORD, *New Towns of the Middle Ages* (London 1967) 119

(32) *Calendar of Liberate Rolls,* 1226-40, 162

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Calendar of Close Rolls, 1313-18, 498

Calendar of Close Rolls, 1318-23, 369-70 & 670

Calendar of Close Rolls, 1323-27, 147-48, 535-37, 640.42

Calendar of Fine Rolls, 1327-37, 347-48

Calendar of Close Rolls, 1330-33, 318, 398, 480

Calendar of Close Rolls, 1337-39, 379-80

Calendar of Close Rolls, 1341-43, 485-88

Calendar of Close Rolls, 1346-49, 328

Calendar of Close Rolls, 1349-54, 207

(33) J. HORNELL, *Water Transport - Origins and Early Evolution* (Cambridge, 1946) 111-133

(34) GIRALDUS de BARRI, *The Itinerary of Archbishop Baldwin through Wales* (ed. R.C. HOARE) 2 vols (1806) 11, 332-3

(35) S. McGRAIL *The Logboats of England and Wales*, National Maritime Museum, Greenwich, Archaeological Series No. 2, BAR British Series 51(1), 2 Parts, (1978)

(36) S. McGRAIL and R. SWITSUR, Medieval Logboats of the River Mersey - A Classification Study - Being Chapter 6 of '*The Archaeology of Medieval Ships and Harbours in Northern Europe*, National Maritime Museum, Greenwich, Archaeological Series No. 5, BAR International Series 66, (1979)

(37) ibid, 106

(38) ibid, 106

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(40) *Calendar of Patent Rolls*, 1281-92, 116

(41) A. BURTON *The Changing River* (London, 1982) 56

(42) B. GREENHILL, *Archaeology of the Boat* (London, 1976) 362,264

(43) *Calendar of Inquisitions Miscellaneous*, 1307-49, 437

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(45) *Calendar of Inquisitions Miscellaneous*, 1399-1422, 259

(46) A. BURTON 56
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(51) *Calendar of Inquisitions Miscellaneous*, 1307-49, 421

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(56) P. KEMP (op. cit.)	50

(57) B. GREENHILL (op. cit.)	252
(58) ibid,	250
(59) ibid,	259
(60) ibid,	261
(61) P. KEMP (op. cit)	56
(62) B. GREENHILL, (op. cit.)	261
(63) ibid,	283-85

Footnote

Correspondence between the author and Sean McGrail, Professor of Maritime Archaeology at the Institute of Aracheology, Oxford, confirmed the paucity of available information relating to river vessels dating from the medieval period. A new book by Professor McGrail, provisionally entitled 'Ancient Boats in N.W. Europe - the archaeology of water transport to AD 1500' and due to be published in 1987, would certainly have been included in the general reference list (55), had it been published at the time of writing this thesis.

CHAPTER TWENTY-TWO CARTOGRAPHIC EVIDENCE

The Gough Map

A striking feature of the Gough Map, which was discussed at length in Part Two, is the representation upon it of a large number of rivers. (See Figure 3:1). E.J.S. Parsons, in his introduction to the facsimile of the map, makes the following observation:-

> "As on many medieval maps, the rivers are numerous and conspicuous. Drawn with relatively widely spaced double lines, they occupy quite a considerable area of the map, and convey the impression that they are a fundamental part of it: by contrast the road pattern appears almost as an afterthought. The rivers have circular heads illustrating the medieval idea that all rivers had their sources in lakes. They are indicated with fair accuracy, at least in England: though since they are represented as being nearly straight, or slightly curved, their courses are characterless. Near their sources direction also tends to be erroneous, generally to avoid entanglement with the headwaters of neighbouring rivers. The Thames, for example, does not show the northern loop between Windsor and Reading nor the one upon which Oxford stands, but its chief tributaries are well represented. The main elements of the Trent system are delineated, though with minor inaccuracies such as showing the Dove as flowing into the Derwent, and the Isle of Axholme is strongly emphasized. The same appreciation of the general pattern is shown in the delineation of the Great Ouse with the Isle of Ely, the Yorkshire Ouse, and the Severn. An attempt has been made to indicate the windings of the Wear at Durham. The map certainly embodies much knowledge of the English rivers, a knowledge which could only have accumulated over a great many years." (1)

R.A. Donkin, writing about changes in the early Middle Ages, comments:-

> "It is significant that the Gough Map, compiled with practical ends in mind, showed a large number of rivers." (2)

With few exceptions, the main rivers and their tributaries are very well delineated, and one must agree with Parson's observation that they convey the impression of being a fundamental part of the map.

Of the navigable rivers shown in Figure 20:1, very few cannot be identified on the Gough Map, the main omissions being:- the Rivers Slea, Glen, Waveney, Blyth, Colne, Tamar, Parrett, Tone, Brue and Weaver. The Car Dyke and Pillrow Cut are also omitted.

The River Slea is part of the Witham navigation system and although it is not shown individually on the map, the fact that Sleaford is shown adjacent to the River Witham would give the impression to any user of the map that access to that town would, quite correctly, be via that river system. An interesting point regarding the River Witham is that the distance figure set down upon the map between Lincoln and Boston (XXVI), could well refer directly to the river and not to a road. The distance between Lincoln and Boston is 33 statute miles via the river, which equates with the Gough mileage set down upon the map (see Appendix I). It appears, at first sight, that the Foss Dyke - which links the Witham with the Trent - is not depicted on the map. However, close inspection reveals what could be lines drawn between Lincoln and Torksey, although these are intermingled with the written placenames of the latter place making it difficult to arrive at a firm conclusion. The omission of the River Glen and the Car Dyke is coupled with a rather simplistic representation of the rivers of the Fen. This is perhaps understandable for, as discussed in Chapter Twelve, the Fen has undergone a complex and constantly changing physical history. The omission of the Rivers Waveney, Blyth and Colne is disappointing; however, in the latter case Colchester is shown adjacent to the River Stour, perhaps this was a cartographic error on the part of the compiler of the map. The omission of the River

Tamar is surprising, especially as this river forms the ancient boundary between Devonshire and Cornwall. The omission of the Rivers Parrett, Tone and Brue, together with the Pillrow Cut in the Somerset Levels is another surprise - although Bridgewater, Taunton and Glastonbury are all depicted on the map. The fact that the Wirral Peninsula is not depicted on the map may partially explain the omission of the River Weaver in Cheshire; the omission of the Fylde from the map certainly accounts for the exclusion of the River Wyre in Lancashire.

In general, the courses of the rivers shown on the Gough Map are reasonably accurate, although some intertwining of upper reaches has occurred in a number of cases. For example, the River Rother is shown as part of the River Beault, and the River Usk in Wales is partly mixed up with the upper reaches of the River Wye.

In contrast to the omission of certain rivers, others appear on the Gough Map which are not portrayed on the navigable river map shown in Figure 20:1. It would be pure conjecture to say if any of these rivers were navigable during medieval times, but at the very least it can be concluded that they are shown because they existed as physical features in the landscape, and as such the Gough Map would have brought them to the attention of medieval travellers. These rivers are given as follows in Table 22:1, and are taken from the list as identified by Parsons.(3)

TABLE 22:1 Rivers of England and Wales shown on the Gough Map but not considered as Navigations

River	County	River	County
Greta	Durham	Elmley Brook	Worcester
Rye	Yorkshire	Worfe	Shropshire
Skell	Yorkshire	Summergil Brook	Radnorshire
Tove	Northampton	Lugg	Hereford
Ouzel	Buckingham	Gwili	Carmarthen
Wid	Essex	Ystwyth	Cardigan
Mar Dyke	Essex	Rheidol	Cardigan
Stort	Hertford	Glaslyn	Caernarvon
Rib	Hertford	Dwyfawr	Caernarvon
Swill Brook	Wiltshire	Seiont	Caernarvon
Lambourn	Berkshire	Ogwen	Caernarvon
Hogswill	Surrey	Ehen	Cumberland
Wandle	Surrey	Lyvennet	Cumberland
Ravensbourne	Surrey	Lowther	Cumberland
Teise	Kent	Eamont	Cumberland
Bourne	Wiltshire	Petteril	Cumberland
Nadder	Wiltshire	Caldew	Cumberland
Wylye	Wiltshire	Irthing	Cumberland
Arrow	Worcester		

From the comprehensive number of rivers set down upon the Gough Map, the majority of which have been shown, from historical evidence, to have been at least partly navigable, it is unfortunate that this aspect of the map should not have been the subject of previous investigation. A reason for this previous lack of navigational recognition, as mentioned in the introduction to this section of the thesis, undoubtedly being the distinct paucity of published material relating to inland waterborne movements.

The Maps of Matthew Paris

Four maps attributed to the thirteenth century monk of St. Albans, and dating from c1250, were mentioned in Part Two. Although these maps are rather crude in comparison to the Gough Map, certain physical features are clearly discernable (see Figures 3:4 and 3:5). Many rivers are depicted and form an integral part of the maps, and, although their delineation is not comparable with those shown on the Gough Map, the courses of the major river networks can be clearly identified.

Notes and References

(1)	E.J.S. PARSONS	*The Map of Great Britain, circa A.D. 1360 known as the Gough Map* Memoir with amended reprint of part of paper by F.M. Standen (1936) and a colour facsimile (Oxford, Bodleian Library, 1958) 8.
(2)	R.A. DONKIN	'Changes in the Early Middle Ages', being a chapter of H.C. DARBY (ed.) *A New Historical Geography of England* (Cambridge 1973) 119.
(3)	E.J.S. PARSONS (op. cit.),	32-34

THE NAVIGABLE MEDIEVAL WATERWAYS - CONCLUSIONS

Of the many separate sources used during the preparation of Part Three of this thesis, the various State Rolls, the volumes relating to Public Works,(1) and the various Sheriff's Accounts(2) were a particularly useful source of contemporary evidence.

The bringing together of the regional evidence produced a national picture of inland navigable waterways existing during the medieval period. The resultant map of Figure 20:1 depicts one hundred and thirty-seven separate waterways which have been shown to have been navigable, or partly navigable, at some time during the medieval period. This map reveals a network which, it must be said, is a minimum, of 2400 miles of navigable inland waterways.

Although the navigable rivers of the north-east are few and far between, those flowing into the Humber Estuary and the Wash form a large interlinked system of inland waterways serving an area covering much of Yorkshire, Derbyshire, Nottinghamshire, Lincolnshire, Leicestershire, Northamptonshire, Bedfordshire, Huntingdon and Peterborough, Cambridgeshire and the Isle of Ely, and into the western borders of Norfolk and Suffolk. The coast of East Anglia is well served, whilst the dominant feature in the south is the River Thames and its tributaries. In the south-east and south-west there is only moderate penetration although in the latter case this is only to be expected due to the rugged nature of the coastline. The River Severn and its tributaries, together with the other rivers discharging into the Bristol Channel, are a dominant feature, whilst the rivers of Wales reflect the mountainous interior of that country - which precluded penetration by medieval vessels. The rivers of the north-west although more numerous than those of the north-east, reflect the relative unimportance of the area during medieval times.

Although the references relating to the internal movement of waterborne cargoes were invaluable in determining the extent of inland navigable water utilised during the medieval period, they were not sufficient to allow much detailed analysis of spatial or temporal variations of different types of cargo.

The importance of the interconnection between inland and coastal navigation supported the notion that inshore waters could be considered as 'a river around the coast'.

Investigations into the type of vessels used to carry out waterborne trade revealed a distinct lack of evidence relating to those used exclusively on inland waterways. From the scant information available it appears that river vessels were, in general, flat-bottomed barges, having clinker-built sides and using a simple sail, and/or oars, as the method of propulsion.

An examination of cartographic evidence revealed that very few of the navigable waterways could not be identified on the Gough Map. Many other waterways, apart from those which are known to have been navigable, appear on the Gough Map, but it would be pure conjecture to use this as evidence of navigation during medieval times. However, it can be concluded that not enough weight has previously been given to the waterways depicted on the Gough Map - a cartographic record which was probably equally as useful as a guide to navigable water as it was to overland routes.

Having established a basic road network and the minimum extent of navigable waters, Part Four attempts to present a synthesis of the whole transport system utilised by travellers and merchants during the medieval period.

Notes and References

(1) C.T. FLOWER 'Public Works in Medieval Law' *Seldon Soc.* 32 and 40 (1915 and 1923)

(2) S. UHLER, 'The Transportation of Produce in Lincolnshire, Yorkshire, Hampshire and Norfolk during the Fourteenth Century as revealed by the Sheriff's Accounts,' *unpublished B. Phil. Dissertation, University of St. Andrews* (1977)

PART FOUR

THE COMBINED MEDIEVAL ROAD AND WATERWAY NETWORKS

'Trade, like Religion, is what
everybody talks of, but few understand'

Daniel Defoe,

A Plan of English Commerce, 1728

CHAPTER TWENTY THREE COMBINING THE ROAD AND WATERWAY NETWORKS

Having established the basic road network and the minimum extent of navigable water utilised during the medieval period, the next logical step is to bring the two together.

However, before doing this, it is important to also have some indication of the more prominent places existing during the medieval period, as these would also have been the more important trading centres. An indication of these places can be obtained by perusing certain published lists. These are usually in the form of 'ranking boroughs', placed in order of diminishing population or assessed wealth. The complexities associated with the compilation and interpretation of such medieval data are fraught with difficulty and the subject of much scholarly debate. However, it is not the intention here to enter into this debate - other than to say that whatever its deficiencies the data relating to the ranked medieval boroughs are indicative of the more prominent trading centres for, as H.C. Darby points out, the most permanent characteristic of the borough is "that of a trading centre."(1) Thus towns, as centres of trade, would rely on effective communications to sustain them (See Chapter One).

The Prominent Medieval Boroughs

Borough population figures for 1086 and 1348 have been estimated by J.C. Russell who used the evidence of the Domesday Survey and the Poll Tax Returns of 1377.(2) Information about the boroughs in the Domesday Survey is incomplete, and sometimes missing altogether.(3) For example, there were no returns for Bristol and London; however, Russell estimates their populations by multiplying their separate parishes by 210, which he assumes to be the average parish population. Although Russells' list continues down to Quatford in Shropshire with its population of 50, there is a substantial gap in his figures after the forty-first town in his ranking list which is Southampton. For his population estimates relating to 1348, Russell compensated for the population losses suffered during the Plague by multiplying the Poll Tax Returns of 1377 by a factor of 1.67.(4) These returns included everyone over the age of fourteen and omitted only the Counties Palatine of Cheshire and Durham, although Russell puts forward an estimate for these which he derived from other sources.(5) There is a significant gap in the data after the fifty-fourth town in his list which is Newport. Although the data are certainly more reliable and complete than those of the Domesday Survey, his working list of town populations is probably incomplete.

Another attempt at ranking the Domesday boroughs was that carried out by C. Stephenson who generally based his list on the number of houses recorded in the Domesday Survey.(6) Unlike Russell, he does not put forward estimates for London, Bristol and Winchester.

Stephenson also compiled a ranking list of boroughs for a later period which was based on the average of the 'aids' levied during the reign of Henry II (1154-89).(7) Bristol, being in baronial hands, does not appear in this list; nor do Chester and Leicester; and the Cinque Ports were exempted from such taxation.

Another source which has provided information resulting in boroughs being placed in a ranking order is the Lay Subsidy of 1334. The palatine counties of Cheshire and Durham were excluded from this tax, and the counties of Cumberland, Westmorland and Northumberland were excused; however, these latter three counties were taxed in 1336 so that their earlier omission can be remedied. Also excluded were the moneyers of

London and Canterbury, the men of the Cinque Ports, and the stannary men of the South West. These exclusions apart, the resulting records do provide an indication of the more prominent towns.(8)

Table 23:1 is an assemblage of the data given in the aforementioned sources, listed in order of rank.

Table 23:1 The Ranked Medieval Boroughs

Rank	Domesday(9)	Domesday(6)	1154-89(7)	1334(8)	1348(10)
1	London	(London)	London	(London)	London
2	Winchester	York	York	Bristol	York
3	Norwich	Norwich	Norwich	York	Bristol
4	York	Lincoln	Lincoln	Newcastle	Norwich
5	Lincoln	Oxford	Northampton	Boston	Plymouth
6	Thetford	Thetford	Dunwich	Yarmouth	Coventry
7	Bristol	Ipswich	Exeter	Lincoln	Lincoln
8	Gloucester	Gloucester	Winchester	Norwich	Salisbury
9	Cambridge	Wallingford	Gloucester	Oxford	Kings' Lynn
10	Chester	Chester	Oxford	Shrewsbury	Colchester
11	Hastings	Huntingdon	Canterbury	Kings' Lynn	Boston
12	Wallingford	Leicester	Cambridge	Salisbury	Beverley
13	Hereford	Stamford	Grimsby	Coventry	Newcastle
14	Hythe	Cambridge	Newcastle	Ipswich	Canterbury
15	Canterbury	Colchester	Doncaster	Hereford	Bury St. Edmunds
16	Dunwich	Exeter	Berkhamsted	Canterbury	Oxford
17	Dover	Sandwich	Nottingham	Gloucester	Hull

18	Lewes	Northampton	Bedford	Winchester	Gloucester
19	Sandwich	Wareham	Worcester	Southampton	Leicester
20	Colchester	Canterbury	Scarborough	Beverley	Shrewsbury
21	Wilton	Shaftesbury	Carlisle	Cambridge	Yarmouth
22	Exeter	Shrewsbury	Ipswich	Newbury	Hereford
23	Oxford	Warwick	Corbridge	Plymouth	Cambridge
24	Stamford	Derby	Shrewsbury	Newark	Ely
25	Huntingdon	Hythe	Southampton	Peterborough	Exeter
26	Steyning	Torksey	Caister	Nottingham	Worcester
27	Warwick	Maldon	Marlborough	Exeter	Ipswich
28	Leicester	Nottingham	Colchester	Bury St. Edmunds	Scarborough
29	Bath	Stafford	Godmanchester	Stamford	Northampton
30	Shaftesbury	Dorchester	Huntingdon	Ely	Nottingham
31	Chichester	Hertford	Hereford	Luton	Winchester
32	Northampton	Dunwich	Orford	Barking	Stamford
33	Ipswich	Steyning	Stafford	Hull	Launceston
34	Worcester	Winchcombe	Derby	Scarborough	Newark
35	Rochester	Bridport		Cottingham	Ludlow
36	Taunton	Totnes		Derby	Southampton
37	Yarmouth	Lydford		Swaffham	Pontefract
38	Shrewsbury	Hereford			Southwark
39	Nottingham	Chichester			Derby
40	Calne	Fordwich			Lichfield
41	Southampton	Guildford			Cardiff
42		Malmesbury			Chester
43		Bath			Wells
44		Yarmouth			Chichester
45		Barnstaple			Bridgwater

46	Taunton	Maidstone
47	Buckingham	Doncaster
48		Durham
49		Peterborough
50		Barnstaple
51		Carlisle
52		Tickhill
53		Whitby
54		Newport

The complexities associated with the interpretation of medieval data have already been mentioned, but as the period progresses it is clear that many places underwent a considerable change in their fortunes; the period also witnessed the formation of many new boroughs. However, the pre-eminence of London is clear, and such places as York, Norwich, Bristol and Lincoln were consistently in a position of prominence.

Obviously, many of the places given in Table 23:1 are repeated in the various lists: therefore, for clarity, these are listed in singular fashion, and without rank, in Table 23:2. To this list are added the boroughs of Windsor and Reading which, as B.P. Hindle has pointed out, Russell appears to have omitted from his population data.(11)

It must be stressed that the working list of one hundred prominent medieval boroughs given in Table 23:2 is very subjective, but gives some indication of the more important trading centres.

Table 23:2 The Prominent Medieval Boroughs

Barking
Barnstaple
Bath
Bedford
Berkhamsted
Beverley
Boston
Bridgwater
Bridport
Bristol
Buckingham
Bury St. Edmunds
Caister
Calne
Cambridge
Canterbury
Cardiff
Carlisle
Chester
Chichester
Colchester
Corbridge
Cottingham
Coventry
Derby
Doncaster
Dorchester
Dover
Dunwich
Durham
Ely
Exeter
Fordwich
Gloucester
Godmanchester
Grimsby
Guildford
Hastings
Hereford
Hertford
Hull
Huntingdon
Hythe
Ipswich
Kings' Lynn
Launceston
Leicester
Lewes
Lichfield
Lincoln
London
Ludlow
Luton
Lydford
Maidstone
Maldon
Malmesbury
Marlborough
Newark
Newbury
Newcastle
Newport
Northampton
Norwich
Nottingham
Orford
Oxford
Peterborough
Plymouth
Pontefract
Reading
Rochester
Salisbury
Sandwich
Scarborough
Shaftesbury
Shrewsbury
Southampton
Southwark
Stafford
Stamford
Steyning
Swaffham
Taunton
Thetford
Tickhill
Torksey
Totnes
Wallingford
Wareham
Warwick
Wells
Whitby
Wilton
Winchcombe
Winchester
Windsor
Worcester
Yarmouth
York

The Combined Road and Waterway Networks

Having obtained an indication of the more prominent medieval trading centres, it was observed that only three (Corbridge, Luton, and Lydford), were not directly linked into the basic road network of Figure 8:1 or the navigable waterways of Figure 20:1. As discussed in Chapter Nine, the River Tyne is likely to have been navigable to Corbridge, and possibly even further. Only 3 miles separate Luton from the Gough Map route between St. Albans and Dunstable, and Lydford is a similar distance from the Gough Map route between Okehampton and Launceston. It is highly likely that Lydford was situated, as it is today, by a route connecting Plymouth with Okehampton (via Tavistock).

Assuming that all the prominent places were accessible via overland routes, the basic road network can be extended by the simple process of linking the isolated prominent places to the nearest place in the road network. In the majority of cases this only involves very short distances; for example, the isolated prominent places on the south coast are all very close to the Gough Map route connecting Southampton with Canterbury. Short links also connect Wareham with Bere Regis, and Totnes with Newton Abbot. The longest additional link in the south-west is that between Barnstaple and Exeter, which would follow the modern road via Crediton - whilst short links connect Taunton with Wells and Bridgwater. Across the Bristol Channel, Cardiff can be linked with Newport, Chepstow, St. Briavels and Gloucester (a route used by Edward II). The road between Dunstable and Luton can be continued to Bedford (a route used by Henry III), and on to Huntingdon; whilst a short link connects Peterborough with the Great North Road at Wansford. In East Anglia, the route between London and Snape Bridge can be extended to Dunwich, and Orford can be linked to

Woodbridge. Further north, a short link connects Caister with Yarmouth and Kings' Lynn with Castle Acre. In the Midlands, a short link connects Warwick with Coventry via Kenilworth. On the Lincolnshire side of the Humber Estuary, Grimsby can be linked with Barton-Upon-Humber, whilst on the Yorkshire side of the river, Hull and Beverley can be linked via Cottingham. Finally, in the north-east, Corbridge can be linked to Newcastle-Upon-Tyne.

All the aforementioned additional routes are given as follows in Table 23:3.

Table 23:3 Additional Routes to the Basic Road Network

Route

Sandwich-Canterbury
Fordwich-Canterbury
Hythe-Ashford
Hastings-Winchelsea
Wareham-Bere Regis
Totnes-Newton Abbot
Plymouth-Okehampton
Barnstaple-Exeter
Bridgwater-Taunton
Taunton-Wells
Cardiff-Newport
Newport-Gloucester
Luton-Dunstable

Route

Dunstable-Bedford
Bedford-Huntingdon
Peterborough-Wansford
Dunwich-Snape Bridge
Orford-Woodbridge
Caister-Yarmouth
Kings'Lynn-Castle Acre
Warwick-Coventry
Grimsby-Barton-Upon-Humber
Beverley-Cottingham
Cottingham-Hull
Corbridge-Newcastle-Upon-Tyne

The basic road network of Figure 8:1, together with the additional routes given in Table 23:3 can now be combined with the navigable waterways of Figure 20:1. The resultant map, Figure 23:1, also high-lights the prominent medieval boroughs of Table 23:2 and the navigable coastal waters.

This map is, in effect, the summation of the various kinds of data presented in this thesis. It gives a guide to the basic national transport system available to travellers and merchants during the medieval period and in particular it emphasises the extent of navigable water available - an aspect of medieval studies which has, on this national level, been neglected. This aspect is further emphasised by Figure 23:2, which reveals that only a small area of the country was more than 15 miles from navigable water. Of the one hundred prominent medieval boroughs, seventy-two are situated directly adjacent to known navigable water. Pontefract, considered a port in 1274(12) must have acted as a 'feeder' port to nearby Knottingley and it is likely that Tickhill and Wilton served a similar function for Bawtry and Salisbury respectively. Six of the remaining twenty five boroughs; Corbridge, Durham, Bury St. Edmunds, Newbury, Guildford, and Dorchester were, as discussed in Part Three, likely to have been situated by navigable water, whilst Barking, situated near to the Roding and Thames, was extremely close to navigable water. Of the remaining eighteen boroughs eight are situated on rivers which are known to have been navigable further down-stream, these are:- Buckingham, Launceston, Leicester, Ludlow, Luton, Malmesbury, Marlborough and Northampton. An absence of documentary evidence does not necessarily rule out the possibility that medieval vessels reached these places, but it is perhaps best if we just describe them as 'possibles' in this respect. This leaves ten boroughs which could not have been reached by navigable water, these being:- Berkhamsted, Calne, Coventry, Lichfield, Lydford, Shaftesbury, Stafford, Swaffham, Wells and Winchcombe.

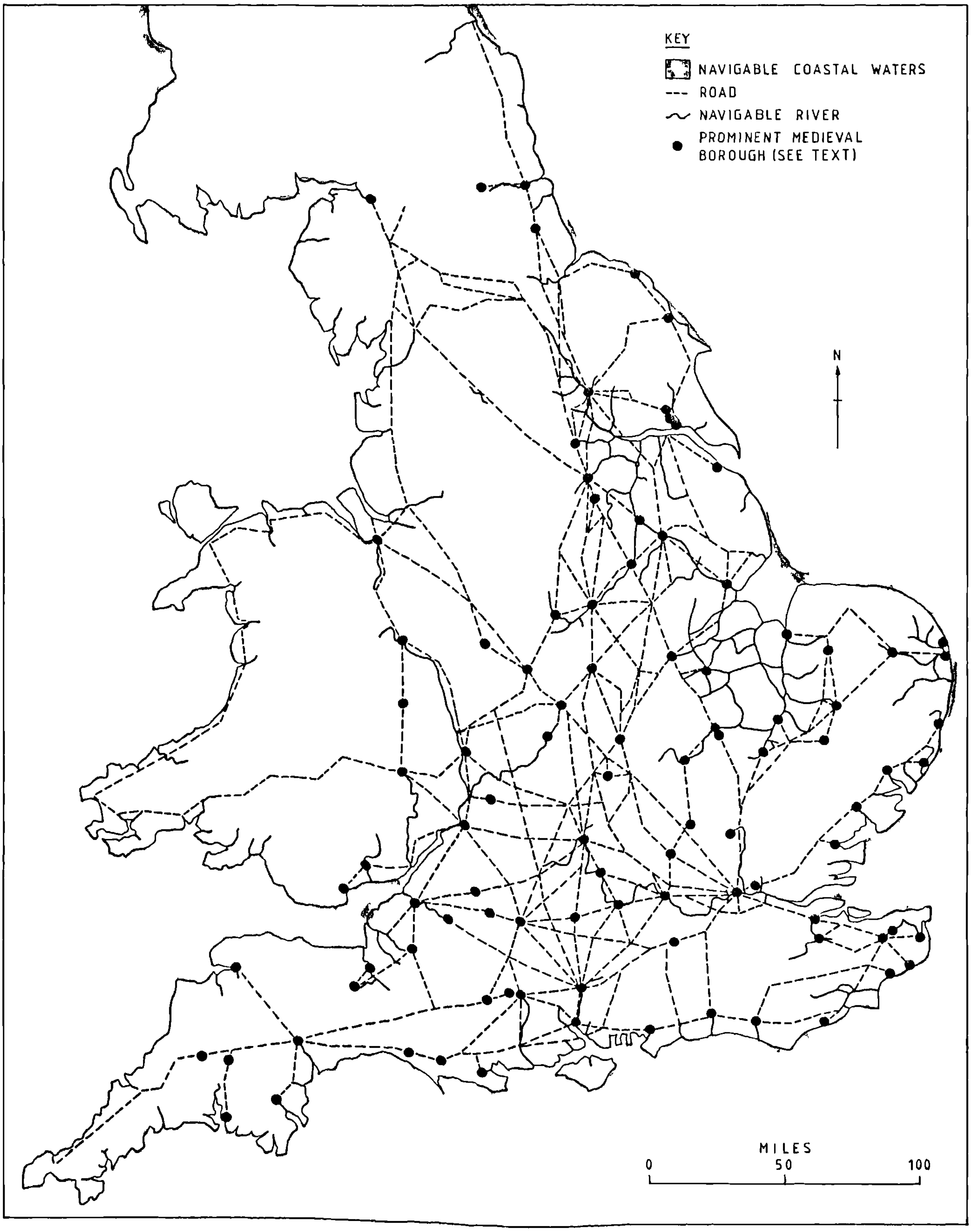

KEY
NAVIGABLE COASTAL WATERS
ROAD
NAVIGABLE RIVER
PROMINENT MEDIEVAL BOROUGH (SEE TEXT)
N
MILES
0
50
100

FIGURE 23:1 THE COMBINED ROAD AND NAVIGABLE WATERWAY NETWORKS OF MEDIEVAL ENGLAND AND WALES

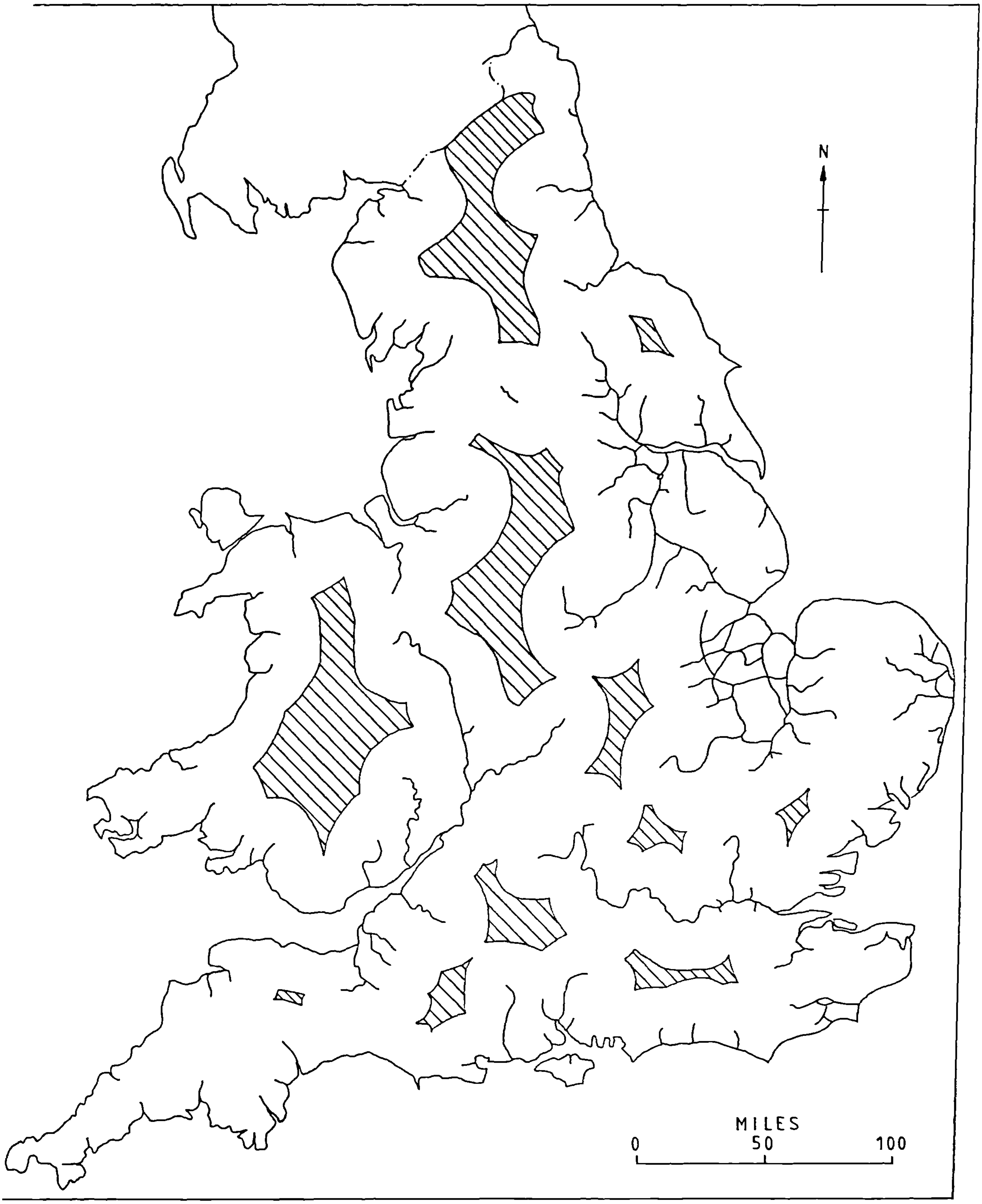

N
MILES
0
50
100

FIGURE 23:2 THE PARTS OF ENGLAND AND WALES MORE THAN 15 MILES FROM NAVIGABLE WATER

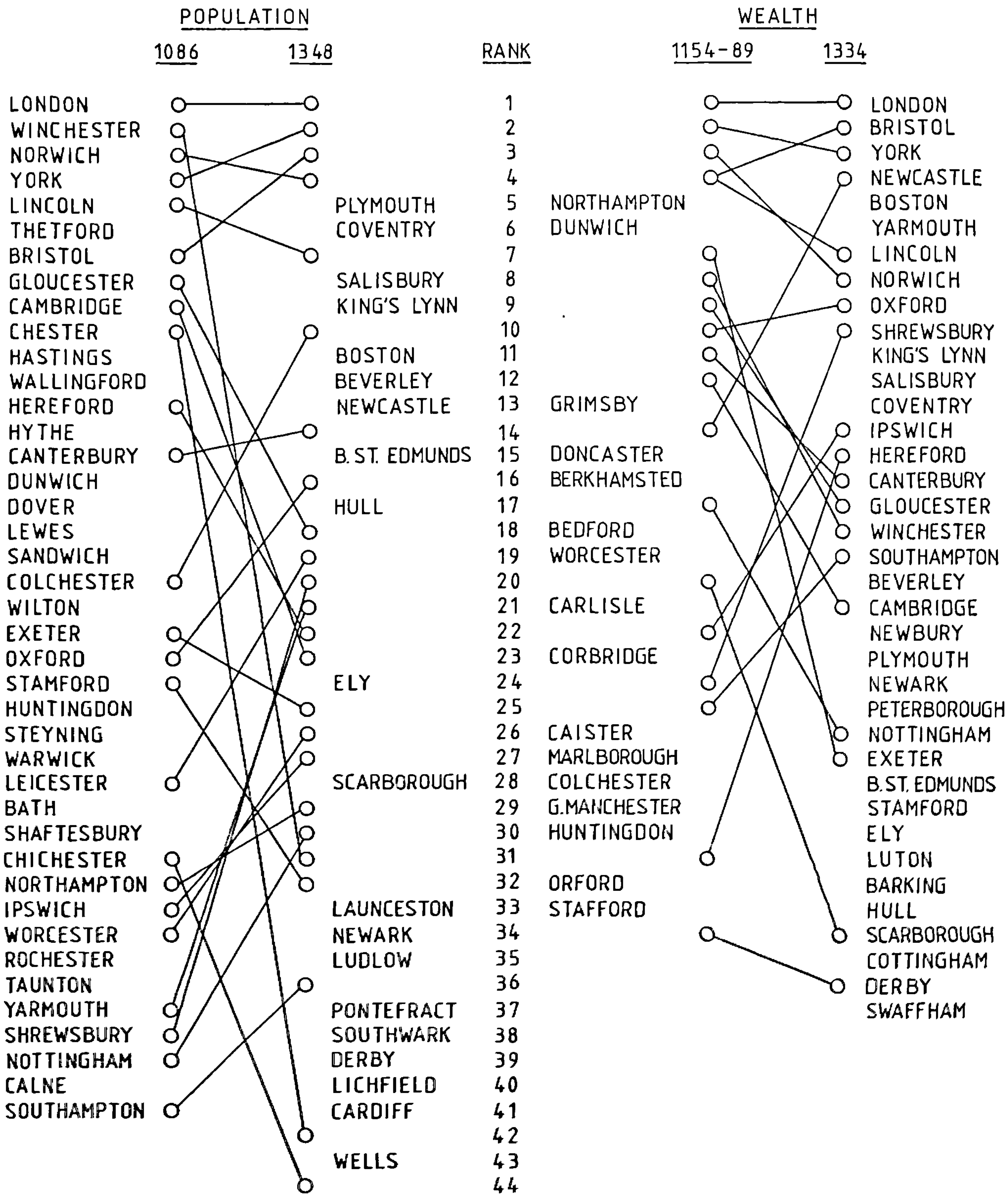
The connection between the prominent medieval boroughs and navigable water can therefore be broken down as follows:- seventyfive per-cent of the boroughs had direct access to it, seven per-cent probably had access, a further eight per-cent possibly had access, whilst only ten per-cent did not have access to it.

In Chapter One, during the discussion relating to internal trade and urban growth, the importance of siting a new town or developing an existing one where good communications were available was acknowledged. Good access is one of the most important qualifications for a town site, and if that access can be gained by both land and water, then the foundations for growth are laid. It has been shown that at least seventy-five per-cent of the prominent medieval boroughs had this dual mode of access, and of the ten prominent boroughs which could not have been reached by navigable water only one, Coventry, attained any degree of eminence. It was the thirteenth richest town in 1334, and estimated to have been the sixth most populous in 1348. Coventry had developed quite steadily during the twelfth and thirteenth centuries, and it now seems that a traditionally held view, that the division between two lords held back its development until 1345, was of limited significance.(13) Early in the fourteenth century the town had a fair number of prosperous wool merchants, and by the close of that century its growing cloth industry had far-ranging trading links. Whilst cloth and wool seem to have been the major trades, other craftsmen were involved with the metal, victualling and leather trades.(14)

If we accede to the view that the availability of navigable water was a contributory factor in the growth and prosperity of medieval towns, why did a place such as Coventry, which did not have this facility, succeed? Although the town was only six miles from the navigable Avon, and it did have an adequate water supply (in the form of lesser streams), which was important for its industries, its major advantage was that it was sited at the junction of two important overland routes. During medieval times, very few roads crossed the country from southwest to northeast - a point which is made clear by referring to the cartographic evidence of the Gough Map (Figure 3:2). The map shows only two such roads and one of these (S3), links Bristol with the Great North Road at Grantham, from where, as is clear from other evidence, it continued to Lincoln. Between Bristol and Grantham the road set down upon the Gough Map crosses two of the main roads which radiate from London. It crosses the London to St. David's road at Gloucester, and the London to Carlisle road at Coventry. Coventry therefore, was situated at a major crossing point of overland routes in the Midlands. Geographically, its situation was ideal, being at the cross-roads of routes linking the major trading areas including London and Bristol; it also had trading links with Ireland via the road connecting it with the port of Chester.(15) During the fourteenth century, Coventry was at the hub of overland trade routes which linked the wealthiest places in England and this must have been a major factor in the development of the town and helped to sustain its continued expansion. In terms of population, Coventry had climbed from a position of obscurity at the time of Domesday to sixth position by 1348, having an estimated population in excess of twelve thousand people.(10) Apart from natural processes, this apparently rather sudden increase in population (and wealth), must have been caused by an influx of immigrants. It is known that the fortunes of nearby Warwick declined; it ranked twentyseventh at the time of the Domesday Survey yet it does not appear in any subsequent list of major towns. Perhaps the population of Coventry increased, at least in part, at the expense of Warwick.

Turning to the changing fortunes of other places, we can use the estimates of changing population and wealth to give a guide to changes in relative importance. Having already mentioned the complexities and omissions associated with the compilation and interpretation of such data it has to be admitted that this is a rather crude exercise. The rankings are little more than a general guide; however, in the absence of anything more substantial they can at least be used to observe trends. The two sets of data for both estimates of population and assessed wealth are given in Table 23:4; the towns are listed in order of rank. The population figures for 1086 are those of Russell,(9) whilst in the financially based list of 1154-89, Bristol is shown as ranking fourth, equal with Lincoln. By linking adjacent pairs of places which appear in each list, an idea of the relative change in importance can be observed. The cut-off point of Table 23:4 is at rank fortyfour, which includes all the financially ranked towns, together with those which can be linked together using the population data for 1086 and 1348. Although the connection between the prosperity and population of a town is complex,(16) the comparison of these data sets is of interest. The position of London is supreme, whilst York remains relatively stable - climbing from fourth to second place in terms of population, whilst dropping only one place from second to third, in terms of wealth. The fortunes of virtually all the other towns follow similar trends in both sets of data, only Canterbury, Hereford and Nottingham are exceptions. In terms of population, Canterbury climbs one place from fifteenth to fourteenth, but in terms of wealth appears to drop from eleventh to sixteenth place. However, it must be remembered that the moneyers of Canterbury were excluded from the Lay Subsidy of 1334; had they been included, it is certain that Canterbury would have been placed higher than sixteenth, no doubt resulting in the trends following those of population. The comparisons between population and wealth for both Hereford and Nottingham

TABLE 23:4 THE CHANGING FORTUNES OF THE PROMINENT MEDIEVAL BOROUGHS



POPULATION 1086	1348	RANK	WEALTH 1154-89	1334
LONDON		1		LONDON
WINCHESTER		2		BRISTOL
NORWICH		3		YORK
YORK		4		NEWCASTLE
LINCOLN	PLYMOUTH	5	NORTHAMPTON	BOSTON
THETFORD	COVENTRY	6	DUNWICH	YARMOUTH
BRISTOL		7		LINCOLN
GLOUCESTER	SALISBURY	8		NORWICH
CAMBRIDGE	KING'S LYNN	9		OXFORD
CHESTER		10		SHREWSBURY
HASTINGS	BOSTON	11		KING'S LYNN
WALLINGFORD	BEVERLEY	12		SALISBURY
HEREFORD	NEWCASTLE	13	GRIMSBY	COVENTRY
HYTHE		14		IPSWICH
CANTERBURY	B. ST. EDMUNDS	15	DONCASTER	HEREFORD
DUNWICH		16	BERKHAMSTED	CANTERBURY
DOVER	HULL	17		GLOUCESTER
LEWES		18	BEDFORD	WINCHESTER
SANDWICH		19	WORCESTER	SOUTHAMPTON
COLCHESTER		20		BEVERLEY
WILTON		21	CARLISLE	CAMBRIDGE
EXETER		22		NEWBURY
OXFORD		23	CORBRIDGE	PLYMOUTH
STAMFORD	ELY	24		NEWARK
HUNTINGDON		25		PETERBOROUGH
STEYNING		26	CAISTER	NOTTINGHAM
WARWICK		27	MARLBOROUGH	EXETER
LEICESTER	SCARBOROUGH	28	COLCHESTER	B. ST. EDMUNDS
BATH		29	G. MANCHESTER	STAMFORD
SHAFTESBURY		30	HUNTINGDON	ELY
CHICHESTER		31		LUTON
NORTHAMPTON		32	ORFORD	BARKING
IPSWICH	LAUNCESTON	33	STAFFORD	HULL
WORCESTER	NEWARK	34		SCARBOROUGH
ROCHESTER	LUDLOW	35		COTTINGHAM
TAUNTON		36		DERBY
YARMOUTH	PONTEFRACT	37		SWAFFHAM
SHREWSBURY	SOUTHWARK	38		
NOTTINGHAM	DERBY	39		
CALNE	LICHFIELD	40		
SOUTHAMPTON	CARDIFF	41		
		42		
	WELLS	43		
		44		

appear to paint conflicting pictures. Hereford declines in terms of relative population but ascends in terms of relative wealth; whilst the exact opposite happens to Nottingham. Reference to the Domesday population rankings of Stephenson (Table 23:1), reveal a significant difference between his rankings for both Hereford and Nottingham when compared with Russell. He has Hereford in thirtyeighth position and Nottingham twentyeighth – positions which would have meant that the trends in population and wealth would have been similar for both places had they appeared in these positions in Table 23:4. These anomalies apart, it is clear from the evidence relating to the towns which appear in both sets of data in Table 23:4 that their relative prosperity fluctuates in direct proportion to fluctuations in their populations.

Let us now turn to the broader aspects of Table 23:4. Of the consistently prominent places, five are never outside the top eight in any list; these being London, York, Bristol, Norwich, and Lincoln. The question we must now ask is:- what assets did these consistently prominent places possess to enable them to maintain their pre-eminence? All five places had early foundations, three were on Roman sites, and all were *burhs* in the ninth and tenth centuries; indeed, at the time of the Norman Conquest, they would have been the first places of any significance that a vessel would reach during a voyage up each respective river on which they were situated. This would have given them a head start when the medieval period commenced. Another common factor is that they were all established at bridging points. Their early bridges were the focal points of early overland routes, while the navigable stretches of river above them brought trade from the more inland parts of the country. Also there would be little incentive, especially for sea-going vessels, to voyage any further than they had to in order to discharge and/or take on cargo. Thus, it would be an attractive proposition for 'foreign' captains to engage in trade at such places, where safe anchorages combined with effective distribution networks were available. The majority of traders between England and Europe in the late Saxon and early medieval periods seem to have concentrated their activities across the North Sea to the Rhineland; pottery from the Rhineland has been found on the south coast and as far up the east coast as York.(17) London, York, Norwich and Lincoln were therefore in the most advantageous positions geographically; they were situated inland, but they were, in effect, sea ports, their navigable estuaries being the main inlets into the country from the continent. Further west, Bristol's main advantage was that it was a focal point for the West Country - the Bristol Channel hardly faced the right way for European trade - although it was used for trade with western France, Spain, and Italy, and also with Ireland. Although the Norman Conquest naturally tended to move trade towards the Channel, the trading bases of the five major towns were by this time well established, and their links with mainland Europe continued to flourish. As the medieval period progressed, both Lincoln and Norwich became increasingly engaged in competition for trade with the developing towns of Boston and Yarmouth respectively; there is some evidence to suggest that progressive silting of their respective rivers made it increasingly more difficult for the larger sea-going ships to reach them, thus increasing the potential of the towns nearer to the coast. In terms of assessed wealth, both Boston and Yarmouth had risen above Lincoln and Norwich by 1334.

The important connection between navigable water, overland routes, and the changing fortunes of the prominent medieval boroughs is brought out by comparing Table 23:4 with Figure 23:1. Although the map presents a static picture, the table gives an idea of temporal changes. It would be virtually impossible to attempt to explain the changing fortunes of all the places given in Table 23:4, therefore it is perhaps best to high-light some of the more prominent places, and those which appear to have undergone the most dramatic change.

Winchester, the former capital and a major route centre, declined. In 1086 it was probably the second most populous place behind London, but had dropped to thirtyfirst position by 1348; in terms of wealth it declined from eighth place in 1154-89, to eighteenth place by 1334. This relative decline undoubtedly reflects the shift in political and administrative centres; also, the navigation of the River Itchen was suffering from obstacles in the form of mills (see Chapter Fifteen), and this no doubt further reduced the trading position of the town. Thus Southampton, with its sheltered port near the mouth of the River Itchen and close to the head of Southampton Water, grew. This growth during the twelfth century was also due to the geopolitical fact that England's trade, as part of the Norman and Angevin Empires, was more firmly established across the Channel. The town of Plymouth was also at an advantage in this respect; it grew in relative importance compared with the Cinque Ports.(18)

Thetford, estimated to be the sixth largest town in 1086, does not appear in any subsequent list. It was a port in late Saxon times, and also into the medieval period; however, its decline (as mentioned in Chapter One), appears to have been linked with the increasing fortunes of nearby Bury St. Edmunds and King's Lynn. Founded between 1086 and 1095, King's Lynn was at the mouth of the river system leading to Thetford, Cambridge, Ely, Huntingdon, Peterborough and Stamford. It was the ninth largest town in 1348 and the eleventh most wealthy by 1334. On the other hand, Cambridge had lost ground in terms of both population and wealth. It was the ninth largest town in 1086, but was only twentythird by 1348; in terms of wealth it had dropped from twelfth to twentyfirst position.

The increasing relative importance of places such as King's Lynn can, in part, be attributed to advances in the technology of ship-building. As discussed in Chapter Twentyone, the evidence makes it clear that there existed a class of vessel that was used exclusively on the rivers, and as such, these craft were not capable of undertaking voyages on the open sea. On the other hand, sea-going vessels were capable of navigating many of the rivers. However, as the technology of ship-building progressed, the sea-going vessels increased in size. These larger vessels would not be so suited to river navigation as were their earlier, and smaller, predecessors, with the result that they would tend to terminate their voyages at places where there was an interface between the sea and inland navigation. We have already seen this pattern developing at places like Boston (for Lincoln), Yarmouth (for Norwich), and Southampton (for Winchester); the developing town of Kingston-upon-Hull, which had always been effectively the port for Beverley, was also taking an increasing share of imports away from York. All this does not mean that the rivers ceased to exist as effective means of transportation; the evidence in the preceding chapters proves otherwise. It is, however, indicative of a shift in the centres of sea-borne trade; as the sea-going ships grew in size these trading points moved down-river. The simultaneous increase in urban growth and European trade, alluded to in Chapter One, put a greater emphasis on those places 'facing' the continent; hence the east coast ports in particular grew in relative importance. Apart from the places already mentioned, the fortunes of Beverley, Ipswich and Colchester were growing, whilst in the north-east the coal trade of Newcastle expanded rapidly. Scarborough and Grimsby however, had declined, and Dunwich, after a promising start, had been entirely destroyed by the sea.

On the western side of the country the dominance of Bristol was supreme. The relative importance of Gloucester diminished, that of Worcester improved, whilst Shrewsbury, much further up the River Severn, experienced dramatic growth. The wealth of Shrewsbury was based on its dealings in the wool trade (it was also an important cattle droving centre). It was ideally situated to obtain the highly valued Welsh wool, and it is clear from the references in Chapter Seventeen, that much of this was shipped along the River Severn. By 1334, the town had reached the top ten in terms of wealth and was the twentieth largest town in 1348. Shrewsbury also had strong overland links with Ludlow and Hereford, these places also being much involved with the wool trade; indeed, Hereford had risen from a lowly position to become the fifteenth richest town by 1334. On the other hand, Chester, the tenth most populated town in 1086, had been relegated to fortysecond place by 1348. Its strongest overseas trading links were with Ireland, but in terms of overseas trade it faced the wrong way and was thus overtaken by the more advantageously sited places to the south and east. Progressive silting of the River Dee also affected its capability to attract the larger sea-going vessels.

In the south-west, Exeter suffered from two major problems. From 1290 onwards its navigational access was impeded, and the neighbouring town of Topsham was taking away its trade (see Chapter Sixteen). These problems must have contributed to Exeter's relative decline; it was down in twentyseventh position in terms of wealth in 1334, whereas in 1154-89 it had been as high as seventh. Further to the east, the new town of Salisbury was in the top twelve in terms of both size and wealth during the fourteenth century. It was on the main road connecting London with the south-west, had strong overland ties with Southampton, Shaftesbury, Marlborough and Winchester, and also possessed navigable water. In 1244 a new bridge was built across the River Avon at Salisbury. This contributed to the demise of Wilton, for the old county town, which was the twentyfirst largest in 1086, was thereafter bypassed by the main road to the south-west.(19) Wallingford, the twelfth largest town in 1086, does not appear in any subsequent list. Although one of the largest anglo-saxon burhs it gradually lost its prosperity during the thirteenth and fourteenth centuries, and by 1416, when a new bridge at Abingdon caused the diversion of the main road from London to Gloucester, its downfall was all but complete. Oxford, just a few miles further up the River Thames, improved its relative position in terms of both population and wealth. It marginally increased its prosperity, moving from tenth to ninth position. It was at a major junction of overland routes and was also served by the navigable waters of the Thames. Ships regularly plied between London and Oxford during the thirteenth and fourteenth centuries (see Chapter Fourteen).

Having obtained an idea of the relative changing fortunes of the more prominent medieval boroughs we can return again to Figure 23:1 for some additional general observations. The map puts into cartographic form the points brought out in the preceding text. The interconnection between the roads and navigable water is obvious, as is the siting of so many major towns at the confluence of road and river routes. Of the eight principal road centres identified in Part Two, only one, Marlborough, is not situated on a known medieval navigable river. The main route between London and Berwick-upon-Tweed, for the most part the Great North Road, crosses no less than twenty navigable rivers, and it coincides in many instances with their navigable limits. Ware, Sawtry, Wansford, Stamford, Elkesley, Bawtry, Doncaster, Pontefract, Wetherby, Boroughbridge, and Chester-le-Street are all at, or near, the navigable limits on the rivers on which they are situated. This same observation also applies to the road which runs along the south coast between Southampton and Canterbury, to the road between London and Dunwich, and to that between London and Norwich, via Cambridge.

It is clear, that as the medieval period progressed, the towns having direct involvement in international trade grew and flourished; the expanding commercial links forged during the twelfth and thirteenth centuries - especially with Gascony, Spain and the Baltic, coupled with an increase in trade via the sea route from the Mediterranean to northern waters, guaranteed their growth and ensured their prosperity. However, we must not lose sight of the fact that expansion in international trade was directly linked to a simultaneous increase in urban growth overall, and associated with this urban growth was a corresponding expansion in internal trade (see Chapter One). All of this commercial activity, both on the domestic and international fronts, could not have taken place had there been any inadequacies in the transport and communications network needed to sustain it. All the evidence relating to both overland and waterborne movements mentioned in this thesis suggest that road, river, and sea transport was fully capable of meeting the demands placed upon it.

Any further attempt to describe the interconnection between the roads and navigable waterways would be tedious; enough has already been said in Part Two regarding the basic road network, and the preceding discussion outlining trends in the changing fortunes of the prominent medieval boroughs puts into perspective temporal fluctuations and hence highlights the changing importance of the routes leading to them.

Having thus attained some idea of the basic transport system, the next, and final step, is to look at some further examples of its use.

Notes and References

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(2) J.C. RUSSELL, British Medieval Population (Albuquerque, 1948) 282-314

(3) ibid, 283-7

(4) ibid, 273-80

(5) ibid, 143 et seq.

(6) C. STEPHENSON, Borough and Town (Cambridge, Mass., 1933) 221

(7) ibid, 225

see also: R.A. DONKIN, 'Changes in the Early Middle Ages' being Chap. 3 of H.C. DARBY (ed.) A New Historical Geography of England (Cambridge, 1973) 132-5

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(9) J.C. RUSSELL (op. cit.) 50-1

(10) ibid, 140-3

(11) B.P. HINDLE, ' A Geographical Synthesis of the Road Network of Medieval England and Wales', Unpublished Ph.D. Thesis, University of Salford (1973) 121.

(12) Calendar of Close Rolls, 1272-79, 125

(13) S. REYNOLDS, An Introduction to the History of English Medieval Towns (Oxford, 1977) 156

(14) ibid, 156

(15) See Figures 3:2, 3:3 and 8:1

(16) S. REYNOLDS (op. cit.), 144-45

(17) J.M. STEANE, The Archaeology of Medieval England and Wales (London, 1984) 130

See also: R. HODGES, Dark Age Economics (London, 1982)

(18) J.M. STEANE, (op. cit.), 131

(19) ibid, 115.

CHAPTER TWENTY FOUR THE COMBINED TRANSPORT SYSTEM: SOME FURTHER EXAMPLES OF ITS USE

Although there is no comprehensive evidence relating to the internal movement of goods and personnel during the medieval period, some scattered references do record movements where the combined use of both roads and waterways is made.

During the winter of 1258, Henry III granted 34 tuns of wine to Eleanor, his queen. This wine, which had been imported at Boston, was currently in store at Peterborough. The King ordered the Sheriff of Cambridge to transport the wine

> "to Cambridge with all speed by water, and thence by land to Ware". (1)

At Ware, responsibility for delivery of the wine was to be undertaken by the Sheriff of Essex and Herts, who was to take the cargo

> "from Ware by water to Westminster"(2)

From Peterborough, the cargo was to be taken along the River Nene to Benwick. A choice of routes was available here; via the easterly course of the river to combine with the Great Ouse north of Benwick, or via the south-easterly course through Yaxley and Holme. From Benwick the Great Ouse would be navigated to Earith where the Old West River gave access to the River Cam and Cambridge. The overland part of the journey would then be via the course of the Gough Map route between Cambridge and Ware, via Barkway. At Ware, the cargo was transferred to boats for its journey down the River Lea and on up the Thames to Westminster.

The routes associated with this journey are given in Figure 24:1, where the reliance on navigable water is clearly demonstrated. Peterborough is only 5 miles from the well-used medieval road linking Wansford with London via Ware, and yet the wine was taken just as far towards its final destination as possible utilising the navigable waterways. Even when Ware was reached the journey did not continue along the road into London but the cargo was taken along the Lea and the Thames to Westminster. It is clear that every available stretch of navigable water was utilised between Peterborough and Westminster for the transport of this cargo. The reasons for this emphasis on the use of navigable water can be put down to cost and convenience. Carriage by water, as will be mentioned shortly, appears to have been much cheaper than by land. Also, bulky cargoes were cumbersome to carry overland and were frequently obtained from the nearest point to which they could be brought by water.

> "This tapping of water carriage at the nearest available point must have been common to many goods. It is a reminder that land and water carriage were often interdependent." (3)

A similar route to that previously described was no doubt used in 1316 when safe-conduct was granted to

> "the servants whom John de Sandale, King's Clerk, the Chancellor, is sending with divers goods of his from the parts of Lincoln to Cambridge by water, and from thence to London." (4)

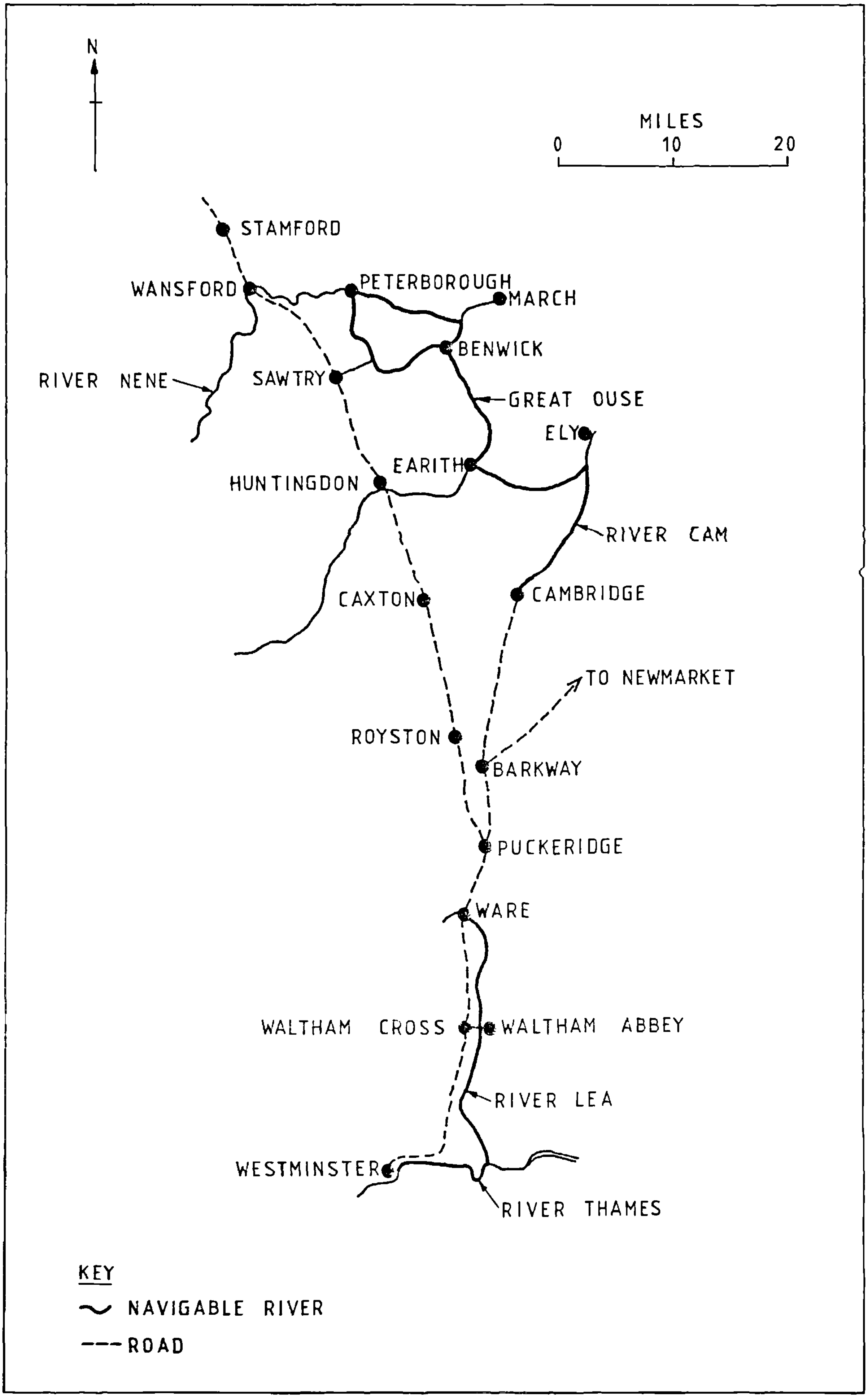
N
MILES
0
10
20
STAMFORD
WANSFORD
PETERBOROUGH
MARCH
BENWICK
RIVER NENE
SAWTRY
GREAT OUSE
ELY
EARITH
HUNTINGDON
RIVER CAM
CAXTON
CAMBRIDGE
TO NEWMARKET
ROYSTON
BARKWAY
PUCKERIDGE
WARE
WALTHAM CROSS
WALTHAM ABBEY
RIVER LEA
WESTMINSTER
RIVER THAMES
KEY
NAVIGABLE RIVER
ROAD

FIGURE 24:1 ROUTES ASSOCIATED WITH THE TRANSPORT OF WINE IN 1258

The Sheriffs' Accounts' for the counties of Yorkshire, Lincolnshire, Norfolk and Hampshire recount many instances of the movement of produce using both roads and navigable water, with heavy reliance upon the latter.(5) An example involving roads, inland waterways and coastal waters is recorded in 1309. During that year, 40 quarters of grain were taken from Sherburn-in-Elmet and carried overland to York via Tadcaster (a route already highlighted by the royal itineraries). At York, the grain was ground into flour and placed in a ship which sailed down the River Ouse into the Humber, and on to Hull. At Hull, the flour was transferred to another vessel and carried to Berwick-upon-Tweed.(6) The route associated with this journey is given in Figure 24:2. The fact that the flour was transferred to another vessel at Hull probably means that the vessel which had made the voyage from York was not capable of undertaking a voyage on the open sea; perhaps it was a keel, or lugger, similar to the types mentioned in Chapter Twenty One.

Another interesting example from 1309, apart from illustrating the use of a combination of local roads and navigable waterways, also allows a direct comparison between overland and waterborne transport costs. During that year, 30 quarters of grain were taken overland from Malton to Wansford, at the head of the River Hull; a distance given in the account as 14 leucae.(7) Similarly, 18 quarters of grain were taken overland to Wansford from Pocklington, and again, a distance of 14 leucae was recorded for the length of the journey. The combined cargo of 48 quarters of grain was then shipped down the river to the port of Hull. The distance between Wansford and Hull via the river is approximately the same as that between Malton and Wansford and Pocklington and Wansford. Fortunately, the transport costs for this particular series of journeys were recorded and showed that the cost of overland carriage

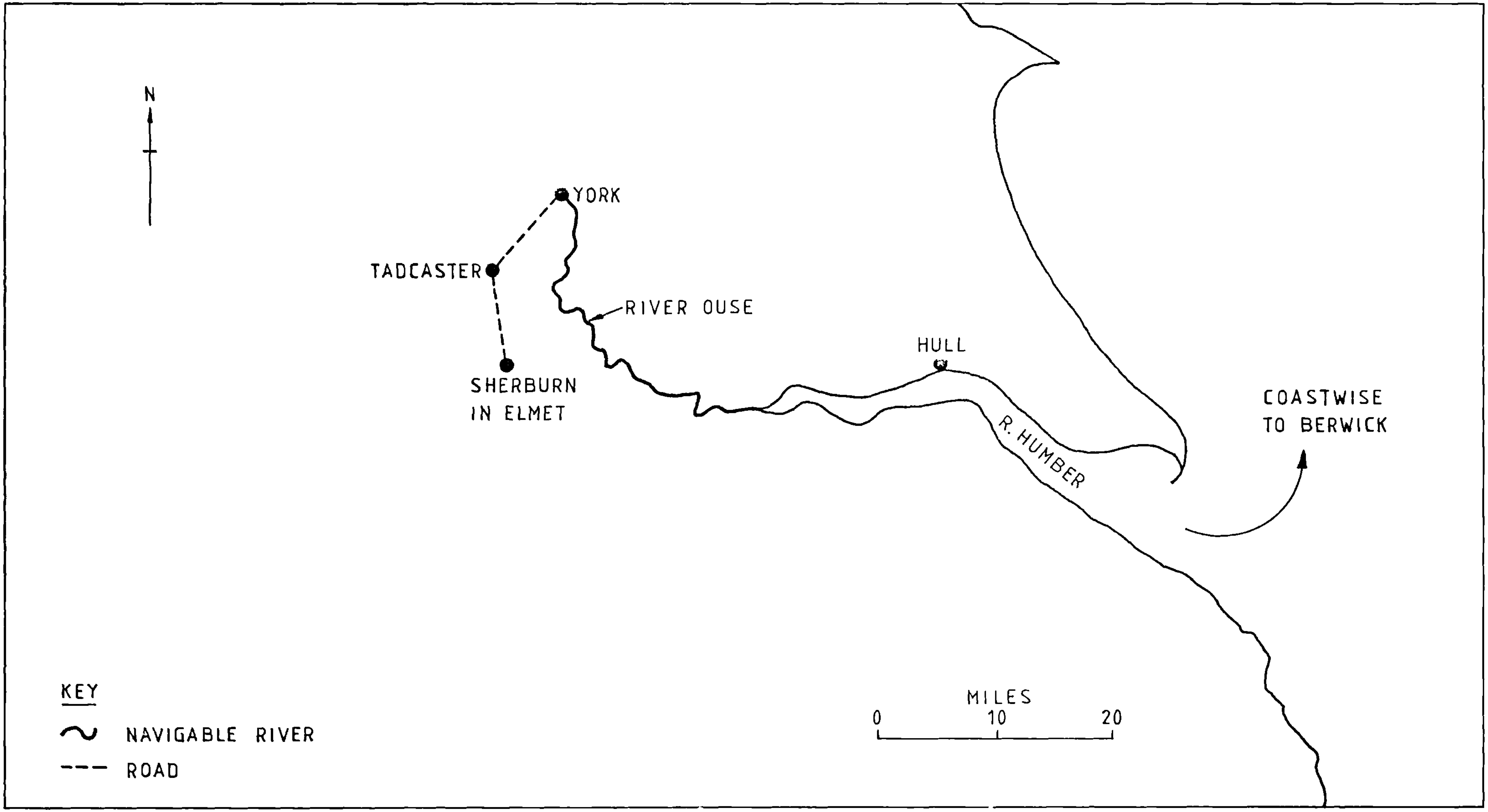
N
YORK
TADCASTER
SHERBURN IN ELMET
RIVER OUSE
HULL
R. HUMBER
COASTWISE TO BERWICK
KEY
NAVIGABLE RIVER
ROAD
MILES
0
10
20

FIGURE 24:2 ROUTE ASSOCIATED WITH THE TRANSPORT OF GRAIN AND FLOUR IN 1309

between Malton and Wansford was 4d. per quarter, as was that between Pocklington and Wansford; the total costs being 10s. and 6s. respectively. However, the cost of shipping the combined cargo of 48 quarters of grain to Hull was only 4s., or 1d. per quarter. Hence, in this particular instance, the cost of land carriage was four times that of water carriage over similar distances (Figure 24:3). This is only an isolated example, but it does bear comparison with the findings of J.E.T. Rogers, who, when comparing transport costs during the medieval period, stated that

> "on the whole, it may be concluded roughly that the cost of water-carriage was about one-sixth of that paid for conveyance by land".(8)

A further conclusion to be drawn from the availability of cheap water transport is that those places situated by navigable water could go in pursuit of markets much further afield than those restricted to localised overland routes, the distance varying as a direct proportion of the transport costs which, in the example shown in Figure 24:3, was by a factor of four.

In North Yorkshire, the port of Yarm on the River Tees received produce for shipment to Scotland which was brought overland using, amongst others, the routes linking the port with Northallerton and Guisborough.(9) These routes are depicted in Figure 24:4.

The Sheriffs' Accounts' also show that the Rivers Don and Idle were used in conjunction with the roads to carry produce. In 1298, 28 quarters of malt and 86 quarters of grain were taken by road to Doncaster and Bawtry respectively. These cargoes were then taken by river to the

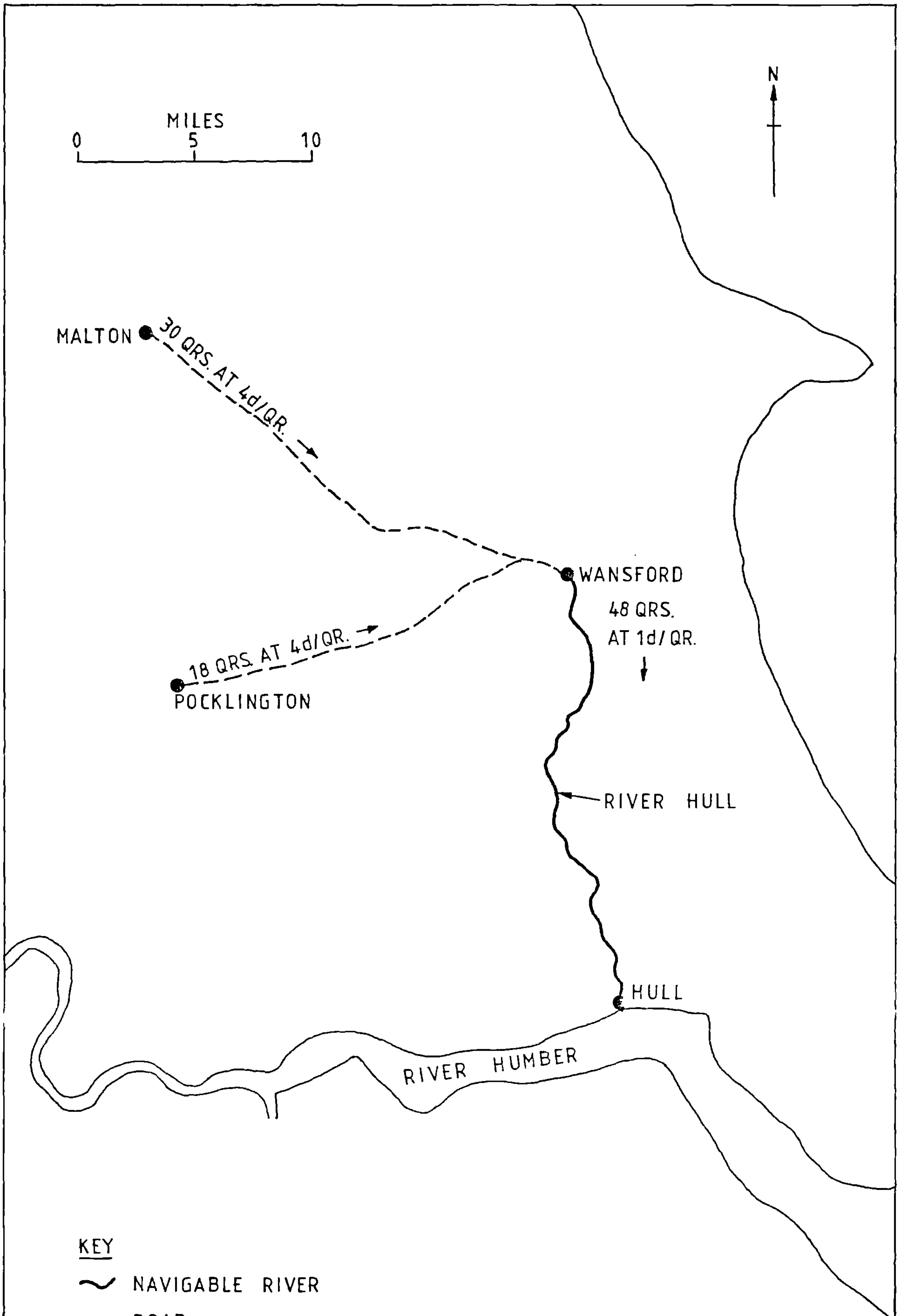
N
MILES
0
5
10
MALTON
30 QRS. AT 4d/QR.
WANSFORD
48 QRS.
AT 1d/QR.
18 QRS. AT 4d/QR.
POCKLINGTON
RIVER HULL
HULL
RIVER HUMBER
KEY
NAVIGABLE RIVER
ROAD

FIGURE 24:3 ROUTES ASSOCIATED WITH THE TRANSPORT OF GRAIN IN 1309

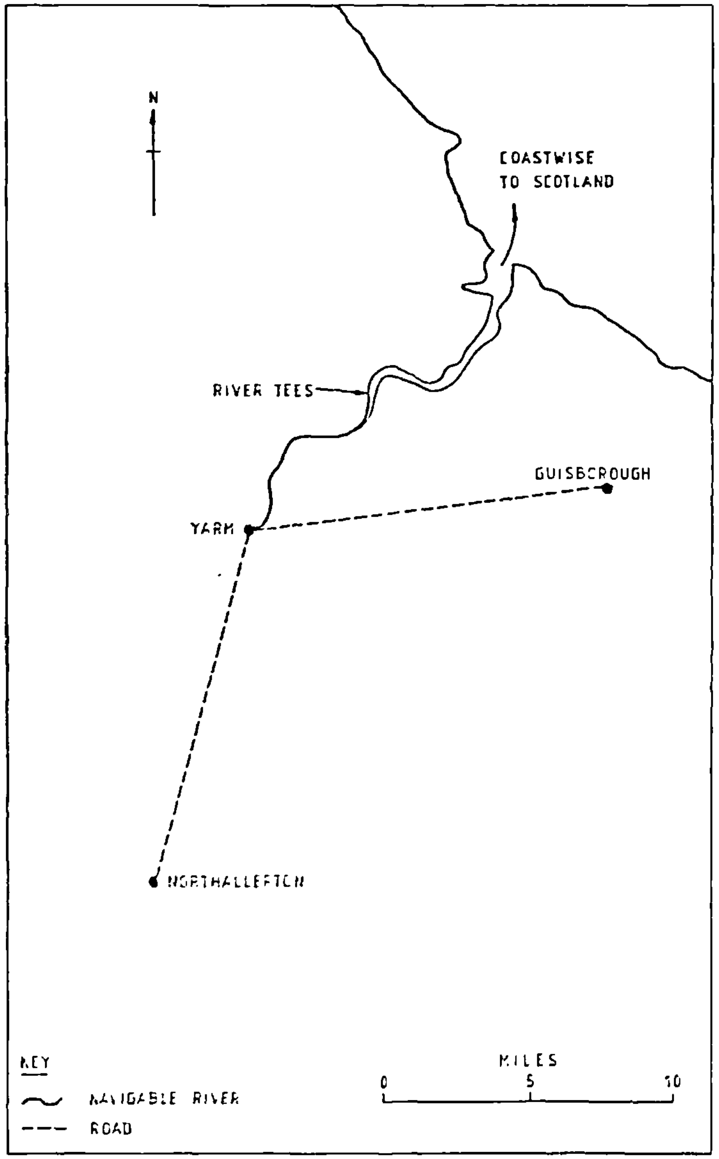
N
COASTWISE TO SCOTLAND
RIVER TEES
GUISBOROUGH
YARM
NORTHALLERTON
KEY
NAVIGABLE RIVER
ROAD
MILES
0
5
10

FIGURE 24:4 ROUTES ASSOCIATED WITH THE TRANSPORT OF PRODUCE TO SCOTLAND IN 1298 AND 1301

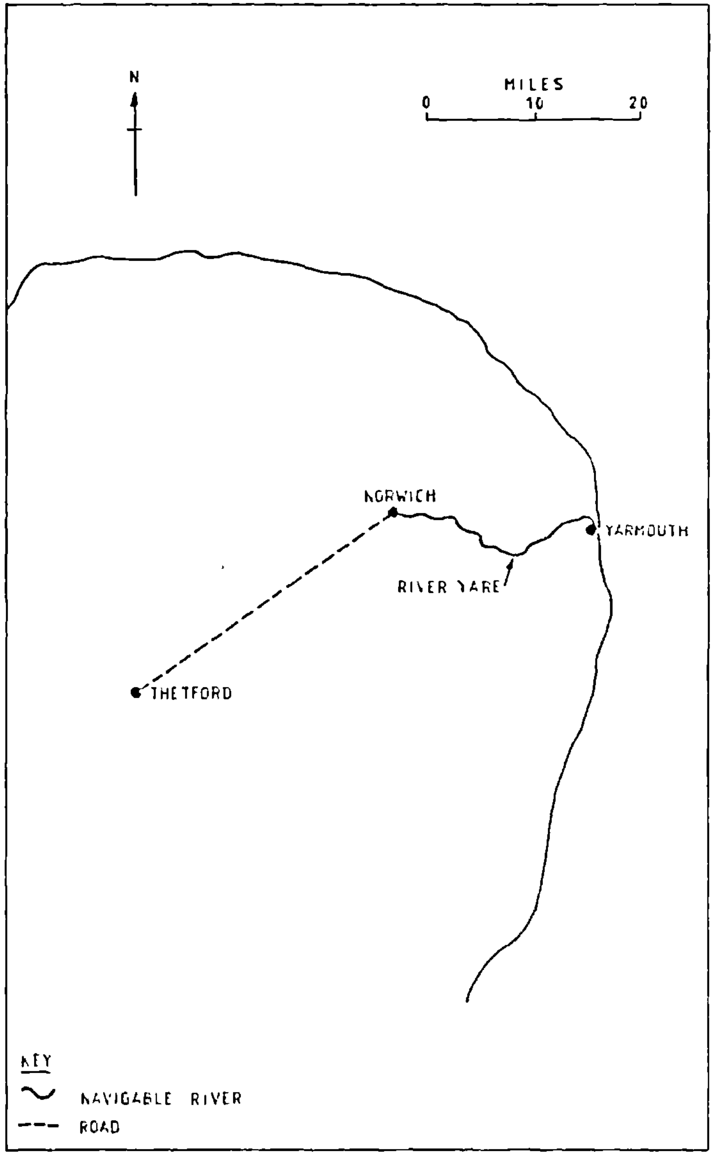
N
MILES
0
10
20
NORWICH
YARMOUTH
RIVER YARE
THETFORD
KEY
NAVIGABLE RIVER
ROAD

FIGURE 24:5 ROUTE ASSOCIATED WITH THE TRANSPORT OF PRODUCE IN 1340

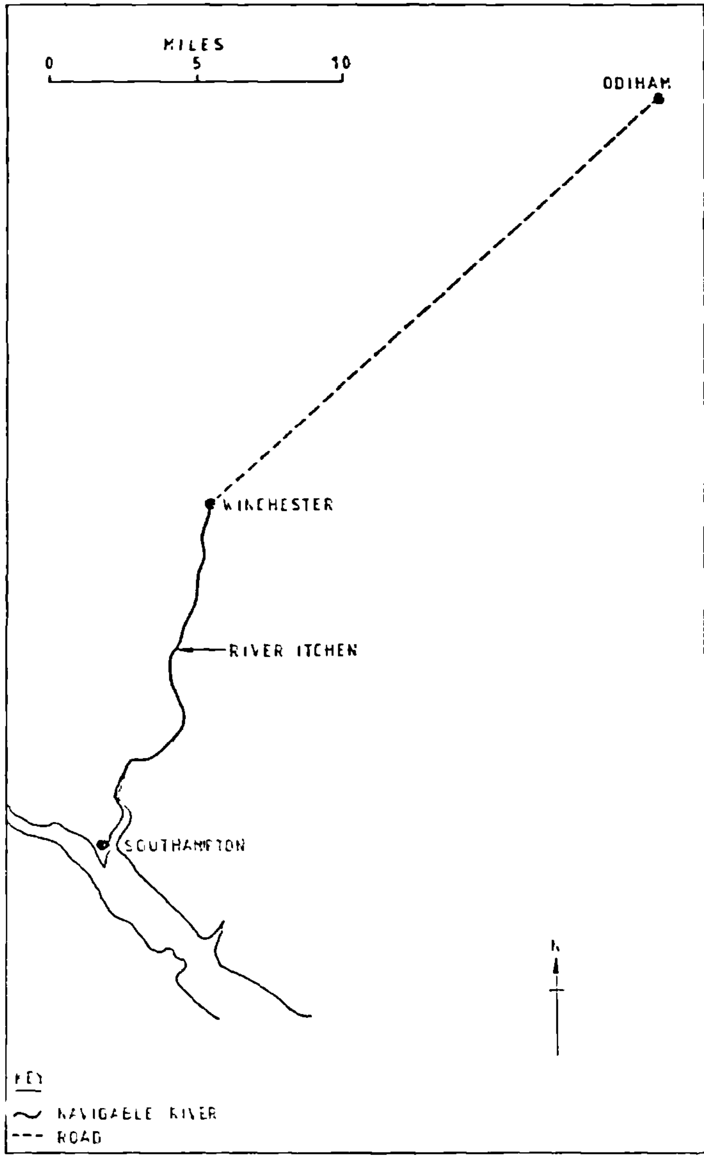
MILES
0
5
10
ODIHAM
WINCHESTER
RIVER ITCHEN
SOUTHAMPTON
N
KEY
NAVIGABLE RIVER
ROAD

FIGURE 24:6 ROUTE ASSOCIATED WITH THE TRANSPORT OF GRAIN IN 1339

port of Hull prior to being taken on to Berwick-upon-Tweed via coastal waters.(10) During 1311 and 1336, grain was transported along the Gough Map route linking Caistor with Barton-upon-Humber, prior to shipment to Scotland.(11) Part of the road between Lincoln and Burton-on-Stather was used in 1311, when 131 quarters of produce were sent from Bishop Norton, near Kirton-in-Lindsey, to be loaded in a ship at Burton-on-Stather.(12) The produce was then taken to Berwick-upon-Tweed via the waters of the Trent and Humber, and by coastal waters.

In 1311, a total of 38 quarters of grain and 41 quarters of malt were taken along the road linking Wragby with Lincoln. From Lincoln the cargo was shipped down the River Witham to Boston then on to Berwick-upon-Tweed.(13)

In Norfolk, produce was carried overland from Thetford via the road linking it with Norwich, from where it was taken down the River Yare to Yarmouth.(14) Figure 24:5 shows the route taken by produce between Thetford and Yarmouth in 1340.

In Hampshire, it appears that the roads converging on Winchester were used to carry a varied amount of produce which was then sent on to Southampton, either by road or via the River Itchen.(15) Figure 24:6 shows the route taken by grain between Odiham and Southampton in 1339.

Apart from goods and produce, the roads and navigable waterways were also used by individuals and groups of travellers. The shortest medieval route from Lincoln to York was north to Burton-on-Stather, by boat along the Trent and up the Ouse to Howden then on to York by road. This route was used by Robert of Nottingham during the winter of 1324-5, when he was buying wheat for the King.(16)

During 1319, Edward II invited a number of scholars of King's Hall, Cambridge, to spend Christmas with him at York.(17) The scholars were divided into two parties, one party travelling entirely by road, and the other using a combination of roads and navigable rivers. This latter party spent the first two days of the journey travelling from Cambridge to Spalding in two hired boats. The exact route used for this part of the journey went unrecorded and they would have had a number of route options open to them. The most direct would have been down the Cam, up the Old West River, along the Great Ouse to Benwick, up the Nene to Peterborough, then on to the Welland via South Eau to arrive at Spalding. From Spalding, the party travelled overland to Boston - a route shown on the Gough Map. At Boston they hired a single large boat and travelled up the River Witham to Lincoln. The next part of the journey was made along the Foss Dyke in two hired boats where, on reaching Torksey, they transferred to a large boat and voyaged down the Trent and up the Ouse to York. The probable route taken for this journey is outlined in Figure 24:7.

Part of the previously described route was used by the Exchequer in 1322, when it was transferred from London to York.(18) This transfer involved a considerable number of personnel; officials, clerks, grooms, servants and others, together with a large baggage train. The route was initially overland along the Great North Road via Ware, Royston, Huntingdon and Wansford to Grantham. From there, the route continued overland to

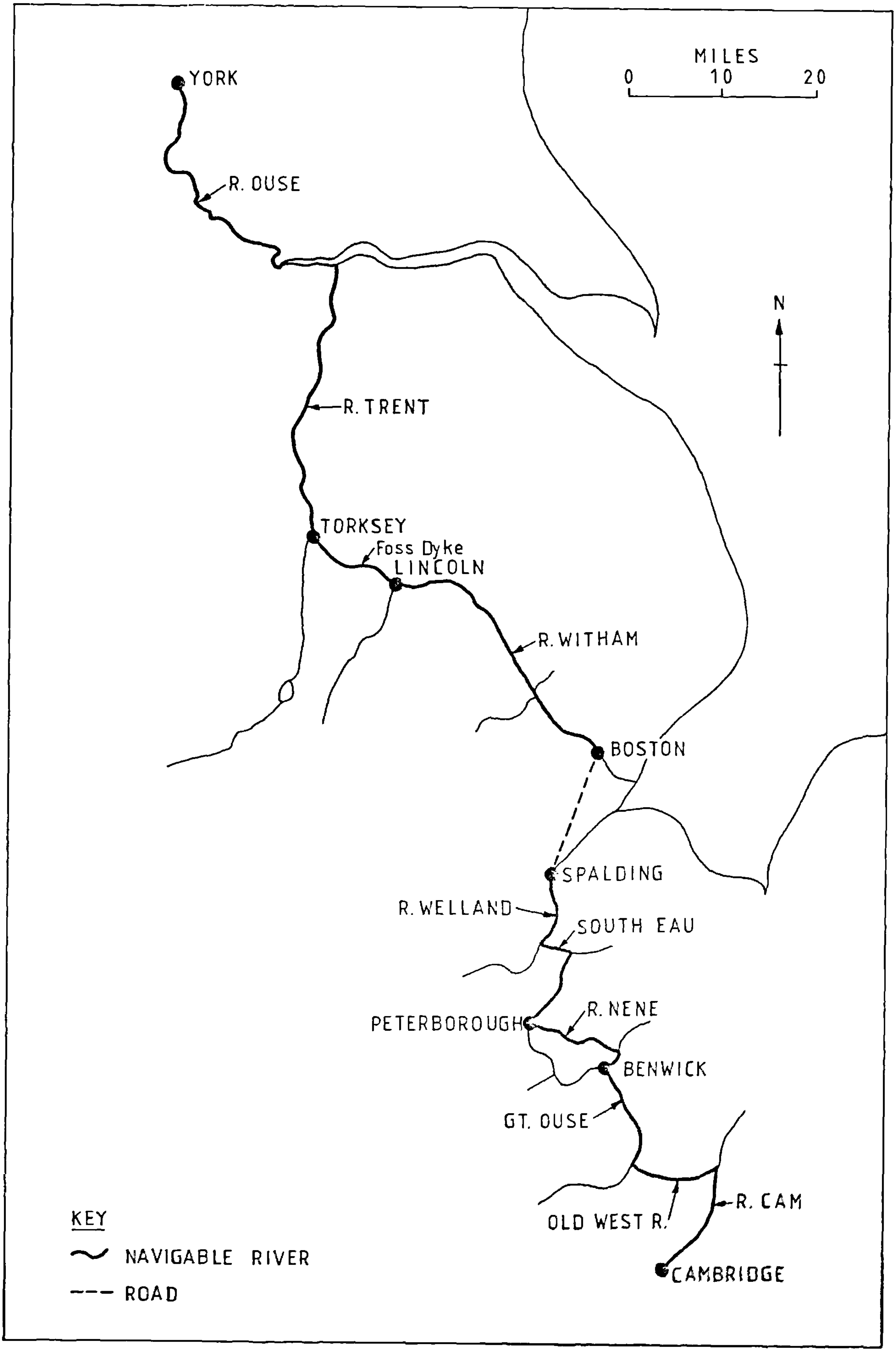
MILES
0
10
20
N
YORK
R. OUSE
R. TRENT
TORKSEY
Foss Dyke
LINCOLN
R. WITHAM
BOSTON
SPALDING
R. WELLAND
SOUTH EAU
PETERBOROUGH
R. NENE
BENWICK
GT. OUSE
OLD WEST R.
R. CAM
CAMBRIDGE
KEY
NAVIGABLE RIVER
ROAD

FIGURE 24:7 A CHRISTMAS JOURNEY - 1319

Lincoln and Torksey. At Torksey, the personnel and baggage embarked and sailed down the River Trent to Burton-on-Stather, where they were delayed by a storm. The journey was completed by sailing up the River Ouse to York.

When the Bursar of Durham purchased large quantities of cloth and provisions at Boston Fair between 1299 and 1316 his return journey involved the use of both roads and rivers.(19) From Boston, the purchases were taken along the River Witham to Lincoln, then overland by cart to Torksey where boats were once again employed on the navigable Trent and Ouse. On passing York and nearing Boroughbridge, the party once again took to the roads for the remainder of the journey to Durham, presumably following the route which passed through Northallerton. It is interesting to note that when similar purchases were made in 1336, the goods were taken from Boston to Newcastle-Upon-Tyne by coastwise traffic and completed the remaining 15 miles to Durham by road.(20) The routes associated with these journeys are given in Figure 24:8.

During 1326, fagots were taken from Chippenham to the Thames and then by water to the Tower of London.(21) The overland part of this journey was probably via the route linking Malmesbury with Faringdon and Radcot Bridge. The probable route taken for this journey is outlined in Figure 24:9.

The combined use of both roads and waterways was made in 1371 when lead, for the purpose of roofing parts of the castle buildings at Odiham, was initially taken up the Thames to Windsor prior to its overland journey to Odiham.(22) (The overland part of this particular journey

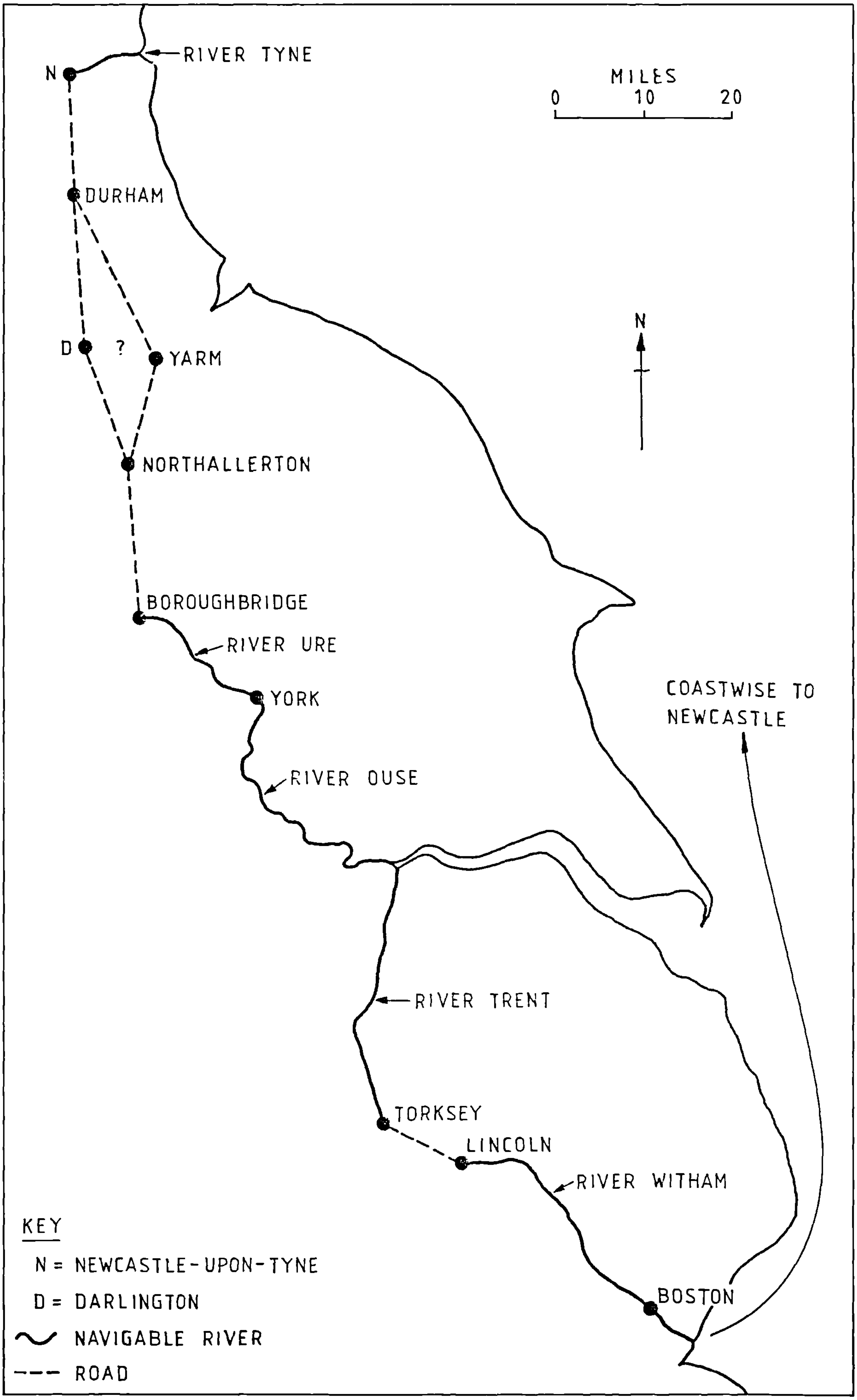
RIVER TYNE
N
MILES
0
10
20
DURHAM
D
?
YARM
N
NORTHALLERTON
BOROUGHBRIDGE
RIVER URE
YORK
COASTWISE TO NEWCASTLE
RIVER OUSE
RIVER TRENT
TORKSEY
LINCOLN
RIVER WITHAM
BOSTON
KEY
N = NEWCASTLE-UPON-TYNE
D = DARLINGTON
NAVIGABLE RIVER
ROAD

FIGURE 24:8 ROUTES TRAVELLED BY THE GOODS OF THE BURSAR OF DURHAM BETWEEN 1299 AND 1336

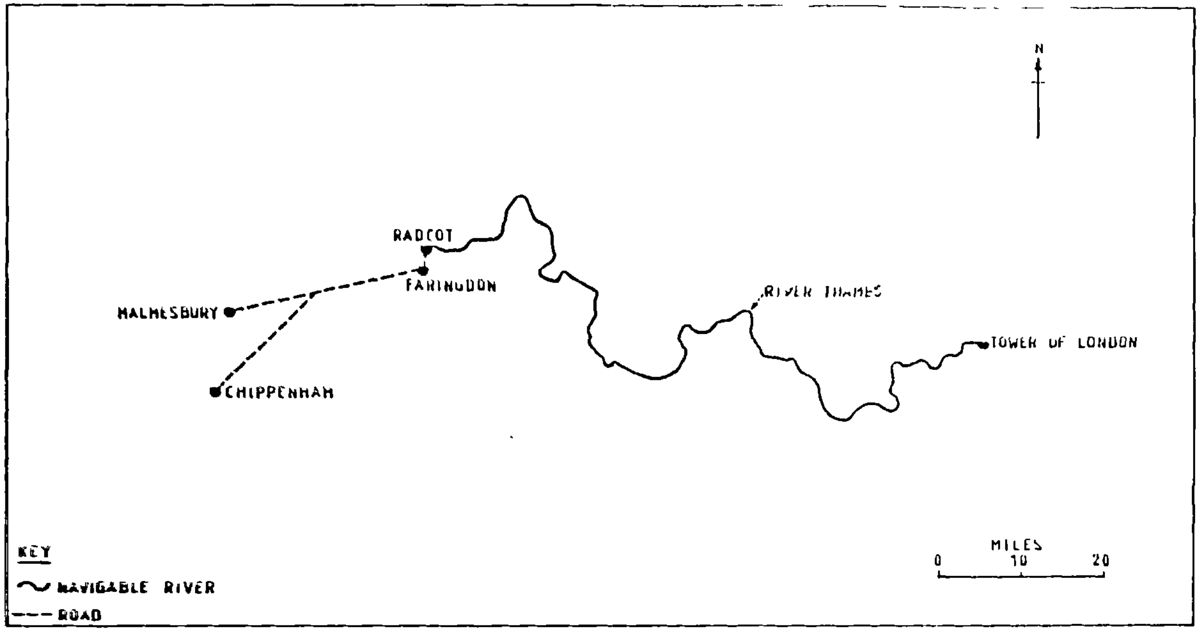
N
RADCOT
FARINGDON
MALMESBURY
CHIPPENHAM
RIVER THAMES
TOWER OF LONDON
KEY
NAVIGABLE RIVER
ROAD
MILES
0
10
20

FIGURE 24:9 ROUTE ASSOCIATED WITH THE TRANSPORT OF FAGOTS IN 1326

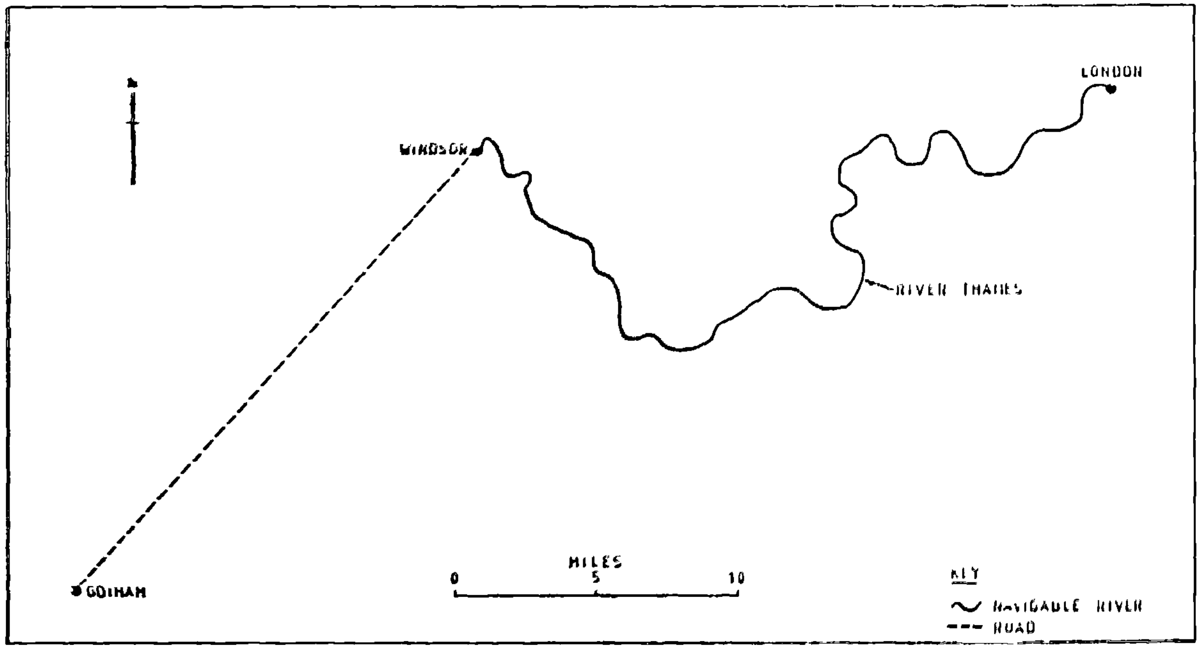
N
WINDSOR
LONDON
RIVER THAMES
ODIHAM
MILES
0
5
10
KEY
NAVIGABLE RIVER
ROAD

FIGURE 24·10 ROUTE ASSOCIATED WITH THE TRANSPORT OF LEAD IN 1371

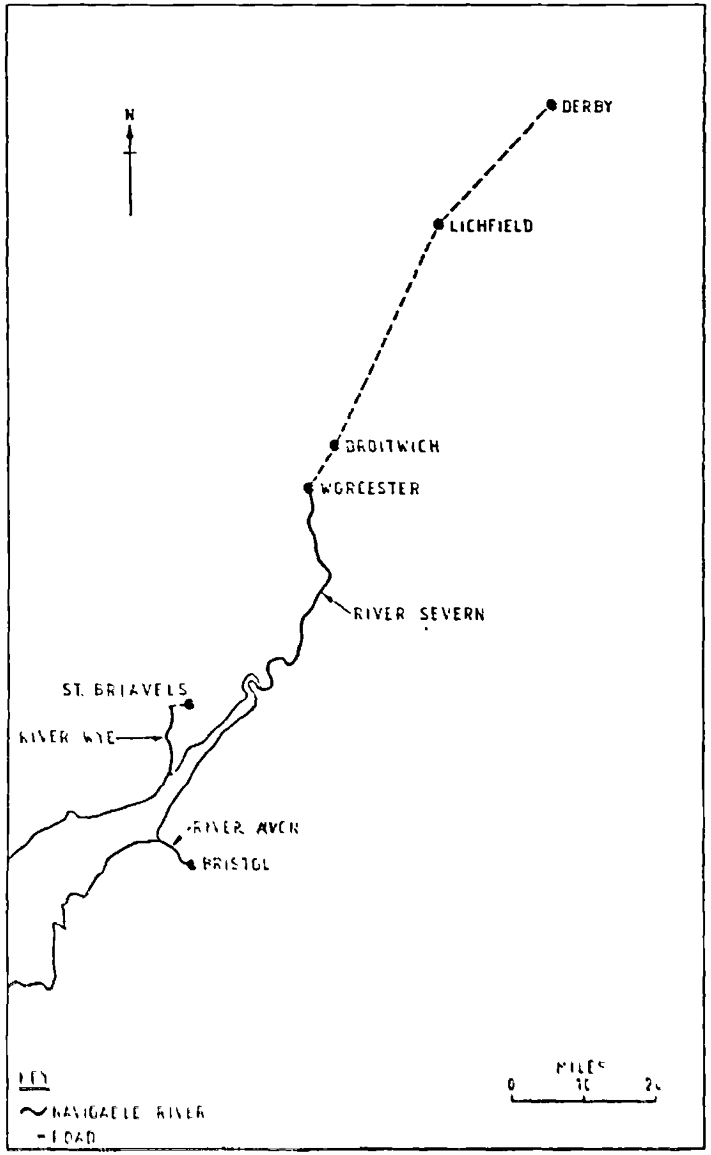
N
DERBY
LICHFIELD
DROITWICH
WORCESTER
RIVER SEVERN
ST. BRIAVELS
RIVER WYE
RIVER AVON
BRISTOL
KEY
NAVIGABLE RIVER
ROAD
MILES
0
10
20

FIGURE 24·11 ROUTE ASSOCIATED WITH THE TRANSPORT OF LEAD IN 1374 was a route highlighted by the royal itineraries). The full route associated with the transport of the lead is given in Figure 24:10.

Lead was taken from Worcester to St. Briavels in 1374.(23) The amount involved, approaching 32 cwts., had probably been mined in Derbyshire and is likely to have been initially carried overland by the route linking Derby with Worcester (via Lichfield and Droitwich). At Worcester, the lead was loaded onto ships, then taken down the River Severn to Bristol - following which it was taken up the River Wye, the short final leg of its journey being completed by land; Figure 24:11 depicts the route taken by the lead.

It is very likely that the royal household made use of the navigable waterways as well as the roads, although the itineraries of the various Kings discussed in Part Two gave no clue as to the mode of transport used. The writs issued by Edward I in 1301 hint at the possibility of the employment of water transport, the sequence of places from which these were issued being Newark, Torksey and Beverley; in 1312 a similar sequence for Edward II is York, Howden, Hull, and Burstwick (on the River Hedon).(24) There is a record which shows that Edward's Queen, Isabella, had difficulty in making the journey from York to Howden, and her retinue of squires and damsels, together with the equipment of the small wardrobe, made the journey in four hired boats.(25) During 1323, Edward II also journeyed between York, Hull, Faxfleet, Burstwick, Faxfleet, Burstwick, Cowick (on the River Aire).(26) Further south, it appears that Edward I made use of the River Thames during his journeys between London and Windsor.(27) F.M. Stenton has pointed out that, during the medieval period, it was not unusual for travellers from London to Canterbury, or the ports of Kent, to use the River Thames as far as Gravesend.(28) In 1325, when the Warden of Merton College, Oxford, visited London, he completed his journey by taking a boat at Kingston. During his nine day stay in the capital he took a boat daily, sometimes to Westminster, and sometimes towards the Surrey manors.(29)

All this evidence suggests that, whenver possible, for reasons of both cost and convenience, the heaviest and most cumbersome goods were sent by water instead of road. Furthermore, individuals, especially those with a large volume of baggage, made use of the navigable rivers where this means of travel was available.

Notes and References

(1) Calendar of Liberate Rolls, 1251-60, 444

(2) ibid, 447

(3) T.S. WILLAN, The Inland Trade, (Manchester, 1976) 25

(4) Calendar of Patent Rolls, 1313-17, 443

(5) S. UHLER, 'The Transportation of Produce in Lincolnshire, Yorkshire, Hampshire and Norfolk during the Fourteenth Century as revealed by the Sheriff's Accounts' unpublished B. Phil. Dissertation, University of St. Andrews (1977) 44

(6) ibid, 27

(7) ibid, 29

(8) J.E.T. ROGERS, A History of Agriculture and Prices in England, Vol. I, (Oxford, 1866), 663

(9) S. UHLER (op. cit.), 33 (See Figure 7 also)

(10) ibid, 25

(11) ibid, 6

(12) ibid, 8

(13) ibid, 15

(14) ibid, Figure 14

(15) ibid, Figure 12

(16) Public Record Office, E101/309/29

(17) W.W. ROUSE BALL, *Cambridge Papers* (London, 1918) 154-60

(18) D.M. BROOME, 'Exchequer Migrations to York in the Thirteenth and Fourteenth Centuries', *Essays in Medieval History, presented to T.F. Tout* (Manchester, 1925) 291-300

(19) C. PLATT, *The English Medieval Town* (London, 1976) 81

(20) M.W. BARLEY, 'Lincolnshire Rivers in the Middle Ages' *Lincolnshire Architectural and Archaeological Soc. Reports and Papers* New Ser. 1 (1938) 17

(21) J.E.T. ROGERS (op. cit.,) Vol. I, 662-3

(22) J.E.T. ROGERS (op. cit.), Vol. I, 659

(23) J.E.T. ROGERS (op. cit.) Vol. II, 604

(24) M.W. BARLEY (op. cit), 16

(25) M.W. LABARGE, *Medieval Travellers: The Rich and Restless* (London, 1982) 38

(26) C.H. HARTSHORNE, *An Itinerary of Edward the Second* (Private Distribution, 1861) 28

(27) B.P. HINDLE, 'A Geographical Synthesis of the Road Network of Medieval England and Wales,' *Unpublished Ph.D. Thesis, University of Salford* (1973) 65-6

(28) F.M. STENTON, 'The Road System of Medieval England' *Economic History Review*, Vol. VII, No. 1 (1936) 19-20

(29) G.H. MARTIN, 'Road Travel in the Middle Ages - Some Journeys by the Warden and Fellows of Merton College, Oxford, 1315-1470, *Journ. Transport History*, Vol. III (1975-76) 166

CHAPTER TWENTY FIVE JOURNEYS' END

The justification for this research was the lack of a previous geographical study of the whole transport system of medieval England and Wales, and in particular a paucity of systematic work dealing with navigable waterways and their relationship with the road network.(1)

Previously published work relating to medieval transport concentrates mainly on the roads, although some consideration is given to the utilisation of various navigable waterways, albeit in a rather localised way.(2)

The previously defined framework of a national network of medieval roads relies heavily on the cartographic record of the Gough Map, and to a lesser extent on those of Mathew Paris,(3) supplemented by the interpretation of the royal itineraries of John, Edward I, and Edward II, together with a theoretical approach based on borough population figures. Although itineraries do not prove the physical existence of routes, they do provide direct evidence of the movement of individuals, which is of great significance. These individuals obviously journeyed from place to place by some means or other and the options available to them would be, to walk, to ride, to travel by carriage or cart, or to travel by boat - if navigable water was to hand.

An additional source of information, the itinerary of Henry III, enables a plot of his travels to be made, which has a significant influence on the minimum aggregate network based on the itineraries of the other three Kings. In terms of royal travels it also fills a gap of 56 years in the previously analysed itineraries.(4)

The Premonstratension Itineraries from Titchfield Abbey are a rich and valuable source covering a fair proportion of the country, fanning out in all directions from Titchfield. As such, they are an extremely useful contribution towards the attempted reconstruction of a national route network as they do not suffer from a typical fault associated with the more usual ecclesiastical itineraries - that of only staying within the precincts of a particular diocese.(5) The fact that inter-place distances are recorded in these itineraries enables direct comparison with the routes of the Gough Map - which shows that both sets of evidence are derived from different sources. Statistical analyses of both sets of data, both of which are of similar size and values, produces extremely close correlation in terms of the average figure in statute miles for each medieval unit of distance - which, by the early fourteenth century had stabilised into a distance approximating to 10 furlongs.(6)

The perusal of additional itineraries, coupled with direct documentary evidence, which is often to be found in legal presentments, assist in establishing certain routes and are a useful aid towards filling any gaps in the national network.(7) Analysis of all these journeys is advantageous, because it is impossible to conclude, especially from the evidence of itineraries, whether a traveller journeyed directly from one place to another; therefore, it is only when repeated use of a particular route is observed that a degree of confidence can be applied to its specific course. These limitations do not apply to the same extent when considering itineraries where the inter-place distances are recorded, as in the Titchfield Abbey Itineraries, because these recorded distances can be used to establish the directness, or otherwise, of a particular route.(8)

The mapping of the various itineraries confirms many of the common lines of travel set down upon the Gough and Mathew Paris maps. Additional lines of travel are also identified, which, when added to the cartographic evidence, expand the network shown on those maps. A significant addition to the network is the route which connects the Channel ports with the Midlands via Northampton, Brackley, Oxford and Newbury, through Winchester and Southampton. The itineraries also support the existence of a number of previously inferred Gough Map routes and link York and Lincoln into the route network in a positive manner, as well as highlighting the link between Leicester and Doncaster, via Nottingham.

A limitation associated with itineraries is that, unless specifically mentioned, there is no way of knowing whether stretches of navigable water were employed during a particular journey. This same limitation applies, to a lesser degree, when dealing with some of the cartographic evidence. For example, the Gough Map route between Lincoln and Boston which follows the course of the River Witham, and the routes alongside the Severn and the Thames, could just as easily refer to those waterways as to terra firma. There are also the problems associated with missing data and the difficulties of interpreting, deciphering, and locating certain places, especially the Welsh places shown on the Gough Map.(9) Regarding the Gough Map, there is some evidence to suggest that its origins may date from the last quarter of the thirteenth century, with later additions.(10)

Although the basic network of routes derived from these separate sources possibly includes some stretches of navigable water, it is, without question, predominantly land-based and therefore, the final map depicting it (Fig. 8:1), is described as a 'road' network.(11) The basic road network also provides a means of establishing the most likely routes taken for the overland movement of goods and produce where only the starting point and destination are recorded in the documentary evidence(12).

Turning to the extent of navigable water in use during the medieval period, the various State Rolls, supplemented by the volumes relating to Public Works and the Sheriffs' Accounts', are particularly useful sources of contemporary evidence.(13)

The bringing together of all the regional evidence produces a map (Fig. 20:1) which, it is suggested, is the first comprehensive attempt at describing the navigable rivers of medieval England and Wales. Although many of the rivers depicted on this map were previously known, or presumed, to have been navigable, the extent of navigable water is expanded in certain areas, whilst in others presumption has been replaced by historical fact.(14) Although the references relating to the internal movement of waterborne cargoes are invaluable in determining the extent of inland navigable water utilised during the medieval period, they are not sufficient to allow much detailed analysis of spatial or temporal variations of different types of cargo.(15) Historical evidence also substantiates the physical connection between the coasting trade and river navigation; there is, however, a disappointing lack of evidence relating to the vessels employed on the rivers.(16)

Although an apparent line of travel combined with an associated distance can, when shown on a map, be used to confirm overland routes, the fact that a river is shown on a map does not confirm its navigability. However, it is interesting to observe that the Gough Map shows, albeit rather crudely in some areas, most of the rivers determined to be navigable during the medieval period.(17) The availability of navigable water was certainly a contributory factor in the growth and prosperity of many medieval towns; the importance of having navigable water at hand is borne out by the fact that at least three-quarters of the one hundred prominent boroughs of the medieval period has direct access to it,(18) giving them a distinct economic advantage in the distribution of goods and produce.(19) Trends in the changing fortunes of the prominent medieval boroughs puts into perspective temporal fluctuations and hence highlights the changing importance of the routes leading to them.(20)

The final map, showing the combined roads and navigable waterways (Fig. 23:1) is an approach to the basic structure of the transport system at a national level. Its merit, it is suggested, is that it is the first comprehensive attempt at describing the whole transport system of medieval England and Wales.

Because this research has been carried out at the national level it tends to lack some of the finer detail that a study covering a much smaller area might produce. However, it is hoped that a base has been formed onto which further research at the local level can build in order to disclose more about medieval transport, an aspect of life which was so important to the developing economy of the nation.

Notes and References

(1) see Chapter One

(2) see Chapter Two

(3) see Chapter Three

(4) see Chapter Four

(5) see Chapter Five

(6) see Chapter Six and Appendix I

(7) see Chapter Seven

(8) see Chapter Eight

(9) see Appendix II

(10) see Appendix III

(11) see The Medieval Road Network-Conclusions

(12) see Chapter Eight

(13) see Chapters Nine to Nineteen inclusive

(14) see Chapter Twenty especially Table 20:1

(15) see Chapter Twenty

(16) see Chapter Twenty One

(17) see Chapter Twenty Two

(18) see Chapter Twenty Three

(19) see Chapter Twenty Four

(20) see Chapter Twenty Three

APPENDIX I THE MEDIEVAL UNIT OF DISTANCE

The degree of similarity resulting from the analysis of the two separate sources of evidence considered in Chapter Six is too close to be the result of chance. It is therefore reasonable to assume that the average units of distance set down upon the Gough Map and given in the Titchfield Abbey Itineraries are representative of the unit of distance employed during the medieval period.

Before considering what these units of distance may represent, it is well worth analysing an itinerary which survives in the form of a business document and is important because records of this type recording journeys from the medieval period expressed in terms of distance are extremely rare. It is an isolated record of this type which gives the account of one Robert of Nottingham - who was buying wheat for the King in the winter of 1324-5.(1) The outline of his journey, which commenced at Nottingham, involved visits to:- Lincoln, York, Doncaster, Grantham, Stamford, Huntingdon and London. For each stage of his journey he recorded the distance in units which he describes as leucae. Some of his journey follows part of the Gough Map routes and, although the Gough Map does not indicate what its inter-stage distances represent. it is revealing to compare its data, where applicable, with Robert of Nottingham's Itinerary (Table I:1). The itinerary is mapped in Figure I:1. There are four similar stages; those between Howden - York; Grantham - Stamford; Stamford - Huntingdon; Wansford Bridge - Stamford, and all agree exactly in terms of units of distance. The addition of the two stages between Huntingdon and London on the outward journey falls short by only one unit of distance of that distributed in five stages between the same places on the Gough Map. However, when considering the return journey, the addition of the stage distances between London and

TABLE I:1 THE ITINERARY OF ROBERT OF NOTTINGHAM 1324-5

Stage	Leucae		Gough Map Distance	
Nottingham - Southwell	10		-	
Southwell - Lincoln	16		-	
Lincoln - Burton-on-Stather	30		-	
Burton-on-Stather - Howden	12		-	
Howden - York	16		16	
York - Doncaster	28		-	
Doncaster - Clayworth	12		-	
Clayworth - Lincoln	15		-	
Lincoln - Grantham	20		-	
Grantham - Stamford	16		16	
Stamford - Huntingdon	24		24	
Huntingdon - Puckeridge	24	49	50	(12 + 8 + 13 + 9 + 8)
Puckeridge - London	25			
London - Cheshunt	14	34	33	(12 + 8 + 13)
Cheshunt - Royston	20			
Royston - Huntingon	16		17	(9 + 8)
Huntingdon - Wansford Bridge	19		19	(14 + 5)
Wansford Bridge - Stamford	5		5	

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and Huntingdon agree exactly with the total distance shown on the Gough Map. The stage distance between Huntingdon and Wansford Bridge also equates with the addition of the two stage distances between these two places given on the Gough Map.

This correlation between the figures given independently by Robert of Nottingham amd those set down upon the Gough Map is too exact to be

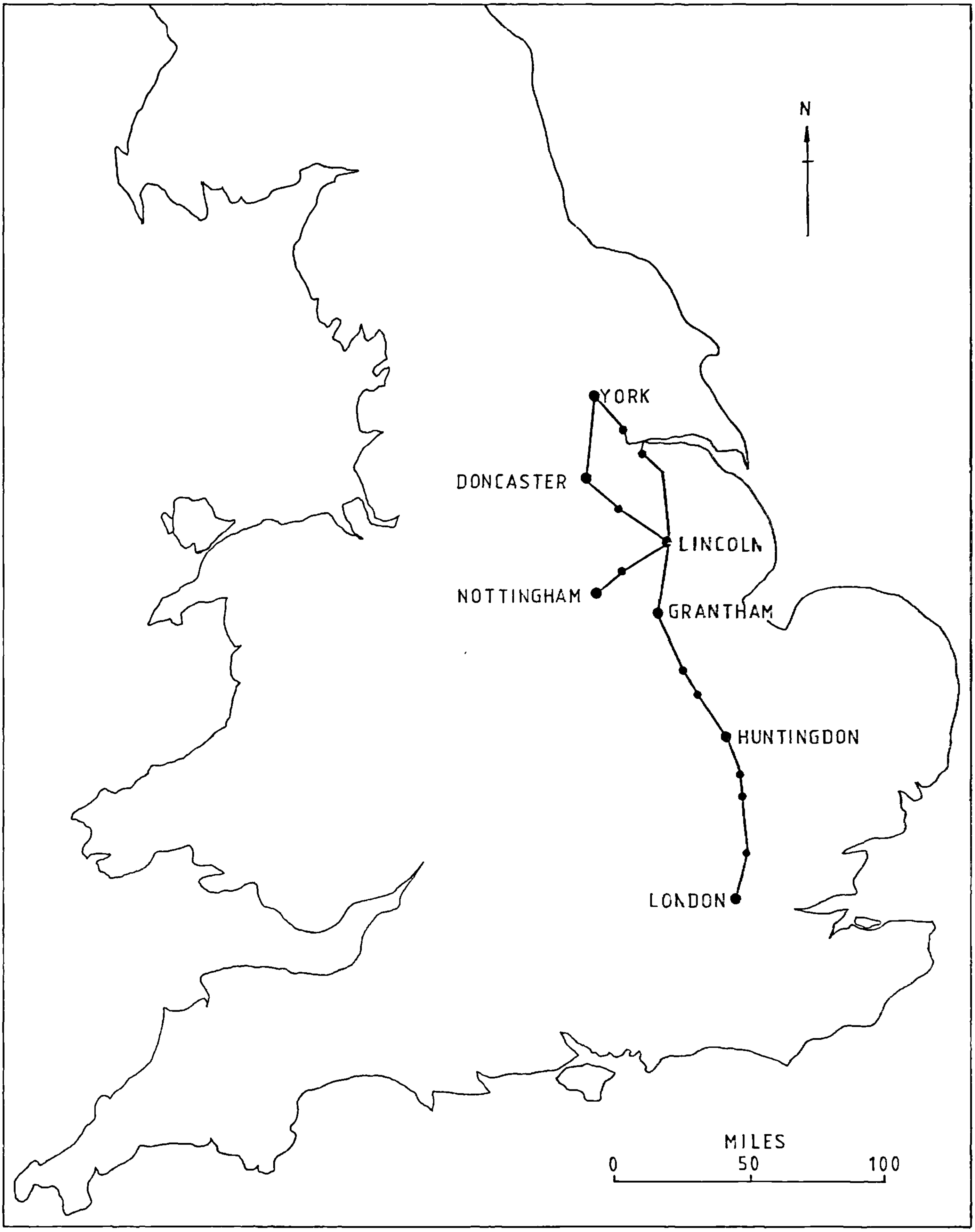
N
YORK
DONCASTER
LINCOLN
NOTTINGHAM
GRANTHAM
HUNTINGDON
LONDON
MILES
0
50
100

FIGURE I:1 THE ITINERARY OF ROBERT OF NOTTINGHAM 1324-5

the result of coincidence. We know that the distances recorded by Robert of Nottingham are leucae, because he tells us so in his account, therefore in view of his evidence, it must be concluded that the units of distance set down upon the Gough Map also represent leucae.

It is also significant that the Lincolnshire Sheriff's Accounts for the year 1301(2) records distances between Grantham and Lincoln and between Stamford and Lincoln as being 20 and 36 leucae respectively; which by subtraction equates exactly with the 16 leucae given in Table I:1 for the stage between Grantham and Stamford. The addition of mileages between Grantham and Lincoln given in the Titchfield Abbey Itineraries also equates exactly with the 20 leucae given for this stage in the Account of Robert of Nottingham.

The average Gough Map unit of distance of 1.27 statute miles compares closely with that of 1.28 statute miles of the Titchfield Abbey Itineraries; hence it must be concluded that all these units of distance are the same. A statistical check of those stages given by Robert of Nottingham which are not the same as those of the Gough Map produced an average unit of distance equivalent to 1.24 statute miles when comparing measured statute mileages between the same places.

Therefore, it would appear that the medieval unit of distance was approximately 1¼ statute miles.

Sir Charles Close, in a study of the old English mile, concluded that its value was equivalent to 10 furlongs during the fourteenth century.(3) J.B.P. Karslake, in a follow up paper, suggests that the fourteenth century mile was 11 furlongs.(4) He bases his deduction on the evidence of Higden, who, in his Polychronicon of 1344 states that

> "Dover is 12 English miles asunder from Canterbury of English accountage". (5)

Karslake goes on to point out that some three hundred years later, in 1633, this same old Dover road was measured by the 8 furlong mile then being brought into use to determine mileage rates for post-office purposes, and we are told that

> "the post-masters deputies and the hackneymen of Dover and Canterbury have ad-measured the highway between the two places and have set up posts at every mile and expressed the same to be 15¼ miles".

Karslake then says that

> "This measurement gives the 12 miles of 'English accountage' of 1344 a length of exactly 11 furlongs" (6)

However, a check of Karslake's arithmetic does not bear out his conclusion. The distance between Dover and Canterbury measured in 1633 at 15¼ miles, produces a total of 122 furlongs at 8 furlongs per mile (8 x 15¼ = 122). If this figure is then divided by the 12 miles given by Higden, we obtain an answer of 10.16, not 11, furlongs. The modern distance by the very direct road between Dover and Canterbury is exactly 15 miles.(7) The modern mileage between the two places of 120 furlongs (8 x 15), results in a mile of exactly 10 furlongs when divided by 12. The record of Higden is therefore further supporting evidence that the fourteenth century unit of distance was of the order of 10 furlongs, or 1¼ statute miles.

Sir Flinders Petrie draws attention to the relationship between the old French mile and the unit of distance given on the Gough Map.(8) This mile was based on the medieval foot of 13.22 inches and had the relationship:- 6 feet = 1 fathom; 10 fathoms = 1 chain; 10 chains = 1 furlong; 10 furlongs = 1 mile (9) Substituting 13.22 inches in the above relationship produces a mile of $2203\frac{1}{3}$ yards, which exceeds the 10 furlong mile by only $3\frac{1}{3}$ yards. This means that if the medieval foot was reduced by 20 thousandths of an inch, then the overall computation would equate exactly!

From Saxon times the leuga had been in use in England as a unit of maximum linear measure.(10) This unit was initially based on a distance of 1500 passus or paces, and was originally introduced into Britain by the Belgic Gauls,(11) and hence, considering its origins, it is probable that it was directly related to the old French mile. Its ancestry is probably associated with the Roman mile of 1000 passus, which approximated to 1616 yards;(12) but precisely what the leuga initially represented in terms of distance is not exactly clear.

Conclusions

It appears from the available evidence that, at least by the early fourteenth century, the medieval unit of distance had stabilised into a distance approximating to 10 furlongs.

The terminology used to describe the medieval unit of distance appears to have gone through a transitional period during the fourteenth century. In 1301 the Sheriff of Lincoln refers to leucae; as does Robert of Nottingham in 1324-5; but by 1344 Higden mentions English miles. The Titchfield Abbey Itineraries, copied down at the end of the fourteenth century record these units as miliaria, or miles.(13) It was not until an act of 1592 that there is any official record of the 8 furlong statute mile, and even this had no statutory force outside the London area.(14)

The old mile seems to have continued in use for a considerable time after this, as many sixteenth and seventeenth century maps can testify;(15) and numerous mileages given by Ogilby in his 'Britannia" of 1675 match those shown on the Gough Map. It was not until as late a date as 1824, under the Act of that year for 'ascertaining and establishing Uniformity of Weights and Measures', that the mile of 1760 standard yards became the legal mile for all purposes within the United Kingdom.(16)

Notes and References

(1)	F. M. STENTON,	'The Road System of Medieval England', *Economic History Review*, vol.vii, No.1 (1936) 14
(2)	S. UHLER	'The Transportation of Produce in Lincolnshire Yorkshire, Hampshire and Norfolk during the Fourteenth Century as revealed by the Sheriffs Accounts'. *unpublished B.Phil, Dissertation, University of St. Andrews* (1977) appendix.
(3)	C. CLOSE	'The Old English Mile'. *Geographical Journ.* 76 (1930) 338-42.
(4)	J.B.P. KARSLAKE	'Further Notes on the Old English Mile' *Geographical Journ.* 77 (1931) 358-60.
(5)	ibid	358
(6)	ibid	358
(7)	*Road Atlas-Britain*	(Edinburgh 1973) 13
(8)	W.M. PETRIE	'The Old English Mile'. *Proc. Royal Soc. of Edinburgh* 12 (1883-84) 254
(9)	C. CLOSE (op. cit.),	342
(10)	J.B.P. KARSLAKE (op. cit.)	358
(11)	J.B.P. KARSLAKE (op. cit.)	358
(12)	J.B.P. KARSLAKE (op. cit.)	359
(13)	B. DICKINS	Premonstratensian Itineraries from a Titchfield Abbey MS. at Welbeck, *Proc. Leeds Philosophical Soc.* 4(1938) 352-61.
(14)	J.B.P. KARSLAKE (op. cit.)	359

(15) C. CLOSE (op. cit.) 342

(16) J.B.P. KARSLAKE (op. cit.) 359

APPENDIX II THE GOUGH MAP(1): THE COMPLEXITIES ASSOCIATED WITH THE WELSH COASTAL ROUTE BETWEEN CARDIGAN AND CHESTER

It was mentioned in Chapter 6 that there is some confusion relating to the interpretation of placenames in that section of the Gough Map coastal route between Cardigan and Abergele. The route in question covers most of that classified by E.J.S. Parsons as road **S2**, the complete course of which is given in the following table:-

TABLE II:1 THE GOUGH MAP ROUTE BETWEEN CARDIGAN AND CHESTER(2)

S2 Cardigan XXIIII Aberystwyth XII Aberdovey XII Barmouth XI Llanenddwyn...
Harlech XII Criccieth XXIIII Caernarvon VIII Bangor XV (Capel Curig)VIII
Conway ... Abergele IIII Rhuddlan X Flint X Chester.

Figure II:1 shows the area of map which includes the above route and is taken from the Ordnance Survey (1870) reproduction. The series of lines connecting Cardigan with Chester is shown heading northwards along the coast of Cardigan Bay then on to Caernarvon before turning east along the North Welsh coast to Chester.

Although it was shown in Chapter 6 that there can be variation in the reliability of the Gough Map distances, the figures set down upon the apparent lines of travel can be used as a guide to placename location when used in conjunction with topographical detail.

Cardigan is shown in its correct geographical position on the Teifi estuary, although the river is not named on the map. The apparent line of travel is shown heading northwards and terminates at a river where a place on the northern bank is shown. The distance on this line is given as XXIIII (hereafter called 'Gough miles').

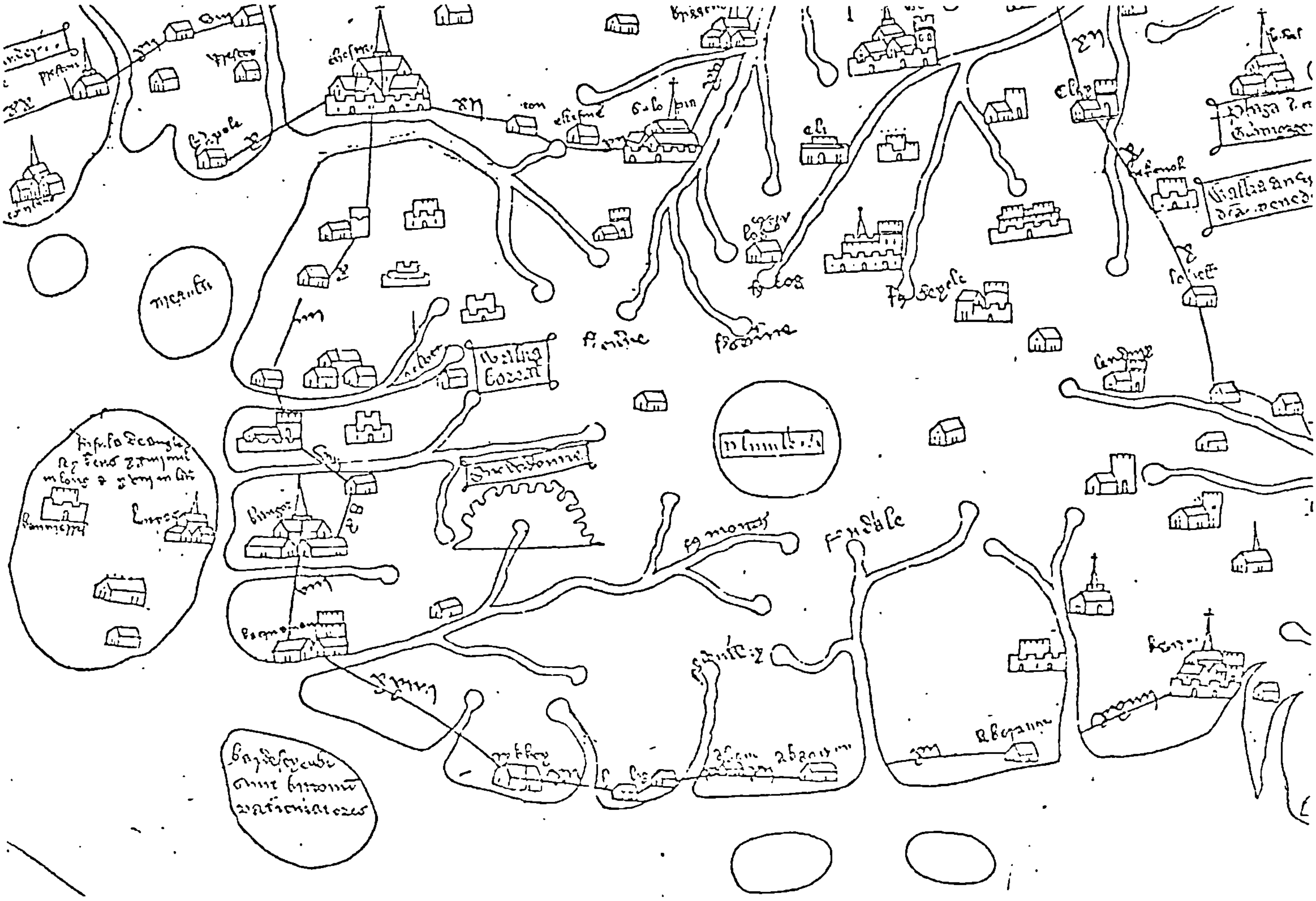

FIGURE II:1 THE CHESTER-CARDIGAN ROUTE ON THE GOUGH MAP

Parsons, apart from classifying the roads, also used an ultra-violet light technique in an attempt to decipher information written on the original map.(3) It is obvious that he experienced difficulty in attempting to decipher some Welsh names, not least because of the very similar ways in which some Welsh placenames begin, viz; Llan..., Aber..., etc. The first placename after Cardigan he identifies as Aberystwyth(4) and therefore assumes that the river shown at this place must be the Ystwyth.(5) The river is not named on the map but it can be seen that the placename shown on its norther bank begins Aber... A castle symbol is shown, a little further up river and close by the name Lanmihangel is written on the map. Further inland still, and on the southern side of the river, there is a placename where only a couple of letters can be deciphered. From this scant evidence Parsons assumes that the place is Strata Florida,(6) however, this is far from conclusive. Parsons also assumes that the castle symbol depicts Castell Gwalter,(7) but Gwalter is 43 statute miles to the north of Cardigan, near the coast, which does not fit the topographical detail shown on the map. There is a place called Llanfihangel - geneur - glyn close by Castell Gwalter, and because of this Parsons probably assigns Gwalter to the castle symbol shown on the map.

The first river of any consequence to the north of Cardigan is the Aeron, which flows into Cardigan Bay at Aberaeron and is 22 statute miles from Cardigan via the direct modern coastal road. Some 7 statute miles up river, and on its northern bank, is the site of a castle which matches the castle symbol shown on the Gough Map. The site is that of Castle Trefilan, which was built in 1233,(8) and is known to have still been in use well into the thirteenth century.(9) Across the river from the site of this castle is the place called Llanfihangel Ystrad, which closely resembles the name written by the castle symbol shown on the map.

Further to the east, Lampeter is shown in its correct geographical location relative to Cardigan, and is styled ...beder, the old name for Lampeter being Llanbedr Pont Stephan.(10)

The topographical detail, the placename assignments, and to a lesser extent the Gough mileage - support the assumption that the first stage place along the coast route from Cardigan is Aberaeron, and not Aberystwyth.

The next place along the route is shown at the head of a river which is clearly identified on the map as the Ridale (Rheidol). Parsons assigns Aberdovey to this place and says that the compiler of the map made an error in his positioning of the Rheidol.(11) However, if we consider the next river of consequence in a northward direction from Aberaeron we arrive at the united entry of the rivers Rheidol and Ystwyth into Cardigan Bay at the place called Aberystwyth. The inter place distance from the previous place is given as XII Gough miles on the map, which equates favourably with the 16 statute miles between Aberaeron and Aberystwyth via the direct modern coastal road. (It was shown in Chapter 6 that the Gough mile approximates to 1¼ statute miles).

Hence, the Gough Map river name, topography and mileage support the assumption that the second route place is Aberystwyth.

The next place along the route must have been at, or close by, the crossing place over the River Dovey. The Dovey is clearly identified on the map and the Gough mileage of XII equates with the modern distance of 16 statute miles between Aberystwyth and the castle at Derwen Las. This castle was strategically sited, being close to where the estuary narrows - which is the obvious location for guarding the crossing place over the Dovey. This ancient ford is mentioned by J.E. Lloyd in his History of Wales(12) and the castle of Derwen Las is mentioned in contemporary records between 1066 and 1215 AD.(13) Parsons assigns Barmouth (Abermaw) to this place and concludes that the Dovey is wrongly named and should be the Maw or Month.(14)

However, the topography once again agrees with the compiler of the map, this being further supported by the correct geographical positioning of Plimilemon (Plynlimon), inland between the heads of the rivers Dovey and Rheidol. Also, Barmouth is on the northern side of the Mawddach and the place shown on the map is positioned on the southern side of a river.

Parsons agrees that the next place shown on the route is clearly named Towyn, but assigns Llanenddwyn to this place.(15) As Llanenddwyn is some 31 miles to the north of Towyn one can only assume that Parsons does this to keep his previous series of placenames intact. However, Towyn fits the topography and this is supported by the close agreement between the inter-stage distance of XI Gough miles shown on the map and the modern distance between Derwen Las and Towyn of 13 statute miles.

From Towyn to the next place on the Gough Map route there is no indication of distance written upon the map. It appears that the name of this next place ends with ____log. Parsons assigns Harlech to this place,(16) in order that his previous name sequence remains intact, but the most likely place is Arthog, which is 14 statute miles from Towyn.

Beyond Arthog, the next place on the route is located across an unidentified river at a distance of XII Gough miles from the previous place. This place is identified as 'Crykkey', and hence Criccieth, on the Ordnance Survey print of the Gough Map and Parsons probably accepted this because it fitted in with his previous sequence of placename assignments. However, the topography, location, and Gough mileage, coupled with the fact that Dyffryn and Crykkey both look similar when written down, point to this place being Dyffryn. In this case the unidentified river is the Mawddach, which presents similar problems to the traveller as did the Dovey. The first convenient crossing point is approximately 5½ statute miles from Arthog, and then it is a further 11½ statute miles to Dyffryn, via Barmouth; the addition of these distances being similar to the XII Gough miles shown on the map.

An interesting point relating to the apparent lines of travel as set down on the Gough Map is that these lines appear to show only the distance travelled between two adjacent places and are not indicative of the actual route travelled. This is high-lighted by analysis of the lines as drawn across the Mawddach and Dovey estuaries. It has been shown that the probable Gough Map routes involved travelling 'up-stream' to a convenient crossing place followed by a 'down-stream' journey along the opposite bank. However, the lines across these estuaries are shown straight and do not 'kink' to take account of the considerable diversions involved in travelling to convenient crossing places.

Caernarvon is clearly identified as being the next place on the route and is shown XXIIII Gough miles from the previous place (Dyffryn). The distance line is shown passing over two rivers, one adjacent to Caernarvon and the other to the north of Dyffryn. The river on which Caernarvon stands is the Seiont, the far inland reaches of which are identified on the Gough Map. The intervening land mass is consistent with that at the base of the Lleyn Peninsula, although the peninsula itself is not shown. A further pointer to this intervening land mass representing the base of the Lleyn Peninsula is that fact that Bardsey Island is shown located directly off this base. The indications are therefore that the river shown to the north of Dyffryn is the Dwyryd - which flows into the large estuary of Traeth Bach. The crossing place was probably a little to the west of Maentrog, where the estuary narrows, from where a direct northerly valley route cuts through the mountains to the west of Snowdon and reaches Caernarvon via Beddgelert and Betws Garmon. The distance between Dyffryn and Caernarvon via this route is 32 statute miles, which compares closely with Gough mileage of 30½ statute miles.

The distance between Criccieth and Caernarvon is 16 statute miles via the direct route to the west of Carnedd goch, which approximates to only half the distance recorded on the map. Clearly, Parsons' assumption, that the place prior to Caernarvon is Criccieth, is not supported by either the topography as shown on the map - or by the associated mileages.

Bangor is clearly shown as the next place on the route after Caernarvon, and the interplace distance of VIII Gough miles compares favourably with the 9 statute miles between these places via the direct modern coastal road.

The next placename is indecipherable, but is shown XV Gough miles from Bangor. The route appears to deviate inland to this place, which Parsons suggests is Capel Curig,(17) although he probably bases this assumption on the fact that Capel Curig is 15 statute miles from Bangor via the direct modern A5 road. As far as is known there was no route, medieval or Roman, connecting Bangor with Capel Curig.(18) The minor Roman fortress of Caer-Llugwy, two miles to the east of Capel Curig, was on a north-south route,(19) and the road connecting Bangor with Capel Curig was constructed during 1791 when Lord Penrhyn, the owner of the large slate quarry at Bethesda, built a road up the Nant Ffrancon and then on to his estate at Capel Curig.(20) The reason for the inland deviation on this predominantly coastal route is probably due to the physical barrier presented by the great buttress headlands of Penmaenmawr and Penmaenbach. The Romans overcame this problem by constructing a road which cut inland at Aber, 6 statute miles to the east of Bangor, and then ascended to the col of Bwlch y Ddeufan before descending to their fort at Canovium (Caerhun) in the Conwy Valley. Blasting techniques have enabled the engineers of more recent times to circumnavigate these headlands by constructing a road on their seaward side. However, the Roman route between Aber and Caerhun has been traced almost in its entirety, and survives as part trackway and path which is still in use as a public right of way.(21).

It seems reasonable to assume therefore, that the medieval route from Bangor to the Conwy Valley would have been via this Roman road which cut inland and so skillfully avoided the physical barriers on the coast. The assumption that the next Gough Map stageplace after Bangor is in the region of Caerhun is also supported by the recorded mileage. The distance between Bangor and Caerhun via the Roman road is about 17 statute miles, which equates favourably with the XV Gough miles recorded on the map.

Having assumed that the place recorded on the Gough Map after Bangor is in the region of Caerhun, there is a problem relating to the next place shown on the map. Parsons identifies this next place as Conwy,(22) but does not comment on the omission from the map of the River Conwy, or the fact that the place he identifies as Conwy is shown situated on the east bank of the Ogwayn (Ogwen), a river which flows into the Menai

Straight close to Bangor. The fact that the River Conwy is not identified on the Gough Map is extremely difficult to understand, the Conwy Valley being such a prominent physical feature. The River Conwy is mentioned in the Patent Rolls of 1332, when timber and brushwood conveyed along the river from the King's forest and woods of Snowdon was ordered to be arrested until proof of purchase had been shown.(23) Hence, it appears, judging by the inter-place distance of XV Gough miles coupled with the known Roman route as previously discussed, that the river shown on the map as the Ogwen is in fact the River Conwy. In this case the place partially identified under ultra-violet light by Parsons as Conwy, is either wrongly located, or the place depicted is actually situated on the east bank of the river. (Conwy is situated on the west bank of the River Conwy). Across the estuary from Conwy, and on the east bank of the river, is Deganwy; which was made a chartered borough in 1252(24) and where there are the remains of a castle built by Henry III during the autumn of 1245.(25) The symbol shown on the Gough Map for the second stage-place after Bangor appears to include a castle. From Caerhun, where the Roman route crossed the River Conwy and continued in the general direction of St. Asaph. it is about 9 statute miles to Deganwy via the east bank of the river; and this compares favourably with the VIII Gough miles shown on the map. It should be noted that the shortest possible route between Capel Curig and Conwy is about 15 statute miles, which does not compare with the stated Gough mileage. Another topographical feature supporting the assumption that the river shown on the Gough Map as the Ogwen is in fact the Conwy, and the second stage-place after Bangor is Deganwy, is shown by the position of Gwytherin on the map. Gwytherin is situated inland to the south-east of Deganwy between the Conwy and Clwyd rivers; and this is exactly the picture portrayed by the map in its relation to the river named Ogwen and the second-stage place after Bangor.

It is probable, therefore, that due to the fact that Deganwy and Conwy share some common letters, the place Parsons partially identifies as Conwy is in fact Deganwy.

The Gough Map route continues and crosses the River Clwyd which is styled 'clotte' on the map. Denbigh is shown in its correct geographical position in relation to the river and St. Asaph is also depicted. The next placename on the route is given as Abergele, although the distance from the previous place is not given on the map. A distance of IIII Gough miles is given to the next stage-place, Rhuddlan, and this compares favourably with the distance of 5½ statute miles between these places via the direct modern road.

The route continues to Flint, which is shown on the penultimate place before Chester, at a distance of X Gough miles from Rhuddlan - which compares with the modern distance between these two places of 15 miles, via Gorsedd and Holywell.

The final leg of the route leads directly to Chester and by-passes Hawarden, which is indicative of a straight route alongside the Dee estuary. The route is then shown crossing what is obviously the River Dee, prior to terminating at Chester. The distance from Flint is given as X Gough miles on the map, which compares with the modern distance of 13 statute miles along this route.

The following table lists the inferred route placenames in chronological order from Cardigan, together with their associated Gough mileages. The computed equivalent statute mileages, using the computation one Gough mile = 1.27 statute miles are also shown, as are the modern interplace distances along similar routes.

TABLE II:2 INTERPLACE DISTANCES ON THE INFERRED GOUGH MAP ROUTE BETWEEN CARDIGAN AND CHESTER

PLACENAME	GOUGH MILEAGE	COMPUTED GOUGH MILEAGE	MODERN MILEAGE
Cardigan	XXIIII	30½	22
Aberaeron	XII	15¼	16
Aberystwyth	XII	15¼	16
Derwen Las	XI	14	13
Towyn	-	-	(13)
Arthog	XII	15¼	17
Dyffryn	XXIIII	30½	32
Caernarvon	VIII	10¼	9
Bangor	XV	19	17
Caerhun	VIII	10¼	9
Deganwy	-	-	(11½)
Abergele	IIII	5	5½
Rhuddlan	X	12¾	15
Flint	X	12¾	13
Chester			

In Table II:2, the placenames which are in agreement with those of Parsons are shown underlined.

The complete inferred route between Cardigan and Chester, as outlined in Table II:2, is given in Figure II:2.

NOTE: It should be mentioned that the author corresponded with E.J.S., Parsons, initially to inquire if he was able to furbish any further information regarding his suggested route names - but unfortunately he was unable to do so. However, he was very encouraging, and stated that he thought the placenames given in the new inferred route, and the reasons for their inclusion carried a good deal of weight. (26)

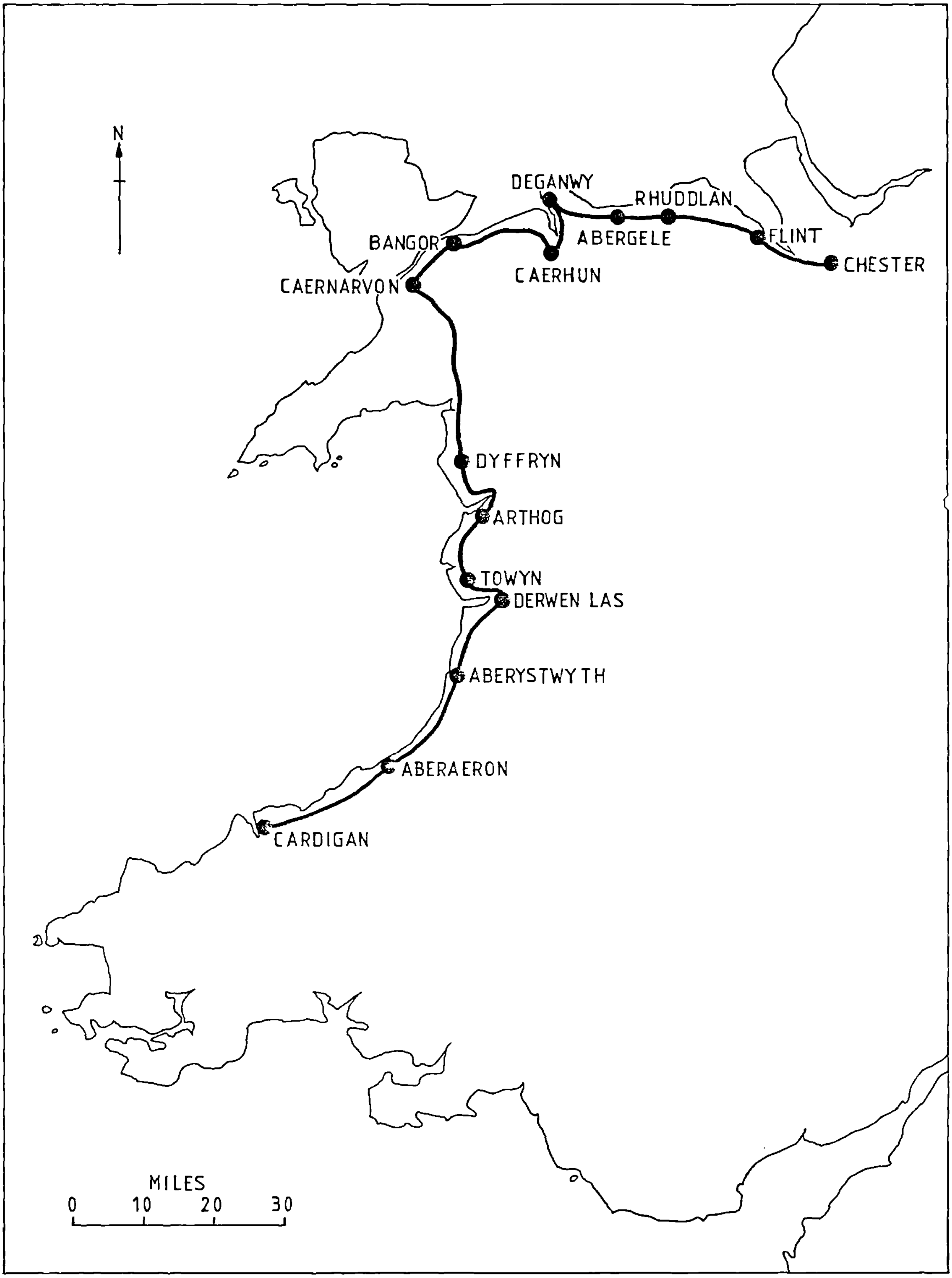
N
DEGANWY
RHUDDLAN
BANGOR
ABERGELE
FLINT
CHESTER
CAERHUN
CAERNARVON
DYFFRYN
ARTHOG
TOWYN
DERWEN LAS
ABERYSTWYTH
ABERAERON
CARDIGAN
MILES
0
10
20
30

FIGURE II:2 INFERRED GOUGH MAP ROUTE BETWEEN CARDIGAN AND CHESTER

The placenames assigned by Parsons, together with their associated mileages, are given as follows in Table II:3.

TABLE II:3 INTERPLACE DISTANCES ON THE GOUGH MAP ROUTE BETWEEN CARDIGAN AND CHESTER (after Parsons)

PLACENAME	GOUGH MILEAGE	COMPUTED GOUGH MILEAGE	MODERN MILEAGE
Cardigan	XXIIII	30½	38
Aberystwyth	XII	15¼	22
Aberdovey	XII	15¼	27
Barmouth	XI	14	5
Llanenddwyn	-	-	(5)
Harlech	XII	15¼	13
Criccieth	XXIIII	30½	16
Caernatvon	VIII	10¼	9
Bangor	XV	19	15
Capel Curig	VIII	10¼	15
Conwy	-	-	(11½ via ferry)
Abergele	IIII	5	5½
Rhuddlan	X	12¾	15
Flint	X	12¾	13
Chester			

It is revealing to compare the last two columns of Tables II:2 and II:3; these comparisons are given as follows in Table II:4.

TABLE II:4 COMPARISON OF COMPUTED GOUGH MILEAGES AND MODERN MILEAGES FOR THE NEW INFERRED ROUTE AND THAT OF E.J.S. PARSONS BETWEEN CARDIGAN AND CHESTER

New Inferred Route			E.J.S. Parsons Route		
COMPUTED GOUGH MILEAGE	MODERN MILEAGE	DIFFERENCE	COMPUTED GOUGH MILEAGE	MODERN MILEAGE	DIFFERENCE
30½	22	8½	30½	38	7½
15¼	16	¾	15¼	22	6¾
15¼	16	¾	15¼	27	11¾
14	13	1	14	5	9
15¼	17	1¾	15¼	13	2¼
30½	32	1½	30½	16	14½
10¼	9	1¼	10¼	9	1¼
19	17	2	19	15	4
10¼	9	1¼	10¼	15	4¾
5	5½	½	5	5½	½
12¾	15	2¼	12¾	15	2¼
12¾	13	¼	12¾	13	¼
		(21¾)			(64¾)

In Table II:4, the total addition of all the differences between the Computed Gough Mileages and the Modern Mileages for both routes are shown in brackets. It can be observed that both the individual and total differences between the two sets of figures are much smaller for the Inferred Route and hence much closer to what the cartographer intended.

In referring to Table II:2, it should once again be stressed that the placenames which do not agree with those as given by Parsons are derived from topographical detail as shown on the Gough Map together with historical evidence as discussed in the text; they are not assigned solely to fit in with the inter-place Gough mileages.

Conclusions

A new inferred Gough Map route between Cardigan and Chester was derived. This was based on the topography and detail shown on the apparent lines of travel as set down on the map, coupled with other supporting historical evidence.

Inevitably, there is little physical evidence left on the ground, most of the route being covered by modern roads or lost beneath fields. However, the old Roman route from Aber over the col of Bwlch-y-Ddeufan and into the Conwy Valley is a partial survivor, being part trackway and path which is still in use as a public right of way.

Notes and References

(1)	R. GOUGH,	British Topography, 2 vols (1780)
(2)	E.J.S. PARSONS.	The Map of Great Britain, circa A.D. 1360 Known as The Gough Map Memoir with amended reprint of part of paper by F.M. Stenton (1936) and a colour facsimile (Oxford, Bodleian Library, 1958) 36.
(3)	ibid,	Preface
(4)	ibid,	27
(5)	ibid,	33
(6)	ibid,	27
(7)	ibid,	27
(8)	A.H.A. HOGG and D.J.C.KING	Masonry Castles in Wales and the Marches Archaeologia Cambrensis 116 (1967) 129.
(9)	ibid,	78
(10)	L.R. MUIRHEAD, ed.	Wales (London 1953) 277
(11)	E.J.S. PARSONS (op. cit.)	33
(12)	J.E. LLOYD,	A History of Wales (London 1912) (II) 427
(13)	A.H.A. HOGG, and D.J.C. KING,	Early Castles in Wales and the Marches Archaeologia Cambrensis 112 (1963) 77-124.
(14)	E.J.S. PARSONS (op. cit.)	33
(15)	ibid,	28
(16)	ibid,	28

(17) ibid, 27

(18) R. MILLWARD and A. ROBINSON *Landscapes of North Wales* (Newton Abbott 1978) 159

(19) ORDNANCE SURVEY *Map of Roman Britain* (1978)

(20) R. MILLWARD and A ROBINSON (op. cit.) 159

(21) ORDNANCE SURVEY (op. cit.)

(22) E.J.S. PARSONS (op. cit.) 27

(23) *Calendar of Patent Rolls*, 1330-34, 367

(24) J.E. LLOYD (op. cit.) 709

(25) ibid, 703

(26) Correspondence with E.J.S. PARSONS, 9th April, 1983.

APPENDIX III The Date of the Gough Map

It became apparent when perusing the various papers written about the Gough Map that there is a diversity of opinion relating to when the map was actually compiled.

E.J.S. Parsons assigns the map to the mid-fourteenth century (A.D. 1360),(1) basing his opinion on the work of paleographers, supported by three other points:- 1) The town of Sheppey changed its name to Queensborough in 1366 in honour of Queen Philippa, and Sheppey is the name given on the map. 2) The ship shown wrecked off Orkney appears to be a fourteenth century warship. 3) Outside Britain, the only 'foreign' town shown by a vignette is Calais - probably because Calais was regarded as an 'English' town after 1347.

Although paleographers have suggested that the writing on the map appears to be consistent with that of the mid-fourteenth century, this is far from conclusive. Paleography is not an exact science and is usually an opinion, based on the trends and styles in use over a particular period. It is an extremely difficult task to assert, with total certainty, that a writing style dates from say the late thirteenth or mid-fourteenth centuries, unless of course the writing is dated, which unfortunately that on the Gough Map is not. For example, it would have been quite feasible for a young scribe pursuing his trade during the last quarter of the thirteenth century to have still been alive and producing work in his own inherent style during the third quarter of the fourteenth century - thus demonstrating that one particular style of writing could cover a period in excess of sixty years. Further paleographic problems arise in connection with the Gough Map because as Parsons says:-

> "Many names have been overwritten in a later hand: in some cases this has made them difficult to read, in others both forms are clearly visible. The symbols have also been inked over in a number of cases". (2)

The fact that Sheppey appears on the map, and not Queensborough, is only indicative of a pre - 1366 dating.

An examination of the representation of the ship wrecked off Orkney shows that the vessel had battlemented forecastle and aftercastle, a centrally located mast (shown broken), and a bowsprit complete with hanging bowlines. (Figure III:1 depicts this vessel).

It was during the time of the early Crusades that the Roman habit of building 'castles' on ships was revived. The thirteenth century seal of New Shoreham shows a ship with battlemented 'castles' both at stem and stern, and a centrally located mast. The ship depicted on the New Shoreham seal also shows a very early representation of a bowsprit, complete with bowlines(3). The Winchèlsea seal, also dating from the thirteenth century, bears a ship which has an even more elaborate 'forecastle' and 'aftercastle'.(4) The evidence afforded by these seals relates only to warships or vessels capable of being used as such. The humble medieval tramp, or trading vessel, was probably not considered dignified enough for representation.

Parsons argument, that Calais is represented by a vignette on the Gough Map because it was regarded as an 'English' town after 1347, is not a very strong one. Calais may well have been shown this way because of its geographical position - being the nearest 'foreign' port to the British Isles, and therefore must have been an important thoroughfare for traffic and trade, to and from the continent.

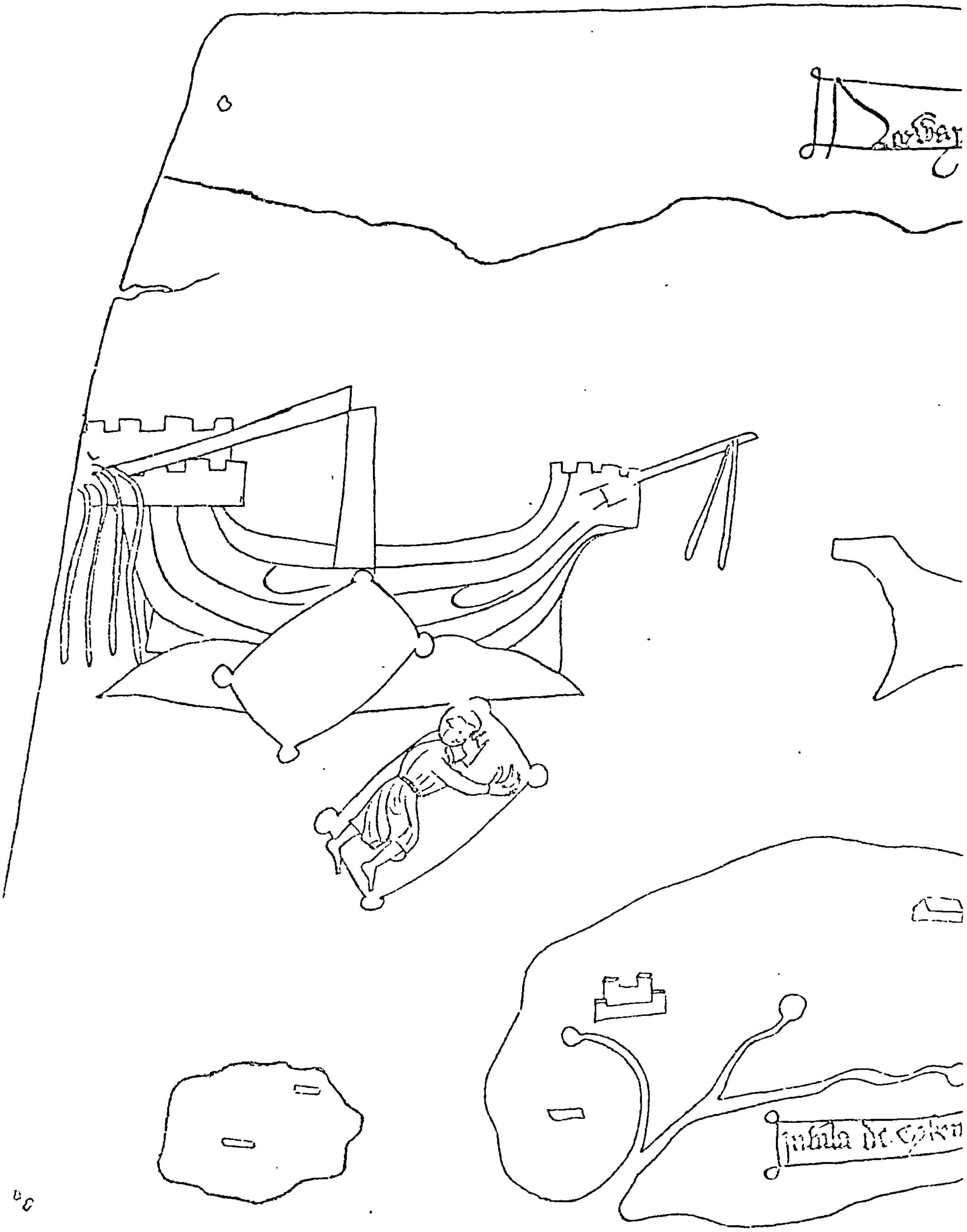

FIGURE III:1 SHIP SHOWN ON THE GOUGH MAP

Others have attempted to assess the date of compilation; J. Lelewel ascribes the map to the twelfth century,(5) but offers no supporting evidence for this dating - whilst at the other end of the dating time-scale E. Moritz assigns the map to the sixteenth century.(6) Sir Frank Stenton, in his account of the road system of medieval England makes the point that since Hessle, not Hull, is regarded as the northern landing-stage of the main ferry across the Humber, it would be unwise to place the date later than 1350.(7) W.B. Sanders formed the opinion that the map was drawn up around 1300, and based his argument on:- 1) Bridges shown at Perth and Achmore, but no mention of the bridge over the River Don built by Bishop Cheyne of Aberdeen in 1329; 2) No mention of ancient bridge built over the River Torridge at Bideford in the early part of the fourteenth century; 3) Many Scottish earldoms marked, but not Douglas and Crawford, which were created later (c.1400); 4) Writing on Bardsey Island refers to Bards of the Britons, who may be said to have been extinguished during the subjugation of Wales by Edward I in 1284.(8) As R.A. Pelham quite rightly points out, the absence of bridges is not a very strong argument to use.(9) Very few bridges are shown on the map, but we are certainly not to assume that these were the only ones in existence when the map was compiled; and the omission of the Scottish earldom is also inconclusive. Omissions are poor evidence when attempting to date a map; however, Sanders final point is a stronger argument in favour of an earlier dating. Pelham suggests that the construction of the map commenced during the reign of Edward I and suspects that it was not all drawn at the same time. He points to the example of Coventry, which is depicted on the map as a town surrounded by a wall. He goes on to say that Coventry did not have a wall in Edward I's time and that the first stone was not laid until 1355, and it was many years until the wall was completed.(10) The example of Coventry would, at first sight, indicate that the map must have been drawn after 1355. However, B.P. Hindle has clearly demonstrated that the symbols shown on the map are inconsistent.(11) For example, Holm Cultram and Naworth in Cumberland are both shown as having town walls - but neither ever had them.(12) Pelham speculates that Edward I, towards the end of his reign, may have conceived the idea of having a map made of the whole of his realm, a realm that had been enlarged by the conquest of fresh territory in Wales and Scotland - and hence extending communications over a larger area than before.(13)

If it is to be assumed that the majority of the map was constructed during the latter part of Edward I's reign or later, then a perusal of the Gough Map route between Cardigan and Chester, the complexities of which were discussed in Appendix I, reveals some curious anomalies. Although it was stated earlier that omissions are poor evidence when attempting to date a map and the fact that the symbols shown on the Gough Map are inconsistent, certain glaring anomolies are obvious. The mighty Edwardian castles at Harlech (completed 1289), Rhuddlan (1281), Aberystwyth (1289) and Criccieth (remodelled 1289) are not depicted; and it has already been shown in Appendix I that the castle symbol between Bangor and Abergele is more likely to represent Deganwy (1245) than Conwy (1287). The only Edwardian castle that can be positively identified is that at Beaumaris, which was founded during the year 1295 but not finally completed until 1323.(14) The castle symbol and name (Beaumorres) are shown located towards the west side of Anglesey instead of on the east coast opposite Bangor. The east coast site where we would expect to find Beaumaris is occupied by a multi-building symbol representing the town of Llanfaès. Prior to the construction of Beaumaris Castle and town, Llanfaes was a flourishing Welsh settlement.(15) Perhaps it posed a threat to the new 'English' town and for this reason Edward I decided to move its inhabitants to the other side of the island where Newborough was established and granted its charter in 1303.(16) Newborough is not depicted on the Gough Map. This suggests that the symbol depicting Llanfaes was drawn when the place was a flourishing town prior to 1295, and that the castle symbol depicting Beaumaris was added later; its incorrect geographical location being due to the prior positioning of Llanfaes. Pelham opined that the map was not all drawn up at the same time and also points out that Sanders had observed several place names which had been inked over at a later date and that at least one new symbol had been added, together with additions, such as a spire to an existing church.(17) Parsons also makes similar observations.(18)

The representation of Caernarvon Castle with a symbol showing what appears to be a single tower is surprising, as we might expect to see a multi-tower representation as is shown at Painscastle (c 1231) in Radnorshire. The symbol shown is more in line with the earlier Norman castle which preceded the large majestic castle of Edward I. The town wall, which was constructed at the same time as the Edwardian castle (c 1283), is also not shown.

Harlech Castle, which even today dominates the coastal landscape to the north of Dyffryn, is another surprising omission.

Edward I was also well acquainted with the Lleyn Peninsula. He visited Aberdaron and Bardsey Island,(19) both of which are situated at the extreme tip of the peninsula, and had a military base at Criccieth Castle. If the map had initially been drawn after the subjugation of Wales by Edward I then the omission of the Lleyn Peninsula together with a symbol representing Criccieth Castle is difficult to explain.

This same line of argument can also be applied to the omission from the map of the Wirral; Edward I visited Birkenhead and Bromborough in 1277 and Bromborough again in 1278 and 1283.(20)

If the origins of the Gough Map do belong to the reign of King Edward I then it is tempting, from scrutiny of the detail shown on the route between Cardigan and Chester, to conclude that the map must have been compiled prior to the major campaigns in Wales as part of the preparations for Conquest. This would put the date around the early part of the last quarter of the thirteenth century, and prior to 1284 when the subjugation of Wales took place. If we accept the aforementioned reasons for the inclusion of Beaumaris, then the fact that Flint is named on the map would put the earliest date at 1277; this being when construction of the town and castle first commenced - there being no pre-existing town or village.(21) The task of Flint was to hold the coastal road from Chester into North Wales and to guard the Dee estuary.(22)

Apart from Flint, Edward I was also concerned at this time with the planning of Rhuddlan and Aberystwyth. Although Edward remained in the vicinity of Rhuddlan, Flint and Chester, Edmund the King's brother accompanied by an army, proceeded to Aberystwyth.(23)

This activity towards the south and along the coast of Cardigan Bay could possibly account for the initial inclusion of the route depicted on the map - because it shows the road around the coast - prior to the subjugation of the Welsh tribes who tended to withdraw into the Welsh hills.

In Chapter 7 and Appendix I, reference was made to a business account and associated itinerary which, although concerned with a different part of Britain, hints at the possibility that the Gough Map, or a copy of it, was in use during the first quarter of the fourteenth century. It is the account of Robert of Nottingham, who was buying wheat for King Edward II during the winter of 1324-25(24). Apart from his route, he also recorded the distance between the places he visited (See Figure I:1, and Table I:1). It was demonstrated that the correlation between the distances recorded by Robert of Nottingham and those set down upon the Gough Map over similar routes were too exact to be the result of coincidence. As Sir Frank Stenton comments:-

> "In view of the evidence of Robert of Nottingham, it seems clear that the figures entered on the Gough Map represent, not guesses, nor academic computations, but genuine estimates of distance, such as were current among contemporary travellers. The correspondence between the figures given independently by Robert of Nottingham and the Gough Map show that these estimates were tending to become stereotyped already in the fourteenth century." (25)

Having previously stated that it would be unwise to place the date of the Gough Map later than 1350, it is surprising that Stenton does not suggest that Robert of Nottingham could have used the map, or a copy of it, during his journeys of 1324-25.

The isolated distance obtained by subtraction between Grantham and Stamford as recorded in the Lincolnshire Sheriff's Account for the year 1301 also equates with the distance between these two places as given in the account of Robert of Nottingham and as set down upon the Gough Map.(26) (See Appendix I).

Conclusions

There is some evidence to suggest that the origins of the Gough Map may date from c 1277, with later additions.

However, the author wishes to emphasise that a full and critical in-depth analysis of the complete map would be necessary in order to provide further evidence in support of this tentative assessment and this, unfortunately, was outside the scope of the present work.

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