

**THE UNIVERSITY OF HULL**

**Trade and Transport in the Humber, Ouse and Trent Basins,**

**1660-1770**

**being a Thesis submitted for the Degree of**

**Doctor of Philosophy**

**in the University of Hull**

**by**

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**March 1971**

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## ABBREVIATIONS

ACN	Aire and Calder Navigation Manuscripts (British Transport Historical Records, York)
Add. MSS.	Additional Manuscripts (British Museum)
<u>Ag. Hist. Rev.</u>	<u>Agricultural History Review</u>
Ashton (1955)	T.S. Ashton, <u>The Eighteenth Century</u> (1955)
Ashton (1959)	T.S. Ashton, <u>Economic Fluctuations in England, 1700-1800</u> (Oxford, 1959)
Ashton and Sykes	T.S. Ashton and J. Sykes, <u>The Coal Industry of the Eighteenth Century</u> (Manchester, 1929)
Aswaby MSS.	Aswaby Manuscripts (Lincoln Record Office)
B. I. H. R.	Borthwick Institute of Historical Research
B. M.	British Museum
Bacon Frank MSS.	Bacon Frank Manuscripts (Sheffield Central Library)
Badgery MSS.	Badgery Manuscripts (Leeds Central Library)
Bagshawe MSS.	Bagshawe Manuscripts (John Rylands Library, Manchester)
Battle Wrightson MSS.	Battle Wrightson Manuscripts (Leeds Central Library)
Beckwith	I.S. Beckwith, 'The River Trade of Gainsborough, 1500-1800', <u>Lincolnshire History and Archaeology</u> , II (1967)
Beresford and Jones	M.W. Beresford and G.R.J. Jones, <u>Leeds and Its Region</u> (Leeds, 1967)
Bland MSS.	Bland Manuscripts (Leeds Central Library)
Blome	R. Blome, <u>Britannia</u> (1673)
Bowden	P.J. Bowden, <u>The Wool Trade in Tudor and Stuart England</u> (1962)
Catton Hall MSS.	Catton Hall Manuscripts (Derby Public Library)



Chambers	J.D. Chambers, 'The Vale of Trent, 1670-1800', <u>Econ. Hist. Rev.</u> , Supplement 3 (1957)
CHN	Calder and Hebble Navigation Manuscripts (British Transport Historical Records, York)
<u>Celia Fiennes</u>	<u>The Journeys of Celia Fiennes</u> , ed. C. Morris (1949)
Clegg	C. Clegg, 'Our Local Canals,' <u>Halifax</u> <u>Antiquarian Society Papers</u> (1922)
Clifford	F. Clifford, <u>A History of Private Bill</u> <u>Legislation</u> (1885-7) 2 volumes.
Coke MSS.	Coke Manuscripts (Trusley Old Hall, Derbyshire)
Copley MSS.	Copley Manuscripts (Sheffield Central Library)
Crump	W.B. Crump, 'Huddersfield Highways Down the Ages', <u>Tolson Memorial Museum Handbook XII</u> (1949)
Cunliffe-Lister MSS.	Cunliffe-Lister Manuscripts (Cartwright Memorial Hall, Bradford)
D.A.O.	Derbyshire Archives Office
Dartmouth MSS.	Dartmouth Manuscripts (William Salt Library, Stafford)
Davis, 'Hull'	R. Davis, 'The Trade and Shipping of Hull, 1500-1700', <u>East Yorkshire Local History</u> <u>Society Series</u> , XVII (1964)
Davis (1962)	R. Davis, <u>The Rise of the English Shipping</u> <u>Industry in the Seventeenth and Eighteenth</u> <u>Centuries</u> (1962)
Davis, 'Trade'	R. Davis, 'English Foreign Trade, 1660-1700', <u>Econ. Hist. Rev.</u> , 2nd. ser. VII (1954)
Dawnay MSS.	Dawnay Manuscripts (North Riding Archives Office)
Deane and Cole	Phyllis Deane and W.A. Cole, <u>British Economic</u> <u>Growth 1688-1959</u> (Cambridge, 1961)

Defoe	D. Defoe, <u>A Tour Through England and Wales</u> (1928 ed.) 2 volumes.
<u>De la Pryme</u>	<u>Abraham De la Pryme's Diary</u> , ed. C. Jackson ( <u>Surtees Society</u> , LIV, 1870).
DER	Derwent Navigation Manuscripts (British Transport Historical Records, York)
Dickson	P.G.M. Dickson, <u>The Financial Revolution in England, 1688-1756</u> (1967)
D.L.	Duchy of Lancaster
<u>D.N.B.</u>	<u>Dictionary of National Biography</u>
Don MSS.	Don Manuscripts (British Transport Historical Records, London)
Doncaster MSS.	Doncaster Borough Manuscripts
<u>Doncaster Records</u>	<u>A Calendar of the Records of the Borough of Doncaster</u> , ed. W.J. Hardy (Doncaster, 1899-1903) 4 volumes.
D.P.L.	Derby Public Library
Drake	F. Drake, <u>Eboracum</u> (1736)
Draycott Hall MSS.	Draycott Hall Manuscripts (North Riding Archives Office)
<u>Ducatus</u>	R. Thoresby, <u>Ducatus Leodiensis</u> (1715)
Duckham	B.F. Duckham, <u>The Yorkshire Ouse</u> (Newton Abbot, 1967)
Duckham, 'Yorks. Derwent'	B.F. Duckham, 'The Fitzwilliams and the Navigation of the Yorkshire Derwent', <u>Northern History</u> , II (1967)
East, 'Hull'	W.G. East, 'The Port of Kingston-upon-Hull during the Industrial Revolution', <u>Economica</u> , XI (1931)
<u>Econ.Hist.Rev.</u>	<u>Economic History Review</u>
Edwards	K.C. Edwards, <u>Nottingham and Its Region</u> (1966)
E.R.A.O.	East Riding Archives Office
E.R.O.	Essex Record Office

Flinn	M.W. Flinn, 'Revisions in Economic History: XVII. The Growth of the English Iron Industry, 1660-1760', <u>Econ. Hist. Rev.</u> , 2nd. ser. XI (1958)
Galway MSS.	Galway of Serlby Manuscripts (University of Nottingham)
Gent	T. Gent, <u>History of Hull</u> (York, 1735)
Green	H. Green, 'The Nottinghamshire and Derbyshire Coalfield before 1850', <u>Journal of Derbyshire Archaeological and Natural History Society</u> , LVI (1936)
Harewood MSS.	Harewood Manuscripts (Leeds Central Library)
H.A.S. MSS.	Halifax Antiquarian Society Manuscripts (Bankfield Museum, Halifax)
Healaugh MSS.	Healaugh Manuscripts (Leeds Central Library)
Heaton	H. Heaton, <u>The Yorkshire Woollen and Worsted Industries</u> (Oxford, 1920)
Hill (1956)	J.W.F. Hill, <u>Tudor and Stuart Lincoln</u> (Cambridge, 1956)
Hill (1966)	J.W.F. Hill, <u>Georgian Lincoln</u> (Cambridge, 1966)
Hist. MSS. Comm.	Historical Manuscripts Commission
Holmes	G. Holmes, <u>British Politics in the Age of Anne</u> (1967).
<u>H. of C. Journals</u>	House of Commons Journals
<u>H. of L. Journals</u>	House of Lords Journals
H.L.R.O.	House of Lords Record Office
Hopkinson, 'Coalfield'	G.G. Hopkinson, 'The South Yorkshire and North Derbyshire Coalfield, 1500-1775', <u>Hunter Archaeological Society</u> , VII (1957)
Hopkinson, 'Charcoal Iron'	G.G. Hopkinson, 'The Charcoal Iron Industry in the Sheffield Region, 1500-1775', <u>Hunter Archaeological Society</u> , VIII (1961)



- Hopkinson, 'Dalton' G.G. Hopkinson, 'The Business Correspondence of Richard Dalton, raff merchant', Hunter Archaeological Society, VII (1958)
- Hopkinson, 'Eyam' G.G. Hopkinson, 'Lead Mining in the Eyam District in the Eighteenth Century', Journal of Derbyshire Archaeological and Natural History Society, LXXX (1960)
- Hopkinson, 'Inland Navigation' G.G. Hopkinson, 'The Development of Inland Navigation in South Yorkshire and North Derbyshire, 1697-1850', Hunter Archaeological Society, VII (1958)
- Hull MSS. Hull Corporation Manuscripts.
- Jackson G. Jackson, 'The Economic Development of Hull in the Eighteenth Century' (Unpublished Ph.D Thesis. University of Hull, 1959)
- L.A.O. Lincolnshire Archives Office
- Leader R.E. Leader, History of the Company of Cutlers in Hallamshire (Sheffield, 1905-6) 2 volumes.
- Leader MSS. Leader Manuscripts (Sheffield Central Library)
- Leeds MSS. Duke of Leeds Manuscripts (Yorkshire Archaeological Society)
- Leicester Records Records of the Borough of Leicester, ed. G.A. Chinnery (Leicester, 1965) V.
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- Lumley MSS. Lumley Manuscripts (Sandbeck Park, near Rotherham)
- McCutcheon K.L. McCutcheon, 'Yorkshire Fairs and Markets to the End of the Eighteenth Century', Publications of the Thoresby Society, XXXIX (1940)
- Maister MSS. Maister Manuscripts (University of Hull)

<u>Marvell</u>	<u>The Poems and Letters of Andrew Marvell</u> , ed. H.M. Margoliouth (Oxford, 1927)
Mathias (1959)	P. Mathias, <u>The Brewing Industry in England, 1700-1830</u> (Cambridge, 1959)
Mathias (1969)	P. Mathias, <u>The First Industrial Nation</u> (1969)
Mellish MSS.	Mellish Manuscripts (University of Nottingham)
Mexborough MSS.	Mexborough Manuscripts (Leeds Central Library)
Milner MSS.	Milner Manuscripts (Leeds Central Library)
Namier and Brooke	Sir L. Namier and J. Brooke, <u>History of Parliament</u> (1964)
N.A.O.	Nottinghamshire Archives Office
Nef	J.U. Nef, <u>The Rise of the British Coal Industry</u> (1932) 2 volumes.
Newby Hall MSS.	Newby Hall Manuscripts (Leeds Central Library)
Nottingham MSS.	Nottingham Corporation Manuscripts
<u>Nottingham Records</u>	<u>Records of the Borough of Nottingham, V</u> (Nottingham, 1914)
N.R.A.O.	North Riding Archives Office
<u>N.R. Sessions</u>	<u>North Riding Sessions Records</u> , ed. J.C. Atkinson (North Riding Record Society, 1884-92) 9 volumes.
Ouse Navigation MSS.	Ouse Navigation Manuscripts (York Central Library)
Plumb	J.H. Plumb, <u>The Growth of Political Stability in England, 1675-1725</u> (1967)
<u>Pococke's Journeys</u>	<u>The Northern Journeys of Bishop Richard Pococke</u> , ed. J.J. Cartwright ( <u>Surtees Society</u> , CXXIV (1914))
<u>Pococke's Travels</u>	<u>Travels Through England of Dr. Richard Pococke during 1750, 1751, and later Years</u> , ed. J. J. Cartwright ( <u>Camden Society</u> , New Series, XLII)
Pratt	K.A. Pratt, <u>A History of Inland Transport and Communication in England</u> (1912)
P.R.O.	Public Record Office

Raistrick and Jennings	A. Raistrick and B. Jennings, <u>A History of Lead Mining in the Pennines</u> (1965)
Ramsden MSS.	Ramsden Manuscripts (Huddersfield Central Library)
Reresby MSS.	Reresby Manuscripts (Leeds Central Library)
Richardson	W.A. Richardson, <u>Citizen's Derby</u> (1949)
Rimmer, 'Leeds'	W.G. Rimmer, 'The Evolution of Leeds to 1700', <u>Publications of the Thoresby Society</u> , L (1967)
Rimmer, 'Middleton'	W.G. Rimmer, 'Middleton Colliery near Leeds, 1770-1830', <u>Yorkshire Bulletin of Economic and Social Research</u> , VII (1955)
Savile MSS.	Savile Manuscripts (Nottinghamshire Archives Office)
Schubert	H.R. Schubert, <u>History of the British Iron and Steel Industry</u> (1957)
Scott	W.R. Scott, <u>The Constitution and Finance of English, Scottish and Irish Joint-Stock Companies to 1720</u> (1912) 3 volumes.
Sitwell	Sir George Sitwell, 'A Picture of the Iron Trade in the Seventeenth Century', <u>Journal of Derbyshire Archaeological and Natural History Society</u> , X (1888)
Skempton	A.W. Skempton, 'The Engineers of the English River Navigations, 1620-1760', <u>Transactions of the Newcomen Society</u> , XXIX (1953-55)
Sloane MSS.	Sloane Manuscripts (British Museum)
S.P.	State Papers
Spencer Stanhope MSS. (Bradford)	Spencer Stanhope Manuscripts (Cartwright Memorial Hall, Bradford)
Spencer Stanhope MSS. (Sheffield)	Spencer Stanhope Manuscripts (Sheffield Central Library)
Stowe MSS.	Stowe Manuscripts (British Museum)



Swale MSS.	Swale Manuscripts (North Riding Archives Office)
Swann	D. Swann, 'The Pace and Progress of Port Investment in England, 1660-1830', <u>Yorkshire Bulletin of Economic and Social Research</u> , XII (1964)
Sykes MSS. <u>Joseph Taylor</u>	Sykes Manuscripts (East Riding Archives Office) <u>A Journey to Edenborough in Scotland by Joseph Taylor, late of the Inner Temple</u> , ed. W. Cowan (Edinburgh, 1903)
T.C.	Tibbitts Collection (Sheffield Central Library)
Temple Hirst MSS.	Temple Hirst Manuscripts (Leeds Central Library)
Temple Newsam MSS.	Temple Newsam Manuscripts (Leeds Central Library)
<u>Thoresby</u>	<u>Diary of Ralph Thoresby, F.R.S.</u> , ed. J. Hunter (1830) 2 volumes.
Tickell	J. Tickell, <u>History of Hull</u> (Hull, 1796)
Tuke	J. Tuke, <u>A General View of the Agriculture of the North Riding</u> (1800)
Unwin, 'ACN 1'	R.W. Unwin, 'The Aire and Calder Navigation, part 1: The Beginning of the Navigation', <u>Bradford Antiquary</u> , N.S., XLII (1964)
Unwin, 'ACN 2'	R.W. Unwin, 'The Aire and Calder Navigation, part 2: The Navigation in the Pre-Canal Age', <u>Bradford Antiquary</u> , N.S., XLIII (1967)
<u>V.C.H.</u>	Victoria County History
Vyner MSS.	Vyner Manuscripts (Leeds Central Library)
Wadsworth and Mann	A.P. Wadsworth and Julia de Lacy Mann, <u>The Cotton Trade and Industrial Lancashire, 1600-1780</u> (Manchester, 1931)
Walcott	R. Walcott, <u>English Politics in the Early Eighteenth Century</u> (1956)

- Walker J. Walker, Wakefield: Its History and People (Wakefield, 1934)
- Walton, 'Coke' W.H. Walton, 'The Early Use of Coke in Derbyshire', Journal of Derbyshire Archaeological and Natural History Society, LIV (1933)
- Ward W.R. Ward, The English Land Tax in the Eighteenth Century (1953)
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- Wardell (1962) J.W. Wardell, A Short History of Stockton on Tees (Stockton on Tees, 1962)
- Wentworth Wentworth Woodhouse Manuscripts (Sheffield Central Library)
- Woodhouse MSS.
- Wharnccliffe MSS. Wharnccliffe Manuscripts (Sheffield Central Library)
- Whitley-Beaumont MSS. Whitley-Beaumont Manuscripts (Huddersfield Central Library)
- Willan (1936) T.S. Willan, River Navigation in England, 1600-1750 (Manchester, 1936)
- Willan (1938) T.S. Willan, The English Coasting Trade, 1600-1750 (Manchester, 1938)
- Willan (1965) T.S. Willan, The Early History of the Don Navigation (Manchester, 1965)
- Willan, 'Land Carriage' T.S. Willan, 'The Justices of the Peace and the Rates of Land Carriage', Journal of Transport History, V (1962)
- Willan, 'Yorks. Rivers' T.S. Willan, 'Yorkshire River Navigation, 1600-1750', Geography (1937)
- Williamson F. Williamson, 'George Sorocold of Derby, a Pioneer of Water Supply', Journal of Derbyshire Archaeological and Natural History Society, LVII (1936)
- Wilson C. Wilson, England's Apprenticeship, 1603-1763 (1965)



Wood	A.C. Wood, 'History of Trade and Transport on the River Trent', <u>Transactions of the Thoroton Society</u> , LIV (1950)
W.R.A.O.	West Riding Archives Office, Wakefield
W.R.D.	Wakefield Registry of Deeds
Wrigley	E.A. Wrigley, 'The Supply of Raw Materials in the Industrial Revolution', <u>Econ. Hist. Rev.</u> , 2nd. ser. XV (1962)
York MSS.	York Corporation Manuscripts
<u>Yorks. Arch.Soc.</u>	Yorkshire Archaeological Society
Young	A. Young, <u>A Six Months Tour Through the North of England</u> (1770) 4 volumes.

### NOTE ON DATES

I have followed throughout the modern convention of dating the year from 1 January. Dates of days and months remain Old Style before 2 September 1752.

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# I

## The Nature and Timing of Transport Improvements

### (1) INTRODUCTION

The years between the Restoration and the conclusion of the War of American Independence are now recognised as ones of significant change in many aspects of the English economy. Although it is not possible to identify rapid and broadly-based structural changes in industrial activity before the 1740's, it has long been apparent that certain branches of commerce and manufacture - together with the communities which thrived upon them - were developing more rapidly, and achieving rates of growth and capital accumulation far higher than others. It is now becoming clear that the late seventeenth century and the first three-quarters of the succeeding one witnessed not merely the quantitative expansion in the traditional pattern of economic activity, but also the start of locational and structural changes which were to form the basis for later industrial development. By the 1780's the number of 'growth points' in the economy - with associated qualitative changes - was sufficiently marked that there was an unmistakable break in the tradition of economic life.

The dramatic expansion of commerce to distant markets in Asia and the Americas - with the associated growth of re-exports to Europe undoubtedly proved an important generating source for economic

momentum in the century before industrial 'take off', affecting levels of wealth, the size of markets available, sources of savings, and the differentiation of England's economy and society. The growth in the population of a number of west coast towns such as Bristol and Liverpool came largely in response to such commercial development. In the 1730's Bolingbroke came to regard the late seventeenth and early eighteenth centuries as an age of commercial revolution, when foreign trade hallucinated the imagination and bemused the minds of many of his contemporaries.<sup>1</sup> Modern scholarship has done much to confirm the impressions of the time.<sup>2</sup>

Changes in the location, structure and techniques of the mining and manufacturing industries were associated less with long distance markets than with the conditions which prevailed in the home and European markets, both of which were still the country's life-blood.<sup>3</sup> For example, it has recently been suggested that for the lead-mining industry the 'industrial revolution' was in full swing from the

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1. Plumb, p.3.

2. R. Davis, A Commercial Revolution (Historical Association pamphlet, 1967).

3. Ashton (1955), p.63. Ashton quoted D. Macpherson, Annals of Commerce, III, 340, that the home trade 'is with good reason believed to be a vast deal greater in value than the whole of foreign trade'.

beginning of the eighteenth century.<sup>1</sup> Estimates of population growth in Derbyshire, which contained the largest lead-mining field in the country, suggest an increase from 68,000 in 1676 to 127,000 by 1704, and no doubt partly reflect increased activity in a major extractive industry.<sup>2</sup>

The capacity for the expansion of the country's economy was partly determined by the cost of carriage, which also affected the location of industry and the extent of the market for both agricultural and industrial products. Favourable local mineral fuel supplies close to navigable water was a key locational advantage for the development of a mass-output, low-cost heavy industry. The quantity of fuel necessary to smelt both ferrous and non-ferrous metals was so considerable that major producing units were often located close to the sources of fuel. A major factor - but not the only one - which determined the timing and direction of industrial change was undoubtedly the cost of obtaining bulky raw materials and fuel, and the cost of marketing manufactured products. The non-ferrous metal industries were moving away from Bristol and its neighbourhood in the early eighteenth century to the South Wales coalfield where fuel was cheaper; similarly, smelting works for copper were being closed

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1. R. Burt, 'Lead Production in England and Wales, 1700-177', Econ.

Hist. Rev., 2nd.ser.XXII (1969), 267

2. Chambers, p.39.



down next to the mines in Cornwall in the 1720's and were becoming sited near Swansea, where coal was half the price.<sup>1</sup> Locational changes, by altering the cost of production, tended to lead to modifications in market conditions and market potential.

The movement of a number of industries to the coalfields was partly determined by intra industrial techniques and the timing of the substitution of inorganic for organic fuel. The crisis in timber supplies in the seventeenth century led to an intense period of experiment in the metallurgical world.<sup>2</sup> From the beginning of that century, and throughout its course, a growing number of industries were applying coal to some stages of manufacture, for example brewing, distilling, soap-making, sugar-refining, brick-making, pottery, nail-making, glass manufacture and the making of salt by evaporation, besides the non-ferrous metals. It seems impossible to refute, or even to challenge the view that the most important change in raw material provision which took place in the late seventeenth and eighteenth centuries was the substitution of inorganic fuel for organic sources.<sup>3</sup> Technical progress which enabled charcoal to be replaced by coal also tended to alter market potential. For example, the use of coke in the manufacture of malt at Derby in the years

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1. Mathias (1969), p.122.

2. Raistrick and Jennings, p.116.

3. Wrigley, p.1.

after the Restoration seems to have enhanced the reputation of that commodity and to have modified its market potential.<sup>1</sup>

Internal trade patterns were also modified by the quantitative expansion of a number of industries, like brewing and soap-boiling, which had been known for centuries as household processes but were now becoming specialized manufactures operating on a considerable scale in response to a growing demand that came first from town dwellers and then spilt over into country markets.<sup>2</sup>

Changes in the location of industry, modifications in manufacturing techniques, and the quantitative expansion of industry often came in response to - or they created - new or altered market potentials for raw materials or finished products. Often such potentials could only be realised if transport and communications were improved. A change in location might enable a moving manufacturer to benefit from a cheaper form of transport. For example, Samuel Walker one of the leading ironmasters in the mid-eighteenth century noted in his diary that:-

'... the year before, thought himself so well settled, began to see the disadvantages of being so far from the navigable river, and with a deal of trouble prevailed to have a beginning at Masborough, near Rotherham, where we built a casting-house . . .'<sup>3</sup>

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1. Infra, p.171.

2. Wilson, p.204.

3. Jackson, p.115. Quoting A.H. John, The Walker Family, 1741-1893

There seems to be little doubt that one of the factors which must have recommended Coalbrookdale to Abraham Darby was easy access to the river Severn and water carriage. Producers who could locate their principal manufacturing units conveniently for water carriage and the supply of raw materials were in a favoured position. In many instances however market potential could only be fully realised if transport and communications were improved. Sometimes technical or locational changes would encourage producers to make sustained efforts to improve lines of communications over many years. For example, the maltsters of Derby seem to have been sufficiently confident of the potential market for coke manufactured malt that on no less than seven occasions efforts were made to obtain statutory authorisation for the development of navigation on the river Derwent.<sup>1</sup>

The increasing industrial use of coal and the need to move a growing quantity of coal to meet rising domestic consumption was probably the most important single factor which brought pressure to bear on existing systems of transport and communications. The quantitative expansion of trade in bulky low density commodities - particularly coal, timber and stone - was largely determined by the availability, or potential availability, of cheap water carriage. The most highly developed coalfields in the seventeenth century had easy access to the sea or navigable waterways. The greatest coal-

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1. Infra, p.181.



field in Britain was virtually on the coast and was able to utilise the rivers Tyne and Wear and 'feeder' waggonways; the Lancashire coalfield was within half a dozen miles of the Mersey estuary at its nearest point; the South Wales coalfield was not far from the coast. John Houghton, one of the leading pamphleteers and newswriters of the late seventeenth century urged his readers to provide information on the location of mineral deposits and coal, particularly in regions where accessibility to navigable water was easy. In March 1693, Houghton concluded an account of the rivers in Yorkshire, insisting that:-

'The use of this will be a ground for learning what Trade already is, and what may be improv'd upon these Rivers, particularly what may be given to any that will enquire after Mines of Coal, Lead, Tinn, Iron, Copper, or any other Mineral not far away from them; also for the easie carriage of Wood, Charcoal, Corn, or any other Bulky Commodity.'<sup>1</sup>

The arrangement of commodities by Houghton is not without significance. The former group - the production of which would be classified by at least one modern historian as 'punctiform' - involved the moving of heavy tonnages along a small number of routeways; the latter group of organic commodities - the production of which might be classified as 'areal' - involved a low traffic density along any one route.<sup>2</sup> The growing volume of mineral traffic in the late seventeenth century and during the eighteenth century led to the heaviest capital investment in those transport undertakings which would carry bulky inorganic

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1. Letters for the Improvement of Husbandry and Trade, 3 March 1693

2. Wrigley, p.3.

materials the carriage of which constituted a major item of the marketing cost. No doubt many coal mining proprietors and promoters of inland navigation would have agreed wholeheartedly with the sentiments subsequently attributed to the Duke of Bridgewater that:- 'a good navigation should have coals at the heel of it.'<sup>1</sup>

So far, we have discussed the affects of intra-industrial development on the modification of market potential which might necessitate the improvement of transport and communications. It is now time to consider some of the other factors which might alter the market potential of a particular industry, or of certain regions. For example, the imposition of a differential tax on coal carried by sea in the last years of the seventeenth century was undoubtedly one of the factors which created a larger potential market for inland coal which could be carried by inland waterways and was unaffected by the tax. When Defoe described the traffic of the Aire and Calder waterway in the early eighteenth century he observed that:-

'they carry coals down from Wakefield (especially) and also from Leeds . . . quite down into the Humber, and then up the Ouse to York, and up the Trent, and other rivers . . . with this advantage too, that whereas the Newcastle coals pay four shillings per chaldron duty . . . these being only called river borne coal, are exempted . . .'<sup>1</sup>

Relations with other states and conditions of foreign trade were not without significance in determining market conditions. In the

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1. Defoe, II, p.208.

main, it seems that the wars of the period provided a stimulus to the iron and munition industries. The old industry of the Sussex Weald which was dying from scarcity of fuel and raw materials survived in the first half of the eighteenth century largely due to canon contracts.<sup>1</sup> The return of peace often meant that iron producers were faced with problems of over capacity and increased competition in domestic markets. Under such conditions, the cost of obtaining raw materials, or of marketing finished products more cheaply, might mean the difference between survival or insolvency.

The conditions which prevailed in England's continental markets naturally had an important affect on domestic manufactures. For example, increasing competition in many of England's traditional markets for woollen cloth in northern and western Europe was one factor which forced the West Riding clothiers to diversify their manufacture. Commencing with the manufacture of bays in the late seventeenth century, they commenced - soon after 1700 - to produce finer woollen and worsted goods. To the advantages of coal, water power and relatively cheap labour, was added cheaper means of carriage with the opening of the Aire and Calder Navigation. Within three-quarters of a century, the West Riding had established a paramount position over the older woollen producing centres of the West Country and the worsted producing districts of East Anglia.<sup>2</sup>

#### (ii) THE TIMING OF IMPROVEMENTS

The improvement of river and road transport would undoubtedly

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1. Mathias (1969), p.45.

2. Wilson, pp.294-6.



have proved beneficial at any time in the seventeenth and eighteenth centuries. Neither the Commissioners of Sewers - whose prime concern was drainage - nor the statutory labour of the parishes for the repair of the highways, could adequately cope with the growing demands for improvement.<sup>1</sup> Although improvement was "in the air" throughout the period under consideration, it is now generally accepted that certain years seem to have witnessed feverish activity in the promotion of statutory undertakings for river improvement, turnpikes or canals. It is usual to associate such activity - for example in the years immediately after the Restoration; the last years of the seventeenth century following the Treaty of Ryswick; the years immediately preceding the South Sea Bubble; and a more sustained period of activity from 1745-60 - either with a period of low rates of interest, or in response to a return to peacetime conditions after years of domestic turmoil or foreign war, or as part of a general period of speculative activity.<sup>2</sup> Too often such explanations fail to take sufficient consideration of the nature of contemporary investment in transport undertakings, or to the concepts and assumptions of the age, or to changes in market potentials to which some reference has already been made.

Any analysis of the promoters of river improvement schemes at the end of the seventeenth and early eighteenth centuries shows that the original subscribers were almost all local men who were likely to gain from the realisation of market potential for products in which

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1. Willan (1936), p.21.

2. Ibid, p. 29.



they carried on extensive dealings. The years 1697-1701 are rightly regarded as a time of great activity in the promotion of schemes to develop inland navigation, attributed by Professor Willan to the reaction from foreign war.<sup>1</sup> Certainly, it would be difficult to sustain the argument that rates of interest were particularly favourable in that period; it seems that during Anne's reign, rates of interest were lower than the levels prevailing during the reign of William III, without witnessing marked activity in the promotion of transport schemes.<sup>2</sup> No doubt it could be claimed that the reign of Anne was a time of foreign war, and therefore unlikely to witness the kind of activity which had followed the Peace of Ryswick. Nevertheless, after 1708 a number of improvement schemes for inland navigation, ports and marketing facilities were being seriously considered.<sup>3</sup> It would not be inappropriate to take another look at the timing of improvement schemes in the late seventeenth and eighteenth centuries.

In general, confidence, capital, and engineering skill were the prerequisites for major inland navigation and port undertakings. The extent to which the services of civil engineers are required depends largely on the confidence of their contemporaries and the propensity to find and invest the requisite capital. Probably the most important factor responsible for increased activity in transport undertakings

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1. Willan (1936), pp.29-30.

2. Dickson, p.59.

3. Infra, p.451



in the last years of the seventeenth century was the diversion of capital away from overseas trade into domestic concerns during the War of the League of Augsburg. The heavy incidence of war taxation made land less attractive as a field of investment than either Government securities or joint-stock enterprises.<sup>1</sup> Between 1689-95 the number of joint-stock companies in England increased from 11 to about 100, the increase being almost entirely in domestic ventures.<sup>2</sup> Up to 1695 there were three coal companies, six for copper mining and smelting, the same number for developing lead-mines, three for salt, and four for alum, lapis calaminaris, tin and antimony.<sup>3</sup> Neither the crisis of 1696-7, nor the return of peace reversed the trend. In the last winter of William III's reign, one M.P. bemoaned the fact that: 'our trading is now dead . . . for (a) merchant finds a better return between the Exchequer and the Exchange, than he make(s) by running a hazard to the Indies.'<sup>4</sup>

By 1703 the share capital of the surviving English joint-stock companies was almost double what it had been in 1695.<sup>5</sup>

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1. Dickson, p.24

2. K. G. Davies, 'Joint-Stock Investment in the late Seventeenth Century', Econ.Hist.Rev., 2nd.ser.IV(1952), 3

3. Scott, I, p.332

4. Holmes, p.154

5. Ibid, p.153. The boom of 1698-1701 did not push English foreign trade to a new peak; it may not even have recovered position reached immediately before the war. Davis, 'Trade', p.2.



It is not improbable that increased capital investment in bulky low density commodities was an important factor in the promotion of river navigation schemes in the 1690's. The incidence of wartime taxation in the same years seems to have had the effect of modifying commercial conditions or potential in the markets of certain indigenous commodities. For example, the differential salt tax imposed in 1694 provided - temporarily - conditions which were particularly favourable to the rock - as against the brine - interests of Cheshire.<sup>1</sup> Similarly, the differential coal tax of 1698 provided conditions which favoured the expansion of the inland - as against the coastal - coal trade. Indeed, Professor Nef considered that:-

'the taxes heaped by the English government upon the coastwise coal trade tended to encourage the development of mining in the Midlands and in Lancashire and Yorkshire . . . It seems reasonable to believe that the coastwise taxes on coal, by increasing the costs of manufacture along the seaboard and in the Thames valley, tended to discourage industrial enterprise there and to encourage its growth in the Midlands, Lancashire, and Yorkshire during the eighteenth century.'<sup>2</sup>

Clearly, no single cause explanation can be advanced for the minor transport revolution of the late seventeenth century. Improvement projects were essentially the work of individual landed proprietors and trading and industrial groups who calculated that circumstances were opportune for development. The Weaver navigation seems to have

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1. T.C. Barker, 'Lancashire Coal, Cheshire Salt and the Rise of Liverpool', Trans. Hist. Soc. of Lancashire and Cheshire, CIII(1951), 89.
  2. Nef, I, p.314.



been moved for primarily by the rock salt interests of Frodsham and Marbury, who, having invested considerable sums in new works in the 1690's were anxious to maintain a favourable competitive position in their struggle with the Cheshire brine boilers.<sup>1</sup> The Aire and Calder project was designed chiefly to promote the woollen cloth industry of the West Riding, although it had certainly not escaped the attention of local coal mining proprietors that there was a favourable market in the Humber-Ouse-Trent waterway system. One of the first steps taken by the undertakers of the Navigation was to set up a common stock to develop the local coal trade.<sup>2</sup>

Although plausible explanations can be advanced for many of the improvement schemes of the period, it is not possible to do so in every case. Often the arguments set out in petitions presented to Parliament were statements which would seem to have some validity throughout the period under review, rather than particular circumstances. In an analysis of the factors which were necessary to transform a few improvement schemes into a spate of activity it would no doubt be tempting to fall back on arguments concerning the rate of interest or general political circumstances. Clearly, a very high rate of interest or political turmoil were unlikely to provide the conditions which would prompt a general advance. Whether the converse is true is open to conjecture.

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1. Barker, op.cit., 90-1.

2. Infra, p.354.



If contemporary economic assumptions are considered it is not difficult to explain why certain years witnessed intense activity in the promotion of improvement schemes. Mercantilism, if it means anything, is the expression of the merchants' point of view - the assumptions which partly determined the lines of action they adopted. Although the views expressed are mainly concerned with foreign trade, it would be wrong to attempt too exact a dichotomy between domestic and overseas commerce. Trading interests, whether they were engaged in commerce between London and Lisbon, or between Leeds and Liverpool tended to assume that there was a more or less fixed volume of economic activity and that the circumstances of supply and demand could not be readily increased or diminished. Many believed that if one trading area or group prospered, another must - in consequence - decline, that 'you cannot do good to one town but you rob another.'<sup>1</sup> When Defoe endeavoured to confound the pessimists who mistook the misfortunes of one part of industry and trade for the decline of the whole, his arguments were based on such assumptions:-

'... that if one Place sinks, another rises, and if one kind of Manufacture declines, another advances.'<sup>2</sup>

At a time when transport costs were high, the various commercial and carrying interests along one line of communication tended to oppose vigorously the efforts to improve neighbouring routes which might carry the same commodities or divert trade. In the 1720's when proposals were made to extend the navigation of the river Don from

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1. Letters of 'J.A.'

2. D. Defoe, A Plan of the English Commerce (Oxford, 1928 ed. following 1728 ed.), p.188.

Doncaster to Shoffield, interests dependent upon the Trent and the ports on the Don below Doncaster strongly opposed the scheme. One argument used against the proposal was that:-

' . . . if one River encreases in Seamen, another decays, as one road more used, makes another to be less so . . . where then is the force of that argument of every new navigation conducing to the Prosperity of the Kingdom? A general export to foreign parts certainly does; But does it signify anything to the publick, whether Gainsborough, Bawtry, Fishlake, or any other place have the particular advantage.'<sup>1</sup>

The assumption that the volume of commerce and level of economic activity could not readily be modified was not held universally. In refuting such concepts, John Houghton maintained that:-

' . . . the Increase of Goods and Traders in one Place may rather improve than Spoile another, to which I'll add some Querries. Has the Increase of the Importation of Wine at London, lessened it at other Ports? Has the Increase of Ale at London Lessened it at Margate, Hull, Stockton, Darby, or several other Places; or the Increase of Malt in Hartford-shire, lessened it in other Counties? Has the Increase of Ships at London Lessened them in the Out-ports, or of England Lessened them of France? If these be answered in the Negative, as I perswade myself they may, then if the World consumes more other Goods than they were wont . . .'<sup>2</sup>

Such arguments seem to have done little to allay the apprehensions of landed, commercial and manufacturing interests who were anxious

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1. Mellish MSS. 162/19c.

2. Letters for the Improvement of Husbandry and Trade, 19 October 1682.



that their established - and often secluded - markets should not entertain new competitors. At a time when transport costs were high - and constituted a major item of total costs for bulky goods - vested interests dependent upon one line of communication jealously guarded their position, and were anxious to defeat any proposals to improve alternative routes which might carry the commodities of their competitors and thereby modify the prevailing patterns of trade and market conditions. Rivalry between neighbouring communities could become acute if they were interested in the same class of goods.

Interests intent upon the realisation of new or modified market potentials usually found the arguments of neighbouring rivals not sufficiently convincing that they were prepared to abandon schemes to improve land or water communications. The optimistically expressed aspirations of some groups of traders, manufacturers and landowners often contrasted markedly to the pessimistic forebodings of similar economic and social interests bent upon maintaining the status quo. Once seriously contemplated, a proposal to develop a particular route - especially if it was a water route - might rouse a storm of protest from communities within a very wide radius, apprehensive that market conditions might be altered. It was at such times - preceding and accompanying an application to Parliament for statutory authorisation - that general arguments for or against improvement were employed.

Failure to render abortive or ineffective the improvement of one route often prompted interests dependent on neighbouring routes to promote schemes of their own in an attempt to restore the pattern of

trade. A number of inland navigation schemes and turnpike projects in the late seventeenth and early eighteenth centuries were of this nature, contributing to the general boom. For example, when efforts were made to extend the navigation of the river Calder above Wakefield in 1740, it was noted that a number of other projects had been sparked off:-

' . . . wee have petitions for Turnpikes without end going forward . . . The exorbitant Lock dues upon the River to Wakefield and Leeds, and the petition for carrying it up to Ealand and Hallifax seemes to have put them all upon mettle prodigiously . . .'<sup>1</sup>

In the 1740-1 Parliamentary session, six Acts were passed which gave authority for the establishment of turnpike trusts to improve several stretches of road in the West Riding, although there were no Bills promoted for roads in other parts of Yorkshire.

It would clearly be overstating the case to insist that all the improvement schemes of the period can be explained in terms of response to changing market conditions and potential, or in the efforts of trading groups and landed proprietors to maintain established patterns of trade. Improvement was 'in the air' throughout the seventeenth and eighteenth centuries as Professor Willan has rightly pointed out.<sup>2</sup> Road and river improvement was fashionable, and this must be taken into consideration when the numbers of authorisation Acts are analysed. Nor is it possible to reject completely the affect of low interest rates on the timing of improvement schemes, or the optimism which

1. Leeds MSS. Box 36 (unsorted). Letter of William Marsden of Barnsley  
2. Willan (1936), p.6.



often followed the return of peacetime conditions. Nevertheless, given the nature of contemporary investment and prevailing economic assumptions, it can be firmly asserted that many schemes were promoted at times when neither the prevailing rate of interest nor the political outlook were particularly favourable. It was not merely in the Vale of Trent that turnpikes were vigorously promoted during the Seven Years War.<sup>1</sup>

Opposition to transport improvement schemes must not be seen solely in terms of the determination of trading communities to frustrate the designs of competitors and to maintain prevailing patterns of trade. In a period when water was the most important form of power and its uses for industry were increasing, a potential waterway often seemed to threaten the life blood of riparian mills. At a time when rivers were still 'alive' the interests of trade and the livelihood of fishermen were often conflicting. Landowners whose property was subject to periodic flooding were often apprehensive that navigation works - particularly if they were effected within the reach of the tides - would increase the dangers of inundation. Land reclamation and engineering skills had not developed beyond an embryonic stage so that the claims of riparian proprietors should not be dismissed out of hand as being exaggerated. Nevertheless, the petitions and printed Reasons of the opponents of improvement schemes - like the stated cases of the promoters - must be used cautiously. In some instances landowners who maintained that the development of

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1. Chambers, p.13.

a water route would lead to flooding, seem to have been equally, or more concerned that the local markets for agricultural produce should not be opened to increased competition. It was on such grounds that several landowners opposed the improvement of the Derbyshire Derwent in the late seventeenth and early eighteenth centuries.<sup>1</sup> In some instances too, it seems that landowners would oppose one inland navigation scheme because they were deriving wharfage toll from an established river port on another waterway. For example, Joseph Mellish opposed the extension of the Don in the 1720's on the grounds that his estates would be more liable to flooding; at the same time it seems that he had a financial interest in Bawtry wharf, the trade of which might have been adversely affected if the south Yorkshire scheme was carried out.<sup>2</sup>

### (iii) PARLIAMENTARY ACTIVITY

It has been argued that in England economic change was accomplished not through planners - or policemen - but rather in spite of them. If the seventeenth and eighteenth centuries witnessed agrarian and industrial transformation by consent, the sanction often deemed requisite took the form of statutory authorisations from Parliament. Within the political process, a key mechanism for implementing an improvement scheme was a private Act of Parliament, sponsored by private initiative - and usually supported by the local M.P.'s -

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1. Infra, pp. 178, 245

2. Infra, p. 510,



authorising the enclosure or drainage of land, the effecting of a river or canal scheme, or the setting up of a turnpike trust. Such undertakings, which involved compensation assessments and quasi-monopolistic grants could only be effective if based on a legal instrument permitting - if necessary - the coercion of a reluctant minority anxious to maintain the status quo. Throughout the period, private legislation continued to occupy a large part of the time of the House of Commons, while the role of the upper House was far from passive in such matters.<sup>1</sup>

Although every local and personal Act passed before 1851 contained a clause to the effect that it was a public statutory instrument, Improvement Acts - which until 1798 were printed with the statutes of the year - complied with a number of distinct orders and regulations in their passage through Parliament.<sup>2</sup> After 1685 petitions were necessary to bring in all private Bills, although it was not yet Parliamentary procedure that the allegations of the promoters should be proved before the introduction of a Bill.<sup>3</sup> Throughout the period under review, the House of Commons nominated a day in the session after which no more private bills might be introduced, an

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1. Namier and Brooke, I, p.183

2. Clifford, I, p.267.

3. On 26 May 1685, it was ordered in the House of Commons that:-

'for the future no private Bill be brought into this House, but upon a Petition first presented, truly stating the Case, at the Peril of the Parties preferring the same and that such petition shall be signed by the Parties who are Suitors for such Bills.'

H. of C. Journals, IX, 719

important factor in the timing of improvement schemes. After the Revolution, when Parliament succeeded in meeting every year, important changes occurred in the standing orders which regulated private business. In 1699, the House of Commons stipulated that three clear days should elapse between the several readings of all private bills at the minimum; that a committee on a private bill should not sit without a week's public notice in the Lobby; and that the chairman of a committee on a private bill should acquaint the House whether the allegations of the promoters had been examined, and if the parties involved had given their consent to the satisfaction of the committee. Six years later it was first ordered that all private bills should be printed after presentation and before the first reading.<sup>1</sup>

In many cases, a private Act of Parliament was the outcome of a bitter and protracted conflict of vested interests, the success or failure of the opposition being evident in the incorporation - or absence - of provisoes and saving clauses. Whereas riparian proprietors could often be assured of adequate - and in many instances generous - compensation, interests dependent on alternative trade routes were more anxious that prospective transport improvements should be rendered abortive. For example, at the height of the controversy over the proposed improvement of the river Don in the 1720's, the lord of the manor of Bawtry, who derived part of his income from wharfage toll on the river Idle, informed the riparian proprietors below Doncaster of his apprehensions:-

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1. Clifford, II, 760-2.



' . . . I hope you will make your utmost effort against having any navigation at all, for clogging will do me no service . . .'<sup>1</sup>

The changes in procedure on private Bills in the last years of the seventeenth century were no doubt partly designed to encourage negotiations to take place between the various parties concerned for and against transport improvement schemes before Bills were actually introduced into the House of Commons. There seems to have been considerable resentment among M.P.'s if it was brought to the notice of the House that the landed interest had not been approached or satisfied before a Bill to improve inland navigation was promoted. In 1698, when the leading traders of Derby were promoting the river Derwent scheme, they were advised by one of their M.P.'s that:-

' . . . it was their best way to agree with . . . all the other proprietors that should be damaged by such navigation, before the bill should be proposed, that it might then easily pass . . .'<sup>2</sup>

Failure by the promoters to produce full details of an improvement scheme left opponents with little option but to oppose the preamble and general principles of a Bill when the debate occurred on the second reading. If opponents wished to call in question the principles of a Bill they were bound to petition against the preamble, stating their objections and praying to be heard by counsel at the bar of the House. They were then heard if the House thought fit, upon the motion for the second reading, but at that stage no opposition

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1. Mellish MSS. 162/45. Quoted in Willan (1965), p.109

2. Hist. MSS. Comm., Cowper II, 379

was allowed to particular provisions. Naturally, the promoters might also be heard by counsel in defence of the principles of their Bill. The numbers of M.P.'s who might take part in the subsequent division of the House might be very large. For example, over three hundred M.P.'s voted on the second readings of the Derwent and the Don Bills in 1696 and 1698 respectively.<sup>1</sup>

Undoubtedly two important prerequisites for the successful promotion of transport improvement schemes were the initiating of proceedings early in a Parliamentary session, and the conciliation - where possible - of opposing interests. When the corporation of Hull were seeking to promote a Bill for the imposition of additional tolls for the improvement of their haven, Andrew Marvell, one of the port's M.P.'s sought to dissuade them:-

' . . . For indeed such things are not to be effected by writing from post to post in the middle of a short session. But to be maturely weighd, layd and prepared before the meeting . . .'<sup>2</sup>

How far limitations in the circulation of information concerning prospective Parliamentary promotions rendered the early conciliation of opposing interests a major problem is still a matter of conjecture. Certainly, it seems to have been a common complaint of landed and commercial groups that they had not been adequately consulted before a proposal reached Parliamentary level. Newsletter writers, town intelligencers, the printed votes of the House of Commons and the correspondence between M.P.'s and their constituents seem to have

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1. Infra, pp. 255, 287.

2. Marvell, p.112. November 1670.



kept many provincial communities informed of Parliamentary proceedings of both national and local concern, but, by that stage, the successful conciliation of bitterly opposed parties was likely to prove more difficult. The emergence of the provincial press in the eighteenth century enabled the promoters to advertise their intentions and to arrange preliminary meetings at which proposals could be discussed and concessions made, before a petition was presented to the House of Commons seeking leave to introduce an improvement Bill.

Even when preliminary meetings had taken place, it was not always possible to reach agreement between the various parties concerned. If the promoters insisted on their scheme a protracted struggle was likely to develop at Parliamentary level. In obtaining petitions - by which means it was customary to promote and oppose schemes - two main considerations had to be borne in mind. Because it was necessary to send up witnesses to prove the allegations set down in a petition, it was essential to set out the particular case in a manner that could be sustained in cross examination by counsel, either at the bar of the House of Commons, or in committee. Secondly, it seems to have been expected in the House that M.P.'s presenting petitions from their constituencies would follow the same line. Promoters and opponents of transport development schemes seem to have recognized that certain advantages would arise if petitions could be obtained from boroughs with Parliamentary representation, which might tie down those M.P.'s into acting in accordance with the views expressed in the petitions. For example, during the Don controversy in 1722, the opponents of the

scheme noted that:-

' . . . several gentl . . . who had promised to patronize your cause, are taken of(f) by the townes, whose petitions they are to present for the Bil . . . ' <sup>1</sup>

It also seems to have been recognised that one way of securing the neutrality or support of leading Ministers might be by securing petitions from the boroughs which such Ministers represented or controlled. For example, the Don promoters obtained a petition from the borough of Newark:-

' . . . which must do them (the inhabitants of Newark) prejudice if it affect them at all, but I hear their reason for getting it is to take off the D. of N(ewcastle) and the members of the Town . . . ' <sup>2</sup>

Similar motives may have prompted the Don promoters to obtain a petition from King's Lynn in favour of the proposed navigation, the opposing interests insisting that:-

'As Lyn is no way concern'd I hope Mr Walpole will not be influenc'd by that Petition . . . ' <sup>3</sup>

From what has already been said, it is clear that many petitions presented to Parliament were not the spontaneous expression of popular opinion. Sometimes the promoters and opponents wrote to interests likely to support or oppose a particular project, enclosing the form of a petition which might be followed. When the corporation of Rye

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1. Mellish MSS. 162/43. Quoted in Willan (1965), p.103.

2. Mellish MSS. 162/41. Quoted in Willan (1965), p.96.

3. Mellish MSS. 162/44a. Quoted in Willan (1965), p.107.



were seeking to promote a Bill to improve their harbour in 1699, a petition was forwarded to the corporation of Hull, leaving blanks for the appropriate titles of the Yorkshire port.<sup>1</sup> More often, the promoters and opponents of improvement schemes each approached landed, riparian or commercial interests who seemed to offer the best hopes of support for their position. The role of those deputed to solicit an interest was to inform influential landowners and traders of the likely - or assumed - repercussions if a transport scheme was actually carried out. The sums expended to obtain petitions - though not inconsiderable - were rather to meet the expenses of deputation and for 'treats' than to buy signatures. It seems unlikely that sufficient sums could be laid out to persuade landed interests or trading groups directly affected with regard to a particular improvement scheme to adopt a completely different stand. Rather, promoters and opponents were anxious that landed proprietors and commercial communities with whom there was a community of interest should take a definite line. When the lord of the manor and wharf of Bawtry was organising the opposition of the river ports of the Vale of Trent to the Don navigation scheme, he observed that the trading and shipping interests would not:-

'stir so much in anything I should put them upon, as if they thought it their own business, which undoubtedly it is . . .'<sup>2</sup>

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1. Hull Letters. L. 1193.

2. Mellish MSS. 162/37. Quoted in Willan (1965), p.74. Thomas Lister of Bawtry was able to secure at least 6 petitions from interests dependent on the Trent for their livelihood. Mellish MSS. 162/47.

Sometimes it seems that petitions might be obtained if a promise was made of reciprocal support at some future occasion. For example, when the Don promoters obtained a petition from East Retford in 1722, opponents of the proposed navigation noted that:-

'they (the inhabitants of East Retford) made Sheffield a promise (when their own Bill was depending), to return the favour.'<sup>1</sup>

In addition to petitions, other means were used to convince M.P.'s and public opinion of the likely advantages or adverse repercussions from the statutory authorisation of an improvement scheme. Printed Reasons for or against inland navigation projects were often used by promoters and opponents in the seventeenth and eighteenth centuries. Provincial and London newspapers occasionally included the principal arguments employed by promoters or opponents concerning a particular transport improvement Bill. For example, in January 1723 a letter appeared in the Daily Post on behalf of the Don promoters, which has been attributed to Daniel Defoe.<sup>2</sup> The circulation of papers and pamphlets within both Houses was widely practised, despite occasional attempts to restrict or prohibit such attempts to canvass support.<sup>3</sup>

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1. Hollish MSS. 162/42. Quoted in Willan (1965), p.99. The Act to improve the river Idle - for which authorisation was obtained in 1719 - was largely the work of East Retford.

2. Daily Post, 8 February 1723. At least one local historian maintained that Defoe gave evidence in support of the Don Bill in 1726, but this has not been substantiated. J.Cockburn, Rotherham Lawyers During 350 Years (Rotherham, 1932), p.34.

3. In December 1667 - after a paper on behalf of certain shoemakers had been circulated in the House of Commons - the question was put that no printed or other matter should be distributed to M.P.'s, a motion which was defeated by 62 votes to 47. H.of C.Journals, IX, 29



Apart from obtaining petitions, making the requisite surveys and drawing up and circulating printed Reasons, deputations of promoters and opponents were usually sent to London to canvass M.P.'s directly for their support. The prime object of this activity was to secure a favourable majority in the committees nominated to examine the petitions seeking leave to introduce an improvement Bill, and to examine the details of a Bill after the second reading and committal. Before the changes in standing orders on private Bills, it was the task of the committee to examine the details of a proposed measure, after the preamble had been debated or accepted at second reading. Once the preamble had been agreed upon by the whole House, it was assumed by many members that the powers of the committee were limited to the settlement of the various clauses, and the provision of adequate protection for those interests whose property or rights were to be interfered with, so that the Bill did not go beyond the stated objects of the promoters. Nevertheless, delaying tactics were commonly employed by opposing interests so that many committees had not completed their work before prorogation so that Bills would be 'counted out.' The composition of the committee was often crucial to the progress of a private Bill, a factor certainly not overlooked by either promoters or opponents. For example, in January 1662, a Bill for settling drained land within the Level of Hatfield Chase and parts adjacent was read for the second time in the House of Commons. After the committee had been named to examine the details of the Bill, the Serjeant of the House was instructed:-

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'to search for, and take into Custody, the Persons that gave in Papers of the Names of Members of this House, to be of the Committee for the Bill.'<sup>1</sup>

Although M.P.'s who had opposed the preamble were excused or disqualified from service on the committee, local Bills were usually considered by representatives of neighbouring counties and towns, who were authorised to hear Counsel and witnesses on behalf of the various parties.<sup>2</sup>

The modification of Parliamentary procedure enhanced the role of the committee. In the examination of the allegations set out in the promoters' petition, the committee were - in effect - called upon to give their opinion on arguments which would subsequently constitute the preamble of an improvement Bill. The committee was empowered to call witnesses and to examine the proposals of an improvement scheme, a favourable report from the committee to the House being required before leave was given to bring in a Bill. After the Bill had passed its second reading a further committee was nominated to examine the detailed clauses for which the promoters were seeking authorisation. It was at this stage that provisos and saving clauses were often written into authorisation Bills, although it was

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1. H. of C. Journals, VIII, 342. Letitia Bedloe, who was directly concerned in the Hatfield Chase Bill was brought before the House, but it was ordered that she should be discharged.

2. In 1640, it was declared in the House that:- 'those who speak against the body or substance of any Bill, Committee, or other thing proposed in this House, ought not to be of the Committee for that business.' H. of C. Journals, II, 14.



possible to offer engrossed clauses as riders at the Report Stage or at the third reading of the Bill. When writing to one of his constituents during the bitter controversy between the Aire and Calder Navigation and the promoters of the Selby Canal in 1772, Sir George Savile expressed sentiments which were probably common among many M.P.'s:-

'... the Lord send them (and me) a good deliverance when we come to the field of Action, a Crowded Committee of the house of Commons.'<sup>1</sup>

It was to the committee that the promoters of inland navigation and turnpike Bills devoted strenuous efforts in their anxiety to secure a favourable report; while opponents did their utmost to delay proceedings in the hope that sufficient time would not remain for a Bill to pass through both Houses. In the nomination of the committee, the initial advantage seemed to lay with the promoters, since many M.P.'s seem to have generally favoured transport improvement projects. When the Don scheme was promoted in the 1720's the opponents were forced to concede that:-

'a great many members who are no way concern'd will be on their side from the general disposition there is amongst them to make all rivers navigable, let the consequences be never so bad.'<sup>2</sup>

Much however depended on the influence or 'interest' which the various parties could solicit. Recourse to independent opinion was exceptional, so that, for the most part, issues were determined in favour of the

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1. Temple Newsam MSS. TN/LA5/1/13.

2. Mellich MSS. 162/45. Quoted in Willan (1965), p.109.

parties which could secure a majority on the committees.

The tactics employed by the opponents of improvement schemes at committee level were largely aimed at delaying the report. One of the means was to move for repeated adjournments. When a majority of the committee considering the allegations of the Don petition voted in favour of adjournment on 19 December 1722, the opponents were jubilant, noting that:-

' . . . the long adjournment puts the managers here under the greatest surprise and nonplus . . . After the notion they had of a great interest in the House, especially Sheffield, such a poor come off as 6 members only for not adjourning makes them very humble . . .'<sup>1</sup>

Occasionally a motion was made that the committee should adjourn sine die, or for three months, probably after the prorogation. A stratagem sometimes used in a committee by the opponents of a transport improvement scheme was to move that the chairman should leave the chair, thereby putting a stop to further proceedings.<sup>2</sup> Moving adjournments, or displacing the committee's chairman was only possible if the opponents had a majority - or at least a temporary one. This was facilitated - and it was almost always an indication of determined opposition - if an order was secured from the House that the committee should be opened, that 'all who come shall have voices.' Once this

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1. Mellish MSS. 162/12. Quoted in Willan (1965), p.107.

2. For example, during one meeting of the committee on the Calder and Hebble petition of 1741, the opponents - principally the riparian millowners - successfully moved that Sir Miles Stapylton, the chairman should vacate the chair, thereby terminating proceedings on the scheme at that time. Infra, p.655.



was attained, personal influence could often determine the fate of improvement proposals. When a division was expected, a whip was made, and issues were decided in many cases by the number of friends which might be mustered on one side or the other. Many M.P.'s seem to have had no scruple in coming down to vote without being fully acquainted with the issues involved and sometimes without having heard a word of the evidence.<sup>1</sup> Canvassing was resorted to generally by the local solicitors or by deputations of promoters or opponents who came to London for the purpose. Sometimes it seems that paid canvassers were employed to go round to the houses of M.P.'s to request their attendance.

It would be overstating the argument to insist that the opponents of transport improvement schemes relied solely on their personal influence in soliciting M.P.'s. Like the promoters, the opponents might draw up, print and circulate Reasons against a particular Bill. Sometimes the opponents of river schemes would employ their own surveyor in an attempt to secure a favourable report from the committee appointed to consider the promoters' allegations which might prove useful if the project was subsequently revived. The riparian land-owners who opposed the Don project in 1722-3 certainly seem to have had such motives in mind, while it was also realised that reference to technical details would prolong the committee's proceedings:-

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1. During the Don controversy in the 1720's, one of the opponents,

Thomas Lister advised the riparian proprietors that he had secured the interest of one M.P., who 'tho he is not master of the case yet since I am concerned he will assist me.' Mellish MSS. 162/47.  
Quoted in Willan (1965), p.140.

' . . . certainly he (the surveyor) may puzzle the cause so as to make it impossible for the Committee to get thro the Map at 2 or 3 sittings . . .'<sup>1</sup>

Reference from either House to an 'independent' opinion to report on issues in conflict between promoters and opponents seems to have been rare in the seventeenth and eighteenth centuries. When the merchants and clothiers of the West Riding towns promoted a Bill to extend river navigation to Leeds and Wakefield in 1698, a bitter controversy arose with interests dependent on the river Ouse, who argued that the tide would flow further up the rivers Aire and Calder and render navigation on their waterway almost impossible. During the debate on the second reading of the Bill in the House of Lords, it was resolved that Trinity House in London should give an opinion on the principal points of contention. When the debate was resumed, a Report from Trinity House was read, but the Lords were not entirely satisfied, and it was finally agreed that:-

'the Trinity house doe with all Expedition send some of their Members as the Judge proper to view the River and make their observations and Report their opinions to this House.'<sup>2</sup>

Two representatives from London Trinity House spent a month completing a survey of the rivers, but were unable to present their Report before the prorogation of Parliament. When a new Bill was promoted in the following session, the second Trinity House Report provided

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1. Mellish MSS. 162/50. Quoted in Willan (1965), p.152.

2. H. of L. Journals, XVI, 307.



the basis to which Counsel on both sides referred at the committee stage in the House of Commons; while in the House of Lords its circulation weighed heavily against interests which sought to defeat the Bill:-

'... the Trinity report is industriously spread among the Lords, & it makes a great impression in that house, because that order came from thence.'<sup>1</sup>

It must be stressed, however, that the calling for an independent body to cast light on contentious issues of private Bill legislation was the exception rather than the rule.<sup>2</sup>

The role of the House of Lords in the consideration of transport improvement Bills was rarely a passive one in the late seventeenth and early eighteenth centuries. Even after the 1720's, when transport improvement Bills secured easier passages through the House of Commons,<sup>3</sup> delays might occur in the upper House as a result of contentious amendments being written in. Many M.P.'s maintained that Bills which authorised the imposition and collection of tolls were money Bills, which should not be amended in their passage through the upper House. For example, in 1741 an attempt was made in the House of Lords to modify the list of trustees named in the Kensington Road

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1. Unwin, 'ACN 1', p.76.

2. Professor Willan assures me that there were few occasions when an independent opinion was called for by either House in the case of river improvement Bills in the seventeenth and eighteenth centuries.

3. Plumb, p.18. 'It was only in the 1720's that river navigation Bills secured easy passages through the House of Commons.'

Bill thereby producing a clash with the Commons. The final decision reached in the House of Lords to withdraw their amendment was much closer than the entries in the journal of that House suggest. At the division, it seems that 41 peers favoured making alterations in the turnpike Bill, and that the same number opposed. It was only when the proxies were called for that the motion against amendments was passed by 65 votes to 53.<sup>1</sup>

In the House of Lords it seems to have been general practice to commit a private Bill to certain peers nominated by the House, together with all the peers who had been present during the Session, or who were present on the day of the second reading. The peer who moved the second reading almost invariably presided, so that the peer presumably most interested in the passing of the Bill acted as chief judge in deciding its fate. Committees were generally constituted by interested peers getting as many members of the upper House to attend as they could, either to support or oppose a Bill. Canvassing was practiced both by letter and by personal application, though not to the same extent as in the House of Commons.<sup>2</sup> Agents sometimes thought it hopeless to proceed with Bills which were strongly opposed by influential peers, because the latter were able to command a much

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1. Spencer Stanhope MSS. 60511 (Sheffield)

2. When the Don Bill was being considered by the House of Lords in 1726, the delegates from Sheffield found it more difficult to solicit support among the peers than among members of the lower House:- 'our business now lying amongst the Lords who are not so easy of access as the Commons.' Leader MSS. 70/29.



larger body of friends in the committee than the promoters could have brought there. In the case of strongly contested Bills - for example to authorise the improvement of navigation on the Derbyshire Derwent in 1720 - a committee of the whole House of Lords might be constituted.<sup>1</sup>

In the seventeenth and eighteenth centuries, the work of soliciting private Bills in Parliament was performed partly by the officers of each House, who took charge of Bills on behalf of the promoters, saw that the required forms were complied with, made themselves responsible for the fees to which Bills were liable, and generally charged a fixed sum for their services. Such fees were first included in the House of Commons' Table of Fees between 1690 and 1700, the institution of regular committee clerks being due to the work of Paul Jodrell, the Clerk of the House between 1693 and 1726. For example, in 1698 James Courthope, one of the four committee clerks of the House of Commons was receiving a salary of 25 guineas from the Treasury and about £30 in fees for attendance on private bill committees, besides any extra gratuities that he may have earned from the promoters of private bills for special assistance in their business.<sup>2</sup> This method of payment lasted until the close of the eighteenth century, although the attempts of the committee clerks to widen

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1. Infra, p.487.

2. The Minute Book of James Courthope, ed. O.C. Williams (Camden Miscellany, 1953), pp.ix-xiv. Until Parliament succeeded in meeting every year, as it did after the Revolution, there could be little inducement for a clerkly person to give up any other more certain occupation in order to attend the House of Commons at unpredictable intervals.

the scope of the idea of a private Bill had created such difficulties by 1751 that the House of Commons found it necessary to adopt a number of resolutions which were intended to give definite criteria for distinguishing public from private Bills.<sup>1</sup>

In the late seventeenth century, there were no parliamentary agents for private Bills or for opposing petitioners. The M.P. who brought in the Bill was usually - though not invariably - the chairman of the committee, and Counsel appeared without an agent to brief them. Local solicitors and Recorders of boroughs were often sent to London to retain Counsel, for, although anyone who had been called to the bar could manage the affair, it was customary to employ lawyers who had considerable experience in handling Parliamentary committees. A distinct Parliamentary bar did not come into existence before the emergence of large trading and industrial bodies which sought authorisation to construct canals, docks, waterworks, gasworks and railways, thereby creating a large volume of private Bill business. Nevertheless, Parliamentary agency was certainly not unknown in the early decades of the eighteenth century. For example, in 1732 when Richard Langley of Grimston sought to promote a private Bill for an estate at Driffeld, he advised his London solicitor:-

' . . . I shall be very glad to employ Mr Osbaldeston to Sollicit the Act of Parliament, provided he can do it at the same Expence, that the Sollicitors who usually attend the Houses on these occasions can

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1. Clifford, II, p.731.



do: I apprehend there are Persons who make it their business to obtain Acts of Course, and by solely attending that Business, and by their acquaintance with the Members, can obtain 'em with the least trouble and the easiest Expence. I have no other Objection, but shall very willingly employ Mr Osbaldeston if he will undertake to obtain an Act at the usual Expence.<sup>1</sup>

The employment of Parliamentary agents to give evidence on behalf of promoters or opponents was not uncommon in the case of turnpike Bills.

From what has already been written, it will be clear that no matter how eminent the Counsel employed, the promoters could not hope to secure authorisation for an opposed improvement Bill without the active support of members of both Houses. As Professor Willan has written:-

'Without support from Members, navigation schemes would naturally never have gone through the Houses, but that support was not the passive 'Aye', but the more active intervention of men interested in the economic development of their constituencies.'<sup>2</sup>

In this connection it is not inappropriate to examine the importance of improvement schemes in the selection or election of Parliamentary candidates; to determine the extent to which M.P.'s were pledged to support - or oppose - transport Bills, and to see how prospective candidates and agents, by encouraging the hopes of local commercial,

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1. Dawnay MSS. ZDS (not numbered). Richard Langley to John Idle,

6 January 1732.

2. Willan (1936), p.37.

agricultural or industrial communities sought in return to augment their political position. No matter how absolute the control of a borough might appear to be, an M.P. was the representative of a certain body of local opinion. Lord Shelbourne wrote in his autobiography with reference to his experiences in the boroughs of Calne and Chipping Wycombe:-

'Family boroughs (by which I mean boroughs which lie naturally within the reach or cultivation of any house or property) are supposed to cost nothing: but I am sure from my own experience and observation that if examined into they will be found to cost as much as the purchase of any burgage tenure whatever, by means of what I call "insensible perspiration". Like public taxes, the amount is not perceived for a great while, and by some people not at all, because it consists in paying always a little and most commonly a great deal too much on every article, and in every transaction you are confined to a particular set of tradesmen, and often to their connections in town, and can never control their charges. The rents of houses and lands must be governed by the moderation of voters. You must be forthcoming on every occasion, not only of distress, but of fancy, to subscribe too largely to roads, as well as every other project which may be started by the idlest of the people; add to this, livings, favours of all sorts from Government, and stewardships; if there is an intriguing attorney in the town, who under the name of your agent will deprive you of all manner of free agency upon your own property, and sometimes of the property itself, if it is a small one . . . And after all, when the crisis comes, you are liable to be outbid by any

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nabob or adventurer, and you must expect all that you have done to go for nothing, and the most you can look for is a preference.'<sup>1</sup>

Donations were often expensive and were not necessarily confined to election times. For example, in 1753, the borough of Tewkesbury demanded that the candidates should contribute £1,500 each towards the repair of the roads, an offer accepted by two rich London merchants, and so their old member, Lord Gage - who had represented the borough for twenty-two years - was ignominiously turned out.<sup>2</sup> Examples can be cited of candidates being adopted because they favoured the promotion of inland navigation Bills; or alternatively of their selection being partly determined by the knowledge that they would not countenance proposals for transport improvements. Growing prosperity in a wider economic context was creating in many towns a nucleus of rich men, deeply rooted locally, but with nationwide economic links, who, by the nature of their social standing, were the likely material for the establishment of local oligarchies, to which M.P.'s had in some measure to conform. For example, many of the maltsters in Derby were establishing broader commercial links at the end of the seventeenth century and were anxious to develop navigation on the river Derwent. The issue of the proposed waterway was an important factor in the politics of the borough, it being noted by Houghton that:-

'Great endeavours have been made to bring the navigation to Derby,

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1. Namier and Brooke, I, p.47.

2. Plumb, p.91.

and as far above as Darley in the peak. And whoever stood for parliament man, and gave hopes for effecting of this, has commonly been chosen . . .<sup>1</sup>

Whether the increase in the size of the electorate, and the rising cost of elections in the late seventeenth and early eighteenth centuries made candidates and M.P.'s more responsive to the wishes of their constituents on local issues is still a matter of conjecture. Nevertheless, the large numbers of members who recorded their votes at divisions on inland navigation Bills in the years after 1688 may not have been solely due to the deficiencies in Parliamentary procedure to which reference has already been made. Certainly, the failure of M.P.'s to respond to the wishes of influential local opinion might have serious political repercussions, as the members for the county of Cheshire found to their cost in 1710, they having aroused dissatisfaction from their failure to strenuously oppose the Weaver navigation.<sup>2</sup> Similarly, the failure to secure Parliamentary authorisation for the extension of navigation above Wakefield seems to have provided an election issue among the leading Halifax freeholders at the Yorkshire bye-election of 1741. Lord Irwin, who was actively engaged on behalf of the Ministerial candidate, Cholmley Turner was informed that:-

' . . . the Gentlemen who are so warm for the navigation from Wakefield to Ealand are prejudiced against Mr Turner because he did not favour their Bill the last Sessions . . .'<sup>3</sup>

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1. Willan (1936), p.36

2. Ibid.

3. Temple Newsam MSS. TN/PO/10/9



As it happened, the Tory candidate was not received with any great enthusiasm either, as was apparent from the reception which one of his leading supporters received:-

' . . . Sir John Kaye was on Saturday at Halifax, but could get none of the freeholders to meet him, Din'd alone much out of humour, and immediately after returned home . . . Caygill, Addison and other Leading men Declared absolutely against Fox, as one who had appear'd against their Navigation, And Sir Samuel Armytage declares he will not meddle, unless they find Sir Miles a Better partner. My Informer says that if Sir Rowland Winn (who as to the Navigation stood indifferent) would go over to Halifax next Saturday, it would be of the greatest Service to the Cause . . .<sup>1</sup>

Once elected, what was the role of the M.P. in the economic development of his constituency, or in the preservation of existing conditions? Undoubtedly, one important part of his work was to keep local interests informed of matters being considered by Parliament, particularly if there were likely to be repercussions at a local level. The extant correspondence between the M.P.'s of Hull and the corporation in the late seventeenth and early eighteenth centuries, supplemented by newsletters from their 'intelligencer' provided the developing merchant community with a continuous record of the activities of Parliament. Many years later, Sir George Savile, whose Parliamentary career was largely a record of service to his constituents without material reward to himself, sought to reassure mercantile interests in Yorkshire concerning a proposed waterway scheme:-

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1. Temple Newsam MSS. TN/PO/10/9.

' . . . If there be any proceeding commenced in Parliament of which there shall be reason to suppose the Country is ignorant, I shall make it my business to apprize those concerned of it . . .'<sup>1</sup>

Apart from providing information, M.P.'s often advised their constituents on the timing of local Bill promotions, or of the most appropriate tactics which might be employed in opposing improvement schemes. For example, in 1699, Sir William Robinson, one of the M.P.'s for York advised the City corporation that the Aire and Calder Bill might be opposed by petitioning the House of Lords, assuring them that:-

'the Citty shall loose no reputation, by offering it to no purpose, or oposing the bill in the Lords house without some tolerable prospect of success.'<sup>2</sup>

It was not uncommon for M.P.'s to request their constituents to send 'instructions' on local matters before the commencement of a new Parliamentary session. In October 1667, Anthony Gilby one of the M.P.'s for Hull wrote to the corporation:-

' . . . I did not think I should have come so soon for London else I should have received your commands before I had left you, but since my occasions heare prevented that, I hope you will now please to let me heare from you and what directions you shall give me, in relation to the Interest of the Town of Hull, for my deportment in this Parliament, I shall strictly observe and what you shall further say to

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1. Temple Newsam MSS. TN/LA5/1/13.

2. Unwin, 'ACN 1', p.77.

me concerning the good of the whole nation I shall look upon it as my best Councill . . .<sup>1</sup>

There is little reason to suppose that members receiving instructions from constituents took no steps to follow them. In April 1679, Thomas Grosvenor, one of the M.P.'s of Chester wrote to the mayor and made reference to his exertions in the House of Commons on behalf of the borough:-

'This day, I have had a hard bout about the bringing in of Irish cattle. We sat untill 4 o'clock in the afternoon. I thought I should be pulled to pieces of my countrey men and the rest of my acquaintance for deviding the house against them, for the good of the citty . . . There is no particular newes but what is in the votes, the which you have in the Coffy Houses with you . . .<sup>2</sup>

In the passage of transport improvement Bills through Parliament, the M.P.'s within a region were often called upon to play a major role. It may have facilitated the promotion of a Bill for the promoters to have included a number of M.P.'s. On the other hand, the odds were also high that a number of members would be directly concerned in any attempt to frustrate an improvement scheme. For example, the Wye Act of 1696 included four M.P.'s among the undertakers authorised to effect improvements, the Bill being passed in a Parliamentary session when the influence of the Harley-Foley group was particularly strong.<sup>3</sup>

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1. Hull Letters. L. 762. London 3 October 1667.

2. Hist. MSS. Comm., VIII, 391. London 10 April 1679.

3. Plumb, p.18.



Much depended on the influence which the member had in the House. In 1698, Sir Godfrey Copley the leading promoter of a Bill to extend navigation above Doncaster could muster 91 fellow M.P.'s at the division on the second reading, but opponents of the scheme secured the support of 202 members.<sup>1</sup> In general, the personal interest of M.P.'s seems to have been more important than party political considerations where private and local Bills were concerned, with a few notable exceptions. For example, party feeling seems to have run high in the heated controversy between the promoters of the Bridgewater canal and the proprietors of the Mersey and Irwell Navigation.<sup>2</sup>

The role of M.P.'s as intermediaries between promoters or opponents and Parliament seems to have been more usual. In this capacity they were called upon to present petitions, to solicit an interest and to take an active part in committee. On controversial local issues, the M.P. might be placed in a difficult predicament. Support for one section of local opinion, even in a Parliamentary borough, was likely to alienate other interests. Few committee chairmen were of the stature of Sir George Savile, who could - on many local issues - claim to be an 'honest broker' between conflicting riparian or commercial groups. In February 1767, one of Savile's fellow members described his predicament:-

' . . . I must give some Account of your Yorkshire business - Swale and Ure are revived - both I think must fail. I am out of all chairs

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1. H.O.F.C. Journals, XII, 77.

2. Clifford I, p38. The Duke of Bridgewater and his friends, being Whigs had the support of that party; the old navigation were able to muster the aid of the Tories.

so hope shall steer clear of all blame not only from the parties but from you - observing this rule, keeping out of their disputes as much as I can and when necessary acting with Candour honesty and resolution . . . We take care of the Port of Hull tomorrow. I had difficulty to make Weddle take the chair being in a Committee of the whole house he wanted me to do it, but he is certainly the fit person . . .<sup>1</sup>

Undoubtedly, many county M.P.'s did not go to Westminster to make or unmake governments, and to win places of honour for themselves:- 'they went there to watch over the interests of their constituents and to look on political matters with an independent eye.'<sup>2</sup>

It is pertinent to pose the question, what benefits accrued to M.P.'s as a result of their support of local interests? An analysis of transport authorisation Acts reveals the extent to which provisoes and saving clauses had been written in during the passage of Bills through Parliament. In general, such clauses were likely to satisfy opponents as much - and in most cases probably more - as individual M.P.'s. Nevertheless, members were undoubtedly in a strong bargaining position while a Bill was proceeding through Parliament, to negotiate favourable agreements for the development of their own estates. Here perhaps one example may be cited. In 1698, Sir John Bland, one of the M.P.'s for Pontefract opposed the Aire and Calder Bill. When a new Bill was promoted in the following session, he was the chairman of the committee which considered the Bill after the second reading, a position he was able to exploit for the benefit of

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1. Savile MSS. DDSR 221/100.

2. Namier and Brooke, I, p.5.

his constituents and himself. While the Bill was in committee, an agreement was reached between Bland and the promoters of the navigation scheme, setting out that:-

'whereas there is a Bill now depending in the . . . House of Commons for making . . . Aire and Calder Navigable . . . (and) . . . for the prevention of differences between Sir John Bland . . . and the undertakers . . . concerning reparation for damages . . . that if the Bill doe pass into an Act . . . then . . . Bland . . . shall let and the undertakers shall take to farme the . . . mills for forty one years . . . (the undertakers) . . . to and from Castleford Bridge or any other place Below . . . permit . . . Bland . . . at all times to carry and recarry coal, lime . . . up and downe the rivers and freely to pass and repass any Locks . . . sluices or gates which shall be erected by . . . undertakers without paying any toll . . . duty or thing whatsoever.'<sup>1</sup>

The inhabitants of Pontefract - Bland's constituents - were to pay no tolls on that stretch of the river Aire which was already navigable. It seems probable that similar agreements were made with other influential landowners and M.P.'s while the Bill was passing through Parliament.<sup>2</sup>

Members of Parliament in the period under consideration do not seem to have used their position to secure investment opportunities

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1. Unwin, 'ACN 1', pp.71-2.

2. Ibid, p.76.



in transport undertakings, nor is there much evidence of their being rewarded for services rendered by allowing them to secure important positions within the bodies authorised to effect the improvement of roads, rivers or ports.<sup>1</sup> When Sir Abstrupus Danby, one of the M.P.'s for Aldborough agreed to support the promoters of the Aire and Calder Bill in 1698, a promise was made that he might have reserved: 'whatever Sume you are pleased to subscribe towards the Undertaking.'<sup>2</sup> Neither Danby, nor Sir John Bland, who was actually named as one of the undertakers in the authorisation Act, actually subscribed. A comprehensive study of the investments of M.P.'s in local undertakings would undoubtedly prove invaluable in assessing the full role of members in the development of their constituencies. In general - and it must at this stage be a tentative speculation - M.P.'s seem to have contributed to improvement undertakings as much from political considerations - to keep a particular interest warm - as from motives of great personal gain. William Jessop and Andrew Wilkinson, agents for the Duke of Newcastle in the West Riding and Boroughbridge respectively each contributed to the Don undertaking, and played an active role in the promotion of Bills to authorise and develop the south Yorkshire undertaking, but seem to have held no more than two shares out of 150.<sup>3</sup> The influence of Lord Rockingham at York stemmed

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1. In this respect there seems to have been a marked contrast with the subsequent promotion of Railway Bills. By 1847, no less than 178 M.P.'s were directors of Railway Companies. Mathias (1969), p.282.

2. Unwin, 'ACN 1', p.63.

3. Infra, p. 532. For River Don shareholders vide Leader, I, p.170.

from his position as leader of the Whigs in Yorkshire and was strengthened by his careful handling of the constituency, as may be seen in the following Address of its citizens:-

'That the thanks of this Corporation be signified by the Lord Mayor to Lord Marquis of Rockingham for his generous Contribution of £100 towards the intended Improvements of one of our Streets, and for promoting the Improvement and Advantage of this City . . .'<sup>1</sup>

Rockingham contributed to a number of turnpike trusts in the West Riding, although his motives for so doing are not entirely clear.<sup>2</sup>

The willingness to contribute to local improvement schemes was likely to be among the more important factors which would recommend a political 'interest' to a borough constituency or to certain groups of freeholders in the county. In August 1726, after the Bill to improve the navigation of the river Don had been passed, the corporation of Doncaster sent a deputation to express their gratitude to Thomas Wentworth for his assistance in the promotion of the scheme, and promised that they would:-

'be ready to Serve him with their Votes and Interest at the next Election for a Knight of the Shire.'<sup>3</sup>

Although there seems little doubt that Wentworth was primarily concerned with extending the market for coal mined on his estate, he also found that espousing the Don Bill enhanced his political interest with some sections in the county. A year later, it was agreed by

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1. Wentworth Woodhouse MSS. RL/39.

2. Infra, pp. 632, 634, 690.

3. Doncaster Courtiers (unpublished), p.667

the corporation of Doncaster that:-

'at the next election for members of Parliament the poorer sort of freeholders shall have horses found them and their expenses allowed at the charge to the corporation at 7s 6d per man for those that will vote for Sir Thomas Wentworth and Mr Turner; and that two pieces of roast beef, to be eaten cold, and two barrels of ale be provided against Thursday morning, when the freeholders are to set forward.'<sup>1</sup>

Few corporations went so far in spelling out the significance of local improvement schemes as one of the factors which might determine political affiliations.

It is not possible to assess quantitatively the contribution made by M.P.'s to the economic development of their constituencies in the late seventeenth and early eighteenth centuries, when the extension of inland navigation was bringing some of the most fertile and productive regions of England within cheap and easy reach of London and the major outports. What is now clear is that the improvements effected in both land and water communications were often poor substitutes for the transport schemes originally planned. Partly, this was due to the limitations imposed on the statutory authority of inland navigation undertakers and turnpike trustees; partly to the shortcomings of road and river engineering; and partly to the limited capital outlay on transport undertakings in the pre-canal age. Although local economic isolation was being gradually obliterated, the economic watershed which ran down the spine of the country was not broken until the construction of the trunk canals in the 1770's.

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1. Doncaster Records, IV, 201





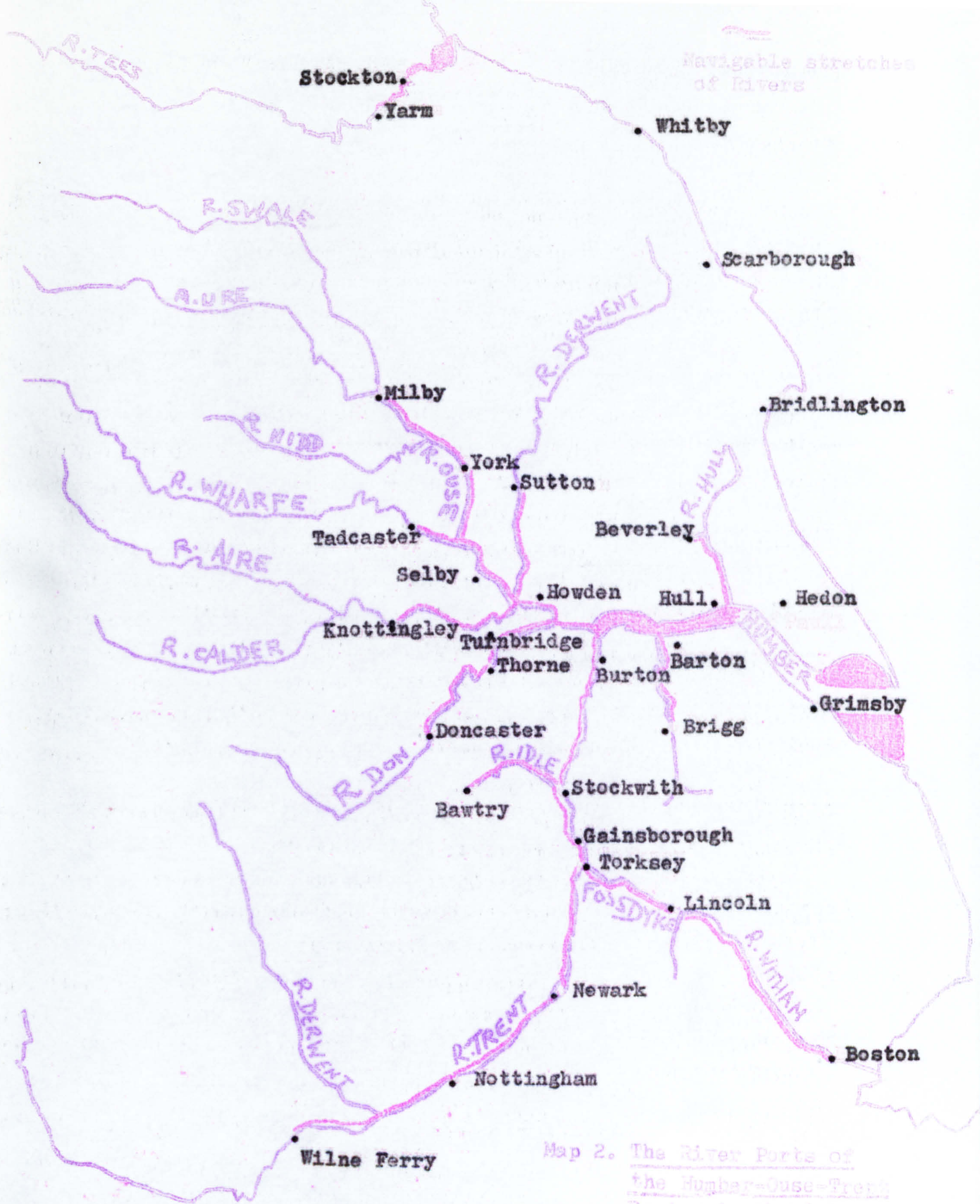
Map 1. The River Systems of England and Wales c.1750

#### (iv) THE HUMBER-OUSE-TRENT REGION

Until the last quarter of the eighteenth century, when roads and canals helped to establish national markets for primary, secondary and tertiary products, it was possible to distinguish regional areas with a recognizable economic life of their own. Of the five great river systems which covered much of the country, the Humber-Ouse-Trent system was the largest in extent, the waterways providing a medium for intra-regional exchange and for entrepot traffic with the outside world. At the same time, by virtue of its varied agricultural, mineral and manufacturing resources, its topography and its geographical position, the region reflected most of the contemporary currents of economic change.

From early times the Humber, Ouse and Trent, together with their tributaries, have formed an extensive waterway system. Draining one-sixth of the area of England and Wales, and receiving water from more points than any other river system, a large region is opened up which extends from the Pennines and the Peak to the Yorkshire and Lincolnshire wolds. For the river valley communities, the waterways provided not merely sources of power and piscatorial reservoirs, but also the principal means of commercial exchange - especially for bulky goods - between different parts of the region, and important channels of ingress from - or egress to other parts of Britain and Europe. At the same time, the undrained character of many of the river valleys tended to constrict settlement, and to render other forms of carriage difficult in some seasons, impossible at other





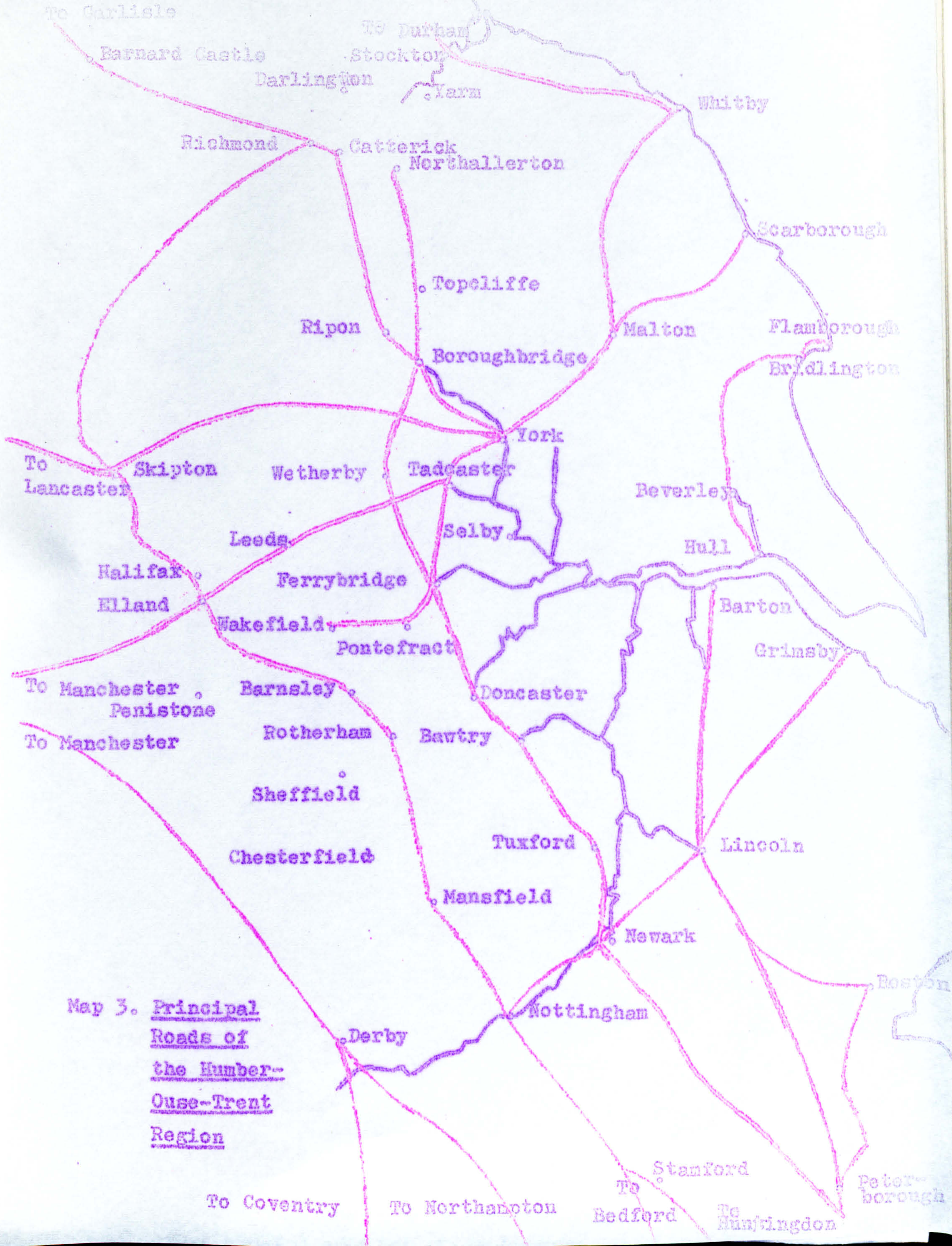


times. The rivers were at once gateways and physical and psychological barriers.

In the seventeenth century, it was still possible to go by water from Nottingham to York, or from Lincoln to Knottingley, or from Doncaster to Hull without ever passing out into the open sea. Of the thirty or more inland ports and shipping points within the Humber-Ouse-Trent waterway system, three main classifications may be made, according to the nature of their trade and the vessels which regularly plied to and from them. The major inland ports, which included Selby and York on the Ouse, and Stockwith and Gainsborough on the Trent, participated in the coasting trade, besides dealing with Hull, and with lesser ports within the region for which they provided transshipment facilities. A second category of ports were able to trade by water to Hull, but could not participate directly in the coasting trade. These included Beverley - which maintained water links with the major Humber port by means of the river Hull and Beverley beck, West Cottingham on the Yorkshire Derwent, Tadcaster on the river Wharfe, Knottingley on the Aire, Thorne and Doncaster on the Don, and Newark on the Trent. The third category of shipping points consisted of those head ports and minor havens, which were unable to participate either in the coasting trade or directly in the water trade to Hull, being usually dependent on a transshipment port within the region. These included Milby, which depended on York for transshipment facilities either to Hull or other outports and London; Bawtry on the Idle, whence goods were sent to Stockwith for transshipment; and Nottingham and Wilne Ferry on the Trent, whence vessels broke bulk

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at Gainsborough and Stockwith.

Although river navigation provided the principal means of carriage - particularly for bulky goods - land carriage routes did not remain undeveloped. Like the ports of the region, the roads may be classified according to the nature of traffic specialisms. A number of stretches of roads were essentially parts of the major highways which linked London and the North. Other roads provided inter-regional trans-Pennine links. Another category of roads may be classed as 'feeders' to the inland and coastal ports. From the river ports and heads of navigation, hinterlands were tapped by land carriage routes, the limits of which were largely determined by the proximity or suitability of alternative lines of land and water carriage. Thus in the North Riding, the ports of the Tees estuary were often used by commercial and mining interests in preference to the ports of the Ouse and Humber basins, of which - geographically - they were a part. Traffic on the remaining roads was essentially local in character, sometimes being noted for particular commodities, as in the case of many of the coal roads of the region.

By the late seventeenth century, the procedure for highway maintenance and river conservation was well established in England and Wales. Within the Humber-Ouse-Trent region other jurisdictions had been created - or in some cases pre-dated - the Commissions of Sewers which had considerable powers in all matters concerning drainage and flood prevention in the main marshland areas. For example, a conservancy charter of 1462 appointed the city corporation of York

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overseers and conservators of the Ouse and Humber, of the Wharfe to Tadcaster Bridge, the Derwent to Sutton Bridge, the Aire to Knottingley Mills and the Don to Doncaster Mills. This extensive jurisdiction meant that the city was empowered to take steps to preserve the rivers as open waterways, although there seems to have been no authority to effect long term improvements.<sup>1</sup>

Although the Commissioners of Sewers were empowered to make new cuts for drainage purposes, they could not authorise the making of a new river channel or the introduction of innovations which stemmed from the need to improve navigation. The problems of maintaining, improving or extending the navigable waterways of the Humber, Ouse and Trent basins were perennial concerns for the various trading and shipping interests within the region. Modest efforts to conserve navigation were capable of rousing a host of vested interests; proposals for the development of a particular waterway often produced vigorous opposition from riparian proprietors and from neighbouring communities determined to maintain the status quo of regional commercial patterns.

By the end of the seventeenth century it was apparent that the advantages lay increasingly with ports situated on rivers which were naturally navigable, and remained so, without the necessity of major improvements. A pamphlet published in 1675 set out that:-

' . . . Cities seated upon navigable Rivers far within the Land look like some Noble Exchange of Nature's own designing; where the Native

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1. Duckham (1967), p.34.



and the Forreigner may immediately meet, and put off to each other the particular commodities of the growth of their own Countreys; the Native (as a Merchant) receiving the Forreign Goods at first hand, and exchanging his own for theirs at the very place where they are made, or grow; or, at most, going no further to it, than to his ordinary Market . . . there is more advantage to those places, which, being seated far within the Land . . . do enjoy the benefit of Commerce by some Navigable River, than to those Port-Towns which are seated in some Creeke or Bay only, and are (as I may call it) Land-lock'd, having no passage up into the Land but by Carriages . . .<sup>1</sup>

A study of the ports of the east Midlands, Yorkshire and Humber-side in the late seventeenth and first half of the eighteenth century reveals a variety of potential among the economic interests of the region. The nature of the estuarine Humber made it difficult for small boats of shallow draught to ply safely to and from the port of Hull; while the tendency of many of the rivers to become silted, coupled with the increasing size of many coasting vessels, rendered natural accessibility to a number of river ports more difficult. The problems of York exemplified such disadvantages, the city fathers being regularly faced with the question of what methods should be most appropriately - and cheaply - adopted to maintain a navigable channel. Commercial and shipping interests at other ports seem to have been anxious to modify their functions within the waterway system

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1. Pratt, pp.110-12, quoting pamphlet by 'R.S.' entitled Avona, or a Transient View of the Benefit of making the Rivers of this Kingdom Available.

For example, when the Don scheme was revived in the 1720's a number of traders in Doncaster were optimistic that the status of the port as a head of navigation would be modified, and that the town would become a transshipment port with direct access at all times of the year to Hull.

Although improvement was 'in the air', particular circumstances were necessary to transform local commercial aspirations into the practical reality of promoting and obtaining statutory authority for an improvement undertaking. Effective attempts to maintain the position of established inland ports, or to modify their main functions, and efforts to promote new improvements seem to have depended as much on the conditions prevailing within the river valley communities and their hinterlands, than on the level of interest rates or optimism accompanying the ending of international hostilities. Changes in the organization, capital structure, location, and production techniques - stimulated sometimes by extra-regional factors and modifications in demand patterns - of the agrarian, mining and manufacturing interests within the region, tended to modify market conditions and potential, often leading to pressure on established land and water carriage routes, and to the search for viable alternatives and improvements. However, the pace of change was not uniform, certain communities and manufacturing or commercial groups being anxious to develop improved trading facilities before neighbouring interests, engaged in the same - or similar - lines of business had reached such a position.

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In examining the problems faced by the various trading, mining, manufacturing and agrarian interests concerned in the river markets and ports within the Humber-Ouse-Trent region, together with the ways in which they were worked out on the political stage, it is clear that the use of waterway and turnpike records alone would be largely inadequate. To provide a picture of the conditions which prevailed in the inland ports and their hinterlands it has been necessary to use a variety of primary and secondary material. The paucity of commercial archives extant for the late seventeenth century make it difficult to provide a detailed analysis of the numerous trading interests within the region and to assess the extent of their intra-regional, inter-regional and international activities. Such records have been supplemented where possible by estate account books and correspondence, which often provide the names of wharfingers, carriers and the categories of goods received from the nearest inland and coastal ports. In at least one instance, the State Papers have enabled me to describe dealings in a particular commodity, while depositions from Exchequer litigation concerning controversy over the payment of local tolls have been used to piece together a picture of some of the lesser commercial routes of the region. At times of great activity in the promotion of improvement schemes, reliance has been placed partly on the appropriate Parliamentary papers, supplemented by riparian muniments, municipal archives, Quarter Sessions and deeds of title. In describing the development of transport schemes, the statutory authorisations have been

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considered, together with the extant archives of inland navigation and turnpike undertakings, supplemented where necessary by private and municipal muniments.

The dissertation has been divided into five main phases of development, largely determined by the extent of activity in the promotion of improvement schemes: namely, the years between the Restoration and the Revolution; the years between the outbreak of the War of the League of Augsburg and the outbreak of the War of the Spanish Succession; the first two decades of the eighteenth century; the period which has been termed 'the Age of Walpole'; and the years between the outbreak of the War of the Austrian Succession and the conclusion of the Seven Years War. The chapter divisions are not entirely rigid, and, where necessary 'overlapping' has been employed. For each period a detailed analysis is made of the conditions which prevailed within the region, coupled with detailed accounts of the nature and timing of improvement schemes. The dissertation is concluded with a short analysis of the main intra-regional developments over the whole period.



## II

### The Humber-Ouse-Trent Region, 1660-1688

#### (i) INTRODUCTION

The period between the Restoration and the end of the seventeenth century was to prove a relatively fertile and progressive period in English history, in spite of two short wars against the Dutch and a longer struggle with France in the War of the League of Augsburg. Cradled in protective legislation enforced by naval power, England was becoming a world entrepot on its own in an age of commercial revolution. In the years of good trade between 1677-88 there was a sharp and continuous growth in exports and imports by approximately one-third, and a rapid development of the re-export trade in sugar, tobacco, calicoes and silk.<sup>1</sup> It was the last period for fifty years in which woollen cloth export - the old staple of the export trade - was growing, although it was figuring less large in total trade and there were many vicissitudes in the domestic industry.<sup>2</sup> Among the perceptible changes in the pattern and character of industry in late Stuart England the sudden growth of the Devon serge industry and the rapid expansion of the West Riding textile manufactures must figure

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1. Davis, 'Trade', p.2. The re-export trade grew from negligible proportions to nearly one-third of total exports in 1699-1701, with a corresponding growth in the import trade.

2. Ibid.

prominently. Significant changes were taking place in a number of industries in the later seventeenth century, and scientific curiosity gave renewed impetus to the development of new technologies.<sup>1</sup> An increasing proportion of coal output was being used for industrial purposes, the coalfields which were exploited most rapidly being those in the Midlands, with Wales and Scotland following close behind in rates of growth.<sup>2</sup> In the same years, coal played its part in the steady process of urbanization, several new towns appearing along the Tyne and Wear valleys, in the West Riding and in Lancashire.<sup>3</sup> The steady increase in the home production of food naturally assisted in this phase of town development, and was sufficient to enable England to turn from a corn importing to a corn exporting country.

Within the Humber-Ouse-Trent region there were indications of recovery from the disturbances of the Civil War and Commonwealth, and signs of expansion in a number of industries, notably coal, iron, lead, woollen cloth, and a number of secondary manufactures associated with the products of agriculture. Less noteworthy were the efforts to improve inland navigation and conditions at the coastal and inland ports of the region, the majority of which either failed to get off the ground or were rendered abortive by rival commercial communities during the thirty years which followed the Restoration.

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1. Wilson, p.12.

2. Ibid, p.198.

3. Ibid, p.204.



It is proposed in this chapter to study in detail the conditions of trade and transport which prevailed within the Humber-Ouse-Trent region in the later decades of the seventeenth century; to consider the various attempts to bring about improvements; and to offer a number of tentative suggestions as to why so little was actually accomplished.

## (ii) THE HUMBER PORTS

The perils and difficulties of navigation in the estuarine Humber were significant factors in determining the nature or role of the numerous river ports within the region. Celia Fiennes found that the Humber was a hazardous waterway:-

'rowles and tosses just like the Sea, only the soile being clay turnes the water and waves yellow and soe it differs from the sea in coullour, not else; its a hazardous water by reason of many shoares the tides meete . . .'<sup>1</sup>

North of Whitton there were dangerous sandbanks which could all too easily bring disaster for vessels whose masters were not well acquainted with the Humber.<sup>2</sup> It was generally agreed by those who participated in the river trade:-

'that five foot water is the least that vessels of 30 tons should draw to live in Humber . . .'<sup>3</sup>

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1. Celia Fiennes, p. 88.

2. De la Pryme, p.140.

3. Mellish MSS. 162/15. Some shipmasters affirmed that:-'quantity of Water necessary for vessels to draw, to give them weight and steadiness in the Humber - most people tell me six feet, none under five feet.' Mellish MSS. 162/14.

The nature of the Humber, which forms the common estuary of the Ouse and Trent, was one factor instrumental in the development of the different categories of river ports within the waterway system, to which reference has already been made.<sup>1</sup>

### (iii) HULL

Because of its medieval importance, Hull had been appointed the central Customs receiving port for the Humber area, which stretched roughly from Scarborough in the north to Theddlethorpe in Lincolnshire in the south. All ships entering or leaving this area had to be checked through the Customs House at Hull.<sup>2</sup> In the later seventeenth century, Hull was still almost entirely confined to the western bank of the lower river Hull, a left bank tributary of the Humber. In 1300, there were only fifteen streets in Hull; by 1640, the number had increased to thirty-two, but then remained stationary until the end of the seventeenth century, notwithstanding the fact that the population of the port had increased to almost 12,000, creating an acute housing problem.<sup>3</sup> Celia Fiennes found there:-  
'the buildings . . . very neate, good streets, its a good tradeing town by means of this great River Humber that ebbs and flows like the sea . . . and takes in all the great Rivers, the Trent, Ouse, Aire, Don, the Derwent and the Hull . . .'<sup>4</sup>

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1. Supra, p.55.

2. Jackson, p.3.

3. W.J. Davies, 'A Description of the Trade and Shipping of Hull During the Seventeenth Century' (unpublished M.A. thesis. University College of South Wales, 1937), p.85

4. Celia Fiennes, p. 88



In the late seventeenth century there were between twenty and thirty staithes in the haven at Hull, several of which kept cranes, scales and weights.<sup>1</sup> The tonnage of shipping belonging to the port rose from some 2,500 tons in 1582 to some 7,600 tons by 1702.<sup>2</sup> In a survey made by the Corporation in 1672, it was found that 44 ships - great and small - belonged to Hull, but that:-

'though there may seem a great trade here, yet it is carried on with (by) strangers, as well merchants as ships.'<sup>3</sup>

Certainly, many more vessels used the port, for, later in the same year, it was noted by one Hull merchant that:-

'most of the ships of this town, being near a hundred are at present abroad, not above 10 or 12 being now in harbour.'<sup>4</sup>

The majority of Hull's seagoing ships in the early seventeenth century were of about a hundred tons burthen - hoys, pinks and crayers - although they tended to increase in size as the century progressed.<sup>5</sup> Many of the vessels which were entered at the Customs House did not belong to the Humber port, but to the inland ports of the Ouse and Trent, particularly York, Selby, Stockwith and Gainsborough.

The merchants, factors and shipping agents at Hull had an extensive correspondence with the inland ports of the Humber-Ouse-Trent region,

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1. P.R.O. E134/35 Chas.II/Mich.51.

2. Davis (1962), p.35.

3. P.R.O. S.P.29/235/127.

4. P.R.O. S.P.29/318/44.

5. A Calendar of the Early Judgements of the Hull Trinity House, ed. F.W. Brooks (Y.A.S. Record Series CXVI (1951)), p.23.

with London and the outports of the east coast, and with the Baltic states and the Low Countries. Goods arriving in Hull were usually distributed throughout the hinterland by means of direct communication by water. In the first instance, a correspondence was probably begun by an advertising letter sent by a hopeful merchant to someone who had been recommended to him, or of whom he had heard good reports. Once a correspondence had begun, a merchant simply advised his customers of anything in stock which he thought might interest them. When George Cook, a London merchant sought to establish a correspondence at Hull, he was advised by Henry Thompson, a leading York merchant:-

' . . . you need not any (correspondent) for that ships are noe sooner arrived but we have notice where presently we order our goods to be landed or keeled up to York as see cause and you may know by the way that the greatest vent now at Hull is to the tradesmen of this towne wch Commodities they receives most by Commission, tho therein comes noe great advantage to the interessd and see iff you continue your resolution of sending part of your flax to the port of Hull may if you please consigne all to my selfe and shall it being your order land half of the goods there to take the market and leave them with a friend for whom will answer, and the other half I will bring upp to Yorke to dispose on . . .'<sup>1</sup>

Most of the coasting vessels which were entered at Hull brought cargoes from London. This was a commercial axis of great importance

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1. E.R.A.O. Letter Book of Henry Thompson, York merchant. DDFA 39/31.



to the Humber port and its hinterland, since the merchants and factors of the region had no direct trading connections with either the East or West Indies, and trade with certain areas of southern Europe and America was negligible.<sup>1</sup> Tobacco, groceries and a wide variety of goods were imported from London. Although most of the home grown wool used in the West Riding woollen industry was obtained by land carriage, the coastal trade in wool between a number of the east coast ports and Hull was growing rapidly by the end of the seventeenth century. In 1684, Hull received wool from King's Lynn, Colchester, Great Yarmouth, London and Woodbridge. The following year, out of the 13,900 stones of wool shipped from King's Lynn, all but 60 stones went to Hull.<sup>2</sup> Other items for the West Riding woollen industry imported via Hull included fuller's earth from Rochester, and alum from Whitby and Seaton Sluice.<sup>3</sup> Imports to Hull also included coal from Newcastle and Sunderland, mostly consumed in the Humber-Ouse-Trent waterway system. In 1698, the coalmasters of Tyneside and Wearside complained that more than 400 ships would be laid aside if the river markets were to be supplied from the west Yorkshire coal-field instead of from the North-East.<sup>4</sup>

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1. Davis, 'Hull', p.24. In 1687, only one ship which entered Hull from abroad came from America. In March 1675, the Merchants Desire of Hull arrived from Cadiz 'with sherries, oils, fruits . . . This is the first ship that is gone from here to that place these several years.' S.P.29/369/9.

2. Bowden, p.69.

3. Willan (1938), p.80.

4. Hist. MSS. Comm., H. of L. MSS., N.S. III, 211.

Of the 154 ships which entered Hull from abroad in 1687, all but one came from Norway and the Baltic, Holland, Germany, France and Flanders. The growth of iron imports gave increasing importance to Hull, since it supplied the Sheffield and Birmingham areas with Swedish iron through the Ouse and Trent river networks. A growing volume of softwood was also imported and distributed throughout the waterway system. From the mid-seventeenth century, the Baltic emerged decisively as the focus of Hull's import trade.<sup>1</sup>

The impression given of the export trade of Hull in the later seventeenth century is that of a thriving port drawing a variety of goods from an extensive hinterland, tapping both agricultural and industrial areas.<sup>2</sup> Corn, butter, rape oil, cloth and lead were shipped coastwise, and were sent to Norway and the Baltic, and to Holland and Germany. Coastwise shipments of grain consisted largely of oats, barley and wheat consigned to London, Newcastle, King's Lynn and Plymouth. The coastwise shipments of butter which had been carried down the Yorkshire Ouse were consigned almost wholly to London. The same was true of cheese sent down the Trent.<sup>3</sup> A high proportion of the vessels carrying dairy products which were entered at the Customs House at Hull, operated directly to the inland ports of the Ouse and Trent. Rape oil and rape cakes were forwarded to Hull from mills in the Trent and the Aire and Calder valleys.<sup>4</sup>

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1. Davis (1962), p.218.

2. Davis, 'Hull', p.26.

3. Willan (1938), p.80.

4. Infra, p.107.



The merchants and factors who purchased pieces of cloth at the local cloth fairs and markets in the West Riding sold some of them locally, but the great bulk of the kerseys and northern dozens either passed to London and thence to other parts of England, or went via London, York, Hull, Newcastle or Chester to serve the poorer classes of Europe.<sup>1</sup> Although the land carriage of woollen cloth to the annual fair of St. Bartholomew, or to the more frequent sales at Blackwell Hall, was well developed, woollen cloth was also exported through Hull, either to London or to markets in Europe. In the early seventeenth century, coarse northern woollens comprised nine-tenths of the value of Hull's exports.<sup>2</sup> After the Civil War, the export of kerseys continued to rise until the end of the seventeenth century, while the other old trade in northern dozens expanded even more sharply. To these was added a growing export of a new fabric - bays - which had become marked by the 1680's, and which was to outstrip the old draperies early in the next century. Some Manchester wares were also exported from Hull.

Table 1. Number of Cloths exported from Hull (principal types)<sup>3</sup>

	Kerseys	Dozens	Bays
1637	34,355	21,493	961
1682	34,399	27,656	12,221
1700	53,868	27,335	17,175

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1. Heaton, p.146.

2. Rimmer, 'Leeds', p.117

3. Davis, 'Hull', p.24. In 1684, coastal shipments from Hull included 3,269 single dozens, 4,893 kerseys and 1,204 single bays.

Willan (1938), p.120.

Lead shipped coastwise from Hull to London, or exported to the Low Countries came either from Derbyshire, along the rivers Idle and Trent, or down the Ouse from the Yorkshire fells.<sup>1</sup> Some of the lead from Derbyshire or Yorkshire eventually found its way to Spain and Portugal.<sup>2</sup> Metal goods - probably made in south Yorkshire or north Derbyshire - were sent mainly to London. Other items exported from the Humber port included pitch, millstones, ale, and tallow.<sup>3</sup> At least two of the items in the export trade of Hull were made up partly of re-shipments. Trade in iron consisted partly of re-exports of Swedish iron, and partly of indigenous iron from south Yorkshire, north Derbyshire and Nottinghamshire, being consigned to London, Newcastle, King's Lynn and Great Yarmouth. Although some Derbyshire coal was exported from Hull in the late seventeenth century, the principal dealings in that commodity were re-exports from Newcastle and Sunderland.

In the late seventeenth century, Hull's great mercantile names began to appear - the Sykes, Maisters, Crowles and Moulds. For many years Daniel Sykes was the most important merchant at the port. He was engaged in the Baltic trade and leased several iron mines in Sweden from which his sons and grandsons drew immense wealth. As early as 1636 a Maister was settled at Helsingore at the entrance to the Sound and appears to have pioneered a direct trade in iron between

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1. Willan (1938), p.80.

2. R. Gravil, 'Trading to Spain and Portugal, 1670-1700', Business History, X (1968), p.72.

3. Willan (1938), p.81.



Sweden and England. A Henry Maister was living at Danzig in 1656, and for the next century there was always a Maister at Stockholm or Gothenburg. In the 1680's, Henry Maister stood far ahead of all other Baltic merchants in Hull, the only one of them to trade on a scale comparable with that of the great Baltic merchants in London.<sup>1</sup> The growing affluence of the commercial community at Hull no doubt reflects the growing trade of the port, which entered a modest phase of expansion around the middle decades of the seventeenth century. At the end of the century, a contemporary diarist found Hull:-  
'mightily improved since I last saw it.'<sup>2</sup>

#### (iv) THE MAINTENANCE AND IMPROVEMENT OF THE PORT OF HULL

The questions of maintenance and improvement at Hull and other ports of the region were closely linked with the issue of tolls, over which there was incessant controversy and litigation in the seventeenth century. At Hull, water bailiff's dues were levied on goods imported and exported, and on the tonnage of vessels entering or leaving the port, freemen of the town being to some extent exempt from payment. In addition, under a Charter granted by James I, dues were charged specifically on exported lead.<sup>3</sup> The serious limitations on lading and unloading within the port were aggravated, because - under an

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1. Davis, 'Hull', p.26.

2. De la Fryne, p.184.

3. East, p.193.

Elizabethan Charter - no open legal quay was provided to which excise men had access.<sup>1</sup> After the Restoration, the lead merchants and factors of Derbyshire and Yorkshire made repeated complaints against the payment of dues at the Woolhouse or Common Weigh House at the King's Great Beam, occasioned largely by the inadequacy of facilities in the haven for lodging and weighing the increasing quantities of lead which were exported. The corporation of Hull was criticized for exacting water bailiff's dues without paying sufficient attention to maintaining the depth of the river channel.

In 1665, several Chesterfield merchants apprised the corporation of Hull that numerous complaints had been received from the keelmen of Stockwith:-

'that they was long kept from the deliverie of their Lead at Hull, in soe much that unless we will allowe them demurrage, they say they will not take on any more lead att the fraught they usually did.'<sup>2</sup>

The merchants reminded the corporation of their obligations to prevent delays, and to facilitate the export of lead:-

'wee verie well remember upon our agreement with you this was mentioned as a grievance and you then promised that care should be taken to prevent it, upon our giving you notice thereof, which we hope you will carefullie performe upon the receipt of these, and that you will soo satisfie the keelmen that we shall heare no more from them about this matter.'<sup>3</sup>

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1. G. de Boer, 'Evolution of Kingston-upon-Hull', Geography, XXXI

(1946), p.144.

2. Hull Letters. L.718

3. loc.cit.



Although there is little evidence that the corporation took the requisite steps to satisfy the Derbyshire lead merchants and Trent keelmen a number of boatyards and staithes were leased from Hull merchants and boatwrights to store lead which could not be stored in the Woolhouse.<sup>1</sup>

The lead dealers and factors also accused the lessee of the Woolhouse of engaging directly in trade, and of undue preference, which caused much ill-feeling among the commercial community. When the lease expired in 1670, the corporation decided to administer the Woolhouse directly, an overseer being appointed at a salary of £20 a year.<sup>2</sup>

To rectify the increasingly manifest defects of the haven at Hull, the corporation contemplated the promotion of a Bill to secure additional duties for the upkeep of the port. Other ports were seeking similar statutory provisions in the years after the Restoration, which undoubtedly had some influence on the Yorkshire and Lincolnshire ports. In November 1670, Andrew Marvell - one of the M.P.'s for Hull - cautioned the mayor and aldermen of the need to prepare a Bill thoroughly, and advised the corporation not to promote legislation to secure a duty on coal which might be used to repair the haven.<sup>3</sup>

During the 1670's, complaints continued that the depth of water in the haven was insufficient, and that the channel of the river was

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1. Hull Bench Books, VII, fol.90.

2. Ibid, fol.209. The overseer agreed 'not to sell or ship any lead for any Merchants whatsoever either directly or indirectly during his tenure of office.'

3. Marvell, p.112.

so warped up that vessels had difficulty in approaching the staithes, that they could not anchor without great difficulty, and that only drastic measures would avert the ruin of the port. The corporation sought to persuade shipmasters using the haven to take some steps of their own, it being ordered that:-

'no persons from Paul, nor any others should be suffered to bring ballast into the haven; but that all ships and vessels whatsoever, as well English as foreign, outward bound, should dig half of their ballast out of the haven; and that the master of every ship and vessel neglecting this order, should forfeit to the use of the mayor and burgesses the sum of five pounds.'<sup>1</sup>

Having been dissuaded from promoting a Bill in Parliament, the corporation of Hull sought to tighten up the collection of its long-established sources of revenue. In their efforts to ensure that the customary Woolhouse duties were not evaded, the corporation soon clashed with lead merchants in Derbyshire and Yorkshire, and with a number of factors in the port of Hull itself. In October 1672, the corporation ordered one Hull factor - who had stored Derbyshire lead at his own staith - to pay the Woolhouse duties, and directed that:- 'hereafter noe persons whatsoever be suffered to take up any Darbyshire Lead at their own staithes.'<sup>2</sup>

Shortly afterwards, it was thought necessary to reiterate the former instruction that the overseer and clerks at the Woolhouse should not engage in the lead trade on their own account.

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1. Tickell, p.548.

2. Hull Bench Books, VII, fol.299.



The Derbyshire lead merchants and their Hull factors tried to avoid the payment of Woolhouse duties by various means.<sup>1</sup> The distinction made between freemen of Hull and non-freemen in affixing the amount to be paid in Woolhouse duty exacerbated relations between the corporation and the merchants at Chesterfield. A number of Hull factors sought to evade the payment of the full duty by making it difficult for the Woolhouse officers to determine the ownership of lead upon which it was levied. In May 1673, it was ordered by the corporation that:-

'all Leadmerchants their factors or agents bringing in any Warrants into the Woolhouse for Weighing or Shipping of Lead . . . shall in such Warrants express the names of the owners of the lead and whether such owners be free or unfree . . . If not set down . . . then the said lead shall be adjudged unfree.'<sup>2</sup>

1. One of the simplest was by non-payment. For example, in March 1673, the corporation were informed that Roger Coates and --- Ash, two lead traders had not paid the Woolhouse duties. It was decided that if their Hull factor did not pay, the Woolhouse officers 'doe forbear working and delivering of lead belonging to Coates and Ash now in the Woolhouse.' Hull Bench Books, VII, fol.322.

2. Ibid, fol.327. Freemen paid 1s 5d per fodder; non-freemen 2s per fodder. Between 1670-73, William Smith, a Hull factor had been 'fothering under his name . . . parcels of Lead belonging to unfreemen to the great defrauding of the Town contrary to his Burgess oath.'

Several Hull factors endeavoured to circumvent the order by falsely claiming the ownership of lead.<sup>1</sup> When the deception was discovered, the corporation resorted to the distraint of small quantities of lead until the arrears of duty were paid.<sup>2</sup>

In 1674, the Chesterfield merchants and Trent shipmasters made a more determined attempt to avoid the payment of the Woolhouse dution. The decision to ship lead directly for London from Stockwith, stopping only at Hull to enter cargoes at the Custom House, was probably in response to the increasing vigilance of the corporation. In January 1674, rates of duty had been adjusted, the Woolhouse officers being instructed to account three and a half firkins as a fodder of lead, it being found that:-

'three ferkins and an half of Red lead do amount unto the Usual weight of a fodder, whereas in former times four ferkins did weigh but a fodder which tends to the great prejudice of Hull.'<sup>3</sup>

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1. Hull Bench Books, VII, fol.327.

2. Ibid, fol.345. In May 1674, 200 pigs of lead, claimed by Robert Hower of Chesterfield were retained in the Woolhouse 'untill the difference . . . about the payment of 2n a fodder of lead for dutys for taking up, lodging, weighing, striking and boating of his lead . . . be decided.'

3. Ibid, fol.357. For discussion of terms fodder and firkin see Appendix.



Three months later, an order made by the corporation in 1627 was renewed:-

'that all such shipps, crayers, keeles or Vessells coming down Humber with Darbyshire lead, that should deny to pay Woolhouse dutys should be stayed and brought into the haven and all the lead should be taken up into the Woolhouse and kept there till the dutys should be paid.'<sup>1</sup>

The response of the Trent shipmasters - who had made continuous complaints of delays and inconveniences experienced at Hull - came in June 1674. On 12 June, the corporation were apprised that Robert Todd - master of the Mary of Stockwith - had received a cocket from the Custom House without landing the cargo of lead or paying the Woolhouse dues. The officers of the Woolhouse were hurriedly dispatched to the collector of Customs with the request that the vessel might be searched to determine the quantity of lead aboard and its ownership. Inquiries were also started among the factors and merchants of the port:-

'to require them, as they are burgesses, to inform him the severall quantities of lead, that each of their principalls or others have in the same vessell that they know of, and to demand all such Woolhouse dutys as are due . . .'<sup>2</sup>

In the following months, it was necessary for the overseer of the Woolhouse to be present when lead was entered at the Custom House. In the event of refusal to pay the customary port duties, distraints

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1. Hull Bench Books, VII, fol.370.

2. Ibid, fol.372.

were made of small quantities of lead. Between 23 June and 26 August 1674, eight Trent shipmasters had sailed for London without paying the Woolhouse duties. From a total of 2,277 pigs in the vessels, the master of the Woolhouse had distrained 38 pigs of lead.<sup>1</sup>

The Derbyshire lead merchants sought to counter the distraint by an action of replevin, heard at York Assizes in September 1674, whence the matter seems to have been referred into the Court of Exchequer. The case of the corporation set out that the maintenance of the haven at Hull was an onerous financial burden, that vessels navigating the Humber had the benefit of using the port for shelter in inclement weather, and that it was deemed reasonable that vessels which had to clear Customs at the port should pay the duty of 2<sup>n</sup> per fodder on lead.<sup>2</sup> To emphasise the validity of their argument, the corporation cited other ports which by custom had the right to impose a duty for the upkeep of their havens, although in normal circumstances vessels would not actually enter the harbours.<sup>3</sup>

Matters were temporarily adjusted in June 1676, when an agreement was reached between the mayor and aldermen of Hull and a number of Derbyshire lead merchants concerning the payment of Woolhouse dues

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1. Hull Bench Books, VII, fol.380.

2. Ibid, fol.410.

3. Ibid. For example, at Dover, a duty was imposed for the upkeep of the haven 'though most of the Shippes, that pay that duty, comes not within Twenty Leagues of the said peers, yett in distress of Weather may have security by the said Peers.'



for lead sent from Stockwith to Hull for dispatch to London or foreign ports.<sup>1</sup> In the following months, other merchants and mining proprietors agreed to abide by the agreement. However, it seems that many Chesterfield and London merchants were reluctant to accept or abide by the terms, for, in the same year, the Woolhouse officers recorded the names of nineteen merchants who had failed to pay the requisite duties.<sup>2</sup> In January 1677, a committee of the corporation was set up:-

'to inspect arrears of debts and duties owing by severall Merchants and other gentlemen trading in lead . . . and also to consider how the carrying of lead by this Port may be prevented or at least that the owners of such lead as is carryed by without landing here may be forced to pay the Woolhouse duties for such lead.'<sup>3</sup>

The practice of shipping lead directly from Stockwith to London was not merely a challenge to the town corporation of Hull and what was considered its rights by Charter; it was a renewal of an old struggle in which the Humber port had endeavoured to limit the coasting trade of the Trent ports of Gainsborough and Stockwith. The decision taken by the Chesterfield merchants and Trent shipmasters was seen at Hull as a threat to their trading position, the more serious in an age when it was assumed that one town or port could only

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1. Hull Bench Books, VII, fol.550.

2. Hull Woolhouse Books ( not classified)

3. Hull Bench Books, VII, fol.604.

proper if another decayed.<sup>1</sup>

Although vessels might sail directly from Gainsborough and Stockwith to London, it was still necessary for the Trent shipmasters to enter their cargoes at the Custom House at Hull. The later seventeenth century witnessed several attempts by the Trent ports to gain clearance facilities of their own. In 1675, an attempt was made to secure authority for the setting up of a Custom House at Stockwith, but this came to nothing.<sup>2</sup> Seven years later, a more determined effort was made. In June 1682, petitions were presented to the Commissioners of Customs from the shipmasters of Stockwith and Gainsborough. The former set out that vessels laden at Stockwith for London were entered at the Custom House at Hull, where the requisite cockets were received. It was stressed that the corporation of Hull

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1. As early as 1589, the corporation had complained about direct

trade between London, Gainsborough and Bawtry which had 'drawne awaye almoste all the trade from Hull.' In that year a petition had been presented to the Privy Council 'that the ancient and accustomed trade of Derbyshire Lead may be restored redeemed and brought again to Hull . . . that all goods coming into the Humber to be sold both from abroad and from London or other places may be discharged within the port of Hull and here landed before it be solde.' In 1592, the matter had been decided in favour of Hull, it being decided that 'no merchant or other person within this realm not being free of Hull could bring merchandise to serve the adjoining country except via Hull.' Hull MSS. M.92-96.

2. Hull Letters. L.861.



and the commercial community at the port were apprehensive of the growing participation of the Trent ports in the coasting trade:-

'of late the Hull merchants, envying this trade, and with an intent to have all those goods brought down from Stockwith thither in Litters or small keeles and then that they themselves might shipp it there for London . . . have prevailed soe farr with the Officers att the Custome house there; That they will not be content to take the entry and bond as formerly . . . of any goodes but lead . . . cause all to be taken out of the shippes in their haven into Litters without any reason shown for their soe doeing which not onely hinders the marriners in their viages but is a great hazard to their goodes and of much loss sustayned.'

A similar grievance was complained of concerning imported goods:-

'as these River shippes retorne from sea with their loading for Stockwith or Ganesburgh these officers att Hull, upon pretence that they may have goodes in them that have not paid custome - though they have cocket and Sufferance to show that they are come from London - they will cause them to come into their harbor and take out their loading into small boats which all hinders the merchants trade, the marriners passage and much endangers the merchants goods.'<sup>1</sup>

To redress these grievances, the Trent shipmasters requested the Commissioners that a Custome officer might be appointed to the port of Stockwith, with whom goods might be entered and from whom cockets might be received, thereby making any call at Hull unnecessary. It

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1. Aswaby MSS. ASW 2/66/6.

was claimed that if the proposal was effected, it would involve no loss or additional charge to the Customs, but, on the contrary, would have certain advantages. Firstly, it was maintained that the two Customs officers at Hull were never employed together, so that one of them might easily be appointed to the Trent port. Secondly, it was argued that a resident Customs officer at Stockwith would reduce the possibility of smuggling. It was estimated that the salary of £75 a year for a Customs surveyor or searcher might easily be raised from the volume of trade handled by the Trent shipmasters:-

'for 30 vessell at media 50 Ton and making 3 voyages going and coming is 300 Ton a vessell at 2d per Ton.'<sup>1</sup>

If this estimate is correct, it would seem that the Trent ports were handling some 9,000 tons of goods by the coasting trade, about half of which was exported. The petition from Gainsborough was couched in similar terms, requesting the Customs Commissioners that goods might be entered at Stockwith:-

'the place where all the . . . Vessells Lye and Lade both Corne and Lead from Nottinghamshire, Derbyshire and Lincolnshire.'<sup>2</sup>

The efforts of Stockwith and Gainsborough to establish a Custom house met with failure.

During the 1680's and 1690's, the corporation of Hull continued their endeavours to ensure the payment of Woolhouse duties, but with little success. In 1682, a lawsuit was commenced against Richard Bagshawe of Castleton, one of the leading lead mining proprietors in

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1. Aswaby MSS. ASW 2/66/6.

2. Aswaby MSS. ASW 2/66/7.



the Peak, for the non-payment of dues on lead, but the outcome was in favour of the Derbyshire interests.<sup>1</sup> In the following year, Hull lost a further lawsuit against several Derbyshire lead merchants, who had made use of private staithes in Hull rather than the Woolhouse.<sup>2</sup> When the Woolhouse accounts were audited in July 1688, it was observed that:-

'the revenues are much impaired by the irregular proceedings of the Derbyshire men in exporting their lead directly from Stockwith for London Contrary to Law . . . the duties arising from lead brought to this Porte and wrought here will not defray the Woolhouse charges.'<sup>3</sup>

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1. Tickell, p.564. Richard Bagshawe later sub-leased coal mines in Sheffield Park.

2. Gent, p.178. Lawsuit against --- Taylor of Walding-Wells and others. Gent recorded that 'many strong Arguments were used against the Defendents; yet they proved insufficient to cast them.'

3. Hull Bench Books, VIII, fol.211. In the year ending Michaelmas 1679, revenue from lead landed and wrought at Hull had amounted to £270 2s 8d, and the amount owing from merchants who had used private staithes or 'sailed by' amounted to £390. The annual charges in salaries and for working lead amounted to £277 13s. leaving a deficit on the Woolhouse account of £7 10s 4d. The corporation reacted to its loss of duties by a policy of retrenchment in the administration of the Woolhouse. In the Woolhouse accounts ending Michaelmas 1693, receipts for lead amounted to £267 but payments in salaries &c. had been reduced to £199 19s 5d.

Controversy over the payment of dues was a typical feature of any port's dealings with its neighbours. The dispute with the Derbyshire lead merchants did not represent the sum total of Hull's difficulties on that score. For example, in 1682, a lawsuit arose between Hull and Leeds on account of some goods which the water bailiff of the Humber port had distrained. As in the struggle with the Derbyshire lead merchants, the corporation urged that they were authorised by their Charters to take duties from all ships trading into Hull, and of all goods imported or exported except those belonging to the citizens of York.<sup>1</sup> On the other hand, Leeds interests

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1. The eclipse of York as the leading Yorkshire port by the rise of Hull was marked by much rivalry and mutual jealousy. In the late sixteenth century, agreement had been reached between the two ports, although the terms drawn up in 1578 caused subsequent difficulties. In 1622, following the stay of lead at Hull belonging to certain York merchants, and the references of differences to Sir Arthur Ingram, it was decided that:- 'for the time to come no duties shall be taken for such lead as shall be brought from York to Hull by the citizens of York but only for such as shall be landed there.' Hull MSS. D.682. From the 1670's, several York lead merchants, like those of Derbyshire were eager to avoid landing lead at the Woolhouse. During the lawsuit of 1682, one Hull alderman was apprised by the corporation:- 'the witnesses from Yorke though they be many yet they all ascert one and the same thing, viz, that they have brought lead to Hull and not landed it at the woolhouse nor payd any duty for it which makes them partion as lead traders in the same way the defendents are and soo expect a future benefitt by the success of this suite . . .' Hull Letters. L.1073.



argued that inclusion within the Duchy of Lancaster exempted them from the payment of toll, citing a precedent of the late sixteenth century when the water-bailiff of Hull had been instructed to make recompence for distraint.<sup>1</sup> The corporation of Hull found the suit untenable, and gave way.<sup>2</sup> Five years later, when the water-bailiff seized some fir deals belonging to a Beverley trader, the latter proved successful in a subsequent lawsuit, having pleaded a clause in Beverley's Charter of Henry I, which had granted exemption from all manner of tolls in all the towns and ports of England.<sup>3</sup>

The difficulties experienced by the corporation of Hull in the collection of their long-established duties, probably prompted them to consider once again the advantages of securing an Act of Parliament. Suspicion of such intentions soon put the other inland and coastal ports on their guard. At York, it was apprehended by the civic authorities and commercial community that - if Hull obtained statutory authority for additional duties on ships and goods coming into their haven - it would:-

'bring a great charge upon the merchants and traders in this citty, and if such an Imposition should be layd upon all the goods that shall be brought into their haven, I doe verily believe that we att Yorke should pay more than all the Inhabitants of Hull, to the repaires of their jetties which they have suffered to decay.'<sup>4</sup>

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1. Gent, p.178.

2. Tickell, p.560.

3. Gent, p.184.

4. Reresby MSS. 40/29.

Once again - as in 1670 - the corporation of Hull eventually decided not to promote a Bill in Parliament.

#### (v) INLAND PORTS OF THE HULL VALLEY

In its earliest phase, Hull had been primarily a port for the East Riding, the river Hull tapping an underdeveloped and largely unenclosed agricultural hinterland.<sup>1</sup> Nevertheless, large quantities of grain were carried by water from Wansford to Hull,<sup>2</sup> while dealers who bought wool from the East Riding farmers carried it into the West Riding clothing districts, particularly to the markets at Wakefield, Leeds and Halifax.<sup>3</sup> The extant accounts of Henry Best of Elmswell show him purchasing timber at Hull, which was then carried to Wansford by water.<sup>4</sup> Although the river Hull was navigable to Wansford in the seventeenth century, it is unlikely that much river traffic passed north of Beverley Beck.

Beverley port was at the head of the Beck, which the corporation regarded as its own property, and levied rates on the inhabitants for its upkeep. Apart from the carriage of coal, turfs, wool, grain, malt, wood, leather and bark, a number of York and London grocers and merchants sent goods by water to the several fairs held in

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1. A. Harris, 'The Lost Village and the Landscape of the Yorkshire Wold', Ag.Hist.Rev., VI (1958), pp.97-100.

2. M.W. Barley, History of Great and Little Driffield (1938), p.65.

3. Bowden, p.205.

4. Barley, op.cit., p.65.



Beverley each year.<sup>1</sup> The corporation of Beverley claimed a monopoly of traffic on the Beck, and took great interest in the maintenance of their waterway to the river Hull, making repeated provision for dredging. For example, in 1689, arrangements for scouring the Beck were accompanied by the leasing of the waterway to a certain Roger Mason for a period of five years. Mason was granted a monopoly to carry goods by water:-

'provided he keep two good and sufficient boats . . . and that he attend to take in goods at reasonable times.'<sup>2</sup>

Beverley seems to have recovered rapidly from the Civil War, and by the end of the century was described as:-

'a very fine town for its size . . . there are three or four large streetes well pitch'd . . . the buildings are now and pretty lofty.'<sup>3</sup> Serving an essentially agricultural area, many of Beverley's inhabitants were engaged in secondary industries, particularly the making of malt, oatmeal and tanned leather.<sup>4</sup>

#### (vi) LESSER HUMBER PORTS

Although Hull was the principal port concerned in trade on the Humber, other havens continued to engage in commerce. To the east of Hull, the small town of Hedon had some trade by water. Paull was established at the mouth of Hedon haven in the early fifteenth

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1. McCutcheon, p.139.

2. The Records of the Borough of Beverley 1575-1821, ed. J. Dennett (Yorks.Arch.Soc. Record ser. LXXXIV), p. 179.

3. Colin Flinnen, p.80.

4. Defoe, II, p.209.

century in an attempt - by creating an outport there - to avert the decline of Hedon, where the artificially enlarged haven was already badly silted.<sup>1</sup> Three centuries later, Defoe asserted of Hedon that:-  
'their haven will do nothing considerable for them, unless they can do something very considerable for that.'<sup>2</sup>

Until the expansion of Hull in the fifteenth and sixteenth centuries, the largest port of the Humber was Barton, whence ferries had crossed to and from the south bank of the estuary and the mouth of the river Hull from early times. Partly because of its Royalist leanings, Barton had fared badly under the Commonwealth. Topographers of the late seventeenth century maintained that the growth of Hull had contributed to the decline of Barton:-  
'has robb'd it of all it's trade and riches.'<sup>3</sup>

The rise of Hull had also affected the position of Grimsby, which still participated in the coasting trade, although it had seen better times:-

'formerly a very large town and enjoyed a good trade occasioned by its commodious haven which being now choaked up it hath lost much of its trade and grandure.'<sup>4</sup>

At the end of the seventeenth century, it was referred to as:-

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1. J.R. Boyle, The Early History of Hedon (1895), p.78.

2. Defoe, II, p.208.

3. De la Pryme, p.132. When the diarist ferried from Barton to Hull, he paid 'a groat for our passage, and a shilling for a horse.'

4. Blome, p.142.



'a little poor town, not a quarter so great as heretofore. The old market place is lost, and that where they now keep it is in the midst of a street. There is scarce a good house in the whole town . . . Grimsby very great and rich formerly by its having a long spacious haven which brought great traffic to the town; but the haven growing worse and worse for this two or three hundred years together, the town decayed more and more, and came to that poverty in which it is.'<sup>1</sup>

#### (vii) RIVER PORTS IN THE VALE OF YORK

Throughout the middle ages, York was the major port of the Ouse and its tributaries, the river being naturally navigable up to the city. In 1462, the mayor and aldermen of the city of York were appointed by Edward IV the conservators of the rivers Ouse, Aire, Wharfe, Derwent, Don and Humber, a responsibility which required - but did not always receive - constant vigilance. The conservancy charter gave no power to alter the course of the Ouse and its tributaries by the excavation of cuts or by the reduction or elimination of tortuous bends.<sup>2</sup>

Although there were repeated complaints in the seventeenth century that the flowing of the tide further up the rivers Don and Aire was robbing York's waterway, the evidence on that score is far from conclusive. In 1698, two members of London Trinity House concluded that: - 'according to a survey made Anno 1616 the Tide flowed at York 2 foot 6 Inches on a Spring and now by their own Accot it flows the same

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1. De la Pryne, p.153.

2. Supra, pp.57-8.

at some Tides for the water flows upon extraordinary Tides to a place called popleton ferry wch is abot 4 miles above the Citty & we could not learn that except upon extraordinary Tides it ever flowed Higher.<sup>1</sup>

Descriptions of the city of York in the late seventeenth century provide a variety of impressions and must be treated with considerable caution. For example, one traveller recorded that:-

'although the town of York is very large, it is not the less handsome . . . houses are well built, its streets are wide and well-formed, and all filled with rich dealers, on account of the convenience of the river, the tide rising so as to bring large barks into the middle of the town, along a great quay which borders the river.'<sup>2</sup>

The less roseate view of Celia Fiennes a few years later fits more closely with the known state of trade of the City:-

'the Streets are narrow and not of any length, save one which you enter of from the bridge, that is over the Ouse which looks like a fine river when full after much raine - it is but low in comparison of some rivers - it bears great Barges, it looks muddy . . .'<sup>3</sup>

During the seventeenth century, the trade and navigation of York steadily declined, partly due to an increase in the size of ships, but mainly due to the silting of the river. In 1639, the King had been petitioned to allow the manufacture of soap at York, it being

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1. Unwin, 'ACN 1', p.83.

2. Grose, Antiquarian Repertory, IV (1809), p.614.

3. Celia Fiennes, p.76.



claimed that:-

'by reason of the want of water in the said river in summer, and of floods and frosts in winter, the same cannot be conveyed a great part of the year.'<sup>1</sup>

Sea-going vessels up to one hundred tons burthen had reached York in the time of Charles II,<sup>2</sup> but by the late seventeenth century the City was no longer accessible to the larger type of sea-going vessel.<sup>3</sup> It was becoming increasingly apparent that York had lost its former position as a manufacturing centre, which was reflected in its declining trade by water. In 1698, it was affirmed that:-

'at yorke the Navigation of the place may consist of at present of 8 or 10 Vessells from 60 to 80 Tunns which use the sea & of some 20 or 30 smaller vessells & Keeles from 20 to 40 Tunns wch use the Inland trade that the woollen manufacture of the place it self as well as their Trade therein is Growne very inconsiderable what from their own neglect & the industry of the people of Leeds Wakefield & Liverpool whether the same is carry'd the Trade of the Citty now choifly Consists in the exportation of Lead butter Cheese &c to London & some partes beyond the Seas.'<sup>4</sup>

In the same year, the London cheesemongers - anxious to preserve the navigation of the Ouse - petitioned the House of Lords against the

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1. Willan, 'Yorks.Rivers', p.192.

2. Hist. MSS. Comm., Portland II, p.310.

3. Willan, 'Yorks.Rivers', p.192.

4. Unwin, 'ACN 1', p.83.

Bill to improve and extend the Aire and Calder waterway, affirming that they had:-

'a very great trade for butter, bacon, pork, cheese and other commodities from York and are now building four small vessels to be continually employed between London and York . . .',<sup>1</sup>

Although York had to a very large extent lost its industrial activity, the existence in the city of local branches or courts of the Merchant Adventurers and the Eastland Companies had enabled it to retain some of its former commercial position, at least in the early years after the Restoration. The exporters of Yorkshire cloth were enrolled in one - and often in both - of the companies, which enabled them to exploit the whole of the North Sea and Baltic littoral.<sup>2</sup> The extant accounts and letter books of one York merchant, who was a prominent member of both the Eastland and Merchant Adventurers' Companies, reveal an extensive commercial correspondence with the Baltic ports, the Low Countries and France.<sup>3</sup> Henry Thompson exported kerseys, dozens and fustians, the cloth being bought in the Leeds, Halifax, Keighley and Bradford districts. Woollen cloth was often made to the specification of foreign merchants:-

'1656 May 13. To John Smith. Rotterdam. I take notice of what you say touching a parsell of very good Cloth, and upon that little Incouragement yu give me I will to morrow for Leeds and give orders

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1. Hist.MSS.Comm., H. of L. MSS., N.S. III, 211.

2. Heaton, p.150.

3. E.R.A.O. Letter Book of Henry Thompson, York merchant. DDFA 39/31.



for the Compleating of that parcell of 60 clothes as nigh your directions for substance and coulers as I can possibly procure.<sup>1</sup>

In addition to broadcloth - there is no reference to trade in bays in the letter books of the Commonwealth period - Henry Thompson exported lead, butter, rapeseed, grain and small quantities of Newcastle coal. The principal commodity imported was wine, together with small quantities of tobacco and prunes, and a variety of miscellaneous goods including elephants teeth. Thompson's trade was conducted through factors and shipping agents at Hull, goods for York being sent by keel from the Humber port.<sup>2</sup>

In 1660, the idea that trade could best be conducted through the grant of monopolistic powers to chartered companies was still strong. However, in the later seventeenth century many of the great trading companies, which had formerly been important instruments of commercial development were falling into decay. In 1673, a Bill was passed throwing open trade to Sweden, Denmark and Norway to any English person on the payment of 40s, which had the effect of destroying the monopoly previously claimed by the Eastland Company, a position which had already been considerably weakened.<sup>3</sup> By the end of the century, both the commercial position of York and the dominance of the Merchant Adventurers and Eastland Company had been successfully challenged by

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1. E.R.A.O. Letter Book of Henry Thompson, York merchant. DDFA 39/31.

2. loc.cit.

3. For jealousy between the Eastland Company of York and Leeds merchants see Maud Sellers, 'The Acts and Ordinances of the Eastland Company', Camden Society, 3rd. ser. XI.

Leeds and Wakefield merchants.<sup>1</sup>

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Above York, small craft could venture upstream almost to the edge of the highland zone, and, from quite early times Pennine lead was loaded at Boroughbridge, and then floated down the Ouse in lighters to be transhipped at York, Selby and Hull. In 1698, the inhabitants of Northallerton claimed that:-

'quantities of lead, butter and other commodities are daily carried . . . to Burrough Briggs, and thence by water upon the river Ouse to several parts of this kingdom and beyond the sea.'<sup>2</sup>

Some years later, it was affirmed that:-

'the Rivers Ouse and Ure now are and for time Immemorial have been navigable between York and Borrowbridge and have been freely used & navigated clear of any duty or charge whatsoever to the great benefit and advantage not only of this borough (Ripon) but of all the neighbouring towns and villages which thereby carry down to York great numbers of Butter firkins and quantities of lead . . . bring up from

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1. The claim by the Merchant Adventurers of York that they yearly exported large quantities of cloth, lead, corn, butter in which above 100 vessels were employed every year, does not accord with the extant evidence either for the position of York or of the Company. Unwin, 'ACN 1', p.83.

2. H. of C. Journals, XII, 101. For a description of the lead trade to Boroughbridge in the middle ages see Raistrick and Jennings, chapter 2.



thence great quantities of coals, raff, grocery wares and other commoditys without paying anything at present save only the freight . . . the River being at present . . . sufficiently navigable already as far as Milby . . . boats from York to Milby carry 20 tons and draw when loaded full 3 feet, but with 24 inches can carry 12 tons, and 18 inches or 20 carry 5 tons.<sup>1</sup>

Milby and Boroughbridge tapped and supplied a hinterland which was almost entirely engaged in agriculture or mining. However, not all the lead mined in the Yorkshire dales and designed for export was carried to the ports of the Ouse or its tributaries. The hazards and inadequacies of the waterway above York, and the high cost of land carriage to Boroughbridge, probably encouraged a more rapid development of the alternative land routes via Richmond and Barnard Castle to the Tees ports of Yarm and Stockton. Lead from Wharfedale and Nidderdale continued to be shipped along the Wharfe, Ouse or Ure, but mining interests in Swaledale - and to a lesser extent in Wensleydale - showed a growing preference for the shorter, more northerly outlet.<sup>2</sup>

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1. Vyner MSS. 5642.

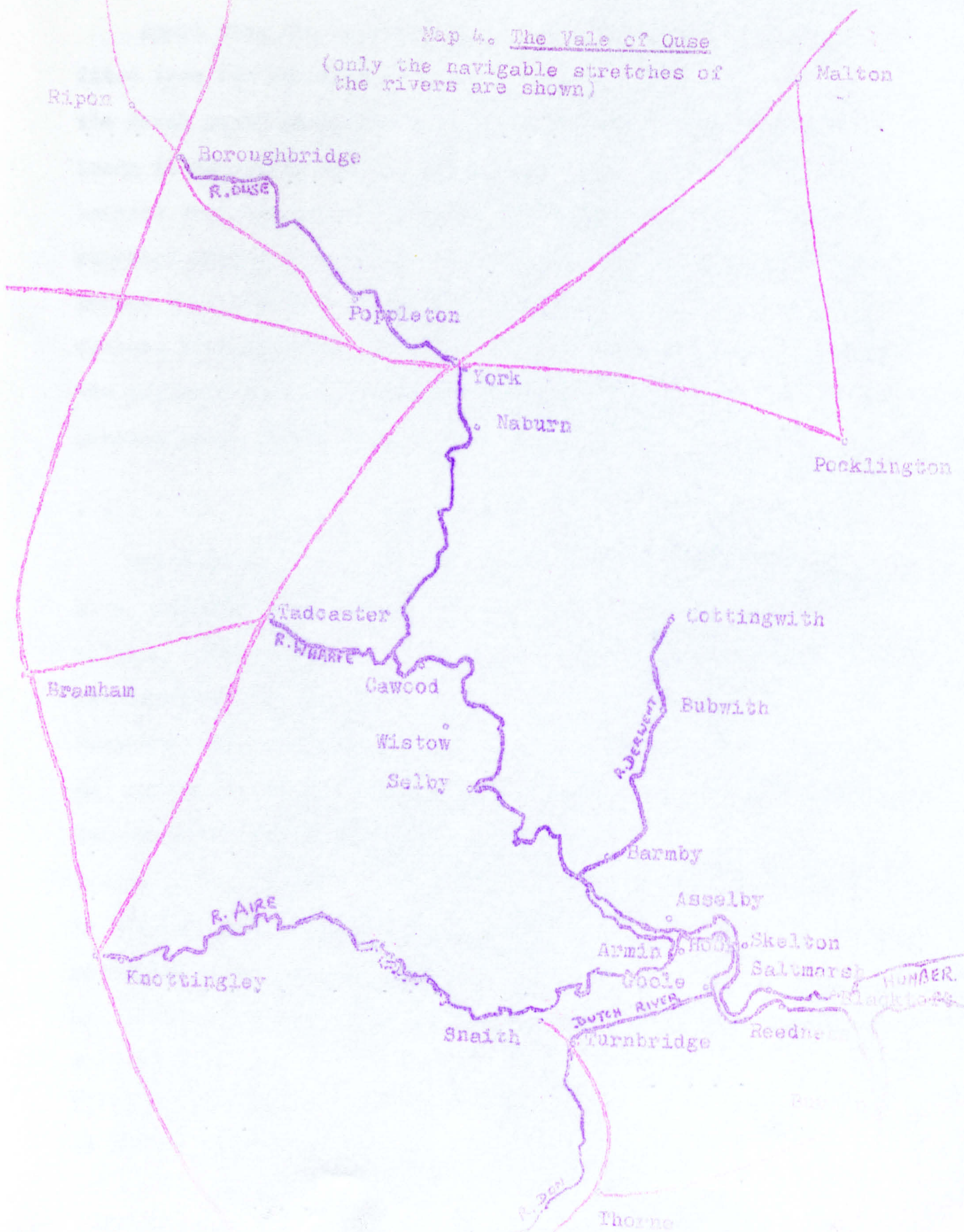
2. The use of the Ure-Ouse-Humber route and the Richmond-Yarm-Stockton route may be seen from several entries at the Diocesan Registry, York. B.I.H.R. R.VII.P.L. 25-26. Henry Thompson, the York merchant to whom reference has already been made purchased Swaledale lead which was exported via the Ouse ports. P.R.O. E 134/35 Chas II/Mich.51. Wensleydale had little lead mining history of any importance before nineteenth century developments. Raistrick and Jennings, p.163.



To Richmond

To Northallerton

Map 4. The Vale of Ouse  
(only the navigable stretches of  
the rivers are shown)





Apart from the accessibility of Boroughbridge by water, it benefited from its position at the junction of three important roads, viz, the Great North Road, the road from York to Ripon, and that from Leeds to Harrogate and Knaresborough. Well situated for deriving benefit from the carrying trade, the fairs held at Boroughbridge were renowned over a wide area. In 1670, Charles II granted Boroughbridge five new fairs a year, one of which was attended by horse dealers from many parts of Britain and the Continent. It seems that the manufacturers of Leeds, Sheffield and Birmingham sent largo quantities of cloth, hardware and toys.<sup>1</sup>

. . . . .

The Ouse not merely served and sustained the Vale of York, it also provided an outlet for the expanding industry of the West Riding. During the seventeenth century, York, Selby, Tadcaster and Knottingley were the principal inland ports for the growing west Yorkshire towns and clothing districts. The decline in the trade and navigation of York enhanced the position of Selby, the principal transshipment port of the lower Ouse:-

'which gives passage for small vessels to York by reason of which it is a great Town of some trade and hath a good market on Mondays for merchandize and provisions.'<sup>2</sup>

By the end of the seventeenth century, Selby was well established as an important port for the West Riding:-

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1. T. Lawson-Tancred, Records of a Yorkshire Manor (1937), p.12.

2. Blome, p.258.

'the place upon the Ouse to which most goods either imported from abroad or to be exported thither are now brought . . . to be carried by land to and from Leeds &c.'<sup>1</sup>

Substantial warehouses had been constructed, which remained long after the port declined in the early decades of the eighteenth century. Some years later, one traveller described a warehouse at the Ouse port:-

'a large house of hewn stone which served for their cloth . . . when they brought it to this place by land to be ship'd of.'<sup>2</sup>

Woollen cloth merchants resident in the West Riding towns often sent their goods to Selby, to be shipped either directly to London, or to be forwarded to Hull by water. The extant letter book of one Leeds merchant provides evidence of interests using this route, although commercial archives are scanty for this period.<sup>3</sup>

Estate accounts and correspondence often provide the names of wharfingers and shippers at the local ports to and from which goods were carried by land. In the 1690's, it seems that Lawrence Spencer was the principal wharfinger at Selby, and his correspondence with the steward of the Temple Newsam estate provides some indication of

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1. Unwin, 'ACN 1', p.85.

2. Pococke's Travels, p.173.

3. Bodleian Library. Eng.misc.MSS. c.260. For example, in August 1686 the Leeds merchant - whose identity is not known - advised Jonathan Bielby, a merchant and shipper at Hull:- ' . . . by direction from Jno Sowter of London I have sent downe to Selby to forward to you 1 pack . . . of cloth . . . which you are desired to ship per first vessel to London.'



the variety of goods handled by the Ouse port, and the means by which they were collected or distributed. The identity of Lawrence Spencer is not easy to determine. Many of his invoices were made out on behalf of his aunt, Mary Spencer, and it is possible that she was the widow of a local merchant, Richard Spencer.<sup>1</sup> In October 1698, the steward at Temple Newsam received advice from London:-

' . . . I have sent the hopps by William Hall the master of the Shipp . . . he goes from the Custom House . . . and they are directed to be Left for you at . . . Spencer's at Selby . . . Name of the shipp is Mary Ann a Hull vessell.'<sup>2</sup>

The estate accounts also include references to the payment of certain wharfage dues at Selby, probably to the lord of the manor. For example, when a cased hogsheaf of wine was brought from London to Selby the freight charge was 6s. and the dues at Selby, 6d.<sup>3</sup> Land carriage between Selby and Temple Newsam was also arranged by Spencer.<sup>4</sup>

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1. M.I.Selby Abbey. Richard Spencer merchant, s. of Matthew Spencer. Born at Leeds 1 February 1662. Died 13 February 1690.

2. Temple Newsam MSS. TN.Corr. 8.

3. Temple Newsam MSS. TN/EA/13/55. When John Buttery, master of a coasting vessel brought from London to Selby '4 bags shot, 2 boxes, 3 frailes and a parcell of trees', the freight was 10s and the dues at Selby 1s 6d.

4. Robert and William Sugden were the carriers most often employed between Selby and Temple Newsam. For example, in November 1689, Robert Sugden was paid 40s. 'for carriage of two cart loads of goods from Selby to Temple Newsam.' Temple Newsam MSS.TN/EA/12/15.

Apart from participation in trade, Solby had also developed a thriving shipbuilding industry for both river and coasting vessels. For example, in 1697, the Bolton was built by William Pearson a Solby shipwright for Robert Pallister, a York fishmonger. The vessel was 36 feet long, 15 feet broad and 9 feet deep, had a burthen of 54 tons, and was sold for £135. A Solby blacksmith was responsible for the iron work.<sup>1</sup> The ownership of such vessels was often divided into several parts, usually sixteenths and thirty-seconds.<sup>2</sup>

#### (viii) THE MAINTENANCE AND IMPROVEMENT OF THE RIVER OUSE

The city corporation of York adopted a dual policy towards the maintenance and improvement of the waterways. On the one hand it could invoke the authority vested by the conservancy charter, which tended to produce piecemeal and largely ineffectual measures. On the other hand, the corporation could promote a Bill to secure more effective statutory powers. During the seventeenth century both measures were tried, but neither met with much success.

Despite earlier failures in their efforts to secure statutory authority for the improvement of the river Ouse, the city corporation of York continued to press for sanction from Parliament to carry out improvements. An Act was passed in 1657, following which an assessment was levied on the citizens of York, for the amelioration of the waterway.<sup>3</sup> This proved a disappointment, for, apart from some dredging near the city, no real change in the condition of the river

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1. B.I.H.R. R.VII. P.E.39. Precedent Papers.

2. B.I.H.R. R.VIX. P.E.45. Precedent Papers.

3. Newby Hall MSS. NH/2442.



resulted. Nevertheless, for some years after 1657, duties were taken on goods passing upon the river, the collector being paid a salary of £20 a year.<sup>1</sup> Soon after the Restoration it was thought necessary to have these limited statutory powers confirmed or extended. However, a proposal in 1662 that a new Bill should be promoted for the improvement of the Ouse was rejected by the Common Council:- 'they saying there was no money to spare for such matters.'<sup>2</sup> Here the matter seems to have rested for some years, the city of York relying on its long established powers of conservancy.

One of the main concerns of the inland ports was to prevent obstructions and encroachments on the waterways which provided serious hazards to navigation. In November 1672, the city of York requested the corporation of Hull to co-operate in a request to the Lord Keeper for the removal of a number of obstructions:-

'being very sensible of the great jeopardy of Shippes keeles Boats and other vessells passing between . . . Hull and . . . Yorke by reason of certain Engines for taking of fish in the River and water of Ouse placed by certain persons contrary to the Statute of the Three and twentieth of Henry VIII Capito Decimo octavo . . .'<sup>3</sup>

In 1673, a view was taken of the river Ouse, and a number of fish-garths were presented as obstructions. These included two at Skelton,

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1. W.Giles, The Yorkshire Ouse: Some Projected Improvements, 1500-1700 (1913), p.12.

2. Newby Hall MSS. NH/2442.

3. Hull Bench Books, VII, fol.90.

one at Sandholme Bank, two at Saltmarsh, one at Crabby, and two at Blacktoft.<sup>1</sup> These were judged common nuisances and pulled down, the navigation between York and Hull being rendered safer than it had been for several years.<sup>2</sup>

In the 1680's, a more imaginative scheme to improve the Ouse was suggested by Charles Powlett, first Duke of Bolton, who proposed that a Bill should be promoted which would provide the requisite authority for cutting a new channel from Blacktoft in a direct line for York.<sup>3</sup> Bolton, it seems, was prepared to act as sole undertaker in return for a settled toll on vessels passing along the waterway. A survey was taken, but the plan was never carried out.<sup>4</sup> Once again the city corporation reverted to measures designed to maintain or improve the existing course of the river. For example, in 1688, Walter Molvill was employed to scour certain shoals below York:-  
'by working with certaine Engines.'<sup>5</sup>

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1. T. Clarke, History of the Church, Parish and Manor of Howden (Howden, 1850), p.75.

2. J.J. Sheahan, History of Hull (1864), p.138.

3. Willan, 'Yorks.Rivers', p.193. Possibly a revival of a scheme of 1616-17, when a cut of seventeen miles was contemplated, which included proposals for two locks, the estimated cost of the whole work being £136,000. Newby Hall MSS. NH/2442.

4. Drake, p.231. In the seventeenth century the lead mines at Marrick were worked directly by the Powlett family. Raistrick and Jennings, p.154.

5. Duckham (1967), p.50.



It had become apparent by the 1690's that the remedies adopted to remove obstructions in the lower Ouse in 1673 had proved a piecemeal and far from permanent solution. New encroachments from riparian interests who were less concerned with the Ouse as a major waterway than as a source of piscatorial activity had soon made themselves felt. Numerous obstructions were presented by a jury impanelled at an Admiralty Court held at Selby in 1693. Fines totalling £90 were imposed on the inhabitants of Skelton, Reedness, Saltmarsh, Sandall, Hook and Asselby for erecting fishgarths and failing to remove obstructions to navigation. Lesser fines were imposed on certain individuals for allowing towing paths to become overgrown.<sup>1</sup> Presentments of this kind were unlikely to produce marked or lasting improvement. By the late seventeenth century, drastic action was needed, the Ouse being so shallow that vessels could hardly reach the city staith with any load of consequence.<sup>2</sup> In the decades after the Restoration the capital necessary to effect major improvements had not been forthcoming, either from the corporation or from the mercantile community at York.

#### (ix) RIVER PORTS IN THE AIRE VALLEY

Under the mid fifteenth century Charter, the city authorities of York had been appointed conservators of the river Aire from the Ouse to Knottingley Mills, where the further progress of navigation was

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1. B.I.H.R. R.VII. P.E.125. Precedent Papers.

2. Duckham (1967), p.50.

stopped by a dam across the stream. From Knottingley, the head of navigation, and from other shipping ports on the Aire - notably Weeland and Rawcliffe - as well as from Turnbridge on the river Don, pack horses were used to convey goods to and from the west Yorkshire towns and clothing districts.<sup>1</sup> Throughout the sixteenth and seventeenth centuries it seems that Knottingley remained the head of navigation. Thus in 1581, when arrangements were being made to convey sixty trees from Kippax to repair the defences at Hull, they were first transported:-

'to the water of Aire on the East side of Knottingley Milles.'<sup>2</sup>

By the late seventeenth century, Knottingley and Selby had become the principal ports for the West Riding. In 1698, it was affirmed that:-

'the number of vessells, keeles and boates belonging to Knottingley and other places upon the Aire may be about 30 from 30 tons downwards the biggest of which may now goe up to Knottingley noe dutyes as we could learne being paid by those Vessels in their goeing and comeing from Yorke, Hull &c.'<sup>3</sup>

The depositions of wharfingers, traders and shipmasters in a law-suit of 1712, provide some indication of the coasting and river trade of Knottingley in the late seventeenth and early eighteenth centuries. It was testified that sea going vessels from Rochester, London, Newcastle and even from Holland, carrying forty or fifty tons and drawing

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1. Unwin, 'ACN'1', p.53.

2. Hull MSS. D.692.

3. Unwin, 'ACN 1', p.84.



six or seven feet of water:-

'used to come up in freshes to Knottingley town side.'

Commodities carried by coasting vessels included fullers earth, salt, barley, wool, hides and rape cakes. Knottingley also traded to numerous river ports within the Humber-Ouse-Trent waterway system, to Torksey, Misterton, Burton Stather, Wintringham, Brigg, Paull, Brough, Whitgift, Swinefleet, Barnby, while it was stated that:-

'a great many more good Vessels from York, Thorne and Doncaster often traded up this River.'<sup>1</sup>

One witness, who had been employed for twenty years upon the river Aire, trading from Knottingley to Hull, York, Grimsby and Gainsborough deposed that he had seen at Knottingley at one time eighteen or nineteen large top mast keels.<sup>2</sup> At Knottingley, the burning of lime was well established by the late seventeenth century, and was traded throughout the river system, while a forge had been set up at the port in the years after the Restoration.<sup>3</sup>

Above Knottingley, important industrial and commercial developments were taking place in the communities served by the rivers Aire and Calder. When the mills at Allerton Bywater and Castleford were leased from Dame Jane Bland in 1675, the tenants agreed:-

'not at any time to give leave to any person . . . whatsoever . . . to land or fix any boat . . . or lay any coals . . . on any part of the ground belonging to the said mills . . . such tending to her ladyship's loss and damage she being the owner of great collieries

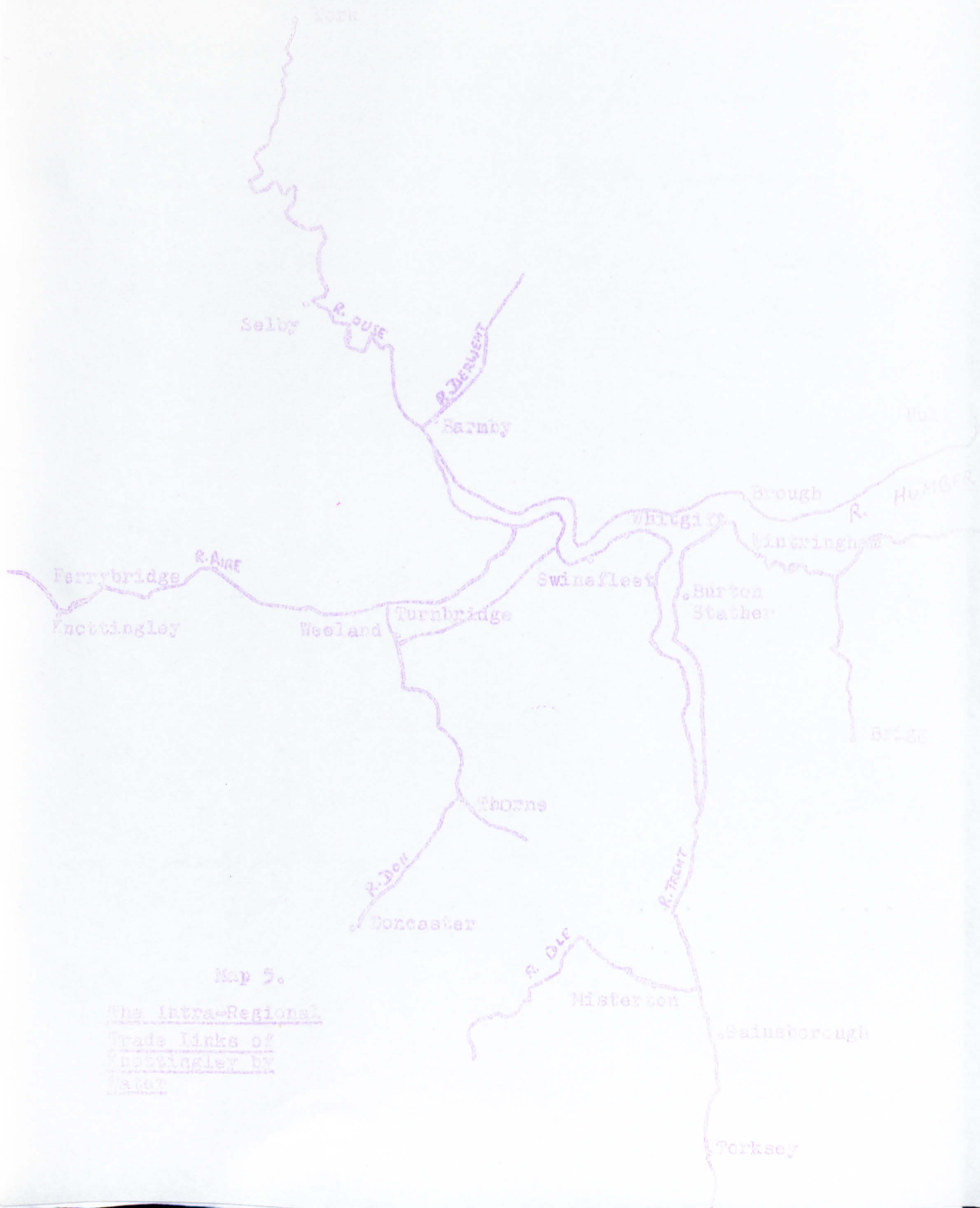
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1. Unwin, 'ACN 2', p.13.

2. Ibid, p.12.

3. Temple Hirst MSS. (unsorted).





Map 5.

The Intra-Regional  
Trade Links of  
Nottingham by  
Water



near that place when strangers have or shall have liberty to land boats and lay coals . . . without consent . . . will hinder the sale of coal.'<sup>1</sup>

In 1697, Celia Fiennes noted at Castleford, the confluence of the Aire and Calder:-

'a Glass house; we saw them blowing white glass and neale (anneal) it in a large oven by the heate of the furnace; all the Country is full of Coale and the pitts are so thick in the roade that it is hazardous to travell for strangers.'<sup>2</sup>

Rape mills and corn mills had also been constructed at Castleford.<sup>3</sup>

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. . . . .

The total tonnage of goods forwarded by land from Leeds and Wakefield to be shipped at Knottingley, Selby or Tadcaster was quite considerable. In 1697, a prominent Leeds merchant calculated that:- 'Wee send by a moderate Computation about 2,000 tunn of goods down to Hull in a yeare and have about the same Quantity coming up.'<sup>4</sup>

Woollen cloth was undoubtedly the most valuable export from the West Riding, its volume depending largely on the state of trade. Although a small proportion of the cloths which changed hands in local fairs

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1. Unwin, 'ACN 1', p.57.

2. Celia Fiennes, p.94. William Clifton was tenant of the glass house.

References to Clifton appear in the estate and household accounts of Temple Newsam.

3. Bland MSS. DB212/2/10.

4. Unwin, 'ACN 1', p.55.



and markets continued to be sold locally, the great bulk passed to London by land carriage or coasting vessel, whence it was distributed to other parts of England, or went via London, York, Hull, Newcastle, or Chester to the Continent.<sup>1</sup> The early seventeenth century had witnessed significant advances in the cloth-producing districts of the West Riding, while a growing quantity of woollens were sent in a west-east direction, instead of moving along the north-south axis which had hitherto dominated the region's economy.<sup>2</sup> However, prosperity gradually ebbed out of the Aire and Calder valleys, plague, civil war and the uncertainty of foreign markets adding to the difficulties of the clothing communities. The difficulties which the woollen industry experienced in the late seventeenth century were partly due to the expansion of textile industries in those countries - especially France and Holland - where English cloth had formerly found a substantial market.<sup>3</sup> Despite complaints from the West Riding communities about the state of trade, it seems that the export of kersies and northern dozens through the port of Hull continued to rise.<sup>4</sup>

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1. Heaton, p.170.

2. Rimmer, 'Leeds', p.117. The growth of Leeds coincides with the revival of Hull as a port. In 1638, three quarters of the West Riding's korseys were exported through Hull and other east coast ports.

3. Heaton, p.251.

4. Davis, 'Hull', p.24. Rimmer considers that it was not until the 1690's that prosperity may be said to have returned to Leeds.



Probably the two most significant developments in the textile industry of the West Riding in the later decades of the seventeenth century were the diversification of manufacture, and a growing tendency for local merchants to trade directly with London and the Continent, despite alleged encroachments by the metropolitan factors and the attempts of the Regulated Companies to maintain a commercial monopoly.<sup>1</sup> After the Restoration, the worsted industry began to make headway outside East Anglia, manifested in the West Riding by the manufacture of bays - cloths which were half wool and half worsted, - particularly in the Halifax district. By the 1680's a considerable number of bays were being exported.<sup>2</sup> In 1688, the output of bays in Yorkshire was sufficiently great to justify the inclusion of this fabric in a short list of cloths on which subsidy and ulnage were paid.<sup>3</sup>

The latter years of the seventeenth century were also marked by bitter complaints from the commercial interests of Leeds and Wakefield against the factors and cloth dealing companies of London. Many northern clothiers and merchants argued that it was becoming increasingly difficult for them to arrange transactions at Blackwell

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1. Heaton, p. xviii.

2. In 1684, coastal shipments from Hull included 3,269 single dozens, 4,893 kerseys and 1,204 single bays. Willan (1938), p.120.

3. Heaton, p.268.

Hall on equal terms with the commercial community of the metropolis.<sup>1</sup> Trading interests in the Aire and Calder valleys also had to contend with the jealousy of the Eastland Company and Merchant Adventurers, whose branches at Hull and York did not welcome merchants from Leeds, Wakefield and Halifax. However, the merchants of west Yorkshire were in closer touch with the cloth-producing districts than traders from the port towns, and a large proportion of the traffic in cloth fell into the hands of the former, despite the efforts of York merchants to bar interests from Leeds, Wakefield and Halifax from the Regulated Companies.<sup>2</sup> Even before the Restoration there is evidence that Leeds merchants were acting together in the freighting of vessels at Hull.<sup>3</sup> The extant accounts of one English merchant, who

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1. Heaton, p.170. For example, in 1664 the clothiers and merchants of Leeds petitioned the House of Commons complaining that the city of London had imposed additional charges at Blackwell Hall and Leaden Hall. Attempts to check the London companies by legislative instrument proved largely ineffective.

2. Ibid. The York merchants did not approve of West Riding merchants living in the clothing districts, instead of sharing in the civic expenses of York. For example, in 1654 when the traders of Leeds were seeking to make an arrangement with their brethren at York, the Eastland merchants of York replied that:- 'if the Merchants of Leeds and others that live in Clothing Townes will come and inhabitt in port Townes, we will joyne with them in anything that may conduce to the good of this country.'

3. E.R.A.O. Letter Book of Henry Thompson, York merchant.DDFA 39/31. '10 May 1653 . . . Leo Cawood was yesterday taken on for Hambro by the Leeds merchants.'



was resident at Hamburg in the 1680's, show him acting as the agent and factor for a number of Leeds merchants, importing kerseys, dozon's, and bays, and arranging for their distribution in Bremen, Lubeck and Oldenburg.<sup>1</sup>

The Yorkshire clothiers supplemented the inadequate and coarse wool of their own county from the Midland and southern counties. There was a well developed system of internal trade, wool from Lincolnshire, Leicestershire, Rutland, Warwickshire, Oxfordshire and Buckinghamshire being sent by land carriage to Leeds, Wakefield, Halifax and Rochdale, where it was sold by agents and staplers to clothiers of the surrounding districts. Some clothiers purchased directly from the fairs at Ripon, Doncaster or Pontefract, or from wool fairs in the midland counties, while others traded directly with the wool growers.<sup>2</sup> During the later seventeenth century, Hull imported increasing quantities of wool, which was forwarded by water to the Aire and Ouse ports, and completed the journey to the West Riding market towns by land carriage.<sup>3</sup>

#### (X) RIVER IMPROVEMENT SCHEMES IN THE AIRE VALLEY

High land carriage rates to and from Knottingley, Tadcaster, Selby

1. Doncaster Museum Archives.DM/D/1.Account Book of Matthew Ashton, Hamburg merchant. He assumed the name of Frank on becoming heir to his brother. His son was Richard Frank of Campsall, who became Recorder of Doncaster, and subsequently of Pontefract.
2. Heaton, pp.118-9.Evidence of the land carriage of wool may be found in the numerous disputes concerning internal tolls. For example,in 1676 a Gainsborough fellmonger affirmed that he 'mostly every week travelled with horses loaded with wool packs through Doncaster.'  
P.R.O. D.L.4/118/3.
3. Temple Hirst MSS.(unsorted)<sub>113</sub>

and York, the principal river ports for the growing west Yorkshire townships, prompted several schemes to improve and extend river navigation. However, early attempts to improve the communications of Leeds and Wakefield proved abortive.<sup>1</sup>

In the reign of James I, the clothing townships of the West Riding had first proposed to make the rivers Aire and Calder navigable from Leeds and Wakefield to the tideway. A Bill was brought before Parliament in 1621, to improve certain rivers for the economic advancement of Bury St. Edmunds, Sudbury, Chelmsford, Leeds, Wakefield, Dewsbury and Hadley, but it was rejected in the House of Lords. Five years later a new Bill was introduced for making the rivers Aire and Calder navigable, but determined opposition from York and other northern towns - where it was assumed that any benefits which might accrue to the trading communities in the woollen cloth districts would be at their expense - was sufficient to prevent the Bill passing.<sup>2</sup> The city corporation of York informed their M.P.'s that:-

'the townsmen of Leeds and Wakefield are about to procure an Act . . . for cutting or amending the River of Aire, which if they should procure would be to the utter overthrowe of this cittie, they having so good a trade by clotheinge whereby they growe ritch; therefore we desire you would stand for this cittie and prevent them in their suites.'<sup>3</sup>

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1. Unwin, 'ACN 1', p.53.

2. Ibid, p.53.

3. W. Giles, op.cit., p.10.



Although further proposals were made to survey the rivers Aire and Calder, the project appears to have been abandoned for a number of years.<sup>1</sup>

After the Restoration, attention was centred at first on the extension of water communication to Leeds. In 1679, the corporation of Leeds considered:-

'the great Proffit and Advantage which may accrue to the Towne and Burrough of Leedes . . . by makeing the River of Aire Navigable or Usefull to carry and recarry goods and merchandiz by Boates to and from Knottingley and soe on to Hull . . .'<sup>2</sup>

The steps necessary to execute the undertaking were discussed, and William Pickering - the mayor - proposed that an undertaker should be appointed. Although members of the Corporation were approached, only Pickering was prepared to carry the matter further and he was confirmed as sole undertaker.<sup>3</sup>

Pickering, a Merchant Adventurer who engaged in trade to Hamburg on a considerable scale, continued to work for the improvement of the river Aire between Leeds and Knottingley, and appears to have contemplated a larger scheme.<sup>4</sup> In 1685, the arguments for developing

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1. Rimmer, 'Leeds', p.126. Thomas Saville, the Manorial Steward of Wakefield would not promote the project again when asked to do so in 1627.

2. Unwin, 'ACN 1', p. 54.

3. Ibid. Pickering was 'the ingenious Author of the Marrow of the Mathematicks.' Ducatus, p.248.

4. Unwin, 'ACN 1', p.54. References to William Pickering appear in the Account Book of Matthew Ashton, Hamburg merchant. Doncaster Museum Archives. DM/D/1.

the west Yorkshire waterways were set out in Reasons Offered for making River Aro(sic) Navigable from Knottingley to Leedes; and River Caulder(sic) from Castleforth(sic) to Wakefield. It was predicted that by means of water communication to Leeds and Wakefield a thousand pounds would be saved every year on the land carriage rates to and from Selby and Knottingley, which at certain times of the year amounted to fifty shillings per ton, or as high as three pounds. It was also maintained that the extension of river navigation would encourage and increase the manufacture of woollen cloth and other trades, employ many men, and increase the numbers of boatmen and seamen. Despite these arguments, Pickering's scheme remained only on paper:-

'being too great an Undertaking for a private Gentleman.'<sup>1</sup>

The town corporation of Leeds, like the city corporation of York, seems to have been unwilling to take the requisite corporate action for the improvement of local water communications. The West Riding woollen industry was marked by periods of depression during the reign of Charles II, which may have made it difficult to raise the necessary capital to promote large scale undertakings. Even if the capital was available, the confidence to invest in local transport improvements was absent in the years between the Restoration and the Revolution

#### (xi) TADCASTER AND THE RIVER WHARFE

Although the river ports on the Ouse and Aire provided the main

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1. Unwin, 'ACN 1', p.54.



channels for the more populous communities of the West Riding in their trade by water, there is some evidence that the river Wharfe was also used. In the late seventeenth century the river Wharfe was navigable to Tadcaster, which, in addition to its trade by water, was a halting place for pack-horses and stage coaches:-

'a very good little town for travellers, mostly Inns and little tradesmen's houses.'<sup>1</sup>

In 1698, the inhabitants of Tadcaster and several other towns adjoining upon the river Wharfe set out in a petition to the House of Commons a description of their commercial axis by water:-

'a navigable River and Trades with vessels and boats to and from the city of York, the town of Kingston upon Hull and other places by which river great quantities of Merchandise are brought to the said town of Tadcaster and carryed from thence by horses to Leeds, Skipton and severall other places lying in the West Riding . . . and also where and from thence cloth and other commodities is brought from Leeds . . .'<sup>2</sup>

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1. Celia Fiennes, p.75. Some years later another traveller recorded that:-'just above the bridge is a weir across the river, so that it is at present no further navigable.'Hist.MSS.Comm.,Portland VI, 93.

2. H.of C. Journals, XII, 104. In January 1687, Robert Whyte wrote from Tadcaster to Sir John Reresby:-'Be pleased to befriend John Loft who is my neighbour and townsman a London carryer he had a brown gelding taken from him upon the road about Rotherham.'  
Reresby MSS. 48/14. In December 1689, a letter was addressed to Temple Newsam from London:- ' . . .I gave you news of a double Keggo of Sturgione delivered to John Loft carryer of Tadcaster and direct for my Lord.' Temple Newsam MSS. TN.Corr. 5/364.

A Report by two members of the London Trinity House in the same year is probably closer to the mark in its description of navigation on the river Wharfe:-

'some few small vessels or boats did upon Spring tides the not without difficulty get up to Tadcaster . . . so that the trade of that place by water (is) very inconsiderable.'<sup>1</sup>

In the absence of commercial archives, it is necessary to have recourse to the accounts and correspondence of nearby estates. In 1689, Robert Whyte, a wharfinger and trader at Tadcaster was paid £10 11s for 161 deals, and carriage to Temple Newcan. Grocery goods, grain, hops and wine were also obtained from Whyte from time to time. Dues were also paid at Tadcaster, possibly wharfage to the lord of the manor:-

'Rt. Hon Ld Irwin debtor to Robert Whyte of Tadcaster.'<sup>2</sup>

	£	s	d
For freight of Hops		1	8
Dues att Tadcaster			6
For 8 oke boards	2	5	0
For 146 feather latts @ 4s per 100		6	0
For frt of 1 box apples to Hull		3	0
Dues here and porteridge			8
	2	16	10

1. Unwin, 'ACN 1', p.73.

2. Temple Newcan MSS. TN/EA/13/55. In 1657, a Robert Whyte of Tadcaster was among the score of Wharfedale gentlemen who were appointed under conservators of the Wharfe for the protection of fishing. H. Speight, Two Thousand Years of Tadcaster History (1903), p.72.



(xii) THE YORKSHIRE DERWENT

In the late seventeenth century, the Yorkshire Derwent was the  
LEFT  
only right bank tributary of the Ouse which was navigable. The head  
of navigation depended largely on the state of the river at any  
particular time, usually to East Cottingwith, sometimes to Sutton.<sup>1</sup>  
The number of vessels which regularly used the river was probably  
very small. In 1698, it was recorded that:-

'there were 2 Keeles of 20 or 30 Tuns besides some few open Boates  
of 5 or 6 Tuns which were imploy'd in fetching and carrying to the  
next Towne some 10 or 20 Miles up the River the Comodities of the  
Country Come especially.'<sup>2</sup>

Malton, the principal borough on the Derwent - though not on its  
navigable stretch in the late seventeenth century - probably received  
many of its imported goods by land either from York or from Scarbor-  
ough. Celia Fiennes found it:-

'a pretty large town built of stone, but poor, there is a large market  
place and severall great houses of Gentlemens round the town.'<sup>3</sup>

East of the Derwent, Howden had some trade, one contemporary  
topographer noting:-

'a good large town a very great market on Saturdays for cattle, corn,  
provisions.'<sup>4</sup>

In 1665, apprehension was expressed lest plague should spread from  
the metropolis:-

'great danger from the Howden fair, lest tradesmen bringing goods  
from London should scatter infection thereby . . .'<sup>5</sup>

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1. Willan, 'Yorks. Rivers', p.197.

2. Unwin, 'ACN 1', p.83.

3. Celia Fiennes, p.93.

4. Blome, p.255.

5. P.R.O. S.P.29/128/53. 119

### (xiii) THE RIVER PORTS OF THE DON VALLEY

The two contiguous lowland areas of the Isle of Axholme and Hatfield Chase in their pre-drainage condition were subject to periodic flooding, innumerable stream channels existing in association with the main rivers - the Don, Idle, Trent and Torne. Before the drainage of Hatfield Chase, the river Don had no direct outlet into the Yorkshire Ouse, one branch flowing into the river Aire, and the other into the river Trent. In the later middle ages, vessels of considerable draught had been able to navigate the Don to Thorne Quay, Fishlake Ferry or Stainforth, and smaller craft to get up to Doncaster.<sup>1</sup> A petition in 1442, signed by the M.P.'s for the counties of Lincoln, Nottingham, York and Derby set out the importance of navigation on the Don:-

'a usual and common passage for divers parties of the said counties to the cities of York, Hull, Hodon, Holderness, Beverley, Barton, Grimsby and to London and elsewhere.'<sup>2</sup>

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1. J. Tomlinson, Doncaster from the Roman Occupation to the Present Time (1887), p.179.

2. J. Hunter, History of Hallamshire (new ed. by A. Gatty, 1869), p.154. At that time the river Don divided at Stainforth into several channels, the most considerable of them joining the river Aire at Turnbridge, which remained an important river port until the drainage schemes of Vermuyden. In the early seventeenth century large quantities of raw hides were imported at Hull and forwarded 'upp Humber and the fresh rivers there to Turnbridge and Bawtrej, and hence by land to our severall dwellings within the . . . West Riding of Yorkshire.' L.A. Clarkson, 'The Leather Crafts in Tudor and Stuart England', Ag.Hist.Rev. XIV(1966), 25-39.



The pattern of drainage, inland navigation and rural economy in the Isle of Axholme and Hatfield Chase were greatly modified as a result of the work of Sir Cornelius Vermuyden and his partners in the first half of the seventeenth century. The drainage of these areas was a single scheme, Vermuyden attempting - in spite of bitter opposition from local inhabitants - to replace the old pastoral economy with a new arable one which would permit the cultivation of corn and rape.<sup>1</sup> As part of the scheme the branch of the Don which flowed into the Trent was cut off, forcing all the water of the Don into the river Aire. Extensive flooding followed, and Vermuyden was compelled to cut the Dutch River - at a cost of £20,000 - to give the Don an outlet into the river Ouse.<sup>2</sup> To allay the apprehensions of further flooding, and to meet a remonstrance from the city corporation of York, a large sluice was placed at the mouth of the Dutch River to prevent tides flowing from the Ouse.<sup>3</sup> The decay of this sluice in the later seventeenth century produced bitter controversy, it being

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1. Joan Thirsk, 'The Isle of Axholme before Vermuyden', Ag.Hist.Rev., I (1951), 16.

2. Willan (1965), p.1

3. Temple Newsam MSS. TH. Corr. 14/11. An early eighteenth century topographer recorded of the sluice at Gooles that the villagers and farmers of Hatfield Chase had 'for their own safety, as well as by a remonstrance from the city of York . . . built a sluice and flood gates at the mouth of it (the Dutch River) to stop the tide taking that course.' Drake, p.231.

claimed by trading interests dependent on the river Ouse and its tributaries that the participants of Hatfield Chase had 'stolen' the estuarine tides.<sup>1</sup> Despite injunctions by the Court of Sewers that the mouth of the Dutch River should be kept at twenty-five yards in breadth, the sluice was not repaired and the mouth of the cut had grown to fifty yards by the early eighteenth century. Nevertheless, the exaggerated claims of the city corporation of York that the decay of Gowle sluice had ruined the navigation of the Ouse were effectively countered in a Report by two members of London Trinity House in 1698.<sup>2</sup>

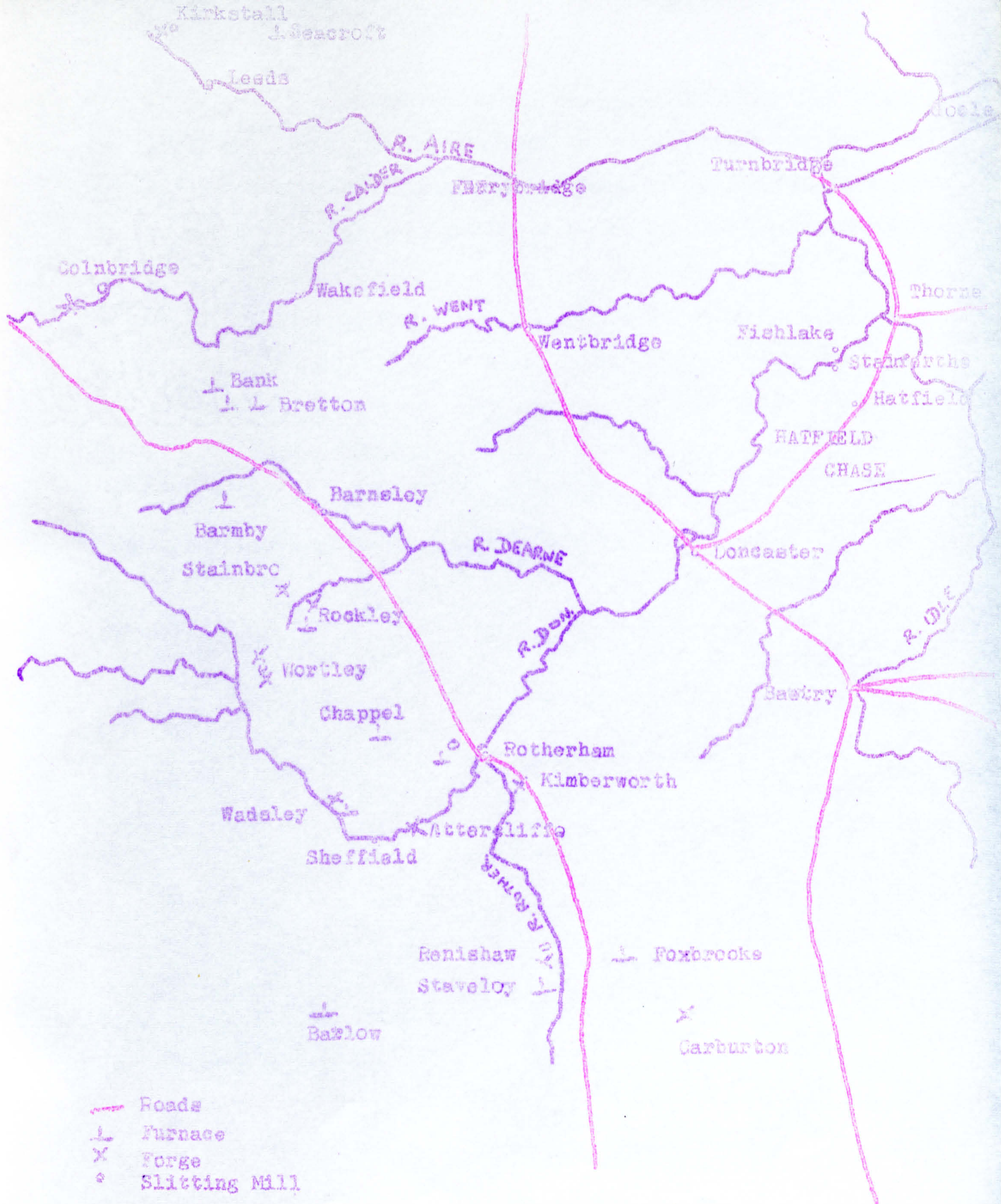
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1. Drake, p.231. Some time after the Restoration - even eighteenth

century local historians were unable to give an exact date - a violent land flood led the sluice to 'blow up.'

2. Unwin, 'ACN 1', p.83. The Trinity House members affirmed that:-  
'we were very Curious & exact in our Survey & observation upon Gowle sluice & the Dyke thereof & tho it is the common Complaint of the inhabitants of york that the decay of the aforesd sluice hath been the ocation of Lessning their water & spoyleing the River Ouze woe doe believe it hath done little prejudice thereunto nor can it have lessned their water to the proportion they complaine of for that the Area of this Dike is but small in comparison with the whole Area of the severall Rivers, above this place soe far that the Tide flowes, & the water that now passes thro' the said dike or Cutt suplyes only the River dunn which was before Suplyed thro' the Aire.'





Map 6. The Don Valley



Although the Dutch River was not designed primarily as a channel for inland navigation, it was destined to become part of an important waterway. In the late seventeenth century, Thorne and Fishlake were the principal ports on the lower Don, providing transshipment facilities for smaller vessels trading to higher points on the river. Vessels traded regularly from Thorne and Fishlake to Hull and to other river ports within the Humber-Ouse-Trent waterway system.<sup>1</sup> Vermuyden had done nothing in his lifetime to prove his contention that the drained fen could be made more profitable than the undrained, but he had shown that the land could be put to a different use. Nevertheless, some years later, Dugdale was able to write with admiration of the corn and rape which was sown on the Isle of Axholme.<sup>2</sup> Traders and factors using Thorne and Fishlake dealt in corn, timber, coal and, to a lesser extent, iron.<sup>3</sup> Peat was cut in the neighbourhood and was conveyed by water to other parts of the Don valley and to other river ports of the region.<sup>4</sup> A number of the inhabitants of Thorne engaged in what must have been a similar occupation:-

'digging and selling of . . . subterraneous Trees and Roots . . .'<sup>5</sup>

Above Fishlake, sand and gravel beds made navigation to Doncaster hazardous when the water in the river was low. It seems clear that navigation between Doncaster and the Ouse was precarious, and that

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1. Temple Hirst MSS. (unsorted).

2. Joan Thirsk, op.cit., p.20.

3. W.Peck, History of Bawtry and Thorne (Doncaster, 1813), p.87.

4. S.Whaley, History and Antiquities of Thorne (Thorne, 1829), p.122.

5. B.M. Sloane MSS. 4,036, fol.294.



the river was not navigable at all above the town.<sup>1</sup> Although the tide flowed up the Dutch River after the decay of Goolo sluice, its effects were not felt at Doncaster.<sup>2</sup> Like Boroughbridge and Bawtry, the inhabitants of Doncaster enjoyed important land as well as water communications:-

'seated on the great road to London a large, well-built and inhabited Town-Corporate enjoyeth a good trade especially for Stockings, knit Waistcoats, Potticoats and Gloves a very good Market for corn, cattle, provisions . . .'<sup>3</sup>

Apart from enjoying the advantages of being situated on the Great North Road, the town of Doncaster also derived some benefit as a head of navigation which served one of the trans-Pennine land routes.

Along this east-west axis, malt, grain, flax and other goods were forwarded to Derbyshire, Lancashire and Cheshire, whence salt, cheese

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1. Willan (1965), p.1.

2. E. Miller, History and Antiquities of Doncaster (1804), p.295.

3. Blome, p.257. The situation of Doncaster on the Great North Road apparently aided the inhabitants in the sale of their manufactures.

Thomas Baskerville recorded that:-'they make excellent stockings for horsemen of very fine yarn and variety of colours, and the women of the town are so importunate for they go with bundles of the stockings on their arms from inn to inn where travellers are, that you can hardly evade laying out money with them . . . and they are to be commended for it, for this being the great road between London and York, and Scotland, they do by this means vend a great deal of goods.' Hist.MSS.Comm., Portland II, 310.

butter and tobacco were brought in return.<sup>1</sup> Of all the agricultural produce sold at Doncaster market, grain was probably the most important, a new Wheat Cross being built in the town in 1679.<sup>2</sup> Wheat sold in the town was often carried by land to the lower Don ports of Thorne and Ficklake for dispatch by water to Hull. Although metal goods, hardware, iron and lead were handled at Doncaster for interests in the Sheffield district and north Derbyshire, the cutlery and leadmasters seem to have preferred the Bawtry-Stockwith axis which was well developed by the end of the seventeenth century.<sup>3</sup> The number of vessels regularly trading to Doncaster in the later seventeenth century was probably very small.<sup>4</sup> Doncaster's trade by water at that

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1. Willan (1965), p.1. At the end of the seventeenth century, the improvement of the Mersey between Warrington and Runcorn was undertaken by Thomas Patten, a Warrington merchant. When Patten landed tobacco at his own quay for dispatch to Hull, it was forwarded by cart to Stockport, by packhorse from Stockport to Doncaster, and completed the journey by water.
2. E. Miller, op.cit., p.43. Close to the market, Doncaster corporation owned the manorial corn-mills. There the corn was delivered in bulk, after purchase by sample in the market. In June 1678, the mills were leased by Reginald Spoifforth and others for eleven years at the rent of £125 per annum. Doncaster Records, III, 341
3. C. Hadfield, The Canals of the East Midlands (Newton Abbot, 1966), p.30.
4. In December 1680, John Field, a Hull shipper, advised Sir John Reresby:- '... as for your hampers and other things they are not as yet comed to hand but suppose they may be under the way for neather of Doncaster boats are heare suppose the rivers is frozen.' Reresby MSS. 16/7.



time seems to have been dominated by the Maddox, Dixon and Ambler families.<sup>1</sup>

#### (xiv) THE IDLE-TRENT AXIS

Trading and industrial communities on the upper Don, and probably at Doncaster itself found an alternative outlet for their goods by sending them by land carriage to Bawtry, thence down the river Idle for transshipment at Stockwith on the Trent either for Hull or for London.<sup>2</sup> The Idle-Trent axis, like the Don route, was greatly affected by the drainage schemes of the seventeenth century. Before the drainage of Hatfield Chase, the river Idle had three outlets into the river Trent, namely, by a navigable cut - the By Carrs Dyke - to Stockwith, by Mare Dyke, and by a natural channel to Adlingfleet, the last two being in conjunction with the southern branch of the river Don.<sup>3</sup> Evidence that Chesterfield had replaced Derby as the major lead market of the county by the late sixteenth century seems to confirm that it was during the reign of Elizabeth I that Bawtry entered a phase of expansion.<sup>4</sup> In 1620, a witness in a lawsuit

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1. Estate correspondence and accounts of the Reresby, Saunderson, and Savile families provide numerous references to the use of the river Don, and - in the absence of commercial archives - reveal some evidence of the water trade. In the 1680's John Maddox seems to have been the principal wharfinger and shipper at Doncaster. Reresby MSS. 18/6; 19/29; 24/5

2. Willan (1965), p.1.

3. Bradshaw, p.180.

4. Hull MSS. M.92-96.

concerning local tolls deposed that:-

'the Idle . . . falloth into Trent at Stockwith being ten miles distant by water from Eawtry . . . said River is Navigable bearing botes, ketches and keeles some of them of 10 or 12 Tun burthen.'<sup>1</sup>

At that time there were apparently three staithes at the inland port.<sup>2</sup>

As part of Vermuyden's drainage scheme the southern branch of the Idle was cut off, and the water of the river conveyed to the Trent by a cut which was not navigable. Despite protests, this system remained - leaving the By Carrs Dyke as the chief and navigable<sup>11</sup> branch of the Idle - under the jurisdiction of the Hatfield Chase Commissioners.<sup>3</sup>

Although goods continued to be shipped from Eawtry and Stockwith to Hull during the period of the Civil War, the merchants and keel-masters at the inland ports did not pass through the constitutional conflict unscathed. In January 1643, orders were given at West Stockwith:-

'to sinke and caused to be sunke there, all the keeles and boats . . . save one keile which gott away by stealth and one laden.'<sup>4</sup>

Eawtry seems to have recovered its position after the Restoration.

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1. P.R.O. E 134/17 Jac.1/Mich.7.

2. P.R.O. E 134/21 Jac.I/East.13. The king was owner of Eawtry manor 'and of 3 staithes in Eawtry adjoining river Idle one called by the name of Burgesses Staith . . . wherent wood and corn have been landed.'

3. Bradshaw, p.180.

4. Hull MSS. M.181.



In 1667, Bawtry was described as:-

'the great Key of the Countrie, and much Leade, Coale, Wood and other goods are dayly brought hither and immediately sent away.'<sup>1</sup>

West Stockwith developed as a transshipment port for Bawtry and for the inland ports of the upper Trent. In 1682, West Stockwith was referred to as:-

'a town . . . three miles North of Gainsburgh To which by reason of an antient River called Bickorsdike running thither the Derbyshire Leadmerchants sends all their lead, corne and other goods to Stockwith to be shipped from thence to London and factors imployed to Shipp such goodes as shall come to their hands, there being aboute thirty vessells of considerable burthens imployed constantly and have their dependence onely on that trade.'<sup>2</sup>

Morchants, wharfingers and shipowners at the Trent ports seem to have considered their position sufficiently important to warrant a separate Admiralty convoy in time of war.<sup>3</sup>

The vessels employed on the Idle-Trent axis were built locally. Ketches on the Idle probably varied little during the seventeenth century, although their burthen tended to increase slightly. The nature of the Idle navigation imposed certain limitations on the vessels:-

'not to draw above 2 foot and 9 inches wator for they can be built

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1. P.R.O. S.P.29/189/25(3).

2. Aswaby MSS. ASW 2/66/6.

3. Hist.MSS.Comm., Cowper III, 9. Godfrey Watkinson and Paul Webster of Chesterfield to John Curzon, M.P. 20 May 1702.

no Bigger for to go under the Bridges and through the flood gates and the water is very low in the summer.<sup>1</sup>

Shipbuilding probably began at West Stockwith in the early seventeenth century.<sup>2</sup> By the end of the century, fishing vessels and sizeable coasting vessels were being constructed there.<sup>3</sup> The extant deeds of a family of shipwrights at West Stockwith in the late seventeenth and early eighteenth centuries reflects the activities of a community closely interested in ships and shipping. The will of John Huntington of West Stockwith in 1683, devised to his three children shares or parts in seven Trent vessels, besides land in West Stockwith, Dedithorpe, Misterton and Keadby. When William, his second son died in 1716, he bequeathed a shipyard, and property at West Stockwith, Gunhouse and Misterton. A sum of £300 was to be laid out to build a chapel-of-ease in his shipyard, and a further £300 to build ten small houses for the widows of shipwrights and seamen.<sup>4</sup>

. . . . .

. . . . .

. . . . .

In south Yorkshire and the Vale of Trent, the pace of economic change quickened after the Restoration, with expansion in lead, timber, iron, coal and textiles. Lead was a dominant economic factor in Derbyshire, affecting every class of society and every walk of life. In Wirksworth and the High Peak, the country gentry

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1. P.R.O. S.P. 29/206/10. Vessels drawing 2 feet 9 inches water were probably no more than 20 tons burthen. In the 1620's vessels on the Idle seem to have been of 10-12 tons burthen.

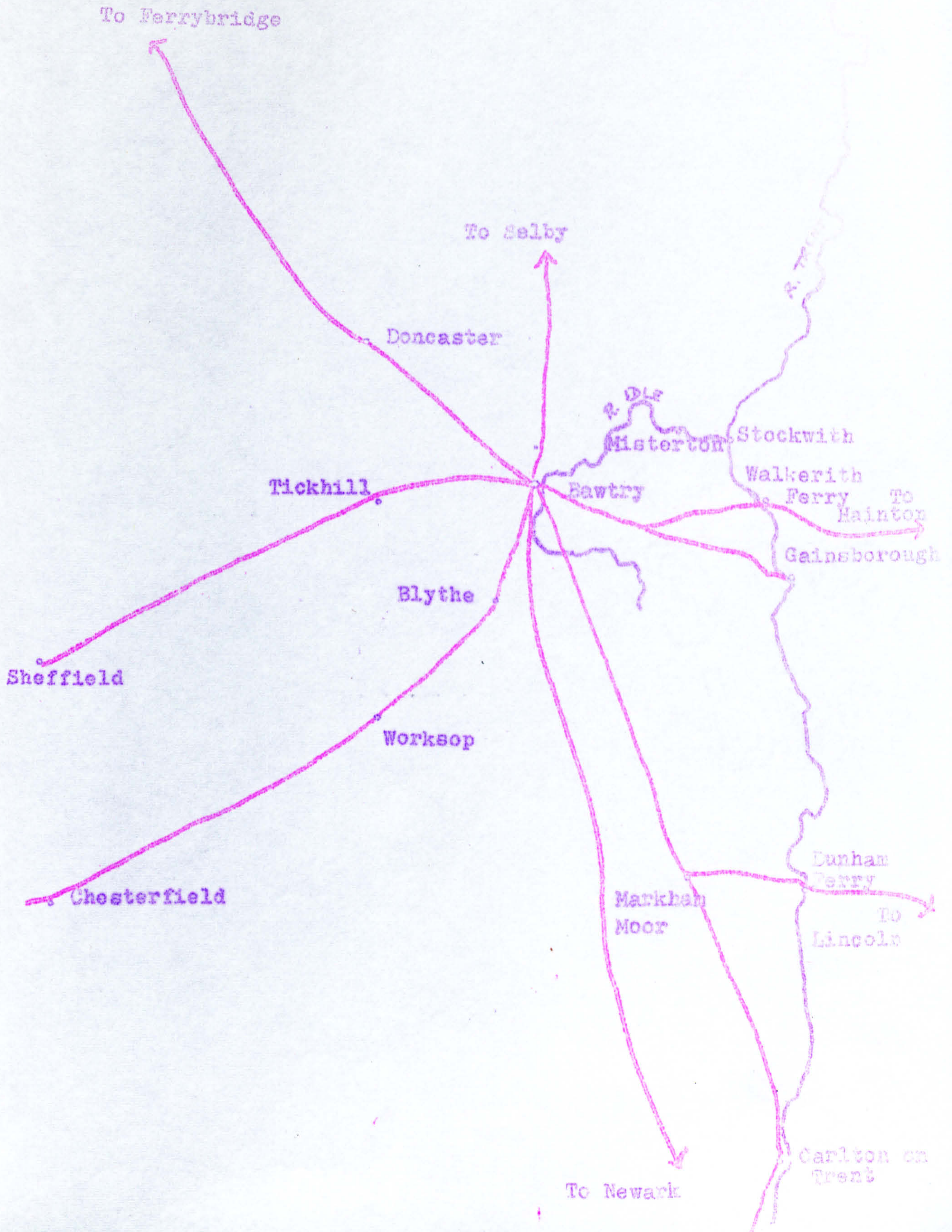
Supra, p.128.

2. F.W. Brooks, op.cit., p.20.

3. De la Pryme, p.156.

4. N.A.O. Parish Records PR. 2,510.







were largely dependent upon mining, with their younger sons in London as lead and wool merchants. Gentlemen leadmasters and smaller shareholders - part owners of the mines - employed companies of Adventurers to undertake large scale drainage works.<sup>1</sup> Towards the end of the seventeenth century there was an increase in the activity of the Derbyshire lead mines, which were dominated to a greater extent by the lead merchants, who contributed an important share of the requisite capital for driving soughs, installing engines and deepening shafts. Besides their interest in mining and smelting, the lead merchants - or their factors - arranged for the carriage of lead to Hull or London for sale to exporters, or even, in some cases, were themselves exporters to the Continent.<sup>2</sup>

The wealth of the leading families of Sheffield and north Derbyshire in the seventeenth and early eighteenth centuries was not derived directly from the cutlery trades, but from the furnaces and forges which supplied the raw material. Several new ironworks had been developed in south Yorkshire, Derbyshire and Nottinghamshire during the Commonwealth period. Expansion continued in Nottinghamshire after the Restoration. The capitalistic character of the

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1. Chambers, pp.6-7. Cromford Sough completed in 1688 cost £30,000, and Hill Car Sough from Yowlgrave to Darley cost even more. Between 1700-1716, a further drainage undertaking was carried out in connection with Gregory Mine which made Ashover one of the most highly developed lead mining areas in Derbyshire.

2. Raistrick and Jennings, p, 180.



iron industry was in sharp contrast to the modest economic status of the cutlery trades.<sup>1</sup>

In south Yorkshire and north Derbyshire coal mining was largely in the hands of landowners, but a new feature of the industry in the seventeenth century was the appearance of the leadmaster, lead merchant and ironmaster who took an important part in the development of coal mining. For example, Sir John Bright of Carbrook was concerned in the lead trade and later interested himself in the development of several collieries. In 1651, Bright leased Handsworth colliery from the Countess Dowager of Arundel, which he continued to hold until his death in 1688. The colliery was valued at £1,800, and soon proved more valuable to Bright than his lead mining and lead trading concerns.<sup>2</sup>

Business archives of interests using the Idle-Trent axis reflect something of the economic developments outlined above, but tend to provide less information on fluctuations of trade than of the main patterns of commerce within the region. This is particularly true in the case of timber, increasing quantities of which were carried from Sherwood Forest in the late seventeenth century, partly to satisfy the demands of the navy.<sup>3</sup> Nevertheless, the extant records of landed, industrial and mercantile concerns who regularly forwarded or received goods to Bawtry and Stockwith have left a more complete picture than the other inland ports of the Humber-Ouse-Trent basins.

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1. Hopkinson, 'Coalfield', p.301.

2. Ibid.

3. Infra, pp. 145-160.

. . . . .

Derbyshire lead was undoubtedly the most valuable commodity handled at Bawtry, being brought by packhorse or cart from the markets at Chesterfield and Wirksworth:-

'the greatest lead-market in England where lead merchants have their meeting for sale thereof . . . many thousands of men, women and children in Derbyshire have maintenance from lead, as miners, workers, smelters, carriers, merchants . . .'<sup>1</sup>

North of Wirksworth, Hucklow and Eyam were important lead producing centres.<sup>2</sup>

Two main land routes were used to the Idle port of Bawtry, one via Workcop, East Retford and Blytho; the other via Sheffield and Tickhill. In a lawsuit concerning the payment of tolls in the manor of Blytho, one witness, a farmer and carrier, deposed that:-

'every weeke in summertime or very often (he) came with waines, carts or carriages loadened with lead from Sheffield to Tickoll and then via Tickoll Lane to Bawtry and there unloaded . . . and took up other goods in the same carts and carriages to carry back to Sheffield on the same way.'<sup>3</sup>

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1. Blome, p.78.

2. Hopkinson, 'Eyam', p.80. It seems that between 1683-1701, the successors of Francis and Ralph James - who had drained a part of the vein at Eyam - raised 10, 421 loads of ore, making a profit of £3, 672.

3. P.R.O. E 134/28-29 Charles II/M11.19. To avoid the payment of toll at Blytho, several carriers went via Scrooby to Bawtry. loc.cit. deposition of James Ingall of Wales, Yorkshire.



The few surviving accounts of Lawrence Oxley, a yeoman and lead dealer of Chesterfield cover the years 1672-8, and provide further evidence of the changes which were taking place in the chipping of Derbyshire lead, to which reference has already been made.<sup>1</sup> Oxley purchased lead from the melting mills at Overton and Nossington Hoy, and from several merchants at Chesterfield. The lead was then sent by land to Bawtry, whence it was forwarded by water to Oxley's shipping agent at Hull. Robert Raikes, a merchant and factor of Hull received commission from Oxley for making the requisite arrangements for shipping lead between Hull and London, clearing at the Custom House and paying the Woolhouse dues at the Humber port. Between January 1672 and July 1674, Oxley's accounts include reference to 26 shipmasters who were regularly shipping lead between Hull and London. The lead was consigned to Thomas Bludworth, a London merchant, who seems to have received between £12 6s. and £12 10s. per fother.<sup>2</sup>

After July 1674, the lead bought by Oxley was shipped directly from Stockwith to London. The principal wharfingers at Stockwith, Leonard and Francis Cowley acted as Oxley's agents at the Trent port.<sup>3</sup>

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1. Supra, pp.78-85.

2. D.A.O. Ac.63. Account Book of Lawrence Oxley. An entry on 29 October 1673, records Oxley reimbursing his Hull agent:- 'paid to Robt. Raikes for dues of Lead by money due to be received by him of Ald. Skinner £14 12s. of which his dues come to £11 6s.'

3. loc.cit. For example, the entry of 25 July 1674:- 'lead chipt from Stockwith as per advice of Leo. Cowley.'

Between July 1674 and December 1677, there is evidence that Oxley's lead was being sent directly from Stockwith to London in 18 vessels.<sup>1</sup> After 1674, Oxley's lead was sold by two London merchants, Daniel Wigfall and Joseph Hayward.<sup>2</sup> Although Oxley's dealings in lead were conducted on a small scale they provide an insight into the contemporary controversy between the town corporation of Hull and the merchants and shippers at the Trent ports.

. . . . .

Judging by the erection of new blast furnaces and forges, it seems that the iron industry of Nottinghamshire, Derbyshire and South Yorkshire - and, indeed of other iron producing regions - experienced no protracted period of inactivity in the late seventeenth century.<sup>3</sup> In 1652, Francis Rockley of Rockley leased three acres of

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1. D.A.O. Ac.63. Several of the Trent shipmasters named in Oxley's Account Book appear in the Bunch Books at Hull, as having left the Humber port without paying Woolhouse dues. In his will of 4 January 1677, Leonard Cowley of West Stockwith devised to his daughter-in-law one quarter part of the keel Endeavour, and one third part of the ketch Consent. N.A.O. Parish Records PR. 2,446.

2. In April 1686, John Field a leading Hull merchant advised Sir John Reresby:- ' . . . my London correspondents are Daniel Wigfall and Francis Gell merchants in Botolph Lane . . . These merchants deal much in lead and are eminent on the Exchange.' Reresby MSS. 44/19.

3. Flinn, pp.144-53. In 1657, there were 19 iron works in 11 different places in the Scarsdale Hundred of Derbyshire alone. Chambers, p.8.



land to Lionel Copley of Rotherham in order that a furnace might be built by the side of a small stream running down to the river Dove near Worsborough.<sup>1</sup> During the mid seventeenth century, Copley was the most important ironmaster in south Yorkshire, besides renting the Kimberworth and Whiston collieries on the Effingham estate at £100 and £55 per annum respectively.<sup>2</sup> In 1654, George Sitwell undertook to build a forge at Carburton in Nottinghamshire, on land which had previously been owned by the Earl of Newcastle. During the years of the Commonwealth, other ironworks were established at Whaley and Pleasley, both of them in the thickly wooded zone on the borders of Derbyshire and Nottinghamshire.<sup>3</sup> In the later decades of the seventeenth century, the iron industries of Derbyshire and the West Riding moved westwards to ore deposits which had already been worked in the middle ages. The main group of furnaces was situated on outcrops of Tankersley ironstone running from the Bank and Bretton furnaces in the north to the Foxbrooke and Staveley furnaces in the south.<sup>4</sup>

The accounts and correspondence of George Sitwell of Renishaw provide a picture of the iron trade in the years after the Restoration, and further evidence of the importance of the Bawtry-Stock-with-Hull-London commercial axis.<sup>5</sup> In company with many squires in

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1. J. Wilkinson, Worsborough: Its Historical Associations and Rural Attractions (1872), p.75.

2. Hopkinson, 'Coalfield', p.298.

3. Hopkinson, 'Charcoal Iron', p 124.

4. Schubert, p.182.

5. Sitwell, p.28.

Derbyshire, Nottinghamshire and south Yorkshire, Sitwell added to his fortune - and repaired breaches made in it by the Civil War - by iron manufacture. Frequently, small partnerships were formed, agreements being made for the purchase of wood or the delivery of iron. The hiring or building of a furnace or forge required considerable capital, and was often arranged conjointly, the requisite tools being divided when the concern was wound up. Sitwell worked furnaces of his own at North Wingfield, Eckington, Pleasley and Foxbrooke, and rented furnaces or forges at Staveley, Carburton and Cuckney. Sitwell produced and manufactured iron on a large scale and consumed large quantities of timber for charcoal. At the furnaces the iron ore was smelted and cast iron goods - chimney plates, mortars and sugar rollers were made. Work at the furnaces and forges was mainly confined to the winter months, the summer being largely taken up in moving iron and iron goods to various destinations along poor roads. Sitwell was concerned in the manufacture of cast and bar iron, and of a variety of iron goods, including saws, chimney backs, sugar-cane rollers, sugar stoves, pots, mortars, pans, flat irons, iron plates, brewers' squares, nails, guns and ammunition.

Because it was difficult to carry iron and iron goods by land in winter - even at double charge - carriage to Bawtry was undertaken in summer. The greater part of the iron and iron goods produced at Sitwell's furnaces and forges were forwarded to London by water via Bawtry, Stockwith and Hull. When 10 tons of iron pots were carried by land to Bawtry, the cost of carriage amounted to £1 2s. The



shipping agent or wharfinger at Bawtry, Jerome Phillips consigned the goods to Tomson, an agent at Hull, and were then shipped to Porter's Quay in London having been consigned to Ralph Franceys - a cousin of Sitwell's - at the White Hart in Friday Street. Other wharfingers and shippers named in the correspondence for the years 1660-1667 include Matthew Lambe and Robert Steele, both of Bawtry. It was usual for goods to be transhipped at Stockwith. The parcels of bar iron sent to London were often large, for example, in September 1662, a total of 1, 529 iron bars were sent by water. Slit iron from his mill at Renishaw was sent via Bawtry to Gainsborough and Eckington, where another member of the family, Francis Sitwell was concerned in the production of nails. Smaller articles, for example saws, were sent by wagon as far as London. Payment was made by bills of exchange, and sometimes in kind. For example, the saws, sugar stoves, rollers and nails which were sent to Barbados were sometimes paid for in sugar or cotton wool.

As well as being sold in London, large quantities of iron were sold in the country. Bar iron was sent to Sheffield and Boston, and was delivered at Nottingham Bridge and at Derby for transportation elsewhere. For example, in March 1663, John Finch of Dudley in Worcestershire bought 10 tons of slit iron from Sitwell, which was to be delivered at Nottingham Bridge by long weight at £14 8s. per ton. Two years later he bought 80 tons of slit iron at £14 10s. per ton. Dealings in saw iron were carried on mainly with Lionel Copley, to whom reference has already been made.<sup>1</sup> On one occasion

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1. Supra, p.137.

Sitwell agreed to supply Copley with 850 tons of saw iron, valued at £4,553.

The Sitwell correspondence also provides some indication of trading prospects in the years after the Restoration. Between 1662-66, iron prices were falling from over competition, and there were many complaints about the bad state of trade. The ironmasters attempted to establish a form of combination, the purpose of which seems to have been to divide the market between them and to prevent underselling, although this lasted only a short time, and was never completely effective.<sup>1</sup>

The late seventeenth century witnessed the influx of ironmasters from the West Midlands into the Nottinghamshire-Derbyshire-south Yorkshire region. For example, in the early 1670's Humphrey Jennens a Midlands ironmaster from Erdington Hall near Birmingham put a new furnace into blast at Kirkby.<sup>2</sup> A little later, in 1678, Dennis Hayford of Millington took over Lionel Copley's ironworks at Chapel-town furnace.<sup>3</sup> In 1695, John Whooler of Woolaston Hall, Worcestershire undertook to build a new forge, two fineries and a chafery at Carburton on the site of that previously erected by George Sitwell in 1654.<sup>4</sup> The Crowley ironworks near Gateshead seem to have made

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1. Sitwell, pp.28-30. The Earl of Devonshire insisted on Sitwell's advice, and sought a partnership with him in his Wotton copper mine.

2. Hopkinson, 'Charcoal Iron', p.124. In 1693, Barlow furnace north west of Chesterfield was leased by the proprietor, John, Earl of Clare to John Jennens of Erdington Hall for 11 years. N.A.O. DDP 43/76.

3. Sitwell, p.29.

4. Hopkinson, 'Charcoal Iron', p.124.



regular purchases of bar iron from the Carburton forge. For example, in 1696 a parcel of 40 tons was delivered to Stockwith to be shipped to the north-east.<sup>1</sup>

. . . . .

To what extent the Bawtry-Stockwith-Hull water axis was used by Hallamshire cutlery interests is difficult to determine. Certainly some iron was being imported along that route in the later seventeenth century, and in sufficient quantities to arouse disputes with local ironmasters and tanners, who were anxious that import duties should be placed on iron imported from Spain or Sweden.<sup>2</sup>

The town of Sheffield and its environs owed their importance to industry rather than to commerce, the domestic workshops manufacturing a wide variety of products - files; knives for butchers and shoemakers; pen, spring and pruning knives; horse shears; scissors for barbers and tailors; frying pans; planes, chisels, awl blades and punches for joiners; table cutlery of every type and razors which

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1. M.W. Flinn, Men of Iron (Edinburgh, 1962), p.105. The Crowley ironworks produced mainly miscellaneous iron and steel wares - nails, anchors, chains, locks, and edge-tools - and employed several hundred workmen. In 1695, Ambrose Crowley III bought 'a considerable parcel' of bar iron at Stockwith for delivery to Newcastle.

2. Tanners tended to oppose the import of iron because they used oak bark which was a by-product of the production of charcoal for the ironworks. In the late seventeenth century, leather workers in Sheffield were only less numerous than metal, cloth and agricultural workers. L.A. Clarkson, 'The Leather Crafts in Tudor and Stuart England', Ag.Hist.Rev., XIV (1966), 25-39.

were ornamented in every conceivable fashion.<sup>1</sup> In the seventeenth century, Sheffield did not have an almost complete monopoly in the manufacture of knives which it was subsequently to enjoy, Salisbury, Woodstock and Godalming being rivals.<sup>2</sup>

In the early decades of the seventeenth century, the cutlery had had to rely largely on visits by travelling chapmen who arranged for the distribution of goods through the pack-horse mode of conveyance. Some of the more prosperous cutlery accumulated a supply of finished goods and carried them to the numerous country fairs for disposal.<sup>3</sup> The merchant, that is a person almost wholly unconnected with the manufacture of the article in which he deals, and concerned only with its distribution, was still unknown among the residents of Sheffield. The wholesale trade developed through the agency of a class of regular traders or 'factors' who acted as intermediaries between the craftsmen of Hallamshire on the one hand and the merchant houses of London on the other. The factors represented a new merchant-capitalist function, sometimes holding small stocks of goods for disposal, and sometimes furnishing workers with wheels, smithies and forge tools. The metropolis was the principal mart for the finer species of cutlery, it being the function of the factors to receive the goods of the petty manufacturers and to forward them to the London

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1. Hopkinson, 'Charcoal Iron', p.122.

2. Hunter, on.cit p.165.

3. Lloyd, p.327. Lloyd considered that in the seventeenth century the cutlery trade was confined, inconsiderable and precarious on account of the smallness of the markets on which the workers depended.



merchants for distribution and export. No correspondencies had yet been opened with houses on the continent, and exports were made chiefly by London merchants.<sup>1</sup>

By the late seventeenth century a number of enterprising men - like the members of the Hollis family - having been trained in workshops in Hallamshire, had migrated to London and had established themselves as wholesale cutlers or hardware merchants. Some kept special buyers in Sheffield, while others availed themselves of the services of men already trading in Hallamshire as makers or factors. For example, Field Sylvester represented Thomas Hollis in Sheffield, and was, on occasion, sent on foreign journeys to France and the Low Countries. For his services in Sheffield, Sylvester received £20 a year.<sup>2</sup>

The latter decades of the seventeenth century were marked by bitter disputes between the cutlors, the factors and the wholesale merchants of London. As early as 1662, there were serious complaints that the free master cutlers were being reduced to a condition of dependence on the factors from whom they obtained a growing proportion of their raw materials and through whom they disposed many of their finished goods.<sup>3</sup> The London merchants resented any attempts to

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1. Lady --- Stephen, 'The Shores of Sheffield and the Offloys of Norton Hall', Transactions of Hunter Archaeological Society, V (1943), p.1.

2. Leader, I, p.153.

3. Lloyd, p.327.

circulate Sheffield wares except through their houses. They claimed a sort of monopoly in the London and foreign trade and remonstrated against the factors at Sheffield on the evils of dealing with other persons. The diversity of interest tended to grow for many of the Sheffield manufacturers and factors were eager to trade independently and to act as merchants in their own right. The correspondence between Thomas Hollis and Sir John Reresby provides an insight into the conflict between the merchants and factors, which was to continue well into the eighteenth century.<sup>1</sup>

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1. Reresby MSS. 22/21. It seems that in 1679, Hollis sought an agreement with the Company of Cutlers, having observed at Sheffield:-  
'how many of theire poore artificers were abused by many Chapmen that broughte all sortes of comodities amongst them, and trucked with them at unreasonable prices, and the artificers gave them againe as bad wares, so that our trade at London was much harmed, by theire selling them againe cheaper than wee could.'

However, far from reaching an agreement, Hollis complained that the Sheffield cutlers had:-

'without advising of us . . . combined together a thing they mis-calling a publick good, so as to hinder us from trading at all with all the sizer smiths and box makers and denyed us Londoners any of those goods for our ready moneys, except wee would comply with them, and give them 12d in the grose of cizers more than the petty Chapmen whatsoever and so kept us without any goods for one whole yeare. And sent their Agents to London and tooke a shop in the midst of us, and gave forth printed bills, to all pety shops and Merchants to ruin us utterly.'

To counter this, the London wholesale merchants contemplated the setting up of workshops at Chesterfield to make scissors and boxes. Hollis to Reresby, December 1682.



Metal goods from south Yorkshire or north Derbyshire were shipped at Hull for London and were probably forwarded via the Bawtry-Stock-with water route.<sup>1</sup> It seems not unlikely, however, that the smaller goods made in the Sheffield district would be forwarded to London by land carriage.

. . . . .

After the Restoration, considerable quantities of hardwood were forwarded from Sherwood Forest to Deptford for the use of the Navy. The extant accounts and correspondence of this trade reveal the difficulties of land and water communication within the Humber-Trent region in developing large scale dealings in a bulky commodity for which there were no regular carriers. The disparity in draught between coasting vessels, Humber keels or lighters on the one hand, and the smaller ketches used on the tributaries of the Ouse and Trent on the other created serious difficulties for the Navy Commissioners, hoping for the rapid dispatch of timber to the Medway shipyards.

In 1663, the Navy Commissioners arranged for the purchase of 1,000 trees from Sherwood Forest. By 9 June, one of the Navy purveyors was able to advise the Commissioners that 350 trees had been felled.<sup>2</sup> The carriage of this timber from the Forest to Bawtry created serious difficulties, concerning both the types of cart and

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1. Willan (1938), p.81.

2. P.R.O. S.P. 29/74/43. The cost of felling, squaring, sawing and wharfage amounted to 10s 8d per load.

the carters to be employed. In the summer of 1663, the purveyor complained to the Commissioners of their great need:-

'of a carriage with two pairs of wheels for transporting heavy timber.'<sup>1</sup>

One way of obtaining carts was to obtain warrants from the local magistrates for the requisitioning of vehicles from local farmers and carriers. In the following years, local J.P.'s issued several warrants to farmers and carters, while the purveyor was informed that 'considerable number of carriages might be obtained from Yorkshire or Derbyshire that lie within 12 miles of the Woods.'<sup>2</sup>

The proposal to secure carts and wagons from neighbouring counties appears to have been taken up, for, on 19 April 1665, the purveyor informed the Commissioners that he had obtained warrants from magistrates in Derbyshire and Yorkshire for sending in ten carts a day in order to carry 400 loads of timber to Bawtry.<sup>3</sup>

Whereas there were regular carriers for Derbyshire lead, a major

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1. P.R.O. S.P. 29/75/38. When one of the Navy Commissioners, Peter Pett visited Nottinghamshire in May 1663 he had waited on the Marquis of Newcastle, Sir George Savile and other landowners about the arrangements for the land carriage of timber to Bawtry. Pett to Samuel Popys, 18 May 1663. P.R.O. S.P. 29/73/79.
  2. P.R.O. S.P. 29/113/33. In September 1664, the purveyor's agent received 'another warrant from the Justices for 150 carriages to come in.' However, he still required a large and strong cart for the largest timber. S.P. 29/102/17. The issuing of warrants did not always bring an immediate response. In October 1664, complaints were made that 'Constables cannot make the sluggish carters come in . . . Justices have promised to grant strict warrants for the conveyance of 400 loads of timber.' P.R.O. S.P. 29/103/67.
  3. P.R.O. S.P. 29/118/86.



difficulty in the carriage of timber was the absence of such 'specialists'. The Commissioners were apprised that no one made it his business:-

'only to carry, But this Country use there Teemes about husbandry and fetching Lymo and Coles which they Conclude more benefitt gayned with Lesse hazard of there Cattle and persons.'<sup>1</sup>

The purveyor and his agents found it particularly difficult to find carriers during the busy seasons of the farming calendar. On 12 March 1664, the Commissioners were advised that it was proving difficult to convey timber to Bawtry because the carters were busy sowing.<sup>2</sup> A month later, seed time was over but ready money was needed to employ the carriers:-

'for if the carters were discharged for want of money untill they go for Coles they will not come chearfully againe.'<sup>3</sup>

Similar difficulties arose at harvest time.<sup>4</sup>

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1. P.R.O. S.P. 29/102/17.

2. P.R.O. S.P. 29/113/33. In February 1665, Sir William Coventry one of the Navy Commissioners was informed that the carters in Sherwood Forest were working slowly:- 'by reason of slippyness occasioned by the frosty weather. When the frost is gone they will be very backward because the frost has hindered plowing and provision for seed time.' P.R.O. S.P. 29/94/70.

3. P.R.O. S.P. 29/97/9.

4. P.R.O. S.P. 29/100/4. On 2 July 1664, Thomas Corbin one of the purveyor's agents wrote to the Navy Commissioners, being apprehensive that, in a short time 'the Carters will come slowly in, now Harvest approaches.'

Carters unused to the carriage of large pieces of timber naturally sought additional payment from the purveyor and his agents. In January 1664, one of the agents complained that he was unable to persuade the carters to carry either long pieces of timber or large loads without some additional allowance.<sup>1</sup>

Despite the drawbacks of employing 'irregular' carriers, the purveyor was apparently satisfied that - given the right conditions - the carters would work well. In July 1664, the Commissioners were requested that:-

'unless your necessity bee violent, I humbly Conceive a little forbearance of them (the carters), or at least an allowance of some Liberty to follow there owne occasions . . . some of them have undertaken the Greate Tymber which I suspected would never have gone and they have Carryed one long beam Contayning 400 foot boing 45 foote in Length and 18 inches square at the Top End . . .'<sup>2</sup>

The difficulties in conveying timber to Bawtry prompted the purveyor to approach interests regularly concerned in land carriage.

Thomas Lister, lord of the manor of Bawtry employed many of the boatmen and porters at the inland port, and proposed to put the land carriage of timber on a more regular footing:-

'that particular porters be appointed for that worke as for Lead and other goods.'<sup>3</sup>

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1. P.R.O. S.P. 29/91/85.

2. P.R.O. S.P. 29/100/4.

3. P.R.O. S.P. 29/121/127. Thomas Lister had inherited estates at Bawtry and Austerfield from his father, Sir John Lister an opulent merchant of Hull.



The cost of land carriage from Sherwood Forest to Bawtry amounted to 12s per load.<sup>1</sup>

The carriage of timber to Bawtry was only the first stage in its conveyance to Deptford. Serious problems had still to be surmounted before the timber finally arrived at the Navy's shipyards. As lord of the manor and wharf at Bawtry, Thomas Lister paid a fee farm rent to the Crown, and it was customary for him to receive 5d per ton for all goods sent by water to Stockwith. Lister soon found that the boating of timber caused many inconveniences. Some nine months after felling began in Sherwood Forest, Bawtry wharf had become clogged with timber, and in March 1664, it was agreed that the carters and waggoners should only bring timber to the wharf at the direction of Lister.<sup>2</sup> Partly due to the scarcity of water in the river Idle it was proving difficult to send vessels to Stockwith and to clear the backlog of timber from Bawtry wharf.<sup>3</sup> The purveyor's agents took steps to send some timber by land to Stockwith in case a vessel arrived at the Trent port.<sup>4</sup>

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1. P.R.O. S.P. 29/94/70. The purveyor had hoped that the wharfinger at Bawtry might undertake land carriage. However the Commissioners were informed that --- Phillips 'who commands the boats at Bawtry would not undertake land carriage from Sherwood Forest without allowance for the extra size of timber.'

2. loc.cit. By his marriage to Barbara Hutton, daughter of Matthew Hutton of Marske near Richmond, Thomas Lister connected himself with one of the oldest families in Yorkshire. Thomas Lister died at Bawtry in 1674. W.Peck, op.cit., p.16.

3. P.R.O. S.P. 29/97/9.

4. loc.cit.

In spite of remonstrances from Lister, timber continued to pile up at Bawtry. In May 1665, the purveyor described to the Commissioners the conditions prevailing at the port, and outlined certain proposals from the lord of the manor. Lister was anxious that sufficient room should be left at the wharf for lead, millstones and other goods; that the timber already there should be properly arranged; and that in future timber should either remain in the Forest until the wharf was clear, or laid down:-

'at some convenient distance from the wharfe as is usual for Millstones and other Commodities of that bulke which are not immediately shipped away that soe there may be convenient roomes for lead and other goods which are dayly brought thither in great quantition and immediately sent to Stockwith.'

Lister urged that timber should be sent to Stockwith at the earliest convenience, without awaiting the arrival of a vessel from Hull or London at the Trent port, since only two of the ketches using the Idle were suitable for that trade:-

'though the rest of the boates are stopt too for assisting in the boating of it to the great hindrance of all other men's business having noe particular persons appointed for that service, as for millstones and all other goods that are boated there.'<sup>1</sup>

Lister was also concerned at the remittances he received from the boating of timber to Stockwith. In January 1667, a long letter from L. P.R.O. S.P. 29/121/127(1). Lister maintained that he had been put to considerable additional expense from the need to remove timber from the wharf and that he had had to build a new staith.



William Lister, a brother of the Bawtry proprietor was addressed to Samuel Pepys. This set out that in the previous two years, Thomas Lister had made the requisite arrangements for the carriage by water of 1,200 tons of timber from Bawtry to Stockwith at the rate of 28s for a boatload of 10 tons, despite the fact that 40s per boat load was the usual charge. Lister now requested that the rate for boat-ing timber should be placed on an equal footing with other goods sent down the river Idle. He was also anxious that some allowance should be made for certain incidental expenses, to recoup him for land carriage, for fitting the wharf for timber and for building a new ketch.<sup>1</sup>

In response to Lister's complaints, the Navy Commissioners directed four magistrates to view Bawtry wharf and to examine the accounts of the wharfinger in order to confirm the customary freight and other charges paid on lead, coal and other goods. The J.P.'s in their report considered that:-

'irregular and confused dispersing of his Maties Tymber upon the Wharf for more than two years is much to . . . Lister's hindrance, and has forced him to build a new staith and boat, and has meant the inconvenience and disturbance of all traders.'

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1. P.R.O. S.P. 29/189/23(3). It seems that 40 feet of timber were accounted as 1 ton. Lister wanted 'the same freight, ladeing and other charges as all other men usually pay for the same boates for millstones which is 40s per voyage (besides bringing them downe to the Wharfe) for which they allwaies allowe 1s per paire.'

The magistrates confirmed that Lister had conveyed timber at cheaper rates than those charged for the carriage of millstones and other goods. The lord of the manor of Bawtry was in a commanding position over the river trade of the Idle:-

'fitted with Servants, and Boats proper for this River, being the person generally imployed by all that trade here.'

Lister had made certain proposals to the magistrates for surmounting the congestion at Bawtry wharf. He maintained that the boats employed on the Idle - either through negligence in loading or the scarcity of water - did not always carry the same burthen, so that any agreement should be settled on the basis of tonnage of timber actually carried rather than the number of boatloads. It was also stressed to the magistrates that the boating of timber involved longer time and additional expence than for lead, so that some additional allowance should be made. In their report, the J.P.'s suggested that Lister should be paid 4s per ton:-

'for piling, loading and all the accustomed dues and charges at Bawtry and for freight to Stockwith.'<sup>1</sup>

This rate was subsequently accepted in a contract made with Lister in January 1667.<sup>2</sup>

Further difficulties arose from the employment of the Bawtry keelmen. In July 1664, the Navy Commissioners had been apprised of growing discontent among the Bawtry watermen:-

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1. P.R.O. S.P. 29/189/25(3).

2. P.R.O. S.P. 29/191/4.



'on account of non-payment of keel money - an allowance of 18d for every ketch unloading . . . masters of vessels using the river and carrying lead make this payment.'<sup>1</sup>

During the Second Dutch War there seems to have been a conflict of interest between the manpower demands of the Navy and the need for raw materials. For example, in February 1665, one of the Navy Commissioners, Sir William Coventry was informed that the watermen employed on the Bawtry ketches:-

'pretend they dare not stir for fear of pressing . . . if you please to send down anything for their securitye I will carry it to . . . Lister who is Lord of the wharfe at Bawtry and owner of the vessels.'<sup>2</sup>

Delays in the carriage of timber from Bawtry to Stockwith prompted numerous complaints at the insufficiency of the navigation of the river Idle. For example, in July 1667, lack of water in the Idle prevented the passage of timber, lead and millstones. In May 1668, Thomas Lister wrote to Samuel Pepys of a cause which was shortly to be heard before the Lord Keeper:-

'of want of water at Bawtry.'

The lord of the manor of Bawtry proposed to attend the hearing, and urged that the Navy Commissioners would address the Lord Keeper on the need to improve navigation, stressing that:-

'the occasion there is for timber and the prejudice they suffer by

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1. P.R.O. S.P. 29/100/4.

2. P.R.O. S.P. 29/113/33. It seems that twenty-one watermen were employed in connection with the two large ketches at Bawtry.

not having quick conveyance when desired.'

Lister was optimistic that the authorities concerned with conservancy would be called upon to take the requisite steps, and that the Lord Keeper would give:-

'such directions to the Commissioners of Sowers and participants of the level as will procure speedy remedy.'<sup>1</sup>

Whether or not the hoped for improvements were actually effected is not easily discerned.

The conveyance of timber from Stockwith to Deptford also revealed the problems of contemporary modes of communication. When the purchase of timber in Sherwood Forest had first been arranged, one of the Navy Commissioners had visited the shipping points along the lower Trent to determine at which port or ports the facilities would be most appropriate. In May 1663, Peter Pott wrote to Popys:-

'... I tooke my Journey to Bawtree, to Stockwith and to Gainsborough about enquiring into the Convenience of Lading and Water carriage.'<sup>2</sup>

The purveyor subsequently confirmed that the port most likely to prove satisfactory for the Navy Commissioners was Stockwith. Although he had examined the possibility of shipping timber from either Carlton or Dunham, both situated on the Trent and within eight miles of Sherwood Forest, the depth of water was insufficient. In some summers, there was insufficient water for vessels of over ten tons

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1. P.R.O. S.P. 29/240/7. In May 1668, it was affirmed that:- 'Incon-  
veniences happen many tymes att Bawtry for want of water.'

2. P.R.O. S.P. 29/73/79.



burthen on the stretch of the Trent above Gainsborough.<sup>1</sup> Having borne the cost of land carriage to Bawtry, and the delays at the Idle port, it was naturally hoped that timber might be sent directly from Stockwith to Deptford without being again transhipped.

Having decided upon the most apt shipping point, the problem remained of finding a sufficient number of vessels. The purveyor informed the Navy Commissioners that:-

'a vessel that draws but 9 feet of water when loaded may come to Stockwith to take in lading, if they draw 12 feet can only come 12 miles up the Trent to Burton-on-Stather. Vessels of 70 or 80 tons would be best to come up to Stockwith which will not draw above 8 or 9 foot water.'<sup>2</sup>

When the purveyor made enquiries at Stockwith in June 1663, it seems that there was only one vessel belonging to the Trent port fit for transporting timber to Deptford.<sup>3</sup> The Navy Commissioners were apprised of the difficulties in hiring vessels in the Humber-Ouse-Trent region, and were urged to send vessels from London.<sup>4</sup> By early July, some timber had been sent from Stockwith to Deptford, and contracts had been made with two Hull shipmasters to carry timber at the rate of 17s per load.<sup>5</sup>

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1. P.R.O. S.P. 29/262/113.

2. P.R.O. S.P. 29/241/218.

3. P.R.O. S.P. 29/75/38.

4. P.R.O. S.P. 29/75/89.

5. P.R.O. S.P. 29/77/20.

In 1664, the problem again arose of finding a sufficient number of vessels which could convey timber directly to Deptford. In November the Golden Star of Sunderland arrived at Stockwith, and was loaded with 3,850 feet of timber or 77 loads.<sup>1</sup> The hazards of the coasting trade during the Second Dutch War prompted John Paule, the master of the Sunderland vessel, to seek a more satisfactory financial arrangement. In January 1665, he wrote to the Navy Commissioners requesting special consideration:-

'for having a long and tedious voyage to Stockwith wishes his vessel to be hired by the month for the carriage of timber from Sherwood as cannot go without convoy because of the Dutch men-of-war.'<sup>2</sup>

If the war added to the dangers of the coasting trade, it also saw the acquisition of many prize vessels. For example, in March 1665, the Navy Commissioners were given an account of several prize vessels in the Thames which were considered suitable for bringing timber from Stockwith.<sup>3</sup>

An alternative, but not a very satisfactory one to the use of vessels on the inland waterways, was to float timber to Hull, whence it might be shipped. The purveyor first tried to float timber down the river Idle from Bawtry to Stockwith but found that many pieces sank.<sup>4</sup> Nevertheless, the Navy Commissioners suggested whether floats might not be convenient for sending timber down to Hull, but were

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1. P.R.O. S.P. 29/105/31.

2. P.R.O. S.P. 29/110/46.

3. P.R.O. S.P. 29/116/36. Report of Robert Magors and John Tooker.

4. P.R.O. S.P. 29/166/89.



informed by the purveyor that:-

'wee cannot hold them together with ropes.'<sup>1</sup>

In February 1667, the purveyor reiterated his opinion that to float timber to Hull was impracticable:-

'for the eager is so strong.'<sup>2</sup>

Although a few vessels continued to ship timber directly from Stockwith to Deptford, it was becoming increasingly apparent that this mode of conveyance - in the absence of a sufficient number of hoys - would mean a long delay before the timber reached the shipyards. A more practical alternative to floating timber to Hull was to use river vessels to convey it directly from Bawtry to Hull. If this could have been accomplished, transhipment would have been necessary only once. There were, however, two serious disadvantages with this proposal. Firstly, the two Bawtry ketches could only carry seven loads of timber each.<sup>3</sup> Secondly, the nature of the estuarine Humber made it hazardous to use the small vessels normally employed on the upper reaches of the Ouse and Trent or their tributaries. The purveyor emphasised the dangers of using the small Bawtry ketches for conveying timber directly to Hull:-

'for Humber is but a bad place for an open Chich to ride in.'<sup>4</sup>

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1. P.R.O. S.P. 29/169/37.

2. P.R.O. S.P. 29/192/27. Shipmasters unused to the Trent may also have found the eagre a serious hazard. In April 1666, the purveyor reported to the Navy Commissioners that the Adam & Eve after taking in her lading of timber 'is overset about ten miles below Stockwith.' P.R.O. S.P. 29/153/54.

3. P.R.O. S.P. 29/166/89.

4. P.R.O. S.P. 29/194/20.

By March 1667, Thomas Lister of Bawtry had been persuaded to use his two ketches for trial voyages from Stockwith to Hull, at the rate of 4s per ton, or 25 per cent above that charged for lead.<sup>1</sup> There had not been sufficient water at Bawtry to load the ketches fully, and it had been necessary to fit waste boards to the vessels as there was only 10 or 12 inches free-board, which would have been too risky in the Humber.<sup>2</sup>

The shortage of vessels capable of carrying timber either from Bawtry or Stockwith to Hull, prompted the Navy Commissioners and the purveyor to consider the possibilities of building ketches or lighters specially designed for that purpose. If a ketch was to be built to carry directly from Bawtry to Hull it would have to be laid down to certain specifications determined largely by conditions on the river Idle:-

'must be no bigger than the 10 or 12 ton ketches using the Idle and not to draw above 2 foot and 9 inches water - can be built no bigger for to go under the Bridges and through the floodgates and the water very low in summer.'<sup>3</sup>

The purveyor advised the Navy Commissioners that it would be more practical to build a lighter to convey timber only between Stockwith

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1. P.R.O. S.P. 29/194/20. In February 1667, the purveyor had informed the Navy Commissioners that the charge for the carriage of timber from Stockwith to Hull would be 3s per ton, being the rate paid by the lead merchants.

2. loc.cit. The purveyor considered that it would have been safer to send timber to Hull in vessels which would carry 50 or 60 loads each.

3. P.R.O. S.P. 29/192/111.



and Hull. This might be built at Stockwith at 40s a ton to carry 20 tons or more.<sup>1</sup> When inquiries were made at Hull it was found that there were no vessels there fit to bring timber from Stockwith, but a shipwright at the Humber port had offered to build a ketch or lighter at 50s per ton.<sup>2</sup>

By the summer of 1667, timber was being sent to Deptford in three different ways, occasioned largely by the nature of the Humber-Ouse-Trent waterway system. A few hoys continued to take their lading at Stockwith directly for Deptford;<sup>3</sup> the Bawtry ketches were being used to carry timber to Hull, whence it was shipped; while at least one new ketch had been built to carry timber between Stockwith and Hull.<sup>4</sup> The main disadvantage of the latter mode of conveyance arose from the necessity of transshipping the timber twice, namely at Stockwith and at Hull. The Navy Commissioners were advised that:-

'at Hull timber must be laid on Drypool side against the Castle . . . will cost laying ashore there 12d per load and 2d ground rent.'<sup>5</sup>

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1. P.R.O. S.P. 29/194/20. William Dratton had promised the purveyor that he could build a ketch at Stockwith in six weeks at 40s per ton for the hull and all materials found except bolts for the knees and iron work for the rudder.

2. P.R.O. S.P. 29/192/111. --- Blaydes of Hull had offered to build a ketch at 50s per ton.

3. P.R.O. S.F.29/201/55. In May 1667, the purveyor recorded that he had seen the Black Dog loaded with 39 loads and the Adam & Eve with 36 loads of timber from Stockwith to Deptford.

4. loc.cit.

5. P.R.O. S.P. 29/209/132.

Even when timber had been conveyed to Hull, there were further delays before it was shipped to London. By midsummer 1667, it was reported to the Navy Commissioners that there was no more room to lay timber at Hull. Almost three years more were to elapse before the parcels of timber purchased by the Navy had been conveyed to Deptford. In July 1670, the purveyor informed the Commissioners that:-

'not any more timber is left in the woods.'<sup>1</sup>

To what extent the Bawtry-Stockwith axis was used for the transporting of timber in the last decades of the seventeenth century must remain largely a matter of conjecture, although it is clear that it was not only the Navy Commissioners who were making purchases in Sherwood Forest.<sup>2</sup> The well-wooded estates of south Yorkshire and Nottinghamshire were certainly sources of supply for the local iron industry, and there is ample evidence that considerable quantities of timber were being shipped from the region in the early decades of the eighteenth century.<sup>3</sup>

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1. P.R.O. S.P. 29/284/154.

2. P.R.O. S.P. 29/122/103. In May 1665, the purveyor reported to the Navy Commissioners that Lord Byron had sold a large parcel of timber from Newstead Woods to --- Johnson and --- Barham of Blackwell which was to be sent via Gunthorpe and Stockwith.

3. Infra, p. 494.



. . . . .

Lead, iron, metal goods and timber constituted the principal items of trade along the Bawtry-Stockwith axis, extant records surviving for dealings in those commodities. Unfortunately, evidence of trade in millstones, plaster and coal is scanty. Thomas Lister seems to have had some dealings in millstones, and, during the 1660's the Navy Commissioners were advised that purchases might be made at the Idle port. When the purveyor made inquiries among the millstone dealers, he was apprised that:-

'the greatest prices that was given for millstones was 33s 4d per boat load and that was for 20 and 21 hand millstones which is more troublesome than the larger pieces of timber . . . the small millstones is carried for 26s per boat load.'<sup>1</sup>

If there was no lead for shipment at Stockwith, ballast for the coasting vessels sometimes took the form of plaster. In the early eighteenth century it was noted that:-

'the ships that load from Stockwith and Gainsbro three miles above take in no Ballast (as you observe) but Lead and for want of it (which is seldom) take in Plaster. There is a Custom at Stockwith that the Wharfingers have 12d per Tun for shipping.'<sup>2</sup>

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1. P.R.O. S.P. 29/121/127. In a lawsuit over the payment of toll at Blyth, George Earnsley of Braithwell deposed that in one summer he had several times brought 20 pair of millstones from Braithwell to Bawtry. Ann Bradley of Bawtry testified that before the Civil War her husband was employed in receiving millstones and coal at Bawtry. P.R.O. E.134/28 Chas.II/M11.19.

2. Leeds MSS.(Box 36 unsorted).

## (XV) THE TRADE AND INDUSTRY OF GAINSBOROUGH

The other major inland port on the lower Trent was Gainsborough, which had developed more rapidly after the warping up of the Fossdyke and the decay of Lincoln in the later middle ages. By the sixteenth century, Gainsborough was a port of entry for London goods. During the seventeenth and eighteenth centuries it developed as an important transshipment port at which the products of the rising industries of the Midlands met incoming raw materials from the Baltic countries and other parts of the British Isles. Its situation at the junction of an agricultural and an industrial area meant that Gainsborough developed as a centre from which London wares and local produce were distributed within the region or were shipped to London or overseas.<sup>1</sup>

It is difficult to be precise as to the number of vessels belonging to the Trent port in the later seventeenth century. In 1682, when the inhabitants of Gainsborough - dissatisfied with the Customs and shipping facilities at Hull where all vessels had to be cleared - petitioned for a legal quay, it was affirmed that:-

'To Towne of Gainsborough belong about Thirty Saile of Shipping from Thirty to Eighty Tunn Burthen and doe constantly use the Coast trade from thence to London with Lead and Corne, and many times returne

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1. Beckwith, p.3. In 1604, the Lord of the manor of Gainsborough Sir William Hickman agreed with various citizens of London to provide convenient shops and standings for Londoners, to prepare places for the storage of wares and to arrange for the carriage of them from the waterside. It was not until 1840 that Gainsborough obtained recognition as a separate port authority.



with GroCery and for many yeares past have onely called att hull and there given in security and take Coquets for their goods.'<sup>1</sup>

The majority of these vessels were probably locally built and owned, parts of them being divided among several traders, wharfingers or shipwrights.<sup>2</sup>

In addition to lead and corn, timber and cheese were also exported from Gainsborough in sea going vessels. Apart from groceries and luxury goods from London, the commodities imported to Gainsborough came from several east coast ports, notably coal from Newcastle, Ely tiles from King's Lynn, and fuller's earth from Rochester.<sup>3</sup>

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1. Aswaby MSS. ASW 2/66/7.

2. Beckwith, p.7. In 1674, an inhabitant of West Butterwick on the opposite side of the river Trent was said to have  $\frac{1}{4}$  of a vessel called Advice valued at £28, and one-sixteenth 'of a vessel that William Barker is now master of' valued at £12. Robert Hoyser of Gainsborough had £118 invested in vessels when he died in 1678.

3. Willan (1938), p.127. In 1694, the Admiralty were requested by the Lord Mayor of London to grant protections for four Gainsborough vessels - the Sarah, Victory, Virgin and Resolution 'which have already brought a considerable quantity of corn to the city, and are ready to return to fetch more.' 9 January 1694 Sir John Trenchard to the Lords of the Admiralty requiring protections (on the application of the Lord Mayor).

In 1640, the millers and fullers of Nottinghamshire were allowed to import forty chaldrons of wet fuller's earth from Rochester and Gainsborough. Fuller's earth was an important item in the cargoes of ships going up-river to Gainsborough at the beginning of the eighteenth century. Beckwith, p.7.

By the late seventeenth century, secondary industries had also begun to develop at Gainsborough, particularly the crushing of rapeseed and linseed, using indigenous, not imported seed. William Goodyear had a mill for crushing rapeseed in 1657, when he was required to repair the roadway leading to it.<sup>1</sup> The parish registers also include the names of at least one soap-boiler.<sup>2</sup> Gainsborough was also a noted market for hops, although whether these were brought by land carriage from the hop-growing area of Nottinghamshire or were imported in coasting vessels is not easily determined. In the seventeenth century, large quantities of barley were grown in the county of Nottingham, which had malt and ale-brewing industries of extra-regional importance. This, and the distance to the nearest hop fair - Stourbridge in Cambridgeshire - may have encouraged an attempt to provide local supplies.<sup>3</sup>

#### (xvi) THE PORTS OF THE UPPER TRENT

The Trent was navigable for smaller vessels above Gainsborough,

1. H.W.Brace, A History of Seed Crushing in Great Britain (1960), p.109.
2. J.Gurnhill, A Monograph on Gainsborough Parish Registers (1890), p.51.

John Gilby of Gainsborough, soap-boiler died 1664.

3. In the eighteenth century, the hop-growing area of Nottinghamshire stretched from Retford to Southwell, a total of almost 1,000 acres being cultivated. D.C.D. Pocock, 'Some Former Hop-growing Centres', Ag.Hist.Rev. XIII (1965), 20. In October 1701, W--- Nicols of Retford advised the steward of Temple Newsam:- 'as to the price of Hopps you may have from 40s to 47s per Hundred if you will have the very best . . . I know the London market as well as the Gainsborough and you cannot buy them cheaper in either place.' Temple Newsam MSS. TN. Corr. 9/129.



and 'flashes' of water were used to float boats over the shallows. Goods imported to Gainsborough were transhipped into smaller vessels for Lincoln, Newark, Nottingham and Wilne Ferry which then returned with goods for export or for distribution to other inland ports within the Humber-Ouse-Trent waterway system.

Newark benefited from its position on the Great North Road, and from the navigation of the Trent, over which it was the lowest bridging point:-

'a very handsome town, well situated, and of great trade.'<sup>1</sup>

Apart from a weekly market, there were four fairs annually noted for agricultural products:-

'corn in plenty in the district and running Trade with the surrounding districts.'<sup>2</sup>

By the late seventeenth century, Nottingham and its environs had developed extensive trading connections and a variety of industries. A witness in a lawsuit between the lord of the manor of Gainsborough and a London merchant described the river trade between the lower Trent port and Nottingham in the middle decades of the century, the deponent having been employed:-

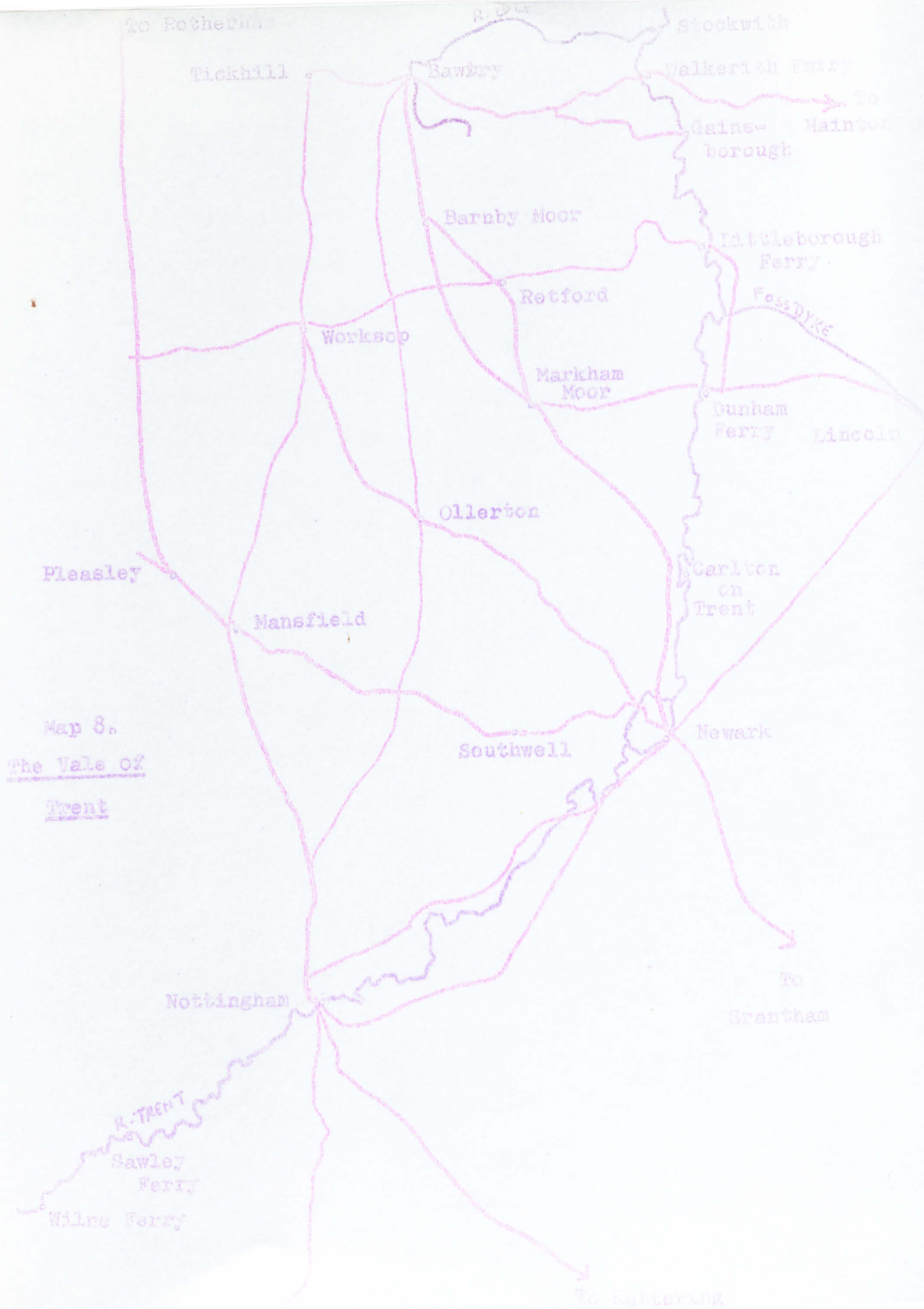
'... to carry up to Nottingham in small Boats firrs deals wine grosseries Pitch tarr flax iron salt fish cally sande and severall other sorts of goods, some whereof have been purchesed out of Vessels brought up the said River to Gainsburgh and others thereof

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1. De la Pryme, p.44.

2. Franck's Description of Nottinghamshire in the Seventeenth Century Transactions of Thoroton Society , XI (1907),p.122.





Map 8.  
The Vale of  
Trent



have been unloaded out of such Vessels into lesser boats and . . . was also employed in bringing back from Nottingham to Gainsburgh Cheese Lead Nailes and severall other sorts of goods.<sup>1</sup>

After the Civil War, industrial expansion was resumed in the Trent valley. The demand for coal increased steadily, the Trent valley now being served from pits in Strelley and Bilborough, which were soon to come into the hands of a new dynasty of coal-owners - sprung from the yeomanry - who were later to occupy a leading position in the Nottingham coalfield as the Barber, Walker Company.<sup>2</sup> The chief method of transporting Nottinghamshire and Derbyshire coal was down the river, one tentative estimate of the market in the Trent valley suggesting a rise from some 50,000 tons a year in 1600, to over 100,000 tons a year at the end of the seventeenth century.<sup>3</sup> Most of the river borne coal was consumed in the towns and villages of the Vale of Belvoir and of the Trent valley, although some coal probably reached Lincoln by way of the Fossdyke.<sup>4</sup> The coalfields of the Midlands were unable to compete with those of the North-East in the London market, although, by the end of the seventeenth century, sea borne coal from Newcastle and Sunderland was feeling the effects of competition in the river markets of the Humber-Ouse-Trent region.

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1. Beckwith, p.7.

2. Edwards, p.237. The old coal wharf for Nottingham was situated at the junction of Broxtowe lane and Strelley road. At one time a narrow pack-horse road paved with slabs of local stone led from Trent Bridge, Nottingham across Lammas fields to Aspley, Strelley, Cossall and on into Derbyshire.

3. Wood, p. 12.

4. Chambers, p.10.

Coal was one of the most important items sent down the Trent to Gainsborough, the cost of carriage from Nottingham amounting to 3s per ton.<sup>1</sup> Trent valley coal was also carried by land to Leicester and Northampton, barley being brought back in exchange.<sup>2</sup>

By the late seventeenth century, Nottingham was renowned for good ale, and increasing quantities of malt were being sent by land carriage to other parts of Nottinghamshire and to neighbouring counties. By the 1690's Nottingham ale was on sale widely in London.<sup>3</sup> The industry developing most rapidly in Nottingham and its environs was undoubtedly that of stocking frame knitting. Celia Fiennes recorded that:-

'the manufacture of the town mostly consists in the weaving of Stockings, which is a very ingenious art.'<sup>4</sup>

Cheap labour was almost certainly one of the attractions which drew capital from London and helped to establish framework knitting in the Midlands at this time, taking root most firmly in the villages to the west of Nottingham.<sup>5</sup> Other industries included brick-making at Mapperley, while glass - and crucibles for glassmakers - were made from Derbyshire clay. Not all local industries were flourishing: by 1670, the latten and brass works in Nottingham had almost ceased to exist;<sup>6</sup> while the late seventeenth century saw a sensible

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1. Beckwith, p.7.

2. Chambers, p.10.

3. Plumb, p.6

4. Celia Fiennes, p.73.

5. Chambers, p.4.

6. H.Hamilton, The English Brass and Copper Industries to 1800 (1926), p.62.



decline in the numbers of leather craftsmen working in the town.<sup>1</sup>

In the late seventeenth century the river Trent was navigable above Nottingham to Wilne Ferry, in the parish of Shardlow. The head of navigation handled pottery from the growing Staffordshire industry, iron from Staffordshire and Shropshire, and cheese from Cheshire. Having been brought to Wilne Ferry by land carriage, goods were shipped down the Trent to Gainsborough, whence they were transhipped for Hull and London.<sup>2</sup> In return, London groceries, plaster, and flint stone from Gravesend for the manufacture of earthenware, were imported.<sup>3</sup> During the reign of Charles II, the wharf at Wilne Ferry came into the possession of Leonard Fosbrooke, a carrier on the river Trent who subsequently built Shardlow Hall. Wharfage toll was paid to the lord of the manor, the Coke family of Melbourne near Derby.<sup>4</sup>

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1. Clarkson, op.cit., p. 35. Tanning was a considerable industry at Nottingham in the seventeenth century. There were 47 tanners by the river Leen in 1667, but only 21 in 1707.

2. By the end of the seventeenth century there existed a well developed trade in cheese, and some of the larger markets were becoming specialised in its sale, as at Uttoxeter which received cheese from the West Midland counties, whence large quantities were sent to the Trent for shipment. At the same time a group of large buyers had come into existence - known as the London Cheesemongers - who installed warehouses in various parts of the country. V.Cheke, The Story of Cheese-Making in Britain (1959), p.160.

3. Wood, p. 12.

4. Derbyshire Life and Countryside, May 1966, p.63. The Fosbrooke family came from Northamptonshire, but remotely from Staffordshire. Leonard Fosbrooke built Shardlow Hall in 1684. D.P.L. Tilley Collection

## (xvii) ATTEMPTS TO IMPROVE THE UPPER TRENT AND DERBYSHIRE DERWENT

Between the Restoration and the Revolution, attempts to improve the navigation of the upper Trent and the Derbyshire Derwent were pursued more consistently and with more vigour than for any other waterway within the Humber-Ouse-Trent region. The schemes promoted in Parliament were opposed, and rendered abortive by landed and commercial interests, who assumed that any improvement would be accompanied by widespread flooding, or would disrupt prevailing patterns of trade.

Built where the highland meets the lowland, and sited on the route from Chester to Nottingham, Derby had an easy road into the Peak through the gap made by the river Derwent, and a good road over the lowland to the south. In the middle ages, boats had passed from the Trent up the Derwent to Derby, but by the late sixteenth century the town had lost its character as a manufacturing centre, and its distant trade had declined. The sale of wool and cloth out of the area had fallen, and the lead trade of the town was lost to Chesterfield.<sup>1</sup> During the earlier decades of the seventeenth century the chief manufactures of Derby and its environs were knitted stockings, rabbit skin gloves and caps; while from Tickenhall it was recorded that:-

'pots and panchions were carried all East England through.'<sup>2</sup>

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1. Supra, p.127

2. Blome, p.75.



After the Restoration, Derby again began to develop broader trading connections, based largely upon the increasing production of coal and malt, and by the renewed export of lead via Wine Ferry. By the end of the seventeenth century, comparatively large coal mines were being worked at Denby, Smalley and Heanor. These pits served the town of Derby, and some of their output found its way into Leicestershire and Northamptonshire where it was traded for agricultural products.<sup>1</sup> Derby malt and also achieved a reputation for high quality in this period, and was carried in considerable quantities by land carriage into Lancashire, Cheshire and Staffordshire.<sup>2</sup> Apparently the maltsters of Derby had discarded the old method of making malt by means of straw stubble in preference for coke and coal about the middle of the seventeenth century.<sup>3</sup> How far this change in manufacturing technique was responsible for transport improvement schemes is a matter of conjecture, but it is clear that the local beer had a high reputation for sweetness and that there was a growing demand for Derby malt, which might be met more easily and more cheaply if regular water carriage was effected to and from the town.

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1. Edwards, p.237.

2. P.R.O. S.P. 29/374/244. In December 1700, Charles Davenant wrote to Thomas Coke:- 'Pray give my particular respects to every hogshod of Darbyshire Ale in your cellar, for 'tis a liquor that even excels what we drink at the Goat.' Hist.MSS.Comm., Cowmer II, 441.

3. Walton, p.16.

A few small vessels appear to have navigated on the river Derwent in the years after the Restoration, although probably not along the whole six mile stretch between Derby and the river Trent.<sup>1</sup> The improvement of the Derwent up to Derby seemed to present few technical difficulties and to offer important commercial benefits:- 'the trade of this Town and County might be much advanced if the River Derwent was made navigable; which might easily be done, it wanting but six miles of the River Trent, which would convey lead, marble, stone and such like ponderous commodities; and is something of note for its excellent Ale, called Derbyshire Ale . . .'<sup>2</sup>

The latter decades of the seventeenth century witnessed a spate of pamphlets on the advantages of improving the nation's waterways. For example, Francis Mathew - probably the most important pamphleteer on river improvement in the period - set out proposals for the systematic joining of rivers, seeking to facilitate inland commerce between the northern and eastern parts of the country. Mathew sought to promote a water link between Great Yarmouth and York, by means of which pit coal could be brought from Derbyshire and Nottinghamshire to a coal magazine at Boston. In 1662, a Bill was introduced into Parliament which included provision for the passage between Great Yarmouth and York, but it never became law.<sup>3</sup>

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1. P.R.O. E 134/22 Chas.II/Easter 29. In a lawsuit of 1671, one deponent testified that :- 'never knew any Boat shed till about seven or eight years since at any of the yard ends, but now . . . Harriman (one of the Derby traders) ties a boat at his yard end which he had done for four years . . .'

2. Blome, p.77.

3. Willan (1936), p.8.



Unfortunately, the corporate records of the borough of Derby were destroyed in the early eighteenth century, so that it is difficult to give exact details of the promoters of the Derwent Bills of 1664, 1675 and 1676. Opponents of the scheme to improve the river below Derby ascribed it to:-

'a few Gentlemen in the Western Parts of Derbyshire that got Load, and Haultsters in Derby (who design a Monopoly) do labour in the name of the Mayor and Burgesses of Derby to get an Act for the Derwent Navigation.'<sup>1</sup>

In December 1664, a Bill was introduced into the House of Commons which would have enabled the improvement of the six mile stretch of the river Derwent between Derby and the Trent to be effected. This Bill, 'for making the River Darwyn, and other Rivers, in the Countys of Derby, Nottingham, Warwick, Stafford and Leicester navigable', was in its committee stage when Parliament was prorogued, and so was 'counted out'.<sup>2</sup>

When a new Bill was promoted in 1675, the traders of Derby circulated printed Reasons in favour of the proposed navigation.<sup>3</sup> The general advantages of river improvement preceded the more detailed case for the Derwent scheme which M.P.'s were urged to consider. It was argued that:-

'Bills for making Rivers Navigable have been always very much favoured by Parliaments, as conducing much to the ease of the people, the

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1. P.R.O. S.P. 29/374/244.

2. H. of C. Journals, VIII, 574, 575, 580.

3. P.R.O. S.P. 29/374/243. Reasons Humbly offered to the consideration of the Parliament for the making Navigable the River Derwent . . .

quickenings of Commerce, the preserving of Roads, that otherwise would be greatly spoiled by Bulky Commodities, and the lessening the price of Commodities . . . Navigable Rivers are not appropriated to the places adjacent only, but other Countries daily reap the benefit by them . . . more persons must necessarily be employed than before, by the addition of Carriage . . . High-ways will be hereby greatly preserved for the future and the vast charge the Country is now daily put unto in reparations in great measure prevented.'

The promoters were naturally anxious to stress the disadvantages under which they laboured, and to point out the benefits likely to accrue to the trading community of Derby if the Derwent scheme was carried out. Thus it was maintained that Derby was naturally situated for trade:-

'but all their Commodities being forced to be carried by Land, is the cause why no more Goods are brought unto the Town, nor carried out of the Country.'

The advantages enjoyed by other areas dealing in the same kind of commodities as Derby - but served by cheaper means of transport - provided weighty arguments for the Derwent promoters, although it seems to have been assumed that the improvement of the river would enable them to secure a larger share of existing markets, rather than lead to a general expansion of trade. Members of Parliament were urged to consider that if the Bill was passed it would result in an increasing quantity of goods being exported from the county and town of Derby:-

'the Commodities this Country affords, require this River to be made



Navigable for their conveyance, they being of great weight and Use, as Lead, Iron, Coles, and Stone, by reason of the weightiness whereof, and the dearness of the carriage, other Countries can afford (supply) them cheaper than this place; and therefore it is, that there is no more at present exported out of the County: But if this River were Navigable, their utterance would be far greater.'

To allay the apprehension of the riparian proprietors, the promoters emphasised the moderate nature of their proposals:-

'this River needs not to be opened and cleansed above six miles in length, so that very few mens Lands will be prejudiced, and the owners of such Lands are all, or most of them consenting, knowing that they shall receive a just and full satisfaction, and great advantage will accrue thereby to the Publick . . . That Commissioners may be appointed to decide all differences between the Town and Landowners for what shall be given them in satisfaction for such Land &c., as shall be taken from them for the use of the said Navigation . . . And if they cannot agree, then a Jury may be impannelled to ascertain the Value; but no Commissioner or Juryman, to act in any case wherein they themselves are concerned.'<sup>1</sup>

Members of the town corporation of Derby and local traders seem to have canvassed support for the Derwent scheme from other towns within the Humber-Ouse-Trent region. Writing on behalf of the corporation of Derby, Thomas Gory the common clerk informed the Hull

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1. P.R.O. S.P. 29/374/243. The promoters may have contemplated the improvement of the river above Derby, the scope of the Bill being:-  
'to make a Navigable Passage . . . from the Trent unto Derby, and as far further as the Magistrates of that Town shall think convenient.

Bench that a petition was to be presented in Parliament for a Bill to make the Derwent navigable, and requesting them to write to the Hull M.P.'s to espouse the scheme. The corporation of Hull were given assurances that the Derwent navigation would prove beneficial to the Humber port and to:-

'all this part of the kingdom.'<sup>1</sup>

On 4 November 1675, one of Hull's M.P.'s informed his constituents that the improvement of the Derwent was unlikely to prejudice their trade, although it might prove detrimental to the inland port of Bawtry, by diverting the trade inland to the south. The Hull Bench were cautioned that the Derwent scheme might originate from those trading and shipping interests which were currently challenging the corporation's practice of collecting duties on the export of lead:-

'I only offer this caution to you, whether this design may not be by the same men undertaken, that indoeavoured your prejudice by law, you are better able to Judge what may lye under this than I . . .'<sup>2</sup>

This suspicion was unfounded.<sup>3</sup>

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1. Hull Letters. L.857. Letter dated 13 October 1675. Thomas Uery was the owner of a boat shed on the river Derwent, and may have had a personal interest in improving the waterway. P.R.O. E 134/22 Chas. II/Easter 29.

2. Hull Letters. L.860. Anthony Gilby to the mayor and aldermen of Hull.

3. The Woolhouse dues were challenged mainly by interests dependent on the Bawtry-Stockwith-Hull-London axis. The Derwent scheme was promoted by those concerned with the Derby-Gainsborough-Hull-London axis. Supra, pp. 74-85.



On 6 November, the Derwent Bill was read in the House of Commons for the first time.<sup>1</sup> Two days later the Bill was committed to thirty M.P.'s, together with those for the counties of Derby, Lincoln, York, Nottingham and Leicester, and all the members for the outports.<sup>2</sup> When the Hull M.P.'s sent a breviate of the Bill to their constituents, it was accompanied by an account of the arguments against the Derwent scheme and a further warning:-

'I do remember I have heard the Lead Merchants in Derbyshire (how true I know not) have been about getting a liberty to enter their lead at Stockwith, and from thence to be exported, but this I leave to your further inquiry.'

This inability to distinguish between the various interests in Derbyshire and the main lines of commerce becomes more apparent, for, having suggested that the Derwent scheme might benefit lead merchants shipping at Stockwith, the corporation of Hull were informed that:-

'I do yet find more cause to believe it will be the ruin of Bawtry.'<sup>2</sup>

The determined efforts to promote the Derwent navigation seemed to threaten the existing patterns of trade in the vale of Trent where a vigorous opposition was organised. Printed Reasons were circulated against the Derwent scheme, designed to counter the case of the promoters. The arguments of the Bill's opponents - like those of its promoters - were based largely on the assumption that the

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1. H. of C. Journals, IX, 368.

2. Ibid, 369.

3. Hull Letters, L.851. Gilby was willing to accept the advice of the mayor and aldermen of Hull on the position he should take up concerning the Derwent Bill 'shall do therein as you shall direct me.'

volume of trade could not be readily expanded. Whereas the promoters anticipated that the Derwent navigation would place them in a stronger competitive position in the disposal of their products in local markets, opponents of the scheme were convinced that any increase in the sale of products from the Derby traders must necessarily be at the expence of other commercial communities. The mercantilist assumptions that the incidence of demand and supply was relatively inelastic may also be discerned in the principal arguments of the Bill's opponents, which were directed against the most rapidly expanding industry and trade of Derby:-

'advantages to the ingrossing Haultsters of Derby this Navigation may be, not due increase of Trade in general; but a nuisance rather to the Markets of Loughborow, Leicester and Nottingham; for the Navigators will go down the River Derwent into Trent towards Nottingham, and there take in Corn at the Waterside, and carry it up to Derby, which otherwise would be sold in those Markets . . .'<sup>1</sup>

Fears were expressed that the cheaper and easier access which the proposed waterway would provide would also enable Derby traders to 'rig' the price of corn in the town's market for their own profit and to the detriment of the surrounding landowners and farmers.<sup>2</sup> The opponents included in their Reasons a description of the prevailing pattern of agriculture and trade, asserting that:-

'the Country many miles round Derby, doth subsist much of Tillage, and most of that Corn is vendcd at Derby, and thence Lancashire,

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1. P.R.O. S.P. 29/374/244.

2. Wood, p. 17.



Cheshire and Staffordshire are supplied with Mault, and all kinds of Grain which they have need of, and yet sufficient, and at reasonable Prices remains for the Inhabitants.'

Opponents of the Derwent scheme argued that the proposed improvements would prove detrimental to the inhabitants of south-east Derbyshire:-

'In spoiling Fords upon the River Derwent over which the People pass to fetch their Coals . . . Private Gentlemen, who have Mills upon, and land by the Derwent, will be much damnified by this Navigation.' The promoters' arguments that the navigation would provide additional employment and would help to preserve the roads were also dehorted by the Bill's opponents:-

' . . . the pretence of employing men upon the River is frivolous; for there are more by many degrees set on work by the present Land-carriage of Lead and Corn, than can hereafter find employment on the Water upon any occasion whatsoever . . . as for the Highways, it is but six or seven Miles that can be preserved, and not one person that is subject to those repairs affects this Navigation.'

Vigorous opposition to the development of the upper Trent and its tributaries came from Nottingham, where the Corporation were determined that no improvements should take place above the Trent Bridges without their approval. Partly this opposition was motivated by financial considerations, but mainly by the assumption that if the traders of Derby benefited, neighbouring towns would be adversely affected:-

' . . . Nottingham pays yearly unto His Majesty Three-score and Three

Pounds for the Toll of that Market, and maintains a Bridge over the River Trent, at the yearly expence of Two Hundred Pcunds, which cannot be done if the benefit of the Market be lost, as inevitably it must be by this Navigation . . .<sup>1</sup>

The Derwent scheme may have been tied up with proposals to improve the upper Trent itself. On 1 November 1675, the town corporation of Nottingham instructed three of its aldermen:-

'to wait upon Lord Marquess of Dorchester to desire his Letters to prevent the making the River Trent Navigable.'

At the same meeting the sum of £10 was voted to retain counsel against the navigation schemes.<sup>2</sup>

Opposition to the Derwent Bill delayed its passage through the committee stage of the House of Commons, and it was 'counted out' by the prorogation of Parliament. A new Bill was introduced in the following session, but failed to pass.<sup>3</sup> More than twenty years later when the Derwent scheme was once again promoted, Archibell Grey, an active Parliamentarian who frequently sat on committees of the House of Commons recalled that:-

'The Bill for the navigation of the River Derwent from Trent to Derby passed through my hands many years since so far as twice reading to commitment, and summons to the country to be heard, but was extinguished by prorogation I find the same great objection against it to be still what it was, viz, that the prices of corn in that market

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1. P.R.O. S.P. 29/374/244.

2. Nottingham Records, V, 319.

3. H. of C. Journals, IX, 391, 393.



will depend wholly upon the Derby traders, who may by it be enabled to raise and fall it as they please to the great detriment of the country. I confess I could not then well balance that objection with any great convenience to the country in other matters of trade, being but national and unexperimented things.<sup>1</sup>

The failure of the Derby traders to secure statutory authority for the Derwent in 1664, 1675 and 1676 marked only the first stages in a struggle which was to endure for another half century. Promoters and opponents had each taken a definite stand and the arguments employed for and against the scheme altered surprisingly little over the following decades. The conflicting views taken over the improvement of the Derwent provide an insight into the difficulties which had to be surmounted in an age when it was assumed that one community could only prosper on the ruin of its neighbours.

(xviii) LINCOLN AND THE FOSSDYKE

The Trent was the major channel of exchange between the west with its predominance of extractive industries - lead, coal, iron, mill-stones, lime and building material - and the predominantly farming

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1. Hist.MSS.Comm., Cowper II, 383. 17 January 1699. Anchitell Grey to Thomas Coke. Grey was elected M.P. for Derby in 1665 and sat for the borough in every Parliament - except that of James II - until 1695. He was a member of the so called 'country party' whose interest was predominant in Derby. He was Deputy Lieutenant for Derbyshire in 1690, and for Nottinghamshire in 1692. Grey's reports were published in 1769 as Debates of the House of Commons from 1667 to 1694. D.N.B.

region of the east and south. If the river was an important commercial artery, it was also for much of its length a physical barrier between the agricultural, mining and manufacturing counties of Derby, Nottingham and York on the ~~right~~<sup>left</sup> bank, and the farming county of Lincolnshire. Below Newark, the lowest bridging point, only the ferries at Gainsborough, Dunham, Littleborough and Stockwith provided crossings over the river, and no main roads led to them.<sup>1</sup>

The quickening pace of economic change in the coal, iron, lead and textile industries in the counties west of the Trent stands out in contrast to the impoverished condition of Lincolnshire, which seems to have prevailed in the later seventeenth century and was marked by complaints about the glut of agricultural products and the low level of prices.<sup>2</sup> Visitors to the city of Lincoln who were aware of its former importance could scarcely have been impressed by so many visible signs of decay. In the 1650's Evelyn found Lincoln: 'an old confus'd towne, very long, uneven, steepo and ragged.'<sup>3</sup>

Even at the time of Lincoln's greatest prosperity - the thirteenth century - trade by water into the Trent valley and to the east coast was often hampered by obstructions in the artificial Fossdyke and the silting of the river Witham. The inadequacies of water links between the Trent and Boston meant that the economic axis for the

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1. Chambers, p. 62.

2. Hill (1956), p.198. The Lincolnshire gentry were heavily incumbered, many owing money in London. Low farming prices made recovery more difficult.

3. The Diary of John Evelyn, ed. E.S. de Beer (Oxford, 1955), III, 131.



mining and manufacturing districts of the upper Trent valley tended to be towards the Humber rather than the Wash. The Fossdyke had been Crown property until the early seventeenth century, when James I - finding it nothing but an expense - presented it to the Common Council of Lincoln.<sup>1</sup> By 1662, the Fossdyke was in such a neglected condition as to be almost impassable, and the city which it served in a state of decay.<sup>2</sup>

It was possibly on the advice of Samuel Fortrey that the Common Council embarked on a scheme to improve the city's waterways, which were threatened still further by several land drainage projects in the years after the Restoration.<sup>3</sup> The preamble of the Act which Sir John Monson and Sir Thomas Meres, the two M.P.'s for Lincoln, successfully steered through Parliament in 1671, set out that the channels of the Fossdyke and the Witham had silted up and were not passable for boats and lighters, which had contributed to the decline in the trade of Lincoln and other towns. By the terms of the Act, the Common Council were to have the first opportunity to become undertakers, and were empowered - in consideration of certain tolls and duties which they were allowed to collect - to make navigable the

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1. H.R. Lambert and H.S. Sprague, Lincoln (Oxford, 1933), p.220.

2. C. Brears, Lincolnshire in the Seventeenth and Eighteenth Centuries (1940), p.103.

3. Hill (1956), p.206. Fortrey, with whom the Common Council later went into partnership, was the son of a London merchant and author of England's Interest and Improvement, consisting in the Increase of the Store and Trade of this Kingdom, 1663.

old channels of the Witham and the Fossdyke:-

'so as they should within two years undertake the same.'<sup>1</sup>

By deed poll of 4 October 1671, the Common Council declared themselves undertakers of the whole length of the Fossdyke, and of the stretch of the river Witham between the High Bridge in Lincoln and the Fossdyke.<sup>2</sup>

From the start, the attempt to improve Lincoln's waterways was hampered by a serious shortage of capital, possibly due to the low level of farming prices in the 1670's.<sup>3</sup> To raise the requisite fees to obtain the authorisation Act, it had been agreed that money should be borrowed from Christ's Hospital, and that the city rents should be collected half-yearly. By early 1672, the undertaking was proving a heavy financial burden for the city. On 24 April, the Common Council entered into an agreement with Samuel Fortrey, to whom they assigned one third of the undertaking. The contract stipulated that after the Common Council had spent £500 on the improvement of the Fossdyke, one third of the subsequent outlay was to be borne by Fortrey who would then receive one third of the profits.<sup>4</sup> The city seem to

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1. Hill (1956), p.207.

2. L.A.O. BS/12/3/1/3/156.

3. Hill (1956), p.198. In 1672, Dymock Walpole a Louth attorney complained that:- 'all our country concerns, as cattle, wool and the like fall so low that we have no other coin.' Three years later, he referred to:- 'our country disease, which is an abundance of wool and stock that will not sell. '

4. Skepton, p.40. Samuel Fortrey (1622-81) held a minor appointment at the Court of Charles II. In 1675, he was appointed to carry out the Wiltshire Avon navigation from Christchurch to Salisbury.



have had some difficulty in raising their share of the requisite capital. In June 1672, the mayor of Lincoln made an appeal for financial help to the town corporation of Hull:-

'the citizens of this city have begun to have made a good progresse in digging the river . . . Foss between Lincoln and the Trent and do hope, with the help of some good friends, in a short time to finish the same work. But it is at present so . . . burdensome upon us that without some good assistance we shall have very much ado to bring it to perfection and therefore are necessitated to look out for help from . . . noble benefactors, amongst whom we can but hope and expect you to be one of our best, considering that this cutt will, in all probability, prove very advantageous to your merchants and tradesmen in order to a greater and more constant traffic and dealing with them, which being taken into your and their serious consideration will - we hope - produce a liberal contribution to so large an undertaking.'<sup>1</sup>

There is no record of the Hull Bench making a contribution. By October 1672, about £300 had been spent on improving the Fossdyke, and the Commissioners appointed under the 1671 Act certified that tolls might be collected.<sup>2</sup>

Although improvements could scarcely be regarded as satisfactory, they were effective enough to produce complaints about flooding,

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1. Hull Letters, L.826. 6 June 1672. Thomas Townwin to the mayor and aldermen of Hull.

2. Hill (1956), p.208. At least one modern authority on the early engineers asserts that Fortrey completed his work on the Fossdyke. Skempton, p.40.

while tolls were continually collected by the city after 1672. In the early 1670's travellers were not greatly impressed by the condition of the Fossdyke:-

'Lincoln has always been a trading town, by means of the canal, which joins the river of Whitham to that of the Trent, one of the principal branches of the Humber, whereon the largest vessels may come with the tide, from whence the barks bring their lading to Lincoln by the canal . . . I do not say that they do not use this conveniency at present; it is however but seldom, and with little success. . .'<sup>1</sup>

Small vessels - most of them no more than five tons burthen - used the Fossdyke in the later seventeenth century, but the prices of bulky commodities sold in the city of Lincoln remained high. At times coal was sold at rates of 25s or 30s a chaldron, and at many times of the year was hardly procurable at any price.<sup>2</sup> The limited development of the Fossdyke did little to restore the former prosperity of Lincoln. One diarist observed in 1690 the depressed condition of the city:-

'several statoly houses and churches are let fall to the ground piece by piece, and this which has been such a famous citty heretofore, there is scarce anything worth seeing in it but the High Street, it being indeed a most statoly and excellent structure and in the chief ornazment of the town.'<sup>3</sup>

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1. Grose, op.cit., pp.616-17.

2. T. Allen, History of Lincolnshire (1833), I, 72.

3. De la Pryne, p.19.



As a result of the decay of the river Witham - which was scarcely navigable below Lincoln in certain seasons - the hinterland of the old port of Boston was less accessible by water than it had been in the hey-day of the port in the fourteenth and fifteenth centuries. By the seventeenth century the trade of Boston - which had once been second in importance to that of London - was much smaller than that of Hull. In the reign of Charles II there were only three legal quays at the Lincolnshire port, one less than in the mid sixteenth century.<sup>1</sup> In 1672, the collector of Customs at Boston admitted that:- 'the trade of this place is small.'<sup>2</sup>

If the coasting trade is any guide, it would seem that the port of Boston scarcely tapped the growing mining and manufacturing districts west of the river Trent in the late seventeenth century. Thus in 1685-6, Boston exported by the coasting trade 275 packs, 34 packets and 41 bags of wool; 875 firkins of butter; 31½ foddors of Derbyshire lead; and small quantities of oats, malt, cordage, hempseed, tallow, hides and paper, as well as several bags of feathers and quills. The bulk of Boston's outward trade was divided between London and King's Lynn. In the same period, Boston's imports by the coasting trade consisted of coal, glass, salt, tobacco, pipe-clay, fuller's earth, wine, malt, rye, cheese, wool, rapeseed,

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1. P. Thompson, History and Antiquities of Boston (1820), p. 48.

2. P.R.O. S.P. 29/305/72.

coloured, haberdashery and furniture.<sup>1</sup> The overseas trade of the port was also small.<sup>2</sup>

By the later seventeenth century, shipbuilding was probably less important at Boston than in former times. For example, in 1666, when the Admiralty were looking for skilled shipwrights, it was reported that not one ship had been built at Boston for twenty years, and that there was only one 'artist' at the port, who had had no employment for ten years. Although it would have been possible to procure the services of several boatwrights, these men were regarded as:- 'altogether unfit for works on the King's ships.'<sup>3</sup>

In their efforts to improve port facilities, the authorities at Boston faced similar problems of administration and finance which were experienced by many ports of the country. In 1660 there were no trusts, commissions or joint-stock companies to finance and administer port facilities. Finance and administration lay in the hands of a variety of bodies, including city and borough corporations, manorial lords, commissions of sewers and pier wardens, but they

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1. Willan (1938), pp. 62, 72, 88, 89, 99, 101, 103. In 1683, Boston imported 708 chaldrons of coal from Newcastle, together with 42 firkins of glass and 436 wags of salt.
  2. P.R.O. S.P. 29/306/13. In April 1672, it was reported from Boston that:- '... Happy Entrance ... one of our best ships is arrived safe at Bordeaux.'
  3. P.R.O. S.P. 29/145/59. Few vessels had been built in England in the fifth and sixth decades of the seventeenth century, but the 1660's saw a sharp recovery in English shipbuilding. Davis (1962), p.14.



often lacked the power and the financial resources to engage in improvement. Attempts at improvement usually centred upon the acquisition of statutory authority for the imposition of new or additional duties on vessels using the port and the goods which they carried. A factor which the promoters of port improvement Bills had to take into careful consideration was the administration of their established revenues, since Parliamentary committees undertook 'a strict inquisition, as is upon all bills of the like nature, what revenues you have which they might presume were appropriate and sufficient to the maintenance of your port.'<sup>1</sup>

In 1670, the corporation of Boston promoted a Bill to augment their revenues for the maintenance of the port - which amounted to about £200 a year - by the imposition of a toll of 6d per chaldron on all coal imported, and 2d per ton on other goods.<sup>2</sup> The progress of the Bill was carefully followed by the M.P.'s for the port of Hull, who reported regularly to their constituents on Parliamentary affairs. They advised the Hull Bench to give support to the Boston Bill, in case they wanted to promote a similar measure at some later date:-

'the easier that it passes the better example it wilbe for you.'<sup>3</sup> The Boston Bill was read for the first time on 22 November 1670, but during the following weeks opposition to the proposed measure increased.<sup>4</sup> When the Bill was committed on the following day, the

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1. Marvell, p.113.

2. Ibid, p.114.

3. Hull Letters. L.1194.

4. H. of C. Journals, IX, 168.

members were instructed:-

'to consider of the Debates of the House, in order to the making Inquiry whether there be any Maintenance already allotted to the Pier, and to provide, that such as are employed in collecting of the Toll, may give Security to be accountable . . .'<sup>1</sup>

On 2 December, the House instructed that the committee should be opened, almost certainly an indication that the Bill was being hotly contested.<sup>2</sup> A number of M.P.'s considered the timing of the Boston Bill inopportune, when trade was already burdened by impositions, while the Common Council of Lincoln had refused to support the scheme.

On 6 December, one of the M.P.'s for Hull advised his constituents:-  
'this day I spoke with the Gentlemen that serve for . . . Lincoln and they tell me they have opposed the Boston Bill and that they believe it will be laid by at least till after Christmas . . . Lincoln expects some share of the benefit, because of the prejudice it will be to them.'<sup>3</sup>

On 4 February 1671, Andrew Marvell informed the Hull Bench:-

'the Boston Bill, upon disagreement of the neighbours is in a manner extinct.'<sup>4</sup>

There seems to have been no further attempt to secure statutory authority for the port of Boston in the later seventeenth century.

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1. H. of C. Journals, IX, 168.

2. Supra, p. 32.

3. Hull Letters. L.1198.

4. Marvell, p.127.



(xx)THE TEES PORTS AND THEIR YORKSHIRE HINTERLAND — YARM AND STOCKTON

Whereas the decay of the navigation of the river Witham limited the extent to which Boston was able to tap the Trent valley, the inadequacy, or absence of water carriage above Boroughbridge were undoubtedly factors which encouraged the agricultural and mining communities of the North Riding to look to ports on the river Tees rather than to York or Hull. For example, the lead mining industry of Swaledale and Arkengarthdale - which found its principal market at Richmond - found its outlet through Yarm and Stockton, although geographically it constituted part of the Humber-Ouse waterway system. The difficulties of navigation above York, and the high cost of land carriage from Boroughbridge to Richmond meant that the axis of trade for the north Yorkshire dales was towards the north-east.

In the middle ages, Swaledale lead was carried by pack horse to the two marketing centres of Richmond and Barnard Castle, whence it was carried to Yarm on the Tees.<sup>1</sup> In the seventeenth century, Yarm was still the lowest bridging point over the Tees with important road connections. Vessels of sixty tons burthen could reach and leave Yarm with the assistance of the tides, of which about four were necessary from the sea to the port. The principal exports from Yarm were lead, corn, butter, wool, hides and salt from the North Riding and county Durham. Considerable quantities of wine were imported. After 1674, there were four annual fairs held at Yarm,

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1. E. Cooper, Muker: The Story of a Yorkshire Parish (1948), p.69.

the most important of which was in October.<sup>1</sup>

After the Restoration, Yarm started to decline as the main Tees port and was gradually overshadowed by Stockton, partly due to the increasing size of many trading vessels. In 1660, Stockton consisted almost entirely of timber-framed houses, its inhabitants being mainly concerned with farming, fishing, the manufacture of sail-cloth and rope, and a small trade by land and water.<sup>2</sup> Progress in the following decades was rapid. In 1672, Stockton was described as:- 'a very intelligible port, and one with more trade than any between Hull and Newcastle. It had a great trade with Holland for butter and lead, and now will have one with Denmark.'<sup>3</sup>

A contemporary topographer observed that Stockton was:-

'a place of a great trade for vending and exporting of corn and butter to London and other parts . . . is well inhabited and by reason of its commodious port, it enjoyeth a good trade.'<sup>4</sup>

The conclusion of the Third Dutch War in 1674 saw a revival of Stockton's trade to the Low Countries. In October 1675, a Stockton merchant advised his London correspondent that:-

'sailed from Tees 80 sail of Stockton laden with lead, butter and coals for Amsterdam, Rotterdam, Ostend and St. Valery.'<sup>5</sup>

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1. Wardell (1957), p.128.

2. Wardell(1962), p.16.

3. P.R.O. S.P. 29/306/81.

4. Blome, p.94. In 1665, Peter Bazine wrote from Rouen to his mother at Egglecliffe:- 'Remembering the good choose you make, if there be any shippes which lade coals nearby or at Newcastle for to come to Roan, I doe intreate you to send me one as bigge as the moone.'  
Wardell (1957),p.132.

5. P.R.O. S.P. 29/374/36.



Shipbuilding was also developing at Stockton in the later seventeenth century. For example, in February 1677, a pink of some 200 tons burthen was launched:-

'the largest vessel that ever came so nigh Stockton town.'<sup>1</sup>

When Sir Abstrupus Danby was seeking a market for timber from his Masham estate, he advised his steward that the shipwrights of the Tees would seem to be likely customers:-

'I would have a £1,000 worth of wood at least valued. . . I would sell by the grosse not any parcell under £500 but as much above as wee can reach. Stockton men will be good Chapmen, they want it for Ship Timber, and when you send good knee Timber or good plank Timber bee sure to set good rates on em for they will alwayes beare a good price.'<sup>2</sup>

An indication of the increasing trade and importance of Stockton was the removal of the officers of the Customs from Hartlepool to the Tees port. Lawful or free quays were set out under a commission from the Exchequer in 1633, when their length was extended by one thousand feet. In the last years of the seventeenth century many of the houses at Stockton were rebuilt in brick.<sup>3</sup>

The trade in lead between Swaledale and the Tees ports and the state of the industry in the later seventeenth century may be illustrated from the extant accounts and correspondence of several

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1. P.R.O. S.P. 29/391/59.

2. Cunliffe-Lister MSS. Bundle 75. (not numbered).

3. Wardell (1962), p. 17.

mining proprietors and merchants. Philip Swale of Hartford near Richmond was steward - and sometime partner - of the Wharton family of Aske Hall and Edlington, besides being associated with a number of lead proprietors and merchants in Derbyshire.<sup>1</sup> For example, in 1675 Swale formed a partnership with Robert Barker of Richmond, a member of a Derbyshire lead mining family. The partnership took a lease of part of the Old Gang and Lownathwaite mines - in which Lord Wharton was the chief investor - and also in Swinnorgill.<sup>2</sup> Swale seems to have been a very progressive manager, and, when Robert Barker died in 1680, he brought Adam Barker his brother from Wirksworth to be manager under him.<sup>3</sup>

There were several markets for Pennine lead, and merchants and proprietors were naturally anxious for speedy advice on the prevailing prices in different parts of the region. In August 1683, Swale requested one of his partners in Derbyshire:-

' . . . I could desire thou would take the trouble or prevale with some in Chesterfield more frequently to give us Notice of the price of lead . . . .'<sup>4</sup>

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1. N.R.A.O. Letters to and from Philip Swale of Hartford near Richmond. ZT. 5-9. Robert Swale was steward to the Wharton family c.1625-62, and his son Philip (c.1623-1687) who succeeded him was steward until his death. They were principally concerned in lead mining in Swaledale and Kettlewell.

2. Raistrick and Jennings, p.154.

3. Ibid, p.117.

4. ZT 5/77. On 14 March 1685, Swale was advised that:- 'Leade is this day sould att £11 1<sup>s</sup> att Bawtrye.' ZT 5/166.



Correspondence during the 1680's includes many complaints about the low prices which were being paid for lead. Merchants were naturally anxious to hold stocks as long as they could in the hope that prices would rise, so that the monetary returns to the mining proprietors were often delayed. In August 1683, Swale advised his Derbyshire partners:-

' . . . Swaledale workes proves discouraging. Much writing hath passed betwixt the Lord Wharton and me about my assigning of them which on fit conditions I would willingly doe . . . if Swaledale workes give no better Incouragement I think he may have them soon enough without such an Assignment . . . I send . . . Copy of an Account I Intend for Robert Wilcon when I can get Money in but it comes very slowly from our Merchants.'<sup>1</sup>

Trade was also slack in the early months of 1685, and in March, Swale wrote to Lord Wharton:-

'A. Barker is come out of Darbyshire little lead was sold . . . Merchants lookeing one at another. Small Incouragement to a Chargeable Tryall.'<sup>2</sup>

Land carriage to the Tees ports seems to have been carried on by 'specialist' carriers. For example, in May 1682, Philip Swale made arrangements for £9 8s 7d to be paid to William Henson of

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1. ZT 5/77. On 10 April 1675, a partnership agreement was made between Sir Thomas Wharton of Edlington and Philip Swale of Hartford concerning lead and coal mines in Ravensworth, Foldam, Whashton, Applegarth, Thorpe and Thorpe Edge. ZT 9/44.

2. ZT 5/167.

Stockton 'leadcarrier'.<sup>1</sup> The carriage of lead for shipment was often hazardous in the winter months. In January 1686, Swale was advised that:-

' . . . ways is exceeding bad, that wee with difficulty got lead from Darlington to Stockton.'<sup>2</sup>

It is now apparent that Philip Swale was an important figure in the emergence of lead mining companies which worked large areas of consolidated leases.<sup>3</sup> After his death in 1687, Joseph Etherington acted as steward for Wharton's concerns in Swaledale. The problem continued of finding reliable buyers for lead who would make quick monetary remittances. In November 1687, Wharton wrote from London:-  
'I should be glad to finde that the money doe come timely in from Rich. Watson for suplying of the lead works . . . I desire also to heare from you, if you think the lead will go of at Stockton to merchants who will make better payment then two of them hav don of late . . .'<sup>4</sup>

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1. ZT 9/60.

2. ZT 5/194. In February 1696, Sir Abstrupus Danby was advised by his steward:- ' . . . I have been at Richmond and . . . bought of Mr. Etherington my Lord Wharton's Agent a fother of . . . lead for £9 6s 8d . . . The fother Consists of 20 piggs which was weighed by persons inhabiting there who have horses ready upon a dayes notice . . . the Moores are soe bad to Bowerley that if wee had bought the Lead there, it would with difficulty have been brought hither.' Cunliffe-Lister MSS. Bundle 75 (not numbered).

3. Raistrick and Jennings, p.117.

4. ZT 5/223.



West of Swaledale, it seems that the Arkengarthdale mines entered a period of expansion under the Bathurst family. In 1672, Charles Bathurst leased mines in Arkengarthdale at a rent of £150 per annum. Ten years later the mines were yielding a profit of twice the rent.<sup>1</sup>

Apart from engaging in the coasting trade, the merchants of Stockton were also trading to the Baltic, the Low Countries and to Spain and Portugal in the later decades of the seventeenth century. The extant accounts of one Stockton merchant show him trading to various Baltic ports in the early 1680's. Lead constituted his main outward dealings, and in return iron was imported. For example, in 1681:-

'Shipt outward by Tho: Swainton for Konningsberg 216 peeces of lead . . . 13 foddor 28 cwt. 1qr and 14 lb @ £9 5g amounting to £130 1g 11d, on which the custom laboridge and Boat hire amounted to £15 8g 4d, together with 41 chaldor of coals with charges amounting to £35 9g 3d.'

Three years later, the same merchant paid 2g for the carriage of iron to Colham or Cotham.<sup>2</sup>

By the end of the 1680's the lead market was considerably lower than it was to become some years later in the halcyon days of lead mining. Nevertheless, the mines not only paid, but paid well, notwithstanding great market fluctuations and much competition from abroad.<sup>3</sup>

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1. Raistrick and Jennings, p.154.

2. Bodleian Library. Eng. misc. MSS. c.205. Account book of a Stockton merchant.

3. J. Backhouse, 'Lead mining in England and Wales' (typescript), p.55  
It seems that c.1690 the price of lead was about £10 per ton.

(xxi) THE COASTAL PORTS OF YORKSHIRE -

WHITBY - SCARBOROUGH - BRIDLINGTON

By the seventeenth century, a number of ports had developed between the estuaries of the Tees and the Humber. Although the hinterlands of Whitby, Scarborough and Bridlington were less extensive than the ports of Yarm and Stockton, the agricultural population of Ryedale, the Vale of Pickering, and the upper valley of the river Hull looked to the east coast ports rather than the Humber-Ouse waterway system, of which, geographically, they were a part.

. . . . .

By the sixteenth century, Whitby was already a fishing port of some note, and further progress came with the development of large scale alum mining at Sandsend and Saltwick and in Cleveland.<sup>1</sup> Although Whitby's opportunities for further development were limited by its constricted hinterland - the river Esk was shallow, rapid and liable to flood - it was able to play an important role in the east coast coal trade besides shipping alum and butter.<sup>2</sup> A Customs House was established at Whitby in the reign of Charles II, at which time the

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1. In the seventeenth century, hundreds of thousands of pounds were sunk in Cleveland alum undertakings. The development of alum mining stimulated the shipping activities of the port and coal was needed to supply the workings. V.C.H. Yorks. II, 329

2. P.R.O. S.P. 29/316/234. The shipping of Whitby butter was carried on in the late summer and early autumn. In October 1672, a Whitby inhabitant advised his London correspondent:- 'All trading at this port is quite given over, this being the only time in the whole year the butter that went beyond the sea is now for London, which forced a trade here.'



port had:-

'above 100 saile of ships and small craft belonging to it and Employing and breeding about 600 Sailors.'<sup>1</sup>

By 1702, the tonnage of Whitby's shipping was some 8,300 tons, most of the vessels being engaged at some times of the year in conveying coal from Newcastle and Sunderland to London and other east coast ports.<sup>2</sup> By the early eighteenth century the building of ships for the coal trade, and the associated crafts of sail-making and rope-making had been established at the port.<sup>3</sup>

The weakness of depending on shipping was revealed during times of war and exceptional weather conditions. For example, in February 1673, during the Third Dutch War, it was affirmed that:-

'this small port has in the last eighteen months lost by storm and capture above 30 vessels besides 100 men. Their losses have been so great that I fear they will not recover them in many years. The loss is moderately valued above £12,000 besides those able seamen cast away.'<sup>4</sup>

The resilience of a fishing and shipping community with limited scope for development in other directions no doubt contributed to a more rapid recovery than might at first have been anticipated.

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1. N.R.A.O. Letter Book of Nathaniel Cholmley 1682-91: 2CG V 2/3 fol.

28. Blome recorded at Whitby:- ' . . . wooden bridge over the Esk. Trade in alum and Whitby butter . . . belonging to it about 100 sail of vessels and hath a custom house . . . '

2. Davis (1962), p.35.

3. Letters of 'J.A.'

4. P.R.O. S.P. 29/334/22.

. . . . .

In 1638, when the Admiralty requested a return from the different seaports of the number of ships and burthen belonging to each port, Scarborough was set down as having 22 large vessels and a number of smaller vessels of between twenty and sixty tons burthen.<sup>1</sup> By the early eighteenth century, Scarborough's tonnage of vessels had greatly increased and amounted to some 21, 700 tons. Scarborough was a place of refuge in bad weather, an artificial harbour or pier having been constructed. The port had an important share in the English coastal trade, particularly in the Newcastle and Sunderland coal trade.<sup>2</sup> Scarborough was able to tap an agricultural hinterland through the Vale of Pickering, and probably the inhabitants of Malton received many of their goods from the east coast port. Scarborough had some coastwise trade in butter, grain, peas and beans, mainly to London and Newcastle.<sup>3</sup>

. . . . .

The seventeenth century also witnessed considerable progress in the trade and shipping of Bridlington, tapping the unenclosed and underdeveloped agricultural hinterland of Holderness. In May 1667, the J.P.'s of the East Riding affirmed that:-

'Bridlington is a port and haven of very great convenience to parts

1. J.B. Baker, History of Scarborough from Earliest Date (1882), p.360.

2. Willan (1938), p.14.

3. Ibid, p.85. In 1684, 2,665 firkins of butter went coastwise from Scarborough to London.



adjacent for near twenty miles about. The inhabitants there are a very industrious people and much addicted to sea traffic in so much they have in about fifty years increased from 3 or 4 to above 40 good trade ships furnished with able seamen and expert pilots.<sup>1</sup>

During the Third Dutch War, provisions were sometimes obtained by the Royal Navy from Bridlington. For example, in August 1672, a naval surgeon wrote from the Yorkshire port:-

'The fleet intends to sail to-night or in the morning having been plentifully supplied here with all manner of provisions. They have spent great sums here, have slain 100 fat bullocks, and bought nearly 500 sheep, and poultry innumerable, provisions with which this country abounds.'<sup>2</sup>

The nature of Bridlington's coasting trade altered little in the course of the seventeenth century, although its volume increased. In 1684, outward shipments by the coasting trade consisted of 115 cargoes of agricultural produce to Newcastle, Sunderland, London, Stockton, Plymouth and Whitby. Imports by the coasting trade for the same period consisted of coal, glass and grindstones from Newcastle, and

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1. P.R.O. S.P. 29/319/166 (6).

2. P.R.O. S.P. 29/314/25. In February 1673, John Bower - a member of one of Bridlington's leading shipowning families advised the Navy Commissioners that:- 'a very fair and commodious watering place for the use of his Maties Navie may be made at the head of our harbour . . . if a new and a Strong Clow were made there is no question but by clearing or opening of the springs that feed it, there may be at all times and seasons be water sufficient to supply the whole Navy if occasion present.' P.R.O. S.P. 29/341/166.

salt from Sunderland.<sup>1</sup>

The provision of drawback and bounties for the export of grain stimulated the overseas trade of Bridlington. In November 1675, it was recorded that several vessels had sailed for the Low Countries with wheat:-

'and much more will be exported if the Act continue unrepealed, which grants for every quarter exported 5<sup>s</sup> paid out of the Customs.'<sup>2</sup>

By the autumn of the following year the local farmers and corn merchants seem to have availed themselves considerably of the drawback. In November 1676, the Customs officer at Bridlington recorded that:-

'five ships laden with corn have gone over sea from this port the last month, and one is now lading corn for Holland. The moneys for corn exported from this port within this twelvemonth amount to above £1,000 which has been paid out of the customs, and I judge there will be near as much more exported before the Act expires, corn being cheap . . . and great plenty in this country.'<sup>3</sup>

Following a severe storm in December 1663, which greatly damaged the pier and harbour at Bridlington, efforts were directed towards obtaining the requisite sums needed for the repair and maintenance of the facilities of the port. In 1664, the Customs officers at the port produced an abstract of duties received at Bridlington in the

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1. Willan (1938), p.122.

2. P.R.O. S.P. 29/374/197.

3. P.R.O. S.P. 29/386/232.



previous four years, and stressed that the repair of the haven was urgent.<sup>1</sup> Remedial steps were not taken immediately, and it was not until the Second Dutch War had ended that renewed efforts were made to restore the haven to its former condition. In 1667, the Earl of Burlington and Lord Langdale urged that action should be taken, since Bridlington Quay had been rendered:-

'almost useless, his Majesty's ships as well as his subjects disappointed, and many times put to great stress and customs from £750 and upwards reduced to little or nothing, and further the Contry thereabouts very much impoverished.'<sup>2</sup>

It was estimated that it would cost £4,000 to repair the haven at Bridlington, and that maintenance after that would amount to £150 a year. The inhabitants of the port alleged that it would not be possible for them to raise that sum, but stressed that:-

'merchants trading to and from Newcastle and Sunderland and other places are content and desirous to submit to an imposition for a

1. P.R.O. S.P. 29/319/166(5) Bridlington Key. Abstract of Moneys paid here for goods, wares and merchandises exported and imported here for four years ending 24 June 1664

<u>Customs received</u>	£	s	d
1 Aug.1660 - 24 June 1661	348	13	4
24 June 1661 - 24 June 1662	401	8	10
24 June 1662 - 24 June 1663	652	9	0½
24 June 1663 - 24 June 1664	277	11	7

2. P.R.O. S.P. 29/319/166(4). The J.P.'s for the East Riding affirmed that:- 'unless the peeres be repaired said road will be of little use . . . which will be to great prejudice, not onely of his Majesty's ships but also of all ships trading for coals to Newcastle or Sunderland.' P.R.O. S.P. 29/319/166(2).

certain time whereby money may be raised for repairing the pier the like having been granted by your Maties predecessors for the repair of the pier of Scarborough and other places.<sup>1</sup>

In 1668, a Bill was promoted to secure statutory authority for an imposition of 12d on ships over sixty tons burthen and 6d on smaller vessels. The efforts of Bridlington were largely frustrated by the opposition of neighbouring ports, particularly Hull. Some years later, one of the M.P.'s for the Humber port recalled that the corporation of Hull:-

'did not only oppose but wholly overthrew the Bill for Burlington . . . that they had a toll towards the repairing of their piers and had not made it good.'<sup>2</sup>

In 1672, nine years after the haven at Bridlington had been damaged, the Customs officers at Newcastle and Sunderland were instructed:-  
'to levy 12d and 6d on all vessels lading there towards the expenses of the repair of Bridlington Pier . . . for twenty-one years or until £4,000 is raised . . .'<sup>3</sup>

(xxii) ROAD CONDITIONS AND LAND CARRIAGE

Although the coastal and inland ports provided the main facilities for trade within the Humber-Ouse-Trent region, some consideration

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1. P.R.O. S.P. 29/319/166(6). In 1638, the inhabitants of Scarborough petitioned the Privy Council that a duty might be placed upon all coal shipped at Newcastle and other places to help maintain the pier and harbour at the Yorkshire port. Baker, op.cit., p.360
  2. Hull Letters L.813. In the late 1670's Steven Shepard or Shipurd, a master builder of Selby was carrying out repair work at

Bridlington. Reresby MSS. 12/21

3. P.R.O. S.P. 29/250/67.



must also be given to other means of communication and commercial routes. The importance of land carriage and road conditions cannot be overlooked in this period: the highways played a significant role in both inter-regional and intra-regional trade, and provided 'freedom' to the inland and coastal ports. A number of the inland ports, for example, Newark, Bawtry, Doncaster, Tadcaster and Boroughbridge, derived considerable benefit from their position on, or easy access to, the Great North Road. In most of the low lying districts adjacent to the rivers, causeways had been constructed, while pack-horse tracks and bridges were typical features of the Pennine landscape to the north and west of the heads of navigation, many of them originating in the sixteenth century when improved highways for the carriage of wool and cloth became urgent.<sup>1</sup>

Although the descriptions of contemporary travellers and diarists remain a major source for the history of land transport and communications in this period, such impressions must be treated with some caution and varied considerably according to the time of year and standards of the individual itinerant. Certainly conditions in winter, or after heavy rain were often hazardous. For example, Thoresby mentioned a stage coach which ran between York and Hull in the summer months, but did not operate in winter because of the state of the roads.<sup>2</sup> When Colia Fiennes went from Beverley to Hull it was:<sup>3</sup>

'upon a Causeway . . . with two little rivers running on each side

1. Crump, pp.26-7.

2. Morrell, op.cit., p.172.

which often overflowed it being a great flatt.<sup>1</sup>

On the route from Leeds to York causeways were used for part of the way. Celia Fiennes described the hazards of the road east of Tadcaster towards Ferrybridge, noting that:-

'there is some of the water which on great rains are not to be pass<sup>2</sup>d!

Towards the end of the seventeenth century, coaches performed the journey between Leeds and York - a distance of twenty-four miles - in eight hours. However, the road was often so bad that travellers walked part of the way.<sup>3</sup> A later traveller described another stretch of the Leeds to York road across Brotherton Marsh:-

'a causeway . . . all along by the Aire up to Brotherton which makes part of the York road.'<sup>4</sup>

At the Restoration, an Ordinance of 1654 - which had provided for the first effective system of road rates - was abrogated.<sup>5</sup> An Act of 1662 revived, extended and modified the former system of statute labour - which had been established under the Tudor legislation of 1555, 1563 and 1586 - and granted the surveyors the right to take an assessment to aid in repairing the roads if the six days of compulsory work were found to be insufficient. Neither this Act, nor a subsequent one of 1670 - which provided for assessment rates at the

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1. Celia Fiennes, p.80.

2. Ibid, pp. 75, 86

3. Morrell, op.cit., p.172.

4. Hist.HSS.Comm., Portland

5. K.A. MacMahon, 'Roads and Turnpike Trusts in Eastern Yorkshire', East Yorkshire Local History Society, Local History Series:18 (1964), p.10.



discretion of Quarter Sessions - accomplished the requisite improvements. It seems that measures designed to ameliorate road conditions in the period between the Restoration and the Revolution proved largely ineffective.<sup>1</sup>

The effects of the war with France after 1689 brought increasing pressure to bear on England's transport and inland communications. Although it is not possible to provide statistical evidence, it seems probable that the hazards of the coasting and overseas trades meant that more goods were carried by land. In the autumn of 1691, a committee of the House of Commons was appointed to consider ways in which the highways might be maintained more effectively, and the rates charged by wagoners and carriers might be fixed.<sup>2</sup> The resultant Act empowered the Justices of the Peace in Quarter Sessions to levy a parish rate of up to 6d in the pound, if convinced that otherwise the roads could not be repaired.<sup>3</sup> A new feature appeared in the section of the Act which attempted a regulation of land-carriage rates, deemed necessary because:-

'diverse Waggoners and other Carriers by combination amongst themselves have raised the prices of carriage of Goods in many places to excessive rates to the great injury of Trade.'<sup>4</sup>

The extent to which the Act of 1692 was applied naturally varied from county to county. Published records for the North Riding

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1. W.T. Jackman, The Development of Transportation in Modern England (2nd ed. revised, 1962), p.61.

2. Willan, 'Land Carriage', p.197.

3. 3 Wm. and Mary, c.12.

4. Willan, 'Land Carriage', p.198.

Quarter Sessions indicate that additional assessments were regarded as necessary for a number of parishes. At Thirsk, it was decided by the J.P.'s on 25 April 1693 that:-

' . . . Whereas the Court is fully satisfied that the common highways, causeys, bridges, streets and pavements in the township of Howorth cannot otherwise be sufficiently amended, repaired, paved, cleansed and supported by means of the laws now in force, without the help of a late Act . . . for the better repairing and amending the highways and for settling the rates of the carriage of goods: Ordered that an equal assessment of 3d in the pound for one year ensuing, shall be made upon the inhabitants, owners or occupiers of lands, houses . . . according to the true yearly value thereof, and 3d for every £20 for one year, on every personal estate usually rateable to the poor within the sd township . . .'<sup>1</sup>

It seems likely that the assessments made for land carriage reflected the actual rates charged by common carriers.<sup>2</sup> The rates fixed show regional and seasonal differences, and were often repeated in the following century. The J.P.'s in the North Riding determined that carriers from Richmond to London or vice-versa should not take above 2d a lb. or about 19d a ton-mile. In a Lincolnshire assessment made at Sleaford in 1696 the rates from London to eight places in Lincolnshire varied from 13d to 15d a ton-mile.<sup>3</sup>

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1. N.R. Sessions, VII, 136. Similar orders were made for Topcliffe.

2. Willan, 'Land Carriage', p.200.

3. Ibid.



The rates for the West Riding were more complex and provide a useful picture of the main land routes along which goods were received and dispatched. The J.P.'s meeting at Pontefract Quarter Sessions on 5 April 1692 ordered that:-

'from London to Doncaster, Rotherham, Sheffield, Barnsley, Pontefract, Wakefield, Hallifax, Leeds or any other Markett Town or other place within this Rydinge as far distant from London as Leeds is, 1d per pound and no more throughout the whole year, from London to any place within this Ryding that is distant from London 20 miles more than Leeds, 2d per stone more than the said penny per pound and proportionably for a greater or lesser distance. From Yorke to Wakefield or to any other place that is twenty miles distant from Yorke 2d per stone and per contra. From any place out of this Riding to any place or places of 20 miles distance in this Riding and from any one place to another of the same distance within this Rydinge 2d per stone and proportionably for a greater or lesser distance.'<sup>1</sup>

Particular attention was given to land carriage rates to and from the inland ports which served the clothing townships of the West Riding:-

'Carriage by Carts from Leeds to Selby or Turnbridge and from Wakefield to Selby or Turnbridge and from any other Markett Towne or place in this Rydinge to Selby or Turnbridge as far distant from the same as Leeds is: A Trusse containing 4 horse packs . . . from Mayday till Michaelmas 6s 6d from Michaelmas till Xmas for 4 horse packs 10s 6d from Xmas till Mayday for 4 horse packs 15s 6d . . .

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1. W.R.A.O. Quarter Sessions Order Book.

From Selby or Turnbridge to Leeds and Wakefield . . . from Mayday till Michaelmas 12g per tunne from Michaelmas till Xmas 18g per tunne from Xmas till Mayday 24g per tunno.<sup>1</sup>

The variations in the cost of land carriage within the West Riding were considerable. In terms of the cost per ton-mile, the assessment between London and the principal towns of the West Riding amounted to about 12d; that between Leeds and the northern boundary of the Riding at 12d for the first 20 miles, rising to about 16d. The assessment between York and the cloth producing townships amounted to about 16d. Cloth, and other goods dispatched in bulk might be carried to the lowest shipping points on the Ouse and Aire rivers at rates which ranged from about 10d a ton-mile in midsummer, to about 23d a ton-mile in midwinter. The rates for back carriage from Selby and Turnbridge to Leeds and Wakefield were lower, ranging from about 7d a ton-mile in midsummer to 14d in midwinter.

The general impression gained from the assessments is that land carriage rates were usually fixed at 12d a ton-mile and upwards. If anything they serve to emphasise the disparity between the cost of land carriage and that of water transport. It has been estimated that the average cost of carriage by inland waterways throughout the seventeenth and eighteenth centuries was about 2.5d a ton-mile. Even if allowance is made for the fact that the roads usually provided a more direct route, it seems that the actual cost of water transport was between a quarter and a half of the cost of land carriage.<sup>2</sup>

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1. W.R.A.O. Quarter Sessions Order Book.

2. Skempton, p.27.



In the Humber-Ouse-Trent region attempts to obtain statutory authorisation for port or river improvement schemes either failed to get off the ground in the thirty years after the Restoration, or they were rendered abortive by the determined efforts of neighbouring communities. Of the six Bills introduced in this period, only one - for the Lincolnshire Fossdyke - reached the statute book. The difficulties experienced by that undertaking in the 1670's seem to provide further indications that prevailing circumstances were not propitious for the effective development of transport projects. Our survey of the region has revealed that a number of improvement schemes were 'in the air' in this period. However, it is clear that, for the most part, trading and industrial interests could not be persuaded that the investment of their capital - which was requisite for development - would be followed by an adequate return or the realisation of new market potentials. When contrasted with subsequent developments, an attempt must be made to explain why improvement schemes were not pursued vigorously.

In a period when the rate of new investment in overseas commerce - as contrasted with domestic industry - was exceptionally high - many landowners, merchants and industrial interests seem to have been unwilling to finance large scale transport undertakings. A shortage of capital - or at least the assumption that land and overseas trade offered possibilities of a better return - may have been one of the

factors limiting the effective implementation of inland navigation schemes. In general, town and city corporations within the region - who, for the most part, were synonymous with the local mercantile communities - showed little inclination to become involved in transport projects. For example, the city corporation of York was unwilling to stir in the promotion of a Bill to improve the Ouse; while the town corporation of Leeds was unwilling to promote - corporately - the improvement of the river Aire above Knottingley. In the main, it was a generation of individual promoter-undertakers, often with an academic bent, who were canvassing the need for transport developments, and who were willing to effect improvements in return for settled rates of tonnage. For example, William Pickering seems to have been almost alone in his willingness to promote the Aire and Calder scheme after 1679. The town corporation of Derby provides one of the few examples of corporate bodies willing to promote an inland navigation scheme vigorously, probably prompted by changes in the local malt and lead mining industries, on the assumption that a reduction in the cost of carriage would enable market potentials to be realised more easily.

Clearly, much has still to be learned about the ways in which the provincial business community invested their wealth.<sup>1</sup> Although the tendency was growing for lead merchants to invest in mining operations, both of lead and coal, the extent to which other mercantile groups

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1. For a discussion of the problems in such a study see R. Grassby, 'English Merchant Capitalism in the late Seventeenth Century. The Composition of Business Fortunes', Past & Present, XLVI (1970), pp.87-107.



were investing in bulky commodities in this period is unknown. The oldest alternative to trade was landed property, which enjoyed social and political as well as economic value. The net yield on land through most of the seventeenth century seems to have been 3 - 3½ per cent. , lower than that on trade, though not to the extent that was once supposed.<sup>1</sup> Unfortunately for the historian, few legateses have set out the available choices, as did Robert Lowther in a letter to his mother in June 1686. Writing from Amsterdam, he weighed up the possibilities:-

'I cannot see that any extraordinary great Matters are to be gott by merchandizing and I am sure there are none here but doe daily complaine of the decay of trade. I take particular notice what your Ladyp writes Concerning Mortgages And seeing that they are so very hazardous, I am willing to lay out the Biggest part of my money in land. In my opinion it is very Improper for a young man att the first beginning, to trade with his whole Capitall, therofore if it please God I Live, I designe to begin with 500 or £1000 for a year or two. If in Case I find that doth succeed well and turn to good acct It will be noe very difficult matter to Convert the other into money.'<sup>2</sup>

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1. R. Grassby, 'The rate of profit in seventeenth-century England', English Historical Review , LXXXIV (1969), p.732. In 1674, a contemporary could make a fanciful claim, that trade yielded six times as much as land, but spectacular windfalls and short-term gains by individuals should not be confused with the general level of expectations.

2. Ramsden MSS. Letter Book 1. Letters to Lady Elizabeth Lowther at Ackworth.

It would obviously be overstating the case to insist that the absence of commercial capital was solely responsible for the poor showing of transport promotions. The wealth and spending power of England remained principally in the hands of those who owned and worked the land. At a time when agriculture was a reservoir both of capital and labour, and an indispensable market for the products of industry, low farming commodity prices could mean that the savings of the farming communities of the region were inadequate for major long-term investment schemes. Shortages of capital were felt most acutely at times of low agricultural prices, landowners being unable to provide capital and leadership for the development of industry; unable to consume the products of industry and trade; and unwilling and unable to support transport undertakings. The decades between the Restoration and the Revolution witnessed some difficult periods for landowners and farmers. In 1670, the price of corn in the Vale of Trent fell to a lower level than had been known for twenty years, and - in view of the impoverished condition of agriculture in Lincolnshire in the 1670's - it is perhaps not surprising that sufficient capital was not forthcoming locally even for such a small scheme as the Fossdyke. The 1680's were also marked by generally good harvests and relative cheapness of food, conditions which might prove beneficial in the short term to the artisan and labouring classes, while lessening the funds of those interests which might invest in transport improvements.<sup>1</sup>

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1. W.G.Hockins, 'Harvest Fluctuations and English Economic History,



At times of low farming commodity prices, landowners seem to have been particularly anxious to preserve established markets. A number of landlords, especially those whose interests were exclusively agricultural, seem to have set their faces against the development of internal transport, apprehensive that improved communications would increase competition in their local markets and cause prices and rents to fall.<sup>1</sup> At a time when many farmers supplemented their income from the land by engaging in land carriage at certain times of the year, it was also a common argument that any extension of water carriage would be at their expense. The vigorous opposition encountered by the promoters of the Derbyshire Derwent scheme came partly from local landed interests anxious to maintain established marketing patterns for agricultural produce, and partly from land carriage, trading and shipping interests dependant on existing inland ports or waterways. Such interests assumed - or at least were prepared to argue in the mercantilist jargon of the age - that if the traders of Derby benefited, it would per se be at their expense.

Another factor which must be taken into account when considering the failure of transport schemes to get off the ground in the three

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1. G.E. Mingay, English Landed Society in the Eighteenth Century

(1963), pp.196-7. 'Many landlords were unimpressed by the arguments of promoters of navigations that better communications would encourage trade, raise rents, cheapen the water carriage of coal and encourage more lime to be burned for farming use. In order to maintain their monopolistic position, landowners and their tenants were willing to risk the glutting of local markets in years of good harvests for the advantage of high prices in years of bad

decades after the Restoration arose from England's political system. After the repeal of the Triennial Bill in 1664, the monarchy could rule without Parliament so long as it had the money to do so. In a period when the meetings of Parliament were irregular, and when the sessions were often short, circumstances were scarcely propitious for the consideration of a hotly contested Bill to improve inland navigation, which might end up by being 'counted out' by prorogation.

If landed and commercial capital had been forthcoming, and political conditions more favourable, would schemes to improve inland navigation have been taken up more seriously? It seems doubtful.

In the period under review, the movement of bulk, low density commodities does not seem to have been growing to such an extent that pressure was generated into the opening of new 'feeder' routes into the Humber-Ouse-Trent waterway system. Although coal was being shipped down the Trent in the late seventeenth century from Derby-<sup>1</sup>shire, the North-East coalfield still supplied many communities within the region. At the very end of the century, the coalmasters of Tyneside and Wearside asserted that over 400 ships were employed in this trade.<sup>2</sup> If this estimate is accurate, it would seem that over 20,000 Newcastle chaldrons were being imported annually.<sup>3</sup> There

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1. Hull Bench Books, VII, fol.55.

2. Infra, p. 311.

3. In 1702, there were 1,277 ships employed in the east coast coal trade carrying 68, 219 Newcastle chaldrons. It seems reasonable to assume that 400 vessels would carry something over 20,000 chaldrons.



is ample evidence that coal was being worked in many parts of the Yorkshire-Derbyshire-Nottinghamshire coalfield, often within a few miles of heads of navigation. However, there seems to have been no attempt in this period to replace supplies from the North-East with indigenous intra regional coal, possibly because it could not compete in terms of price and quality, possibly because it might destroy a well developed inter regional trade, in which agricultural products, timber and iron constituted the principal items of back carriage.

By the end of the seventeenth century there were more than 320 miles of inland navigation in the Humber-Ouse-Trent region. Efforts to maintain and improve these waterways through long established authorities had proved largely ineffective, so that a number of the ports were faced with growing problems of silting and river obstruction, and several could only be reached by coasting vessels on spring tides. As yet, however, the changes which were taking place in the organization and techniques of some of the principal industries of the region had not led to significant developments in either inland navigation or road transport.

### III

#### A Minor Transport Revolution

##### (1) INTRODUCTION

The closing years of the seventeenth century and the opening years of the eighteenth century witnessed a minor revolution in England's transport and communications. A growing concern that the cost of land carriage should not further increase, and that highway maintenance should be improved, marked the early 1690's. This was later accompanied by a spate of Parliamentary activity for turnpikes, inland navigation and the development of ports. In the reigns of William III and Anne, 34 Acts were passed for road improvement, mainly in the southern counties.<sup>1</sup> Between 1695-1702, Acts were passed authorising individuals, or groups of undertakers, to improve or extend the navigation of 10 rivers; while efforts to obtain statutory powers for the development of a further five rivers proved abortive.<sup>2</sup> In the same years the foundations were laid for the expansion of several important ports.<sup>3</sup> Considerable attention was focused on the rivers which drained into the Humber, and on the coastal ports of Yorkshire and Lincolnshire. By 1705, Acts had

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1. A. Cosson, 'The Turnpike Roads of Nottinghamshire', Historical Association, Leaflet 97 (1934), pp.30-31.

2. Willan (1936), p.29.

3. Swan<sup>n</sup>, p.33.



been passed to improve and extend the navigation of the Trent<sup>1</sup>, the Aire and Calder<sup>2</sup>, and the Yorkshire Derwent<sup>3</sup>; while Bills for the Derbyshire Derwent, the Don, the Yorkshire Ouse, and the Fossdyke had either been defeated in Parliament, or had been dropped by the promoters. In the same years, statutory powers were obtained to improve the administration of the ports of Bridlington<sup>4</sup> and Whitby,<sup>5</sup> and the borough of Grimsby made more determined efforts to cleanse the haven.

After the lukewarm support for so many of the schemes for the improvement of communications and port facilities within the region in the thirty years after the Restoration, the vigorous promotion of revived, or new projects in Parliament requires some explanation. The objects of this chapter are threefold: first, an attempt will be made to discern the factors responsible for this increased activity; second, to make a detailed analysis of the nature and timing of the various schemes within the region; and third, to assess the main achievements of the period.

#### (11) FACTORS STIMULATING TRANSPORT IMPROVEMENT SCHEMES

It is doubtful whether contemporaries living at the time of the 1688 Revolution or during the early years of the War of the League

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1. 10 Will. III, c.26.

2. 10 Will. III, c.25.

3. 1 Anne, c.14.

4. 8/9 Will. III, c.29

5. 1 Anne, c.13.

of Augsburg would have forecast that the country was on the eve of a formative period in the development of internal communications.<sup>1</sup> The difficulties which many farming communities had experienced in the 1680's continued in the early years of the following decade.<sup>2</sup> In January 1690, Sir Edward Harley was apprised of conditions in the West Midlands:-

'The noise of the taxes and the deadness of markets fills the country with complaints. Farmers in many places throw up their lands.'<sup>3</sup>

In November 1691, Sir Charles Sedley indignantly thundered in the House of Commons:-

'The country is poor, the nation is racked, the courtiers hug themselves in furs, and the humble country gentleman is half-starved.'<sup>4</sup>

After 1692, a series of deficient harvests resulted in price rises for cereals, the upward trend continuing for the remainder of the decade which has been termed the hungry nineties.<sup>5</sup> A Yorkshire

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1. In November 1688, the month when William of Orange landed in England, the steward of the Temple Newsam estate was informed of the difficulties facing tenants in the Vale of York:- '... for moneys I can not possable gitt any ... our Markitts are soo very ill wee can not sell our goods att any prise ... I well assure (you) the moneys was never harder come by since I can remember. ...' Temple Newsam MSS. TN. Corr. 6.

2. Hoskins, op.cit., p. 20.

3. Hist.MSS.Comm., Portland III, 442.

4. Plumb, p.131.

5. The problems of unemployment and destitution, added to those of high corn-prices, led to the establishment of 10 provincial work-houses in the years 1696-1700. Hoskins, op.cit., p. 20.



diarist noted in 1696 that:-

' . . . all sorts of commoditys has sold very well ever since the warr begun, and bears a good price to this day. Wool is 19 and 20s a stone, barloy is 22s a quarter and in Yorkshire 28s.<sup>1</sup>

In normal circumstances, rising prices for agricultural produce might have stimulated landowners to provide capital for the development of industrial and transport undertakings, or to finance the improvement of their estates. Indeed there is some evidence that - even in these years of war and the land tax - a number of progressive landowners, several of whom were Fellows of the Royal Society, were taking particular interest in engineering projects and hydrography, and playing no small part in the promotion of inland navigation schemes.<sup>2</sup> Yet it would be a mistake to generalize on the role of the landed interest. Apprehension that the development of inland navigation would lead to flooding led many landowners to oppose river schemes, or to insert so many provisos in improvement Bills, that the original schemes were rendered largely ineffective. There was also concern that the extension of navigation would mean that agricultural produce could be brought in from a wider area, leading to a fall in prices in certain established markets, which would have repercussions on the level of rents.

The heavy incidence of wartime taxation must also have eaten into the profits which might be expected as a result of higher farming prices, thereby lessening the propensity of the landed interest to

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1. De la Pryme, p.79.

2. Infra, p. 276.

invest in transport undertakings. Thoresby claimed that the Aire and Calder navigation was carried out:-

'at the Expence of several private merchants the Proprietors, without calling in the Assistance of the Nobility and Gentry as has been usual in like cases.'<sup>1</sup>

Nevertheless, landowners convinced that the value of their estates would be enhanced if an inland navigation project was effected were not unwilling to espouse or promote improvements. Enlightened self-interest seems to have prompted Sir Godfrey Copley to set on foot the scheme to extend the navigation of the river Don above Doncaster. It was subsequently noted of the Sprotborough landowner that he had:-

'judged very well of the Interest of his own Estate and his Country.'<sup>2</sup>

Copley's project thus resembles the schemes carried out by 'undertaker-engineers' in the years after the Restoration, who were prepared to finance the work personally, to produce the requisite plans and to supervise the construction.<sup>3</sup> By improving the navigation of the Don, Copley would hope to receive sufficient revenue to maintain the waterway and to make a personal profit, besides carrying goods to and from his estate, notably corn and coal. Although frustrated in the larger design to extend navigation to Sheffield, Copley's estate improvements enabled certain stretches of the Don above Doncaster to

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1. Unwin, 'ACN 1', p.81.

2. Copley MSS. 63524.

3. Skempton, p.37.



be used for water carriage. A feeder channel or 'canal' was also cut. Thoresby described a visit he made to Sprotborough in 1703:-  
'viewing the most pleasant gardens and curious fountains, statues &c; then assisting Mr Kirk and Mr Arthington in taking a level for the new canal that is now making from the water-engine (which is very curious, and conveys water to a large lead cistern upon the roof of the hall, a vast height from the foot of the hill) to the corn-mill whence he can go by water to Coningsburgh Castle on the one hand or Doncaster on the other.'<sup>1</sup>

. . . . .

Capital and leadership from sections of the business community were probably more significant in the promotion of transport improvement in this period than the contributions of the landed interest. It is now clear that the outbreak of a costly war in 1689 was a turning point in England's general commercial development, long term influences being at work to restrict the expansion of the country's overseas trade and shipping.<sup>2</sup> With the diversion of capital away from overseas trade in the 1690's, it might have been expected that land, which had been coveted in the past by the business community, would be seen as a favourable - if less profitable - alternative. However, high war taxation made land less attractive, the superiority of Government securities soon being apparent.<sup>3</sup> However, Government

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1. Unwin, 'ACN 1', p.61.

2. Davis (1962), p.22.

3. Dickson, p.24.

securities were not the sole field for capital diversion. At first, the dislocation of war seems to have induced an increase in the pressure of investors upon established trading companies. When the likely length and consequence of the war became apparent, activity died away and some commercial capital was left at a loose end.<sup>1</sup> In a mania for speculation after 1692, capital fell back upon domestic projects, and numerous industrial and commercial companies were floated.<sup>2</sup>

The excess of capital in relation to outlets led to a desperate search for new opportunities for investment. Houghton urged his readers to forward information of likely fields for development, and of the prevailing conditions of inland navigation in various parts of the country:-

'I understand that the River that runs from Leicester is navigable thither within Twelve Miles, and it might all be made so. If those who know anything of it will tell Mr Newton the Post-master of Leicester, he will send me word, and I will store it up, in order, some time or other, to have it made navigable.'<sup>3</sup>

It has already been noted that Houghton described the waterways of Yorkshire with a view to providing information for those who might

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1. Davies, op.cit., p.3.

2. Grassby, op.cit., p.746. Between 1691-3, no less than 64 patents were granted, the greatest triennial aggregate until after 1760, and a possible indication of high returns.

3. Letters for the Improvement of Husbandry and Trade, 18 May 1692.



seek to invest in the development of coal or mineral undertakings.<sup>1</sup> The newswriter was anxious that more information should be available about local transport conditions:-

' . . . without doubt, had we much more natural History of our Country, we should much more improve it; especially at this time, when Companies of Men are so eager to enter into Joint-Stocks for the improvement of any thing that appears reasonable; witness our Linnen and Copper Companies, and the Company that lately Subscribed for Lead Mines in Wales, to which, to my knowledge, a Subscription was made in one day of £2,500 . . .'<sup>2</sup>

It seems unlikely that members of the business community would be willing to participate in the mining bonanza after 1692 without some calculation of market potentials. The general revival of metal-mining seems to have been based on the expansion of markets at home and abroad, the decline of foreign competition, improvements in the technology of extraction and smelting and the growth of large-scale enterprises.<sup>3</sup> The revival of confidence in lead and copper mining was due partly to the termination of the Mines Royal's rights to gold and silver mines, rich and long-neglected deposits being opened up and worked to give a high output at low cost. By 1695, six companies had been established for copper mining and smelting, and the same number for developing lead-mines, of which the most notable

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1. Supra, p.7.

2. Letters for the Improvement of Husbandry and Trade, 3 March 1693.

3. Burt, op.cit., p.266.

was the London Lead Company.<sup>1</sup>

In the 1690's a number of factors were at work which increased the market potential of inland coal vis-à-vis sea-borne coal. It is not possible to provide precise statistical evidence of merchant ship losses sustained in the War of the League of Augsburg, since many of the 4,000 vessels which the Admiralty estimated to have been lost were ransomed.<sup>2</sup> Nevertheless, depredations were very considerable, particularly after 1693 when France turned to war on commerce. At a time when about half of the total British merchant fleet by tonnage was engaged in the coal trade,<sup>3</sup> the colliers of the east coast ports could scarcely have come through the war unscathed. It is significant that by 1695 the corporation of Hull, which received supplies from both Tyneside, Wearside and the inland ports of the Trent valley, were forced to take into consideration the rising price of coal.<sup>4</sup>

By the beginning of the eighteenth century a critical stage had been reached in the development of the coal industry of Tyneside, the relatively shallow seams being practically worked out. For example, at Gateshead output declined from 886 tens in 1696 to 728 tens by 1710; while at Whickham the fall was more startling, from 1,147 tens in 1696 to 673 tens in 1710. During the same period the number of

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1. Scott, I, 332.

2. Davis (1962), pp.315-16. In 1693-4, losses were greater in relation to the volume of shipping leaving English ports than ever before or afterwards until the twentieth century.

3. Wrigley, p.7

4. Hull Bench Books, VIII, fol. 540.



proprietors also fell considerably<sup>1</sup> in this area.

It seems likely that changes in the incidence of the coal tax in the 1690's had an important effect upon market potential. There was considerable controversy in the debates in Parliament between 1694-8 on the issue of the coal tax. In 1694, it was enacted that river-borne coal should be taxed at the same rates as sea-borne coal.<sup>2</sup>

There is evidence that the Customs Commissioners were soon busying themselves in preparing to set up offices near the principal navigations along which coal was carried, particularly the Severn, the Trent and the Humber.<sup>3</sup> The 1695-6 Parliamentary session was marked by numerous petitions complaining that the new impost was onerous and seeking its removal.<sup>4</sup> The petition of Charles Halford set out that, on the authority of an Act of Parliament, his father-in-law, Daniel Wigmore had expended over £5,000 in improving the navigation of the river Welland between Deeping and Stamford, the undertaker being empowered to levy certain duties on all vessels using the waterway, the cost of maintenance, and any profit, being mainly derived from the import of sea coal to Stamford. It was asserted that:-

' . . . Before the war (the navigation) was worth between 4 and £500

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1. E. Hughes, North Country Life in the Eighteenth Century (1952), p.

In 1699, some 1,400 ships were employed in the east coast coal trade; by 1702 the number had fallen to 1,277. Willan (1938), p. 14.

2. Nef, I, pp.311-15.

3. Willan (1936), p.123.

4. H. of C. Journals, XI, 375, 378, 380, 386, 388.

yearly, by reason of the Cheapness of Sea Coals, which then were never above 20s per Chaldron; but are now 33s per Chaldron because of the recent Act . . . 5s per Chaldron laid upon all Coals water-borne . . . so that Stamford, and the Towns adjacent, can be supplied with other Coals, by Land-carriage, at a much cheaper Rate.<sup>1</sup>

In January 1696, the committee appointed to consider the various petitions against the coal tax reported to the House of Commons that:-  
' . . . the present Tax upon the River Coals is become so burdensome and grievous, that it will inevitably, upon the Continuance thereof, ruin many Families, increase the Number of Poor, and destroy the Navigation of those Rivers which have been a Nursery for Sailors . . . For no Coals are, or can be, now carried up or down the same, by reason of the Land-carriage is cheaper . . .'<sup>2</sup>

To what extent the repeal of the tax on river-borne coal and sea-borne coal in May 1696 provided a stimulus for the promotion of river improvement schemes after 1697 is immeasurable, but, it is certain that many prospective promoters of improvement undertakings must have counted on the regular carriage of bulky goods as the principal source of revenue from tolls. In 1698 monetary requirements dictated a partial re-enactment of the coal tax, the new Act providing for the collection of a duty on sea-borne coal of 5s per London chaldron or 3s 6d per ton.<sup>3</sup> The differential tax on sea-borne coal created conditions favourable to the growth of mining inland, any improvement

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1. H. of C. Journals, XI, 388.

2. Ibid, 410.

3. 9 Will. III, c.13.



in river navigation increasing that bias. The tax certainly provided an argument for the coasting trade interest - which maintained that the development of inland coal for sale in river markets was prejudicial to the sea coal trade - to use against proposed navigation schemes. In June 1698, when two members of London Trinity House were instructed, by an order of the House of Lords, to assess the likely repercussions of extending river navigation to Leeds and Wakefield, they found upon arrival in Yorkshire that:-

'the people of Hull seem'd noe way affected at the making those Rivers Navigable nor would they pretend to Judge whether the Importation of Coales from Newcastle . . . would be lessened or not thereby.'<sup>1</sup>

Six months later, the members of the Trinity House at Hull were in a position to pronounce on the issue, in the light of the differential coal tax. On 23 January 1699, they took into consideration the probable advantages or disadvantages of the Aire and Calder navigation, and in particular:-

'whether it will be prejudiciall to the Coale trade.'

The members precent had unanimously agreed that:-

'the bringing in Inland pit coale wch payes noe dutie (will) be . . . prejudiciall to the sea coale trade.'<sup>2</sup>

The full impact of the differential coal tax cannot be precisely assessed, but, it seems likely that the impost must be numbered among the factors which enabled the Midlands coalfield to begin to catch up

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1. Unwin, 'ACH 1', p.82.

2. Hull Trinity House MSS. Vote Book 1682-99.

up with the north-east coalfield. Of greater significance was the demonstration in a growing number of industrial processes that coal could be used successfully where wood had been used in the past. Thus a large potential demand was created for coal, which could not be met while communications were poor, but which provided a powerful incentive to improve them.<sup>1</sup>

. . . . .

Arguments that one trading or industrial interest could only benefit at the expense of another were not confined to coal. They were part of the jargon so common to the age and to which reference has already been made.<sup>2</sup> Such views meant that an attempt to improve the navigation of one river might arouse a storm of protest from a radius of anything up to seventy miles. If organised opposition failed, the trading groups - who felt that their interests were threatened - often promoted improvements of their own in an effort to restore the pattern of trade. A number of the inland navigation schemes at the end of the seventeenth century were of this character, contributing to the general boom in the promotion of transport undertakings. For example, it seems likely that the particular circumstances which led to the promotion of a Bill to improve the Yorkshire Ouse, arose from the desire to restore the 'balance of trade' after the success of commercial rivals at Leeds and Wakefield. Realising that their efforts to abort the Aire and Calder Bill had failed, the

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1. Wrigley, p.7.

2. Infra, pp. 15-17.



civic and trading interests at York became increasingly concerned at the state of the Ouse.

. . . . .

How far the surveyors and engineers employed by the promoters of transport undertakings were likely to receive extra-professional benefits from the improvement and extension of inland navigation - and would be particularly anxious that statutory authorisations should be obtained - is a matter of conjecture. At the end of the seventeenth century, civil engineering as a profession was still in its infancy. Surveyors, engineers and hydrographers were engaged in a variety of undertakings and moved easily between them. Promoters of inland navigation schemes within the Humber-Ouse-Trent region contracted some of the leading engineers of the day. George Sorocold of Derby, who installed waterworks in many provincial towns, surveyed the Derbyshire Derwent and played an active role in promoting that navigation.<sup>1</sup> It is also clear that he was not unaware of developments in the lead-mines of Derbyshire. In 1697, in association with George Gregson of Derby, Sorocold petitioned the Crown for a grant of the 'lot' and 'cope' and barmaster's place within the wapentake and soke of Wirksworth. The application was referred to the Treasury commissioners, but caveats were entered against any grant.<sup>2</sup> Sorocold was also called upon to survey the Yorkshire Derwent.<sup>3</sup> John Hadley, who

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1. Williamson, pp. 48-53.

2. P.R.O. S.P. 44/238/130; TI/44/25. Wirksworth lead miners gave dues to the holder of the mine royalties. These dues were known as 'lot' and 'cope' i.e. dishes of ore.

3. Duckham, 'Yorks.Derwent', p.48.

assisted Sorocold in several waterwork undertakings, surveyed the river Aire in 1697, and was the engineer responsible for the initial work on that navigation.<sup>1</sup> He was also consulted by the city corporation of York on the ways in which the Ouse might be improved.<sup>2</sup>

Peter Whalley, a Nottingham engineer, was responsible for a waterwork undertaking at Sheffield, and later contracted for a number of the locks on the Aire and Calder.<sup>3</sup>

. . . . .

By way of a summary, it may be seen that no one factor was responsible for the minor transport revolution in the late seventeenth and early eighteenth centuries. The exigences of war seem to have led to a growing concern in inland transport in the early 1690's, producing legislation which was designed to ameliorate road conditions within the existing framework of local administration and jurisdiction. It is not possible to assess the effectiveness of the 1692 Act to which reference has already been made, but it is possible that in the first years at least the measure was enforced.<sup>4</sup> Robert Meeke, the curate of Slaithwaite chapel noted in his diary in 1694:-

'The law being made very strict about highways Sir John Kaye came to-day to view them betwixt Crosland Moor and Stanedge.'<sup>5</sup>

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1. Unwin 'ACN 1', p.80.

2. Duckham (1967), p.55.

3. Hunter, op.cit., p. 159.

4. Willan, 'Land Carriage', p.203.

5. Crump, p.39. During the War of the League of Augsburg, London merchants decided to bring many goods north around Ireland and then transport them by land from Liverpool.



One of the most significant repercussions of the protracted struggle against France was the interruption of the shipping trade and a depression in foreign commerce, so that a large portion of floating capital became available for investments in domestic undertakings and industries for which there were market potentials. To realise commercial potentials, particularly - though not solely - for bulky commodities, improvements in transport were essential. The removal of the tax on river-borne coal, the imposition of which may have delayed the promotion of improvements, provided a stimulus for prospective undertakers. Initially, improvement Bills seem to have been promoted by business interests who assumed that new or extended market potentials would be realised. Once a few Bills had been promoted, mercantilist assumptions, and the tendency to emulate, led to the organization of other schemes. Improvement was 'in the air' and became fashionable. In 1698 Houghton affirmed with regard to the development of navigable rivers that:-

'Parliament seems well disposed towards such things.'<sup>1</sup>

The regular meeting of Parliament after the Revolution, and the institution of regular committee clerks may have facilitated the passage of Bills.<sup>2</sup> Finally, the promoters of improvements in this period were fortunate in being able to call upon the services of a number of skilled engineers.

We must now consider in rather more detail the way in which some of the forces outlined above came into play in the Humber-Ouse-Trent region.

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1. Willan (1938), p.29.

2. Supra, p.37.

### (111)ATTEMPTS TO EXTEND NAVIGATION TO DERBY AND TO BURTON

Throughout the second half of the seventeenth century a well-organized lobby seems to have been at work to secure the improvement of the Derbyshire Derwent, supported not only by local industrial interests, some members of the London business community and shipping interests at Gainsborough, but by others in the Cheshire salt towns and in Stafford, Lichfield, Birmingham and Coventry.<sup>1</sup> Between 1695-1703, three attempts were made to secure statutory authority for the development of navigation from the river Trent to Derby, but - like earlier attempts - were brought to nothing by well-organized opposition. The controversy is of interest for four main reasons. Firstly, it is a good example of promoters eager to realise market potentials clashing with other groups determined to maintain the status quo. Secondly, it provides evidence of the important role of George Sorocold in the inland navigation schemes of the region. Thirdly, it emphasises the need to study the inland ports of the region in conjunction with river navigation. Fourthly, it provides some indication of the importance of an inland navigation project in the political life of a 'freeman' borough.

During the later years of the seventeenth century the town of Derby was largely engaged in the production of malt and ale, partly due to the successful use of coke for drying malt.<sup>2</sup> In 1693, Derby

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1. H.J.Dyon and D.H. Aldcroft, British Transport (Leicester, 1969) p.28.

2. Walton, p.18.



contained 694 families with 76 maltings.<sup>1</sup> Barley from southern Derbyshire was supplemented from the counties of Leicester, Lincoln, Rutland and Northampton, coal from the Smalley, Heanor and Donby mines being sent back on the pack horses.<sup>2</sup> Steel mills for grinding the malt were obtained from Birmingham.<sup>3</sup> Apart from being consumed in the town itself, malt was carried by land carriage into the neighbouring counties. In 1693, 300 loads of Derby malt of six strikes a load were carried weekly to Cheshire and Lancashire.<sup>4</sup> Malt was also sent by land carriage to Wilne Ferry, to be shipped down the Trent for sale in the river markets or passage to London. Houghton noted that malt had also been carried by land to London:-

'Formerly a great deal of Malt was carried to the Ferry by Land, which is five Miles which cost as much as from the Ferry to Hull by Water, which is 60 miles.' Malt has been carried from Derby to London by Land for 5s 4d and sometimes ten Groats a hundred weight, and the cheaper according as he knew of Carriage back, and there is not three Bushel in a hundredweight, by which may be seen the difference of Derby Malt betwixt London and Derby...<sup>5</sup>

By the end of the seventeenth century the quantity of coal mined on the Nottinghamshire-Derbyshire border may have been approaching 150,000 tons per annum, a considerable proportion of which was being

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1. Walton, p.17.

2. Green, p.46.

3. Letters for the Improvement of Husbandry and Trade, 28 April 1693.

4. Walton, p.17.

5. Letters for the Improvement of Husbandry and Trade, 12 May 1693.

moved by water down the river Trent.<sup>1</sup> It has been estimated that the town of Derby consumed annually about 3,000 loads of coal, mainly from the collieries of Samuel Richardson at Smalley and Heanor and those of John Lowe at Denby where over £900 had been spent in the perfection of a drainage sough.<sup>2</sup> Houghton postulated that the market potential for coke from Derby was not inconsiderable:-

'... 'tis believ'd that London or Places adjacent might have Cowkes from Derby at Rates worth while, for they may be brought from thence cheaper than Malt is, of which there comes a great deal: A Sack of six Bushells in Summer may be delivered at the Trent-side for ten Pence, and the Water Carriage may easily be calculated by those that bring Lead thence: If this should take twould greatly improve Navigation...'<sup>3</sup>

A number of traders in Derby were concerned in the development and trade of non-ferrous mineral ores. Of the four principal outlets for Derbyshire lead, that via Derby was the most southerly:-

'... lead costeth seven shillings the Fother Carriage from the Smelting-Mill to Derby, and half a Crown more down to the Ferry, from whence 'tis carried by Water to Hull.'<sup>4</sup>

The 1690's witnessed a revival of copper mining in Derbyshire, which seems to have been very successful at first. For example, some 'poor tradesmen' made a profit of £2,000 each on a few shares which they had purchased in a mine at Winster.<sup>5</sup> By 1693, Daniel Morley of

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1. Dyos and Aldcroft, op.cit., p.29.

2. Letters for the Improvement of Husbandry and Trade, 21 April 1693.

3. Ibid, 28 April 1693.

4. Ibid.

5. H. Hamilton, op.cit., p.104.



Ashbourne was working a copper mine at Cotton about three miles from Derby, the bulk of the output being forwarded in casks to a warehouse in the town for despatch by land to Wilne Ferry, thence by water to Hull and London.<sup>1</sup>

The expansion of Derby was partly restricted by the inadequacy of land and water communications. In the town itself one diarist recorded that:-

'they carry much of their carriages on sledges to secure their pitching in the streets.'

A more serious deficiency, at a time when the only regular link with the Trent was by land carriage, was that the roads leading into the town were 'foul and deep.'<sup>2</sup>

The destruction of the muniments of the corporation of Derby in the early eighteenth century has meant that the promoters of the Derwent Bills in 1695-6 and 1698-9 cannot be comprehensively ascertained. Although Houghton affirmed that there was not one wholesale trader in Derby, he recorded that:-

'... several of the Burgesses are worth each ten thousand Pounds or a better Penny.'<sup>3</sup>

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1. Letters for the Improvement of Husbandry and Trade, 9 June 1693.

The shares in the Derbyshire company at Winstor were first quoted in Houghton's trade paper in June 1694 at 23. They remained steady for about ten months, after which the price dropped to 12. The price was maintained until 1697 when it dropped to 10, and finally - in August 1697 - disappeared from Houghton's list. H. Hamilton, op.cit., p.104.

2. Colia Fienness, p.170.

3. Letters for the Improvement of Husbandry and Trade, 12 May 1693.

It has already been noted that the issue of the Derwent navigation was an important factor in the politics of Derby.<sup>1</sup> In November 1695, the freemen of the borough were engaged in a heated electoral contest, subsequently described by one of the inhabitants:-

'Elections are over . . . I am glad it is past here, this town was in such a ferment. Mr. Vernon lost it by many, it is said it will cost him £700. Bagnold the town clerk is one, a small estate, no quality nor good repute, but so great an interest in the town as to make the Duke (Devonshire) at last resolve his son the Lord Harry Cavendish should join with him . . .'<sup>2</sup>

The election of John Bagnold was almost certainly connected with a new attempt to secure statutory authority for the improvement of the Derwent, for:-

' . . . they say Mr Bagnalls freinds are the Cause of it . . .'<sup>3</sup>

Opponents of the Derwent scheme within the town affirmed subsequently that:-

' . . . a few maltsters and petty Chapman in Derby, who mind more their own private gain than the general good of the town, labour in the name of the Mayor and Burgesses to procure an Act . . . for making the River Darwent . . . navigable . . .'<sup>4</sup>

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1. Supra, p. 41.

2. Hist.MSS.Comm., Portland III, 573. Lady Pye to Abigail Harley.  
4 November 1695.

3. Chatsworth Estate MSS. Whildon Collection C.96.

4. H. of C. Journals, XI, 449.



The corporation of Derby petitioned the House of Commons for leave to bring in a Bill, asserting that the improvement of the Derwent would facilitate the carriage of the heavy products of Derbyshire - lead, iron, marble, plaster and millstones - which was difficult and costly on roads which were 'exceeding deep.'<sup>1</sup> Six weeks after his election, Bagnold was authorised to prepare and bring in a Bill, which was read for the first time in the House of Commons on 18 December 1695.<sup>2</sup>

The mayor and aldermen of Derby addressed letters to several towns requesting support for the Bill. On 7 January 1696, the corporation of Hull informed its M.P.'s that:-

'wee have received a letter from the Mayor and Aldermen of Derby, to desire us to request yor assistance in and about the making and passing an Act of Parliamt for the making the River Darwent . . . Navigable which they are pleased to mention to us, is as well of great advantage to the whole Kingdom in Generall as in particular to the Town of Derby.'<sup>3</sup>

The M.P.'s for the Yorkshire port were requested to act on their own initiative:-

'if you do understand the making the . . . river Navigable is a publick and Generall good and if you conceive it may be beneficiall to this Town . . . that you would be pleased to give them your assistance in the same, but if you think it otherwise, then, Gentlemen act according to your own sentiments.'<sup>4</sup>

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1. H. of C. Journals, XI, 358. 12 December 1695.

2. Ibid, 366.

3. Hull Letters. L.1162A.

4. Ibid.

The city corporation of Chester were entreated:-

'to support the application by means of their parliamentary representatives.'<sup>1</sup>

In all, fourteen petitions were presented in favour of the Derwent Bill, all of them after the second reading, and its committal on 3 January 1696.<sup>2</sup> Petitions from the J.P.'s of Cheshire, and from the towns of Middlewich, Nantwich, Stafford, Lichfield, Tamworth and Uttoxeter all stressed the saving in land carriage, and consequent reduction of wear and tear on the roads which would follow if the Derwent was improved. Petitions from Birmingham and Coventry in support of the proposed navigation urged that the high cost of land carriage was a limiting factor on the establishment, or expansion of the metal industries. The importance of the river Trent as a channel of ingress from or egress to the neighbouring counties and London was asserted in several petitions. The Bill was favoured by farming and trading interests at Newark, who hoped for a more ready market in Derbyshire for corn. A petition from Gainsborough urged that the port would benefit from any navigation which increased traffic on the Trent. Lead merchants, ironmongers and cheesemongers in London asserted that they had a large trade in Derbyshire, Staffordshire and Cheshire, which would be facilitated if land carriage were reduced. Many Derbyshire lead merchants and miners also petitioned in favour of the Bill.<sup>3</sup> A petition from the inhabitants of Burton-on-Trent set

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1. Hist. MSS. Comm., VIII, 392.

2. H. of C. Journals, XI, 377. Committed to 67 M.P.'s with an order that 'all that come are to have voices.'

3. Wood, p. 15.



out their aspirations:-

'that no private Interest may obstruct the Passing of an Act . . . which will be much for the Advantage of the Publick.'<sup>1</sup>

At the same time a strong opposition was being organized by those commercial interests who assumed that the improvement of the Derwent would prejudice their own position and upset the existing patterns of trade, together with those landed interests who were apprehensive of increasing supplies of corn being brought to Derby, or that their estates would be more liable to flooding.

On 16 December 1695, the corporation of Nottingham appointed a committee:-

'to consult and draw up reasons to be presented to the Parliament against the passing of a Bill for making the River Darwen . . . navigable to Derby.'<sup>2</sup>

The petition of Nottingham's inhabitants - eager to maintain their dominant position over the navigation of the upper Trent and its tributaries - stressed that if the Derwent Bill was passed, their own trade with Loughborough and Leicester would be diminished. It was also argued that the Trent would be rendered useless for navigation; that the land carriage of lead, salt and other goods would be diverted from the town, and the tolls for the use of Trent Bridge in consequence decline; and that rents in the counties of Nottingham, Derby, Leicester, York and Lancaster would fall.<sup>3</sup> It also seems that

1. H. of C. Journals, XI, 409.

2. Nottingham Records, V, 390-1.

3. Wood, p. 15. Houghton recorded that:- ' . . . abundance of Lead is carried over the country to Nottingham Bridges . . . ' Letters for the Improvement of Husbandry and Trade, 21 April 1693.

Nottingham colliery owners were apprehensive of increasing competition from Derbyshire coal.<sup>1</sup>

On 20 January 1696, the corporation of Leicester considered:-

'Whether a Petition shall be preferred by this Corporation to the honourable the house of Commons against making the River of Derwent Navigable.'<sup>2</sup>

This question was carried by nine votes to four.<sup>3</sup> Petitions from Leicester and Loughborough argued that the extension of river navigation to Derby would be prejudicial to their trade and markets.

Northampton urged that if the project was effected it would produce a glut of corn at Derby, and lead to a fall in prices and rents in that area, since farmers carried corn to Derby in exchange for coal.<sup>4</sup>

Apprehension of increasing competition from Derby maltsters produced opposition from other quarters. Thus a petition from Mansfield stressed that the pull of trade to the south, which the opening of the Derwent was expected to produce, would lessen the market for its malt. It was argued that any alteration in the pattern of trade would have other repercussions, for a petition from Southwell - whose inhabitants bought coal in Mansfield in exchange for corn - urged that if Mansfield's trade in malt declined, then the price which Southwell farmers received for their corn would fall, and coal be more heavy a burden.<sup>5</sup>

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1. Dyos and Aldcroft, op.cit., p.29

2. Leicester Records, V, 17.

3. Ibid.

4. Wood, p. 17.

5. Ibid.



Vigorous opposition came from the various carrying and trading interests concerned in the export of lead via Chesterfield, the Idle and the Trent, who assumed that one line of communication could not increase its volume of commerce unless other routes suffered. A petition from Worksop affirmed that corn and malt were traded with land carriers bringing lead from Derbyshire on its way to Bawtry, so that, if lead went via Derby, exchange would cease. Similar arguments were employed by East Retford and Blyth. Bawtry and Stockwith keelmasters and shipmasters petitioned against the Derwent Bill, asserting that they were dependant upon the navigation of the river Idle, and the conveying of lead to Hull or London. Stockwith shipbuilders and associated crafts argued similarly.<sup>1</sup>

A petition from the city corporation of York set out that their trade:-

'doth very much depend on the Navigation of the River Ouse; and that if the River Darwent in the County of Derby should be made navigable, it will be very prejudicial to the petitioners.'<sup>2</sup>

If this was the spontaneous expression of local feeling - which seems unlikely - a possible explanation is that traders in Yorkshire lead were apprehensive that any reduction in the cost of carriage of Derbyshire lead might be to their disadvantage.<sup>3</sup>

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1. Wood, p. 17.

2. H. of C. Journals, XI, 453.

3. Between 1691-99, 2647 fothers of lead were shipped down the Yorkshire Ouse to the account of Richard Taylor and Thomas White alone. Newby Hall MSS. 2,185. Elcock Lead Accounts. Lead mining in upper Wharfedale was expanding fairly rapidly at the end of the seventeenth century. A. Raistrick, 'The Lead Mines of Upper Wharfedale', Yorkshire Bulletin of Economic and Social Research, V, p.4.

Riparian landowners on the Derwent, and farmers from Radford, Bramcote, Attenborough and Stapleford stressed that the improvement of the Derwent would lead to the breaking down of banks, the flooding of meadows, while fords over which coal and other necessities were carried, would become unusable.<sup>1</sup>

Although the Bill had reached the committee stage in the House of Commons, mounting opposition, and the techniques employed by the opponents of the project, made it increasingly unlikely that it would be reported. When the Bill had been committed, its opponents had moved in the House that it should be provided for the committee that:-

'all that come to have voices.'<sup>2</sup>

This meant that any M.P. might attend the committee and vote, and not merely those members directly concerned. An opportunity was thereby given to delay the proceedings of the committee, or to amend or nullify the main clauses of the Bill.

Even more serious for the fate of the Bill were the manifest divisions of opinion within the county and town of Derby. The social status of the jurors of the Grand Jury made it possible for them to point out to the Bench what they considered beneficial or harmful to the county. The division of opinion within the Grand Jury of Derbyshire is shown clearly by two petitions read in the House of Commons on 24 January 1696. One, signed by the High Sheriff and several of the Derbyshire J.P.'s favoured the Derwent Bill on

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1. Wood, p.17.

2. H. of C. Journals, XI, 377.



the grounds that the cost of carriage would be reduced, and rents advanced.<sup>1</sup> The other petition, signed by 14 members of the Grand Jury, affirmed that the projected improvement would damage the greater part of Derbyshire and would be particularly prejudicial to the south-eastern parts of the county.<sup>2</sup>

A petition from Derby itself revealed that the town too was divided on the Bill. Thus several innkeepers, burgesses and other inhabitants of Derby, in a counter petition to one presented by the corporation, claimed that if the Bill passed it would be prejudicial to many of the inhabitants of the town:-

' . . . who get a living by the land carriage of commodities; and (if) they bring . . . corn to Derby, by this navigation, at a cheaper rate than the adjacent landowners can afford them . . . will divert many of the farmers from that market, to the prejudice of the Innholders of Derby.'<sup>3</sup>

It was hoped that the Bill would be defeated so that:-

'the town of Derby may not be its own ruin.'<sup>4</sup>

The Derwent Bill was not reported. On 25 January 1696, it was noted that:-

' . . . here is several petitions for, and against, the River Darwent, soe that most thinke it will not pass . . . few think it can doe them any good . . . '<sup>5</sup>

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1. H. of C. Journals, XI, 409.

2. Ibid, 410.

3. Ibid, 449.

4. Ibid.

5. Chatsworth Estate MSS. Whildon Collection C.96.

Paucity of records makes it impossible to ascertain the expenses involved in promoting the Derwent Bill. In organizing much of the opposition to the project, the town corporation of Nottingham had sought the help of local merchants and traders. On 20 January 1696 - while the Bill was in committee - it was decided by the mayor, aldermen and burgesses that:-

'whereas the same cannot be set aside without great care and charges in feeling counsel . . . if the . . . Tradesmen and Inhabitants will disburse one half of the said charge, this Corporation will disburse the other half.'<sup>1</sup>

This was in response to an offer by the traders of the town to contribute one third of the expenses involved in aborting the Bill.

. . . . .

Although no further effort to secure statutory powers for the Derwent scheme was made in the life of that Parliament, the Derby traders made determined efforts to establish a greater measure of control over one of their principal lines of commerce. Until the 1690's the only wharf on the Trent above Nottingham seems to have been that at Wilne. Efforts to establish a new wharf at Sawley, one mile below Wilne, aroused the hostility of wharfingers at the latter port, and the suspicion of the corporation of Nottingham. It has been argued that:-

'they did not want to go to Derby themselves by water, and so they were determined, in the true spirit of monopoly, that the Derby men

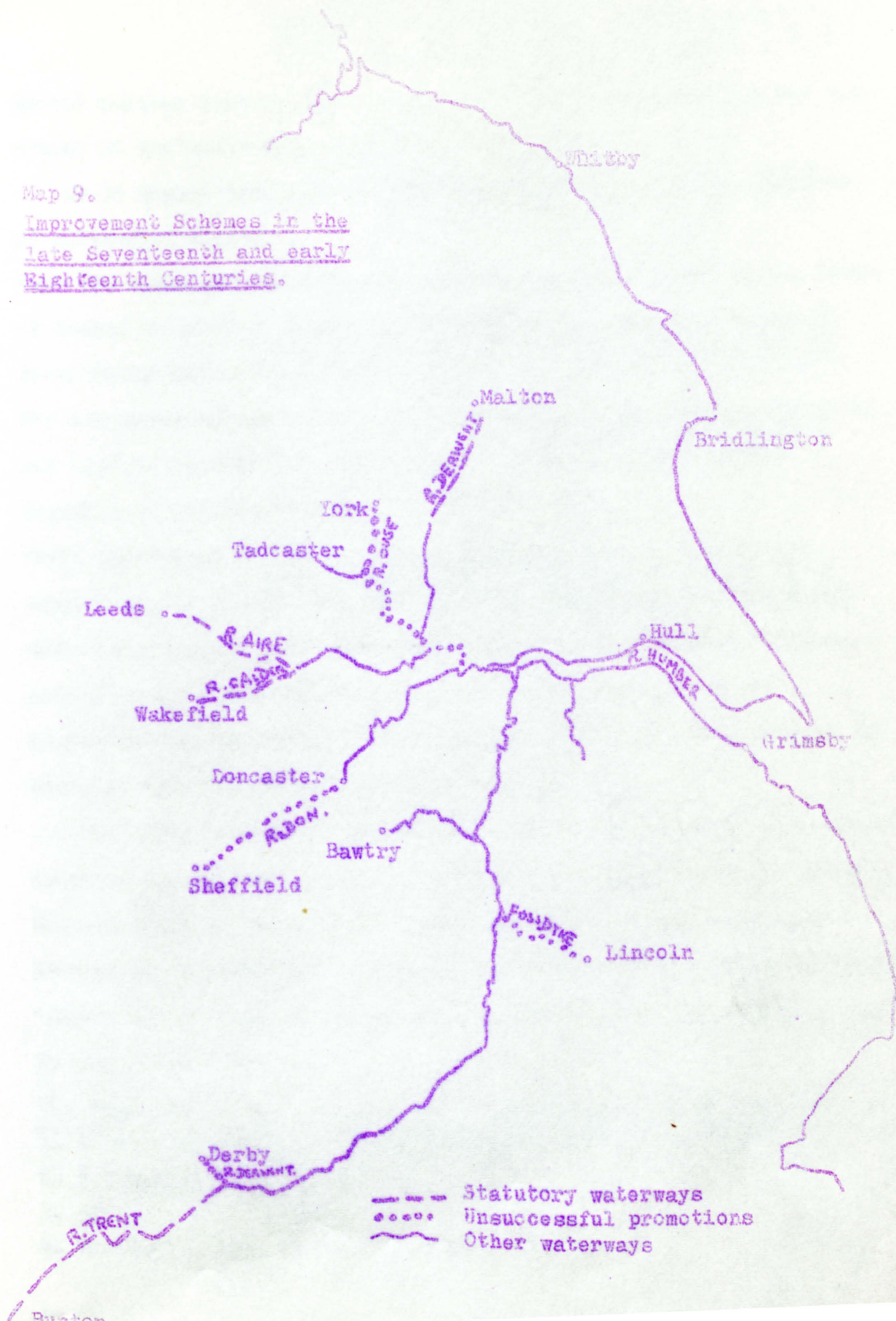
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1. Nottingham Records, V, 391.



Map 9.

Improvement Schemes in the  
late Seventeenth and early  
Eighteenth Centuries.





should neither come to them by water, nor go to Gainsborough for the supply of any wants they might experience.<sup>1</sup>

On 30 August 1698, it was unanimously agreed by the corporation of Nottingham that:-

'all the boats and vessells coming from Sawley and Wilne in the county of Derby, be stopped at the Trent Bridges . . . the said River of Trent being navigable no further.'<sup>2</sup>

The determination of Nottingham to establish a measure of control of all traffic passing down the Trent may be seen from a further decision of the corporation:-

'that the Arches of the said Trent Bridges shall be chained and stopped up, to prevent the passing of the said boates. And that what charges of Law and suites shall happen to be brought and expended in and about the said stoppage and chaining up of the . . . Arches and the hindering of the passages of the said Boates shall be borne at the charges of this Corporation.'<sup>3</sup>

The Derby traders responsible for the wharf at Sawley were soon involved in litigation with the corporation of Nottingham. On 13 September 1698, the mayor of Nottingham and three aldermen were instructed to negotiate an interim agreement with the Derby interests:-

'about the passinge of Boates through Trent Bridges to Sawley . . .'<sup>4</sup>

It was proposed that:-

'if they (the Derby traders) will become plaintiffs and prosecute a

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1. T. Bailey, Annals of Nottinghamshire (1855), III, 956-7.

2. Nottingham Records, V, 398.

3. Ibid.

4. Nottingham MSS. Hall Books. 3465, fol.32.



Suite at Law for Stoppinge their boates at the Trent Bridges and bring the same to a tryall against the next Assizes and in the interim shall give such satisfaction and acknowledgement to the Corporation as shalbe thought fitt for their present trespassing and till the tryall and in case the Law be against them upon the tryall then that they shall pay and give such satisfaction for all the trespasses as shalbe thought fitt by two indifferent persons to be chosen betwixt the Corporation and Darby men that then they shall passe with their boats and vessells till the Cause be tryed.<sup>1</sup>

In October the corporation of Nottingham appointed Thomas Bagshaw as their solicitor:-

'in the Cause betwixt this Corporation and Darby men about passing wth their vessells from Sawley to the Trent Bridges and through the same to Gainsborough.'<sup>2</sup>

The muniments of Nottingham corporation do not reveal the outcome of protracted litigation over the wharves on the upper Trent. In the 1698-9 Parliamentary session, the issue of the ports of the upper Trent becomes blurred in a renewed attempt to improve the Derwent, and a scheme to extend navigation to Burton-on-Trent.

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Preparations had begun at Derby soon after the election of 1698 to promote a new Derwent Bill. George Vernon, who had been defeated

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1. Nottingham MSS. Hall Books. 3465, fol.32.

2. loc.cit., 3466, fol.6.

in 1695, but now returned as one of the M.P.'s of the borough, hoped to reconcile the promoters with the interests of adjacent landowners. He had advised the corporation of Derby that it would be propitious to agree with the riparian interest before petitioning the House of Commons, to facilitate the passing of an authorisation Bill.<sup>1</sup> At the same time, Vernon sought to reassure Thomas Coke, one of the M.P.'s for Derbyshire, and the Earl of Chesterfield, Coke's father-in-law, whose estates might be affected by the improvement of the river Derwent. On 1 October 1698, Vernon informed Coke that:-

'I did come to Brotby on purpose as well to wait on his Lordship (Chesterfield), as to acquaint you with what some of the town of Derby had mentioned to me. I told my Lord that if you did not approve of the thing, it was easier to prevent the bill than to obstruct it.'<sup>2</sup>

Vernon was anxious to reassure the landowners of his intentions:-

'I hope you will believe I should never assist or promote any such bill, without full satisfaction to all persons concerned, and this I hope will give you a real belief of my integrity to your service.'<sup>3</sup>

On 21 November 1698, the corporation of Derby addressed letters to several towns requesting assistance in the promotion of a new Bill to improve the Derwent. The mayor and aldermen of Chester were urged to use their influence with M.P.'s:-

'in behalf of an application about to be made to parliament for powers

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1. Supra, p.23.

2. Hist. MSS. Comm., Cowper II, 379. Thomas Coke was Vice-Chamberlain 1706-27.

3. Ibid.



to make the river Derwent navigable.<sup>1</sup>

A letter to Hull stressed:-

'... the great benefitt and advantage that accrues to this Nation in generall by Navigation . . .'<sup>2</sup>

The corporation of Hull were requested to write to their Parliamentary representatives:-

'to desire their Concurrence with us in soe usefull an undertaking,

And wee will bee ever ready to serve you in the like on any other occasion wherein you shall desire.'<sup>3</sup>

Delegates were also instructed by the corporation of Derby to solicit support from several towns, and from the leading landowners.

On 24 November, Thomas Coke, one of the principal opponents of the Derwent scheme, was apprised that:-

'the navigators at Derby and Burton are very busy, going to every town on the river, and petitioning all people.'<sup>4</sup>

The Derby traders seem to have found an ally in the Duke of Devonshire.

In December, a letter to Hardwick set out that:-

'this sessions there will be an offer to make Darwent navagable to Derby and find my Lord Duke hath given his consent for it.'<sup>5</sup>

Meanwhile, the corporation of Nottingham were taking the requisite steps to meet what was deemed as a new threat to existing trade patterns. Having agreed unanimously that any Bill to improve

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1. Hist. MSS. Comm., VIII, 392.

2. Hull Letters. L.1183.

3. Ibid.

4. Hist. MSS. Comm., Cowper II, 382.

5. Chatsworth Estate MSS. Whildon Collection C.238.

the Derwent should be opposed, the corporation appointed a committee to draw up reasons against the project, and that they were to:-

'search for writings about the Navigation from Trent Bridges . . .'<sup>1</sup>

The chamberlains of the corporation were instructed to raise £50 'att interest' to defray the expences of opposition.<sup>2</sup> In addition to

petitioning itself, it was agreed that Chesterfield, Mansfield, Work-sop, Blyth, Retford, Lincoln, Boston, Hull, and other towns should be:-

'writ to for petitions.'<sup>3</sup>

A number of influential persons were approached by members of the corporation, notably the Dukes of Devonshire and Newcastle, the Earl of Chesterfield, the Earl of Scarsdale, Sir Thomas Willoughby and Sir Willoughby Hickman.<sup>4</sup> The M.P.'s for Nottingham, William Pierrepont

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1. Nottingham MSS. Hall Books. 3466, fol.9.

2. Ibid.

3. Nottingham Records, V, 399.

4. Nottingham MSS. Hall Books. 3466, fol.9. Philip Stanhope, second Earl of Chesterfield (1634-1714): Lord Chamberlain to Queen Consort, 1662-5; Chief Justice in Eyre, S. of Trent, 1679-85; supported William of Orange but refused to take oaths to him as King. Bishop Burnet of Chesterfield c.1695: 'He is very subtle and cunning, never entered into the measures of William III, nor ever will, in any probability make any great appearance in any other reign.' Swift of Chesterfield: 'If it be old Chesterfield, I have heard that he was the greatest knave in England.' D.N.B. Robert Leko, Earl of Scarsdale (1654-1707): M.P. for Newark, 1679; Governor of Hull, 1682; Lord Lieut. of Derbyshire, 1684-7. One of principal persons who joined William of Orange, but appears not to have approved subsequent proceedings. D.N.B. Sir Thomas Willoughby, cr. first Lord Middleton, 1711. Sir Willoughby Hickman: succeeded as third bart. 1682. Lord of the manor of Gainsborough. M.P. for Retford, 1698-1705; M.P. for Lincolnshire, 1713-20.



and Richard Slater, were urged to solicit an interest, and Sir Scroop Howe, one of the county members was requested:-

'to engage what persons he can of the house of Commons to oppose the making the River Darwent Navigable.'<sup>1</sup>

Landowners, whose tenants found a regular market for corn in Derby, once again opposed the Derwent scheme, apprehensive that there would be increasing competition and that the traders in the town would be able to exploit the position. On the other hand, Anchitell Gray, who informed Thomas Coke of the objections formerly used by landowners largely dependent on the market at Derby, considered that the riparian interest might more easily obtain redress:-

'... as to what relates to proprietors of lands upon the river, I conceive may be easily adjusted in the Bill according to precedent in cases of the like nature.'<sup>2</sup>

Sir Gilbert Clarke apprised Coke of the tactics which the landowners might adopt:-

'I think it very proper for those whose interest it is to be against the making Darwent navigable to join in a petition as you direct, and when I see the gentlemen concerned, I will acquaint them with it.'<sup>3</sup>

Clarke was reluctant to oppose the Bill openly, since:-

'having no land upon that water, and having so much disobliged the

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1. Nottingham MSS. Hall Books. 3466, fol.9. William Pierrepont was M.P. for Nottingham 1695-1705. Richard Slater of Nottingham was M.P. for the borough 1678-81; 1689-99.

2. Hist. MSS. Comm., Cowper II, 383. 17 January 1699.

3. Ibid. 4 January 1699. Sir Gilbert Clarke was M.P. for Derbyshire 1685-7; 1689-98.

town of Derby already, I am not willing to sign any paper, but cannot forget to have a kindness for my friends when it falls in my way to serve them.<sup>1</sup>

The Derwent Bill was read for the first time on 27 January, when it was resolved that the second reading should be taken in a full House.<sup>2</sup> The conflicting opinions of the M.P.'s for the borough of Derby, and of the county members became increasingly apparent. George Vernon was most active in promoting the Bill, but the landowners who opposed the scheme doubted whether his interest:-  
'will prevail much in any house.'<sup>3</sup>

The other member for Derby, Henry Cavendish, was willing to put off the second reading of the Bill, but Vernon was not willing to accept any delay.<sup>4</sup> The Marquis of Hartington, one of the county members considered that:-

'seeing there are so few petitions yet delivered, I believe the House will think fit to put it off.'<sup>5</sup>

Hartington apprised Coke, the other M.P. for Derbyshire of the tactics which might be used to obstruct and defeat the navigation scheme, suggesting that:-

'if the Bill should be committed, I think it will be very proper to move that all who come should have voices, as we did last Parliament,

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1. Hist. MSS. Comm., Cowper II, 383.

2. H. of C. Journals, XII, 462.

3. Hist. MSS. Comm., Cowper II, 382. At the 1698 general election, William Cavendish, Marquis of Hartington, the eldest son of the Duke of Devonshire, and Thomas Coke of Melbourne near Derby were returned for the county; Henry Cavendish and George Vernon for the borough.

4. Ibid, 385.

5. Ibid.



for otherwise none would attend but those that are concerned, and people are more industrious to promote anything than to oppose it.<sup>1</sup> This step proved unnecessary. On 20 February 1699, the Derwent Bill came up for its second reading. After M.P.'s had been summoned to attend the service of the House, the Bill was read for the second time, but the motion that it should be committed was defeated by 161 votes to 140.<sup>2</sup> Henry Gilbert of Locko wrote to Thomas Coke a few days later:-

'I am much obliged to you for the favour of acquainting (me) with the rejection of Derby Bill, by which our neighbourhood is freed from many present inconveniences.'<sup>3</sup>

. . . . .

The promoter of the Bill to extend the navigation of the Trent above Wilne Ferry was more fortunate than the ill-fated Derby traders. Lord Paget was lord of the manor of Burton-on-Trent and interested in the area. One visitor described a visit to Paget's estate at Beaudesert in 1698:-

' . . . and passed by the Coale pits where they were digging, they draw up the coale in baskets with a little wheole or windlass like a well, its very good . . . this parke is of large extent and some of

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1. Hist. MSS. Comm., Cowper II, 385. William Cavendish, styled Marquis of Hartington, was eld. s. of the Duke of Devonshire. He was M.P. for co. Derby 1695-1701; for Castle Rising 1702; for Yorkshire 1702-7. Henry Cavendish, second s. of Duke of Devonshire was M.P. for Derby 1695-1700. Died of palsy in 1700.

2. H. of C. Journals, XII, 519

3. Hist. MSS. Comm., Cowper II, 385. 25 February 1699.

those pitts are in it, the channell Coales; but the water has overflow'd some of them and spoyl'd their digging.'<sup>1</sup>

It has already been noted that conditions in the 1690's favoured the expansion of the inland coal trade.<sup>2</sup> The extension of navigation to Burton would facilitate the carriage of local coal in the river valley markets, and to compete more effectively with coal brought from Newcastle and Sunderland to the ports of the lower Trent. However, it has not proved possible to trace a direct connection between Pagot and the development of the inland coal trade of the upper Trent. Contemporaries tended to stress other interests likely to benefit from any extension of navigation. In December 1698 it was noted that:-

'... the Burton and Staforshire people and Dorbyshire all that way are allsoe endeavouring to have an Act to make the Trent navigable as far as Burton . . . which may Easier be don then Derwent, which should it be attained will be a great helpe to that part of the Country, and to the Cheesemongers and Cornfactors of this town (London). I saw my Lord Pagett's offer the other day and he tells me they hope to have it passed.'<sup>3</sup>

Sir Gilbert Clarke of Chilcote informed Thomas Coke that:-

'... Burton men are very active about making Trent navigable thither.'<sup>4</sup>

The passage of the Bill was facilitated by two factors. Firstly, the trading communities - who had organized such vigorous opposition

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1. Celia Fiennes, pp. 167-8.

2. Supra, pp. 226-30.

3. Chatsworth Estate MSS. Whildon Collection C. 238.

4. Hist. MSS. Comm., Cowper II, 383.



to the Derwent Bill, were more willing to countenance an extension of navigation on the Trent. In February 1699, the corporation of Nottingham wrote to their M.P.'s:-

'to have their opinion about the makeing the River Trent Navigable to Burton and that they consult . . . members of the house of Commons upon that subject and to desire their opinion therein.'<sup>1</sup>

The absence of petitions against the Bill is probably indicative of tacit consent.

Secondly, steps were also taken to placate the riparian interest, although the landowners subsequently complained that:-

'The Burton projectors have not dealt fairly with the gentlemen; they to my knowledge treated with the gentlemen, and promised that they would not proceed without their consents, and yet against their consents they have proceeded.'<sup>2</sup>

Some of the concessions made to local landowners were eventually incorporated in the Trent Act.<sup>3</sup> Thomas Coke, who actively promoted the Bill was directly concerned, as lord of the manors of Cantlo Donington and Shardlow. Coke's rôle in the Derwent and Trent navigations is not entirely clear, but correspondence suggests that he had some interest in the wharf at Wilno, and was eager to lease or purchase other property on the Trent. Such an interpretation would certainly explain his opposition to the efforts made to establish another wharf on the Trent at Saxley. The landowners were naturally

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1. Nottingham MSS. Hall Books. 3466, fol.13. 6 February 1699.

2. Hist. MSS. Comm., Cowper II, 385. Foremarke. Walter Burdett to Thomas Coke. 22 February 1699.

3. 10 Will. III, c.26.

anxious to gain the most favourable terms possible from the promoters of inland navigations. In December 1698, Coke was informed that:-

'... Burton men will no more agree with my Lord Huntingdon than my Lord will set you the mill: and by the same principle, for he says - De minimus non curat lex - and if he cannot be a considerable gainer, he will not expose the privacy of his park and mills, or make any alteration.'<sup>1</sup>

During the progress of the Trent Bill through Parliament, a proviso was added which gave Huntingdon the guarantee he required. Thus it was stipulated that:-

'no person whatsoever under pretence of the navigation shall come into or upon any of the lands . . . of . . . Theophilus Earl of Huntingdon on the south side of the Trent, but shall hale their boats . . . on that side of the river next Weston upon Trent in Derbyshire only . . . that no boats shall stop or stay upon that side of the said river adjoining the lands of the Earl . . .'<sup>2</sup>

The Act of 1699 empowered Paget to make the Trent navigable from Wilden Ferry (Shardlow) to Burton, a distance of 19 miles. No new wharves or warehouses might be set up on the improved section without the consent of Paget or the lessees he named. The commissioners named in the Act might assess the inhabitants of Burton-on-Trent up to the sum of £600, Paget making up the rest of the requisite sum

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1. Hist. MSS. Comm., Cowper II, 382. 14 Decembor 1698. King's Newton. Robert Hardinge to Thomas Coke.

2. H.L.R.O. Main Papers, H.L., 14 April 1699. 'The gallant but pleasure-loving Earl of Huntingdon made a special journey from Holland in 1704 to join with his Whig friends in throwing out the bill against Occasional Conformity.' Holmes, p.410.



in return for which he obtained statutory authority to impose a toll of 3d per ton.<sup>1</sup>

.....  
The short term repercussions of the Trent Act tended to heighten contention on the question of wharfage on the river above Nottingham.

As in other river navigations of the period, the undertakers were anxious to see an early return for their investment in improvement.

In order to achieve this, it was necessary to co-operate with those wharfingers and boatmen who had established connections in the river markets. On the upper Trent, the wharfinger at Wilne Ferry, Leonard Fosbrook, was in a strong position and soon became lessee for the stretch of the river which Paget had been authorised to improve.

However, the traders of Derby - disappointed of their own navigation - were eager to see the wharf at Sawley on the Trent maintained, and not to become solely dependent on Wilne Ferry.

Quarrels between Fosbrook and those Derby traders who were operating boats to and from Sawley were soon forthcoming. In December 1699, Sir Henry Every sought to convince Thomas Coke that he had not favoured the Derby interest at the expense of the wharfinger at Wilne:-

'I have been so far from encouraging the Sawley navigators (as you term them) that I am a perfect stranger to their designs, and must

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1. 10 Will. III, c.26. William Lord Paget was head of a Staffordshire family who had intermarried with the Foleys, whose successful iron manufacturing concerns had enabled them to purchase extensive land in Staffordshire, Herefordshire and Worcestershire. Walcott, p.67.

take the boldness to tell you that I am no party to or encourager of disputes.<sup>1</sup>

Correspondence on litigation over the Trent wharves suggests that Thomas Coke had some personal interest in establishing in the courts that Wilne Ferry was the sole port above Nottingham. In July 1700, Captain Henry Tate wrote to Coke:-

'I am informed by some of Derby that there will be more trials at Leicester about the Derby boats . . . It's my thoughts you will be cast at Leicester, for everybody seems to oppose a monopoly . . .'<sup>2</sup>

Thomas Coke, a member of the Harley group in the House of Commons - which after 1698 played an increasingly important part in national affairs for several years - was eager to retain one of the seats for the county of Derby.<sup>3</sup> Two main issues divided the county and borough, namely, the incidence of the land tax, and the Dorwent navigation scheme. In many places the local land-tax administration had become involved in political as well as personal and parochial differences.<sup>4</sup> Coke found himself under pressure from all sides, and there were numerous complaints of disparity in assessment. As elections approached land-tax disputes took on a political colour.

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1. Hist. MSS. Comm., Cowper II, 394. Every, and Thomas Cotchett in their capacity of J.P.'s had apparently decided some cause against Fosbrook.

2. Ibid., 401. 24 July 1700.

3. Walcott, pp.86-95. Thomas Coke (1674-1727): M.P. for Derbyshire in 1698, 1701, 1702, 1705, 1708; for Grampound in 1710, 1713. In 1702 chosen one of Committee for examining Public Accounts; 1704 one of Tellers of Exchequer; 1706 Privy Council; 1706-27 Vice-Chamberlain of the Household. Estate at Melbourne near Derby.

4. Ward, p.36.



The fears, anxieties and anger of the independent Tory country gentlemen were intensified by a series of exposures of corruption.<sup>1</sup> Coke was solicitous in maintaining support in the borough of Derby, but difficulties arose because of his intransigence on the issue of the Derwent scheme. In December 1700, the Derbyshire member was advised that:-

'If it can any wise consist with your honour, pray agree with the Derby men; I am certain you will not have their interest without it. I am heartily sorry you did not do it when I desired you.'<sup>2</sup>

In December 1701, Thomas Coke ran through £133 in a few days at Derby,<sup>3</sup> and two months later was requesting a local clergyman to sound out opinion in the borough:-

'According to your desire I went to Derby . . . I have inclosed . . . Franceys' letter by which you will see how the faction runs. I do think that if you would please to deal more with the Derby tradesmen it might turn to good account.'<sup>4</sup>

In May 1702, preparations were being made for the first general election of Anne's reign. From Wilne, Leonard Fosbrook informed Coke of political conditions in the county and borough of Derby, and of the activities of the engineer who had done so much to develop waterwork undertakings in many towns of England. The Trent wharfinger

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1. Plumb, p.138. In 1701, the Tory and country interest became overwhelmingly dominant in Parliament.

2. Hist. MSS. Comm., Cowper II, 412.

3. Plumb, p.90.

4. Hist. MSS. Comm., Cowper II, 450. Rev. John Troughton to Coke.

promised Coke that:-

'I will do you and Mr Curzon what service I can, but hope there will be no opposition . . . tis only Mr Serracold that stirs the coal and puts Derby men upon getting up an account for himself and some Londoners.'<sup>1</sup>

George Sorocold, who had installed the waterworks at Derby in 1692 - possibly his first major contract - was now an engineer and hydrographer of national renown.<sup>2</sup> He had married the daughter of a leading Derby apothecary, Henry Francis, but, from his various undertakings, it seems unlikely that he spent any length of time residing in the town.<sup>3</sup> It is not possible to ascertain whether Sorocold was the engineer consulted when the Derwent scheme was promoted in 1695 and 1698, although he was certainly interested in the fortunes of the lead mines in Wirksworth.<sup>4</sup>

In 1702, Sorocold was again in Derby, where he was responsible for the construction of a silk mill for Thomas Cotchett, a local J.P. and barrister.<sup>5</sup> The presence of Sorocold in the borough may have prompted the Derby traders to raise the Derwent scheme once again. It is possible however that the initiative came from the engineer. His work at Rotherhithe dock, and the London Bridge waterworks had enabled him to make important contacts in the capital and

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1. Hist. MSS. Comm., Cowper III, 7.

2. Williamson, p. 50.

3. Ibid, pp. 45-6.

4. Supra, p. 231.

5. The Life of William Hutton (3rd ed. 1841), p.195.



it seems not improbable that the revival of the Derwent scheme may have been designed to develop a more extensive trade in Derbyshire lead. Contemporary correspondence also suggests that extra-regional factors may have played a part in the timing of a new Bill. Thus in April 1701, it was communicated to Coke that the promotion of the river scheme seemed unlikely in the immediate future:-

'the Derby gentlemen have said nothing lately about the Wilne Ferry matter. I presume they would have Mr Stanhope gone, or also Mr Parker at Derby.'<sup>1</sup>

A year later, preliminary steps were being taken for the promotion of a new Bill.

. . . . .

The prospective undertakers of the Derwent navigation who promoted the Bill of 1702-3 were mostly leading figures in the government of the town. Thomas Carter was mayor in 1698 and 1701; William Francis was mayor in 1697, 1699 and 1700; and Francis Cockain was mayor in 1703, 1711, 1721 and 1733.<sup>2</sup> Henry Gilbert was the son of Sorocold's partner in at least one provincial waterwork undertaking, and had entered into partnership with a number of adventurers in the leadmines at Wirksworth.<sup>3</sup> John Burrows was one of the commissioners for the

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1. Hist. MSS. Comm., Cowper II, 424. Thomas Stanhope was returned as M.P. for Derby in 1702. Thomas Parker (later Earl of Macclesfield) was Recorder of Derby c.1698-1710.

2. Life of William Hutton, op.cit., p. 195.

3. Coke MSS. 102/47/610. 7 July 1702. Lease and release 1/96 part of a lead mine bought by Henry Gilbert jun. from John Shore of Wirksworth.

land-tax, who was prominent in the faction which sought to counter the influence of Thomas Coke. Thus in 1702, the Derbyshire M.P. was pressed to appoint friends as commissioners for Derby to defend his supporters from unfair tax assessments.<sup>1</sup> Coke was apprised that:- 'Several of your Derby friends are very uneasy about the Commissioners for the Land Tax, especially at Mr Burrows, who they say is partial and very oppressive to them, and is the chief promoter of it. I hope Mr Curzon and the Burgesses will find a way to leave him out; and that there may be a number in Derby qualified to act, as will balance your enemies there.'<sup>2</sup>

The remaining named undertakers were Ezeperius Turner and Abraham Crompton.<sup>3</sup>

By the autumn of 1702, Sorocold had completed the survey of the Derwent and had planned the requisite works to extend navigation from the Trent to Derby. Efforts were also made to reassure and satisfy the riparian interest. On 12 October, Robert Hardinge informed Coke that:-

'The Mayor of Derby invited Sir John (Harpur) and Sir Nat Curzon, Mr Curzon, Walter Burdett, Mr Harpur, me and some more. I suppose it was about the Navigation . . . Mr Alex. Stanhope drank prosperity to the Corporation, so I suppose he is satisfied.'<sup>4</sup>

On 17 November 1702, a petition was read in the House of Commons from the corporation, setting out that:-

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1. Ward, p.36.

2. Hist. MSS. Comm., Cowper III, 17. Robert Hardinge of Kings Newton to Thomas Coke. 24 October 1702.

3. Hist. MSS. Comm., H. of L. MSS., N.S. V, 181.

4. Hist. MSS. Comm., Cowper III, 12.



' . . . Derby is an inland town but hath a large River running into . . . Trent, within six Miles Distance of it . . . and the County of Derby abounding with great Stores of heavy Commodities as Lead, Iron, Marble, Plaister, Milstones . . . the Highways, especially towards the River Trent, being exceeding deep, renders Land Carriage very difficult and expensive.'<sup>1</sup>

To remedy this, it was affirmed that John Burrows and other undertakers had proposed to make the Dorwent Navigable:-

' . . . at their own Charges . . . (and) . . . to build a convenient Dock, and wharfs, for the Benefit of the said Borough and the poor thereof . . . '

John Harpur and Thomas Stanhope, the two M.P.'s for Derby were authorised to prepare and bring in a Bill, together with Sir Thomas Davall, the Recorder and M.P. for Harwich.<sup>2</sup>

The promoters recognised the necessity of presenting their Bill early in the Parliamentary session. On 24 November, the Bill was read for the first time, and a week later it was committed.<sup>3</sup> Unlike the proceedings of 1696 and 1699, this was not an open committee, for no motion had been carried that all M.P.'s might attend and have votes.

Once again, commercial interests in Nottingham sought to frustrate the design of the Derby promoters. On 30 November, it was

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1. H. of C. Journals, XIV, 35.

2. Ibid. John Harpur was a Tory who represented Derby in the first three years of Anne's reign. Career seems to indicate little personal ambition. Holmes, p.286. Davall, a London private banker, was M.P. for Harwich 1695-1708. Also a contractor for remitting Exchequer payments. Walcott, p.193.

3. H. of C. Journals, XIV, 44, 59.

agreed by the corporation that:-

'Mr Mayor and the several Aldermen do take as many as they think fit along with them and go through their respective wards and collect what money they can towards opposing the River Derwent.'<sup>1</sup>

The Earl of Chesterfield and Sir Thomas Willoughby were requested to assist the corporation once more, and the M.P.'s for Nottingham were urged:-

'to use their utmost Endeavour to oppose the Bill.'<sup>2</sup>

Several petitions were referred by the House of Commons to the committee appointed to consider the Derwent Bill. Timing was an important factor to both promoters and opponents. On 1 December, the day on which the Bill was committed, the motion to refer a petition from Nottingham was rejected, as was a petition from Newark in favour of the Derwent project.<sup>3</sup> Other interests were more fortunate in having their arguments for or against the Bill presented by Counsel to the committee. Petitions from Bawtry, Worksop, and from several landowners within Scarsdale hundred against the Bill argued that the extension of navigation to Derby would upset existing patterns of trade in the export of lead. Although riparian interests did not make a concerted effort to oppose the Bill, several landowners in the south-eastern parts of Derbyshire, from Long Eaton, Toton, Wils-trop, Broeson, Chilwell, Atterborough, Draycott and other townships

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1. Nottingham Records, VI, 15.

2. Ibid. William Pierrepont and --- Gregory, M.P.'s for Nottingham

3. H. of C. Journals, XIV, 60. The petition from Newark outlined the advantages:- 'that the said Town (Newark) and Partes adjacent abound with all Sorts of Corn and Grain, so that great Quantities might be sold into Derbyshire, at moderate Rates, were it not for the Dearness of Land Carriage. . . ' Ibid., 82.



lying near the Derwent and Trent, stressed that if the navigation was effected, pastureland would be spoiled through the haling of boats, and that fords across the river would be rendered useless.<sup>1</sup>

The promoters of the Bill were naturally eager that the Bill should not be delayed at this stage. On 23 December, it was ordered in the House of Commons that:-

'the Report from the Committee to whom the Bill for making the River Darwent navigable, was committed, be made upon the First Day of the sitting of the House after the intended Recess.'<sup>2</sup>

On 4 January 1703, the Bill was reported, and the House accepted several amendments. A clause was also agreed upon, that:-

'no works for making the river navigable should be done on the estates of the Duke of Devonshire and of the Earl of Chesterfield without their consent.'<sup>3</sup>

Five days later, the engrossed Bill passed the Commons.<sup>4</sup>

The Bill which was carried to the House of Lords was held to be necessary:-

'to cheapen the rates for carrying load and other merchandise and incidentally to preserve the highways in Derbyshire.'<sup>5</sup>

To remedy this, seven undertakers were empowered to make the Derwent navigable for all kinds of boats from Derby to the junction with the Trent. A body of 56 commissioners were named to mediate between the undertakers and the various riparian interests. As in other

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1. H. of C. Journals, XIV, 67, 77, 81.

2. Ibid, 94.

3. Ibid, 96.

4. Ibid.

5. Hist. MSS. Comm., H. of L. MSS., N.S. V, 181.

inland navigation Bills of the period, the commissioners were empowered to empanel a jury in cases where no agreement could be reached, who would hear the evidence and give their verdict. The undertakers were authorised to impose a toll of 2s 6d per ton on merchandise carried between Derby and the Trent, and in proportion for lesser distances. They were to make a basin and wharves for boats at the Morledge in Derby, the corporation being empowered to receive 2d per ton wharfage on all goods loaded or unloaded there, the money received being used for the clothing and education of the children of the poor burghesses. The powers which the undertakers hoped to obtain were to last for a term of seven years after which they would lapse. In addition to clauses and provisos indemnifying the property of the Duke of Devonshire and the Earl of Chesterfield, the promoters had recognised the necessity of making other concessions. Thus a clause was included for the protection of the salmon fisheries along the Derwent. The Bill also stipulated that no other wharves were to be erected on the river except by Thomas Stanhope, or by the mutual consent of the undertakers and commissioners.<sup>1</sup>

The promoters of the Bill drew up Reasons to convince the House of Lords of the advantages of the proposed navigation.<sup>2</sup> It was

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1. Hist. MSS. Comm., H. of L. MSS., N.S. V, 181. On 7 December 1702, John Akrode wrote to Coke:- 'At the desire of . . . John Newham of Whittington I give you this trouble. He is much concerned at the design of making Derwent navigable, because of his estate lying a considerable length by the side of it. When this matter was formerly in agitation, he received a letter from the Corporation to preserve him from damage. . .'

2. D.P.L. Document attached to Sorocold's map.



affirmed that its prime purpose was to save land carriage expenses between Derby and Wilne Ferry, the quantities of heavy goods being conveyed along that route being so great:-

'as to make this land carriage of five miles very considerable'

An example was cited of 1,000 fothers of lead which were consigned every year to one London merchant which paid 5<sup>d</sup> a fother for land carriage between Derby and Wilne Ferry, the total cost amounting to £250. It was argued that:-

'the cheaper lead can be brought to market the more encouragement there will be for adventurers to gett it, and will enable them to give better wages, which will be advantageous for many thousand families that depend on getting lead.'

It was also maintained that the Crown would benefit from any expansion of lead mining:-

'the 13th dish of all lead ore gotten in that country being paid as duty . . . under the name of Lott, and every Load of Lead Ore paying a further duty of 6<sup>d</sup> to the Crown which is called Cope.'

To counter arguments that the Derwent navigation would lead to a decrease in trade along other routes, it was asserted with regard to the Derby scheme that the river improvement contemplated was over such a short distance that:-

'it will very little divert land carriage which now passeth other ways, especially High Peak, and all that send Lead to Bawtree thro' Scarsdale will be able to send . . . to markett by the same way they now goe 5 or 6<sup>d</sup> a fodder cheaper than by Derby (evon) when the navigation is perfected.'<sup>1</sup>

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1. D.P.L. Document attached to Sorocold's map.

One of the principal objects of the promoters was to relieve the trading community of Derby from reliance on the wharfingers at Wilno Ferry. Possibly as a reflection of a major weakness of the upper Trent undertaking, one reason set down in favour of the Bill was that a public wharf would be set up so that:-  
'none may ingross the navigation.'<sup>1</sup>

Finally, it was hoped that a powerful argument with the House of Lords would be that no petitions had been presented to the Commons against the Bill from riparian landowners.<sup>2</sup>

The corporation of Nottingham was more successful in its opposition in the upper House. It was decided that a petition should be presented, and Alderman Smith and Benjamin Green were deputed to go to London to prove its allegations.<sup>3</sup> Interests dependent on the Idle-Trent axis of commerce once again vigorously opposed the scheme. Petitions from Chesterfield, and from landowners in Scarsdale hundred asserted that if the navigation was effected, it would destroy the land carriage of lead, iron, and millstones, besides which the price of corn would be lessened, which would have serious repercussions upon the level of rents. The shippers and traders of Stockwith, Misterton, Kinnoul Ferry, and Butterwick were also apprehensive of any pull of trade to the south, affirming that:-

'There is a great trade from the Trent ports to London, Holland,

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1. D.P.L. Document attached to Sorocold's map.

2. loc.cit.

3. Nottingham Records, VI, 16.



Norway and other ports in this Kingdom and beyond seas in lead, mill-stones, cheese, corn and other merchandizes brought via Bawtry.<sup>1</sup>

The Stanhope family of Elvaston played a controversial role. Alexander Stanhope, who had previously reached an understanding with the corporation of Derby, now presented a petition against the Bill, on behalf of a minor, William Stanhope.<sup>2</sup> However, a counter petition of Thomas Stanhope, one of the M.P.'s for Derby - who had secured certain concessions in the Bill concerning wharfage - set out that he had:-

'good reason to believe that William Stanhope was not privy or consenting to the petition presented by his Trustee (Alexander S.).'<sup>3</sup>

Thomas Stanhope declared that he could not conceive that:-

'intended navigation can in any way prejudice . . . William (Stanhope), he being the Petitioner's younger brother and having no estate on any of the land affected but in remainder after the death of the Petitioner and Charles Stanhope, his second brother and their heirs.'

On 13 January 1703, the Derwent Bill was read for the first time in the House of Lords, and an attempt to postpone the second reading of the Bill for a fortnight was frustrated.<sup>4</sup> On 1 February, Counsel

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1. H. of L. Journals, XVII, 255. A petition against the Bill was presented by Bawtry interests signed by Thomas Lister and 69 others.

2. Ibid.

3. Ibid.

4. Ibid., 232. A motion:-'whether this Bill shall be read for the second time this day fortnight' was defeated, and it was ordered that the Bill should be read that day week.

was heard, and witnesses were examined to prove the allegations of the various petitions, the promoters being given an opportunity to reply. Counsel on behalf of the corporation of Nottingham attested that if the Derwent scheme was effected, trade which had previously centred on Trent bridge would be diverted, so that:-

'It will cut off communication.'<sup>1</sup>

Witnesses called to prove the allegations of the petitions from Scarsdale and Chesterfield affirmed that:-

'It will take away about 10,000 carriers . . . this will interrupt several towns of their whole carriage.'<sup>2</sup>

A proposal that Counsel should be heard on behalf of the minor, William Stanhope, was rejected.

Counsel on behalf of the promoters started their case by challenging some of the witnesses called by the other side. Thus it was complained that Benjamin Green, heard on the allegations of Nottingham, was directly concerned, having signed the petition against the Bill. To justify the Bill, it was claimed that the promoters were merely endeavouring to reduce the cost of carriage of lead and other goods.<sup>3</sup> Sorocold gave details to the House of the works he deemed necessary to extend navigation, notably four new cuts and nine locks.<sup>4</sup> The

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1. Hist. MSS. Comm., II. of L. MSS., N.S. V, 181. Counsel Dodd for Nottingham, Benjamin Green witness.

2. Ibid. John Scorey and --- Pooley witnesses.

3. Ibid., 182. Counsel Phipps for Derby. Thomas Parker the Recorder witness for the promoters.

4. Skempton, p.43.





Map 10. The Derbyshire Derwent  
and upper Trent Schemes.



engineer calculated that if the Derwent scheme was effected, and the undertakers charged 2s 6d per ton on goods carried up or down the river from Derby to the Trent, it would save 3s 6d in the price then being paid for land carriage to and from Wilne Ferry. Sorocold attested that, having known the region for more than sixteen years, he was familiar with local land carriage rates, and that lead from Rowsley mill in the High Peak went via Chesterfield to Bawtry sometimes for 5s per fother, sometimes 6 or 7s in winter.<sup>1</sup> A map was circulated to show that the northern route for the export of Derbyshire lead, using land and water carriage between Rowsley and Stockwith was over a distance of 38 miles. On the other hand, the distance from Rowsley to Stockwith via Wirksworth, Derby, and Wilne Ferry was 76 miles. Three observations may be made on the attempt made by the Derwent promoters to show that - even if navigation was extended to Derby - lead traders would still use the northern route. Firstly, the northern route involved the land carriage of lead over a distance of 28 miles, whereas the southern route would mean land carriage for 16 miles if the Derwent was improved, or 21 miles if the pack horse mode of conveyance was used all the way to Wilne Ferry. Secondly, a false impression is given by taking Rowsley mill as the starting point for the calculation of the length of both routes. Thus lead for the market at Derby would come principally from the southern part of the mining area in Wirksworth wapentake, so that the Derwent scheme would mean land carriage only over a distance of about eight

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1. Hist. MSS. Comm., II. of L. MSS., N.S. V, 182.



miles. Finally, although Stockwith was the port on the Trent for the northern route, any lead which went via Derby and Wilne Ferry would be transhipped at Gainsborough, so that another three miles should be deducted from the southern route. To sum up, the southern route over a distance of 65 miles, would include only eight miles of land carriage if the Derwent was improved; whereas along the 38 miles of the northern route, 28 miles was by land carriage.<sup>1</sup> Seen in these terms, and taking into consideration contemporary assumptions about the nature of internal trade, it is scarcely surprising that the scheme to improve the Derwent should meet such strong opposition from interests dependent on other routes.

The House of Lords having heard the arguments from the trading communities, attention was turned to the attitude of local landowners. Further evidence was provided of the ambivalent attitude of Alexander Stanhope. Although Stanhope had informed Sorocold and the promoters that he would not:-

'go over the threshold to hinder the Bill'

a witness for the Bill, Samuel Heathcote, declared that the landowner was:-

'disgusted when Bills were passing of this kind.'<sup>2</sup>

Having heard Counsel for and against the Bill, the House turned

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1. D.P.L. Survey of the River Derwent in the county of Derby.

2. Hist. MSS. Comm., H. of L. MSS., N.S. V, 182. Samuel Heathcote subsequently had financial interests in the Leeds waterworks, one of Sorocold's undertakings. Heathcote's will, dated 21 November 1723, mentions all his waterworks from the river Aire at Leeds. Will. proved 14 April 1724. Add. MSS. 24,470 fol.258.

to the question of whether it should be further proceeded upon. However, the motion that the Bill should be read for the second time was defeated by 27 votes to 19.<sup>1</sup> Having failed three times in less than a decade to secure statutory authority for the Derwent undertaking, the traders of Derby did not promote another Bill for 15 years. The struggle shows the extent to which trading communities were bound by mercantilist assumptions, and the lengths to which they would go to promote or frustrate improvement schemes.

(iv) ATTEMPTS TO EXTEND NAVIGATION TO SHEFFIELD

The two Bills introduced to improve the navigation of the river Don in 1697 and 1704, like the attempts to extend navigation to Derby, ended in failure. The hostility of riparian proprietors, and the apprehension of rival trading communities were common factors in the frustration of the designs of promoters, but the impetus to secure statutory authority for the proposed undertakings arose from different circumstances. The Don schemes in those years provide examples of an enterprising landholder taking the initiative, but finding little response from local commercial interests.

Within the Humber, Ouse, and Trent region a number of progressive landowners - several of whom were Fellows of the Royal Society - took particular interest in engineering projects and hydrography, and played no small part in the promotion of projects to develop inland navigation. Sir Godfrey Copley showed great interest in the

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1. H. of L. Journals, XVII, 264.



proceedings of the Royal Society, aiding his friend Sir Hans Sloane in forming his scientific collections, and bringing together a valuable collection of prints and mathematical instruments.<sup>1</sup> In the summer of 1694, Copley, the chief landowner in Sprotborough near Doncaster made a survey of parts of the Don valley. He was assisted by Thomas Kirk of Cookridge near Leeds, who had designed a new surveying wheel, which was tried out before being sent to Sir Robert Southwell, the President of the Royal Society, and one of the leading pamphleteers of the day on the advantages of inland navigation.<sup>2</sup> In July 1694, Copley wrote to Sloane:-

'Mr Kirk is here and is your Servant, he will have a Surveying Wheele shortly for Sir Rob: Southwell, and I believe it will be a very good one, however we will make tryall of it to be sure.'<sup>3</sup>

Later in the year Copley described his activities:-

'I have diverted myself this summer past with Building and Surveying in which last I have done a great Deale, and had I any neighbours that were Lovers of that which is curious to Assist me I would make a much more exact Map of this part which should be ten or twelve mile square, than any I have seen.'<sup>4</sup>

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1. Copley became second baronet on d. of his father, 1684. M.P. for Aldborough 1678, 1681; for Thirsk 1695-1705. F.R.S. 1691. He was one of the Commissioners of Public Accounts 1701; Controller of Accounts of the Army 1704. In his will, Copley bequeathed £100 in trust for the Royal Society for improving natural knowledgo. He.d. 1709. D.N.B.

2. Southwell was President of the Royal Society 1690-5. In 1685 he had outlined a scheme for a network of canals centring on London. Willan (1936), p.12.

3. B.M. Sloane MSS. 4,036, fol.177.

4. Ibid, fol.188.

In the following years Copley was engaged in installing water-works at his Sprotborough estate. In his new activity Copley was eager to consult one of the leading contemporary engineers, George Sorocold of Derby, who had already carried out some important water-work undertakings at towns within the region. In the autumn of 1694, he wrote to Sloane:-

'I know not whether I writ you word that wee have an enginocr come into this country whose profession is raising of water. He hath performed well at Derby and Leeds and he is just now come to Doncaster and they are driving a bargain for the service of that town and if that go on I will see what he can do for me.'<sup>1</sup>

In September 1695, while Sorocold was engaged in the installation of waterworks in Leeds, Cyril Arthington, a forward-looking landowner and future Fellow of the Royal Society, was requested to invite the engineer to Sprotborough. Copley wrote to Arthington:-

'I beg of you to give my Service to Mr Kirk & when he sees Mr Saracolo

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1. W.H.G. Armytage, 'George Sorocold and Sir Godfrey Copley', Journal of the Derbyshire Archaeological and Natural History Society,

LXXIII (1953), 105-7. In 1693-4, Sorocold was associated with Richard Barry of Westminster in waterwork undertakings in Norwich, Portsmouth and Yarmouth, Williamson, p. In January 1695, Copley requested Sloane to send him the recent Transactions of the Royal Society, adding:- '... if Camdens Britannia be come out I desire you will buy it and send it ... pray remember Marriots book of Waterworks, and if there be any new things that relate to Mathematicks, or history or state affairs you will oblige me in sending them.' B.M. Sloane MSS. 4,036, fol. 204.



to let him know I should be glad to see him here if it were but one night if his businesses will allow it & if Mr Kirk would be so kind as to come over I should be very glad of it. I beg a line from you, how you find Mr Saracoles work go on and succeed.<sup>1</sup>

If Sorocold was not actually responsible for Copley's waterworks at Sprotborough, it seems probable that the engineer was at least consulted. In 1696, Sorocold was engaged in a water supply scheme in London in association with another engineer, John Hadley who had patented a rising and falling waterwheel in 1693.<sup>2</sup> In June 1696 Copley wrote to Thomas Kirk that:-

'I have been this day and am to meet to morrow Mr Saracole and Mr Hadley. I have seen his Engine consisting of 3 Mill Wheels with small cranks att each end of the Axletree which raises Toms (Thames) Water and are all carried with one stream of konnell water one Wheel being under another. I do thinke the best piece of work I have seen.'<sup>3</sup>

Enlightened self interest seems to have prompted Copley to promote a more ambitious undertaking in the extension of navigation above Doncaster.<sup>4</sup> This interpretation of the reason for the promotion of

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1. B.M. Stowe MSS. 747, fol.53. Thomas Kirk was elected F.R.S. in 1693. Afterwards communicated to the Royal Society, 'An Account of a Lamb being sucked by a Wether Sheep for Several months after the death of the Ewe', Phil. Trans., XVIII, 263.

2. Williamson, p.81.

3. B.M. Stowe MSS. 747, fol. 66.

4. Supra, p. 222.

the Don scheme is given additional weight from the fact that the commercial and industrial interests, who seemed most likely to benefit from the extension of navigation to Sheffield, failed to give Copley the requisite support. In 1696, Copley canvassed for assistance from the landed proprietors and trading community of south Yorkshire. On 24 August, Joseph Banks apprised Copley of the best means of popularizing the Don scheme:-

' . . . the High Sheriff, Major Gill, Mr Parker, Mr Jessop and several other Gent. are to meet at our Cutlers feast at Sheffield next Thursday at which tyme it would be most convenient (because twill be difficult to get all together againe ) to consider about making our River navigable, and I have a Comicon to envite you to the feast, Soe if you thinke of going on with this navigation I thinke it would be very convenient you meet them there.'<sup>1</sup>

Although the cutlers and traders of Sheffield, who had to bear the high cost of land carriage to Bawtry or Doncaster, began to consider the advantages of using the river Don as a direct water route to Hull, Copley seems to have received little active support from that quarter. That no Bill to obtain statutory authority for the Don undertaking was promoted in the 1696-7 Parliamentary session may probably be explained by the fact that the technical details of the scheme had not been settled, while the severe economic depression which lasted from May 1696 to March 1697 may have rendered such an undertaking inopportune.<sup>2</sup>

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1. Copley MSS. 63520.

2. Holmes, p.153. With decline of credit and loss of confidence most of the smaller joint-stock companies went under.



By the autumn of 1697 the recognition that the war with France was ending led to a revival of confidence. On 30 December, some eighteen months after the Don project was first mooted, the House of Commons gave leave:-

'to bring in a Bill to make the River Dun . . . navigable, at the Charge of such as shall undertake the same . . .'<sup>1</sup>

Sir Godfrey Copley, who was authorised to prepare a Bill, presented it to the House on 21 January 1698, and four days later it was read for the first time.<sup>2</sup>

The trading communities and riparian proprietors along the Don were divided. Above Doncaster, opinion seems to have been largely in favour of the Bill. The Sheffield Cutlers' Company did not petition, although the Don scheme was discussed with neighbouring interests:-

'at a meeting with the Rotherham men about the river.'<sup>3</sup>

The inhabitants of Rotherham petitioned the House of Commons, asserting that:-

' . . . making the Dun navigable to Sheffield will be a public good to all the adjacent country . . .'<sup>4</sup>

At least one local landowner seems to have anticipated that the extension of navigation would prove of personal benefit, although overt

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1. H. of C. Journals, XII, 18.

2. Ibid, 61.

3. Willan (1965), p.2.

4. H. of C. Journals, XII, 76.

support on this occasion was conspicuously absent. Thus it was subsequently noted that:-

'When the Bill had been read once, and before the second reading, Mr Gill of Carhouse being very confident the Bill would pass, raised the price of his coal 12<sup>d</sup> per load and this not known till the Bill was thrown out.'<sup>1</sup>

One feature of the various schemes to improve inland navigation was the active role played by local magistrates and the Grand Jury, who would discuss county affairs and the merits and defects of prospective improvements, which might then be followed by petitions to Parliament. On 28 January 1698, a petition was read in the House of Commons from the J.P.'s of the West Riding setting out that:-

'Dun navigation would be a public advantage to all the adjacent country, and make the carriage cheaper of all sorts of Commodities to and from London, York, Hull and other places.'<sup>2</sup>

Some support - at least in the form of petitions - came from further afield. One from Lincoln affirmed that:-

'the River Dun . . . is in a great measure navigable from Sheffield to Doncaster, and is capable of being made navigable to Rotherham, which, if effected will be a public Good and advantage to all the adjacent Country.'<sup>3</sup>

The corporation of Leeds petitioned in favour of the Don Bill, partly no doubt for reciprocal support for the Aire and Calder Bill then

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1. Mellish MSS. 162/42.

2. Willan (1965), pp.2-4.

3. H. of C. Journals, XII, 64, 70.



being considered by Parliament.<sup>1</sup>

The principal opposition to the Don Bill came from Bawtry, the Trent ports of Stockwith and Gainsborough, and other interests who were dependent on the Idle route, along which the town of Sheffield and villages in Hallamshire sent and received some of their goods. It was assumed that if the traffic on one river increased, that the volume of goods carried on other routes must - in consequence - decline. On 28 January, a petition was presented from the inhabitants of Bawtry setting out that:-

' . . . Dun navigation would be a great Damage . . . to the Potitioners who chiefly subsist by the Navigation of the River Idle, which runs by Bawtry, and conveys, by Boats, into the River Trent, lead, corn, millstones and other commodities which come out of Derbyshire and Nottinghamshire.'<sup>2</sup>

The following day a petition of the Trent shipmasters and keelmasters argued that:-

' . . . Dun navigation would ruin the navigation of the Trent . . . reputed to be the third best in England, which yearly breeds abundance of seamen . . . '<sup>3</sup>

The petition from Gainsborough was couched in similar terms, it being added that the extension of river navigation above Doncaster would lead to an increase in the price of coal, and discourage the export of corn from the Vale of Trent.<sup>4</sup> The landowners of the manor and

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1. Leave had been given to bring in a Bill for the Aire and Calder Navigation on 12 January 1698. H. of C. Journals, XII, 42.

2. Ibid, 70.

3. Ibid, 73.

4. Ibid, 70.

soke of Kirton in Lindsey pointed out possible repercussions of Copley's Bill, asserting that:-

'... Dun navigation will ruin the navigation of the River Trent, by forcing the shipping to look for employ in other parts, and will discourage . . . sending corn to London and other places and make coal from Newcastle and Sunderland much dearer.'<sup>1</sup>

The expansion of Doncaster as a market for corn was viewed with apprehension by other interests trading in that commodity, who assumed that demand was inelastic. A petition from Pontefract asserted that the town was:-

'anciently . . . remarkable for Fairs and Markets; but what now remains is a Corn-Trade . . . If the Bill to make the Dun navigable passed it would take away all the Trading Part of Pontefract and be of ill consequence to all the adjacent towns.'<sup>2</sup>

Landowners in the proximity of Doncaster were nevertheless worried that if increasing quantities of corn were sold at Doncaster, the price would fall. Thus several parishes in the Isle of Axholme stressed that the Don navigation would ruin interests dependent on the Trent, and prejudice Doncaster market where the petitioners sold their corn.<sup>3</sup>

A central figure in the opposition to Copley's Bill was Thomas Lister, lord of the manor of Bawtry, who had a considerable financial interest in the Idle-Trent route, besides collecting wharfage toll.

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1. H. of C. Journals, XII, 70.

2. Ibid, 73.

3. Ibid.



On no fewer than five occasions in the decade after 1695, Lister sought to abort navigation Bills for either the Derbyshire Derwent or the Don. Having contributed to the defeat of the Bill to extend navigation to Derby in 1696, Lister regarded proposals to open a waterway to Sheffield as a major threat which would divert traffic to the more northerly axis. In January 1698, Copley informed Thomas Kirk that:-

'I have asked leave to bring in a Bill to make Dun Navigable . . . but here is Mr Lister of Bawtree solicits as it were for his life.'<sup>1</sup>

Lister also strived to divide the civic and commercial interests in Doncaster, who already received some benefit from the position of the town as the head of navigation. The fate of the Bill would be partly determined by the success of these tactics, it being subsequently recorded that the corporation and traders of Doncaster were:- 'influenced by Mr Lister of Bawtry were then divided and one half petitioned for the Bill and the other against it.'<sup>2</sup>

One petition, from several traders and inhabitants of the town, asserted that the passing of the Don Bill would be:- 'for a public good, and very advantageous to the adjacent Countries.'<sup>3</sup> On the other hand, the petition of the mayor and corporation affirmed that:-

' . . . it will greatly prejudice those who live about the said town,

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1. B.M. Stowe MSS. 747, fol. 84. Houghton observed that one of the outlets for Derbyshire lead was ' . . . from Sheffield and all those parts to Doncaster, and so to the German Ocean.' Letters for the Improvement of Husbandry and Trade, 21 April 1693.

2. Copley MSS. 63524. Bundle of Dr. Fountayne's Letters.

3. H. of C. Journals, XII, 68.

and more especially the Corporation . . . by destroying their Mills, for which they pay a considerable yearly rent to the Crown, and have lately been at £1,000 Charge in repairing them and the Dams . . . prejudice their Market, and lessen the Rents of Houses and Lands there.<sup>1</sup>

Petitions to Parliament which manifested major divisions of opinion within a town tended to weaken considerably the chances of successfully promoting a Bill.

Below Doncaster the river was already navigable during some months of the year, and river ports already enjoying a toll free navigation viewed the extension of the waterway with some apprehension. Land-owners in Hatfield Chase tended to assume that if navigation works were effected within reach of the tides it would increase the likelihood of flooding. A petition from the inhabitants of Hatfield, Woodhouse, Stainford, Thorne, Fishlake and Sykehouse opposed the Don Bill because several locks and sluices would be placed in the river.<sup>2</sup> The fears of the riparian proprietors seemed particularly pertinent for a disastrous inundation occurred in December 1697. One diarist recorded that there was:-

'so great a flood down that the like was never known . . . unto Bramwith, Fishlake, Thorne and other towns . . . The sluice at Thorne had like to have gone away . . . In Lincolnshire, Trent broke its banks near Morton near Gainsborough. Banks of Vickers dike and Dicken dike also broken, bordering upon our Levells . . . in a word, the

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1. H. of C. Journals, XII, 68.

2. Ibid, 64.



loss to the whole country hereabouts is above a million of pounds, besides what it does to the whole country round about out of our limit and circuit . . . All the most oldest men that are says that it is the vastest flood that ever they saw or heard of.<sup>1</sup>

The petitions presented for and against the Bill were all referred for consideration at the second reading, a crucial stage in the progress of prospective legislation. At that stage the principles of a Bill were discussed and the various arguments heard, before taking the decision on whether or not it should be committed. It was at the second reading that determined opponents of a Bill had their first real opportunity to halt its progress and throw it out. It was the occasion when promoters and opponents endeavoured to muster maximum support from M.P.'s. On 1 February 1698, the Don Bill was read for the second time, but the motion that it should be committed was defeated by 202 votes to 92.<sup>2</sup> The large number of M.P.'s at the division was characteristic of many of the inland navigation Bills of the period, an indication of the extent to which M.P.'s were canvassed or solicited.

It is scarcely surprising that the Bill promoted by Copley should have failed. Little overt support had come from Sheffield, the corporation of Doncaster had opposed the scheme, while the riparian proprietors, faced with severe flooding, felt every justification for petitioning against the Bill. Away from the Don valley, other trading communities had organized a vigorous opposition to abort the

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1. De la Pryne, pp.167-8.

2. H. of C. Journals, XII, 77.

Don scheme.

One of the principal points of controversy when proposals were made to improve the navigation of the Don, arose over the position and aspirations of the trading interests in the river ports. In the late seventeenth century Thorne was the principal port on the Don from which it was possible to trade directly to Hull at most times of the year, whereas there was often insufficient water to allow boats to get up to Doncaster. If the navigation of the river was extended to allow small boats to trade to Rotherham or Sheffield, the question arose as to which port would act as the centre for transhipment. Doncaster traders and shippers - already experiencing certain advantages from the position as head of navigation to which goods were brought by land carriage - were apprehensive that if the waterway was extended, not only would they lose that position, but that Thorne, or Fishlake might become the transhipment port. It was partly these fears, but partly with the hope of becoming the principal port on the Don, that stimulated schemes to allow larger vessels to get up to Doncaster at all times of the year. However, any attempt to deepen the water in the lower reaches of the waterway aroused determined opposition from the riparian proprietors, who feared that flooding would be more likely.

. . . . .

Although the corporation of Doncaster had not supported Copley's efforts for the extension of navigation, the authorities in the town

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showed some concern for improving the Don in its lower reaches in the 1690's. On 2 November 1691, it was agreed that:-

'... £5 Curr: money shall be given . . . out of the Common stock to Contribute for making the river Dunn more navigable.'<sup>1</sup>

The corporation also found it necessary to take steps to establish its authority for the collection of wharfage toll. On 13 November 1693, an order of the corporation set out:-

'that a great a ton be demanded and distress taken for the Same of Such as shall refuse to pay for every Tunn of Goods that shall goe up or down this River as Wharfish tolls or Duos to the Lord of the Soake and that if any Suites at any time shall happen about the same to arise such suites shall be maintained, presented or defended at the charge of the Corporation.'<sup>2</sup>

The order was soon challenged, the corporation being involved in a lawsuit in 1695 concerning the duty:-

'upon goods going down and up the River.'<sup>3</sup>

When Sorocold entered into an agreement with the mayor and aldermen of Doncaster to establish a waterworks in the town, it was stipulated that:-

'the said George Sorocold is not to injure the mills or interfere with the navigation of the river.'<sup>4</sup>

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1. Willan (1965), p. 2.

2. Doncaster Records, IV, 156.

3. Ibid.

4. Doncaster MSS. Title Deed 613a. 20 December 1694 copy grant by the Mayor &c. of Doncaster to George Sorocold of Derby.

The presence of Sorocold in Doncaster did not prompt the corporation to promote the improvement of the river.<sup>1</sup>

It was not until 1703 that the corporation of Doncaster:-

'convinced of their Error (of not supporting Coploy's Bill) brought a Bill themselves for makeing the River Navigable.'<sup>2</sup>

The town sought the support of local landowners and of trading interests in Rotherham and Sheffield. On 18 November 1703, the corporation of Doncaster agreed that:-

'application bee made to the Parliament for an Act to make the River Dun navigable and that a Peticon to the Parliament in the name of the Corporacon and of the Gentlemen, freeholders and Inhabitants of the said Corporacon and townes adjacent bee drawne and signed . . .'<sup>3</sup>

At the same time a committee was appointed to discuss the scheme with the riparian interest, and to enter into agreements with the inhabitants of Rotherham and Sheffield.<sup>4</sup> Sir George Cooke of Wheatley near

Doncaster seems to have countenanced the design of the corporation, but little progress was made at Parliamentary level.<sup>5</sup> In the House

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1. It is doubtful whether Sorocold actually completed the waterworks at Doncaster. In 1703, John Yarnold of Eton leased land in Frenchgate, Doncaster:- 'to erect a water-engine for conveying water from the River Cheswell to the houses in Doncaster.' On 28 April 1703, it was ordered by the corporation that Yarnold should be given further time for completing the waterworks. In the same year a subpoena was served on the mayor in a lawsuit with Sorocold. Doncaster Records, I, 94 ; IV, 159.

2. Copley MSS. 63524.

3. Doncaster Records, IV, 246.

4. Ibid.

5. Sir George Cooke bt. of Wheatley (1662-1732). Ho m. Catharine, da. of Sir Godfrey Copley of Sprotborough.



of Commons, Robert Monckton, one of the M.P.'s for Aldborough, seems to have played an important part in aborting the scheme. It was subsequently noted that:-

'on a Petition for Dun being made navigable, after it had been rejected four or five years before - he (Monckton) represented to the House that it had formerly been proposed and was thought then impracticable and it was rejected upon the Petition.'<sup>1</sup>

In the following Parliamentary session, the corporation of Doncaster concentrated on securing statutory authority for the improvement of the river Don below the town. In October 1704, the corporation appointed a committee to manage the promotion, the chamberlains being empowered to raise £100. This sum was to be paid to one of the aldermen, William Walker, who was appointed:-

'to goe to London to manage the same and to make use of such assistance as he think fitt.'<sup>2</sup>

On 28 November 1704, a petition from the corporation was presented to

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1. Robert Monckton of Cavil and Hedroyd was s. of Sir Philip Monckton the Royalist. His s. John Monckton was created Viscount Galway in 1727. Yorks. Arch. Soc. XXVII (1924), 361. Robert Monckton was indebted to the Duke of Newcastle. A seasoned Court Whig, Monckton was turned out of his seat at Aldborough by Polham in 1713 for voting against his party on the French Commerce Bill. Holmes, p.312. Monckton might have had personal reasons for opposing the Don scheme. He was a leading undertaker of the Aire and Calder Navigation, which would have had to face competition from collieries above Doncaster in the river valley markets if that waterway was extended. Mellish MSS. 166/23.

2. Doncaster Records, IV, 162. William Walker, woollen draper and  

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alderman of Doncaster d.1720.

the House of Commons, setting out that Doncaster was an important market town, especially for the corn trade, and affirming that the river:-

'is already, in some Places and at some times of the Year, navigable for Boats, Barges and other Vessels . . . but by reason of several Rocks, Shallows, and Banks of Sand and Gravel, the Passage is very uncertain, and hazardous . . . yet the Dun is capable of being made more navigable.'<sup>1</sup>

As in other petitions requesting leave to bring in a Bill to improve river navigation, it was asserted that the amelioration of the waterway would help to preserve the highways and promote trade.<sup>2</sup>

The Bill was brought in by the two Yorkshire M.P.'s, Lord Hartington and Sir John Kay, and was read for the first time on 13 December 1704.<sup>3</sup> Its purpose was to obtain statutory authority:-

'for making and keeping the river Dun more navigable . . . at the Charge of the Mayor, Aldermen and Burgesses of Doncaster and such other Persons as will undertake the same.'<sup>4</sup>

Petitions in favour of the Bill mainly stressed the need for cheaper carriage.<sup>5</sup> The traders and inhabitants of Sheffield and Barnsley were eager for a more regular water link to Hull. Several petitions emphasised the importance of Doncaster as a market for corn.

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1. H. of C. Journals, XIV, 437

2. Ibid.

3. Ibid., 456. Lord Hartington, a Whig, succeeded his father as second Duke of Devonshire in 1707. After the 1701 session of Parliament, Sir John Kaye, a Tory, was told bluntly by Sir William Lowther: 'that (if) he voted as he was inform'd he did last sessions . . . he must expect none of his interest if he stood again.

Holmes, pp.44-5.

4. H. of C. Journals, XIV, 456. 292

5. Willan (1965), pp.4-5.



One, from traders and farmers in the wapentake of Strafforth and Tickhill affirmed that merchants directed their factors to buy red wheat at Doncaster, but, as the Don was not constantly navigable, the seller was forced to carry it or to make an abatement for land carriage. Several corn merchants of London claimed that great quantities of corn - particularly wheat - were bought in and about Doncaster, a trade which would be facilitated by cheaper carriage. The London cheesemongers favoured the Bill, since large quantities of Cheshire cheese, and hams were sent to Doncaster and so down to Hull as the easiest way of being dispatched to the capital.

Many petitions were presented against the Bill, notably from Bawtry, a variety of other interests dependant on the Idle-Trent axis of trade, and from the riparian landowners.<sup>1</sup> Francis Simpson, one of the wharfingers at Fishlake, later described another argument used by the opponents of the Bill:-

'that it would damage the navigation of the Ouse . . . and that by letting up the Tides by widdening and cleaning the River at Gould (Goole) it would divert them from the River Ouse.'<sup>2</sup>

Similar arguments had been used a few years earlier against the promoters of the Aire and Calder undertaking.<sup>3</sup>

After the first reading, little further progress was made at Parliamentary level. The second reading was repeatedly postponed,

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1. H. of C. Journals, XIV, 456-62.

2. Mellish MSS. 162/41.

3. Infra, pp. 307-8.

and it was subsequently recorded that the corporation of Doncaster had:-

'entrusted it with the Lord Marquess of Hartington . . . who being a Stranger to them, and their own manager they sent to London (was) bribed, the Bill was dropped at that time.'<sup>1</sup>

Some years later when renewed efforts were made to improve the Don and extend navigation, the principal point at issue was recalled. In retrospect, it was noted that:-

'The River Dun has twice been attempted to be made navigable, but cou'd not be effected because Doncaster woud have Keels or large vessels come up that draw great depth of water and might goe to Hull which cou'd not be done without drowning a great part of the country both by raising the water and by stopping the tides . . . Dukes of Ancaster, Devonshire and many other Lords and Commons having estates in the flat country opposed it and always will if Locks be made within reach of the tides.'<sup>2</sup>

#### (v) THE EXTENSION OF NAVIGATION TO LEEDS AND WAKEFIELD

The means by which the Aire and Calder scheme received the sanction of Parliament are not less important than the reasons which led to its promotion. The controversy of 1698-9 provides an example - possibly the only one - of recourse to an independent opinion to

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1. Copley MSS. 63524. William Walker, the Doncaster alderman who had managed the Bill in London subsequently received £199 15s for his expenses. Doncaster Records, IV, 20 September 1705.

2. Mellish MSS. 162/7b.



settle, or cast light upon, points in dispute between rival trading communities on the likely repercussions of passing an inland navigation Bill.

Although it has been argued that the 1690's witnessed the return of prosperity to Leeds<sup>1</sup>, conditions in the West Riding clothing districts during the early years of the War of the League of Augsburg were hardly conducive to a general revival of confidence. Robert Meeke, the minister of Slaithwaite chapel near Huddersfield has left a vivid record of the early 1690's. On 5 March 1690, he observed that:-  
' . . . went to a friend to whom I had lent some money: but the cloth market being so bad, he could not sell, and therefore paid me but part of what he should. Lord grant us an established peace, that persons may reap more fruit of their labours; at present it is a hard and difficult time for poor labouring men . . . '

In April 1693, we find Meeke complaining that:-

'Every(thing) is very dear, and poor people's labour is choap, for our trade of cloth here is much down, money is scarce . . . '

Eleven months later, he observed:-

' . . . trading is so bad, and money so scarce that the poor can get neither work nor wages. . . '

On 18 April 1694, Meeke noted in his diary:-

' . . . I heard a poor man talking to my landlady . . . telling her he had been four days at market with a piece, and could yet receive no money; that he was forced to buy bean-meal to make bread. Oat-meal being dear; and nothing almost got for work. Lord, pity the poor,

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1. Rimmer, 'Leeds', p. 125.

put an end to wars. Give rulers prudence to consider the state of the nation.'

Two months later he observed:-

'... money is scarce, trading worse and worse, the poor ill not to live.'<sup>1</sup>

How far the difficulties of the clothing districts induced the local business community to look for new fields of investment in the 1690's is a matter of conjecture. If there was added investment in coal and minerals, it does not appear to have been sufficiently marked to encourage the promotion of transport improvement schemes - at least during the course of the war. It was not until 1697 that Thoresby recorded:-

'proposals were now first made for making the rivers Aire and Calder navigable.'<sup>2</sup>

The promoters of the scheme to extend river navigation to Leeds and Wakefield insisted that the requisite improvement Bill was designed chiefly:-

'for advancing the Trade of the Northern woollen manufacture.'<sup>3</sup>

The changes which were taking place in the organization of the northern cloth trade in the closing years of the seventeenth century form the essential background to the renewed efforts to secure statutory authority for the Aire and Calder undertaking. The opening of trade

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1. Extracts from the Diary of Rev. Robert Meeko, ed. H.J. Morehouse and C.A. Hulbert (1874), pp. 24, 28.

2. Unwin, 'ACN 1', p.55, quoting Thoresby, I, 320.

3. Ibid, quoting Cunliffe-Lister MSS. 69, sec.1.



to Hamburg and the decline of the Merchant Adventurers and Eastland Company, meant that English merchants were free to engage in foreign commerce unhampered by the restrictions and regulations of trading monopolies.<sup>1</sup> In some respects, the Aire and Calder controversy thus marks the final stage in the struggle for commercial supremacy between York and the West Riding towns.<sup>2</sup> Any reduction of the cost of carriage would prove advantageous to merchants and factors at a time when many of the markets for English kerseys and dozens were becoming saturated, and when greater endeavours were being made to sell bays, serges and challoons on the continent.<sup>3</sup> The decline of the old companies also meant that foreign merchants could trade more easily,<sup>4</sup> an influx of Dutch traders following the opening of trade with Hamburg. One Dutch merchant, John D'Orvill became an important shareholder in the Aire and Calder undertaking soon after statutory authority had been obtained.<sup>5</sup>

The extension of the west Yorkshire waterway would facilitate the

1. In 1689 the Merchant Adventurers lost most of their remaining powers. In 1696 the records of the Eastland Company of York came to an end. Heaton, p.245.
2. For jealousy between the Eastland Company of York and Leeds merchants see Maud Sellers, 'The Acts and Ordinances of the Eastland Company', Camden Society, 3rd. ser. XI
3. Davis (1962), p.25.
4. Heaton, p.245.
5. Unwin, 'ACN 2', p.17, quoting Milnor MSS. DB 65/10. During the earlier part of the eighteenth century there was considerable Dutch investment in British government funds, which released indigenous capital for other things. Mathias (1969), p.4.

carriage of wool to the cloth producing region. During the later seventeenth century Hull was importing increasing quantities of wool from the outports of the east coast and London, although the West Riding clothiers still received much of their supply by land carriage from Lincolnshire and Leicestershire.<sup>1</sup>

In the 1690's conditions were particularly favourable for the sale of west Yorkshire coal in the river valley markets of the Humber, Ouse and Trent basins. From at least the sixteenth century many landowners with estates adjacent to the Aire and Calder had drawn some income from coal, but its quality, and the high cost of land carriage, had restricted its sale. Coal from Newcastle and Sunderland, and from south Nottinghamshire, assisted by cheap water carriage, found a ready market within the north Midlands waterway system, but west Yorkshire coal did not remain undeveloped.<sup>2</sup> Local demand in the populous West Riding was not unimportant, and competition from outside was more easily offset where carriage constituted a smaller proportion of total costs. Less than five miles from Knottingley, the head of navigation, a number of coal mines were being worked, which might easily be tapped if the waterway was extended. It has already been noted that a number of factors were at work in the late seventeenth and early eighteenth centuries which made it more likely that the market potential of the inland coalfields would be realised.<sup>3</sup>

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1. 27 October 1720: '... the clothiers in Yorkshire would rather give double the price for land carriage, than have their wool brought by sea, where it receives so much damage . . . ' Journal of Commissioners for Trade and Plantations, 1720, p.220.

2. *Ibid.*, I, 102.

3. Supra, pp. 226-230.



The promoters of the new Aire and Calder project derived part of their income from dealings in those commodities likely to benefit from the improvement of the rivers. Leeds woollen cloth merchants and drapers - who also served as aldermen and mayors of the corporation - were prominent in the Aire scheme. William Milner, who was the leading promoter and subsequently subscribed £1,100, was mayor in 1697 and married the daughter of another cloth merchant Joshua Ibbetson, mayor in 1685, who contributed £300 to the navigation. William Rooke (£800), mayor in 1683; his son William (£200) mayor in 1713 and knighted in 1723; and Thomas Lazenby (£100), mayor in 1700, were all leading cloth merchants. Caleb Askwith (£400), mayor in 1698, and John Dodgson (£100), mayor in 1696 were linen drapers. Thomas Kitchingman (£500), mayor in 1688 and 1705, carried on an extensive business in cloth, coal, iron and timber. His son Thomas subscribed £100 to the undertaking; Sarah, one of his five daughters married Joshua Ibbetson (£200), a Leeds merchant and only son of the mayor of 1685. One of the elder Ibbetson's daughters, Elizabeth married James Dawson, a mercer of Leeds who subscribed £100. A Leeds wine merchant John Gibson, who was mayor in 1701, subscribed £200. Other merchant subscribers were Robert Potter (£100), son of Thomas Potter a Leeds merchant and mayor in 1682; and Thomas Sawyer (£100). William Wombwell of Wombwell (£300) was the son of a Leeds merchant who had inherited the south Yorkshire estate in 1695. John Holroyd of Halifax and William Sutcliff of Heptonstall were prosperous clothiers and each subscribed £100 to the Aire project. Altogether

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above eighty per cent. of the original capital for that navigation was contributed by merchants.<sup>1</sup> Henry Iveson, of Blackbank near Leeds - who was named an undertaker in the Aire and Calder Act of 1699 - does not appear among the earliest list of subscribers. Iveson, an important coal merchant, was mayor of Leeds in 1695 and 1709, a Justice of the Peace for the West Riding and High Sheriff of Yorkshire in 1708.<sup>2</sup> Sir John Bland of Kippax Park (£500) and Christopher Lowther of Great Preston (£200) were the only landowners named among the earliest subscribers.<sup>3</sup>

Merchants also figure amongst the Wakefield promoters, though to a lesser extent than at Leeds. John Smyth (£500) was born in Bradford and acquired a fortune in one branch of commerce at Wakefield.<sup>4</sup> Joseph Watkinson (£500) was a mercer who bought Flanshaw Hall.<sup>5</sup> Abraham Beevers (£150) was engaged in the seed-crushing and dyeing trade, and later purchased an estate at New Millerdam.<sup>6</sup> Local lawyers

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1. Unwin, 'ACN 1', pp. 57-8. The sums subscribed are derived from Wilson MSS. DB 204/3 p.221. Personal details from Ducatus, pp.265-6.

2. Willan (1936), p. 53.

3. Unwin, 'ACN 1', p. 58. Sir John Bland, M.P. for Pontefract 1690, 1698, 1701, 1702, 1705, 1708, 1710. Alderman of Pontefract 1698, and mayor in 1703. During Anne's reign, Bland was a follower of Harlow in the House of Commons. Holmes, p.265.

4. Unwin, 'ACN 1', p.59.

5. Walker, p.532.

6. Hist. MSS. Comm., Portland IV, 142. Abraham Beevers leased the rape mills at Castleford and Allerton in the early eighteenth century. Unwin, 'ACN 2', p.12.



also made significant contributions. Richard Witton (£500) was a barrister of Lupset and agent to Lord Fairfax. His sister, Margaret married Theophilus Shelton, who was elected first registrar of the Wakefield Registry of Deeds in 1704, and who subscribed £100 towards the navigation.<sup>1</sup> Robert Benson of Wrenthorpe (£500) was referred to by one of his contemporaries as:-

'an attorney and no great character for an honest man.'

His son was Chancellor of the Exchequer in 1711, and subsequently became Baron Bingley.<sup>2</sup> Support from the landed interest was not unimportant, Robert Monckton of Cavil and Hodroyd (£500), Robert Kaye of Adwalton (£450), and Godfrey Bosville of Gunthwaite (£100) contributing.<sup>3</sup> Other subscribers were John Goodricke (£100), Thomas Roebuck (£100), Francis Mawde (£100), William Copondale (£100), Francis Wheatley (£100), Thomas Dickins (£200) and Jeremiah Spink of Hunslet (£100).<sup>4</sup>

Several problems arise from an examination of the original subscribers of the Aire and Calder navigation. Paucity of records for the early meetings makes it difficult to determine when each of the subsequent shareholders first gave their support to the undertaking.

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1. Unwin, 'ACN 2', p.59. Richard Witton was descended from a Puritan family located near Halifax. In July 1699, John Harris of Burnham, Norfolk sold to Richard Witton and to John Smyth the Rectory Manor of Wakefield for £13,500. Richard Witton jun. married Jane, the daughter of William Milner of Leeds. Walker, p.240.

2. D.N.B.

3. Unwin, 'ACN 2', p.59.

4. Ibid.

Thus Sir John Bland actually opposed the project at first, but is included in the earliest list of Leeds promoters extant. Conversely, several merchants and landowners named as undertakers of the navigation by the Act of 1699 do not appear to have subscribed.

From the beginning a distinction appears between the Leeds and Wakefield promoters, the subscriptions referred to above being made as a result of separate surveys and estimates for the two rivers. Samuel Sholton received £5 10s. for surveying and making a map of the river Calder for the Wakefield promoters.<sup>1</sup> Ralph Thoresby has left a vivid account of the Aire survey, undertaken in the late autumn of 1697:-

'Dec 3 Accompanied the Mayor and Mr Hadley to view the river, in order to have it made navigable; Mr Kirk and I followed the windings of the water, and measured it with his surveying-wheel; viewed the several mills and shallows, and with much ado finished as far as Ferry-bridge against night, ten miles by land, twenty by water.

'Dec 4 Got brother Rayner's assistance down river to Weeland, observed sands, &c, and upon whole the ingenious Mr Hadley questions not its being done, and with less charge than expected, affirming it the noblest river he ever saw not already navigable.'<sup>2</sup>

John Hadley of West Bromwich was one of the leading engineers at the end of the seventeenth century. His invention of a mechanism for raising and lowering water-wheels in accordance with the level

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1. Unwin, 'ACN 1', p.60, quoting ACN 4/35.

2. Ibid, quoting Thoresby, II, 441-2. In June 1697 Sir Godfrey Copley bought a surveying wheel for Robert Monckton, one of the promoters of the Calder from 'Mr Tuttle the Instrument Maker at Charing Cross' Copley MSS. 63524.



of the stream had been used for waterwork undertakings at Worcester and Chester. Described by Maitland as 'that great Master of Hydraulicks', Hadley had worked with George Sorocold in several projects, notably the London-Bridge Waterworks.<sup>1</sup> Hadley was aided in the survey of the Aire by Thomas Kirk of Cookridge, who had developed his surveying-wheel a few years before.<sup>2</sup> The engineer estimated that it would cost £5,200 to make the river Aire navigable for vessels of fifteen tons or less. Locks would be required at Nether Mill Dam, Hunslet Mill Dam, New Mill Dam, Thwait Mill, Fleet Mill Dam, Castleford Mill Dam, and Knottingley Dam, while the channel of the river would be deepened in several places below Thwait Mill, and between Knottingley and East Haddlesoy.<sup>3</sup> On 7 December 1697, Thoresby wrote to Thomas Kirk:-

'Mr Hadley is gone this morning, having made some computations which I cannot yet procure a Coppy of, but read them last night in a full convention, when 'twas resolved that Mr Hadley himself shud have the Preference if he wud undertake the business, and I perceive the Amsterdam concern will not prevent it. In general his Computation of the charges of the Locks &c. amounted to £5,200 but this to yourself alone.'<sup>4</sup>

Having decided that Hadley should carry out the work, preparations

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1. Skempton, p.36. In 1701 the engineer's family were living in Sutton Coldfield. ACN 4/102.

2. Supra, p.277.

3. Unwin, 'ACN 1', p.60, quoting ACN 3/18.

4. Ibid, quoting B.M. Store MSS. 747, fol.81.

were made to promote a Bill in Parliament to secure authority for the undertaking. A number of M.P.'s were approached. On 11 December, William Milner, mayor of Leeds, wrote to Lord Irwin at Temple Newsam informing him of the projected Bill and requesting his assistance:-  
'and that you will please to influence your friends to do the like  
. . . I wish I might be so happy as to be honour'd wth your Lordship's company to drink a Glass wth mee here at Leeds before your setting forward againe for London.'<sup>1</sup>

The two M.P.'s for the county were willing to support the Bill. One of them, Sir John Kaye received much electoral support from the corporation of Leeds, while his brother, Robert Kaye of Adwalton was among the leading subscribers to the Wakefield scheme.<sup>2</sup> Another prospective undertaker, Richard Witton was agent to Lord Fairfax, the other M.P. for Yorkshire. The Leeds promoters approached Sir Godfrey Copley - who at that time was concerned in promoting the Don Bill - to assist them in securing an Act for the Aire and Calder. On 1 January 1698, Copley, one of the M.P.'s for Thirsk informed Thomas Kirk that he would engage all the M.P.'s who supported the Don Bill to promote both projects. He desired Kirk to show the Leeds promoters:-

'the list of Members of Parlt & they would consider what friends they can make by they of what county they will, & that they would not faile to write to any of their Correspondents in town that are well

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1. Unwin, 'ACN 1', p.62, quoting Temple Newsam MSS. TN/LA5/1. Lord Irwin, a Scottish peer, was M.P. for Scarborough 1693-1700.

2. Ibid. Sir John Kaye, 2nd bt. of Woodsome near Huddersfield was M.P. for Yorkshire, 1685-98; 1701-6.



acquainted with members to Solicit for them.<sup>1</sup>

Sir Abstrupus Danby was also active on behalf of the Leeds promoters. On 19 January 1698, the corporation addressed a letter of thanks to Danby:-

'Wee find ourselves under great Obligations to you for promoting the making our Rivers Ayre and Calder navigable.'<sup>2</sup>

The member for Aldborough was then apprised that:-

'Wee have . . . addressed ourselves to the Duke of Leeds, begging his Assistance on this behalfe, wee hope his Grace will espouse our cause, and wee shall have the greater Assurance, when he soon be near a Relative to him in our advocate . . .'<sup>3</sup>

The other M.P. for Aldborough was Robert Monckton, one of the Wakefield promoters.

On 12 January 1698, a petition was presented to the House of Commons from the Corporation and merchants of Leeds, and leave was given to bring in a Bill for the Aire and Calder navigation. The Bill was presented by Lord Fairfax on 1 February, when it was read for the first time. On the same day, a petition was read from London merchants trading to Leeds and Wakefield in favour of the Bill, and another from the Corporation of York against.<sup>4</sup> Abraham De la Pryme

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1. Unwin, 'ACN 1', p.62, quoting B.M. Stowe MSS. 747, fol.84.

2. Danby, who was knighted in 1691, was lord of the manor of Farnley near Leeds. His uncle, Thomas Danby, had been mayor of Leeds in 1661.

3. Thomas Osborne, 1st Duke of Leeds. Formerly Earl of Danby and Marquess of Carmarthen. After 1688, Danby 'moved first to a marquisate, then a dukedom, and he stayed in office until 1699, enjoying both salary and perquisites, although at times without the power it conferred.' Plumb, p.78.

4. Unwin, 'ACN 1', p.63.

later recorded of the Parliamentary struggle:-

'several projectors have been exceeding busy this last Sessions . . . to have had the rivers Ayre and Chalder navigable and there has been the greatest lugging & pulling on both sides, the one to effect, the other to hinder the same, that ever was known & thousands of pet(it)ions have been sent up pro and con about the same . . . There is huge papers in print of reasons for and against it.'<sup>1</sup>

Between 12 January and 7 March 1698, no less than 46 petitions were presented to the House of Commons, 25 of them in favour of the Aire and Calder Bill. Support came largely from the clothing districts of the West Riding and the neighbouring counties of Westmorland and Lancashire. Almondbury, Bradford, Dewsbury, Halifax, Huddersfield, Ossett, Keighley, Otley, Barnsley, Kendal, Rochdale and Colne petitioned in favour of the Bill, stressing the disadvantages of expensive land carriage, and the benefits likely to accrue to the manufacturers of woollen cloth from the extension of river navigation. The corporations of Lincoln and King's Lynn also petitioned in favour of the project. As with other contemporary inland navigation schemes, local magistrates considered how it was likely to affect the leading landed interests in the county. The Justices of the Peace and the Grand Jury of the West Riding meeting in their Quarter Sessions, sent three petitions in support of the Bill. Many of the landowners with estates adjoining the rivers declared they were:-

'unwilling to oppose the Bill because it will be for a publick Good.'<sup>2</sup>

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1. Unwin, 'ACN 1', p.63, quoting De la Pryme, p.184.

2. Ibid, pp.63-4, quoting H. of C. Journals, XII, 42,76,79,80,87,96,98 100,101,104,117,120,122,125-6,128,133-5,145-6.



It is doubtful if all these petitions originated as the spontaneous expression of local opinion. Thus Joseph Watkinson, one of the Wakefield promoters, paid a Mr Simpson of Kendal £1 6s 4d:-

'for a petition and for expenses.'

Thomas Potter, a Leeds woollen cloth merchant received £1 1s 8d for writing petitions; and Thomas Wilson £1 1s 6d for stamped paper and writing petitions.<sup>1</sup>

Petitions against the Aire and Calder Bill came mainly from interests dependent upon the Yorkshire Ouse for the livelihood, and from the inland transshipment ports. The petition from Tadcaster stated that the town, and other places upon the river Wharfe, had an extensive trade to York, Hull and other towns, and that much traffic passed between Tadcaster and Leeds, whence cloth and other goods were brought at 12d a horse pack or 4s a truss, and paid no more than 4s per ton by water to Hull. The Corporation of York, which claimed jurisdiction over the river Aire from the Ouse to Knottingloy Mill Dam under a Charter of Edward IV, urged that the proposed improvement of the Aire and Calder to Woolland would lessen the tide in the Ouse. Aldborough, Boroughbridge, Selby, Northallerton, and merchants and seamen using the Ouse argued similarly.<sup>2</sup> As early as December 1697, the Corporation of York had appointed a committee:-

'to consider what to write to the Parliament men concerning the cutting the River Ouse.'

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1. Unwin, 'ACH 1', p.64, quoting ACH 4/35, fol.2.

2. Ibid, quoting H. of C. Journals, XII, 76,98,101,104,125.

On 11 February 1698, it was agreed by the Corporation that:-

'what monoye is disbursed upon Account of petitioning that the Rivers Aire and Calder be not made navigable may be reimbursed at the City's Charge.'<sup>1</sup>

Sir John Bland and other mill owners along the rivers petitioned that a clause should be inserted in the Aire and Calder Bill to allow them full compensation for damage to their property.<sup>2</sup>

The Bill was read for the second time on 7 February, and committed to 56 M.P.'s to whom all further petitions were to be referred. The committee was empowered to receive clauses that the Newcastle and Sunderland coal trade should not be prejudiced.<sup>3</sup> This motion of the House was particularly significant, for the details of the tax on sea-borne coal were being settled at this time.<sup>4</sup> The coal interests of the north-east anticipated that any increase in price would favour the development of inland coal at their expense, it being assumed that demand was unlikely to alter greatly.

The promoters were naturally anxious that the Bill should not be delayed at the committee stage. On 22 February it was agreed in the House of Commons that:-

'all petitions pro and con the Aire and Calder Bill, be presented so that they may be heard before the Committee to whom the Bill is committed upon Monday Evonnight when the Committee are to meet, and

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1. Unwin, 'ACH 1', p.65, quoting York MSS. House Books, XXXIX, 18 December 1697; 11 February 1698.

2. Ibid, quoting H. of C. Journals, XII, 117.

3. Ibid, quoting H. of C. Journals, XII, 90.

4. Nef, I, 315.



that no petition be admitted pro or con Bill after that time.<sup>1</sup>

During the two months that the committee sat upon the Bill, counsel was heard on behalf of the interested parties. Although Lord Fairfax and Sir John Kaye, the Yorkshire M.P.'s had been responsible for the Bill in its early stages, the chairman of the committee was Thomas Gery, one of the members for Coventry.<sup>2</sup>

The payments made to secure petitions represented only part of the total expenses incurred to promote or oppose the Bill. Reasons were drawn up for and against the Aire and Calder project and circulated to M.P.'s. Counsel received 11s. for drawing up Reasons for passing the Bill which were transcribed at 1s. per copy. On 7 April, Sir Abstrupus Danby recorded that he had 12s:-

'For 12 copies of the Reasons for makeing navigable Air & Calder . . . also spent upon solliciting the same affair with divers members  
£1 8s. 6d.'<sup>3</sup>

Expenses in soliciting the Bill and 'treating' were not inconsiderable. Danby spent £6 10s:-

'solliciting an Interest for Air & Calder rivers being made navigable.'

On 6 April, the promoters' representative spent 19s 6d:-

'in 2 Treats when we attended the House of Commons.'

He spent a further £2 10s:

'in severall other Treats when we attended the Committee.'<sup>4</sup>

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1. H. of C. Journals, XII, 123.

2. Unwin, 'ACN 1', p.65, quoting The Minute Book of James Courthope, pp.14-15. Thomas Gery, s. of Thomas G. of Coventry was called to the Bar in 1687.

3. Cunliffe-Lister MSS. 12. Day Book of Sir Abstrupus Danby.

4. Unwin, 'ACN 1', p.66, quoting ACN 4/99.

Opponents of the Bill were also actively engaged in soliciting members. At the end of May the Corporation of York ordered that £50 should be remitted to one of their M.P.'s:-

'which was for his Disbursements for soliciting abt, Aire and Calder.'<sup>1</sup>

On 8 April, Sir John Kaye reported the Bill to the House of Commons, where it was agreed that a clause should be inserted for the Commissioners nominated in the Bill to abate the prices for the carriage of goods on the rivers. Another clause was offered to exempt the inhabitants of Pontefract and Knottingley from paying river dues for their own goods coming by way of Knottingley Mills. This was rejected, but interests which already enjoyed a toll-free navigation below Knottingley recognised that the Aire and Calder project might prejudice their position. When the Bill was read for the third time, on 18 April, an ingrossed clause was offered:-

'that no Toll shall be charged upon any Boat for passing up and down the River where the same is now navigable.'

This rider was also rejected, and the Bill was carried to the House of Lords.<sup>2</sup>

William Milner wrote to Danby, thanking him for his assistance in the promotion of the Bill:-

'Wee may in a great Measure attribute the Success to your earnest Sollicitations, and great assistance in promoting it.'

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1. Unwin, 'ACN 1', p.66, quoting York MSS. House Books, XXXIX, 25 May 1698.

2. Ibid, quoting H. of C. Journals, XII, 198, 237.



The Corporation of Leeds requested of Danby:-

'the continuance of your advice and assistance until our bill be pass'd the house of Lords for wee are affraid of some opposition there.'<sup>1</sup>

In the House of Lords, many petitions were also presented for and against the Bill. The Morchant Adventurers of York, in a last bid to retain their position, urged that they yearly exported large quantities of cloth, lead, corn, butter and other commodities in which above 100 ships and vessels were employed every year, a trade which would be destroyed if the tides of the Ouse were lessened. The coalmasters of Newcastle and Sunderland feared that more than 400 ships would be laid aside if coal - which did not have to pay the tax of five shillings per chaldor to which sea-borne coal was subject - was carried down the Aire and Calder to supply York, Lincoln, Beverley, Hull, Gainsborough, Stockwith and other places in the Humber, Ouse and Trent waterway system.<sup>2</sup>

When Counsel was heard for and against the Bill in the House of Lords, on 18 May, Sir Thomas Powis and Sir Bartholomew Shore, on behalf of the promoters, objected that the witnesses who were to be examined by the opposing Counsel were parties directly concerned. After some debate, the House agreed that the witnesses should be heard, and John Buttery and William Kirkby - both of whom had signed the petition of shipmasters and mariners trading on the Ouse - were

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1. Unwin, 'ACN 1', quoting Cunliffe-Lister MSS. 69, sec.1.

2. Unwin, 'ACN 1', p.67, quoting Hist.MSS.Comm., H.of L. MSS., N.S. III, 211.

examined. Isaac Sugden, who was engaged in the carrying trade between Solby and Leeds, and a 'Dr. Newton' also gave evidence. The promoters' Counsel then presented the case for passing the Bill, and John Hadley and other witnesses were examined. At the adjournment of the debate it was moved:-

'to heare the Trinity house men . . . (and) . . . the Trinity House would send hither some of their body that are most knowing in the northern coasts.'<sup>1</sup>

In its passage through the House of Commons, the Aire and Calder Bill had proceeded along lines common to other opposed navigation projects. Members had been solicited and treated to support or oppose, printed Reasons circulated, Counsel employed. The resolution in the House of Lords that an independent opinion should be heard was unusual, the outcome of bitter controversy about the effect of the proposed navigation on the depth of water in the Ouse. Supporters of the Bill argued that:-

'the sea hath water enough to supply all rivers, and that the making or cutting of never so many rivers out of or into any ancient river will not abate the tide of such ancient river.'

Against this, the opponents of the Bill dehorted:-

'that the making any new cut out of the river Ouse will take out and lessen or divert part of the tide of the . . . river.'<sup>2</sup>

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1. Unwin, 'ACN 1', pp. 67-8, H.L.R.O. MSS. Minutes. Journal Book (10).

2. Ibid, p.68, quoting De la Pryme, p.184.



Interests dependent upon the Ouse complained from experience that with the decay of Goolle sluice, the New River:-

'takes so much of the tyde that York hath lost two foot of their tyde.'<sup>1</sup>

Trading communities in the Vale of York assumed that any cutting of the Ouse would be prejudicial to their commerce.

On 25 May 1698, the London Trinity House presented their Report to the House of Lords. Consideration was deferred until 1 June when:-

'all the Lords to attend . . . and nothing to intervene.'<sup>2</sup>

When the debate was resumed, Counsel were again heard and the Report was then read. Having considered the Bill, the brethren of Trinity House were of the opinion that:-

'the opening and widening of any the Rivers that have Communicacon with the Ouse, so as to let the Tyde further into the same will deprive that part of the Ouse above the inlet.'

However, if it was provided by the Bill that the tide should not flow above Knottingley by causing there:-

'a sufficient stopp to be made to the flow by dams and locks then the navigation of the Aire and Calder would not be prejudicial to the Ouse.'

Although members of the Trinity House were examined, the Lords were not completely satisfied, and instructed that the London fraternity should make the requisite arrangements for an on-the-spot survey.<sup>3</sup>

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1. Unwin, 'ACH 1', p.68, quoting H.L.R.O. MSS.Minutes. Journal Book (10).

2. Ibid, quoting H. of L. Journals, XVI, 298.

3. Unwin, 'ACH 1', p.69, quoting Hist.MSS.Comm., H. of L. MSS., H.S. III, 212.

John Clements and John Erenwell, two members of the London Trinity House, were instructed to survey the rivers Aire, Calder and Ouse and to report their findings on 14 separate heads of inquiry.<sup>1</sup> They left London on 8 June and arrived at Hull three days later. At a meeting at the Hull Trinity House on 13 June it was recorded that:- 'the 2 brethren of Dobford Strand came about the cutting the Leeds river.'<sup>2</sup>

For a month, while the survey was being taken, the promoters and opponents of the Aire and Calder project made strenuous efforts to present their case in the most favourable light. The Corporation of York agreed that John Peckett, one of the leading merchants of the city, Thomas Hall, a master mariner, and John Etty, the city's 'husband' - who was greatly concerned in matters of hydrography - should go to Hull:-

'To meete the Gentlemen cominge from the Corporacon of Trinity house concerned for and against the makinge the Rivers Aire and Calder Navigable And that Mr Peckett treat and Complement the said persons as he shall thinke fitt And the City to supply him with moneys for the Charge thereof.'<sup>3</sup>

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1. Unwin, 'ACH 1', p.69, quoting Newby Hall MSS. NH/2446.

2. Hull Trinity House MSS. Vote Book 1682-99.

3. Unwin, 'ACH 1', p.69, quoting York MSS. House Books, XXXIX, 8 June 1698. Peckett was later allowed £10 for:- 'money disbursd for Aire and Calder affair when the Capts came upp the River'; Alderman Shackleton received £10 :- 'for treating the Officers of Trinity house'; and a leading wine merchant in York, -- Jubb, proprietor of 'the George' in Conoy St. received £3 15s 3d for:- 'treating the Captaines that view'd Aire & Calder during their Abode in Towne.'



When they had completed their survey of the Ouse, Clements and Bromwell proceeded up the Aire.<sup>1</sup> On 24 June, William Milner requested Thoresby to send to Leeds:-

'the account of distances of places which you and Mr Kirke took upon the River Ayre . . . for it will be of good service to us.'<sup>2</sup>

One of the Wakefield promoters spent:-

'when went to meet the Gentlemen of Trinity house at Tunbridge 4s 8d.  
Howden 7s. Ermine £1 0s 6d. Rawcliffe 8s 6d . . . Ferrybridge  
£2 3s. 6d.'<sup>3</sup>

Time was against the promoters. The representatives of London Trinity House completed their survey and report on 9 July, but Parliament was prorogued before the Bill had passed through the House of Lords.

. . . . .

During the summer of 1698, Thomas, Lord Fairfax was in Leeds, and promised that he would continue to support the navigation scheme. On 22 July, Henry Fairfax apprised Thoresby that his brother intended to:-

'waite of Mr Mayer, yourselve, and rest of good friends tomorrow  
. . . my brother . . . is as much devoted to serve you and your Corporation as any whosoever . . .'<sup>4</sup>

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1. Unwin, 'ACN 1', p.70, quoting Newby Hall MSS. NH/2446.

2. Ibid, quoting 'Letters Addressed to Ralph Thoresby F.R.S.', Publications of the Thoresby Society, XXI (1912), 61.

3. Ibid, quoting ACN 4/35, fol.2.

4. 'Letters Addressed to Ralph Thoresby F.R.S.', op.cit., p.61.

In the following Parliamentary session renewed efforts were made by the Leeds and Wakefield promoters to obtain an Act for the Aire and Calder navigation. A petition was presented from Leeds to the House of Commons on 11 January 1699, when it was ordered that a Bill should be prepared and brought in by Lord Fairfax, one of the Yorkshire M.P.'s, together with --- Brotherton. This was presented on 18 January, when it was read for the first time.<sup>1</sup> Petitions were again prepared for and against the Bill, the promoters payments including the sum of £2:-

'on the Burgers of Retford.'<sup>2</sup>

The Corporation of York appointed a committee:-

'against the Cutting the Rivers Aire & Calder.'<sup>3</sup>

The opponents of the Bill attempted to delay its progress through the House of Commons, and mustered their adherents for the second reading. The Leeds promoters wrote to Lord Irwin, requesting that he would attend the House at that crucial stage:-

'and also . . . your friends to do the same.'<sup>4</sup>

When the Bill was read for the second time on 7 February, a motion was moved by its opponents to refer it to a Committee of the whole House. This was defeated, however, and the Bill was committed to

40 named M.P.'s, together with those for the counties of York, Durham,

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1. Unwin, 'ACN 1', p.70, quoting H. of C. Journals, XII, 395, 425.

2. Ibid, quoting ACN 4/35, fol.2.

3. Ibid, quoting York MSS. House Books, XXXIX, 24 January 1699.

4. Ibid, quoting Temple Newcan MSS. TN/LA5/1/1.



Lancaster, Cumberland and Northumberland.<sup>1</sup> Petitions from the City of York and from Francis Nevill against the Bill were presented on the same day and referred to the committee, which was instructed to hear Counsel on their behalf.<sup>1</sup> Francis Nevill of Chevot, the owner of Wakefield Soke Mills, was unable to accept the Calder promoters' plan to use the mill goit which served him with water, in order to avoid the rocky bed of the river at Wakefield.<sup>2</sup>

The Bill and opposing petitions were read before the Committee on 11 February, but hearing by Counsel was delayed for nearly three weeks when:-

'the Master and Wardens of Trinity House doe attend . . . & produce the Report in relacon to the makeing the said rivers navigable and that they have a Copy of the Bill.'<sup>3</sup>

The chairman of the Committee was Sir John Bland, one of the M.P.'s for Pontefract, who had opposed the first Bill. Bland's position in the navigation conflict was not unimportant. As owner of several collieries in Castleford and Houghton, and of mills along the river Aire, he would be directly affected by any project to extend navigation; his constituents were anxious to retain a toll-free waterway to Knottingley. On 22 February 1699 - while the Bill was being considered in Committee - an agreement was confirmed between Bland and the Leeds promoters for the lease of the riparian mills in question. It was stipulated that Bland might erect

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1. Unwin, 'ACN 1', p.71, quoting H. of C. Journals, XII, 486.

2. The last will of Nevill, dated 11 October 1705 mentions his rape-mill in Wakefield. W.R.D. A/240/345.

3. Unwin, 'ACN 1', p.71.

new mills in Castleford, provided these were not for corn milling or seed crushing, and that in times of drought he would:-

'each day . . . cause the Clows belonging to any new Mill to be set down for two hours and no longer.'

Other provisions in the agreement dealt with the compensation for damages to Bland's collieries and coughts if the rivers were improved.

The promoters agreed that Bland's coal and lime might be carried free of toll, and the inhabitants of Pontefract - Bland's constituents - were to pay no tolls on that stretch of the river already navigable.<sup>1</sup>

It is probable that similar agreements were made with other influential landowners while the Bill was passing through Parliament.<sup>2</sup>

When Counsel attended the Committee on 1 March 1699, the Report made by Clements and Dromwell, the two delegates from the London Trinity House, was read. Upon arrival in Yorkshire they had found that:-

'the people of Hull seem'd noe way affected at the makeing these Rivers Navigable nor would they pretend to Judge whether the Importation of Coales from Newcastle . . . would be Lessened or not thereby.'

The extent to which coal from the West Riding would compete in the river markets with that brought from Tyneside and Fearside was difficult to estimate. The delegates could not:-

'with any manner of satisfaction . . . learn the prices of the coale

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1. Unwin, 'ACN 1', pp.71-2, quoting Bland MSS. DB 212/2/12. The Aire and Calder undertakers renewed this agreement with the Bland family on several occasions during the eighteenth century.

2. The Aire and Calder papers at York indicate a similar agreement between the undertakers and Sir William Lowther of Swillington.



about Leeds Wakefield & other places upon the Aire & Calder the same being so very different & uncertain.

Until a navigation was complete and lock dues imposed it would be impossible to judge the price at which York and other towns might be supplied. The delegates considered that the quality of coal from the West Riding was an important factor, for:-

'as to its lastingness excepting what comes from Barnsley which will have no benefit in Carriage by the making those rivers navigable, bears no comparison with the Newcastle Coal.'

It was affirmed that coal from the north-east sold at 3s or 4s a chaldron more than the best of West Yorkshire and for 8s more than the worst. However, the delegates concluded:-

'that whilst the Duties of 5s per Chaldron continue upon the Newcastle Coals the other will have the advantage in its sale the how far the duties that will be to be paid towards the maintaining the intended Locks upon the Aire & Calder by the Coal brought down the same may contribute to . . . putting it on the same foot again with the Newcastle Coal . . . will remain to be considered.'

The London Trinity House delegates in their Report considered that the effect of the Aire and Calder navigation upon the trade of the inland ports would vary from place to place. The trade of Tadcaster by water was so small that:-

'it cannot be affected by . . . making the Aire & Calder Navigable.'  
Knottingley, the nearest shipping point for the cloth manufacturing districts of the West Riding was a flourishing river port:-

'No duties as we could learn being paid by these Vessels in their

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going & coming from yorke Hull &c . . .

The delegates found the woollen manufacture and trade of York to be inconsiderable:-

'what from their own neglect & the industry of the people of Leeds Wakefield & Liverpools whether the same is carry'd . . .'

The trade remaining to the City consisted chiefly of the export of lead, butter and cheese. Several York merchants had admitted that the trade of the City would be only slightly affected by improving and extending the navigation of the Aire and Calder. On the other hand, the Report set out that Selby - the principal transhipment port on the Ouse would:-

'if the . . . rivers be made navigable goe neare Totally to loose the benefitt of being the thoroughfaire as it now is.'

The Report did much to refute arguments that the tides of the Ouse would be lessened by effecting the Aire and Calder project. Complaints from the inhabitants of York that the decay of Goole sluice had lessened the depth of water in the Ouse were exaggerated. According to a survey of 1616 spring tides flowed two feet six inches at York, while in 1698:-

'by their own Accot it flows the same.'

The delegates had considered the obstructions to navigation on the Aire which the promoters proposed to remove, but were convinced that:-

'noe such quantitye of sand or gullage can be thereby raised & brought downe as to begett any sort of Barr in that part of the Ouse against the mouth of the Aire.'

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Only a new cut at the mouth of the Aire would prejudice the Ouse, but the promoters:-

'did assure us, no such thing was intended being content to submit to a clause in the bill to the contrary.'

By the construction of a lock at Huddlesey the tide would not flow as high up the Aire, and, consequently:-

'will rather increase than lessen the water in the Ouse.'

Against the loss of trade to Selby, the delegates stressed the many advantages likely to accrue to the woollen manufacturing districts of the West Riding, Lancashire and Westmorland. By making the rivers Aire and Calder navigable:-

'the people of Leeds & Wakefield & places thereabouts . . . shall be able to carry there Manufacture to market or in order to Exportation abroad Cheaper by one half than what they now do by Land Carriage & with less liability to damage as all other goods will be brought to them much more Easily & at Cheaper Rates for the Supply of the market towns in the West Riding of Yorkshire & even of some parts of Lancashire & Westmorland.'

In conclusion, Clements and Bromwell asserted that:-

'by hearing & comparing all that was said on Every side we are led to be of opinion that as Leeds & Wakefield are become places of trade so considerable for our Woollen manufactures it would be for the advantage & Improvement of the trade in those parts to have the Rivers Aire & Calder made Navigable.'

Although the traders and shippers of Selby might experience a decline

in business if the rivers were improved:-

'in the maine trade & navigation on the River Ouse as well as the Rivers running into the same will not be prejudiced.'

The assumption that trade on one river could only be increased by diverting it from other navigations, and with little or no increase in total volume was partly refuted. Thus it was maintained that if the Aire and Calder project was carried out:-

'navigation in generall with respect both to seamen & Commerce will rather be increased then lessened thereby.'<sup>1</sup>

Although the delegates declared that they had gathered:-  
'the best Informations . . . from people the least partial'  
Counsel and several witnesses for the city of York, attempted to show that the Report was biased. It was attested that York, which carried on an important trade in cheese, butter and cloth would be ruined if the Aire and Calder were made navigable. When the tide flowed at the mouth of the Aire it ebbed in the Humber, water being drawn from the Ouse. The city had almost 100 vessels engaged in trade, far more than the Trinity House delegates had reported. All the witnesses referred to the decay of Goole sluice which had lessened the depth of water in the rivers. Thus it was deposed that at York the tide:-  
'does not flow so much by a foot.'

John Bacon, master of the High Society, a coaster trading between London, Selby and York, informed the Committee that:-

'when Gold Sluice was up, it flowed above a foot higher than now in

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1. Unwin, 'ACN 1', pp.72-4, quoting Newby Hall MSS. NH/2446.



the river Ayr.'

The opponents of the Bill admitted however that if the Mill Dam at Knottingley was not removed, and if no cuts were made into the Ouse, then the navigation of York would not be impaired. John Buttery, a York shipmaster, conceded that:-

'the sluicing of the river Ouse in a prejudice to the flowing of the river.'<sup>1</sup>

The city corporation of York apparently agreed with this conclusion.

At a meeting at the Guildhall on 13 February 1699, it was decided that the M.P.'s for the city should be requested:-

'to send an Engineer as soone as possibly they can to view the River of Ouse in order to make it more navigable.'<sup>2</sup>

Counsel for the Bill affirmed that if navigation was extended to Leeds and Wakefield the cost of carriage to the transshipment ports would be reduced by two-thirds. John Hadley, the engineer assured the Committee that there would be no cut to divert the current of the Ouse. When opposing Counsel requested that a clause should be inserted in the Bill to ensure that the promoters maintained any locks which were erected on the lower reaches of the river, Hadley stated that the first lock would be set up at Haddlesey. After a long sitting, the Committee was adjourned.<sup>3</sup>

On 13 March, Sir John Bland reported the Bill to the House of

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1. Unwin, 'ACH 1', p.75, quoting The Minute Book of James Courthope, p.65.

2. Ibid, quoting York MSS. House Books, XXXIX, 13 February 1699.

3. Ibid, quoting The Minute Book of James Courthope, p.67.

Commons, together with the amendments which had been agreed to in the Committee. Several of the amendments were accepted by the House, but a clause - that boats which belonged to Knottingley and other towns on the Aire and laden with lime should be exempt from toll, and pay only 1s per ton for other goods passing between Knottingley Mill Dam and the Ouse - was rejected. When the Bill was read for the third time, a clause - to exempt lime from lock dues if carried by vessels from towns where the Aire was already navigable - was agreed.<sup>1</sup> The lime traders of Knottingley were thus protected, but preferential tolls on those parts of the Aire not subject to river dues were not included. When the promoters - in accordance with their agreement with Sir John Bland - rented his mills, the terms of the lease stipulated that the proprietors or undertakers of the navigation would:- 'bring up and convey for all the Inhabitants . . . of Pontefract all sorts of goods . . . belonging to them . . . at as cheap and low a Rate . . . (between) . . . Woolland and Ferrybridge . . . as the Inhabitants have formerly had the same . . . (between) . . . Woolland and Knottingley.'<sup>2</sup>

The corporation of Pontefract secured a rider to the Bill that their right to an ancient toll on the Aire, between Temple Hurst and Knottingley Mills, should continue.<sup>3</sup>

With the passage of the Bill through the House of Commons, effective opposition in Parliament was overcome. Sir William Robinson,

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1. Unwin, 'ACN 1', p.76, quoting H. of C. Journals, XII, 584, 606.

2. Ibid, quoting Bland MSS. DB 212/2/10.

3. Ibid, quoting H. of C. Journals, XII, 606.



one of the M.P.'s for York, informed his constituents that the second Trinity House Report was being circulated in the upper House where it was making a great impression.<sup>1</sup> He had consulted the Earl of Scarborough - the owner of extensive collieries around Sunderland, who was prepared to move in the House of Lords that Counsel should be heard, provided that a petition from York, and witnesses to support its allegations had been prepared. A week might be gained but:-

'he durst not venture to ask a longer time, for fear it should be look'd on, onely as a delay.'

Robinson concluded that a short potition might be presented but he assured the Lord Mayor that:-

'the Citty shall loose no reputation, by offering it to no purpose, or oposing the bill in the Lords house without some tolerable prospect of success.'<sup>2</sup>

No petitions were presented to the House of Lords against the Bill.

William Milner drew up Reasons to convince the Duke of Leeds that the Aire and Calder navigation would not prejudice the trade of York. He wrote to Sir Abstrupus Danby requesting him:-

'to Imploy your Interest with the Duke of Leeds, and the rest of the Lords of your Acquaintance to promote our Bill.'<sup>3</sup>

On 25 March, the Bill was read for the second time and committed. Nine

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1. Supra, p. 35.

2. Unwin, 'ACN 1', p.77, quoting York MSS. Miscellanea, IX, 41. Sir William Robinson was M.P. for Northallerton 1688-90, and was returned in eight successive Parliaments as one of the M.P.'s for York. He d.1736.

3. Cunliffe-Lister MSS. 69, soc.1.

days later the Lord President reported the Bill, together with several minor amendments to its engrossed form. These were accepted and the Bill was passed. On 12 April 1699, the House of Commons agreed to the amendments made by the Lords.<sup>1</sup> Some sixteen months after the preparations to obtain an Act had commenced, the Aire and Calder promoters had finally secured Parliamentary authority for their undertaking.

By the terms of the Act, 18 undertakers were empowered to make the Aire and Calder navigable from Weeland to Leeds and Wakefield. They were authorised to cleanse, enlarge or straighten the course of the rivers; to dig and cut the banks; to make new or larger cuts through adjoining lands; to set out towing paths; and to erect locks. The undertakers were to compensate for loss of, or damage to, property, commissioners being named in the Act to mediate between the undertakers and landowners. Tolls were fixed at 10s per ton from 1 May to 1 October, and 16s per ton from 1 October to 1 May, as the maximum rates which might be demanded.<sup>2</sup>

The Wakefield promoters spent £421 15s 11d in securing the Act. The total sum paid out by the Leeds promoters is more difficult to ascertain, although:-

'in other respects the Leeds party appears to have taken the lead.'<sup>3</sup>

Jaspar Blythman, the Recorder of Leeds, received several sums for

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1. Unwin, 'ACN 1', p.77, quoting H. of C. Journals, XII, 638.

2. 10 Will.III, c.25.

3. Unwin, 'ACN 1', p.80, quoting ACN 4/99.



legal expences, including one payment of £110 14s. He also received the sum of £53 15s:-

'as a gratuity for . . . paines in Solliciting & advising the procuring of the Acts.'

William Milner, who subsequently became the principal subscriber to the undertaking, was paid £19 16s. for his London journeys.<sup>1</sup> In view of the strenuous activity of the Leeds promoters, it seems unlikely that they spent less on promoting the Bills than their counterparts at Wakefield. The Corporation of York paid out above £200 in opposing the Bills.<sup>2</sup>

When compared with other inland navigation projects of the late seventeenth and early eighteenth centuries, the rapidity with which the Aire and Calder promoters obtained statutory authority for their undertaking is striking. Opposition to the Bills was very real, and petitions against the project were presented from many towns that had Parliamentary representation. In contrast, the main support came from the unrepresented townships of the West Riding. Two principal factors must be taken into account in any attempt to explain the promoters' success.

Firstly, the riparian interest made no concerted effort to abort the Bills. For the most part, the millowners who petitioned against the project were apparently satisfied with clauses in the Act which would oblige the undertakers to compensate for any damage to property

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1. Unwin, 'ACN 1', p.80, quoting ACN 4/99.

2. Ibid, quoting York MSS. Chamberlains' Account Books, XXIX.

and to purchase any mills or weirs which would have to be demolished in order to carry out the requisite improvements. Sir John Bland, whose continued opposition might have delayed the final outcome, received important concessions for himself, and for his constituents in Pontefract. As a result, the promoters gained an ally who did much to pilot the second Bill through the House of Commons.

The second factor to facilitate the passage of the Aire and Calder Bill arose from the decision taken by the House of Lords to consult the London Trinity House. The primary motive in referring to an independent opinion arose from the various arguments over the probable effect of the proposed navigation upon the tides and waters of the Ouse. A distinction must be drawn between the two Reports. The first, made on 25 May 1698, dealt exclusively with the question of the tides. The second Report, made by Clements and Bromwell in the summer of 1698, besides dealing with the controversy over the estuarine tides, also took into consideration the arguments employed by opponents of the Aire and Calder scheme on the changes which might occur within the prevailing patterns of trade from an extension of river navigation to Leeds and Wakefield. Conflicting opinions on these broader aspects of an improvement scheme often contributed to the long delay before an Act was finally passed. Thus the second Report proved an invaluable asset to the Aire and Calder promoters.<sup>1</sup>

The question remains, was the second Report partial? Both sides naturally attempted to present their case in the most favourable

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1. Supra, p.35.



light to the officers of the Trinity House, but it is doubtful if the Report was biased in favour of the Aire and Calder promoters. It is true that the many advantages likely to accrue to the West Riding and neighbouring counties were set out, but certain reservations were made, particularly on the position of Selby, and on the probable effects of the navigation on the sale of Newcastle and Sunderland coal. The Report fits closely with the known state of trade. By the late seventeenth century York had lost its former prominence in the manufacture and sale of woollen cloth. Shoals and silting were a primary cause of the decay of the Ouse, which had led to a fall in the tonnage of vessels that were able to reach York. On the other hand, Selby and Knottingley had become important shipping points for the growing trade of the West Riding. The authors of the second Report were cautious in their general conclusions, realising that neither the aspirations of the promoters, nor the fears of their opponents would be appreciated before the undertaking had been completed.<sup>1</sup>

#### (vi) PROPOSALS FOR THE IMPROVEMENT OF THE YORKSHIRE OUSE

One important factor in the timing of improvement projects arose from the assumption that any change in inland navigation patterns, which benefited one trading community, must prove detrimental to others. Although the M.P.'s for the city of York were often given instructions by the Corporation to secure legislation for improving

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<sup>1</sup>. Unwin, 'ACN 1', p.79.

the Ouse, the success of the Aire and Calder promoters no doubt prompted schemes to restore 'the balance of trade.'

On 13 February 1699, six days after the opponents of the Aire and Calder Bill had failed to halt it at the second reading, the city Corporation of York requested its M.P.'s:-  
'to send an Engineer as soone as possibly they can to view the River of Ouse in order to make it more navigable.'<sup>1</sup>

Two months later, on 12 April, it was agreed that:-

'Thomas Surbey the first person named to come downe to view the Cutting of the River Ouse as an Engineer be sent downe accordingly.'<sup>2</sup>

Surbey's survey of the river Ouse was carried out between 5 and 19 May. His report showed clearly the hazards of navigation on the river below the City - shoals at Water Fulford, below Cawood, against Selby Ferry, near Asselby, and at Booth Ferry; tortuous bends between Asselby Hope and Booth Ferry, and at Goole; and the narrowing of the river at Howden Dyke. To remedy these defects, Surbey recommended the removal of obstructions at Howden Dyke, and considered a lock at Naburn to be:-

'the best and Cheapest way for Improvement of yo'r Navigation and trade.'<sup>3</sup>

He also proposed cuts between Asselby Hope and Booth Ferry, and to eliminate the bends at Goole. Although no action was taken by the civic authorities to implement the Report- probably because Surbey's

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1. York MSS. House Books, XL, 13 February 1699.

2. Ibid, 12 April 1699.

3. Duckham (1967), p.53.



estimate of the cost of carrying out the various improvements was too high - the principal recommendation was soon taken up by another engineer and hydrographer.<sup>1</sup>

On 7 July 1699, a committee was set up by the city corporation:-  
'To meet and discourse Mr Hadley about makeing a Lock upon the River Ouse.'

John Hadley, whose association with Sorocold and activition in promoting the Aire and Calder navigation have already been noticed, negotiated with the city corporation the details for the construction of the lock on the Ouse. On 20 November 1699, it was agreed that:-  
'the Lock upon the River Ouse proposed to be made and fixed by Mr Hadley or whoever shall undertake the same shall be done and finished at the Charge of such Citizens of this City and others as shall be willing to advance money towards the same.'

It is probable that it was intended that river dues should only be imposed until the improvements had been comploted, for the corporation agreed that those subscribing:-

'shall have the benefitt of the Tonage to be laid on by Act of Parliament till such time as they shall be . . . reimbursed their Principall and Interest as they shall respectively advance upon this account.'<sup>2</sup>

The improvements to be effected were sufficiently extensive that statutory authority was requisite. In the autumn of 1699, preparations

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1. Duckham (1967), p.53.

2. York MSS. House Books, XL, 7 July 1699; 20 November 1699.

were made to promote a Bill. John Etty, the City's 'husband' made a further survey of the Ouse - for which he received £5 19<sup>s</sup>. - and a Bill was drafted:-

'for making and keeping the said River more navigable.'<sup>1</sup>

Although the Bill reached its second reading, the prorogation of Parliament prevented its passage. The principal promoter of the Bill, Henry Thompson of Escrick, died shortly afterwards, and the scheme was not revived.<sup>2</sup> Efforts to revive the woollen industry in the City were short-lived. In 1698, the civic authorities entered into an agreement with a serge-maker to establish a woollen manufactory in the City, but, after a short time, the scheme lapsed.<sup>3</sup> At the same time, commercial interests were contemplating other ways to restore the waning fortunes of their community by obtaining statutory sanction

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1. York MSS. Chamberlains' Account Books, XXX.

2. Drake, p.231. There is evidence that conditions were particularly unfavourable at this time for York traders. Writing from London, E. Ridsdale apprised Andrew Wilkinson of Boroughbridge:- '... They say that the taking off the Bounty money given for exporting corn will prevent the exportation, being not worth the trade now, since it's taken off ... Many of the Butter Merchants in York are sufferers here, for they bought firkins at 21<sup>s</sup> apiece and the winter being open they could not be sold here. And they only offer them 12<sup>s</sup> a firkin now.' 17 February 1699. Sir Thomas Lawson-Tancred, Records of a Yorkshire Manor (1937), p.223.

3. V.C.H. York, p.172. On 25 May 1698, a committee had been appointed to consider of terms and articles of agreement with Richard Snow of Masham for the settling of a woollen manufactory in York.

York MSS. House Books, XXXIX.



for the establishment of a wool market, a proposal which also faded into oblivion.<sup>1</sup> That the Ouse navigation project, and schemes to revitalise the industry and trade of the City, would not be seriously considered again for a number of years, provides further indication that the efforts made in the last years of the seventeenth century were in response to the challenge from the clothing townships of the West Riding, rather than indigenous endeavours from a City whose population and economy were essentially static at that period.<sup>2</sup>

(vii) THE EXTENSION OF NAVIGATION TO MALTON

Less information has come to light concerning the promotion of the Bill to extend inland navigation to Malton. In the North Riding, the traders in the town of Malton discussed the advantages of extending the navigation of the Derwent above East Cottingwith with the riparian proprietors, and with neighbouring villages of the valley. Although George Sorocold made a survey of the river some years after the Act had been obtained, it is not clear whether or not he was called in by the promoters in the early stages of the project.<sup>3</sup> In other river schemes of the period detailed surveys and the proposed improvements for which statutory approval was sought often accompanied applications to Parliament. The map which Sorocold produced indicated that locks would be necessary at Sutton,

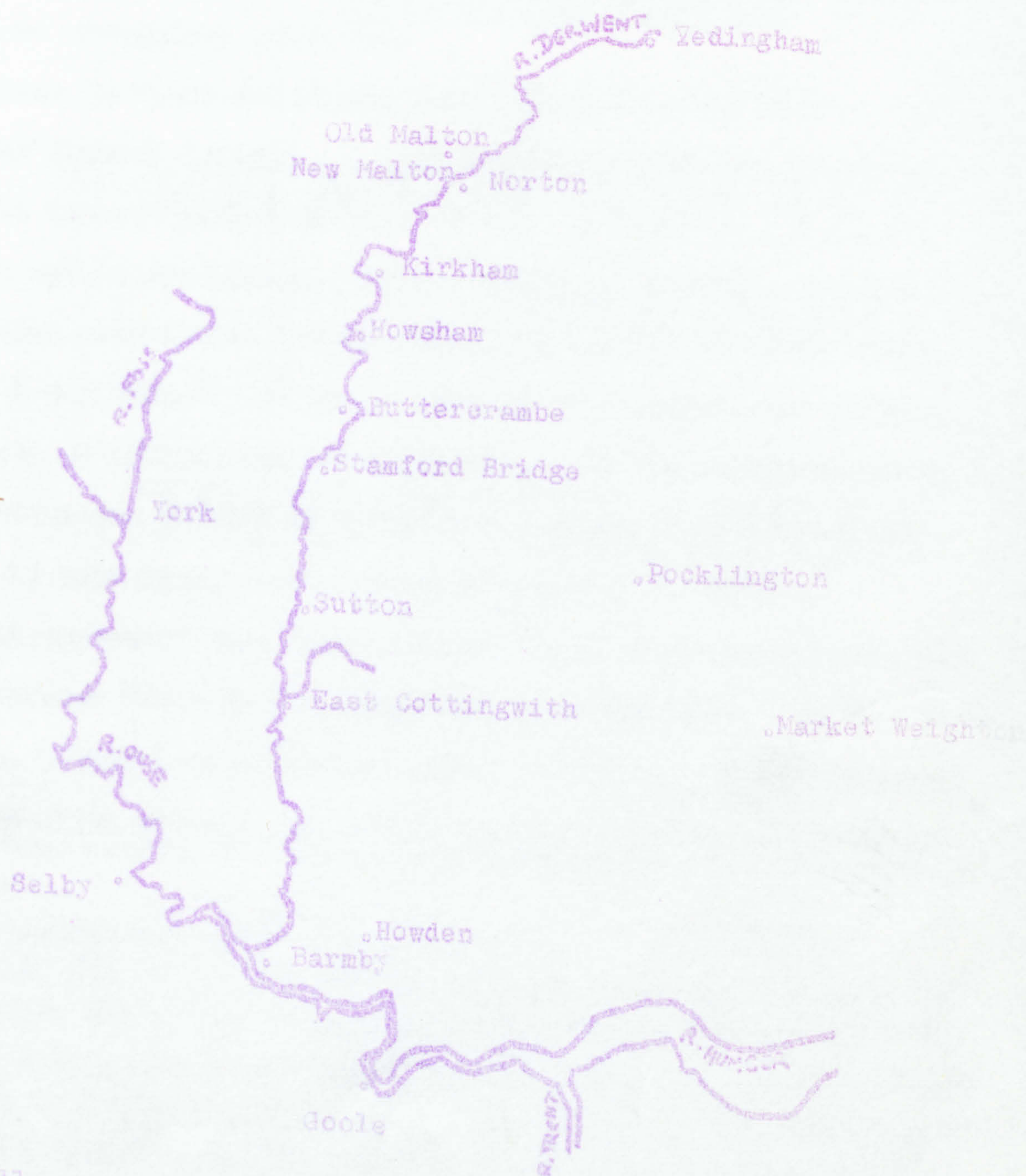
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1. York MSS. House Books, XL, 7 July 1699.

2. V.C.H. York, p.163. By the later seventeenth century, the population of York had settled at a level between 10,000 and 12,000.

3. Duckham, 'Yorks. Derwent', pp.47-8.





Map. 11

The Yorkshire Derwent



Stamford Bridge, Buttercrambe, Howsham and Kirkham.<sup>1</sup>

In 1700, leave was given to bring in a Bill to improve the Derwent, but was dropped for that session.<sup>2</sup> Renewed efforts were made in the following session, a petition from Malton asserting that the extension of navigation would be:-

'advantageous to Towns and Places near adjacent to the River Derwent, and also of general benefit . . . by opening a Trade and Commerce between the several Ridings.'

One of the M.P.'s for Malton, William Palmes of Lindloy, introduced a Bill, which passed with little difficulty and received the Royal Assent on 6 May 1702.<sup>3</sup> It seems probable that Palmes was acting from motives of enlightened self-interest. In its earliest years, the navigation was controlled by Palmes; his wife, one of the co-heiresses of Lord Evers, owned extensive property in Malton.<sup>4</sup>

The Act empowered five undertakers to make the Derwent navigable from Scarborough Mills to the confluence with the Ouse. As in other river Acts, commissioners were appointed to mediate in any disputes which might arise between the undertakers and the riparian interests.

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1. DER 4/4.

2. H. of C. Journals, XIII, 358, 414.

3. Ibid, 766, 768, 820, 875. In May 1697 the Treasury office of Guy Palmes, the son of the Whig M.P. for Malton was discovered to be £27,000 short. In spite of circumstantial evidence of forgery and clerical incompetence, Palmes kept his place, and was finally dismissed in 1702 not for incompetence but because he was a Whig. Plumb, p.138. William Palmes was granted a pension of £1,000 a year when his son lost the Tollership of the Exchequer, which was settled for life in 1708. However, after 1710 Palmes was in serious financial difficulties. Holmes, p.360.

4. Celia Flinnon, p.93. 335

To finance the requisite improvements the undertakers were permitted to levy tolls, which were fixed at a maximum of 8<sup>g</sup>. per ton on the stretch below New Malton, a similar limit being placed on the upper part of the river between New Malton and Scarborough Mills. Lower rates were to be charged for lesser weights and distances.<sup>1</sup>

(viii) ATTEMPTS TO IMPROVE THE COASTAL PORTS

It has already been noted that the hinterlands of the coastal ports of the region tapped the upper valleys of the Ouse and Trent waterway system, and served communities which had grown up along those rivers, although Hull, Grimsby and the inland ports constituted the principal centres for the collection and distribution of goods provided by, or required for the region.

In the closing years of the seventeenth century and opening years of the eighteenth century, more determined efforts were made to improve the ports of Bridlington, Whitby and Grimsby. Storm damage in 1697 necessitated the reconstruction of the harbour at Bridlington. The Act which established a new Harbour Commission, also included the right to levy tolls on coal exported from Newcastle and its member ports, a recognition that havens such as Bridlington provided invaluable refuge from inclement weather or roving privateer.<sup>2</sup> A similar

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1. 1 Anne, c.14. The five named undertakers were Christopher Percehay, Nathaniel Harrison, Ralph Cheatham of Malton; Richard Darley of Buttercramb ; and James Hebden of Yeasthorpe.

2. 8/9 Will. III, c.29.



provision was included in the Act of 1701, which set up the Whitby Harbour Trustees, whereby duties were sanctioned on coal, salt, corn and other goods landed at the port, and on butter and fish sent away. Every English ship entering Whitby was to pay 1s 4d for each ton, while foreign ships were to pay an additional impost of 1s for each ton.<sup>1</sup>

Improvements at Grimsby were not preceded by an Act of Parliament, but seem to have been largely prompted by one of the M.P.'s for the borough. At the end of the seventeenth century, a contemporary diarist observed of Grimsby that:-

'there is scarce a good house in the whole town, but a large brick one, which Mr Moor, their parliament man, has lately built.'<sup>2</sup>

Grimsby was one of a number of towns whose freemen sought commercial benefits for the trading community by accepting the candidacy of wealthy London merchants.<sup>3</sup> Arthur Moore, a politician of Irish origin had married the daughter of a wealthy doctor, and was concerned in the East India trade. A sharp City businessman, he became one of the M.P.'s for Grimsby in 1695 and came into office on the Harloyite tide. With the exception of a few months in 1701, Moore continued to sit for Grimsby until 1715.<sup>4</sup> He seems to have taken considerable pains to

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1. 1 Anne, c.13.

2. De la Pryme, p.156.

3. Walcott, p.28. Burnet noted of Moore that 'he rose from being a footman without any education.'

4. Moore was director of East India Company (Old) 1706, and of Royal Africa Company 1710. Commissioner of Trade 1710. Director of South Sea Company 1711-13 - expelled for clandestine trading. J.Carswell, The South Sea Bubble (1960), p.282.

satisfy the commercial aspirations of his constituents:-

'... there is a publick spirited parliament man there, who is contriving to make Grimsby great again - lying a new sluice, and digging the haven to bring vessels to the town side again... He is also promoting the fishery upon the Humber mouth for the advantage of Grimsby; and five large fishing vessels are a building at Stockwith and other places for the town. He is also establishing the woollen manufacture there, and has already sent down out of Oxfordshire a rugg and coverlet maker, and has given him wool, and his new house three years, rent free...'<sup>1</sup>

The town's authorities assisted in the attempt to cleanse the haven by making a cut to admit the waters of the adjacent river Freshney.<sup>2</sup>

The activities of Arthur Moore provide further evidence of the active role which many M.P.'s played in the economic development of their constituencies, prompted partly by electoral considerations, and partly by the personal motive of enhancing the value of their property.

#### (ix) EVALUATION

It remains to be considered what had been achieved in this period. By the late seventeenth century it had become increasingly difficult

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1. De la Pryme, p.156.

2. Grimsby MSS. Borough Court Books, 13 July 1697; 17 October 1699; 7 May 1700; 12 August 1700.



to effect major undertakings for the development of waterways and ports without the authority of an Act of Parliament. Seen in this light, the successful promotion of a Bill - often in the face of well organized opposition - may be regarded as a significant step forward, enabling the undertakers to initiate the requisite works to realise the economic potential of a project. Such possibilities depended on four principal factors: firstly, the length of waterway for which statutory authority had been obtained; secondly, the maximum tolls prescribed in the improvement Act compared with prevailing land carriage rates; thirdly, the type of undertaking entrusted with the development of the navigation; and fourthly, the extent to which the river valley industries had been developed or were geared for expansion.

Within the Humber, Ouse and Trent region, the years 1695-1705 had witnessed efforts to secure statutory powers for the improvement of 182 miles of waterways, the approval of Parliament being obtained for the development of 103 miles. Only two schemes - for the Derbyshire Derwent and the Don, a total of 33 miles of waterway - were actually defeated in Parliament; other Bills, for the improvement of 46 miles of established, but neglected navigations, were dropped. By the early eighteenth century, the total length of river navigation in England and Wales had risen to almost 1,000 miles, of which over 325 miles were within the region.

A comparison of the maximum tolls stipulated in river improvement Acts with contemporary land carriage rates, suggests that, if the works were effected for which authority had been obtained, the water-

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ways were in a strong competitive position as trade routes. For example, along the Yorkshire Derwent the maximum tolls amounted to about 2.5d a ton-mile, or less than one fifth of land carriage rates in the East Riding.<sup>1</sup> Along the Aire and Calder the maximum prescribed tolls amounted to about 3.5d a ton-mile in midsummer rising to about 5.5d a ton-mile in midwinter, whereas land carriage to Solby or Turnbridge was fixed at 10d a ton-mile in midsummer and 23d a ton-mile in midwinter.<sup>2</sup>

The period of activity at the turn of the seventeenth century was also noteworthy for the setting up of new forms of business and commercial organization, and a transition in the system by which public works were administered and financed. Some individuals - for example Sir Godfrey Copley - continued to promote river improvement schemes almost entirely on their own account. However, an increasing number of Bills were promoted and financed by groups of undertakers, who jointly raised the requisite capital, and engaged the engineers and contractors. Such groups stood a better chance of weathering the bleak economic climate which marked the early years of the eighteenth century. Nevertheless, even a powerful undertaking might find that

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1. In 1697 the rates for common carriers between York and Hull were fixed at 6d per stone, and 6s for a pack or horse load. Hull Bench Books, VIII, fol.92.

2. Supra, p.210. It seems that the average cost of carriage by inland waterways throughout the seventeenth and eighteenth centuries was about 2.5d per ton per mile (ranging from .75d to 4d), while by road the average cost was about 1s per ton per mile (ranging from 6d to 1s 6d), although roads usually provided the more direct route. Skempton, p.27.



the potential of river improvement was limited from the start by saving clauses and provisos, which were included in the authorisation Act. Riparian proprietors naturally sought to protect their property, and hard bargaining between the promoters and the leading landowners, and millowners affected, usually preceded or accompanied the passing of a Bill. Given the structure of the political system, riparian interests were in a strong position, and astute promoters were usually eager to win over the leading landowners, some of whom were M.P.'s, or could raise an 'interest' in the House of Commons.

In general, the opening of rivers and consequent growth of coastal traffic further stimulated agricultural production, and helped to create metropolitan markets in cheese, butter and beer as well as wheat, barley, meat, leather and root crops.<sup>1</sup> However, the full possibilities of the new waterways were unlikely to be realized if the industries of the river valleys could not be easily geared to expansion. In this respect, the Aire and Calder valleys were in a favourable position. Above Knottingley, coal-mining was already well developed and was likely to find a ready market throughout the waterway system, particularly while the tax on sea-borne coal continued. The woollen industry of the West Riding was on the eve of significant changes, which in the eighteenth century would enable it to establish supremacy over East Anglia. The Trent likewise seemed to offer good prospects for development, provided the general economic conditions favoured the expansion of the Midlands industries. However, the

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1. Plumb, p.6.

circumstances which prevailed in the early years of the eighteenth century, were scarcely propitious for rapid development.

.....  
The renewal of war in 1702, the increasing burden of taxation, and falling prices for agricultural produce, combined to slow down the pace of improvement. The pessimism of the early phases of the War of the Spanish Succession is clearly seen in contemporary correspondence. In November 1702, Thomas Coke, one of the Derbyshire

M.P.'s was apprised of conditions in the midland counties:-

'the burden of taxes, which at this juncture lie very heavy by reason of the lowness of our markets for all commodities that relate to the farmers.'<sup>1</sup>

Such conditions served to render would-be promoters of improvement schemes more parsimonious. In February 1703, it was noted in Derby that:-

'the lawyers and their fry the attorneys in these parts complain their gains dwindle. A good sign I think unless it is want of money makes people less litigious. It is a scarce commodity. Tenants for one dead year make large complaints, and many that one would think should be wiser are alarmed at taxes, thought with King William all would cease...'<sup>2</sup>

Within the Humber, Ouse and Trent region, efforts to improve or extend river navigation and port facilities did not end abruptly, but

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1. Hist. MSS. Comm., Cowper III, 18.

2. Hist. MSS. Comm., Portland IV, 58. Lady Pye at Derby to Abigail Harley at Brampton.



tailed off after 1702. The defeat of the Derbyshire Derwent Bill in 1703 was the last attempt to extend navigation to Derby for fifteen years; interest in the Don scheme waned after the failure of 1704, and would not be revived until the third decade of the eighteenth century; the proposal to improve the Fossdyke in 1705 did not get off the ground.<sup>1</sup> The prospect of improved communications for trading communities and farmers far from existing heads of navigation seemed remote. From Amington, Edward Ropington complained to Thomas Coke:-

'Poetry and our pockets . . . are at a low ebb in these parts. We have neither wine to raise our fancies, nor navigable rivers, nor passable roads, to convoy our commodities when they may take a price. And I'm afraid, unless some care be taken of the better disposition of them, that these midland counties will in a short time lie under greater hardships.'<sup>2</sup>

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1. Apart from one petition to the House of Commons in December 1705, no information has come to light concerning the proposal to secure additional statutory powers for the maintenance of the Fossdyke. The mayor and aldermen of Lincoln insisted that the powers which had been granted in the Act of 1671 were insufficient to improve navigation between Boston and the Trent, the Fossdyke being in a state of decay. The House was assured that the removal of obstructions in the waterway would be:- 'of great Advantage to the neighbouring Inhabitants, and would employ great numbers of the poorer sort of People, who, upon all occasions will be capable to serve her Majesty at sea.' H. of C. Journals, XV, 71. 20 December 1705.

2. Hist.MSS.Comm., Cowper III, 29. Letter dated January 1704.

Amington - a parish and village in Warwickshire.

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1660-1770

being a Thesis submitted for the Degree of  
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## IV

### Transport Undertakings and Commercial Patterns, 1700-1720

#### (1) INTRODUCTION

The sharp depression which blighted the national economy during the early years of the War of the Spanish Succession slowed down the promotion of improvement schemes, and made it difficult to raise the requisite capital to develop undertakings for which statutory authority had been obtained. Due primarily to vigorous French naval activity the war years brought a decline in trade, the depression reaching its nadir in 1705.<sup>1</sup> By 1708, complaints of depredations by French privateers were becoming less, and a modest recovery seems to have commenced. When hostilities finally ended in 1713, trade and business activity became more marked for a short period, but could not be sustained. Early in 1715 the post-war boom was checked, and was followed by a relatively slow rate of growth.<sup>2</sup> Although old trade levels were re-established and exports - based on the continuing growth of the re-export trade - expanded, the peak was only 15 or 20 per cent higher than thirty years earlier. It is probable that

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1. The total loss in the War of the Spanish Succession must have reached 2,000 ships, and may have been far greater. Davis (1962), p.317.

2. Deane and Cole, p.49. The English merchant fleet stood still for over twenty years during the wars of William III and Anne, and made only limited progress during the ensuing 25 years of peace. Davis (1962), p.22.



trade levels would have been significantly higher had there been less investment in 'the Funds' or in the various industrial activities to which the wars had given great stimulus.<sup>1</sup> In 1715, a Board of Trade enquiry claimed that:-

'the Funds and stocks settled in the late Wars render a more certain and greater gain than any foreign trade whatsoever.'<sup>2</sup>

Although the impression of the national economy in the first quarter of the eighteenth century is one of modest growth in foreign trade and manufacturing industry, important reservations are necessary when considering regional and intra-regional developments. The alterations which were taking place in internal industrial and commercial patterns meant that certain communities and regions were growing at a much faster rate than others. On both sides of the Pennines important changes were taking place in the early decades of the eighteenth century as the foundations for the later and more spectacular advance of industrial Lancashire and the West Riding were being laid. There is also evidence to suggest that communities in which the 'pure landlord' predominated were less able to bear the heavy incidence of the new system of direct taxation than 'dual economy' communities.<sup>3</sup> For example, the development taking place along the Aire and Calder valleys may be contrasted with the near

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1. Holmes, p.154.

2. R. Grassby, 'The rate of profit in seventeenth-century England', op.cit., p.731.

3. D.G. Hey, 'A Dual Economy in South Yorkshire', Ag.Hist.Rev., XVII (1969), 118. For example, the south Yorkshire parish of Ecclesfield had an economy doubly based upon agriculture and the working of iron and steel.

stagnation of the Ouse valley. Such differences lay at the heart of contemporary complaints that trading communities could not advance, save by the ruin of their neighbours.

A study of transport developments and trade patterns within the Humber, Ouse and Trent region in the first twenty years after Acts had been obtained for the development of rivers and ports, reveals that neither the aspirations of the promoters, nor the fears of their opponents, were fully justified. Of the three inland navigation schemes for which statutory authority had been obtained, not one of them provided the promoters with a satisfactory return for their expenditure. The Aire and Calder undertakers found considerable difficulty in surmounting formidable technical, administrative and financial problems; the upper Trent navigation passed into the hands of a monopolistic partnership of unscrupulous boatmasters; while the powers granted under the Yorkshire Derwent Act remained largely dormant. Throughout the waterway system complaints continued of the inadequacy of the rivers. There were no concerted efforts to improve the roads in the region during these years. The coastal and inland ports did not fare much better. The protracted incidence of heavy wartime taxation made it difficult to finance large-scale undertakings, and few new schemes were promoted until the third decade of the eighteenth century. Nevertheless, patterns of trade within the region were changing in several respects as was the relative importance of the inland ports, the limited extension of river navigation playing a not insignificant part.

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The objects of this chapter are fourfold: first, to examine the development of inland navigation on those rivers for which statutory authority had been obtained, and its effect on trade patterns within the region; second, to make a similar study of those rivers and inland ports outside the scope of an improvement Act; third, to briefly consider the progress of the coastal ports of the region; and finally, to assess the achievements of the first two decades of the eighteenth century.

#### (11) THE EARLY HISTORY OF THE AIRE AND CALDER NAVIGATION

The work of extending river navigation to Leeds and Wakefield was carried out rapidly after the passing of the Aire and Calder Act in 1699.<sup>1</sup> Although the Leeds and Wakefield undertakers had co-operated in obtaining the requisite statutory powers, and jointly constructed locks below the confluence of the rivers, work on the Aire and Calder above Castleford was carried out separately at first.

In May 1699, it was agreed that John Hadley should be paid £420 for the management of the navigation to Leeds. The main purpose was to improve - wherever possible - the natural channel of the river Aire by scouring the river bed, removing sandbanks and shoals, straightening the banks, and building dams and locks to permit the deepening and control of the stream.<sup>2</sup> However, a number of cuts

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1. 10 Will. III, c.25.

2. Unwin, 'ACN 1', p.80, quoting ACN 3/13.

were necessary on the river Aire, to by-pass mill-weirs and to cut off tortuous bends. For example, in 1700 the Leeds undertakers contracted for the construction of the mile and a half long Cryer Cut, the land being rented from Lord Irwin of Temple Newsam for ten pounds a year.<sup>1</sup>

Eighteen months after the Bill had been passed preparations were made for the opening of the navigation to Leeds. Thoresby wrote to Sir John Kaye inviting him to dinner on the day appointed for:-  
'rejoycing for the Navigation . . . when the locks will be first opened.'

Lord Fairfax and others who had actively promoted the navigation scheme were also invited, though formal invitations were not sent by Leeds Corporation:-

'for fear of disobliging some neighbouring Justices who wou'd expect the like.'

On 20 November 1700, Sir Walter Calverley recorded:-

'I was at Leeds, upon an invitation from the mayor . . . at the boats coming up to the bridge . . . and dined at one Craven's and had a fine entertainment, and was a great many gentlemen, amongst whom were my Lord Irwin, Lord Fairfax, Sir John Kay, and many others.'<sup>2</sup>

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1. G. Ramsden, 'Two Notes on the History of the Aire and Calder Navigation', Publications of the Thoresby Society, Miscellany, XLI (1953), p.383.

2. Unwin, 'ACN 1', p.81, quoting 'Memorandum Book of Sir Walter Calverley, Bart'. Surtees Society, LXXVII (1886), 93.



John Hadley, who had made the original survey of the river Aire, and had been appointed the engineer, does not appear to have finished the work.<sup>1</sup> The opening of the waterway to Leeds did not fulfil the principal aims of the undertakers or proprietors, namely, the perfection of the navigation, and an adequate return for their investment. The first twenty years of the undertaking were marked by serious technical, financial, administrative and legal difficulties.

Similar problems confronted the Wakefield undertakers. On the Calder the absence of mill dams below Wakefield necessitated the construction of three weirs and locks. By July 1701, the Wakefield undertakers had received over 85 per cent of the original subscription of £4,100. In addition to the sum laid out in obtaining the Aire and Calder Act, their share of the construction costs of Castleford and Knottingley locks amounted to £922 3s 1d., and a further £2,167 9s 1d. had been expended on the Oil Mill and Penbank locks and weirs on the Calder. The original contractors for the navigation works on the Calder were Mathew Oates and Peter Whalley, a Nottingham engineer previously responsible for a waterworks undertaking at Sheffield.<sup>2</sup>

On 18 July 1701, the Wakefield undertakers signed an agreement with two carpenters of Huddersfield, James Mitchell and his son, Joshua, together with three Dewsbury masons, James Willans and his

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1. Unwin, 'ACN 2', p.5, quoting ACN 4/102. Letter of Mary Hadley to William Rook, one of the Leeds undertakers. 23 August 1701 Sutton Coldfield, '...conserned about the reference of buisness betwixt the Undertakers of Leedes and myself . . .'

2. ACN 4/35.

sons, James and Martin, who promised:-

'to make and keep navigable the river Calder for seven years next after the same should be finished for vessels of 12 and 14 tons . . . for £1,800.'<sup>1</sup>

As in other navigations of the period, carpenters and masons were to play an important role, reflecting no doubt the considerable quantities of timber and stone needed in the construction of locks and other works. From the position of contractor it was not difficult to become a lessee, from which it was possible to engage in trade.

The original subscriptions of the Leeds and Wakefield undertakers fell far short of what was actually required. By November 1701, the Wakefield undertakers were anxious to raise additional capital:-

'it being necessary that a great sum of money should be raised for completing the undertaking . . .'

The two trustees, who had been elected by the undertakers to deal with day to day business, were also to be assisted by an elected committee:-

'for the regulation and better management of the navigation and to the intent no difference . . . may arise among the shareholders.'<sup>2</sup>

The second subscription, amounting to £2,290, was also to yield eight per cent interest. By April 1702, this had been paid out to Mitchell and his partners.<sup>3</sup>

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1. Unwin, 'ACN 2', p.1, quoting ACN 3/15. Several references to James Mitchell at the Wakefield Registry of Deeds show that he was purchasing property in Wakefield in the early eighteenth century.

2. Ibid, p.2, quoting ACN 3/43.

3. Ibid, quoting ACN 1/3.



By 1702, the Leeds and Wakefield undertakers had come to the conclusion that major improvements were necessary below Knottingley, on that part of the river Aire which had been navigable throughout the seventeenth century. On 21 April, an agreement was signed with James Mitchell and George Atkinson, a Quaker architect and carpenter of Thorne, providing for the construction of locks and dams at Beal and Haddlesey. The Wakefield undertakers soon found it necessary to raise a third subscription of £1,640. Money was owing to Mitchell for Penbank lock, Lakes lock, and Kirkthorpe lock on the Calder; and to Atkinson for the works at Beal and Haddlesey.<sup>1</sup> In order to raise the additional sum, the undertakers agreed that:-

'every person concerned in the first subscription . . . to pay one fifteenth . . . in default of such payment the trustees . . . to stop and detain in their hands out of the Interest of the navigation which shall belong to any such persons making default to make up . . .<sup>2</sup> fifteenth part.'

In 1703, serious disputes arose between the Leeds and Wakefield undertakers, the former having spent £2,800 more in making the river Aire navigable above Castleford than the Wakefield undertakers had spent in improving the Calder. As a result the Leeds undertakers claimed 'some advantage' in the collection of lock dues, and in the distribution of profits.<sup>3</sup> Through Jaspar Blythman, the town's

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1. Unwin, 'ACN 2', p.2, quoting ACN 4/35. George Atkinson was the father of the Thorne surveyor Joseph Atkinson, one of the lessees of the Aire and Calder Navigation, 1723-58. For brief details of George Atkinson see First Minute Book of Gainsborough Monthly Meeting of the Society of Friends, ed. H. Brace

2. W.R.D. C/15/4.

3. Unwin, 'ACN 2', p.2, quoting ACN 4/119/1.

Recorder, they sought the legal opinion of Sir Thomas Powis and a Mr Vernon in London. The Recorder's son wrote to his father from London:-

'I all along apprehended that the Charge of making Aire navigable to the meeting of the Rivers had been solely disbursed by the Gentlemen of Leeds and if there had been any miscarriage in this part of the Undertaking I believe the Wakefield gent. would not have thought themselves concerned in it, and it would be pretty hard that after the risks is over they should come into the benefit of it.'

The issue was referred to Godfrey Lawson, a Leeds merchant, and the account books of both groups of undertakers were examined before an Award was made.<sup>1</sup> The Award affirmed that the Leeds undertakers had spent considerably more than the Wakefield undertakers. Finally the latter agreed to pay £1,496 4s 8d:-

'to prevent a long and expensive Chancery Suit.'<sup>2</sup>

The dispute added to the financial problems of the Wakefield undertakers. By June 1704, a further £1,800 was needed:-

'a considerable sum was due for Interest on the subscription of the Wakefield undertakers . . . together with sums agreed to be paid to the Leeds undertakers.'

Eight of the original shareholders subscribed a further £75 each, and three others a further £400 each. By now it was felt necessary to distinguish between the several subscriptions, and the likely return which might be expected. At a meeting on 13 June 1704, it was agreed

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1. Unwin, 'ACN 2', p.3, quoting ACN 4/99. Godfrey Lawson was mayor of Leeds in 1669. He was named a commissioner in the Act of 1699.

2. W.R.D. C/15/4.



that every shareholder who had advanced money for raising the £1,800 should have interest at six per cent per annum out of the first profits of the Navigation. The same rate of interest was to be paid for other lent money:-

'out of the next profits arising.'

The remainder of the yearly profits was to be divided into 82 parts to be paid on the original subscription of £4,100.<sup>1</sup>

In the assignment of specific profits to particular categories of subscription, the Aire and Calder undertaking followed along the lines of other important concerns of the period, the gradual emergence of different classes of shares, and the division of capital into debentures, preference, and ordinary shares having been - to some extent- anticipated.<sup>2</sup>

By the end of 1704, when the navigation was 'near perfected' the Wakefield undertakers had raised over £9,000 on completing and maintaining the waterway, and in compensating landowners, millowners and other interests.<sup>3</sup>

Apart from disagreements over the construction of the various works on the waterway, the Leeds and Wakefield undertakers also disputed the question of river tolls. In 1703 the two groups of undertakers agreed:-

'to account for clear profitts since the Act until 1 May next and

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1. Unwin, 'ACN 2', pp.3-4, quoting W.R.D. C/15/4.

2. Scott, I, 364.

3. Unwin, 'ACN 2', p.4, quoting ACN 8/20. 'It was November 1704 before Navigation was near perfected.'

should show to each other all accounts kept by them - all reasonable allowances to be deducted. The clear profits should then be equally divided.'

It seems that the Leeds undertakers were charging more for the shipping of cloth than the Wakefield undertakers for it was agreed by both groups that:-

'no greater Toll should be accounted for by the Leeds Undertakers for cloth to be exported beyond seas or sent to London from Leeds to Weeland than 9s per ton from 1 October to 1 May nor more than 4s from 1 May to 1 October.'<sup>1</sup>

At first, the income of the Leeds and Wakefield undertakers was derived almost entirely from lock dues, and from participation in the river trade.. Lock dues received by the Wakefield undertakers between April 1703 and March 1705 amounted to £297 5s 5d. Arrears of £169 10s 7d were principally due from those wharfingers, shipmasters and traders who had previously enjoyed a toll free navigation to Knottingley, in particular William Andrew a Knottingley wharfinger, and Lawrence Spencer of Rawcliffe, formerly the leading wharfinger and shipper at Selby. The Wakefield undertakers had also engaged in trade. In 1701, seven of them had subscribed ten pounds each to a special coal stock. The undertakers were also concerned in the river trade in lime.<sup>2</sup>

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1. Unwin, 'ACN 2', pp. 5-6, quoting W.R.D. C/4/2.

2. Unwin, 'ACN 2', p. 4, quoting ACN 4/35. 31 March 1704. Received of Mr. Hillyard of York for coales £3 15s 10½d.



Until the river Aire was opened for navigation to Leeds, the principal facilities for shipping were provided at Woodlesford. In 1700, John Cockell was paid £20:-

'for warehouse rouse at his house att Woodlesford, carriage of packs from thence to the River side, his sallary, and watching goods by the river side.'

A warehouse, crane and staith were subsequently erected at Woodlesford.<sup>1</sup> The Leeds undertakers also engaged in trade. In August 1700, a contract was made with a ship's carpenter of Selby, John Cooke, for the construction of a river boat of 15 tons, which was to be built at the Ouse port.<sup>2</sup> In 1702, brief reference is made in the extant records of the Leeds undertakers:-

'to the use of our 4 boates.'<sup>3</sup>

Trade by the undertakers directly ceased when the navigation was leased to 'farmers' from 1704 onwards, a practice which led to a shift in administrative responsibility for the undertaking. Although the undertakers were still responsible for completing any unfinished

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1. ACN 4/119/1.

2. Unwin, 'ACN 2', p.5, quoting ACN 3/19. This boat was to be 44 feet in length by 11 feet breadth and 2½ feet deep. It was to include a cabin in which four men might be accommodated, and was to carry 15 or 16 tons at 17 inches water. Cooke was to be paid £35, with an additional two guineas if the work was satisfactory.

3. Ibid, quoting ACN 4/119/1. 'To the use of our 4 boates for 3 years at £9 per annum each . . . £108. To money paid for new ropes, tarpawlins, oares and other weare and teare & repaire of boats since first built and rigged at £3 per annum each . . . £36.'

works and for carrying out new works, the duty of maintaining the rivers fell on the lessees. By leasing the navigation, the undertakers were assured of a regular income which could be assigned to the payment of interest on the several subscriptions. The financial accounts of the Wakefield undertakers clearly reveal the difficulties of the early years. By the end of 1704, only £316 19s 4d had been paid out in interest, less than one year's yield at eight per cent on the original subscription. On 1 November 1704, the tolls and duties of the Aire and Calder navigation were leased to George Dover of Leeds, clothworker, for one year at a rent of £800. Dover, the brother-in-law of William Milner, the leading Leeds undertaker, renewed the lease the following year, in association with Thomas Roebuck, one of the Wakefield undertakers, at a rent of £1,000.<sup>1</sup>

Having settled their differences over the costs of construction and the division of profits, the way was open for the union of the two groups of undertakers. On 24 September 1705, a Constitution or Union Deed was signed, confirming that William Milner and William Rook were the trustees for the Leeds undertakers, and that Joseph Watkinson and John Smyth were trustees for the Wakefield undertakers. The four trustees were to act according to the direction of a committee of ten, consisting of the trustees themselves, and three undertakers from Leeds and Wakefield respectively. The trustees - whose personal property was indemnified from actions at law - were empowered:-

'to Let, manage and order the whole Navigation upon both Rivers and  

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1. unwinn, 'ACN 2', p.4, quoting ACN 4/35.



shall Imploy such Persons under them for collecting Tolls and profitts and in maintaining all Locks, wears and other things.'<sup>1</sup>

(H)THE AIRE AND CALDER UNDERTAKERS AND THE RIPARIAN PROPRIETORS

By the terms of the 1699 Act, 82 Commissioners had been named, of whom a minimum of seven were authorised to mediate - if necessary - between the undertakers and riparian property owners, and to arrange for the payment of compensation before locks, wears, dams or water-courses were constructed. Failing agreement, the Commissioners might issue a warrant to the Sheriff of the county, who was to impanel a jury which was to assess the damages to be awarded, upon which the Commissioners were to make the final judgement. The Commissioners were empowered to examine witnesses, and to use 'all other lawful ways' to determine controversies. Decisions were to be recorded and kept by the Clerks of the Peace for the West Riding and for Leeds. The Commissioners were authorized to survey the rivers if necessary, and - being vested with the same powers as commissioners of sewers - might order alterations:-

'for keeping the Aire and Calder open . . . for Boats, barges and other vessels.'

If the improvement and extension of river navigation led to the flooding of adjacent land, the undertakers were to raise the banks according to the directions of the Commissioners:-

'so that the new banks shall be as able and sufficient to contain waters as of old.'<sup>2</sup>

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1. Unwin, 'ACN 2', p.6, quoting W.R.D. C/1/1.

2. 10 Will. III, c.25.

Between September 1699, and May 1702, several Commissioners met regularly, in order to mediate between the undertakers, and those property owners who wanted compensation as a result of the improvement of the waterway. The chief interests affected were landowners and millowners, who wanted satisfaction for the digging of agricultural land to make locks and cuts, the use of land for haling paths, the cutting down of trees, the carriage of materials across fields adjacent to the rivers and for their storage on the banks. When the Leeds undertakers accepted the necessity of a lock and cut near Fleet Mills, the owner - Charles Robinson of Ardsley - was awarded 9d per hour for every wheel which should stop grinding. The awards to landowners indicate a distinction in value between enclosed and open field land. The value of land was naturally greater in or near a town, varying from fifty pounds per acre near Leeds Bridge to fifteen pounds per acre at Castleford. Following the assessment of a jury, the Commissioners ordered the undertakers to pay the overseers of highways for Swillington 1s. per annum for damages and for liberty to lay stones at all times of the year upon the bank of the river Aire adjoining the highway near Swillington Hall.<sup>1</sup>

In 1702, extensive construction work was commenced in order to raise the water-level over the sandbanks which obstructed the navigation below Knottingley. Locks and dams at Beal and Haddlesey cost the undertakers over £1,600, but were regarded as:-

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1. Unwin, 'ACN 2', pp.6-7, quoting ACN 1/1A. Sir Walter Calverley recorded:- 'I went to appear (as commissioner) at the jury giving in their verdict about recompenses for hawling &c. on the rivers Aire and Calder.'



'so absolutely necessary to perfect Nav: that without them there woud be almost a Continual Stoppage of Boats . . .'<sup>1</sup>

The works at Beal and Haddlesey were the occasion of protracted and expensive disputes and litigation with landowners, millowners, and the trading and shipping interests which had long enjoyed a toll-free navigation to Knottingley. The undertakers were soon receiving complaints. One, in 1703, stated that:-

'Whereas the Locke builed at Beale upon Rivers Air and Caldre Causes the Overflowing of the Grounds belonging Edward Thompson of Murston . . . doth Expect such Satisfaction as the Act . . . directs.'<sup>2</sup>

In 1705, the undertakers paid £30 to a Mr Tyas:-

'for damage don to Knottingley forge by Beal's dam.'<sup>3</sup>

In 1707, the landowners affected by flooding below Knottingley consulted counsel on what action they might take. Their case set out that the undertakers had:-

'under pretended powers in the Act made cuts through grounds . . . of severall persons, taken away Trees and other obstructions for making the Navigation, pulled down . . . Mills, and, in carrying on designs by Locks and other Waterworks . . . have caused many of the adjacent lands . . . to be overflowed . . . without making any agreement with . . . Proprietors of land.'<sup>4</sup>

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1. Unwin, 'ACN 2', p.7, quoting Temple Hirst MSS.

2. G. Ramsden, op.cit., p. 393.

3. Unwin, 'ACN 2', p.7, quoting ACN 4/35. Much of the ironwork used on the locks came from this forge.

4. Ibid, quoting Bacon Frank MSS. BFM 52(A3).

Sir Thomas Parker and Serjeant-at-Law Cheshire affirmed that since the undertakers had not made satisfaction:-

'all that hath been done is merely tortious as if no such Act had ever passed.'

The main task of the Commissioners named in the Act was to settle compensation before the undertakers constructed works, not to assist injured parties to recover damages for construction already done:-

'that was a thing out of the view of the Lawmakers and therefore not at all provided for by them for they designed nothing to be done but what satisfaction should be made . . . and thought it enough to leave the parties to the ordinary methods of Law.'

Counsel concluded that, since the Commissioners had the power of Commissioners of Sewers, they might force the undertakers to improve and strengthen the river banks and prevent future disputes, but:-  
'could not order satisfaction for damages past.'<sup>1</sup>

Complaints of another nature came from the trading and shipping interests of Knottingley, the head of navigation on the river Aire before the Act of 1699. A draft petition to the House of Commons alleged that the erection of locks and dams at Beal and Haddlesey prevented coasting vessels from getting up to Knottingley, and that the undertakers had imposed tolls on traders of the town, despite earlier promises of exemption. To redress their grievances, Knottingley interests wanted leave to bring in a Bill to exempt the

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1. Unwin, 'ACN 2', p. 8, quoting Bacon Frank MSS. BFM 52 (A3).



inhabitants of the town from toll, and that the locks and dams at Beal and Haddlesey:-

'might be abated or damages paid.'<sup>1</sup>

By 1709, the various parties seeking damages from the undertakers had become determined to secure a new meeting of the Commissioners, which it was hoped might make the undertakers:-

'more compliant to render satisfaction'<sup>2</sup>

Cyril Arthington, a progressive landowner and one of the Commissioners wrote to another Commissioner, William Nevile:-

'I know ther's a storm gathering which when it breaks will I believe do 'em (the undertakers) more damage than all the Floods they have had since they begun or it may be forty years to come if it be not timely & carefully disperst, which their wisdoms needs no assistance in . . .'<sup>3</sup>

When the Commissioners met at Pontefract on 2 June 1709, complaints against the undertakers and the lessees of the navigation were made on behalf of Lord Lindsey and other landowners in Haddlesey, Beal, Kellington, Hensall, Birkin and Kellingley. Thomas Rayner complained about damage to his fishery; Arthur Ingram concerning damage to Knottingley Mills; the traders of Knottingley about the decline of the waterway; and Pontefract Corporation concerning their right to an

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1. Unwin, 'ACN 2', p. 8, quoting Bacon Frank MSS. BFM 52 (A3).

2. Ibid, p. 9, quoting Mellish MSS 157/96.

3. Ibid, quoting Stowe MSS. 748, fol.79. William Nevile of Holbeck was High-Sheriff of Yorkshire in 1710.

ancient river toll between Temple Hurst and Knottingley.<sup>1</sup> The Commissioners requested the Sheriff to summon a jury, and at a further meeting on 18 July, the undertakers were instructed to open floodgates, locks and sluices, so that the jury might view the river Aire and ascertain its condition below Knottingley. Further proceedings by the Commissioners were prevented, for a writ of certiorari was served, removing the cause into the Court of Queen's Bench. The aggrieved parties felt that the undertakers were merely trying:-  
'to put the Sufferers about as much as may be.'<sup>2</sup>

In 1710, the cause was referred back to the Commissioners by a writ of procedendo. Tobiah Harvey, one of the active Commissioners wrote to Richard Wilson:-

'I heartily wish the Undertakers would be sensible of the great damage the country suffers, were disposed voluntarily to make satisfaction, and to render the river as navigable as it was before the erection of the two lowest locks, which occasions the warping of it more and more,

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1. Unwin, 'ACN 2', p.9. Robert, Marquis of Lindsey, Hereditary Lord Chamberlain. Became first Duke of Ancaster 1 October 1714. J.N. Worsfold, History of Haddlesey (1894), p.209. The Act of 1699 had included a saving clause on the right of Pontefract Corporation to river toll. However from the start it proved almost impossible to collect. At a meeting of the Corporation on 17 February 1702 it was agreed that legal actions should be commenced 'against such persons as refuse to pay the Toll due for Vessels or boats passing or repassing the river Ayre, and that an assessm't be laid upon the said Burrough . . . towards p'secuting the Said Sute.'  
Pontefract Corporation:Book of Entries 1653-1726, ed. R. Holmes (1882),p.250.

2. Mellish MSS. 80/19.



and even this winter the boats could not pass till a fresh set them at liberty.<sup>1</sup>

When the Commissioners met on 10 August, and 6 September, complaints against the undertakers were again made by landowners, millowners and traders. At the second meeting a jury was impanelled by the High Sheriff was directed to view the river Aire from Knottingley Mills downwards to Haddlesey dam, and to present the same to the Commissioners. The undertakers were ordered to open locks and floodgates at Beal and Haddlesey, but those at Knottingley were to be kept closed.<sup>2</sup>

The jury viewed the river on 4 October 1710, and its presentment provides a picture of the navigation - on the stretch naturally navigable - ten years after the improvement Act had been passed. It was found that:-

'the erecting of Dams at Beal and Haddlesey and making hedges to contract the Channell of the River have not only stopped the Tides . . . but caused the Channell to sludge and warpe up, soe very much that it will not containe water running down the River in such floods as used not to reach near the Topps of the Banks, whereby Adjacent Meadows . . . containing about 2,000 Acres are flooded by such floods as used not att all to affect them.'

The jury affirmed that:-

'not any satisfaction hath been made by the Undertakers for such

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1. Unwin, 'ACN 2', p.10, quoting ACN 4/99/1. Richard Wilson (1678-1761): Son of Thomas Wilson of Leeds, merchant. Richard Wilson was elected Recorder of Leeds in 1729. In the 1720's he bought the navigation shares of Lord Galway.

2. Ibid, quoting ACN 1/1A.

damages, and they have not raised the Banks of the River according to such heights as they have raised the waters as the Act directs.'

In conclusion, it was predicted that:-

'the River will still daily fill up, and become lesse navigable and allsoe less capable to containe the water running down the same, in floods, unless the River be cleansed of the said Obstructions.'

Following the presentment, the Commissioners ordered the undertakers to raise the banks of the river from Knottingley mills to Haddlesey dam, on penalty of £2,000, and the cleansing of this stretch of the waterway on the penalty of £3,000. These alterations were to be completed before 24 June 1711.<sup>1</sup>

Although the time given to the undertakers was later extended, they preferred to reach a compromise with some of the landowners, rather than to fulfil the decision of the Commissioners. On 19 September 1711, the undertakers agreed with Joseph Mellish, Thomas Rayner and the inhabitants of Beal to make a sluice, in order to drain meadowland in Beal, not to raise the dams below Knottingley any higher, and to drop proceedings in Chancery. In return the land-owners agreed to drop claims for damages, and promised that they would try to persuade the Commissioners to drop the order concerning the raising of the river banks.<sup>2</sup>

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1. Unwin, 'ACN 2', p.11, quoting ACN 1/1A.

2. Ibid. Joseph Mellish was the son of Samuel Mellish a barrister who became Recorder of Doncaster. As the owner of extensive lands on the lower stretches of the rivers Aire and Don, Joseph Mellish was involved in disputes with both the Aire and Calder undertakers and with interests promoting schemes to improve the navigation of the Don in the 1720's. Willan (1965), p.11.



In 1712, the cause between the Commissioners and the undertakers was heard at York Assizes. The case of the Commissioners - as plaintiff - consisted of six issues, namely, that the undertakers' works below Knottingley had made lands more liable to flooding; that the river was 'more warpt than formerly' and consequently less navigable; that the locks and dams at Beal and Haddlesey were unnecessary; that the Aire had not been continually navigable since their erection; that much larger vessels formerly came to Knottingley; and that the owner of Knottingley mills had not received full satisfaction for damages.<sup>1</sup>

Witnesses testified that below Knottingley:-

'in many places the River is Warpt up 2 foot, in some places 3 foot, and in some 9 foot, so that it is impossible it should Contain the same quantity of Water as before.'

It was also alleged that the making of hedges to contract the water into a narrow channel had rendered two-thirds of the river useless. Deponents attested to the importance of the waterway to Knottingley, formerly the head of navigation, and the principal port on the Aire. Vehement statements set out that the construction of locks and dams below Knottingley had impaired navigation, that:-

'before the Locks . . . a Vessell of 6 foot Water would have gone downe better than a Vessell of 3 now.'

Other witnesses testified that coasting vessels were:-

'all Shut out . . . None of them can come there by passing through those Locks . . . That part of them which doth Still continue trading

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1. Unwin, 'ACN 2', pp.11-12, quoting Temple Hirst MSS.(unsorted).

up to Knottingley passes over those Dams always.'

Many witnesses seem to have supported the contemporary school of thought which maintained that the ebb tide combined with the land flood scoured out the bed of the river and carried away much more sand than the tides brought up. Thus it was testified that:-

'the tides are Stopt by making the 2 dams at Haddlesey and Beall which tides usually in spring times flowed 6 miles further up the River than now . . . the tide flowed at Hadlesey 3 foot at Beal 18 inches and at Knottingley 4 inches.'<sup>1</sup>

Although it was conceded that the various locks and dams above Knottingley had enabled the undertakers to extend river navigation to Leeds and Wakefield, 'where there was none before', evidence was produced to show that in some respects the trading interests of the West Riding were no better off. William Andrew a Knottingley wharfinger deposed that:-

'Leeds men sometimes have sent their Goods to Rawcliffe by Land Carriage for want of Water . . . if Air had been navigable betwixt Knottingley and Haddlesey at such times as sd carts Loaden'd wth Cloth past thro' Knottingley in their way to Rawcliffe . . . neither . . . Mr Milner nor any other persons who were owners of the sd packs . . . would have sent them by Land carriage . . . being more expensive than carriage by water.'<sup>2</sup>

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1. Unwin, 'ACN 2', p.13. One of the main engineering controversies of the early eighteenth century concerned the action of tides upon the lower reaches of a tidal river and from this whether tides were beneficial to navigation or not. Willan (1936), p.82

2. Ibid, pp.13-14. William Milner, the leading Leeds undertaker and a prominent woollen cloth merchant.



Several boatmen asserted that they had assisted:-

'to Lighten boats several times at West Haddlesey of Cloth till they left not above 4 packs in a Boat.'<sup>1</sup>

The Knottingley traders had their own suspicions about the real motives of the undertakers. At the time of the trial Thomas Atkinson, a leading Knottingley trader wrote to Lord Lindsey, the principal landowner in Haddlesey:-

' . . . I say its evident to prove that those 2 Low dams was only made to Bring the Undertakers profit, and that by Laying a great toll upon all Vessells that passes them up to Knottingloy . . . '

At the trial it was attested that the undertakers:-

'take as much Toll for passing thro' Beal and Haddlesey Lock for coal (13d per ton). . . and wool (6d per pack) as they do for passing thro' all the Locks above which in Number upon River Air are 7 and upon River Calder are 6 . . . '

It was argued that the tolls on coal, wool and corn were especially onerous to the trading community at Knottingley:-

'this being generally their Winter business - at which time they have no need of the Locks - having water enough without them - yet persons are compelled to pay Tolls when the Locks is no way serviceable to them.'<sup>2</sup>

Arthur Ingram, the owner of Knottingley Mills had already received £80 for damages in 1709, but insisted that the undertakers:-

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1. Unwin, 'ACN 2', p.14. Lighting boats were used on other river navigations in the early eighteenth century. Willan (1936), p.87.

2. Temple Hirst MSS.(unsorted).

'make sattisfaction for what damidges he has sustained since that time.'

It was affirmed that many people had been forced to grind corn at other mills, and that:-

'since the erection of Beal Dam, the mills are sooner in backwater and continues much longer so than before.'<sup>1</sup>

A view of the river was again ordered, but the undertakers opened the locks at Beal and Haddlesey:-

'to scoure the River as much as possible, that the Jury might not so well Understand the warping the Channell of the River.'

Penbank lock and Methley lock were also opened:-

'to bring down a great head of water to Ferrybridge to amuse the Jury, and to carry down in their sight 2 boats that were loaden'd with goods and adorned with flaggs and streamers to make a shew of a good navigation.'<sup>2</sup>

By the autumn of 1712, the undertakers were eager to avoid additional expenses of litigation. The Wakefield undertakers wrote to Lord Lindsey, stressing that they were, and always had been:-

'ready to make you full Satisfaction for damage . . . begg your Ldship to referr the matter to some gent . . . in your part as they are Ready to do on theirs to whose award . . . they promise an entire

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1. Unwin, 'ACN 2', p.14. Arthur Ingram 1660-1733. Related to the Temple Newsam family.

2. Ibid, pp.14-15. The deception of the undertakers 'was noticed by Sir William Hustler who told some of the Undertakers secrets that he would remember it at the Assizes.'



obedience . . . If it cannot be settled in that way . . . will accept the necessity of legal action.<sup>1</sup>

More than ten years after the first complaints concerning the works below Knottingley, the undertakers made agreements with the principal aggrieved parties.

On 20 May 1714, they promised Arthur Ingram not to raise existing dams and hedges any higher:-

' . . . and shall the next year make two or three Clows in Beal Dam more than there now is and shall keep open the said Clows att such Time as the River is 2 foot higher by Reason of Freshes than itt is att low Water Mark.'

Ingram was to receive one hundred guineas:-

'in full of all pretensions of Damages done to this Day or that hereafter may be done by Reason of the aforesd Hedges and Dam.'<sup>2</sup>

On 9 July, an agreement was signed with Lord Lindsey and the inhabitants of Knottingley, the undertakers promising to make:-

'one or more new large Cutt or Cutts . . . in the middle of the Dam at Chappel Haddlesey.'

If this failed to prevent flooding to the satisfaction of Lord Lindsey, the undertakers agreed to remove Haddlesey dam before 9 January 1716.

On the question of river tolls, the undertakers engaged not to demand from the Knottingley traders:-

'any more than one thirde parte of Such Toll per Tunn for passage up

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1. Unwin, 'ACN 2', p.15, quoting Temple Hirst MSS.(unsorted).

2. Ibid, quoting ACN 4/35.

and down Air to and from Knottingley to Weeland . . . as now is taken from the Inhabitants of Wakefield and others trading upon the River for passage from Wakefield to Weeland.'

It was finally agreed that:-

'all proceedings both at Law and in Equity touching the said disputes shall be stayed from this Time.'<sup>1</sup>

#### (iv) CAPITAL ACCUMULATION IN THE AIRE AND CALDER NAVIGATION

The expenses of completing and maintaining the navigation works, and of protracted lawsuits had serious repercussions on the finances of the Aire and Calder undertaking. Disbursements by the Leeds and Wakefield undertakers rose from £579 16s 10d in 1708 to £1,689 18s 8d in the following year, as the result of extensive flooding and widespread damage.<sup>2</sup> To discharge £400 due to the workmen, each Wakefield undertaker paid £30 15s 4½d., and arrears of interest were added to the principal, a step which many of them opposed. It is not difficult to understand why a number of the original subscribers to the waterway should have been disgruntled. Little interest had been

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1. Unwin, 'ACN 2', p.16, quoting Temple Hirst MSS.(unsorted). Robert, Marquis of Lindsey and Hereditary Lord Chamberlain became first Duke of Ancaster, 1 October 1714. Worsfold, op.cit., p.209. It seems unlikely that all the complainants against the Aire and Calder undertakers were satisfied. In April 1716, the town clerk of Pontefract was instructed by the Corporation to write to the undertakers concerning their ancient river toll. Pontefract Corporation: Book of Entries 1653-1726, op. cit., p.387.

2. Ibid, quoting ACN 4/35. £124 was paid for repairing the weirs at Knottingley, and the lessees were paid £60 'for the Loss they sustained by Castleford Lock being down so long.'



received on their initial investment, and they had been repeatedly called upon for additional loans, with promises of eventual repayment, and regular interest at six per cent. The rent paid by the lessees in the early years was not sufficient to permit the payment of interest at that rate, even without the heavy calls on the undertakers for money to carry out new improvements.<sup>1</sup> Particularly aggrieved were those landowners who had invested in the Aire and Calder navigation, and who had borne the heavy burden of the land tax at a time when low prices for agricultural produce made it difficult to pass on the new impost to tenants.<sup>2</sup> The decision to add arrears of interest to the original subscription was scarcely designed to allay the growing irritation among shareholders. At what must have been a heated meeting on 9 March 1709, the Wakefield undertakers declared they were:-

'to have Interest at 6 per cent for ever and that their Lent Money should not be added to the Originall or first Subscription.'<sup>3</sup>

This did not prove possible, for defraying litigation added to the undertakers' financial difficulties. Total payments in 1712 amounted to £1,291 18s 3d and interest was again added to the principal of the Wakefield undertakers.<sup>4</sup>

Failure to increase greatly the annual rent for which the tolls and duties of the navigation were leased in the early eighteenth century were a further indication of the difficulties which faced the

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1. The rent of £1,000 per annum between 1705-7 was not sufficient to pay interest at six per cent, and, before interest could be paid, numerous charges had to be settled.

2. Ward, p.36.

3. Unwin, 'ACN 2', p.16, quoting ACN 1/3.

4. Ibid.

undertakers. In 1708, Joseph Shaw and Thomas Clark had secured a seven year lease of the navigation at an annual rent of £1,200.<sup>1</sup> This proved insufficient to meet the calls made upon the undertakers, and in 1715 it was decided by the trustees of Leeds and Wakefield that:-

'no Lease of the Navigation be lett for less than £1,800 a year clear rent.'<sup>2</sup>

This the lessees were unwilling to pay, and for a year the navigation was managed by the undertakers themselves. When a new lease was eventually agreed upon to run for seven years from November 1716, the yearly rent was only £1,600.<sup>3</sup> When William Milner, the leading Leeds undertaker purchased the shares of a Dutch merchant John D'Orvill in 1715, the latter wrote:-

'I wish you henceforward better fortune with your interest in the navigation than I had hitherto.'<sup>4</sup>

Between 1716-1720, important steps were taken to place the finances of the Aire and Calder navigation on a more satisfactory footing. The extraordinary expenses of the early years - which had proved a heavy strain on the undertaking - did not recur. As a result the rent paid by the lessees could be used increasingly for the payment of interest and dividends. The lessees also took greater responsibility for the maintenance of the waterway. When the undertakers allowed

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1. Unwin, 'ACN 2', p.17, quoting ACN 4/36.

2. Ibid, quoting ACN 1/3.

3. Ibid, quoting ACN 4/36.

4. Ibid, quoting Milner MSS. DB 65/10.



the lessees £100 for stoppages and the repair of Castleford Mills, it was granted:-

'upon Condition that the Farmers (lessees) show the Treasurer all their Books concerning the profitts of the Navigation . . . and that for the future no Sum be allowed the farmers upon pretence of any promise from the Undertakers unless such promise be signed in writing.' Although the rent paid by the lessees after 1716 was usually sufficient to pay current interest and dividends, the accumulated arrears of interest and lent money proved almost impossible to repay. An indenture signed by all the Leeds undertakers on 26 January 1719, stated that they had:-

'in the Space of Eighteen years . . . only four Dividends . . . which . . . did not amount to four years Legall Interest for the . . . sums . . . subscribed. All the rest of the Profitts . . . being applied . . . to perfect the said navigation, which loss of Interest together with the hazard trouble and other Expences . . . do when duly considered make each of the said subscribers shares at this time of double value . . . Wherefore . . . every sum of one hundred Pounds so Originally subscribed shall from this time . . . in all Accounts, Dividends . . . be . . . taken . . . as Two hundred Pounds and accordingly the capitall or Originall Stock of the undertakers of Leeds shall be hereafter . . . taken to be £14,400.'<sup>2</sup>

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1. Unwin, 'ACN 2', pp.19-20, quoting ACN 1/3. In the early years of the Navigation, the undertakers had paid James Mitchell and his partners £40 a year to maintain the works.

2. Ibid, p.17, quoting Milner MSS. DB 65/10.

The transfer of lent money to the capital stock of the Wakefield undertakers produced further disputes between the shareholders. By 1718, no interest had been paid on the lent money of the Wakefield undertakers for five years. At a meeting on 19 May 1718, it was decided that £500 of the interest outstanding should be paid off, but that the remaining interest due - amounting to £1,510 - should be accounted as principal lent money. Henceforward the Treasurer was to pay six per cent interest on the £6,700 lent money, then interest on the £1,510 at five per cent, and the remainder of the rent paid by the lessees was to be divided among the holders of the original 82 shares. Even this did not prove possible, for, on 30 September, it was decided that only five per cent interest should be paid for all the lent money. A month later a meeting of all the Wakefield undertakers was proposed:-

'to consider what money to be advanced for the Increase of the Navigation.<sup>1</sup>

A number of the Wakefield shareholders were determined either to secure a more satisfactory financial arrangement, or to withdraw from the undertaking. Serious disputes ensued which were referred to two leading local lawyers, Richard Witton and Richard Wilson. Their award in 1720 stated that:-

' . . . whereas £4,100 was the capital stock of the Wakefield Undertakers and money lent on credit of stock £8,210 . . . Undertakers should pay . . . for every £100 which they had, £200 and so proportionally . . . towards discharging £8,210 debt . . . and sums advanced

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1. Unwin, 'ACN 2', p.18, quoting ACN 1/3.



towards discharging debt . . . should . . . be added to . . . original Stock . . . entitled to share or dividend . . . in increased stock which from April 1720 was to be taken as £12,300.<sup>1</sup>

In the first two decades of the eighteenth century, the Leeds and Wakefield undertakers had been confronted with, and had with difficulty surmounted, major financial, technical, administrative and legal problems. As a direct result of their difficulties, the capital stock of the Aire and Calder Navigation had risen from £11,800 to £26,700. Significant changes had also occurred in the distribution of capital. When the undertaking was originally promoted, the Milner and Rooke families, prominent cloth merchants in Leeds, had agreed to subscribe £2,100 or 38 per cent of the estimated capital required. By 1720, the two families had share capital of £9,300, or 65 per cent of the stock of the Leeds undertakers. The shareholding of the Wakefield undertaking was largely in the hands of four of the undertakers, Robert Monckton, John Smyth, Thomas Roebuck and John Burton, of whom the latter two were also lessees of the navigation in the early eighteenth century.<sup>2</sup>

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1. Unwin, 'ACN 2', p.18, quoting Hatfield Chase MSS.8403.

2. William Milner had purchased the shares of Caleb Askwith, James Dawson, John Holroyd, William Sutcliff and John D'Orvill.

William Rooke was the son of one of the original undertakers who d. 1710. He was knighted in 1727.

Robert Monckton of Cavil and Hodroyd d.1722.

John Smyth was one of the original undertakers, and had purchased property at Heath, near Wakefield. He d.1729.

Thomas Roebuck of Heath was one of the original undertakers, and a lessee of the Navigation 1705-7.

John Burton, a retired London merchant who had taken up his residence at Heath. One of lessees 1716-44.

Table 2. Leeds and Wakefield Undertakers in 1720

<u>Share capital - Leeds</u>		<u>Share capital - Wakefield</u>	
William Milner	6,300	Lord Bingley	1,500
William Rooke	3,000	Robert Monckton	2,140
Robert Kitchingman )		John Burton	2,130
Rev.Samuel Brooke )		John Witton	1,500
Elizabeth Hey )	1,800	John Paley	150
Robert Denison )		Jane Spinks	150
Martin Huntington	480	John Beevers	450
John Dodgson	300	John Smyth	2,140
Skudamore Lazenby	240	Thomas Roebuck	2,140
Ann Sawyer )			
Tho. Sawyer her s.))	600		
Dr. Brooke	600		
George Dover	600		
Elizabeth Lowther	480		
<hr/> £14,400		<hr/> £12,300	

1. Unwin, 'ACN 2', p.18. Thomas Kitchingman, one of the original undertakers d.1716. Four coheirs, Mary, wife of Robert Kitchingman merchant of Leeds; Sarah, wife of Rev.Samuel Brooke, D.D., Rector of St.Alpage, London; Elizabeth, widow of Joseph Hey, merchant; and Mary, wife of Robert Denison, merchant.

The shares of John Gibson passed to his daughter Jane, wife of Martin Huntington, Leeds merchant.

John Dodgson jun., merchant was eld.s. of John D. linen draper d.1720

The shares of Thomas Lazenby passed to his eld.s. Scudamore, a Leeds merchant and mayor 1719.

The shares of Thomas Sawyer passed to his widow Ann, and to his s. Thomas who was chosen Alderman of Leeds in 1728.

Rev. Samuel Brooke's first wife was da. of one of the original undertakers Joshua Ibbetson. George Dover purchased the shares of William Wombwell. Elizabeth Lowther was the widow of Christopher Lowther, one of the original undertakers. Lord Bingley was s. and h. of Robert Benson of Wrenthorpe. Chancellor of the Exchequer 1711-13, he was created Baron Bingley 1713. Rev. John Witton of Birthwaite was younger s. of Richard Witton. Two Hunslet shareholders were Rev. John Paley and Jane Spink. John Beevers was s. of Abraham Beevers, a Wakefield salter.



## (V) TRADE ON THE AIRE AND CALDER NAVIGATION IN THE EARLY EIGHTEENTH CENTURY

It remains to consider the role of the Aire and Calder Navigation in the economic development of the region, and, conversely, the repercussions of changes in trade and industry upon the progress of the waterway. Between 1704-16, the rent paid by the lessees had risen from £800 per annum to £1,600 per annum. Although the undertakers had bargained unsuccessfully for an even higher rent, the increase was indicative of the growing value placed on the navigation, and of the rising volume of goods carried. At the same time that the undertakers were tackling formidable problems, the foundations were being laid for the subsequent prosperity of the waterway. This corresponded with significant changes which were taking place in the textile and coal industries of the West Riding.

During the eighteenth century the textile industries of the West Riding were developing along dual lines, the long established woollen manufacture receiving new vigour from the more rapid development of worsteds. Together the two manufactures appropriated a greater share of the nation's woollen and worsted industries, largely at the expense of other regions, and in particular East Anglia and the West Country.<sup>1</sup> Although the pre-eminence of the West Riding would not be reached until the last quarter of the century, important changes were clearly underway by 1720. Defoe described progress in both woollen and worsted manufacture in Halifax and the surrounding parishes:-

'... since the late Revolution, the trade having been prodigiously encouraged and encreased by the great demand of their kersies for

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1. Heaton, p.257.

clothing the armies abroad . . . they have entered upon a new manufacture which was never made in those parts before, at least, not in any quantities . . . the manufacture of shalloons, of which they now make, if fame does not bely them, a hundred thousand pieces a year . . . and yet do not make much fewer kersies than they did before.'<sup>1</sup> Eastwards of Halifax, the manufacture of other varieties of worsteds also developed in the eighteenth century, but it is not easy to discern how far this had proceeded in the first two decades. Although primarily woollen manufacturing centres, Leeds and Wakefield also turned to the production of camblets and 'tammies'.<sup>2</sup>

The woollens and worsteds of the West Riding were marketed in a number of ways. In the early eighteenth century many clothiers still continued to attend the weekly markets at Leeds, Wakefield, Halifax and Huddersfield, where they would dispose of their pieces to pedlars or shopkeepers, merchants or factors. Once the worst of the depression which marked the early years of the War of the Spanish Succession was over, efforts were made to improve marketing facilities. The setting up of new cloth markets and new cloth halls was often accomplished in spite of manifestations of local rivalry and jealousy, so characteristic of the age, and which has already been noted in the efforts to secure statutory authority for the improvement or extension of river navigation. Accepting mercantilist

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1. Defoe, II, p.198.

2. Heaton, p.271. Tammies were a thin worsted material, sometimes glazed. Camblet stuffs were cheap, coarse worsteds, often with warp stripes.



assumptions it was taken for granted that any increase in the quantity of trade handled by one commercial community must lead to a decline in the position of other communities.

In 1709, the lords of the manor of Hightown, a hamlet in the very centre of the clothing district petitioned the Queen for powers to hold a cloth market every Monday, the day before Leeds market.<sup>1</sup> The move provoked a strong opposition from the established cloth marketing centres. The leading Halifax merchants - eager to erect a cloth hall of their own - recalled the repercussions from an earlier and successful attempt to set up a weekly market in Huddersfield in 1671. It was affirmed that the result was:-

'Our Wooll Trade decayed and many hundred of packs caried to Huddersfield formerly sold in this market. Our woolshops turned into cottages or Empty or Sunk one half in rents; our publick houses that sold three or four Quarters of Malt by that markett vends not half Quantity in a week as usual . . . our Assengers Book makes it appear that for mixt kerseys sealing he usually took 5, 6, 7, or £8 a market now it appeares not to be soe many shillings and all this alteration in under thirty years by Huddersfield.'

The new proposal was regarded as a threat, it being apprehended that, like the Huddersfield traders:-

'who when they crept into a markett did as Hightown offers, only pretend to sell a few Cours Mixt Kerseys . . . will . . . Enable them to play the Game others have done which will make all markets ajatient

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1. Heaton, p.364.

sufferers . . .'

The Halifax merchants were anxious to abort the proposed Hightown market, regarding it as a public good:-

'to oppose a village that never had church nor markett.'<sup>1</sup>

The court of inquiry and special jury which the Sheriff set up, to consider whether an additional market was needed and its possible effect on existing markets, decided against Hightown as being prejudicial to the markets of Leeds, Wakefield, Halifax and Huddersfield. When the Hightown petition was renewed, the corporation of Leeds, together with leading clothiers and merchants organised a strong opposition and sought the support of the Duke of Newcastle. Hightown failed to secure its market.<sup>2</sup>

The setting up of cloth halls in the principal centres for marketing also aroused considerable controversy. In 1708, Halifax clothiers and merchants built the first cloth hall in the West Riding. Two years later, a cloth hall was erected in Wakefield, replacing the open air market. There was already considerable competition between Leeds and Wakefield in the sale of white cloth, and the Leeds merchants assumed that the greater comfort of a covered hall might encourage clothiers to Wakefield to the detriment of their own trade. With remarkable speed therefore Leeds set out to provide

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1. Temple Newsam MSS. TN/HX/D.

2. Heaton, p.364. The corporation of Leeds argued in a petition to the Duke of Newcastle that:-'a competent number of Markets are for the benefit of trade and commerce, so the unnecessary creation of new markets will divide, weaken and destroy trade, and render small towns a nuisance to the public, as well as to one another.'



similar facilities. Thoresby recorded on 14 August 1710:-

'Rode with the Mayor, cousin Milner, and others, to my Lord Irwin, about the erection of a hall for the white cloths in Kirkgate, to prevent the damage to this town, by one lately erected at Wakefield, with design to engross that affair, which is computed to bring above one hundred tradesmen every market-day to this town, which that would utterly prevent for the future if permitted. His Lordship gave all the encouragement imaginable . . .'<sup>1</sup>

With money subscribed by merchants and traders, a hall for the sale of white cloths was erected in Kirkgate, Leeds, and was opened in 1711.<sup>2</sup>

A variety of transactions were carried out in the markets and cloth halls of the West Riding towns: pedlars, who had a small stock of wares attended there as the focal points for their extensive itinerary; a large class of home merchants purchased cloth in order to sell wholesale throughout England, employing droves of packhorses; and many merchants in London, Holland, Hamburg and other parts of Europe retained the services of factors through whom they made large purchases.<sup>3</sup> It must be noted, however, that in the eighteenth century, and especially with the rise of the worsted industry in the West Riding, many merchants and factors began to buy direct from the clothier without going into the market or cloth hall. More clothiers

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1. McCutcheon, p. 85.

2. E.M. Sigsworth, 'The Leeds Cloth Halls', The Leeds Journal, XXV (Nov.1954).

3. Heaton, p.382.

were working to specifications from merchants and factors.<sup>1</sup>

Although woollens and worsteds were still carried overland to London, and to many provincial towns, an increasing quantity were sent down the Aire and Calder Navigation.<sup>2</sup> In the eighteenth century, Leeds and Wakefield developed as dressing and finishing towns, undyed and unfinished goods being sent there for further treatment before final dispatch to London or the continent using the waterway.<sup>3</sup> The axis of the West Riding cloth trade finally settled on a Leeds and Wakefield - Hull - Europe base. London became less important, and York unimportant in the shipping of Yorkshire cloth. Defoe described how:-

' . . . some years ago an Act . . . was obtained for making the Rivers Aire and Calder navigable; by which a communication by water was opened from Leeds and Wakefield to Hull, and by which means all the woollen manufactures . . . is carried by water to Hull, and there shipped for Holland, Bremen, Hamburgh, and the Baltick . . .'<sup>4</sup>

The tonnage of woollen cloth carried down the Aire and Calder Navigation was determined largely by the condition of the rivers and by the state of trade. If there was sufficient water, cloth was sent from Leeds and Wakefield in small vessels of under twenty tons

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1. Heaton, p.299.

2. An advertisement appeared in June 1728 noting that:- 'a gang of good pack horses, containing 18 in number with their accoutrements and business belonging to the same being one of the ancient Gangs that has gone with Goods from York, Leeds and Wakefield to London, being the horses of Thomas Varley (deceased). . . apply to William Heald at the Talbot in Wakefield or to Lydia Varley in Lofthouse.

Leeds Mercury, 11 June 1728.

3. Heaton, p.271.

4. Defoe, II, p. 208.



to Rawcliffe, five miles below Weeland, the statutory limit of the Navigation. At Rawcliffe goods were transhipped into sloops or Humber keels to be forwarded to Hull for export. If there was not sufficient water, vessels might be lightened on their way to Rawcliffe, or, in the last resort sent by land to the Aire port, or to Selby on the Ouse, or Tadcaster on the Wharfe.

Traders and boatmen using the waterway experienced defects common to many river navigations of the period, seasonal variations in the depth of the river, meanders, silting and disputes with millowners. Nevertheless, the growth of trade on the rivers Aire and Calder, and the prospect of further expansion, were sufficient to attract commercial interests, wharfingers and boatmen from other inland ports and navigations within the region. Before the opening of the Aire and Calder to Leeds and Wakefield, Lawrence Spencer was one of the leading wharfingers at Selby. Apprehensive that the new waterway would divert trade from the Ouse port, Spencer took an early opportunity to move his business to the lowest Aire port.<sup>1</sup> No doubt the undertakers hoped that the appointment of Spencer as wharfinger at Rawcliffe would prove particularly beneficial, since Spencer had developed correspondence with wharfingers at other inland ports, Hull and London. In an age when trade was often uncertain, such personal connections were very important, and were likely to prove a useful asset, especially for a new undertaking.

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1. Unwin, 'ACN 2', p.22, quoting ACN 1/3. On 13 December 1699, William Crowle of Hull wrote to William Rooke, one of the Leeds undertakers:-'if order had come in time should have directed the deals (for the locks) to Lawrence Spencer - I am glad he hath got the the place, and I think he is the most proper person to serve you therein.' ACN 4/99/1.

Spencer also transferred his land carriage business to Rawcliffe, the traders of Leeds seeking a favourable agreement with him for the carriage of goods by land in times of drought or frost, when it was not possible to use the waterway.<sup>1</sup> In April 1703, an agreement was signed between the undertakers and a number of Leeds traders for the freight of their goods to and from Rawcliffe by water, rates being fixed at 12s per ton between 1 May and 1 October, and at 18s per ton between 1 October and 1 May, although it was specified that four hogsheads of sugar should be reckoned to each ton in the winter months, as against three hogsheads to each ton in the summer period.

The major factor determining the tonnage of cloth carried down the waterway was the state of trade. The official value of all types of wool fabric exports was stagnant during the first quarter of the eighteenth century, although national figures conceal the disparity of regional development.<sup>2</sup> In the absence of a series of tonnage figures for the Aire and Calder Navigation, it is necessary to fall back on petitions, merchants' letter-books and estate correspondence. Petitions from the cloth producing areas of the West Riding were numerous during the early years of the War of the Spanish Succession, but great care must be taken in using the complaints of interested parties, which can only very rarely be taken at face value. In 1702, petitions from Leeds, Wakefield and Halifax to the House of Commons asserted that trade in woollen cloth had decayed because

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1. ACN 3/21.

2. Heaton, p.18.



quantities of English wool were being sent abroad.<sup>1</sup> More serious were the depredations of privateers on English shipping, and the expansion of textile industries in those countries where English cloth had formerly found substantial markets. In 1703, the merchants and clothiers around Leeds affirmed that:-

'the Woollen Manufacture doth sensibly decline in severall branches, particularly in vending thereof into foreign countreys.'<sup>2</sup>

The demands of war served to disrupt the trade of the rivers in other ways, and in 1705 there were numerous complaints of the impressment of Knottingley boatmasters and boatmen.<sup>3</sup>

The letters of merchants and factors during the early war years also leave the impression that trading conditions and prices were often unfavourable, besides revealing something of the commercial activities of the undertakers of the Navigation. In January 1705, Thomas Kitchingman, a Leeds merchant and one of the undertakers was informed by his correspondent in Rotterdam:-

'sold 30 of yor Cassays (kerseys) here and 30 more att Amsterdam, and hope shortly to sell the remainder, tho the prices are low . . .'<sup>4</sup>

In 1706-7, Joseph Holroyd, a factor of Sowerby near Halifax was making large purchases on commission of kerseys and bays on behalf of

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1. Walker, p.302. Complaints against the illegal export of wool continued throughout the eighteenth century.

2. Heaton, p.293.

3. Hist.MSS.Comm., Portland VIII, 223.

4. Temple Newsam MSS. TN.Corr. 10/6.

Dutch finishers and merchants. When the cloth was ready, Holroyd arranged for it to be taken by packhorse to the packer at Leeds. Major Wilson, who acted as packer for Holroyd at Leeds, was given instructions on packing, and would label each bale or ship's pack with the trade mark of the merchant to whom it was being sent. These ship packs were then transported by the river to Holroyd's shipping agents at Hull, who included William Crowle, Erasmus Darwin and Philip Wilkinson:-

'Hallifax 27 September 1706

Mr Erasmus Darwin

Sir. I have sent one packe to Leeds to be packt and Sent to you its for the proper acco't of Mr Ludovicus de Wulfe, you are to ship and consigne the Same to Messrs Peter and Abram Vander Mevlin of Rotterdam . . .'

From March to October, consignments of cloth were constantly being dispatched from Hull either to London or abroad, but in winter little shipping was done. Some of the kerseys and bays which Holroyd purchased either in Halifax market or from local clothiers was sent by land carriage to merchants in London:-

'Hallifax 26 November 1706

Mr Henry Carter

Sir. I wrote you 26th last and then gave you Invoice of forty-two Long Carsays and thirty bayes by the Carrier John Hall. Said Carrier disappointed me and hath not taken one packe butt hath gott John Law to Conveye them up butt itt will be tomorrow sevensnight before he can gett into London.'

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The Holroyd letters reveal something of the activities of the undertakers and shareholders in the Aire and Calder Navigation. On 20 August 1706, he apprised John D'Orville, who had purchased several of the shares in the Navigation from William Milner, of his efforts to purchase bays from local clothiers:-

' . . . Yesterday I was with the Makers butt they have not any unsold the price 45s . . . they told me as soon as they had any they would lett me know . . . As to Carseys of 21s or 28s could butt gett 100 at 30s. W. Sutcliffe will not take that price. But his is realy the best Goods. If I give him 31s for a piece I hope you will agree to itt for sundrye people do begin to enquire for them. the Markett day before I came for your parts WSS was sold to Mr Milner at 35s 100 pieces . . . '

D'Orville alone took cloth from Holroyd annually to the value of over £10,000.<sup>1</sup>

Unfortunately, the Holroyd letters cover less than one year's dealings. Holroyd kept his customers well advised as to the state of the market, the general impression being of fairly brisk dealings in kerseys and bays - particularly in the summer months - but with no general advance in prices.

Tonnage figures extant for the Aire and Calder waterway in the early eighteenth century cover a period of less than two years. Between 1 November 1711, and 1 November 1712, cloth and other goods carried from Leeds to Rawcliffe amounted to 1,732 tons. Many of

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1. Some Aspects of the Eighteenth Century Woollen and Worsted Trade in Halifax, ed.F.Atkinson (Halifax Museum Publications, 1956), xii.

the 18 boats - which made a total of 157 trips - belonged to the lessees. The tonnage carried in each vessel depended largely on the depth of water in the river, ranging from seven tons in June to 18 tons in November. Between 1 November 1712, and 30 June 1713, a total of 1,053 tons was carried by 19 boatmasters, the amount carried in each vessel ranging from a minimum of four tons to a maximum of 16 tons per trip.<sup>1</sup> This takes no account of goods carried down the Calder, or shipped from any point on the Aire below the head of navigation.

In addition to woollen cloth, the other commodities carried on the Aire and Calder Navigation in the early eighteenth century included wool, alum, dyeing wood, iron, malt, rapeseed, groceries, corn, timber, tallow and coal.<sup>2</sup> Unlike the trade in cloth - which was designed to satisfy both foreign and domestic demand - dealings in these other goods were almost wholly of an inter-regional or intra-regional character.

With the extension of navigation above Knottingley, the long wool of Lincolnshire and Leicestershire could be brought by boat to Wakefield, although large quantities continued to be brought by land carriage.<sup>3</sup> Wool growers and dealers forwarded wool from all parts of England to factors at Wakefield for disposal over a vast industrial area to the west and north, while many clothiers and wool-staplers made annual excursions to wool fairs or made contracts to purchase

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1. Unwin, 'ACN 2', p.20, quoting ACN 4/105.

2. ACN 4/36.

3. Heaton, p.272.



the whole yield of a farm for a number of years.<sup>1</sup> During the eighteenth century growing quantities of wool were brought by the coasting trade to Hull, most of which found its way to the West Riding through the waterway system. Other raw materials for the woollen industry received via Hull included alum from Whitby and fuller's earth from Rochester, and dyeing wood.<sup>2</sup>

There was a two-way traffic in iron carried on the waterway in the early eighteenth century. Swedish iron imported via Hull was sent in small quantities to Rawcliffe, for transhipment to Leeds and Wakefield.<sup>3</sup> In the other direction, small parcels of bar iron were sometimes sent from Kirkstall forge down the Aire and Calder Navigation, some of which found its way to the Crowley ironworks in the north-east.<sup>4</sup> Much of the ironwork for the locks on the waterway had come from Knottingley forge, but the extent of other dealings is not easily discerned.<sup>5</sup> By 1720, Knottingley forge was facing serious difficulties:-

'the wood being spent thereabouts they was going about to remove that forge on to the river Wharfe at or near Tadcaster.'<sup>6</sup>

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1. Heaton, p.329.

2. Temple Hirst MSS.(unsorted).

3. Maister MSS. Maister Account Book.

4. M.W.Flinn, op.cit., p.105. In 1700-1, Ambrose Crowley III owed £105 to Kirkstall forge.

5. The owner of the forge -- Tyas was financially concerned in at least one vessel on the waterway. ACN 4/99/1.

6. ACN 8/2.

Seed crushing - mainly rape - developed as a more important riparian industry, especially at Wakefield, Castleford and Allerton. In 1700, Abraham Beevers a Wakefield salter and dyer leased two rape mills in Castleford. Nine years later, Beevers, who was one of the Aire and Calder undertakers, leased two other rape mills in Allerton.<sup>1</sup> Small quantities of rape cakes were exported through Hull, principally to the Low Countries.<sup>2</sup>

Defoe described another feature of trade on the Aire and Calder Navigation, noting that the towns of Leeds and Wakefield received by the waterway:-

'all sorts of grocery, as sugars, tobacco, fruit, spice, hops, &c. oyl, wine, brandy, spirits, and every sort of heavy or bulky goods.'<sup>3</sup>

With the extension of navigation up the Aire and Calder valleys, intra-regional trade soon developed in corn and coal, the agricultural produce of Lincolnshire, and of the East and North Ridings being exchanged for coal and lime in the more industrial West Riding. In the eighteenth century, Wakefield became one of the greatest corn markets in the north of England,<sup>4</sup> although a number of local landowners regarded the widening of markets and growing competition with certain misgivings, and argued:-

'how injurious Lincolnshire corn is to the markets of Wakefield and Leeds.'<sup>5</sup>

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1. Unwin, 'ACN 2', p.12.

2. Temple Hirst MSS.(unsorted).

3. Defoe, II, p.208.

4. Walker, p.453.

5. Mellish MSS. 162/32a.



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Corn was also brought from the Don and Derwent valleys and from the Vale of York, while butter from the East and North Ridings was sent by water to the West Riding towns.

From its first years, the Aire and Calder Navigation was used for the carriage of coal to markets within the Humber-Ouse-Trent waterway system. Defoe observed that:-

'they carry coals down from Wakefield (especially) and also from Leeds . . . quite down into the Humber, and then up the Ouse to York, and up the Trent, and other rivers . . . with this advantage too, that whereas the Newcastle coals pay four shillings per chaldron duty . . . these being only called river borne coal, are exempted . . .'<sup>1</sup>

In some respects, the tax on sea coal - which the Newcastle and Sunderland interests found particularly burdensome - provided a protective barrier behind which the inland coalfields might develop. Coal brought down the Aire and Calder Navigation could compete successfully with that from the north-east coalfield, and was soon able to replace it in many of the river valley markets of the region. In March 1709, Cyril Arthington, a progressive landowner and one of the commissioners of the Navigation apprised William Nevile another commissioner:-

' . . . I have just told our Navigators are allarm'd with the talk of a Petition to hinder them from carrying Coals down from Leeds (if not from Wakefield also).'<sup>2</sup>

How far the substitution of inland coal for coastal coal within

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1. Defoe, II, p.208.

2. B.M. Stowe MSS. 748, fol.79.

the Humber, Ouse and Trent waterway system actually contributed to the difficulties facing the north-east coalfield remains a matter of speculation. It has already been noted that the north-east coalfield was confronted with major technical problems, arising principally from the working out of the more easily accessible seams adjacent to the Tyne and Wear.<sup>1</sup> By 1730, it seems that the number of ships employed in the east coast coal trade had fallen to about 1,000, of which 400 were supplying London.<sup>2</sup> Alterations in the cost of winning coal were likely to have less effect on the price than changes in transport charges. Even with the opening of the Aire and Calder waterway, the costs of carriage and marketing constituted the main factors in determining the price of coal. Defoe recorded that:-

'in the case of the coals brought from the west part of Yorkshire, from Wakefield down the river Calder; these are carried by water to Selby, and then they enter the open sea, or arm of the sea, which we call the Humber; the Air and Calder, though joined, losing their names. Thus they pass the said Humber where it is several miles broad, and then enter the Ouse, and go up by the tide to . . . York, and yet pay no duty; these coals are bought at the pit for at most one penny to one penny halfpenny per bushel; and yet at York, though carried all the way by water, they are sold for sevenpence to eightpence per bushel at cheapest, and much more sometimes.'<sup>3</sup>

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1. *Supra*, pp. 216, 226-7.

2. Willan (1938), p. 14.

3. Unwin, 'ACN 2', pp. 21-2.



Soon after the Navigation was opened to Leeds and Wakefield, a number of the undertakers entered into a subscription to promote the coal trade.<sup>1</sup> A special coal stock was formed and the profits accruing were distributed each year. This trade seems to have been given up when the Navigation was leased in 1704. The Wakefield undertakers delivered three boats to the lessees, the Fire-Ship, the Expedition and the punt.<sup>2</sup> The lessees were also eager to participate in the coal trade. In 1710, a partnership between Lawrence Spencer, one of the early lessees, Thomas Roebuck of Heath, an undertaker and a lessee, and James Mitchell, the Huddersfield carpenter who had been responsible for much of the construction and engineering works of the Wakefield undertakers, was dissolved. This followed:- 'several disputes . . . concerning their . . . Interests in certain Houses, Lands and Collieries . . . in Beeston, Ossett and Beal . . . which they at their Joint Charge did purchase . . . as also concerning their Joint Interest in Two Boats Riding upon Rivers of Aire and Calder and other disputes between . . . Spencer . . . and Roebuck concerning a Third part in a Lease of the Tolls and profits of the Navigation and of the use of Five Boats.'<sup>3</sup>

The traders and boatmasters of Knottingley - the principal river port on the Aire in the seventeenth century - had long engaged in the lime trade. With the extension of the waterway up the Aire and Calder valleys they soon developed trade in coal as well. When John

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1. Supra, p.14.

2. ACN 4/35.

3. Unwin, 'ACN 2', p.22, quoting W.R.D. C/331/541.

Sefton of Knottingley protested against impressment in 1706, he was referred to as:-

'master of a vessel which is all his own; he has a good freehold estate, deals of his own venture in lime and coals, is churchwarden and overseer of the poor, and a careful and laborious man.'<sup>1</sup>

In 1709, Samuel Leavens wrote from York to Thomas Atkinson, one of the leading traders in Knottingley:-

'. . . this is to put you in mind of the Coales you promised . . . pray send them by some of your boates.'<sup>2</sup>

The extension of river navigation also provided a stimulus to coal-owners who were able to serve a widening market.

Between 2 December 1707, and 7 August 1708, Sir John Bland's pits at Houghton produced 1,211 dozens of coal. The cost of producing this amounted to £233 9s 5d and was made up largely of wage payments. At the pithead the price was 3s 6d per dozen but at the river wharf - less than one mile away - the price was 5s 6d. No doubt the agreement which Bland had made with the Aire and Calder undertakers while the Bill was passing through Parliament proved of assistance in the disposal of his coal, it being exempt from the payment of lock dues. Ralph Mathers, who acted as Bland's agent recorded the sale of coal to two Knottingley traders and wharfingers, William and Mark Andrew:-

'Mark Andrew for 26 doz at River that I charge him at 5s 6d per doz

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1. Hist.MSS.Comm., Portland VIII, 223. Similar certificate on behalf of George Standage of Knottingley.

2. Temple Hirst MSS. (unsorted).



allowing him 2s 2d for charges down which is after 7s 8d per doz  
. . . £7 3s.'

Much of the coal went to the lime kilns at Knottingley, and some to the glasshouse at Houghton.

Coal from the Houghton pits was also bought by Thomas Clark, one of the lessees of the Navigation:-

'Mr Clark Dr. for 99 doz had from the River (besides 3 doz from the Pitt) at 5s 6d per doz and the boatmens wages pd as per accot . . .  
£26 18s 6d.'<sup>1</sup>

#### (vi) EVALUATION OF THE EARLY YEARS OF THE AIRE AND CALDER NAVIGATION

The early years of the eighteenth century were not propitious for the development of a major inland navigation undertaking requiring large sums of additional capital. By 1720, it was apparent that the two main aims of the Aire and Calder undertakers had not yet been realised. The waterway had not been perfected; while few - if any - of the subscribers could have regarded the dividends paid in the first two decades as adequate. Nevertheless, in these years serious technical, financial, legal and administrative problems had been faced, and - with great difficulty - had been overcome. In a period of high taxation and only modest trade prospects, the capital stock of the undertaking had been increased to almost three times the original, and the rising rent paid by the lessees was indicative of the growing volume of goods carried on the waterway. Few could agree that the carriage of bulky goods on the rivers had really led

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1. Kippax Parish Records.165. The account book deposited at the parish church is almost certainly a migration from the main Bland MSS.

to any saving of the roads or improvement of their condition, one argument which had been used by the promoters of the navigation.<sup>1</sup>

In the textile and coal industries of west Yorkshire new trends had become apparent by 1720, which would soon become more marked, and upon which the economic advance of the Aire and Calder valleys in the eighteenth century was based. In these developments, the waterway played an important - if controversial - role.

#### (vii) THE EARLY HISTORY OF THE UPPER TRENT NAVIGATION

The Act which was passed in 1699 to extend the navigation of the Trent to Burton, had vested considerable powers in the hands of the named undertaker, Lord Paget. No new wharves or warehouses were to be erected between Nottingham Bridge and Burton without his consent, or that of the commissioners named in the Act. Although £600 was assessed on the inhabitants of Burton, the remainder of the capital for improving the upper Trent was to be found by Paget. In return he was allowed to collect a toll of 3d per ton on all goods passing on the improved stretch between Wilden Ferry and Burton.<sup>2</sup>

The statutory powers which had been obtained were not put into effect for some years. The reasons for this were threefold: Paget himself was occupied elsewhere; the tonnage duty granted by Parliament was insufficient to carry out major improvements; and the early years of the eighteenth century were not auspicious to raise the

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1. Mellish MSS. 162/32a.

2. 10 Will. III, c.26.



requisite sums for such an undertaking.<sup>1</sup> A contemporary topographer noted:-

'There is a new navigation set up to Burton upon Trent, but it is not perfected by Reason of the Mills and Weares, which ly in their way.'<sup>2</sup>

As in the other inland navigation undertakings within the region, the wharfingers and boatmasters at the established inland ports were in a strong position, provided they were willing to adapt to changed circumstances. Two main factors would recommend such men to the undertakers of improvement schemes; namely, that their vessels and wharfage facilities were immediately available, and that they usually had considerable experience of trading activity throughout the waterway system, and an extensive correspondence with other wharfingers and traders. In the late seventeenth century Leonard Fosbrook of Shardlow was the wharfinger at Wilne Ferry, the upper Trent port. Soon after the Trent improvement Act was passed, Paget leased the new navigation to Fosbrook, who formed a partnership with a Burton boatmaster, George Haynes.<sup>3</sup>

Although navigation was extended to Burton, neither Fosbrook nor Haynes were satisfied with the condition of the waterway. They were anxious to secure further statutory powers, while retaining their controlling position. In 1714, a Bill was promoted by the two

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1. Wood, p. 20.

2. D.P.L. Woolley's History of Derby (MS).

3. Wood, p. 20.

wharfingers to improve the Trent above Shardlow to Burton, and to make the earlier Act more effective. The Corporation of Nottingham voted £50 to be laid out in opposition to the Bill, which aimed:-

'to engross the navigation and monopolise trade between two or three persons to the prejudice of the Country in General and Nottingham in particular.'<sup>1</sup>

In April 1714, Lord Middleton apprised Lord Harley that:-

'there is a bill brought into the House of Commons for making the river Trent navigable to Burton . . . which as it is drawn will very much affect the town of Nottingham and the whole county, in both which your Lordship having so great an interest, I hope you will be pleased to assist us either in throwing the bill out or getting it so amended as it may not be of so much prejudice to us. A great many petitions are coming from all parts against it.'<sup>2</sup>

Petitions against the Bill were presented from numerous towns in the Midlands, as well as from Nottingham, Newark, Lincoln, Boston, Gainsborough, Hull and the London cheesemongers. These complained of the monopolistic practices of Fosbrook and Haynes, it being asserted that the boatmasters would permit no goods to be landed at their wharves without leave, which was only given to those who used their boats.<sup>3</sup>

Petitions in favour of the Bill argued the need for a more effective

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1. Nottingham Records, VI, 60.

2. Hist.MSS.Comm., Portland, V, 413.

3. H. of C. Journals, XVII, 600-609. The House was informed that among the petitions against the navigation of the Trent:- 'there is one clandestinely obtained from some private Tradesmen in the Petitioners' Neighbourhood of Wirksworth by insinuations imposed on them.



navigation. The Bill passed the House of Commons in June 1714, with a clause which would have abolished the limitations on the building of new wharves. However the Bill did not pass the House of Lords before the prorogation of Parliament, and it was not revived.<sup>1</sup>

#### (viii) THE UPPER TRENT PORTS IN THE EARLY EIGHTEENTH CENTURY

Any study of the nature and patterns of trade on the upper Trent must centre around the principal river port, Wilne Ferry. A contemporary topographer, William Woolley noted that:-

'At this ferry is a Custom house, for Lead, Cheese, Salt, Pitch, Tarr &c. which are Carryed from thence in Great Barges of 20 Tunn Burden, that Row, Sail & Tow to Gainsborough, and there Shipt for London and other Ports . . . they carry forwards and back again to the great Advantage of these parts of England. Sometimes in Summer the water is so low that they cannot Navigate.'<sup>2</sup>

The trade at Wilne Ferry was largely under the direction of Leonard Fosbrook, who leased several wharves and storehouses from the lord of the manor of Shardlow, Thomas Coke.

Below Wilne, the waterway was in a better condition, it being noted that Fosbrook had:-

'brought that Navigation to perfection has Got very good Estates by it. It pays them about £40 a year rent.'<sup>3</sup>

The lead shipped off at Wilne Ferry came mainly from Wirksworth

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1. Wood, p. 21.

2. D.P.L. Woolley's History of Derby (MS).

3. loc.cit.

and was brought by land carriage via Derby, described as:-

'a Thoroughfare or rather Storehouse for Lead, to which place it is brought on horses from Wirksworth and other smelting mills, and from Derby Carried in Carts and waggons to Wiln ferry five miles distant, where it is Embarked in Barges and Carried down Trent to Gainsborough and Hull to be Shipt for London, and other ports, and parts beyond the seas.'<sup>1</sup>

Scattered references for the early eighteenth century indicate that goods were also shipped off at Sawley, two miles below Wilne. In December 1704, Edward Repington wrote to Thomas Coke, complaining of the heavy burden of the land tax and the low prices being paid for all sorts of agricultural produce. He considered that only large Government contracts could avert the complete ruin of the Midland counties, but that:-

'if £15,000 or £20,000 was yearly laid out in corn by the Government, and sent to Sawley Ferry, which is the nearest place to us that is navigable, in order to be transported, it would raise the drooping spirits of the people, who must have something done for 'em.'<sup>2</sup>  
Lead was also shipped to Gainsborough from Sawley Ferry.<sup>3</sup>

In the early eighteenth century, the corporation of Nottingham continued to frustrate all attempts to set up new wharves on the Trent, which might have adverse effects on the trading facilities within their jurisdiction. The lessee of the corporation wharf at

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1. Woolley, loc.cit.

2. Hist.MSS.Comm., Cowper III, 52.

3. Woolley, loc.cit.



Trent bridge, Francis Ward complained on several occasions about the activities of 'interlopers.' In 1705, complaints were made against one of the burgesses, James Moseley, who was forbidden from:-

'setting up or countenancing any new Wharfe . . . apprehending itt will be prejudiciall to their Wharfe by so doing.'<sup>1</sup>

Seven years later, Lionel Lamb erected a wharf which seemed to pose a threat to the corporation. To circumvent Lamb's design, the corporation took steps to enclose the land leading to the new wharf.<sup>2</sup>

The corporation also became involved in litigation with several Trent boatmen concerning river tolls, the corporation claiming the right to collect 2d per ton carried on all vessels passing through the manor of Nottingham.<sup>3</sup>

Defoe described Nottingham's river trade:-

'by which all their heavy and bulky goods are brought from the Humber, and even from Hull; such as iron, block-tin, salt, hops, grocery, dyers wares, wine, oyl, tar, hemp, flax, &c. and the same vessels carry down lead, coal, wood, corn; as also cheese in great quantities, from Warwickshire and Staffordshire . . . the chief manufacture carried on here is frame-work knitting for stockings . . . and some glass, and earthen ware-houses.'<sup>4</sup>

Goods to and from Nottingham - like those handled at Wilne Ferry and

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1. Nottingham MSS. Hall Books. 3465, fol.32.

2. Nottingham MSS. Hall Books. 3477, fol.10a.

3. Nottingham MSS. C.A. 7378.

4. Defoe, II, p.145.

Sawley - were transhipped at Gainsborough. The trading patterns of the lower Trent ports will be considered in a subsequent section

#### (ix) EVALUATION OF THE EARLY YEARS OF THE UPPER TRENT NAVIGATION

The powers obtained in the Act of 1699 were not effectually implemented in the first two decades of the eighteenth century. Although navigation was extended to Burton, conditions along the waterway often prevented the free passage of vessels. Riparian proprietors, and the tenants to whom wharfage facilities were leased, remained in firm control of the upper Trent navigation which made little progress from its condition of the later seventeenth century.

#### (x) THE EARLY HISTORY OF THE YORKSHIRE DERWENT NAVIGATION

As in the case of the upper Trent, the powers to improve and extend the navigation of the Yorkshire Derwent remained largely dormant in the early eighteenth century. The Act of 1702 had empowered five undertakers to make the river navigable from Scarborough Mills to the river Ouse, and to levy tolls on goods carried on any stretch of the waterway.<sup>1</sup> A number of commissioners were appointed under the Act to mediate between the undertakers and the riparian proprietors. The first meeting of the commissioners did not take place until June 1720, a strong indication that little had been attempted or accomplished in the eighteen years since the passing of the Act.<sup>2</sup>

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1. 1 Anne, c.14.

2. N.R.A.O. Proceedings for making the River Derwent Navigable:

ZCG IX 1.



Probably more significant in the long run were the changes which took place in the control of the waterway. From the start the lord of the manor at Malton - as the owner of a considerable acreage of land on both sides of the river - had a major interest in the navigation. At some time in the early years of the century, control of the waterway passed to William Palmes, who inherited the Malton estate through his wife, the co-heiress of the last Lord Eure. The purchase of the navigation by Thomas Wentworth of Wentworth Woodhouse had been completed by 1720, marking a new phase in the development of the undertaking. Soon afterwards articles of agreement were signed between Wentworth, Mark Andrew of Knottingley and Joshua Mitchell of Wakefield, for the purpose of effecting the powers of the Act of 1702.<sup>1</sup> Once again it may be seen that traders, wharfingers and carpenters familiar with established waterways and inland ports within the region, played an important role in new undertakings. Mark Andrew, one of the wharfingers at Knottingley had engaged in the coal and lime trade of the Aire valley. Joshua Mitchell was the son of the carpenter who had carried out much of the construction work on the Aire and Calder Navigation. The Mitchell family had also invested in several collieries in Beeston and Ossett, besides having an interest in several vessels employed in the west Yorkshire waterway.<sup>2</sup> It is possible that the engineering works which Mitchell and Andrew contemplated for the Derwent were designed to precede or accompany an extension of

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1. Duckham, 'Yorks.Derwent', p.47.

2. Unwin, 'ACN 2', p.22.

their trading activities. Trade in coal from west Yorkshire up the river Derwent developed during the first half of the eighteenth century:-

'that being the certain trade from Wakefield to Malton only.'<sup>1</sup>

It is not easy to be precise on a starting date for this intra-regional trade.

#### (xi) INLAND AND ESTUARINE PORTS ON THE NON STATUTORY WATERWAYS

The state of navigation on those rivers for which statutory authority for improvement had not been secured, and the patterns of trade of the inland ports within the region may be discerned from three principal sources: firstly, from the descriptions of travellers and topographers; secondly, from the accounts and letter books of merchants which are still extant; and thirdly from estate accounts and correspondence. Although a detailed picture can be built up of the axes of trade, short term fluctuations in the level of business and commercial activity are less easily discernable.

Although it is now clear that Defoe's Tour must be used with great caution by the economic historian - especially if he is interested in precise dates - it does provide a montage of details drawn from a period of more than forty years in the late seventeenth and early eighteenth centuries.<sup>2</sup> Used with discretion, the Tour remains a valuable source of information, particularly when correlated with

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1. Unwin, 'ACN 2', p.22, quoting ACN 8/10.

2. For a discussion of the problems for the historian in using Defoe's Tour see F.Bastian, 'Defoe's Tour and the Historian', History Today, December 1967.



other descriptions.

Defoe claimed for the principal Humber port that:-

'there is more business done in Hull than in any town of its bigness in Europe . . . all the trade at Leeds, Wakefield and Hallifax . . . is transacted here, and the goods are ship'd here by the merchants of Hull; all the lead trade of Derbyshire and Nottinghamshire, from Bautry Wharf, the butter of the East and North Riding, brought down the Ouse to York: The cheese brought down the Trent from Stafford, Warwick and Cheshire, and the corn from all the counties adjacent, are brought down and shipp'd off here.'<sup>1</sup>

In addition to an extensive export trade to London, the United Provinces and the Baltic, a growing volume and variety of goods passed through Hull for distribution throughout the Humber-Ouse-Trent waterway system. Defoe noted that:-

'they drive a great trade here to Norway, and to the Baltick, and an important trade to Dantzick, Riga, Narva and Petersburg; from whence they make large returns in iron, copper, hemp, flax, canvas, pot-ashes, Muscovy linnen and yarn . . . all which they get vent for in the country to an exceeding quantity . . . also a great importation of wine, linen, oil, fruit, &c. trading to Holland, France and Spain; the trade of tobacco and sugars from the West-Indies, they chiefly manage by the way of London.'<sup>2</sup>

Much of the trade which passed through Hull - and which had to be entered at the Custom House there - was conducted with the principal

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1. Defoe, II, pp.242-3.

2. Ibid .

river ports:-

for the navigation of all the great rivers which fall into the Humber centers here, such as the Trent, the Idle, the Don, the Aire and Calder, and the Ouse; and consequently the commerce of all the great towns on those rivers is managed here, from Gainsborough and Nottingham on the Trent, York and Selby on the Ouse, and so of the rest.<sup>1</sup>

In the eighteenth century only Liverpool, among the major ports of England, grew faster than Hull.<sup>2</sup>

In 1702, the port of Hull possessed a total of some 7,600 tons of shipping, a large proportion of which were engaged in the coasting trade. The total tonnage of coasting vessels belonging to Hull in 1709 was 4,467, rising by 1716 to 5,340 tons.<sup>3</sup> The trade of Hull was dominated in the early eighteenth century by merchant families trading to the Baltic and to the United Provinces who also took part in the coasting trade - the Maisters, Crowles, Moulds, Ramsdens, Kirkbys, St. Quintins and Sykes.<sup>4</sup> The extant accounts and letter-books of members of two of these families - the Maisters and the Kirkbys - serve to emphasise Hull's role as a great transshipment port. They reveal an extensive correspondence throughout the Humber-Ouse-Trent waterway system, with a wide variety of commercial transactions with the inland ports.<sup>5</sup> Although many of Hull's merchant families were

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1. Defoe, II, p.244.

2. Davis, 'Hull', p.29.

3. Willan (1938), p. 221.

4. J.H.Plumb, 'The Mercantile Interest: Rise of the British Merchant after 1689', History Today, November 1955.

5. The account book of William Maister (1662-1716) is preserved at the University of Hull. The letter-book of Christopher and Mark Kirkby is preserved at the East Riding Archive Office, Beverley.



owners - or part owners - of trading vessels, the practice was by no means universal. For example, Christopher Kirkby had invested in several vessels whilst serving for the family business as agent in the Low Countries, but, when he joined his father at Hull, was anxious not to commit himself further in that aspect of commerce. In June 1716, Kirkby advised his factor at Rotterdam:-

'yours . . . desiring me to stand 1/32 in the Katherine of 160 Tuns . . . Since I left Holland have not concerned myself in takeing parts of ships.'<sup>1</sup>

The shipmasters at Hull, besides owning or part owning sea-going vessels, were also concerned in the river craft of the region. For example, in 1705 John Foster, a Hull shipmaster sold to a Knottingley limeburner:-

' . . . 1/16 part of all that good Keel or Vessell called the Elizabeth of the Burthen of thirty tuns or thereabouts now riding in the river of Ayre, of which Vessell . . . Foster is master and owns one other 1/16 part . . . '<sup>2</sup>

The Customs records credit Hull with a huge share in the coastal trade, but the Humber port played very little part in that trade. Thus a great deal of trade passed through Hull without the merchant community of the port being actively interested in it. More often than not, trade was conducted between London on the one hand and Gainsborough, Stockwith, Selby, or one of the other inland ports on

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1. Sykes MSS. DDSY 101/90. Letter-book of Christopher and Mark Kirkby, 1714-47.

2. Badgery MSS. 1056/183.

the other. In many shipments, Hull was concerned only because of the legal requirement that all goods passing along the Humber should be registered at the Customs House.<sup>1</sup>

In 1722, the lord of the manor of Bawtry described the patterns of trade which centred upon the principal inland ports of the region:-  
'Trent a great and ancient navigable river, employing . . . vessels . . . some of 150 tons and upwards to Gainsborough and Stockwith. From thence goods . . . conveyed in small vessels to Lincoln, Newark, Nottingham, Derby . . . and Bawtry and so carried further into the West of Yorkshire and Derbyshire by land carriage from whence they return constantly with lead . . . which is sole balast that enables those Ships to be cheap in their freight and quick in their returns to and from London and all remote parts. Great quantities of corn brought out of Yorkshire, Lincolnshire and Nottinghamshire . . . are shipped off at Gainsborough and Stockwith for London and other parts . . . a constant conveniency of shipping because of the great quantities of lead . . . without which those ships can bring no corn (lead being the only balast at Gainsborough and Stockwith). During the late war the victualling office was supplied with great quantities of corn.'<sup>2</sup>

Most outward sailings from Gainsborough and Stockwith were ships bound for London. Thus of the 98 ships which cleared outwards through Hull customs from Stockwith and Gainsborough in the period 26 June 1704 to 22 June 1705, no less than 82 vessels were bound for London.<sup>3</sup>

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1. Jackson, pp.123-4. 'The persons in whose names the vast majority of Port Book entries appear were not Hull merchants.'

2. Mellish MSS. 162/42.

3. Beckwith, p.5.



Vessels trading regularly between London and the Trent ports operated from a different Thames wharf to vessels trading between London and Hull. In January 1722, Sir John Savile was informed by his steward at Rufford:-

'Your wine is comt to Redford . . . Dowker sends me word that severall of the hampers have been opened . . . by the Custom house officers at Hull and wishes for the future you'd please to order what goods you send from London to Ralph's Key from whence they'll come by Gainsbro: Vessels and not by Hull's . . .'<sup>1</sup>

The inland ports of the Vales of Trent and York - like the coastal ports of the region - were anxious to avoid the depredations of privateers during the long war of the Spanish Succession. In May 1702, a number of merchants of Chesterfield apprised their county M.P.'s of the necessity for a separate Admiralty convoy for the coasting vessels of the region:-

' . . . Hull is the third port in the kingdom, and all the ships belonging to Trent (which are fifty at least) goes by benefit of the Hull convoy, besides what comes from York, so that certainly it is not unreasonable to expect one to attend that fleet . . .'<sup>2</sup>

Defoe subsequently recorded that:-

'In the late war, the fleets from Hull to London were frequently a hundred sail, sometimes including the other creeks in the Humber, a

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1. Savile MSS. DDSR 211/227/75.

2. Hist.MSS.Comm., Cowper III, 10. Godfrey Watkinson and Paul Webster of Chesterfield to Thomas Coke, M.P.

hundred and fifty to a hundred and sixty sail at a time . . .<sup>1</sup>

Reference has already been made to the removal of one of the principal wharfingers at Selby to the Aire port of Rawcliffe. There is little to suggest any marked revival of the navigation of the Ouse in the first two decades of the eighteenth century. One traveller attributed the decline of York to social, rather than to geographical factors, declaring that:-

'the people are so lazy, that they loose all these advantages of Art and nature, and Hull, a Seaport Town about fifty miles distant grows rich upon their Ruine.'<sup>2</sup>

Having considered the main axes of trade, we must turn to analyse the organization of trade in individual commodities and evidence of fluctuations in trade dealings in the first two decades of the eighteenth century.

#### (xii) TRADE IN AGRICULTURAL PRODUCTS

The merchant communities at the coastal and inland ports of the region traded in a variety of agricultural products, namely, grain, linseed, rapeseed, flax, malt, butter, cheese and skins. A growing volume of raw wool was also being imported and forwarded to the clothiers of the West Riding

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The export of grain from the Humber-Ouse-Trent region was of major importance. Defoe noted at Hull that:-

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1. Defoe, II, p.242.

2. A Journey to Edenborough in Scotland by Joseph Taylor, late of the Inner Temple, ed. W. Cowan (Edinburgh, 1903), p.66.



'their export of corn, as well to London as to Holland and France, exceeds all of the kind, that is or can be done at any port in England, London excepted.'<sup>1</sup>

The principal kinds of grain shipped through Hull were Holderness white wheat and Doncaster purkey or red wheat, together with very small quantities of brown rye.<sup>2</sup> The merchants of Hull had to buy grain when and where they could, employing factors to scour the country. For example, the Maisters employed about ten permanent factors who received 6d per quarter for the wheat they purchased, and costs of storage and transport to Hull. In invoices for grain which were sent to customers abroad, 'factorage in the country' was always included.<sup>3</sup> It is not always possible to locate Maister's correspondents in the country, although the rivers used in the transport of corn to Hull can sometimes be identified by the boatmen employed. Thus in the year ending 30 November 1715, over thirty boatmasters brought grain from the Ouse, Don and Trent valleys. Maister's dealings in grain were mainly carried out on behalf of John Burridge, a London merchant:-

'12 Nov.1714.Invoyce of 400 qrs. purkey and red wheat shipped on board the Providence . . . for Amsterdam for ac. of John Burridge, and by his order consigned to George Clifford & Co. in Amsterdam.'

Some grain was also shipped from Hull to Portugal.<sup>4</sup>

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1. Defoe, II, p.243.

2. Sykes MSS. DDSY 101/90.

3. Jackson, p. 127.

4. Maister MSS. Maister Account Book. 'Dec.1714 Invoyce of 900 qrs. of Purkey wheat per the Koningsberger . . . for Lisbon . . .'

The volume of grain shipped from Hull and the Trent ports of Gainsborough and Stockwith depended partly on the harvest, and partly upon the demand from other regions and the Continent. During the four years ending December 1699, the average price of wheat was 56s 6d per quarter. There followed a series of good harvests, and by 1702 the price had fallen to 25s 6d per quarter. A rise in the price of wheat in 1703 was not maintained, and in the following four years the average price was under 23s per quarter. Between 1708-18, the price of wheat never fell below 29s per quarter, the average price being 41s 6d.<sup>1</sup>

The contemporary correspondence of landowners within the region provides further evidence for a change in their fortunes in 1708, being followed by ten years of relative prosperity. During the first years of the War of the Spanish Succession, when prices for agricultural produce were low, there were numerous and vociferous complaints of the heavy burden of the land tax. Many landowners saw little prospect of improvement unless the Government and the major trading companies contracted to purchase large quantities of grain. In

December 1704, Edward Repington complained to Thomas Coke, one of the

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1. Chambers, p.42. Between 1701-8 inclusive, the average price of wheat at Eton was 28s per quarter, and at Winchester 29s. B.R. Mitchell, Abstract of British Historical Statistics (Cambridge, 1962), p.486. Between 1701-8 inclusive, prices at York - one of the leading corn markets in the north of England averaged only 22s per quarter; between 1709-13 inclusive, the average price at York was 40s per quarter. V.C.H. York, p.222. Between 1709-13 inclusive, the average price at Eton for wheat was 49s per quarter; while at Winchester in the same years the average price was 48s per quarter. Mitchell, op.cit.



M.P.'s for Derbyshire that:-

'It has been thought proper by the legislators to charge four shillings in the pound upon land, but at the same time I don't hear that anything is done to enable the owners to pay so great a tax. Never was less money stirring, or commodities (except foreign) cheaper. The best beef is but 2½d a pound, mutton 2d wheat 3s the bushel, and all other grain proportionable: nor can, for want of vent, any of these things be sold in a quantity. Cattle and sheep are sent to fairs and return unbought, and its' reckoned good market when two or three strike of corn will go off. At this rate how such vast sums of money can be paid which are demanded, I can't foresee. Were the men of war obliged to victual in England, from whence they are supplied with all necessaries but provisions, the price of cattle would rise. It would be some help to have the East India ships stored from hence where so many of their useless --- are sold . . . But instead of that, it's here reported (and not as I fear without grounds) that Ireland, which contributes so little towards the carrying on the war, furnishes all or the greater part of what is for the subsistence of the fleet, and the merchant men too . . . It's not for mortals to surmount impossibilities, and unless speedy care be taken, the Midland counties must be inevitably ruined, for want of sale for their goods and by the Receiver sending that little money away in specie, that should circulate here . . .'<sup>1</sup>

Similar complaints of low prices and the incidence of the land tax punctuated the correspondence between constituents and their M.P.'s

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1. Hist.MSS. Comm., Cowper III, 52.

in the following three years.<sup>1</sup>

It was not until the harvest of 1708 that landowners within the region were able to express any optimism about prices for grain, and prospects for trade. In September 1708, Robert Molesworth of Edlington, near Doncaster - who had experienced serious financial difficulties in the previous years - wrote to his wife:-

'I hope the dearth of corn, which is likely to continue for several years to come, will make husbandry very profitable to us, in breaking up and improving all our new land, which is now overrun with bushes or, at least, it will bring us good tenants to take leases and give good rates for our farms.'<sup>2</sup>

The failure of the 1709 harvest in Britain and Europe led to a marked decline in grain exports, falling from 170,000 quarters in 1709 to 14,000 quarters in the following year.<sup>3</sup> Nevertheless in the following decade the net exports of wheat averaged 112,000 quarters per annum, or about 10 per cent above the mean for the first decade.<sup>4</sup> The rising prices for grain encouraged the ploughing of an increased acreage on many estates in the region.. A traveller in the Vale of Pickering in 1725 observed that:-

'The Gentlemen round, have very much improved their Estates within this 16 Years, that the fashion of Inclosing has grown to such height. Mr.

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1. Hist.MSS. Comm., Cowper III, 67. Sir Robert Burdet of Bramcote to Thomas Coke, 5 December 1705.

2. Hist.MSS. Comm., Various Collections, VIII, Clement MSS., 239.

Robert Molesworth, a non-Junto Whig was M.P. for East Retford and a Newcastle follower. Holmes, p.470.

3. Ashton (1959), p. 183.

4. Ibid. During the years 1701-8 inclusive, exports of wheat (net) averaged 103,250 quarters per annum.



Hill has made of 200 . £700 per Annum, & with nothing we may call it; but what served in Common, to make the Poor Idle & Saucy . . .<sup>1</sup>

In November 1709, Molesworth apprised his wife:-

'I intend to break up the yew flats for oats, for since corn fetches such prices, I will try to get something by it.'<sup>2</sup>

A year later, Molesworth could have had few doubts that his foresight had been justified:-

'Corn must certainly rise in the price and that very suddenly, for the plague, which is got into the Baltic, will make soon both us and the Dutch to prohibit all trade there, and then the Dutch must be furnished with corn from us. Rye is already here risen to the price of wheat, which is about eleven shillings a load . . . and the reason why is because there are already come commissions over from Holland to buy rye, whereof most of their bread is made and which they use more than wheat, but the wheat must soon rise in proportion. Pease is very dear here, almost as dear as wheat.'<sup>3</sup>

In July 1712, Molesworth jubilantly informed his wife:-

'I never saw such a show of corn in the field in my life as this year, and yet wheat continues to bear a good price, that is to say at 12s a load (4s a bushel) and rye in proportion.'<sup>4</sup>

The letter book of Christopher and Mark Kirkby records short term price movements in grain at the markets within the region, and the importance of the commercial connections with London and the Low

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1. Letters of 'J.A.'

2. Hist. MSS. Comm., Various Collections, VIII, Clement MSS., 244.

3. Ibid, 249.

4. Ibid, 259.

Countries. Unlike mining products and manufactured goods - which might be stored until the market price was favourable - agricultural commodities presented merchants and factors with serious risks. Thus corn was a worry to merchants because it went fusty, immediate advice from agents on market conditions being imperative. Christopher Kirkby instructed his agents at Amsterdam and Rotterdam to provide the latest information on the prices of various kinds of grain:-

'pray give Speedy advice which is the Life of trade.'<sup>1</sup>

In November 1714, Kirkby wrote and requested his agent at Amsterdam:-

'Please advise me prices of all graine with you with your Opinion how judge your markets and also how Last Advice from Konigsberg and Dantzic and price there of wheat and Rye and what vessells there is Loading for your port . . .'<sup>2</sup>

Kirkby was naturally anxious to purchase in relatively cheap markets and sell in relative dear ones. In December 1714, he advised his agent at Rotterdam:-

'Will refrain from buying corn as it is falling with you . . . Wheat best Doncaster 27s or 28s per quarter there will be here 29s 6d or 30s . . .'

In March 1716, Kirkby advised his principal correspondent at Amsterdam:-

'Some are buying wheat and Rye by order from Holland . . . former here 24 to 28s latter 15 or 16s . . . cant see they will get a new penny for an old except your markets higher than what my advice is . . .'<sup>3</sup>

As well as exporting grain, the merchants at Hull also imported

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1. Sykes MSS. DDSY 101/90.

2. loc.cit.

3. loc.cit.



wheat from time to time. In 1719, Kirkby requested his agents at Rotterdam to purchase wheat which was to be stored in proper granaries until the prices for sale had risen:-

' . . . please when judge at Lowest buy for me 40 Last best baking white wheat . . . its cheaper with you than I can pretend to buy at either London or here and Lay up at as small charge as you possible can in good Chambers . . . when bought send me per some ship a sample of it in a bag.'<sup>1</sup>

At Hull, trade in various kinds of grain seems to have been brisk in the second decade of the eighteenth century.

. . . . .

Evidence for dealings in linseed and rapeseed is scanty. In 1709, Sir Willoughby Hickman, lord of the manor of Gainsborough leased a mill for crushing linseed to James Dealtry. The seed used at the mill was almost certainly indigenous, the idea of importing seed by water not being seriously contemplated at this period.<sup>2</sup> Some of Dealtry's linseed cakes were exported to the Low Countries. In March 1715, Kirkby advised his agent in Rotterdam:-

'Coz. Dealtry sent downe about 6,000 Linseed Cakes which Bro: Sykes has put on board Foster . . . soe you may in Interim be looking for a Chapman to deliver if can on arrival . . .'<sup>3</sup>

In October of the same year, Kirkby advised his agent at Amsterdam:-

'pray act for Coz: Dealtry's Interest in the sale of his Cakes which

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1. Sykes MSS. DDSY 101/90.

2. Brace, op.cit., p. 109.

3. Sykes MSS. DDSY 101/90. 417

are Sound dry and well Conditioned . . . he intends to ship about 50,000 more . . .<sup>1</sup>

Rape cakes from Castleford and Wakefield were sent to Hull by water and then consigned to the Low Countries.<sup>2</sup> Small quantities of rape-seed were imported.<sup>3</sup>

. . . . .

More important than dealings in linseed was the trade in flax itself. Kirkby imported flax, but often found the price was too high for extensive dealings in the region. He found it a disadvantage to have flax on his hands when the Baltic fleet arrived in autumn. In November 1715, Kirkby informed one of his agents:-

' . . . tho flax fall with you send me none . . . much arrived from the East Country that its a drug . . . I believe there will not be that consumption for flax next Summer in these parts as formerly by reason of troubles in Lancashire.'<sup>4</sup>

A year later, Kirkby apprised one of his agents:-

'we expect our East Country fleet now very shortly which will have in great plenty of flax that ordinary or middle sorts expect will be a drugg but fine flax will sell quick.'<sup>5</sup>

In the spring of 1718 Kirkby imported a parcel of flax from the Low Countries, but found considerable difficulty in the disposal of it.

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1. Sykes MSS. DDSY 101/90.

2. Temple Hirst MSS. (unsorted).

3. Sykes MSS. DDSY 101/90.

4. loc.cit.

5. loc.cit.



In September 1718, he informed his agent at Rotterdam:-

'still have 5 matts of your Flax unsold there has been noe manner of demand for it since Spring and now our growth proves soe good and large that I allmost despair to find a Chapman except resolve to sell at great loss . . .'<sup>1</sup>

The flax was eventually sold to a York merchant, William Stephenson and sent up the Ouse by keel.

. . . . .

In the early eighteenth century growing quantities of malt were exported from the Trent ports and Hull. Between 29 December 1704 and 22 June 1705, Gainsborough ships carried over 350 quarters of malt, and during the same period about 3,750 quarters were shipped in Stockwith vessels.<sup>2</sup> A number of Maister's correspondents in the Vale of Trent sent malt to Hull. For example, in July 1717, William Maister was sending empty bags to Gainsborough to be forwarded to Matthew Derry of Newark. These were soon returned:-

'Recd from Matt: Derry 22 quarters malt in 44 baggs measured.

Frt to Gainsbro: and toll there	14s	8d
Frt to Hull	11s	0d. <sup>3</sup>

Malt exported from the region was consigned mainly to London, although small quantities were sent to Norwich via the port of Yarmouth.<sup>3</sup>

. . . . .

During the eighteenth century the great brewing firms of Burton-

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1. Sykes MSS. DDSY 101/90.  
2. Beckwith, p.5.  
3. Maister MSS. Maister Account Book.

on-Trent were established, exporting ale to Russia and the Baltic. Although these developments were still many years away, small quantities of ale from Burton were finding their way to Hull and the Low Countries in the first quarter of the century. Casks of ale were sent by barge from Burton to Gainsborough, where they were transhipped into schooners for Hull. This was a seasonal trade, catering for ships clearing from Hull in spring. Forwarding ale at other times of the year might prove hazardous. In July 1715, Kirkby advised his agent at Amsterdam:-

'my friend writes me he dare not send a Cask of Burton ale being will Certainly turne sour soe must make much of what you have left till brewing season come on.'<sup>1</sup>

The principal export item from the Vale of York was butter. Thus William Maister purchased butter and tallow from a York trading partnership, Dawson and Hillary, which was then forwarded to the London house of Renue, Torriano and Renue:-

'3 July 1717. Invoyce of 107 firkins of butter shipt on board the John & Francis, John Colly master for London for ac. of Messrs Renue, Torriano and Renue merchants in London

80 firkins @ 13 <u>s</u> 9 <u>d</u>	£55	0 <u>s</u>	0 <u>d</u>
20 firkins @ 14 <u>s</u> 6 <u>d</u>	£14	10 <u>s</u>	0 <u>d</u>
7 firkins @ 14 <u>s</u> 6 <u>d</u>	£5	1 <u>s</u>	6 <u>d</u>
Charges of 100 firkins bought at York			
Frt to Hull at 1 <u>d</u> per Firkin		8 <u>s</u>	4 <u>d</u> . <sup>2</sup>

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1. Sykes MSS. DDSY 101/90.

2. Maister MSS. Maister Account Book.



Considerable quantities of butter were also exported to the Low Countries.

In the early eighteenth century prospects for greatly increasing the amount of butter shipped from York do not appear to have been particularly favourable. The facilities at the wholesale butter market in the City were proving inadequate, but the Corporation made little effort to provide better conditions. In 1718, the butter-weigher, who received only £20 per annum from the Corporation, preferred to accept his salary as one of the City's officers rather than lease the market for £30 with uncertain profits.<sup>1</sup>

. . . . .

Cheese from the Midland counties was shipped at the Trent ports for London. In the first six months of 1705, about 90 tons of cheese were shipped from Gainsborough and Stockwith. Twenty years later Defoe reckoned that about 4,000 tons of cheese went down the river Trent to Gainsborough in a year.<sup>2</sup> During the War of the Spanish Succession, the hazards of the coasting trade seem to have led to the greater use of the trans-Pennine route from Stockport via Penistone and Barnsley to Doncaster, and thence by water to Hull.<sup>3</sup> In 1706, the wooden bridge which spanned the river Don at Penistone was swept away in the serious floods which affected the river valleys of the region, forcing carriers to have recourse to a ford. In April 1708, a petition was presented to the Quarter Sessions at Pontefract signed by traders in Manchester goods, corn buyers and from carriers of corn,

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1. V.C.H. York, op.cit., p.220.

2. Beckwith, p.5.

3. Mellish MSS. 162/19c.

salt and cheese, requesting that a stone bridge might be constructed in Penistone which would:-

'not only much Encourage the Buying and carrying of Corn out of Yorkshire into Cheshire, Lancashire and Derbyshire, but also bringing salt, cheese and other wares into Yorkshire.'<sup>1</sup>

It seems probable that most of the dairy products carried on the trans-Pennine route were consumed in the growing towns of the West Riding and Lancashire.

. . . . .

In the eighteenth century, most of the east coast ports were sending wool to Hull, the coasting trade providing some of the raw material for the woollen and worsted industries of the West Riding. It has already been noted that there was a large intra regional trade within the waterway system, aided by the extension of river navigation to Leeds and Wakefield. Much wool was still carried by land, it being affirmed before the Commissioners for Trade and Plantations in 1720 that:-

'the clothiers in Yorkshire would rather give double the price for land carriage, than have their wool brought by sea, where it receives so much damage . . .'<sup>2</sup>

Some of the wool imported from Ireland and Spain no doubt found its way to the West Riding clothiers.<sup>3</sup>

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1. W.R.A.O. Quarter Sessions Rolls. In the early 1720's it was noted at Doncaster that:-'the trade of cheese, butter &c. from the west in the wartime, came by way of Barnsley hither . . .'. Mollish MSS. 162/19c.

2. Journal of Commissioners for Trade and Plantations, 1720, p.220

3. Mitchell and Deane, op.cit., p.190.



(xiii) TRADE IN NON-AGRICULTURAL PRODUCTS

Unlike dealings in agricultural produce, trade in ferrous and non-ferrous metal, metal goods, stone and timber presented few risks from deterioration in quality. For example, lead might pile up if the price was not right, although at certain times merchants might be compelled to sell if it was necessary to make remittances to the miners.<sup>1</sup> Nevertheless, the affects of war or crisis in Europe might greatly influence prices and markets.

.....

The great majority of lead shipments recorded in the Hull Port Books were accounted for by inland merchants, particularly at Stock-with and Gainsborough, who usually made their shipments in vessels belonging to the Trent ports, and at no time did they have much contact with Hull.<sup>2</sup> William Woolley, who had been a factor in the lead trade, described the main axes for Derbyshire lead from the market at Wirksworth:-

'Lead ore is sold by the Load which Containes nine dishes, the price from 20s to 30s per load according to the Rise and fall of Lead, which is Counted by the fodder which is 8 great piggs or 16 little ones (which account in wt 22½ hundred . . .) the price lies from £7 to £12 the fodder it is carryed most on horseback from thence to Dorby, Willn ferry, Sawley ferry, Bawtry there to be sent down the Rivers to be shipt at Sea and Carried to London and beyond sea viz from Wirksworth to Derby about 6s per fodder, from Derby to Wiln ferry 4s, from

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1. Sykes MSS. DDSY 101/90.

2. Jackson, p.124.

thence to Gainsborough in Barges at 5s, from thence to London in ships abt 8s where the fodder is 7 piggs or 19½ hundred from £8 to £13 and pays 20s per fodder custom when put aboard foreign ships and about 3s per fodder petty charges, and the Merchants Commission 1 per cent.<sup>1</sup>

It seems that variations in the weight of the fodder in different markets were evolved as a means of supporting varying transport costs, i.e. that a fodder of lead was the same price in all regions but variations in weight would compensate merchants for transport costs from producing to consuming areas.<sup>2</sup>

Between 29 December 1704 and 22 June 1705, Stockwith and Gainsborough vessels between them carried nearly 6,000 pigs of lead, together with 276 pieces and 785 foddors. Of the 823 tons shipped, Gainsborough handled about a quarter, the largest single item shipped outwards from that port.<sup>3</sup> In 1706 it seems that 6,807 tons of lead passed through the port of Hull, a figure which had fallen to 4,799 tons in 1725 or a reduction of about 30 per cent.<sup>4</sup>

The extant accounts of two Derbyshire lead merchants, John and Joseph Bright provide some indication of the quantity shipped either directly to London from Stockwith or forwarded to Hull agents. Lead was purchased either at the mills, at Bawtry, or - very occasionally - at Nottingham. Between July 1708 and June 1713, John Youle the

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1. D.P.L. Woolley's History of Derby (MS).

2. Burt, op.cit., p.256.

3. Beckwith, p.5.

4. Burt, op.cit., p.257.



wharfinger who handled the Brights' lead at Stockwith, shipped 2,600 pigs of lead in 40 separate coasting vessels. After 1713, an increasing proportion of the Brights' lead was consigned to Hull by keel, and only small quantities were shipped by coasting vessels from the Trent port. Thus between June 1713 and February 1715, the Brights' consigned a total of 920 pigs of lead, of which 720 pigs were conveyed by 12 keelmasters to Hull, the remainder being shipped in six coasters from Stockwith. Between February and November 1715, the Brights' consigned 680 pigs of lead, of which 360 pigs were forwarded to Hull in seven keels, the remainder being shipped from Stockwith to London in eight coasters. After 1715, the quantity of lead sent directly by the Brights' to London fell sharply. Between April 1716 and the closing of the Brights' accounts in June 1718, some 2,360 pigs of lead were sent in keels to Hull, and only 120 pigs were shipped from Stockwith for London.<sup>1</sup>

The Maister and Kirkby accounts and letter-books show the Hull merchant community purchasing Derbyshire and Yorkshire lead, either at the inland ports or from other traders at the Humber port. In 1714, William Maister was purchasing lead from one of the leading Gainsborough merchants:-

'24 July 1714. Bought of Tho: Dowker 80 pigs lead 11f. 4cwt. 2qr. 14lb. at £9 per f.    £101   2s   8d.'

Maister sent regular shipments of lead to the Low Countries, and to Havre and Rouen, acting as factor for the London merchant house of Renue, Torriano and Renue.<sup>2</sup>

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1. John Rylands Library. Bagshawe MSS. (untraceable).

2. Maister MSS. Maister Account Book.

Most of the lead shipped by Maister and Kirkby was brought from the Derbyshire smelting mills, but small quantities continued to be sent down the Ouse, though not without difficulty at certain times due to the shortcomings of river navigation. In May 1716, Kirkby advised one of his London correspondents:-

'Yorkshire Lead none at present to be had the dry season is the Cause being scarcity of water that boats cant get downe with it to Yorke...'<sup>1</sup> Whether the inadequacy of the Ouse waterway and its tributaries was leading to a diversion of growing quantities of Yorkshire lead to the Tees ports is not easily discerned. In 1705, a total of 3,251 tons of lead were exported through Stockton. Twenty years later the figure stood at 2,560 tons.<sup>2</sup>

The price of lead, and the volume of trade were much affected by conditions abroad. Although exports of lead and lead shot were high during the War of the Spanish Succession,<sup>3</sup> the immediate years after Utrecht were marked by falling prices. In January 1715, Kirkby wrote to his factors in Rotterdam:-

'... would willingly joine a penny with yours in any thing if but a prospect of not working for nothing ... Lead here £9 2s or 3s at Bawtry £8 17s ...'

The price of lead continued to fall in 1715, and in September Kirkby complained:-

'I wonder what some does, as trade is carried on at present I think

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1. Sykes MSS. DDSY 101/90.

2. Burt, op.cit., p.257.

3. Ashton (1959), p.71. Though exports of lead and lead shot were high in the first war of the eighteenth century, they were cut down severely in each of its successors.



in general they dont gett a new penny for an old . . . great lead  
£8 11s or 12s Small £8 14s . . . when any amendment in trade shall  
gladly joyne my penny with yours.'

The lead trade continued depressed, and prices fell still further.

In November 1715, Kirkby complained to another correspondent:-

' . . . at present noe prospect of turning a penny to advantage . . .  
Lead mill £7 18s Bawtry £8 8s here £8 10s which proportion to  
Charge of getting hither is cheaper . . . our Woolhouse is full and  
small vend that if these perplexing times Continue must be yet Lower.'

By December 1715, the price of lead at Hull had fallen to £8 6s per  
fodder, and Kirkby was not optimistic about short term prospects:-

'may be yett Lower being our Woolhouse is full and as the miners  
wants money must sell.'

Kirkby considered that the low prices being paid for lead presented  
an opportunity to purchase and to hold stocks. In January 1716, he  
wrote to one of his agents:-

'Please Invest in Lead when find it most to my advantage either at  
the mills or Bawtry by safe Chapmen . . . at Bawtry £7 17s and  
falling . . . being noe demand its offered here from £8 2s but noe  
buyers soe may take your owne time to Invest . . .'<sup>1</sup>

Events abroad contributed to the recovery of the lead trade and  
a rise in prices at Hull. In January 1717, Kirkby advised his  
factors:-

' . . . Lead advances here . . . red at present is £8 13s or 15s per  
Fodder and sellers are stift since alliance concluded with France and  
Holland.'

By March 1717, trade in lead was brisk at Hull:-

'for great lead sells here as fast as comes downe for £8 15s but as you being on the spot must leave it to you to sell when you judge it most for our advantage. '

The rise in lead prices was maintained in 1717, and by April 1718, Kirkby was apprehensive that there were diminishing prospects for further advance:-

'Lead has been creeping up all this Spring and very Scarce . . . now £9 6s or £9 7s 6d per Fodder at which price judge not for your Intrest or mine to engage in it am sure some will burn their Fingers.'<sup>1</sup>  
Despite Kirkby's fears, lead prices continued to rise, reaching £9 11s in September. By 1722, Maister was selling at £10 4s per fodder.<sup>2</sup> The generally low level of lead prices in the early decades of the eighteenth century is probably an indication that output was expanding ahead of demand. The industry's internal technical and managerial improvements may have been more important for growth at this time than changes in external demand.<sup>3</sup>

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As in the case of lead, dealings in stone were largely outgoing from the region, but evidence for that trade is very scanty. In August 1717, Lord Castleton wrote to his steward at Sandbeck on the possibility of sending stone from the Roch Abbey quarries to London

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1. Sykes MSS. DDSY 101/90.

2. Maister MSS. Maister Account Book.

3. Burt, op.cit., p. 266.



' . . . Mr Campbell has engaged Lord Burlington and Sir John Vanbrugh to front his house with Roch Abby Stone but upon Inquiry here, it appears I was mistaken in the prices, for the cheapest the stone can be delivered per Tunn is £1 6s or £1 5s (viz) the carriage to Bawtrey 5s Getting of it 7s, the freight from Bawtry to Stockwith 3s from Stockwith to London 11s or 10s . . . Sir John Vanbrugh at first bespoke . . . 52 tuns at these rates, and now has bespoke 150 tuns more . . .<sup>1</sup>

The Maister accounts reveal dealings in imported iron to the principal inland ports of the region, with smaller quantities of pitch, tar and timber. In 1714-15, bar iron was sent in 14 keels to three

2. Jackson, p.263.

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York wharfingers and ironmongers, William, Barbara and Jane Stephenson. Kirkby also acted as agent for William Stephenson at Hull, forwarding imported pots and pans, Swedish bar iron and oak boards. In December 1718, Kirkby advised two London merchants about the difficulties which faced the York trader at that time. He was anxious that Stephenson should weather the adverse circumstances facing him:-

'but he drives on further than his Stock reaches and a dead time of year that moneys comes scarce in which causes him to be straitened.'<sup>2</sup>

The opening of the Aire and Calder Navigation meant that imported iron could be forwarded to the forges around Leeds entirely by water. Maister sent iron in Humber keels to Rawcliffe, the lowest shipping port on the Aire for transhipment into smaller river craft. Maister's principal customers in Leeds were Joseph Condor and his partners, and --- Cookson:-

'14 August 1716. Recd from Gottenburg that was bot . . . Joseph Condor & Co of Leeds . . . 1,023 Bars iron.'<sup>3</sup>

Maister's forwarding trade to Bawtry was almost entirely in iron, with much smaller quantities of pitch and tar. Nine keelmasters were regularly employed in carrying Swedish iron to two wharfingers at the Idle port, Christopher Dempster and John Goodwin.<sup>4</sup> The principal customers were merchants and ironmongers in south Yorkshire, notably

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1. Maister MSS. Maister Account Book.

2. Sykes MSS. DDSY 101/90.

3. Maister MSS. Maister Account Book.

4. John Goodwin of Bawtry had a share 'in the privileges and return of Bawtry wharf and its wharfage and one third of every vessel used with Christopher Dempster and Thomas Lister of Bawtry. Tibbitts Collection T.C. 739.



William Mirfin, Thomas Parkin and Samuel Shore, all of Sheffield.<sup>1</sup>

Although the Sheffield and Hallamshire interests received most of their imported Swedish iron via Bawtry, small quantities were also forwarded by land carriage from the port of Doncaster. Maister sent iron via the Hull-Doncaster axis to Samuel Shore, and to Field Sylvester, one of the principal factors in Sheffield:-

'13 March 1714. Sold Samuel Shore and sent per Robert Ambler to Doncaster 10 bars iron.'<sup>2</sup>

The effects of the Great Northern War between the Baltic states were not immediately reflected in the prices of bar iron and rod iron sold in Sheffield. Between 1695 and 1702, bar iron was sold at £14 10s per ton, and rod iron at £16 10s per ton. In 1702, bar iron advanced to £15 per ton and rod iron to £16 15s per ton, and continued to sell at those prices until 1716. Disputes with Sweden over the duchies of Bremen and Verden led to a temporary prohibition on the import of Swedish iron, and a marked rise in prices in 1716, bar iron reaching £17 per ton, and rod iron £18 15s per ton.<sup>3</sup>

Restrictions on the import of Swedish iron prompted the Hull merchant community to look for other sources of supply, care being taken that the quality and specifications demanded by their customers

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1. Samuel Shore was one of the pioneers of steel manufacture in Sheffield. By 1709 Shore was making blister steel. Lloyd, p.74.

2. Maister MSS. Maister Account Book.

3. Although Professor Ashton concluded that 'the price of iron rose sharply during the Great Northern War', he gave no indication of when that rise commenced. Ashton (1959), pp.70-1.

were maintained. In January 1718, Kirkby apprised one of his agents at Rotterdam that he had bought a parcel of German iron:-

'and I hope all or most of it is of the Narrow Flat and about  $\frac{1}{2}$  Inch thick else our market will Scarce take it off . . . per next please advise breadth and thickness that if will not doe here I may perhaps order it be shipt for London but buy noe more till further order for if Swedish iron be permitted to come in at or before 20 March being better liked and above 20s less . . . in the Customs will cut the German iron clearly out.'

Kirkby clearly recognised the risk involved in purchasing German iron and then finding that the prohibition on Swedish iron had ended. On the other hand, Kirkby was reluctant to refrain from trade in a commodity for which demand was rising and market prospects appeared particularly promising. He opined to his agent that:-

'to Contract for it before hand will be a great hazard if you finde at expiration of limitted time our Parliament request his majesty to Continue the Prohibition of Swedish Iron should be glad you could fall in with your Chapman soe as to Contract with him for delivery of 100 or 150 tons of German iron to be delivered as fast as could be made.'<sup>1</sup>

With the proclamation permitting the resumption of Swedish iron imports in February 1718, Kirkby was anxious to dispose of the German iron which he calculated would not sell in the markets within the region. Kirkby advised his agent:-

'now we have the Kings proclamation permitting Swedish iron to be

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1. Sykes MSS. DDSY 101/90.



imported in English ships from Neutral Ports and as you formerly wrote German Iron was Esteemed with you as good as Swedish so hope may get those 500 Bars of German Iron Exchanged for the likeweight of Swedish Iron without loss of good sorts . . .<sup>1</sup>

The principal forwarding trade which Maister conducted with Gainsborough merchants and wharfingers was also in goods imported from Scandinavia. The Maister accounts between 1714-24 indicate trade in Swedish iron between Hull and the Trent port, employing 25 keelmasters, handled by five wharfingers and consigned to 27 named customers at Nottingham, Newark, Derby and Birmingham.<sup>2</sup>

The role of the inland ports and Hull in the iron trade is also revealed from the extant accounts and letter books of Carburton forge, one of the most important ironworks within the region. The raw and semi-manufactured iron used at the forge in the first two decades of the eighteenth century came from a variety of sources. In addition to pig iron brought by land carriage from the furnaces at Staveley, Walley and Foxbrooke, and the small quantities brought out of Cheshire, the Bawtry-Stockwith-Hull axis was extensively used to obtain raw materials. Old cannon from Newcastle, disused alum plates from Whitby, bomb shells, pig iron from Sussex, bushel and cast iron from London and the Low Countries, as well as an assortment of scrap metal found their way to the forge. In July 1715, John Watts, the manager at the forge wrote to Thomas Grace in London from whom he was willing to buy a parcel of bushel iron:-

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1. Sykes MSS. DDSY 101/90.

2. Maister MSS. Maister Account Book.

'and desire it may be put into small Casks, not above half a Tunn in a Cask because of the conveniency of Land Carriage, and pray let them mark each Cask what weight it contains and Consign them to . . . Christopher Dempster at Bawtry . . . you will meet with Stockwith vessells enough about Ralph's Key that will take . . . and deliver them to Dempster's Boats for 3 or 4s per Tun, because they have little or no loading to Stockwith. Dempster will pay the Freight you agree for. We do work 40 or 50 Ton of Bushel Iron in a year, but if the rate continue so high shall use a great deal less, wee have it genrally 20s a Tun cheaper out of Holland than this will be.'<sup>1</sup>

The rise in the price of bushel iron probably prompted Watts to look for new sources of supply. In November 1715, he wrote to one of the Wealden ironmasters:-

'I desire you will let me know as soon as you can conveniently what I must give you per Tun for 2 or 3 tons of your Sussex Piggs for a Trial such as are perfectly free redshot on Board a vessel at London for Stockwith. Some of those Vessels lye constantly about Ralph's Key nigh Billingsgate. If I like the Metal may take a considerable quantity.'<sup>2</sup>

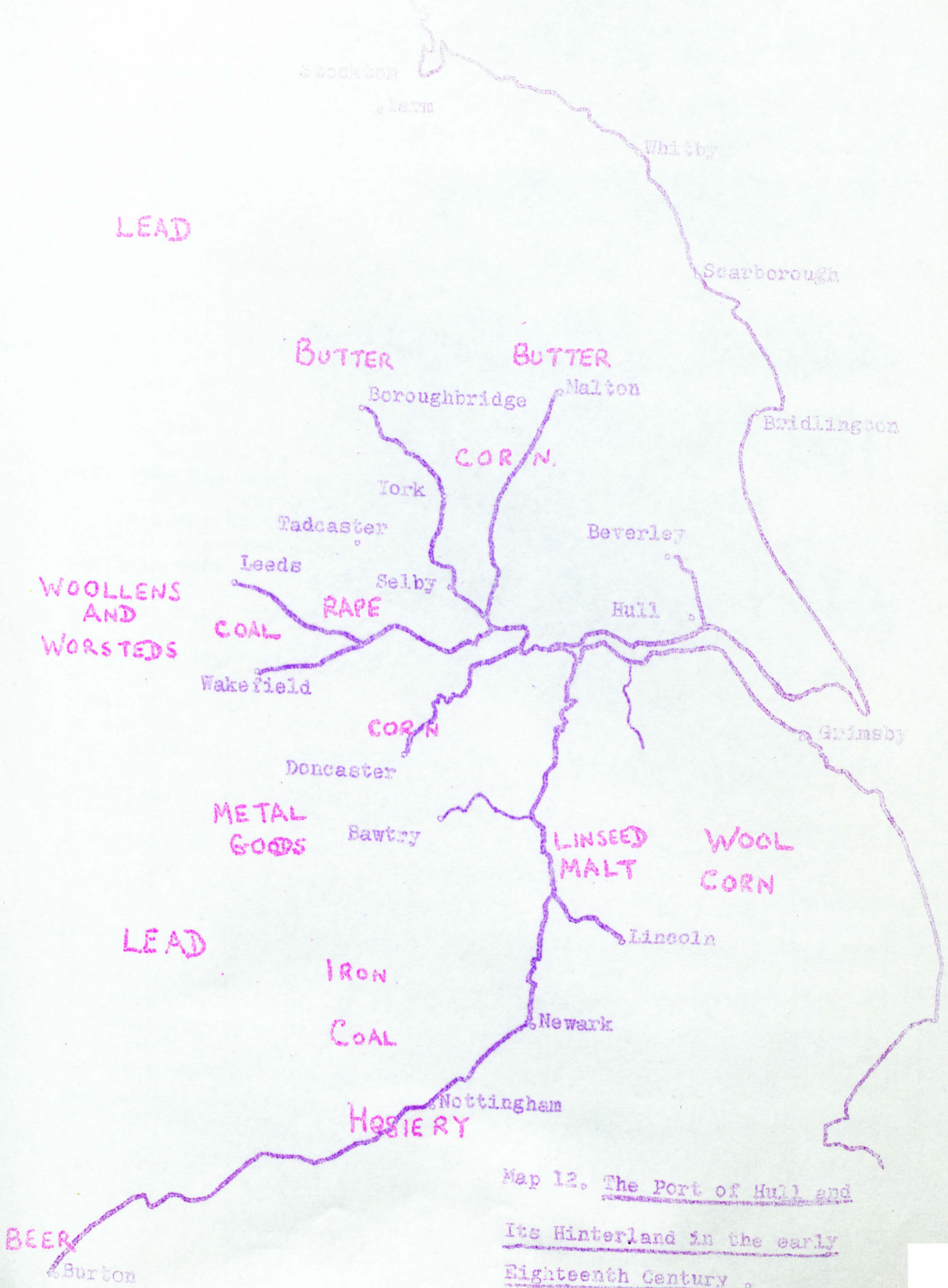
At Hull, Richard Sykes and Daniel Hoare acted as shipping and forwarding agents for the Carburton forge. In addition to bushel and cast iron sent directly from London to Stockwith, parcels of iron were also forwarded by keel from the Humber port. In April 1715,

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1. Sheffield City Library, Archives Department. M.D. 3483. Letter-book and diary of John Watts, ironmaster.

2. loc. cit.





Map 12. The Port of Hull and  
its Hinterland in the early  
Eighteenth Century.



Watts advised Sykes:-

'if you look my letters when first I order'd any Bushel and Cast Iron, you will find it should come to . . . Simmons that he might see it taken out of the Keels carefully into the Bawtry Boats . . .'<sup>1</sup>

Before the spring of 1715, Watts was buying bushel iron at Hull for £5 10s per ton, and cast iron at £4 per ton. The freight rate between Hull and Bawtry was 6s per ton, and land carriage from the Idle port to Carburton amounted to a further 5s per ton.

In addition to various kinds of iron, small quantities of 'sea coals' were also imported via Hull for the forge.

In order to make one ton of bar iron over 26 hundred-weight of pig iron were required, the forge using in the process about 36 seams of charcoal. Charcoal was obtained from various places in Sherwood Forest, brought at certain times of the year. In September 1715, Watts noted that:-

'the Season is now so far spent and people to throng Ploughing that cannot have the Charcoal carried.'<sup>2</sup>

A variety of iron goods were produced at the Carburton forge in addition to bar and rod iron. Sock moulds, clout iron, alum plates, girdles, and iron goods for use in lead mills, together with a small quantity of salt pan plates were forwarded to Hull via the Trent ports. Between June 1700 and June 1720, a total of 2,671 tons of iron and assorted iron goods were sold from Carburton forge. Of this quantity,

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1. M.D. 3483. Letterbook and diary of John Watts. B. Simmons was one of the wharfingers at Stockwith.

2. loc.cit.



1,465 tons were carried by land to Bawtry for shipment to Stockwith and Hull. Land carriage charges to Bawtry averaged 6s per ton; boathire from Bawtry to Stockwith was 2s 6d per ton; and the freight of iron to Hull and shipping charges there also amounted to 2s 6d per ton. Between June 1703 and June 1720, over 800 tons of iron from Carburton were carried to Renishaw slitting mill. The remaining output was sold in small quantities to country chapmen. Most of the goods sent from Carburton to the Trent port were consigned to London, but small quantities found their way to Newcastle, Stockton, York, and to Norwich and Bury St. Edmunds. Local customers included Sir George Savile, and the Dukes of Leeds and Newcastle.<sup>1</sup>

The accounts and letter books of Carburton forge give further evidence on the influence of overseas iron on the price of domestic iron, and seem to confirm that - in the markets of the region - the affects of the Great Northern War were not felt fully for some years. Between June 1700 and the summer of 1711, the price of iron sold from Carburton remained at an annual average of £14 10s per ton; between 1711 and December 1714, the price was £15 per ton. In January 1715, Watts advised his principal customer at Norwich:-

'We have advanced our Iron 10s per Ton which is very inconsiderable in regard to the advance of Forreign Iron, but hope to advance more hereafter if the rate of Forreign Iron increases . . . if I hear nothing from you will send you 4 tons of Shl brds to Stockwith at £15 10s per ton.'<sup>2</sup>

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1. M.D. 3483. Letterbook and diary of John Watts.

2. loc.cit.





assortment of ironmongery - nails to Yarmouth, scythes, flay knives, iron weights, plough breasts, iron pipes and a large number of iron stoves to Lynn, Yarmouth and Wells. Metal goods sent to London in the eighteenth century included a few hundred tons of English iron, a few dozen tons of nails, and a great variety of Sheffield and Birmingham goods.<sup>1</sup>

Metal goods exported from the Trent ports was almost wholly for London. Of the 55 tons of iron shipped from Gainsborough and Stockwith in the period 29 December 1704 to 22 June 1705, Gainsborough ships dealt with 23 tons.<sup>2</sup>

. . . . .

Dealings in timber at Hull and the principal inland ports of the region covered both an import and an export trade. The extant accounts of one Bawtry merchant between 1713 and 1721, include dealings in wainscot boards and deals imported from Christiana and Amsterdam, and forwarded from Hull to the Idle port.<sup>3</sup> Samuel Dawson, described as a mercer and grocer, employed the firm of Colletts and Leuch to act as his factors in Christiana.<sup>4</sup> In July 1715, the Milkmaid was freighted at the Scandinavian port with deals and spars for Hull, where the payment of water bailiff dues was arranged by Dawson's agent, Henry Etherington. The timber was then forwarded to

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1. Jackson, p.143.  
2. Beckwith, p.5.  
3. Tibbitts Collection. T.C. 516.  
4. W.R.D. A/478/766.

Bawtry by three Trent keelmasters, John Beilby, Samuel Clayton and John Stokeham.<sup>1</sup> On 9 July 1715, Dawson's factors informed him:-

' . . . you have advantage of 1 dollar on each 100 of deales, for they actually pay now a dollar more than you is charged, and most the same our very good friend -- Perrott in Hull paid . . . According to your order . . . we have loaded some ladder poles . . . if you should incline for sending another ship here this year we desire to know your mind as soon as possible.'<sup>2</sup>

In 1719, Benjamin Darling was acting as agent for Dawson at Hull:-

'Ac. of charges on 1600 Wainscott boards recd per James Atkinson from Amsterdam and forwarded to Samuel Dawson at Bawtry

	£	s	d
Duty & fees of 1400 Inches	16	4	10
Frt. at 1½d per Inch	8	15	0
Primage		16	0
my Prov.		14	0
	26	9	10. <sup>3</sup>

Dawson disposed of timber and other imported goods by land carriage to various customers within the region:-

'9 November 1710 To Saml. Dawson of Bawtry for deels and iron had to Kiveton since 24 July £13 5s 8d.'<sup>4</sup>

Evidence of timber sent to Hull for export, or shipped directly from the inland ports is scanty for the early eighteenth century, apart from the Hull Port Books. Between 29 December 1704 and 22 June 1705, ships from the Trent ports clearing outwards from Hull

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1. Tibbitts Collection. T.C. 516/3-8.

2. T.C. 516/11.

3. T.C. 516/21.

4. Leeds MSS. Box 35(unsorted).



accounted for some 105 tons of timber.<sup>1</sup> It seems not improbable that timber might be sent from estates in various parts of the region, utilising where possible the waterway system. For example, some timber was sent down the Don to Hull, although navigation was sometimes delayed by insufficient water in the river. In 1720, Charles Savile agreed with two Hull merchants for the sale of timber from his estates at Thribergh and Mexborough. On 2 May, Savile was apprised of the delay in shipping timber from Doncaster:-

' . . . as yett have not gott all the timber down to Hull tho I believe its all in a keel comeing down but I heard she was neeped abt Barnby Dunn or Stainfold Showld but expect her down in less than a fortnight.'<sup>2</sup> To what extent the trade in timber from the region to the Tyne and Wear ports had developed by 1720 is not entirely clear.

#### (xiv) THE TEES PORTS, THE COASTAL PORTS OF YORKSHIRE AND BOSTON

It is not easy to determine to what extent the rise or decline of the Tees ports, the coastal ports of Yorkshire and Boston affected - or reflected - the trading patterns of the Humber-Ouse-Trent waterway system. Nevertheless, it seems likely that the rise of Stockton drew away some of the trade previously handled by Milby and York; that Malton was served from Scarborough as much as by the river Derwent; while the decline of Boston may have led to a greater utilization of the Trent.

The difficulties in navigating the Ouse, and the high cost of land

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1. Beckwith, p.5.

2. Mexborough MSS. (unsorted).

carriage from smelting mills in the Dales to Milby probably prompted many leadmasters, factors and merchants in the North Riding to send their lead to Stockton for shipment. Mining interests in Arken-  
garthdale and Swaledale - where activity was more marked after the foundation of the London Lead Company in the last decade of the seventeenth century - forwarded lead to Stockton via Richmond and Yarm. It seems likely that lead from Wensleydale could be exported more cheaply via Northallerton and the Tees ports. Further south, lead from Nidderdale and Wharfedale continued to find an outlet by using the Ouse and its tributaries.<sup>1</sup> The development of Swaledale mining and the rise of Stockton dwarfed the Ouse ports, so that by the 1730's lead was a comparatively minor item shipped down the river.<sup>2</sup>

In the early eighteenth century, Stockton superseded Yarm as the principal port on the Tees, although the latter was still the lowest bridging point. The main export items from both ports were in agricultural produce from the North Riding and lead from Teesdale, Swaledale and Arkengarthdale.<sup>3</sup> One traveller noted at Yarm that:-  
'they have two vessels the butter bought and designed for Export is inspected and marked here, by an Agent called Tormentor, before its sent to Stockton.'<sup>4</sup>

The trade in butter in the North Riding was organized by resident

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1. In the early eighteenth century there was a scheme for sending lead from Buckden and Kettlewell to Leeds for shipment down the river Aire to Hull. ACN 4/35.

2. Infra, p. 570.

3. Wardell (1957), p.116.

4. Letters of 'J.A.'



agents of London merchants, statutory provision being made for the inspection of butter in the third decade of the eighteenth century.<sup>1</sup>

In the first quarter of the eighteenth century, the population of Stockton doubled to a total of nearly 2,000 in 1724.<sup>2</sup> Although Defoe considered that Stockton and Yarm were towns 'of no great note', he did not fail to record that they had:-

'greatly encreased of late years, especially the first, by being the chiefest place in the North Riding of York, or in the county of Cumberland, for the shipping off lead, and butter for London.'<sup>3</sup>

The transformation of Stockton was described graphically in 1725:-

' . . . a few years agoe was all thatched houses, now of brick and sashed: making a spacious paved high Street very clean . . . the upper end of it the common place of meeting on business as an Exchange (nge). The Market house and Tollbooth is about the middle of it the Church at the lower end. Here are also a Quakers, a Presbyterian (and what is unusual) a non-juring meeting house.'<sup>4</sup>

The tonnage of coasting vessels belonging to Stockton rose from a total of 1,040 tons in 1709 to 1,320 tons in 1723.<sup>5</sup> Two years

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1. Letters of 'J.A.' The anonymous writer of the letters described the making of butter:- 'they are not at all neat in the making of it, nor if they were would this country yield so good . . . they Churn with an Engine that works in the Chimney like a pump . . . butter is salted up in firkins of 42 pounds and sold at about 17s on Markett days to the factors at Gisbrough.'

2. Wardell (1962), p. 16.

3. Defoe, II, p.247.

4. Letters of 'J.A.'

5. Willan (1938), p. 221.

later it was noted that:-

'they estimate about 60 Vessels belonging to Stockton, most Coasters with Corn butter and Lead; 60 horses being imployed every day at the time I was here to and from Mr Scarbrough's Mines in Richmond.'<sup>1</sup>

Goods imported to Stockton from London, the outports of the east coast, the Low Countries and Scandinavian ports included groceries, iron, coal and timber. Distribution was almost wholly by land carriage.<sup>2</sup>

. . . . .

The total tonnage of Scarborough's coasting vessels altered least of all the coastal ports of the region. Between 1709 and the 1740's it remained at some 21,700. The staple of its trade was the shipping of coal from Newcastle and Sunderland.<sup>3</sup> The first half of the eighteenth century also witnessed the development of Scarborough as a spa town. In 1705, one visitor recorded:-

' . . . we went to see the Spaw . . . Most of the Gentry of the North of England and Scotland resort hither in the Season of the year. . . .'<sup>4</sup>

Twenty years later, another visitor found that:-

'fish and flesh are plenty but price and rent of houses has very much increased with the Spaw . . .'<sup>5</sup>

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1. Letters of 'J.A.'

2. N.R.A.O. ZLB. (unsorted).

3. Willan (1938), p.14.

4. A Journey to Edenborough in Scotland by Joseph Taylor, late of the Inner Temple, op.cit., pp.68-9.

5. Letters of 'J.A.'



Spa water soon became popular, and bottles were distributed by land carriage over a wide area.<sup>1</sup>

The hinterland of Scarborough included the Vale of Pickering and part of the Vale of York. In the opening years of the century it was noted at Scarborough that:-

'The greatest trade of this place is the Fishery, of which they have great plenty, and supply the City of York, tho' thirty miles off. . .'<sup>2</sup>

The export of agricultural produce, which became more marked in the second decade of the eighteenth century was probably one factor stimulating the agrarian change in the hinterland which has already been noted.<sup>3</sup>

. . . . .

The Lincolnshire port of Boston served a hinterland almost wholly engaged in farming. The tonnage of coasting vessels belonging to Boston fell from a total of 1,010 tons in 1709 to 870 tons in 1723.<sup>4</sup> By the 1730's significant changes had occurred in Boston's patterns of trade of the later seventeenth century. The bulk of trade was now essentially local, to the neighbouring ports of Spalding, Holbeach, Wisbech and King's Lynn in malt, wines, earthenware, deals, lead, pan-tiles, charcoal, tobacco, wool and ironmongery wares. Coastal shipments to London were made up of oats, tallow, skins, ale, wool, and oil. Imports by the coasting trade consisted of coal from the north-east; linen, tobacco, wine, soap, sugar and groceries from London;

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1. For example in 1709, James Lister of Shibden Hall, near Halifax paid Abraham Law, a common carrier 4s 'for the carriage of Spaw water from Scarborough. Bankfield Museum. Accounts of James Lister SHA/3.

2. A Journey to Edenborough in Scotland, op.cit., p.69.

3. Letters of 'J.A.' Supra, p.415.

4. Willan (1938), pp.123-5. 445

herrings from Great Yarmouth; rye, wheat, barley, wine, deals and Norwich stuffs from King's Lynn; and coleseeds from Holbeach. In 1735-6, Boston's foreign trade consisted of only three outward shipments, but there was a considerable import of deals, balks, and spars from Norway; bricks and paving tiles from Rotterdam; wines from Spain and Portugal.<sup>1</sup>

#### (xv). CONCLUSION

Although it is apparent that the first two decades of the eighteenth century witnessed the extension of river navigation in the region by more than fifty miles, it cannot be claimed that there had been anything more than a modest development of the Humber-Ouse-Trent waterway system. Of the 103 miles of waterway for which statutory authority had been obtained, a little over half had been rendered capable of navigation at certain times of the year. Of the 1,160<sup>2</sup> miles of English rivers which were open to navigation by 1724, almost 400 miles were within the region.

Only in the case of the Aire and Calder Navigation can cautious estimates be made of capital accumulation and the mean cost of improvement per mile. To extend navigation to Leeds and Wakefield, and to carry out certain improvements on the stretch of the river Aire already navigable had involved an outlay of over £630 per mile. Despite the apprehensions, and at times hostility of a number of the undertakers of the west Yorkshire navigation, capital stock had been

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1. Willan (1938), pp.123-5.

2. C. Hadfield, British Canals, p.26.



increased by 125 per cent in twenty years, an exceptionally high rate of capital accumulation for the period. In contrast, less progress was made in developing the upper Trent, and little - if any - in improving the Yorkshire Derwent. It does not seem unreasonable to suggest that little more than £30,000 can have been expended on the three navigations, the Aire and Calder undertaking being responsible for over 80 per cent of the outlay.

Although the development of the waterway system was not marked in the opening decades of the eighteenth century, there might already be observed some effects on the relative importance of the various inland ports and on the axes of trade upon which they were largely dependent. It has already been noted that wharfingers, carpenters and boatmasters at the established inland ports were often in a strong position to take advantage of the benefits accruing from the improvement of river navigation. The Fosbrook family of Shardlow, who had been the principal wharfingers at Wilne Ferry in the late seventeenth century had secured a lease of the upper Trent undertaking, and, in partnership with the Haynes family of Burton, monopolised the water trade on that navigation for almost half a century. The Atkinson family of Thorne played a significant role in the early construction work on the Aire and Calder Navigation and subsequently figured among the lessees of that undertaking for more than thirty years. Lawrence Spencer one of the leading wharfingers at Selby in the late seventeenth century had moved his business to Rawcliffe soon after the opening of the Aire and Calder Navigation. Of the new families which played an active role in the initial construction work on

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the waterways of the region, and subsequently engaged in trade, the Mitchell family cannot be overlooked. The extension of navigation on the Calder to Wakefield, and the setting up of locks below Knottingley had been carried out largely under the direction of James and Joshua Mitchell, carpenters of Huddersfield who had purchased considerable property in Wakefield in the early years of the century. From his role as surveyor and contractor, James Mitchell found it an easy move to participation in the river trade, forming a partnership with two of the early lessees of the Aire and Calder Navigation, investing in local collieries and becoming part owner of several vessels. His son, Joshua Mitchell became joint undertaker with Mark Andrew - a member of a well established family of wharfingers, keelowners and traders of Knottingley - to effect improvements on the Yorkshire Derwent.<sup>1</sup>

Modifications in trading patterns and transport routes must be numbered among the factors which altered the role and importance of the various inland ports. After the extension of navigation to Leeds and Wakefield, it seems that the trade of Selby was very quiet for some seventy-odd years, if not completely eclipsed.<sup>2</sup> When the churchwardens and inhabitants of Selby sought financial help for the repair of St.Germain's in 1710, their petition to the Grand Jury and Quarter Sessions emphasised one reason for their financial straits:-

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1. Duckham, 'Yorks. Derwent', p.47. Mark Andrew is also described as an innkeeper of Castleford, but numerous references to him in the Wasney MSS. at Leeds and the Wakefield Registry of Deeds suggest that his activities as wharfinger and keelowner were equally important.

2. Duckham (1967), p.70.



'the Trade of Selby being at present in a declining Condition.'<sup>1</sup>

Nevertheless, it is clear that even with the departure of at least one wharfinger, the traders of Selby maintained their external trading links. For example, salt was imported from North Shields to the Ouse port in the early years of the eighteenth century.<sup>2</sup>

The law of comparative costs largely determined that west Yorkshire coal should be marketed over a wider area of the waterway system, no doubt at the expense of sea coal from Newcastle and Sunderland. The coal trade of the Humber-Ouse-Trent waterway system was able to develop behind what amounted to a virtual tariff barrier of the differential tax on sea-borne coal. Intra-regional dealings were less subject to the external factors of European war and fluctuating foreign demand to which so many commodity dealings of the region had to adjust. The inroads of privateers in the early years of the War of the Spanish Succession, against which the shipping interests and dealers in lead and woollen cloth made repeated protest, also hit the coasting trade in coal. It is now clear that the Newcastle and Sunderland coal trade did not bring much for investors in this period.<sup>3</sup> The rapidity with which the undertakers and lessees of the Aire and Calder Navigation sought to invest in coal is a strong indication that there was a ready local market in that commodity. Not that the development of the coal trade was entirely growth by substitution. If

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1. W.R.A.O. West Riding Sessions Rolls. Pontefract April 1710.

2. loc.cit. Pontefract April 1707.

3. R. Grassby, op.cit., p.731 .

the demographic trends of the early eighteenth century are correct, it seems not unlikely that the total demand for coal was increasing.<sup>1</sup> By the 1720's other trading communities in the region were eyeing with admiration the development of the west Yorkshire coal trade. When the Don scheme was revived, traders at Doncaster anticipated similar benefits from the expansion of dealings in coal:-  
'and trade for it down the River as at Knottingley.'<sup>2</sup>

Growth indices for the river valley communities are not easily discerned in this period. Professor Chambers considered that the period 1690-1720 witnessed demographic and economic advance, seen in the promotion of improvement schemes in the Vale of Trent, and capital accumulation in certain large scale mining undertakings.<sup>3</sup> One contemporary wharfinger opined that the number of vessels employed on the Trent had doubled in the first two decades of the century, but it is not possible to substantiate the views of interested parties anxious to overrate rather than understate the contribution of the waterway.<sup>4</sup> In west Yorkshire, the increasing rent for which the Aire and Calder Navigation was leased - rising from £800 in 1704 to £1,600 a year in 1716 - provide some indication of expectations for that waterway.

In many respects the vicissitudes of trade in the region seem to correspond to the national picture. The years 1704-8 presented considerable difficulties for landowners and traders alike. Efforts

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1. Chambers, p.3.

2. Mellish MSS. 162/42.

3. Chambers, p.3.

4. Mellish MSS. 162/7b.



to promote new transport undertakings in the region ceased for some years, and the fortunes of the Aire and Calder undertakers reached their nadir.<sup>1</sup> After 1709 a modest recovery began, most obvious in the rising prices of agricultural produce, and manifested by the efforts to improve marketing facilities, and to secure more effective legislation for the development of the upper Trent navigation. West of the Pennines important port and river improvements were in progress after 1710, particularly in the Liverpool region.<sup>2</sup> The years which followed the signing of the peace of Utrecht were marked by complaints from some Hull merchants of the poor prospects for trade. After 1716, prices for iron and lead were again rising, the latter continuing to advance until the third decade of the century. By that time efforts were again underway to improve and extend the waterways of the region, and to modify trading patterns in favour of certain growth points within the regional economy.

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1. Between 1702-13 inclusive, 28 turnpike Acts were passed, almost all of them for stretches of road in southern England. A. Cosson, op.cit. pp. 30-1.

2. Mathias (1969), p.110.

## 20.11. Transport Undertakings and the Struggle for Markets, 1720-1740

### (1) INTRODUCTION

The long years of peace which marked the ministries of Walpole were not accompanied everywhere by continuous economic advance. Although trade and industry soon recovered from the worst affects of the South Sea Bubble - which brought to an end the credit boom of 1717-20 - there was a further setback in 1726, and from 1728 the slowing down of economic growth became more apparent. Almost all sectors - agriculture, home and foreign trade, population growth indicate weaker momentum from the 1720's to the 1750's when the forward movement was strongly resumed. Movements in foreign trade probably reflect similar movements in manufacturing industry, namely, a check in growth in the second quarter of the eighteenth century.<sup>1</sup> Nevertheless, it would be a mistake to regard the national picture as the sum total of regional trends which were everywhere uniform. The age of Walpole was one of paradox and regional disparity in economic life.

In the third and fourth decades of the eighteenth century, industry did not stand still but progressed at different rates in different areas. For example, the Devon serge industry declined, but Norwich

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1. Wilson, p.270.



stuff-making grew, and the worsted manufacture, which had commenced in the West Riding around the turn of the century, made marked progress. By the second quarter of the eighteenth century it was apparent that the worsted industry of the West Riding had come to stay and that the supremacy of East Anglia would soon be challenged. Progress in the woollen industry was slower and more fitful than in worsteds, partly because home demand was reduced by the adoption of worsteds and mixed cotton fabrics, and partly because foreign markets were subject to the vicissitudes of war and enmities, while textile industries grew in a number of European countries.<sup>1</sup>

Differences in the timing and rates of growth of output were also features of the various mining fields in the lead industry, probably due to the fitful spread of more advanced mining and smelting techniques from one district to another. By the middle decades of the eighteenth century it seems that Hull had regained its position as the principal port for the export of lead, confirming the dominance of the Derbyshire mining field. In the 1750's the production of the Derbyshire mines was estimated at 9,000 - 10,000 tons of lead per annum, whilst Hull's recorded trade stood at 7,000 - 8,000 tons per annum. The recorded trade of Stockton in lead stood at 4,485 tons in 1756, that is 75 per cent above the recorded figure for 1725.<sup>2</sup>

The early eighteenth century saw a number of changes in the iron and metal industries of Hallamshire. The sharp rise in the price of bar and rod iron in the latter years of the Great Northern War seems

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1. Heaton, p.276.

2. Burt, p.251.

to have prompted the setting up of new furnaces and forges in the Sheffield area after 1716.<sup>1</sup> The production of blister steel had commenced in Hallamshire soon after 1700, and there were several 'converting furnaces' in the district by 1709.<sup>2</sup> The early years of the eighteenth century also witnessed the expansion of the nail trade.<sup>3</sup> The ending of the Great Northern War seems to have produced considerable rivalry among producers in the various branches of the iron and steel industries in the region in the 1720's. The fourth decade of the eighteenth century was marked by serious difficulties for indigenous iron producers, faced with falling prices and fierce competition from imported iron.<sup>4</sup>

Within the Humber-Ouse-Trent region, the mixed farming and industrial economy of the West Riding progressed more rapidly than the predominantly agrarian economy of Lincolnshire and the Vale of York. A recent study of the parish of Ecclesfield has shown that an economy doubly based upon agriculture and the working of iron faced fewer problems of poverty and provided more opportunities for employment than communities dependent solely on farming. In Ecclesfield the 'take off' period for population growth seems to have occurred in the 1720's, the main stimulus for the spurt in baptisms coming from within the existing community, while the chances of employment were attracting immigrants and boosting the native population. Similar dual

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1. Ashton (1959), p.71.

2. J.C.Carr and W.Taplin, History of the British Steel Industry (Oxford, 1962), p.4.

3. D.G.Hey, 'A Dual Economy in South Yorkshire', Ag.Hist.Rev., XVII (1969), p.118.

4. Infra, p. 542.



economies prevailed in many of the lead-mining villages of Derbyshire and in the hamlets and villages of the cloth producing districts of the West Riding.<sup>1</sup>

By the mid eighteenth century the concentration of industry and population in the West Riding was becoming more apparent, although evidence of movement to the Aire, Calder and Don valleys from neighbouring counties may be more easily conjectured than substantiated. It seems not improbable that greater employment opportunities enabled earlier marriages to take place and stimulated natural increase. Estimates for county populations indicate a substantial demographic advance for the West Riding, in contrast to the stagnation, or decline of neighbouring counties with the exception of Lancashire.

Table 3. Estimated population by counties, 1701 and 1751.<sup>2</sup>

	1701	1751
Derbyshire	113,998	100,734
Lancashire	238,735	317,740
Lincolnshire	179,095	153,270
Nottinghamshire	85,145	85,009
Yorkshire, E.Riding	72,042	73,626
Yorkshire, N.Riding	118,652	107,524
Yorkshire, W.Riding	238,848	303,098

A similar disparity in the rate of growth of a number of the towns of the region. For example, it has been estimated that the population of Leeds - the principal cloth finishing and marketing centre - doubled between 1666 and 1731.<sup>3</sup> In 1723 it was noted that Wakefield had:-

' . . . of late years so much increased in trade, and consequently in

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1. Hey, op.cit., p.108.

2. Deane and Cole, p.103.

3. Heaton, p.280.

People, that they are going to build a new Church there in all the modern magnificence.<sup>1</sup>

In contrast, the population of York seems to have remained almost stationary at about 12,000 for the first sixty years of the eighteenth century.<sup>2</sup>

Changes in the size and distribution of population and in the nature and output of the industries of the region were undoubtedly significant factors in the development of the coal industry. During the eighteenth century, the Midland coalfield - including Yorkshire, Lancashire, Cheshire, Derbyshire, Shropshire, Staffordshire, Nottinghamshire, Warwickshire, Leicestershire and Worcestershire - emerged as by far the largest producer of all British coalfields. Between 1700 and 1760, production may have risen from one million tons per annum to two and a half million tons.<sup>3</sup> Aided partly by the differential tax on sea-borne coal, there was a marked growth in mining in the West Riding - particularly at collieries adjacent to the rivers Aire, Calder, Don and Dearne. At the same time landowners with coal on their estates were anxious to extend their markets within the region. Such activity was often accompanied by intense rivalry among coal traders and the lessees of inland navigations to effect and control transport undertakings.

After the failure to obtain statutory authority for the improvement of the Derbyshire Derwent, the Don, the Ouse and the Fossdyke,

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1. In November 1723, the Leeds Mercury included this reference which had appeared in the London Journal.

2. V.C.H. York, p.212.

3. Wilson, p.301.



and the limited development of the Aire and Calder, the Trent and the Yorkshire Derwent in the early eighteenth century, the years 1717-39 witnessed more rapid progress. Not merely were Acts passed for the implementation of long-mooted schemes, legislation was also successfully promoted for the amelioration of the river Idle and Beverley Beck. The pressure for improved transport and wider markets was much stronger from commercial communities and inland ports along the Aire, Calder and Don valleys than along the Ouse. Wharfingers, traders and navigation lessees at the inland ports - particularly Knottingley and Rawcliffe on the Aire, and Thorne on the Don - endeavoured to broaden their markets and gain greater control of their axes of commerce. In the same years, several waggonways for the carriage of coal were built, usually as feeders to the waterway system, and statutory authority was obtained to repair some roads by setting up turnpike trusts.

As in the closing years of the seventeenth century, the impetus for transport schemes in the third and fourth decades of the eighteenth century came partly from trading communities dependent upon expensive land carriage to the nearest or most convenient river port ; partly from landowners eager to extend the market for coal mined on their estates; and partly from interests at the inland ports dissatisfied with the existing facilities for navigation or anxious to secure greater control over their commercial axes. Many of the dramatis personae were active in more than one scheme, emphasising the need to study developments throughout the region drained by the Humber, Ouse, Trent and their tributaries. Another similarity with the

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earlier phases of improvement was the determined and organized opposition from riparian proprietors and the host of interests who were dependent upon alternative routes which usually accompanied any effort to extend navigation.

The objects of this chapter are threefold: first, to trace the main developments affecting the commercial and industrial communities of the river valleys; second, to consider the role of interests at the inland ports; and third, to consider evidence which points to marked disparity in intra-regional growth.

#### (11) THE DERBYSHIRE DERWENT AND THE UPPER TRENT VALLEYS

Between 1703, when the Derbyshire Derwent Bill was defeated in the House of Lords, and 1717 when the scheme was revived, several new developments occurred at Derby and in the upper Trent basin. The manufacture of hosiery and silk had begun to establish itself in Derby and the surrounding districts, and lead from Wirksworth once again began to find a market in the town. A contemporary topographer and former factor in Derbyshire lead described the town in 1713:-

' . . . it is at present a very Large Populous, Rich and well frequented Borrough Town; few Inland Towns in the Kingdom Equaling it, haveing above 900 free Burgesses in it . . . though not very regularly built, yet has it many very good Houses especially on all parts of the outside of the Town mostly of brick of which there is as good made in this Town and as Cheap as in almost any part of England. In it is many persons of good quality and a great Number of Coaches kept in it.

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It has a very hansom Market place a Square with good Buildings abt it. And a very great Market of all Sorts of provisions on Friday and a lesser on Wensday every week. There is kept in it six faires in every yeare . . . the Principal Trade of the Town is that of Maulting with which they supply a great part of Cheshire, Staffordshire and Lancashire, by which many Good Estates have been raised, as also the Bakers Trade which from this Town supplys most of the Peake Country, with Bread made of hard Corn, they haveing not much but Oats amongst themselves. This Town is also very famous for very good Ale, which the Brewers send to London and other parts to good Advantage . . . There is also a Considerable Manufacture of Stockiners work carryed on here and in the Adjacent parts.<sup>1</sup>

Navigation on the Trent above Nottingham was monopolised by several wharfingers and boatowners, whose restrictive practices had aroused bitter complaints in the early years of the century. In the pre canal age, river lessees were freely permitted to engage in trade, thereby providing a constant source of complaint from neighbouring merchants who regarded such activity as prejudicial to their own interebts. It was maintained that Leonard Fosbrook and George Haynes:-

'being themselves Traders in the several comodities of those Countries frequently stop other peoples goods to take advantage of a good Market

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1. D.P.L. Woolley's History of Derby (MS). In 1705 it was noted that Derby 'is adorned with severall lofty new buildings, and there was then begun a very handsom Cross.' A Journey to Edenborough in Scotland, op.cit., p.18. In 1707 Lady Pye wrote to Abigail Harley from Derby:- '. . . this town daily increases. When we came first but one coach besides ours, now thirteen kept, and more talked of.' Hist. MSS. Comm., Portland IV, 429.

and enhance the price of their own, or neglect to carry their goods in Time; and when they carry them, they exact what price they please.'<sup>1</sup> During the second decade of the eighteenth century an attempt was made to break the monopoly of the two Shardlow wharfingers, it being noted in 1717 that:-

'Of late there has some persons set up a Sett of boats more than usually was imployed on the Trent and have reduced the rates 2s per tun going down which small reduction together with the expedition of the Goods going downe has occasioned neare double the quantity of Cheese to goe down the river.'<sup>2</sup>

Between Wilne Ferry and Derby, three or four carriers were regularly employed, using about twenty horses, and supplementing their income by farming.<sup>3</sup> A Derbyshire assessment of 1717 fixed carriers' rates for the county which were equivalent to about 11.5d a ton-mile in summer and 14.3d a ton-mile in winter.<sup>4</sup>

It seems probable that boats were actually used on certain stretches of the river Derwent before the passing of the improvement Act. Thus William Woolley was confident that:-

'the River Derwent is capable of being made Navigable to the Trent; as it has formerly been navigated by private Persons (with the consent of the Land and Miln owners) which would be much for the benefit of the Trade of this Town.'<sup>5</sup>

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1. D.P.L. Catton Hall Collection (not numbered)

2. B.M. Stowe MSS. 818, fol.83.

3. Catton Hall Collection.

4. Willan, 'Land Carriage', p.200.

5. D.P.L. Woolley's History of Derby (MS).



Opponents of the Derwent navigation argued that the traders of Derby made little or no use of the river:-

'They always had Trent, a Free Navigable River but Five Miles from Derby, and now made so at Three Miles distant; and they understand the Notions of Trade so well, that they seldom kept one Boat on it, and now none.'<sup>1</sup>

Outside the region, developments were taking place which probably prompted the town corporation of Derby to revive the Derwent scheme.

In 1717, Thomas Gery the mayor wrote to the Duke of Devonshire to apprise him of the advantages of the navigation, and of his apprehensions should the scheme not succeed:-

'We are inform'd that Manchester intends this Sessions to get an Act of Parliament to make a Waggon and Cart way from thence to Derby, which is practicable, and will be a great advantage to us if we are so happy to succeed in this (the Derwent navigation) which is what the Town have generally at heart. . . . we have lost many good families of late who have left the Town, and tis too plaine and obvious to them that are left behind that the Town is in a Sinking Condition, and nothing can support us but the Navigation.'<sup>2</sup>

As in the previous attempts to secure statutory powers for the improvement of the Derwent between Derby and the Trent, the prospective undertakers were mostly leading figures in the town. Two of them,

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1. William Salt Library. Dartmouth MSS. D.1778.I.11.541. Robert Wilmot of Osmaston to the Earl of Dartmouth, January 1720.

2. Mellish MSS. 144/83.

Abraham Crompton and Francis Cockain had, been named undertakers in the Bill which was defeated in the House of Lords in 1703. Crompton was a member of a family who had acted as money-lenders in the early eighteenth century and subsequently became the leading bankers in the town.<sup>1</sup> Francis Cockain was a mercer who served the borough as mayor on four occasions.<sup>2</sup> Of the new promoters, Thomas Gisborn was probably the most influential. A member of an old Derbyshire family, Gisborn became election agent for the Cavendish family in Derby in 1714. In the following year - no doubt with the support of the Duke of Devonshire - he became county receiver of the land tax, a position which the family retained until 1760.<sup>3</sup> William Woolley the topographer was also an active promoter, although it is not entirely clear whether he was still concerned in the lead trade. Other promoters included Benjamin Blundell, Thomas Rivett, John Chambers, Robert Wagstaffe, Samuel Fox and Samuel Shepperdson, who were leading members of the Corporation of Derby.<sup>4</sup> The promoters were aided by Thomas, Baron Parker, formerly Recorder of the borough and one of its M.P.'s, and the Duke of Devonshire.

The revival of the Derwent scheme evoked once more the arguments and assumptions which had previously prevailed against the Derby

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1. In January 1705, John Harpur informed Thomas Coke:- 'I am yet at Derby . . . Mr. Crompton's interest prevails amongst the poorest burgesses who lends them small sums of money to be paid him again by the week. Hist.MSS.Comm., Cowper III, 55.

2. Derbyshire Notes and Queries, III, 661.

3. Ward, p.170.

4. Wood, p. 18,



traders. The promoters must have been well aware that any move on their part to obtain the requisite powers would be met by determined opposition from the riparian interest and interests dependent on other axes of trade. Woolley noted that:-

' . . . though attempts have been severall times made, to obtain an Act of Parliament for its Navigation, it has always been abortive hitherto by the opposition it has met with from the Towns of Nottingham, Bawtry, and Chesterfield; and also by those Gentlemen whose Estates ly<sup>e</sup> upon that River. Yet the People of Derby are not altogether without hopes that one time or other they shall obtain it: As well as it has been done for the Navigat<sup>ing</sup> the Trent up to Burton, which in appearance is less practic<sup>1</sup>able and beneficial.'

The promoters endeavoured to allay the apprehensions of the riparian proprietors concerning flooding, and of those landowners and farmers who feared that a new channel of transport might lead to increasing competition in their secluded local markets. Printed Reasons were circulated among the landowners apprising them of the intended application to Parliament, and pointing out the advantages which it was anticipated would accrue to the landed and trading interest. It was hoped that if this was completed before a Bill was promoted, there would be little opposition. To counter the argument that water communication to Derby would lead to a fall in the price of grain sold in the town's market, which in turn would have serious repercussions on the rents which tenant farmers could pay, the promoters urged the

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1. D.P.L. Woolley's History of Derby (MS).

the landowners to consider two factors. Firstly, it was argued that even without the navigation, grain could be brought by land carriage from Wilne Ferry to Derby at 12d per quarter in Winter, and at other times for as little as 9d per quarter. Although it was conceded that outside supplies tended to keep grain prices stable, the promoters assured the landowners that grain would only be imported in large quantities if the price was very high. Secondly, it was reasoned that the charges for lock dues and labour would mean little difference in the cost of carriage for grain if the Derwent was made navigable. The promoters opined that:-

' . . . all things considered there can be noe great alteracon or fall of the Markett by corne coming up Darwent to Derby.'<sup>1</sup>

The landowners were urged to consider the advantages which would accrue to trade in three commodities, which in turn would have favourable repercussions on the value of land in the neighbourhood of Derby. It was argued that the Derwent navigation would cut the cost of carriage of Derby malt to the Trent, and enable the maltsters of the town to compete more effectively with those of Nottingham, Mansfield and Loughborough. In particular, it was hoped that a regular trade in malt might be established with London which:-

'runs much upon Derby malt some small quantities having been sent thither . . . all the difficulty is to get it to them.'

It was asserted that because of the high cost of land carriage to Wilne Ferry - which amounted to 6s or 7s per ton - instead of using

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1. B.M. Stowe MSS. 818, fols. 83-5.



Derby malt in London:-

'they are content with such malt as is made at Nottingham and call it Derby malt.'

From the assumption that the extension of navigation would enable the malt traders of Derby to widen their markets, the landowners were urged to consider that the improvement of the river Derwent was more likely to enhance than to lessen the price of grain.<sup>1</sup>

A second group of traders who were likely to benefit from the Derwent navigation were the cheesemongers, with favourable repercussions for landowners and their tenants in the western parts of Derbyshire towards Ashbourne and Uttoxeter. It was stated that cheese which was brought to Derby was carried with difficulty by land carriage to Wilne Ferry, thence by water to London at a cost of 20s per ton. However, it was anticipated that if navigation was extended, the factors employed by the London cheesemongers would purchase an increased quantity, and thereby prices would rise.

Finally, it was argued by the promoters that the Derwent scheme would favour the leadmasters and merchants of the county, and enable them to compete more effectively with Yorkshire lead which tended to undersell them.<sup>2</sup> There is some discrepancy in the statements of contemporaries about the cost of land carriage for lead between Derby

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1. B.M. Stowe MSS. 818, fols. 83-5. It was noted that:- 'where Derby malt comes it is more acceptable and doth sell dearer by 12d per load more than malt from those places (Nottingham, Mansfield, Loughborough).' The Maister Account Book includes dealings with several Derby maltsters.

2. loc.cit.

and Wilne Ferry. In his description of the lead trade, Woolley alleged that the rate commonly charged to the inland port was 4s per fodder; the printed Reasons argue in terms of 6s or 7s per ton.<sup>1</sup>

The printed Reasons were less likely to win over the riparian and landed interest, than the decision taken by the promoters that the earlier scheme of the engineer, George Sorocold, should be drastically modified by the improvement of the natural bed of the river rather than the use of cuts, except a short one at Wilne mills.<sup>2</sup>

The promoters endeavoured to win over as much support as possible for the scheme before promoting a new Bill in Parliament. When Thomas Gery, the mayor of Derby wrote to the Duke of Devonshire it was with an assurance that:-

'if we are so happy to have yor Lordsp's opinion that now is a proper tyme to bring in a Bill for that purpose, we shall take yor Lordsp's direcons for the preparacons.'<sup>3</sup>

The Bishop of Lichfield and Coventry agreed to support the scheme, provided that saving clauses were included in the Bill to protect the riparian interest. He assured the mayor that:-

'nothing can be thought on to promote the interest of a Trading Country, like making the Rivers Navigable but God forbid such a thing should be attempted without taking care to make all reasonable satisfaction to such as may receive damage by it.'<sup>4</sup>

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1. At the lead mills the fodder consisted of 23 cwt 3qrs 16lb. In London 19½ cwt made up a fodder. V.C.H. Derbyshire, II, 346.

2. Williamson, p.50.

3. Mellish MSS. 144/83.

4. Catton Hall Collection. Catton Letters 1637-1732 (unclassified).



Similarly, Lord Ferrers was willing:-

'to do service to Derby Corporation and justice to those who find themselves oppressed.'<sup>1</sup>

Lord Newport and Sir Robert Corbett were among the other supporters of the new Bill, but the principal assistance on this occasion came from Thomas, Baron Parker of Macclesfield, Chief Justice of the King's Bench who had been Recorder of Derby, 1698-1710, and an M.P. for the borough, 1705-10.

The Reasons circulated by the promoters did not satisfy all the landowners. Robert Wilmot, who owned property in Derby and adjoining the Derwent at Chaddesden, wrote to a number of M.P.'s for their assistance in defeating a new Bill. He also approached a number of peers for support.<sup>2</sup> The bishop of Lichfield and Coventry assured Wilmot that Parliament:-

'will always be tender of private property as well as of the publick good and therefore such Amendments to the Bill as you and other Gentlemen concerned may have to offer will not only be welcome to both Houses but will have full weight with them and with me . . .'<sup>3</sup>

The promoters had taken few steps to remove the apprehensions of trading interests dependent on alternative routes to the Trent. The Corporation of Nottingham voted £100 to oppose the Derwent scheme.<sup>4</sup>

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1. Catton Letters 1637-1732 (unclassified)

2. loc.cit. Wilmot received promises of support from a number of M.P.'s including Sir George Clarke, --- Curzon, J.Winstanley, W. Bromley, and W. Colmore. Lord Ferrers and Lord Chesterfield were anxious that saving clauses should be included to protect the landed interest.

3. loc.cit.

4. Nottingham Records, VI, 63. 467

In the autumn of 1716, Thomas Gery wrote to the Duke of Devonshire, reminding him that:-

' . . . when this Corporation had last the honour at Chatsworth to pay their duty to his Grace . . . t'was then the opinion of his Lordsp that we should make a push this approaching Sessions for our Navigation Bill.'<sup>1</sup>

The petition from the corporation of Derby seeking leave to bring in a Bill, was read in the House of Commons on 28 February 1717.<sup>2</sup> The Bill's progress was delayed by considerable opposition, and on 9 March Arthur Kaye, one of the M.P.'s for Yorkshire, informed his brother-in-law Robert Wilmot that:-

'tis my opinion, that it will allwaies meet with a very considerable opposition from Parts equally interested in the Navigation of Trent, both above, and much more below you. . . had I seen any occasion of apprehension to you from any probability of the Darwent Bill passing I wd have writt last post, but I had talk'd to Col. Stanhope about it, and found it was likely to go heavily on and as I have spoke to him again to day I may allmost assure you that it will not be pursued this Session.'<sup>3</sup>

In the following Parliamentary session, preliminary preparations were made, but, once again, the promotion of a new Bill was delayed.

This was partly because the two M.P.'s for the borough were unable to

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1. Mellish MSS. 144/83. It was acknowledged that the Duke's 'happy concurrence and assistance herein will perpetuate yor goodnesse to us and our Posterity and hope it will always meet with grateful acknowledgmts from us.'

2. H. of C. Journals, XVIII, 483.

3. Catton Hall Letters 1637-1732 (unclassified).





The promoters who had failed to secure the requisite authority for the Derbyshire Derwent in 1718, were largely responsible for the promotion of a new Bill. The Stanhope family, who had opposed the Bill in the first years of the eighteenth century, had finally been won over:-

'now they are consenting and desire the Bill may pass being sensible of its advantages.'<sup>1</sup>

As proprietors of a long stretch on both banks of the Derwent, their support proved invaluable.

Assured of the support of the Stanhope and Cavendish families, the promoters do not appear to have consulted other riparian proprietors likely to be affected by the navigation before presenting the petition for the Bill. Landowners who had not been apprised of the revival of the scheme were incensed against the promoters, whom they derisively termed 'the stockjobbers of Derby.' Lord Chesterfield complained to another landowner, Robert Wilmot of Osmaston:-

'... I do think the River Derwent Bill (as I told little Gibson the Stockjobber) that it is a very great abuse and affront upon all the Gent ... who have estates near the River not to have been made acquainted with the contents of the Bill before it was brought into the House, and that I did believe they (the House of Commons) would resent it.'<sup>2</sup>

Lord Chesterfield was apprehensive that the Bill would pass rapidly

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1. Catton Hall Letters.

2. loc.cit. 29 December 1719, Lord Chesterfield at Bretby to Robert Wilmot at Osmaston.



through the Commons, partly due to the secrecy with which the promoters had conducted the affair, but mainly through the influence of Thomas, Baron Parker who had recently been created Lord Chancellor.<sup>1</sup>

A petition from Derby requesting leave to bring in a Bill for the Derwent navigation was read in the House of Commons on 19 December 1719 and referred to a committee for consideration.<sup>2</sup> Three days later their report was presented, it being maintained that:-

'the making the River Derwent . . . navigable, will very much conduce to the Advantage of the Markets, and other trading Places, near the same; and all the Traders in Lead, Cheese, Butter, Malt, Marble, Millstones, Iron, Timber, and other Merchandizes, by lessening the great Charge of Land-carriage, and conveying the said Commodities at much cheaper Rates . . .'

In spite of an attempt by opposing interests to have the report re-committed, the House agreed that the requisite Bill might be brought in.<sup>3</sup> The riparian proprietors and commercial communities dependent on other axes of trade drew up and had presented numerous petitions against the Bill, but failed to abort its progress.<sup>4</sup> Even before the Bill was sent to the House of Lords on 3 February 1720, its opponents

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1. D.N.B. Parker retained the position of Lord Chancellor until 1724.

2. H. of C. Journals, XIX, 206. The committee consisted of 29 named M.P.'s and the members for the counties of Derby, Nottingham, York and Stafford.

3. Ibid, p.209. The witnesses examined by the committee included William Parker, James Motteram, Francis Cockain and Richard Goodwin.

4. Ibid, pp. 222-3; 226; 228-9; 233-4; 238; 244.

recognised that it would be a very difficult matter to defeat the Derby promoters. Lord Chesterfield cautioned Wilmot that he had received a letter from an eminent peer assuring him that:-

'if Earl Stanhope have power enough (and in truth he is a very powerful Man at this time) the Bill will pass the House of Lords with more alacrity than it has yet done the House of Commons which makes me hope it will never come there.'<sup>1</sup>

Although it was apparent that the prevailing mood of Parliament favoured the passing of improvement Bills, Lord Chesterfield considered it might not be inappropriate to concentrate opposition in the House of Lords, the last line of defence. He urged the riparian proprietors to draw up a petition against the Bill outlining in what respects the Derwent scheme would prove prejudicial to their estates:-  
'... and all this only to enrich a few little Stockjobbers.'<sup>2</sup>

Chesterfield was eager to organize opposition to the Bill without the promoters' foreknowledge, alleging that:-

'as the Stockjobbers at Derby have carried on their design against the Gent. in a very clandestine manner; and kept them in the dark till the Bill was actually read in the House, so to return the Compliments in their own way, the Gent. need not let them know anything of their Petition till tis actually presented to the House of Lords.'<sup>3</sup>

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1. Catton Hall Letters. James, first earl Stanhope (1673-1721):  
Eldest son of Alexander Stanhope, the youngest son of Philip Stanhope, first earl of Chesterfield. M.P. Newport (Isle of Wight) in 1701; Cockermouth 1702-13. Appointed Secretary of State, 1714; chief minister in 1720.

2. loc.cit.

3. loc.cit.



The riparian proprietors solicited support from peers of their acquaintance. Robert Wilmot complained to Lords Aylesford and Dartmouth:-

'some of the Corporation of Derby are Hurrying on a Bill this Sessions, to make the River Derwent there Navigable, and thereby to gain their own Ends without opposition. Several Gentlemen, and myself, have Good Estates adjoyning to the River, and they neither think fit to Consult us about it, nor show us this Bill, and all their former Bills were Drawn extreamely Prejudicial to us, and rather Calculated for the Imaginary Advantage of a very few Persons in the Corporation, than for the General Good of the Town or County.'<sup>1</sup>

In the House of Lords many petitions were presented against the Derwent Bill. Opposition came from those interests which had always sought to defeat efforts to secure statutory authority for the undertaking, namely, riparian proprietors, and traders, carriers, wharfingers and shippers dependent on alternative routes.<sup>2</sup> It was assumed that any extension of navigation would lead to increasing trade along the Derby-Gainsborough-London axis at the expense of the Bawtry-Stockwith-Hull route.

The petition of Chesterfield lead merchants urged that the proposed navigation:-

'will be a great prejudice to us and our neighbours by diverting

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1. Dartmouth MSS. D.1778.I.ii.541.

2. H.L.R.O. Main Papers, H.L., 25 Feb.1720. Petitions of Sir Thomas Gresley, Sir John Harpur, Sir John Every, Sir Edward Coke and other landowners and of Philip, earl of Chesterfield concerning his estate, corn and fulling mills and salmon fishery on the river.

great part of the lead that now comes through this and the neighbouring towns from several smelting mills in Derbyshire to the town of Bawtry . . . because several of those mills lye nearer Derby than Bawtry and consequently the lead market which is constantly held in this town weekly will be weakened and in a great measure destroyed.'

The Chesterfield merchants also emphasised the contrast in the nature of the waterways:-

'the river Idle . . . a certain and speedy passage in the dryest seasons the tide flowing water there . . . whereas the Darwent and that part of the Trent into which it falls because of the shallowness thereof unnavigable in such dry seasons . . .'

Mercantilist assumptions of a limited market led to the conclusion that the extension of navigation to Derby:-

'will lead only to the dividing of trade . . . whereby it cannot be expected it should be so well served in any case.'<sup>1</sup>

Petitions against the Bill were presented from interests along the whole line of the axis from Chesterfield-Bawtry-Stockwith-Hull. The inhabitants of Scrooby, Everton, Scaftworth, Mattersey, Ranskall, Todworth, Sutton and Lownd in Nottinghamshire stressed the repercussions which were likely to follow from the passage and implementation of the Bill since:-

'abundant . . . live and are in a great measure maintained by Land Carriage of Lead and other goods and merchandise to Bawtry . . . and bringing from there Groceries, foreign iron and several other sorts of

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1. H.L.R.O. Main Papers, H.L., 25 Feb.1720.



Goods and merchandise . . .'

A similar petition was presented from Tickhill, Stainton, Firbeck and Lettwell in Yorkshire.<sup>1</sup>

The maltsters of Mansfield - apprehensive of competition from Derby in their markets in Cheshire and Lancashire - argued that the promoters' scheme would divert the lead trade to the south which they exchanged for malt:-

'all the lead will be carried to Derby and from thence by water to Gainsborough, Hull . . . and our market will become very small and inconsiderable the trade of our town wholly ruined . . . many of the Petitioners greatly impoverished and many hundred families that live upon land carriage deprived of their subsistence.'<sup>2</sup>

A petition against the Bill from the J.P.'s and Grand Jury for the county of Nottingham reveals something of the scope of magistrates sitting in that capacity. This set out that at the Quarter Sessions held at Newark on 13 January 1720, the J.P.'s were:-

'met together to enquire of the grievances of our county . . . and justly apprehending the evil tendency of such a Bill . . . think it our Duty . . . to represent some of the pernicious and destructive consequences thereof if passed.'<sup>3</sup>

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1. H.L.R.O. Main Papers, H.L., 25 Feb.1720.

2. loc.cit. The Mansfield maltsters affirmed that their market was:-

'considerable for barley and other grain and many of the petitioners supported by making malt the duty of which alone the last year amounted to £4,328 11s 4½d which is carried from us on horseback in large quantities into Cheshire, Lancashire and other counties by horses that bring lead hither.'

3. loc.cit.

It was affirmed that the implementation of the Derwent scheme would impoverish many land carriers, who were employed in bringing lead, salt and other commodities from Derbyshire, Cheshire and Lancashire to Nottingham, Mansfield, East Retford, Blyth, Southwell, Tuxford, Worksop and Bawtry, and sending back malt and corn. It was assumed that the extension of navigation would divert trade to Derby at the expense of interests dependent upon alternative trade axes, so that it would no longer prove worthwhile to send agricultural produce to the counties west of the Pennines, thereby discouraging farming and leading to a fall in rents. It was concluded that the Bill had been promoted merely:-

'to enrich or aggrandise a few private persons in the borough of Derby who bring in this Bill and who would endeavour to monopolise trade to the ruin of others.'<sup>1</sup>

Thomas Lister, lord of the manor of Bawtry, and the two principal wharfingers at the inland port, Christopher Dempster and John Goodwin, were also active in opposition to the Derwent Bill. A petition from the Idle port maintained that the trade in lead and millstones, which were shipped to the Trent ports or Hull would be lost if the Derwent was improved. Lister subsequently complained that the M.P.'s with whom he was acquainted had failed to espouse his interest with sufficient ardour:-

'when I consider that my case (tho the hardest of any man's) was not thought worthy the care of my friends in the case of Darwent.'<sup>2</sup>

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1. H.L.R.O. Main Papers, H.L., 25 Feb.1720. The role of the Grand Jury as the 'Parliament of the county' is a neglected subject.

2. Mellish MSS. 162/37. Quoted in Willan (1965), p.74.



The various interests concerned in the navigation of the Trent at East and West Stockwith, Misterton, Kynall Ferry and Butterwick included shipowners and masters, keelowners and masters, mariners, ropemakers and sailmakers. Their petition claimed that the improvements which the promoters proposed to carry out would ruin these interests who:-

'chiefly subsist and are maintained by the River Trent navigation . . . and conveniently carries convoys of ships of which there are upward of sixty sail belonging to the said towns and besides a great number of keels into the Humber, thence to London, Holland, Norway, Sweden, Denmark and other Ports in this kingdom and Beyond the Seas, and convey lead, millstones, corn, cheese and other merchandize which comes out of Derbyshire and are speedily brought and conveyed to the said ships by Boats from Bawtry in Yorkshire every Spring tide.'

The signatories of this petition included John Youle, one of the principal wharfingers at Stockwith, and many of the keelowners and masters with whom the Hull merchants and shipping agents had a regular correspondence.<sup>1</sup>

The trading community at Hull were apprehensive that the Derwent scheme could not be carried out without the dislocation of their established correspondence with the Trent ports. At a time when trade was often uncertain, merchants and factors were reluctant to tamper with established trade patterns and connections, since:-

'persons having occasion for lead now know where to apply to be furnished with what they want.'

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1. H.L.R.O. Main Papers, H.L., 25 Feb.1720.

The signatories to the petition from the Humber port included members of the Maister, Mould, Crowle and Wilberforce families, who were convinced that:-

' . . . Darwent navigation will be of no service to the Public but on the contrary will be a prejudice to trade in general and in particular to the trade of Hull, by diverting the lead that comes from Derbyshire to Bawtry on the Idle, where there is a constant market for lead and from whereunto we may at all times of the year be furnished with lead to fit our ships to sea.'

In conclusion, it was predicted that the extension of navigation to Derby:-

'will take a great part of that lead from Bawtry and we cannot have any dependence of it coming by Darwent, it being a long uncertain passage, and that part of the Trent into which it falls being unnavigable in dry seasons.'<sup>1</sup>

Opposition to the Bill also came from the corporation of Nottingham, the town which had played a leading role in defeating earlier efforts to secure statutory powers for the Derwent navigation. It was maintained that any diversion of trade to Derby would lessen land carriage to Trent bridge, and reduce tolls, so that the inhabitants would have great difficulty in paying the fee farm rent to the Crown of £63 per annum.<sup>2</sup>

In addition to the numerous petitions presented against the Bill,

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1. H.L. R.O. Main Papers, H. L., 25 Feb.1720.

2. loc.cit.



printed Reasons were circulated among members of both Houses of Parliament on eight principal heads, all of them concerned at the probable affects of the Derwent navigation on existing patterns of trade. Firstly, it was asserted that the extension of the navigation of the Trent to Burton meant that:-

'all Countries are served by the present Navigation, as well as they can be by the intended Navigation . . . cannot be more commodious for carrying of goods to London than it is because often the Trent for three or four months in Spring and Summer is so shallow that in many places (where boats must pass) there is not above six inches of water therefore great vessels must lie still and lose their Market, which now by Land Carriage they cannot miss.'

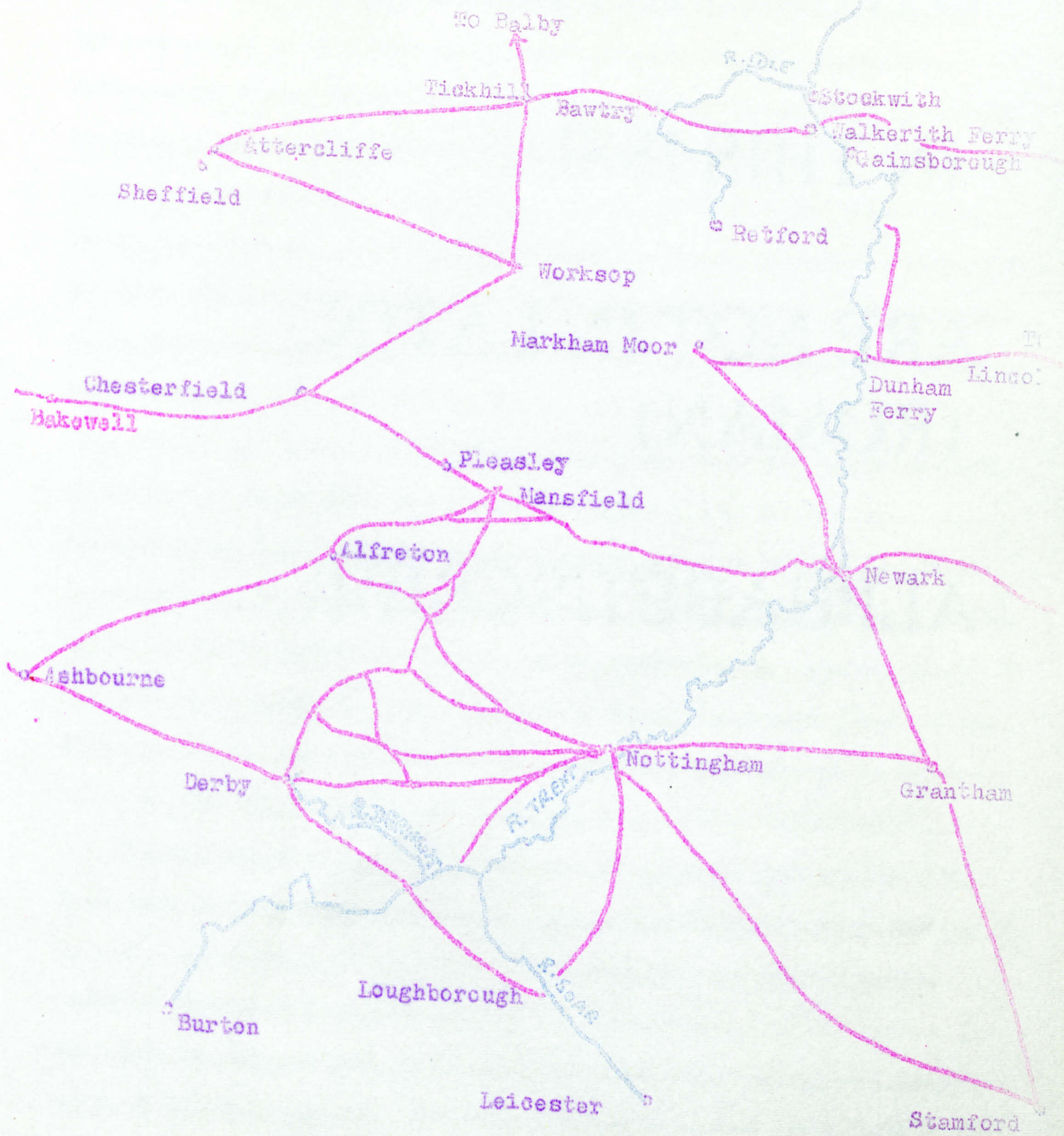
Secondly, opponents of the Bill claimed that the scarcity of water in the upper Trent and Derwent valleys at certain times of the year, was a further factor tending towards monopoly conditions since:-

'Locks and weirs . . . must be made . . . and the projectors won't let water go but at their pleasure; so that it will become a meer monopoly Tho' boats are to pass up and down Darwent, the projectors will have power to lay such large duties on strangers goods and boats, as will amount to a Prohibition of Trade to all but themselves.'

Thirdly - on the assumption that if one trading community benefited others must decline - it was alleged that the implementation of the Derwent scheme would only prove an advantage to the traders of Derby dealing in lead and malt. Fourthly, it was argued that the extension of navigation would enable the Derby maltsters to monopolise markets in Lancashire, Cheshire and other places, and ruin the trade axes

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Turnpikes before 1765

Map 13.

Transport Schemes in the  
Vale of Trent



which used Nottingham and Bawtry as heads of navigation. Fifthly, the members of both Houses were urged to consider the prevailing patterns of trade, whereby barley was carried from the Vale of Belvoir to Nottingham and coal and salt were returned:-

'and if these Counties cannot have return from any other place but Derby, the Traders of that Town may advance their prices at pleasure.'

Sixthly, similar deductions were made concerning trade to Northamptonshire which was supplied with coal from the northern parts of Leicestershire:-

'the charge of which would be intolerable had they not a good market at Derby for their Corn and thence carry back coal.'

Seventhly, it was claimed that Nottingham would be unable to pay its fee-farm rent to the Crown if the Derwent was improved, and the tolls raised on Trent bridge would decline in consequence, because large quantities of grain would be carried to Derby instead of Nottingham. Finally, it was considered reason enough that on previous occasions, Bills to improve the river Derwent had always been defeated.<sup>1</sup>

The arguments employed by the riparian proprietors against the Bill were not included in these Reasons, an omission much regretted by the landowners. In February 1720, the Earl of Chesterfield informed Robert Wilmot that:-

'I think the Objections you mention are very material and of Consequence, which makes me the more surprised to see, that they were left out in . . . Reasons drawn up against the Bill, and which perhaps may make your former Remonstrances (if not approv'd off) want a Crutch.'

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1. Catton Hall Letters.

This must be an oversight somewhere or other, and such a one as <sup>1</sup> I fancy contrary Parts will be pleased with.'

To present their own case in the best possible light and to counter the arguments of their opponents, the promoters drew up and circulated Answers to Pretended Reasons or Objections against Bill for Derwent Navigation. Firstly, the promoters claimed that - despite the extension of navigation to Burton - the upper Trent waterway was not adequate to serve all the midland counties. Counter arguments were also urged against the claims that the insufficiency of water in the upper Trent valley at certain times of the year meant that the extension of river navigation to Derby would be of little service to trading communities in the Midlands. Thus it was maintained that:-

'often in summer (there occur) rises of water in the Derwent from the Peak when the Trent (above where the Derwent enters) is no ways affected . . . therefore the Darwent may be serviceable when the Trent above the mouth of the Darwent cannot.'

Secondly, efforts were made to allay suspicions of monopoly, partly by stressing the trading conditions which already prevailed on the upper Trent. Thus the promoters argued that - far from creating a monopoly - they would contribute to breaking one down, engaging that:-  
'all Barges and Boats will have the same advantage of flashes of water as usual without Obstruction . . . and instead of making a Monopoly Bill will be the means to destroy and prevent present monopolies at Wilne-Ferry, Burton and Nottingham where the Owners of Wharves (claim)

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1. Catton Hall Letters.



the peculiar right and privilege of carrying all goods and wares up and down the Trent . . . it will not be in the power of the Undertakers for the intended Navigation to take any other price for the passage of boats than what will be settled by the Bill.'

Thirdly, to counter the claim that the Bill was promoted merely to benefit the commercial community of Derby, it was affirmed that the navigation was largely designed to redress the balance, by putting the town on an equal footing with towns which already had the advantages of inland navigation. It was maintained that the reason why there were fewer tradesmen in Derby than in Nottingham:-

' . . . is occasioned by want of Navigation which gives life and spirit to Trade and Commerce and is therefore a Reason for the Bill passing.'

Fourthly, to reassure the farmers and land carriers of Northamptonshire and Leicestershire, it was predicted by the promoters that:-

'after the Bill passes, as the Trade of Derby increases, there will be a better market for their corn, and there will then be the same advantage of back carriage of coals as usual . . . the intended Navigation lying remote from those parts whence they fetch their coal.'

Fifthly, it was claimed that Derby - like Nottingham - had to undertake the repair of an important road bridge, and to pay a considerable fee farm rent. In contrast however, it was argued that Derby had to rely solely on tolls, whereas:-

' . . . lands were granted from the Crown to Nottingham (out of which . . . fee farm rent was reserved) sufficient to pay the same, and maintain their Bridge: and the place of Bridgemaster is so Considerable

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that there is yearly<sup>4</sup> more spent in getting into the same and Feasting than is laid out in the repair of the Bridge . . .'

In reply to the argument that Nottingham's corn market would suffer, the promoters countered that it was:-

'impracticable to bring corn to Derby where Nottingham is the better market, and lies much nearer and is more convenient for farmers of that Country than Derby.'

Finally, it was conceded that all earlier attempts to secure statutory authority for the Derwent scheme had ended in failure, but was now insisted on than many riparian proprietors had since changed their opinion on the likely advantages of the navigation.<sup>1</sup>

Numerous petitions were presented in the House of Lords in favour of the Derwent Bill. Gainsborough interests assumed that if the project was effected, goods would be shipped from Derby to the major transshipment port on the lower Trent, whence they would be forwarded either to Hull, or directly to London or European markets, besides providing an opportunity to break the monopoly of the Shardlow wharfingers. A petition from the leading merchants, wharfingers and shippers at Gainsborough predicted that:-

'a greater quantity of weighty and heavy commodities, the products of Derbyshire and other adjacent counties will be brought down the Trent with more speed and a cheaper rate from those parts than heretofore they have been, and now can be by reason that there is no convenient wharf in those parts but only at Wilne ferry . . . from whence



Traders and dealers . . . cannot have their Goods sent to the market but at the Will and Pleasure of the proprietors of the same Wharf: which we look upon as a monopoly and a hindrance and discouragement to trade.'<sup>1</sup>

Several London leadmerchants and cheesemongers also petitioned in favour of the Bill which would encourage trade with northern and western counties.<sup>2</sup>

Promoters and opponents solicited support from as many peers as they could muster for the consideration of the second reading and committal procedure in the House of Lords. The Earl of Chesterfield had approached the Duke of Kingston, the proprietor of extensive estates in Nottinghamshire and Lord President of the Council. Robert Wilmot was assured by the Earl of Chesterfield that if the Bill made progress in the upper House, he had taken:-

'all the measures I can to make the Strumpet miscarry in that Assembly.'<sup>3</sup>

On 6 March 1720, Lord Gower apprised Lord Dartmouth that:-

'your friends in the house of Lords, intend very warmly to oppose the Bill for making the river Darwent navigable, and apprehend it will be a very near struggle. It is appointed to begin exactly at 11 tomorrow morning, therefore least it should be inconvenient to your Ldship to be there at that time, I am desired to send you the enclos'd Proxy...'<sup>4</sup>

On 7 March, before the House considered the question of committal,

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1. H.L.R.O. Main Papers, H.L., 25 Feb.1720.

2. loc.cit.

3. Catton Hall Letters.

4. Dartmouth MSS. D.1778.I.ii.543.

Counsel was heard on behalf of the various petitions which had been presented for and against the Bill in the previous days. Four witnesses were examined by opposing Counsel, including one of the Nottingham aldermen, and George Haynes, one of the boatmasters against whom numerous complaints had been made in previous years for monopolising the river trade of the upper Trent. Having heard the case against the Bill, Counsel for the promoters' called their witnesses. When it was proposed to call -- Bagnall as a witness, opposing Counsel objected that he was directly concerned in the scheme as one of the aldermen of Derby. Eventually it was agreed that Bagnall might be heard, while others examined in favour of the Bill included two London cheesemongers. The promoters' Counsel then made the observation that:-

'making this River navigable will be for the public advantage.'

Opposing Counsel were then given an opportunity to reply.<sup>1</sup>

When Counsel had withdrawn, a proposal was made that the Derwent Bill should be committed. This was opposed, and a debate followed, on the conclusion of which the question was put:-

'whether the Bill shall be committed.'

The House then divided, and the question was resolved in the affirmative by 52 votes to 32. Although it is not possible to analyse in detail the supporters and opponents of the Bill in this division, it seems likely that the influence and interest of the Duke of Devonshire, Earl Stanhope and Lord Macclesfield played a major part in carrying the day for the promoters, together with the general tendency

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1. H. of L. Journals, XXI, 257.



for passing improvement Bills during the years of the credit boom of 1717-20. Nevertheless, the opponents of the Bill had mustered sufficient support to ensure that the committee stage should be considered by the whole House. This was an unusual step, for it was customary for Bills of that nature to be referred for consideration to small select committees of peers.<sup>1</sup> On 15 March 1720, the Bill passed the House of Lords without amendment.<sup>2</sup>

### (iii) THE EARLY HISTORY OF THE DERBYSHIRE DERWENT NAVIGATION

The preamble of the Act to improve the Derwent set out that the navigation project would prove advantageous to traders in lead, butter, cheese, malt, marble, grindstones, scythe-stones, iron, timber and other commodities because of much cheaper and easier conveyance than the prevailing land carriage facilities, besides preserving roads which at times proved hazardous. Ten undertakers were empowered to improve the Derwent, with extensive powers over the course of the river and its banks, although the estates of the Earl of Chesterfield and the Duke of Devonshire were protected from encroachments. A large body of commissioners were nominated in the Act to mediate between the undertakers and the riparian proprietors. The undertakers were authorized to collect tolls, which were not to exceed one shilling per ton between Derby and the Trent, and proportionately less for lesser distances and weights.<sup>3</sup>

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1. H. of L. Journals, XXI, 257

2. Ibid, 273.

3. 6 Geo. I, c.27.

The work of improvement was quickly carried out, and a wharf was built in the Morledge at Derby. However, it was a poor substitute for the project designed by Sorocold, three of the cuts he had planned not being incorporated in the navigation.<sup>1</sup> Neither were the aspirations of the promoters easily realised. It had long been argued that any reduction in the cost of carriage between Derby and the Trent would encourage the lead trade of Derbyshire, which ran on a small profit margin:-

'if a merchant buys 20 fother of lead and sends it down to Hull and there sells it for 5s or 6s per fother profit all charges borne he thinks he has a good market and if he sends it to London and sells it there for 10s or 12s per fother profit he does the like . . . when a trade is driven at soe small profit 4s per fother would encourage it.'<sup>2</sup>

Although the improvement of the Derbyshire Derwent offered advantages over the Chesterfield-Bawtry axis, by providing a continuous - but circuitous - water carriage route, the extant records of the Derby undertakers suggest that the volume of trade along the waterway fell below the estimated expectations in the third decade of the eighteenth century.<sup>3</sup>

In May 1731, a sexpartite agreement was signed between five of the original undertakers and several Derby traders and carpenters, in

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1. Williamson, p.50. The series of cuts which Sorocold had designed was not finally completed until 1934.

2. Catton Hall Letters.

3. The tonnage of lead exported from Hull fell from 6,807 tons in 1706 to 4,799 tons in 1725. Burt, p.257.



an effort to control the river trade more effectively. The undertakers admitted that in the running of the navigation they had:-  
'met with and laboured under great difficultyes and to this time have reaped no benefit therefrom towards reimbursing themselves the many and large Sumes of money by them expended on that account . . . and . . . the owners of Boats and Boatmasters have met with many unforeseen difficultyes and Losses which tend to their discouragement at present.'<sup>1</sup>

In an attempt to place the undertaking and the river trade on a sounder basis, the parties to the agreement decided:-  
'severally and not joyntly . . . to enter into a Copartnership and become one united Company . . . will joyntly occupy, imploy and manage all the boats and vessells upon . . . rivers Derwent and Trent which now are or hereafter shall be built by them or any of them and shall be and remain as one united company in boats and barges, with masts, ropes, tackling for seven years . . .'

The capital of the Derby Boat Company originally consisted of £800, divided into eight equal parts or shares, the owners of five of the shares being empowered to transact business for all the copartners. Careful provision was naturally made for the payment of dividends, it being provided that:-

' . . . such profit as shall arise by the management of the boats in the copartnership as also all losses shall be equally divided . . . partners shall have the proportion of gain or loss . . . all charges for repairs of boats, building new ones, watermens wages, Tonnage and

all other charges shall be equally paid as the same shall become due.' It was accepted that the owners of six or more shares - which might be transferred - might dissolve the partnership. That there was some apprehension that the Boat Company might come to be controlled by boatmasters operating on the upper Trent, may be seen in a provision that:-

' . . . in case any of the partners be concerned or have any share or interest in any other boates upon Darwent and Trent immediately from thenceforth the share of such person shall cease and be equally divided amongst the other co-partners.'<sup>1</sup>

Although it was originally intended to wind up the partnership after seven years, it continued in existence until 1786.<sup>2</sup>

Evidence of the activities of the Derby Boat Company, and of other similar concerns operating in the upper Trent valley is scanty, but points to rivalry and protracted litigation and disputes. During the fourth and fifth decades of the eighteenth century, Fosbrooke and Haynes continued to exercise quasi monopoly powers at Wilne Ferry; while Francis Ward challenged the corporation of Nottingham on several occasions over the collection of wharfage toll.<sup>3</sup> Ward, who was usually referred to as a merchant of Willington, also owned property at the port of Bawtry.<sup>4</sup>

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1. N.A.O. DD/BB/85. Derby Boat Company.

2. D.A.O. MS.303. Derby Boat Company Records, 1720-1786.

3. Nottingham Records, VI, 134, 143.

4. W.R.D. 00/67/100. 3 September 1740, indenture tripartite between Robert Banks of Bawtry, Francis Ward of Willington, merchant, and Joseph Ward of the Inner Temple concerning property in the market place at Bawtry.



#### (iv) THE RIVER IDLE NAVIGATION

In the same Parliamentary session that the Derwent Act was passed, a Bill was successfully promoted to improve and extend the navigation of the river Idle. It seems not improbable that the scheme was promoted partly to maintain trade patterns which it was assumed would be upset if the Derbyshire Derwent was improved. Certainly, one feature of the period was the rapidity with which trading communities - which had failed to keep their neighbours beggared - sought to emulate improvement schemes.

A petition seeking leave to bring in a Bill for the improvement of the river Idle was read in the House of Commons on 2 December 1719, and was referred to a committee for consideration.<sup>1</sup> A week later, one of the M.P.'s for Nottinghamshire reported to the House that the petition of the bailiffs, burgesses, freeholders and other inhabitants of East Retford had been considered. Witnesses called to substantiate the petition had deposed that the Idle was already navigable within seven miles of East Retford, but that in winter, when the Trent often overflowed, it was not possible to carry goods by land to and from the port of Gainsborough. The committee were of opinion that:-

'the making the river Idle navigable from East Retford to the Trent . . . will very much advance the Trade and Commerce of the Markets, and other Places near the same; and be advantageous not only to all the traders in lead, hops, corn, timber, coals and other merchandizes, but also to the public in general.'

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1. H. of C. Journals, XIX, 170.

Leave was given to bring in a Bill, which passed the House of Commons without opposition.<sup>1</sup>

In the House of Lords, the procedure adopted was different from that followed in the case of the Derwent Bill. On 6 February 1720, after the second reading of the Bill it was agreed that:-

' . . . in regard Bills of this Nature have heretofore been usually referred to Select Committees, that a Select Committee may accordingly be appointed to consider thereof . . . therefore ordered that the Committee of the whole House be discharged from proceeding on the said Bill.'<sup>2</sup>

On 9 February, the Earl of Clarendon reported from the Select Committee that they had examined the Bill and had made no amendments. On 7 April 1720, the Idle Bill received Royal Assent.<sup>3</sup>

The Idle Act empowered the undertakers - who were members of the corporation of East Retford - to extend navigation above Bawtry. In return, they were authorised to collect tolls of 1s per ton for all goods passing along the river, with the exception of manure on which the toll was only 3d per ton. Certain provisoes were incorporated in the Act, notably to satisfy Thomas Lister, lord of the manor of Bawtry, it being stipulated that all those navigating the river Idle should:-

'from henceforth for ever pay unto Thomas Lister, his heirs and

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1. H. of C. Journals, XIX, 188.

2. H. of L. Journals, XXI, 222.

3. H. of C. Journals, XIX, 333.



assigns 3d for every fodder of lead and 3d per ton for all other Goods, merchandises and commodities.'

All keels were to be marked, to ensure payment and the correct weight, in default of which the keelowners were to pay certain penalties to Lister.<sup>1</sup>

#### (v) THE IDLE-TRENT COMMERCIAL ROUTE

Despite apprehensions among the various trading, carrying and shipping interests dependent on the Bawtry-Stockwith-Hull-London commercial axis that the improvement of the Derbyshire Derwent - and subsequently of the river Don - would divert trade, there is ample evidence for the use of the river Idle in the third and fourth decades of the eighteenth century.

Of the commodities shipped from Bawtry, lead remained the most important. In 1723, Robert Ashton a London merchant, wrote to -- Morgan of Chesterfield to apprise him of the charges involved in shipping via Bawtry:-

'You'll please to observe . . . lead is always bought by the fodder, which varies from place to place. At the mills you have 23 cwt 3 qrs 16 lb. at Chesterfield and Bawtry I believe it still differs and here in London 19½ cwt makes a fodder!'<sup>2</sup>

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1. 6 Geo. I, c.30.

2. <u>V.C.H. Derbyshire</u> , II, 346.	23 cwt cost at mills	£12	4s	0d
	Charges to Bawtry		14s	0d
	Hull		4s	0d
	Shipping charges at Hull		2s	6d
	Insurance and Commission		4s	0d
		£13	8s	6d

Before the extension of navigation above Doncaster, the cost of carriage along the Bawtry route probably compared very favourably with combined land and water carriage along the Don valley.<sup>1</sup> With the opening of the Don to Aldwark in the 1730's, increasing quantities of lead were sent along that route.<sup>2</sup> Navigation on the Don was often hampered by water shortages, particularly in the summer months, a time when land carriage rates were also at their lowest. At least one Sheffield merchant found it facilitated business to divert trade to Bawtry during such times that navigation proved difficult on the river Don. In April 1741, Richard Dalton advised his agent in Hull:-  
' . . . I will take the Boards . . . his best way will be to send them to Bawtry and they will come as cheap to me that way as the other within a trifle now wee have summer carriage.'<sup>3</sup>

In addition to the import of deals and wainscot, the wharfingers and shippers at Bawtry and Stockwith also handled timber for export, particularly to the coalfield of the North-East. Thus timber from the Sandbeck estate of the Earl of Scarbrough was carried by land to Bawtry, shipped to Stockwith and then transhipped into larger vessels for Sunderland. Between January 1734 and July 1736, fourteen vessels were regularly employed in this trade.<sup>4</sup> The traffic continued in the following years, but it is not possible to measure quantitatively:-

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1. In 1727 -- Nodder, a Sheffield merchant paid 9s per fodder land carriage between Wicker and Doncaster in summer and 13s 6d in winter and 4s 5d in freight to Hull. This did not include land carriage from the smelting mills to Sheffield. Bagshawe MSS. 8/3/14.
  2. Bagshawe MSS. 5/4/1. Letter Book of Richard Dalton.
  3. loc.cit.
  4. Lumley MSS. ETP/1/4.



'Recd 9 January 1739 of Sir Thomas Saunderson by Wm. Robson £18 16s  
for freight of rails plank and Timber from Stockwith to Sunderland  
per Wm. Tinker.'<sup>1</sup>

#### (vi) THE DEVELOPMENT OF THE DON NAVIGATION

In some respects the issues which arose in the protracted struggle to improve and extend the navigation of the river Don are of a similar nature to the controversies over the development of the upper Trent and Derbyshire Derwent. In the latter instances, it was assumed that the extension of the waterway system would prove beneficial to Burton and Derby as the new heads of navigation, would encourage the trade and shipping of Gainsborough as the major transshipment port, but might lessen the trade of Nottingham. In a similar way, the civic and commercial interests at Doncaster - several of whom possessed lands adjacent to the river Don - viewed proposals to extend navigation to Rotherham and Sheffield with some degree of misgiving, apprehensive that it might result in the loss of the town's position as the head of navigation, and that improvement works would increase the likelihood of inundation. It would be wrong however to take the comparison between the Trent and the Don controversies too far. In two respects the contrast is marked. Firstly, it was not conceived in the early eighteenth century that the Trent might be improved to such an extent that boats could go from Nottingham directly to Hull, whereas some vessels could - with no small difficulty - get down from Doncaster to the Humber port. Thus some traders and members of Doncaster corporation aspired to improve the Don to such an extent that larger vessels

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1. Lumley MSS. PPA/6.

might come up to the town, so that any extension of navigation would enable Doncaster to become the principal transshipment port on the Don.<sup>1</sup> When these hopes began to take shape, in the form of surveys, proposals for locks, dams or cuts, and draft Bills, the suspicions of the riparian proprietors were aroused, it being argued that navigation works on the tidal part of the river would produce widespread flooding. The second noticeable difference between the Trent and Don controversies concerned the respective uses of the rivers. In the pre-steam age, most rivers provided a source of power, but industrial concentration on the upper stretch of the Don had progressed to a more marked degree than along the Trent. The Don was also the centre of a complex system of drainage in its lower reaches.<sup>2</sup> The multiplicity of interests involved along the course of the Don rendered the issue of improvement one of extraordinary complexity both for promoters and opponents and for their subsequent chroniclers.

Although there is ample evidence to show how the Don controversy of 1721-26 developed and was eventually resolved, the timing of the south Yorkshire scheme is still a matter for conjecture. That no action was taken to promote a new Bill between 1704 and 1721 suggests that the time was not opportune, and that prospective promoters could see little prospect of successfully promoting an attempt to secure

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1. This section is based largely on the admirable study by Professor Willan, The Early History of the Don Navigation (Manchester, 1965), a comprehensive and fully documented account of the protracted struggle to secure statutory authority for the improvement of the south Yorkshire waterway. I have included original material only where my interpretation of the Mellish MSS. differs, or of material not available at the time of Professor Willan's publication.

2. Willan (1965), p.8.



statutory powers or of reaping a satisfactory return for their capital outlay.<sup>1</sup> More surprising, the speculative atmosphere of 1719-20 saw no attempt to promote a Bill, from which it may be surmised that would be promoters did not regard conditions as sufficiently favourable even for a 'bubble' scheme. The revival of the project to extend navigation above Doncaster in 1721, and its vigorous promotion for the next five years is indicative that the promoters considered that very real advantages might be gained, or opportunities lost. To understand the timing of the scheme it is therefore more important to analyse the conditions prevailing within the region in the third decade of the eighteenth century, and the motives of the leading figures involved, rather than the arguments employed to solicit support, which might have been used at almost any time over the previous three decades. From what has been previously stated about the far reaching effects which mercantilist assumptions might have on the activity of neighbouring interests and communities it will be readily understood that it would take only a few influential landed or commercial promoters, who were bent on securing statutory sanction for the waterway undertaking, to ferment activity throughout the length of the valley and among neighbouring commercial interests. It will be appropriate therefore to discern the conditions and identify the personalities who provided the requisite leaven. It has already been noted that the sharp rise in the prices of bar and rod iron in the latter years of the Great Northern War had prompted the setting

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1. Willan (1965), p.6.

up of new furnaces and forges in the Sheffield area.<sup>1</sup> In 1716, bar iron in Sheffield advanced in price from £15 per ton to £17 per ton and rod iron from £16 15s to £18 15s per ton, and it was subsequently noted that the rise in price encouraged Samuel Shore and -- Cotton:-

'to set up their Ironworks and then the great prices began to be given for Cordwood.'<sup>2</sup>

How far the ending of the Great Northern War and the improvement of England's relations with Sweden created problems of excess capacity and over-production among domestic iron producers is a matter of conjecture. Certainly, the early 1720's witnessed considerable rivalry among the forgemasters in the Sheffield neighbourhood. For example, in 1722 it was recorded that:-

'... the Duke of Norfolk's forgemasters to be revenged of ... Shore and -- Cotton fell their price of iron ...'<sup>3</sup>

Samuel Shore was one of the few forgemasters to support the extension of navigation to Sheffield from its revival in 1721 until a Bill was finally obtained five years later. It is possible that he hoped to increase his hold on the market for local iron. Other forgemasters were well aware that the cuts and locks proposed for the stretch of the river between Doncaster and Sheffield might prejudice their principal source of power, but were reluctant to oppose

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1. Supra, p.454.

2. Add. MSS. 27538, fol.250.

3. loc.cit.



the navigation openly, apprehensive that their trade with the cutlers and filesmiths would suffer.<sup>1</sup>

It is possible that developments in the local steel industry may also have affected the timing of the new Don scheme. Samuel Shore played a significant role in pioneering the manufacture of blister steel, together with George Steer, who in 1719:-

'first began to lay iron in the furnace to make steel.'<sup>2</sup>

Nevertheless, most of the town's steel continued to be imported from Newcastle or the Continent until the fifth decade of the eighteenth century.<sup>3</sup> Merchants and ironmongers in south Yorkshire obtained steel and bar iron from Hull, which was brought at considerable cost by land from either Bawtry or Doncaster. The extension of navigation to Sheffield was likely to prove particularly beneficial to those engaged in the principal trade of the district, namely the manufacture of cutlery, files, spring knives and razors.

The cutlers of Hallamshire may have been prompted by other considerations than the reduction of the cost of carriage. The early eighteenth century had witnessed a further attempt by the factors of Sheffield to break the near monopoly which the London wholesale cutlers had established over the distribution of the goods made in Hallamshire. It is possible that the extension of navigation to Sheffield was designed to reduce the hold of London merchant houses on the trade, just as the Aire and Calder Navigation enabled the

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1. Willan (1965), p.15.

2. Lloyd, p.74.

3. Carr and Taplin, op.cit., p. 4.

merchants at Leeds and Wakefield to establish greater independence from the merchant companies of York or Blackwell Hall. In the conflict with the London wholesale cutlers, Samuel Shore - one of the leading Sheffield factors and obviously a man of many parts - played an important role.<sup>1</sup>

Unlike earlier attempts to secure the Don navigation, in which Sheffield had played only a minor part, the projects of the 1720's were vigorously supported by the Company of Cutlers as representing the main industry and by the Town Trustees as representing the town in general.<sup>2</sup> In 1726, when a Bill was successfully promoted, John Smith a former Master Cutler and delegate from the Company informed a House of Commons committee that it was estimated that Sheffield and adjacent towns produced goods worth at least £120,000 per annum, in the iron and cutlery trades, and that if the navigation scheme was carried out the total volume of goods carried along the waterway would amount to over 13,000 tons per annum.<sup>3</sup> Promoters of the Don scheme claimed that some 1,500 tons of goods were carried by land to Doncaster from Sheffield each year for shipment.<sup>4</sup> In 1726, George Steer explained that the cost of carriage from Sheffield to Doncaster by land had risen from 15s to 30s a ton.<sup>5</sup> At the second reading of the Don Bill in the House of Lords, the Counsel for the promoters

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1. Leader, I, p.155.

2. Willan (1965), p.8.

3. Ibid, p.20.

4. Hunter, op.cit., p.154.

5. Willan (1965), p.20.



examined Samuel Shore, who affirmed that:-

'there were of the Corporation of Cutlers ten or twelve thousand, and that £160,000 worth of Goods made up annually, half of which is exported . . . twas fourteen miles from Sheffield to Bawtry, that the road was exceeding Bad and that he had paid 30s a tun and something preference and before the last year which was so wet 15s.'<sup>1</sup>

Although it seems possible that Shore may have exaggerated somewhat, it cannot be denied that the need for better and cheaper carriage was a very real issue to the Sheffield promoters.<sup>2</sup>

Landowners with coal on their estates and with access to the river were as persistent as the Sheffield cutlers in their efforts to secure the extension of navigation above Doncaster. When proposals were being discussed between Doncaster and Sheffield in 1722 for improving the Don, it was agreed that all goods should be unloaded at Doncaster except coal, which would enable coal from the Wentworth estate near Rotherham to find markets at towns within the Humber-Ouse-Trent waterway system, and particularly along the Yorkshire Derwent, which Thomas Wentworth was engaged in leasing and improving. Similarly, Edward Wortley had hopes:-

'of a great colliery at Carhouse but he wants the Key to it from . . . Lord Howard.'<sup>3</sup>

It was also observed that if Lord Malton supported the Don scheme, it would be:-

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1. H.L.R.O. MSS. Minutes. G/R/11.

2. Willan (1965), p.7.

3. Mellish MSS. 162/32a; 162/47. Quoted in Willan (1965), p.153.

'on account of Malton and coals.'<sup>1</sup>

Although neither Wentworth nor Wortley became subsequent shareholders of the Don Navigation, there was at least one occasion when it seemed possible that the two landowners might become undertakers for the stretch of navigation between Doncaster and Rotherham.<sup>2</sup> There seems little doubt that Thomas Wentworth was first and foremost concerned with extending the market for coal mined on his estate, but he also found that espousing the project enhanced his political position in the county.<sup>3</sup> It is probable that riparian landowners with coal on their estates hoped to benefit from improved water communications in a similar way to the proprietors on the upper stretches of the Aire and Calder Navigation. Certainly this was the hope of a number of traders in Doncaster, for it was anticipated that if the river was improved below the town, that Doncaster would become an important market for Barnsley coal:-

'and trade for it down the river as at Knottingley.'<sup>4</sup>

A number of the traders and landowners in the Rotherham district, headed by Samuel Staniforth were also active in promoting the improvement of the Don, although their motives differed in some respects from the cutlers of Sheffield and the riparian coal proprietors.<sup>5</sup>

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1. Mellish MSS. 162/47.

2. Bacon Frank MSS. BF/A3. 26 November 1725. Joseph Mellish to Richard Frank at Campsall.

3. Supra, p.50.

4. Mellish MSS. 162/7b. Quoted in Willan (1965), p.70.

5. After the Act of 1726 had been obtained, Staniforth became one of the leading shareholders, and a member of the committee which supervised the undertaking. Hopkinson, 'Inland Navigation', p.232.



It was hoped to make Rotherham either the head of navigation or a transshipment port, smaller vessels proceeding to Sheffield. In 1721, Rotherham joined the Sheffield promoters in a project to improve the Don down to the confluence with the Ouse, but the Bill was dropped for that session. In the autumn of 1724, the initiative to improve and extend the navigation of the Don came from Rotherham, which aspired to become the head of navigation.<sup>1</sup> This attempt to secure Parliamentary sanction for the Don undertaking did not proceed very far.<sup>2</sup> In 1726 when the Bill to extend navigation to Tinsley was successfully promoted, and in which the Company of Cutlers were appointed undertakers, Samuel Staniforth joined the principal opposing interests.<sup>3</sup>

Along the Don valley, three principal groups have been identified as particularly anxious to promote the extension of navigation, namely, the cutlers and factors at Sheffield, the riparian coal proprietors, and a number of traders and landowners at Rotherham. Their efforts - often in concert - galvanized a host of other interests into action, prompted partly by fear that the proposed improvements would destroy their trading position, and partly by aspirations of enhancing their commerce and shipping. Although these interests may be easily identified, it is a complex matter to discern their motives.

Although the Don was already navigable to Doncaster at certain times of the year, it was less certain that the town would benefit

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1. Willan (1965), p.18.

2. In 1724 the Sheffield Cutlers Company spent only £1 5s 4d on promoting the Don Navigation. River Dun Navigation Cash Book, 1722-63.

3. Leader MSS. 70/30.

from the improvement and extension of the waterway to Rotherham or Sheffield. If the lower stretch of the river could not be developed to carry vessels of at least thirty tons burthen, any extension of navigation would mean that much of the traffic to and from Rotherham and Sheffield would pass through Doncaster and that Thorne or Fishlake would be the principal transshipment points. In the 1720's, Doncaster traders and civic leaders were forced to take a definite stand by the actions of interests higher up the valley, who threatened to obtain statutory authority to undertake the improvement of the river down to its confluence with the Ouse. The inland port of Doncaster was faced with a problem common to other inland ports within the region. The nature of the estuarine Humber made it difficult for small boats of shallow draught to navigate. On the other hand, improvements in inland navigation which would allow larger vessels of deeper draught further up the rivers could only be effected in face of determined opposition from riparian landowners who assumed that extensive flooding must follow.<sup>1</sup> The inhabitants of Doncaster were deeply divided in the 1720's. One party, led by members of the corporation who were also riparian proprietors cautioned that the extension of river navigation would mean that Doncaster would lose its position as head port. It was their policy that no steps should be taken without the approval of the landed interest.<sup>2</sup> Active promoters within the town, including several members of the corporation who participated in the

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1. Willan (1965), p.10. Captain Burton, one of the lessees of the Aire and Calder Navigation affirmed that:- 'five feet water is the least vessels of thirty Ton should draw to live in Humber.' Mellish MSS. 162/15.

2. Ibid. Led by William Eratt, a Doncaster physician with riparian property.



trade of the community hoped that Doncaster might become:-

'the metropolis being the Centre of the Navigation between Hull and the High Country.'<sup>1</sup>

It was their policy to maintain - and if possible to enhance - the position of the town by insisting in all negotiations with interests higher upstream that all goods should be loaded and unloaded at Doncaster, impossible conditions which never received statutory authority.<sup>2</sup> It was anticipated that if Doncaster became the principal transshipment port on the river, large quantities of lead, millstones, building stones, slate, coal, hardware, tallow, wool and cheese would be sent downstream, and timber, iron, horns, bone, groceries and wine imported. Opponents of the Don project, anxious to cause rivalry between Sheffield and Doncaster even suggested that the improvement of the waterway would lead to the industrial development of the latter town at the expense of the former. At least one Doncaster alderman was less sanguine about the commercial and industrial potential of the town:-

'no Navigation can better an Inland Town, unless they should consist of wholesale merchants . . . to supply the Country or of manufactures . . . whose Interest it is to have all provisions brought cheap to them . . . But here can be neither merchants thro' defect of the River, nor manufacture for want of other conveniences.'<sup>3</sup>

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1. Mellish MSS. 162/7b. Quoted in Willan (1965), p.70.

2. Willan (1965),p.10.

3. Mellish MSS.162/ Quoted in Willan (1965), p.158.

Wharfingers and shippers at Fishlake and Thorne, who already traded directly to Hull and other inland ports throughout the waterway system, were confident that the extension of navigation to Sheffield - without any large-scale improvements below Doncaster - would enhance their position as transshipment centres. The main concern of Francis Simpson, one of the wharfingers at Fishlake was:- 'that boats from the west should load and unload at Fishlock not Doncaster.'<sup>1</sup>

Promoters and prospective undertakers of the Don scheme naturally hoped to attract trade from further afield, partly with a view to obtaining revenue for lock dues, and partly to keep river dues for commodities in which they were personally concerned at as low a level as possible. Thus it was claimed that if the waterway was successfully extended, it might carry the bulk of the 4,500 tons of lead said to be produced within seven miles of Sheffield. Millstones, marble and rotten stone would also be carried in large quantities. It has already been noted that the trans-Pennine route from Stockport via Penistone to Doncaster had been more often used in the early eighteenth century.<sup>2</sup> In the 1720's it was claimed by the Don promoters that the navigation would carry salt from Cheshire, and cheese and butter from Cheshire, Derbyshire, Staffordshire and Lancashire.<sup>3</sup> It is not improbable that one extra-regional stimulus for the revival of the Don scheme was the example provided by the improvement of the river Mersey. Certainly, one project much canvassed at Sheffield

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1. Mellish MSS. 162/52. Quoted in Willan (1965), p.77. It was noted that:- 'a small navigation would ruin Doncaster because they would unload at Fishlake.'

2. Supra, p.125.

3. Willan (1965), p.6.



at this time was the construction of a carriage road over the moors to the highest wharf on the Lancashire and Cheshire side.<sup>1</sup>

One interesting feature of the controversy over the improvement of the Don was the role played by surveyors and engineers. It might have been expected that William Palmer and his partners would have been unequivocal in their support of the Don undertaking. Yet it has already been noted that at this period the professions of surveyor and civil engineer were still in an embryonic stage, and that many local surveyors and engineers also engaged in contracting for public works or leasing them. Within the Humber-Ouse-Trent region, William Palmer came closest in this period to fulfilling the role of a full time professional, giving continuous - if varied - advice to the promoters and consistent support. In contrast, it seems that Joseph Atkinson - who had accompanied Palmer in the survey of the river in 1722, and who was the principal exponent of the improvement of the waterway below Doncaster by means of cuts - acted from a variety of motives which were not always compatible. As a lessee of the Aire and Calder Navigation, he was no doubt apprehensive that coal from south Yorkshire might compete with that brought down from Leeds and Wakefield in the river valley markets. He was also anxious to prevent large vessels passing up to Doncaster, offering to rebuild the sluice at Goole, so that:-

'all the Country above would be forever safe if the tides was once kept out . . . and . . . all their navigation (scheme) is void.'<sup>2</sup>

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1. Hunter, op.cit., p.154.

2. Mellish MSS. 162/2. Quoted in Willan (1965), p.66.

Atkinson also endeavoured to stir up opposition to the Don scheme from the participants of Hatfield Chace, urging them to:-

'have such tolls for passing their (Dutch) River and bridge as . . . will Extreamly hinder the project.'<sup>1</sup>

It was the opinion of Daniel Baker, one of the Doncaster aldermen who co-operated closely with landowners opposing the scheme, that Atkinson had urged the improvement of the lower stretch of the waterway by cuts:-

'either to give a stop to the Bill or if it passes he knows it cannot be done.'<sup>2</sup>

. . . . .

Having considered the various factors which led to the revival of the Don scheme in the 1720's, it is necessary to examine the circumstances which eventually brought the promoters some measure of success in obtaining the requisite statutory authority. As in other inland navigation schemes of the period, opposition came from two main sources, namely those riparian proprietors who feared that their estates would experience frequent flooding, that they would not receive adequate compensation for their mills, or that their local markets would be opened to increasing competition; and from the host of interests dependent on alternative routes. . The promoters could allay the apprehensions of the landowners partly by adopting technical

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1. Mellish MSS. 162/2. Quoted in Willan (1965), p.66. Atkinson urged Joseph Mellish, the central figure in the riparian opposition to the Don scheme, that information which he gave 'may be kept from the knowledge of all my adversarys.'

2. Mellish MSS. 162/53. Quoted in Willan (1965), p.50.



methods of improvement which seemed least likely to cause flooding, and partly by making concessions which were eventually incorporated as provisoes or saving clauses in the enabling Act. Little could be done by the promoters to satisfy interests dependent on other routes and patterns of trade, who assumed that if one trading community or commercial axis prospered it could only be on the ruin of others. In accordance with prevailing mercantilist attitudes, it was assumed that there was a more or less fixed volume of economic activity and that the circumstances of supply and demand could not be readily increased or diminished. It was argued that:-

'if one River encreases in Seamen, another decays, as one road more used, makes another to be less so . . .',<sup>1</sup>

Between 1721-24, the landowners who opposed the Don scheme, and wharfingers, shippers and traders using the Trent ports seem to have co-operated closely. Below Doncaster, the riparian opposition centred on Joseph Mellish, a wealthy landowner with estates at Blyth, Hatfield, Sykehouse, Fishlake, Askern, Campsall and Beal.<sup>2</sup> In the early years of the eighteenth century, Mellish had been involved in prolonged disputes and litigation with the undertakers and lessees of the Aire and Calder Navigation, following the construction of locks and dams on the tidal stretch of that waterway.<sup>3</sup> It seems probable

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1. Mellish MSS. 162/19c. Quoted in Willan (1965), p.146.

2. Willan (1965), p.12. Joseph Mellish was the son of Samuel Mellish a barrister who had been Recorder of Doncaster. Joseph Mellish m. Dorothea, da. of Sir William Gore of London. He had inherited the estates at Blyth from Edward Mellish, his father's cousin.

3. Supra, p.364.

that earlier experiences influenced Mellish in his attitude towards the Don promoters. Certainly, when it became clear that the long cut which Palmer and Atkinson had proposed below Doncaster was impracticable, riparian opposition hardened against alternative proposals of locks and dams in the river.<sup>1</sup> However, it is possible that Mellish had other motives for opposing the development of the Don waterway. An indenture of lease and quit-claim signed in October 1714, suggested that Mellish, together with Thomas Lister and Sir Willoughby Hickman, the lord of the manor of Gainsborough, and two London barristers were jointly concerned in the manor and wharf at Bawtry, one of the inland ports which it was assumed would lose much trade if the Don was improved.<sup>2</sup> In his efforts to defeat the Don project, Mellish co-operated closely with Thomas Lister, lord of the manor and wharf at Bawtry, who was particularly concerned that lead and millstones would be diverted to ports on the Don. Lister considered that:-

'it behoves all persons concern'd in the navigation of the Trent to oppose this (the Don scheme) which must certainly considerably lessen that trade if not ruin it.'<sup>3</sup>

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1. Willan (1965), p. 12.

2. W.R.D. H/115/145. Mellish also had some interest in 'tolls and profitts yearly from two fairs held within the town of Bawtry . . . all profitts whatsoever of boats passing over or along the river Idle . . . all the weightings of Lead within the manor of the town of Bawtry by any means brought . . . and all the Toll of the weighting of lead and all prest money for the weighing of Lead . . . and all that Comon Hall with shops . . . near adjoining the Market Cross of Bawtry . . .'

3. Mellish MSS. 162/37. Quoted in Willan (1965), p.74.



The principal lesson for the promoters after their failure to secure statutory authority in 1723 was that it would be virtually impossible to obtain an Act to improve and extend the navigation of the Don unless it was preceded or accompanied by definite agreements with the riparian proprietors. The approval of the landowners could only be obtained if the proposals to develop the waterway allayed either apprehensions of flooding or fear that the river would become less important as a source of power. The main points of discussion were therefore centred around the means of effecting the improvements, which stretches should be undertaken by the respective groups of promoters, and how to justify such proposals to the landowners affected.

In November 1723, a delegation from the corporation of Doncaster were instructed to settle with the promoters at Sheffield:-

'the method of making the navigation in order to give the Gent. Landowners satisfaction.'<sup>1</sup>

The necessity of reaching agreement with the landowners enabled Doncaster to modify the terms of their former pact with Sheffield. In particular, the hope of a waterway below Doncaster capable of carrying vessels of up to thirty tons was abandoned in favour of a smaller navigation.<sup>2</sup> Having reached agreement, preparations were made to promote a new Bill. When the Cutlers Company solicited the support of the Earl of Strafford, it was with the assurance that:-

'no private Interest shall suffer by it . . . we have had a most strict regard to every ones right and property. It would be in vain

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1. Doncaster MSS. Courtiers(unpublished), fol.637.

2. Willan (1965), p.17.

otherwise to expect yor Lordships Patronage.'<sup>1</sup>

That little progress was made that session was probably due to the continued opposition of the Duke of Norfolk.

The Duke of Norfolk, lord of the manor and the largest landowner in Sheffield objected to the possible damage to his property - which included corn and fulling mills, cutlery wheels and iron forges worth together more than £300 a year - by the proposed cuts, especially at Attercliffe. Although the Cutlers Company dehorted that the extension of inland navigation would enhance the value of the Norfolk estates, by opening up a new market for Handsworth coal, and for bark which might be sent by water to the tanners of Hull and Beverley; by increasing the population of Sheffield, which would raise farm rents and the price of building land; by offering to lease all the Duke's mills on the Don at existing rents; and by stressing that the proposed cut at Attercliffe would use little water: the Duke attempted to impose conditions on the cutlers. Thus in return for permission to construct a basin at Wicker, the Duke demanded a monopoly of warehouses there, and the right - as lord of the manor - to collect wharfage and tonnage.<sup>2</sup> The promoters answered this claim by pointing out the necessity of landing goods at other points near the town, and by the assertion that Bills for river navigation always gave the undertakers leave to build wharves, except where such facilities for trade and shipping already existed.<sup>3</sup> Norfolk was not wholly convinced, and continued to oppose the navigation, as much with the object of

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1. B.M. Add. MSS. 31,140, fol.139.

2. Hopkinson, 'Inland Navigation', p. 231.

3. Willan (1965), p.9.



getting his interests safeguarded by provisoes and saving clauses than with the intention of defeating the project.

The initiative taken by Rotherham in 1724 to obtain an Act for the extension of navigation to the town was almost certainly one factor which prompted Norfolk to see the extension of navigation in a different light. In July, he instructed his agent at Sheffield to:-  
'talk with the persons concerned in this Navigation and see if you cannot get the Navigation to here without any prejudice to me and if so what clauses will be proper for me to insist upon . . . it must be an advantage in the main to me, since it is to the trade of the town.'  
Norfolk was apprehensive that:-

'either now or some other time there may be a Navigation made to Rotherham, which I take cannot be done without great prejudice to Sheffield.'<sup>1</sup>

The project which Rotherham sought to effect also prompted Doncaster to take action, but the corporation were determined to keep faith with the landowners. The mayor of Doncaster assured Joseph Mellish that:-

'as this river will certainly at one time or other be made navigable we think it can never be effected upon terms less hazardous to the Country below than what were agreed on with you and the rest of the gentlemen.'<sup>2</sup>

The landowners in general were slowly moving to a position where they regarded the navigation as inevitable, and were prepared to accept

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1. B.M. Add. MSS. 27,538, fol.558.

2. Willan (1965),p.18.

this in return for clauses safeguarding their property. Joseph Mellish grudgingly admitted that he could:-

'never be of opinion that the navigation could be of service to the Country below and therefore have always endeavoured to obstruct it . . . but if Parliament pass an Act I would rather Doncaster Corporation be undertakers than another body provided they kept to the last terms proposed.'<sup>1</sup>

The efforts of Samuel Staniforth and other Rotherham interests to secure statutory authority for an extension of navigation proved no more successful than the efforts of the previous three years.

. . . . .

By the autumn of 1725 the promoters were in a stronger position than before, having gone a long way to meet the reservations of the riparian interest. The earlier attempts to improve the south Yorkshire waterway had included stretches both above and below Doncaster, but in the 1725-6 Parliamentary session attention was focussed on the stretch from the Holmstile in Doncaster to Tinsley, a little below Sheffield. There was, however, little prospect of allaying the worst fears of the various interests dependent on the Trent ports.

The progress made by the Sheffield promoters was recorded stage by stage in the correspondence of one of the delegates sent to London to solicit support for the Bill. John Smith, who had been Master

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1. Willan (1965), p.18. Sir George Cooke of Wheatley whose lands at Bentley and Arksey were subject to flooding was of similar opinion, declaring:- 'against all manner of navigation . . . but if it must be done rather in the hands of our corporation than another.'



Cutler in 1723, carried on this role together with Samuel Shore, factor, forge-master and pioneer in the manufacture of blister steel at Sheffield, who acted on behalf of the Town Trustees. Many of the former opponents of the Don project had received assurances and guarantees before the petition was presented, requesting leave to bring in a Bill. Smith was however a little doubtful as to the timing of the Bill:-

'if the Parlt shud break up before we can get through we shall be now to begin besides losing the fees of the house, but we are in no worse a Case than many who have bills to bring in.'

What occurred in the House of Commons committee appointed to examine the allegations of the Sheffield petition was crucial for the progress of the Bill. On 12 March 1726, Smith apprised his wife that:-

'have not got so good a Committee as we wisht for . . . we are to have our Committee sit on monday and it is very probable that Day will Determine my Longer or Shorter stay in London.'<sup>1</sup>

While the committee was considering the petition, the riparian proprietors continued to bargain with the promoters to gain the best possible terms of compensation or clauses written into the Bill.<sup>2</sup> By 17 March, Smith was able to state that the petition had been followed by a favourable report in the House of Commons. William Palmer, the promoters' surveyor had informed the committee that the river could be made navigable from Holmstile to Tinsley without making any new dams by using a number of cuts.<sup>3</sup> One of the few landowners not

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1. Leader MSS. 70/29

2. Bacon Frank MSS. BF/A3.

3. Willan (1965), p.20.

satisfied with the proposals was Francis Foljambe of Aldwark, but the promoters were confident that he had little influence among M.P.'s.

The work of drafting the Bill led to protracted meetings between the various delegates in London together with solicitors and lawyers. Smith informed his wife that:-

'I am not a little fataigu with setting and preparing it. We have been up most of the night the three last past.'<sup>1</sup>

On 29 March, the Bill was read for the first time in the House of Commons without opposition, but opponents of the Bill - chiefly interests dependent on the Trent ports - were making preparations for the second reading, an important stage in the passage of the Bill through the House of Commons. Early in April, Smith wrote to his wife of some of the snags facing the promoters, particularly that William Palmer was indisposed by illness, while Samuel Shore the delegate of the Town Trustees of Sheffield:-

'might have stayed at home for I do not know he can either do us good or hurt . . . (his) . . . imprudence and mismanagement has done us a deall more hurt than good and has drawn enemies upon us which we have now to grapple with we shud never have had but for him but keep that to yourself.'<sup>2</sup>

Such differences between delegates could be disastrous at a time when it was necessary to solicit as large a following as possible among M.P.'s to be present at the second reading:-

'we are to have our grand Struggle by Councell on both sides and are

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1. Leader MSS. 70/9.

2. Leader MSS. 70/23.



all Strugling to support our Different Interests I mean for and against our bill.'<sup>1</sup>

Although petitions were presented against the Bill from merchants and traders of York, and from the corporation and traders of Ripon, claiming that the extension of navigation would draw tides away from the river Ouse, the Bill passed the House of Commons with little difficulty. It is probable that these petitions were prompted by the undertakers and lessees of the Aire and Calder Navigation.<sup>2</sup>

Smith outlined the main interests still opposed to the Bill in its passage through the House of Lords, noting that at the first reading there were:-

'two petitions presented against it praying they might be heard by their Counsel . . . which was granted them . . . one of the petitions is from Gainsborough the other is from Nottinghamshire and Lincolnshire both I believe are procured by one Lister of Bawtry . . . there will be two or three more one from Fuljamb one from Barnesley and one from Staniforth if he can get anybody to sign it. They put us to a great deall more trouble and some more charge but hope it will not be in their power to thro out our bill.'<sup>3</sup>

In the last days of April and early May, the promoters and opponents exerted their utmost influence to secure support for their different causes in preparation for the second reading. The Duke of Devonshire was the chief sponsor of the Don Bill in the House of

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1. Leader MSS. 70/15.

2. In 1726, the Aire and Calder undertakers had paid messengers:- 'to go to York and Ripon with petitions against the River Dunn.'

Unwin, 'ACN 2', p.24.

3. Leader MSS. 70/29

Lords, an invaluable ally since the delegates found it more difficult to solicit support among the peers.<sup>1</sup> The promoters also prepared questions:-

'to send down to Wakefield, Leeds, Liverpool, Manchester and Birmingham to be signed for our bill and hopes to have them up . . . the day before our (second) reading.'<sup>2</sup>

The lords of the manors of Bawtry and Gainsborough were also soliciting support in a last bid to defeat the Bill:-

' . . . here is Lister of Bawtry and Sir Neville Hickman come to Solicit against us and to support their petitions . . . also . . . Staniforth is joined issue with them.'<sup>3</sup>

By the time of the second reading, the promoters were beginning to scent victory:-

'there is now to be a strong combat, who will get the victory time must produce, but we have great encouragement from all the Lords of our acquaintance that they will stand by us . . . our enimys are mighty mustering up all their forces but we hope their reasons are such that will not weigh with the house.'<sup>4</sup>

On 4 May 1726, Counsel for and against the Bill was called before the House of Lords to be heard before the second reading of the Bill. Having accepted provisoes and saving clauses from the principal riparian proprietors above Doncaster, the issue centred around the likely repercussions of the Don project upon established commercial

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1. Supra, p.36.

2. Leader MSS. 70/29.

3. Leader MSS. 70/30.

4. Leader MSS. 70/32.



routes and trade patterns. Apart from arguments that the trade in lead, millstones, hardware and marble would be diverted from the Trent ports, the opponents of the Bill endeavoured to prove the adverse affects which the Don scheme would have on the coasting trade in coal. The latter arguments were similar to those employed a quarter of a century before concerning the improvement of the Aire and Calder rivers, namely, that the extension of navigation would enable inland coal - which paid no duty - to compete successfully with sea coal - which paid a tax of five shillings a chaldron - in the markets of the Humber-Ouse-Trent waterway system. When the Don scheme had first been revived, Thomas Lister had advised the keel-owners and coalfitters of the North-East of the possible affects:- 'if they succeed it will open a passage way into all the said rivers with great quantities of inland coal duty free whereby they will have opportunity and be able to furnish the port of Hull and all the havens and creaks from the mouth of Humber and all the countrys on both sides the River and Gainsborough, Lincoln, Boston and adjacent countries on both sides the River all the way with there coals duty free and a good sort of coals not much short of Sunderland coales in goodness and att soe cheap rates that they will chiefly destroy the shipping trade with coals from yor part of the country into Hull and Boston.'<sup>1</sup>

Counsel against the Don Bill in 1726 examined several witnesses

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1. When the accounts of the Custom house at Hull were scrutinised it was found that 21,000 chaldron of coals had been entered there in the previous two years. Mellish MSS. 162/44. Quoted in Willan (1965), p.106.

concerning the extent of the coal trade between the North-East and the Trent ports. Benjamin Luddington, a member of a long established shipping family of Gainsborough was questioned:-

'as to the number of Ships employed in carrying coals from Newcastle and Sunderland up the Trent; and says they bring such coals up as far as Newark and if the Bill passed it would Ruin the Coal trade.'<sup>1</sup>

When other witnesses had made similar testimonies, the opponents' Counsel rested their suit.

Witnesses examined by the Counsel for the promoters all stressed the importance of the metal manufactures of south Yorkshire and the high cost of land carriage to Bawtry or Doncaster.<sup>2</sup> Despite the efforts of its opponents, the Bill was read for the second time and committed. Smith described the final passage of the Bill:-

'... quicker dispatch . . . in the house than has been known this seven years the Lords in a comite went thro our bill then made a motion and read it a third time and passed it without any amendment.'<sup>3</sup>

The Sheffield delegates were welcomed home with great rejoicings, the sum of ten pounds being laid out:-

'for the Entertainment at Cutlers Hall at the return of . . . Steer and . . . Smith from London with the freeholders when the Navigation Act was gained.'<sup>4</sup>

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1. H.L.R.O. MSS. Minutes G.R.11. Godfrey Harris, Joseph Stone and Jacob Rooksby were also examined:- 'as to the trade and number of ships running up the Trent.'

2. loc.cit.

3. Leader MSS. 70/35.

4. Don MSS. Cash Book 1722-63.



Meanwhile, Doncaster interests were considering the best means of promoting a Bill to improve the lower stretch of the waterway, and to keep to the agreement previously reached with the landowners. The Bill introduced in 1727 to authorise the corporation to improve the waterway from Holmstile to Wilsick House passed without incident, a sure indication that clauses had been incorporated to protect the principal landowners. Two surveyors, Joseph Atkinson and Richard Ellison, explained to the committee appointed to consider the petition of Doncaster corporation by what means it was proposed to effect improvements. They asserted that the requisite cuts and locks would not prejudice the landowners, while the estates of the Duke of Ancaster and Sir George Cooke would benefit from the improved drainage, which would follow from a new cut from Bentley Mill Goyt into Arnold Goyt.<sup>1</sup>

. . . . .

In conclusion, it will be appropriate to recapitulate the three main aspects of the Don controversy, namely, why it was promoted so vigorously in the years after 1721, why it was so strongly opposed, and how far the promoters were eventually successful. The determination by two principal sets of interests - the cutlers of Sheffield and landowners with coal on their estates - to promote the improvement of the Don was sufficient to galvanize other riparian communities into action. Improvement was vigorously opposed by interests who feared - sometimes from experience - that there would be an

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1. Willan (1965), p.23.

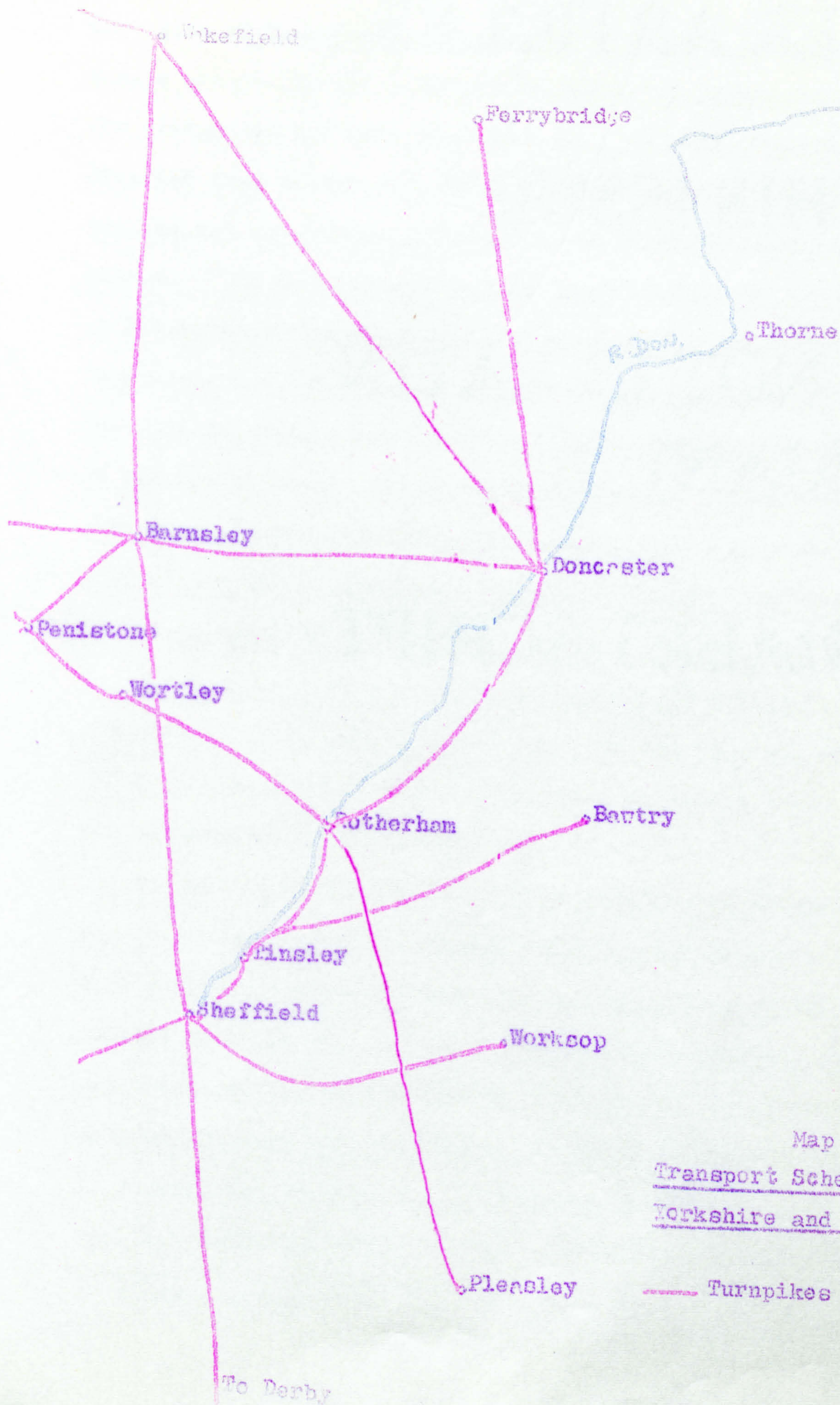
increased likelihood of flooding, together with trading and shipping communities who assumed that any increase of commerce along the Don would be at the expence of other routes. While the opposing forces co-operated in their opposition there was little or no prospect of the promoters securing statutory authority. However, once the promoters had taken the requisite steps to accommodate the demands of the principal landowners, the other opposition interest was left virtually isolated. Once this stage had been reached, it was a relatively easy task for the promoters to obtain the necessary Parliamentary sanction for their undertakings. The Acts of 1726 and 1727 were thus a partial success, the price for which can be seen in the numerous provisoes and saving clauses which were written in to satisfy the riparian proprietors.

#### (vii) THE EARLY HISTORY OF THE DON UNDERTAKINGS

By the terms of the 1726 Act for improving the Don between the Holmstile in Doncaster and Tinsley, the Company of Cutlers were appointed undertakers to make the river navigable for boats of 20 tons, and were empowered to collect tolls, on the security of which they might borrow money. Although the undertakers were granted certain powers to make cuts and to deepen and widen the river, numerous provisoes were included which were designed to satisfy the landowners. Thus it was stipulated that the undertakers were not to erect any new dam or weir, nor to raise or lower the water, nor to pull down any ironworks on the river, nor to make any cut out of the

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Map 14.  
Transport Schemes in south  
Yorkshire and north Derbyshire



corn mill at Doncaster. The Act gave security to Lord Frederick Howard against damage to Rotherham mills; included restrictions to the placing of any lock at Jordan dam - so that water could not be diverted from Holmes goyt feeding Rotherham slitting mill; and prohibited any cut between Jordan Dam and Eastwood except in specified places. The undertakers were not to interfere with the water supply to Kilnhurst forge; at Aldwark, the cut connecting the mill dam with Thrybergh mill dam was to be on the opposite side of the river from the village; and at Sprotborough the cut supplying the water engine on the Copley estate was to be maintained, and the corn mills there were to be leased for twenty-one years. Tinsley, outside the lordship of the Duke of Norfolk, was chosen as the upper limit for the waterway, possibly due to the objections of the Duke, or to engineering problems on a stretch which fell fifty-five feet in the two miles below Sheffield. At the lower limit of the waterway, the stretch of the Don between the Holmstile and the corn mill dam was assigned to the corporation of Doncaster.<sup>1</sup>

The Act of 1727 appointed the corporation of Doncaster undertakers for the stretch between Holmstile and Wilsick House in the parish of Barnby Dun, and were empowered to collect tolls, on the security of which they might borrow money. Below Wilsick House, between Fishlake and the Ouse, the undertakers were to convert three wooden bridges into drawbridges for the passage of boats on the payment of tolls. To satisfy the landowners, the Act stipulated the means by which the waterway below Doncaster was to be improved. Downwards from the

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1. 12 Geo. I, c.38.



Holmstile there was to be a cut and a lock to Redcliffe where a low dam was to be built. Between Redcliffe and Wheatley the channel could be deepened, and a cut and a lock were to be made to pass a ford and shallows at Wheatley. The channel was to be deepened between Wheatley and Long Sandall, where there was to be a low dam in the river and a lock and cut sufficient for boats not drawing more than 3 feet except in rises or freshes. Below Long Sandall the channel would also be deepened and would enter a cut at Barnby Dun which was not to exceed 400 yards in length, and which was to have a lock.<sup>1</sup>

In both Acts, commissioners were named to mediate between the undertakers and the riparian proprietors, who were to assess compensation for the purchase of, or damage to land. If either side rejected the award of the commissioners, a jury was to assess compensation and its verdict was final. The Sheffield undertakers were also empowered to make a road to Tinsley the new head of navigation.<sup>2</sup>

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As in other contemporary inland navigation undertakings, the principal aims of the undertakers were twofold: firstly, to perfect the waterway; secondly, to obtain an adequate return for their capital investment. The early years of the Don Navigation were marked by serious technical and financial difficulties, similar to the teething troubles which confronted the Aire and Calder Navigation.

By 1729, the Company of Cutlers had made the Don navigable from

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1. 13 Geo. I, c.20.

2. Willan (1965), p.23.

Holmstile to Mexborough, a distance of six miles, but the undertaking was proving more costly than had been anticipated, and additional capital was raised locally. An agreement had been made between the Company of Cutlers and a new body of undertakers, a committee of seven being elected to supervise the work. The first committee included two of the Sheffield delegates who had seen the 1726 Act through Parliament, Samuel Shore, a factor and partner in the Rockley furnace, and John Smith of Bellhouse, a former Master Cutler, together with Thomas Buck a Sheffield grocer, James Crawshaw the Town Collector, William Steer of Ecclesfield, Samuel Staniforth of Darnall, and Thomas Heaton a Sheffield ironmonger and wiredrawer who was the first treasurer of the Navigation.<sup>1</sup> By 1730, the Sheffield undertakers had spent £8,692 on the stretch above Holmstile.<sup>2</sup>

The corporation of Doncaster had also taken steps to implement the Act of 1727, which empowered them to improve the Don from Holmstile to Wilsick House, and had transferred to them the control of three wooden bridges over the Dutch River, including authority to fit them with draw leaves. By 1731, the Doncaster undertakers had laid out £3,774 on the stretch below Holmstile.<sup>3</sup>

The granting of distinct powers to two sets of undertakers in separate Acts, and the effecting of navigation works soon led to disagreement. At a meeting of the Sheffield committee on 25 September

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1. Hopkinson, 'Inland Navigation', p.232.

2. Willan (1965), p.23.

3. Ibid. In September 1727, the Doncaster undertakers had authorised John Cowley:-'to receive the lock dues relating to the navigation for the use of the corporation and the rest of the undertakers.'  
Doncaster Records, IV, 663.



1729, memoranda were drawn up concerning a dispute between the Doncaster and Sheffield undertakers over the building of locks at Holmstile and Redcliffe.<sup>1</sup> Apart from contention over technical and engineering matters, the non-payment of river dues by some Sheffield traders aroused consternation at Doncaster.<sup>2</sup> Having settled their differences, the two undertakings were amalgamated in September 1730.

Unlike the Leeds and Wakefield undertakers - whose amalgamation in the early eighteenth century had been confirmed in a Union deed - the Don undertakers sought Parliamentary sanction for their agreement. Partly this may be attributed to the realisation that further powers were necessary if improvements were to be effected in a satisfactory manner. In February 1731, the undertakers explained their motives to the Earl of Oxford, whose support was solicited:-

'With reference to the Acts recently passed to make the river Dun . . . navigable from Holmstile to Tinsley, and from Holmstile to Wilsick House, the corporations of Sheffield and Doncaster find it necessary to unite into one company for that purpose and to petition Parliament for further powers and alterations which are still wanting to perfect the navigation.'<sup>3</sup>

The additional powers sought by the undertakers were deemed necessary to surmount difficulties in the navigation below Wilsick House, the lower limit of their authority. Even small boats had difficulty in navigating the shallows and fords at Bramwith and Stainforth, so that factors and traders at Sheffield, Rotherham and

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1. Tibbitts Collection. T.C.386. Richard Carre's Day Book, 1729-31.

2. Doncaster Records, IV, 675.

3. Hist.MSS.Comm., Portland VI, 37.

Doncaster sometimes were forced to send or carry goods by land to and from Fishlake, the highest port from which it was possible to go directly to Hull in spring tides. The undertakers were also anxious to secure facilities for mooring, haling, towing and wharfing on the banks below Wilsick House, especially in Hatfield manor. The attempt to secure further powers coincided with litigation between Lord Irwin lord of the manor of Hatfield, and boatmen navigating the river over the questions of haling and mooring.<sup>1</sup>

On 5 February 1731, the undertakers provided the riparian proprietors of the district with details of the additional powers they hoped to secure. They may be considered under four principal heads: firstly, a lock and cut were considered necessary on the north side of the river at Barnby Dun not exceeding 900 yards in length; secondly, additional powers were needed to remove obstructions hindering navigation below Arnold goyt; thirdly, statutory authority was required for mooring, haling, towing and wharfing on the banks; and fourthly, Goole bridge should be demolished and rebuilt higher up the Dutch River, and Rawcliffe bridge taken away.<sup>2</sup>

At first the undertakers promised that there would be no major alterations below Wilsick House, but subsequent efforts to raise the level of water brought forth a vigorous opposition:-

'when you have to do with Corporation people . . . you may expect any

1. Temple Newsam MSS. TN.Corr.14. In 1730, William Good a 'woodmonger' at Thorne was instructed by Lord Irwin to collect tolls from all vessels navigating on the Don in Hatfield manor for mooring, and also for liberty of shipping and unshipping goods into and out of the vessells upon the shores of the Don.'

2. Temple Newsam MSS. TN.Corr.14



villany and must not trust 'em in the least.'<sup>1</sup>

Each of the undertakers' proposals produced opposition from particular landowners. In order to make the cut at Barnby Dun, additional tolls were sought on the stretch of the river running through that parish. Edward Simpson of Stainforth apprised Joseph Mellish of the reason for his opposition:-

'the navigators (undertakers) are determined to refuse whatever I ask . . . a clause that all vessels which come up the River to Barnby Dun shall be exempted from the payment of tolls.'<sup>2</sup>

The undertakers' proposal that all obstructions should be removed was regarded with suspicion by the landowners who feared that it was intended to widen the mouth of the Dutch River and to raise the water over the fords at Bramwith and Stainforth. They wanted clauses incorporated in any Bill to limit the undertakers to carrying out certain clearly specified powers:-

'that they may have power to remove all sandbeds and roots of trees that may hinder the navigation.'<sup>3</sup>

Provisoes were also demanded to prevent the raising of any of the fords.

A key figure in the opposition was Francis Simpson of Fishlake, the highest transshipment port and the only wharf in Hatfield manor:-

'all Business having heretofore Usually been done there.'

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1. Mellish MSS. 166/18.

2. Mellish MSS. 166/105. No river tolls had been paid up to Barnby Dun:- 'why should not the town of Barnby Dun have as free a nav: after the Bill as It has now, when no benefit will accrue to the town by their cut on Thorp marsh side.'

3. Mellish MSS. 166/25.

Simpson was the principal wharfinger at the port and claimed that he<sup>1</sup> had laid out over £1,000 in the construction of warehouses and wharves. Simpson was anxious to retain his position, both by preventing the undertakers from establishing a wharf of their own below Barnby Dun, and by opposing all efforts to make a navigation for larger vessels to Doncaster. He sought to rouse the growing hostility of the riparian interest and to get a clause inserted in the Bill which would prevent the undertakers from widening the mouth of the river at Goole.

The Fishlake wharfinger was able to draw support from the lord of the manor, Lord Irwin, who was anxious to receive either tolls or compensation for the rights of haling and mooring through Hatfield. Simpson informed Irwin that:-

'these Navigators want to Robb all other Rivers and let in the Sea upon us . . . they are now trying both at the Assizes and in Parliament to take all your Rights away.'

He considered that Irwin should insist on a clause similar to that obtained by the lord of the manor of Bawtry in the Idle Act of 1719.<sup>2</sup> Irwin, who was aggrieved that he had not been directly informed by the undertakers of their intentions, was prepared to accept £25 per acre for haling ways on the south and east sides of the river, or, alternatively, a rent of 20s per annum for haling, and towing.<sup>3</sup>

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1. Temple Newsam MSS. TN.Corr.14. In 1761, it was recorded that:-

'Francis Simpson late of Fishlake... died seized of one capital messuage, one cottage and parcell of land . . . with Wharehouses and all other Buildings, yards, garden and wharf adjoyning the River...' Crewe MSS. C.M.1432.

2. Temple Newsam MSS. TN.Corr.14.

3. loc.cit.



The proposal to demolish the bridge at Rawcliffe, and move the bridge at Goole higher upstream was opposed by the Empson and Twistleton families, the principal landowners at Goole. It was noted later that the undertakers had:-

'dropt the Bridges . . . in order to take off their opposition.'<sup>1</sup>

Between 5 February when the undertakers made their proposals to the landowners, and the presentation of their petition in the House of Commons eleven days later, there were strenuous efforts by both sides to ensure that, when the committee was named to consider the allegations, and to report whether or not a Bill should be introduced, it would favour their cause. The correspondence of the various interested parties reveals useful details about the nomination of such a committee, whose work had become an important preliminary to the introduction of a Bill.

Edward Simpson of Stainforth, son of the Fishlake wharfinger was active in soliciting support among M.P.'s, informing Joseph Mellish that when the undertakers' petition was presented he would:-

'take as much care as I can to get a number of friends on the Committee against accidents. I can procure about twenty some of which are active talking me.'<sup>2</sup>

He urged Mellish to consult a list of all the M.P.'s:-

' . . . set down all the members you would have of the Committee and send us a list of them by next post and then we will add a list of our own to them.'<sup>3</sup>

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1. Mellish MSS. 166/22.

2. Mellish MSS. 166/6.

3. Mellish MSS. 165/13.

Simpson considered that one of the most effectual ways of soliciting support was by having:-

'some general paper to give to Members our friends to acquaint them what it is we desire of them.'<sup>1</sup>

The promoters were also actively soliciting support. Sir Thomas Wentworth and William Westby, who had done much to assist the promotion of the Acts of 1726-7, gave the undertakers much support. William Jessop, one of the Duke of Newcastle's agents and an undertaker of the Don Navigation sought to reconcile the opposing interests. One of the most active undertakers was Richard Ellison of Thorne, a surveyor and timber merchant, who was subsequently to become one of the most important river lessees of the Humber-Ouse-Trent region.<sup>2</sup> Ellison secured the support of Colonel Liddell, one of the leading coal proprietors of the North-East and purchaser of large parcels of timber. It was noted that Liddell's interest would clash with the riparian landowners:-

'upon account of Lord Molesworth('s) Wood which the col: has bought and designs to send to Newcastle . . . the difference to him might be 3s or 4s in the pound in the conveyance of his wood, which would amount to a very considerable sum in so large a purchase as he has made.'<sup>3</sup>

Liddell had influence among a large number of M.P.'s and was an

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1. Mellish MSS. 166/17.

2. Infra, pp. 547-563.

3. Mellish MSS. 166/18.



invaluable ally to the undertakers.<sup>1</sup>

After the petition of the Don undertakers - seeking leave to bring in a Bill for further powers and to unite the company - had been read in the House of Commons on 16 February 1731, it was necessary to name the committee which should consider it. One of the opponents of the new scheme described the proceedings in the House:-

'our friends were producing their lists of members to be named on the Committee; when Sir William Young, who I believe had a List ready on account of my Lord Effingham Howard moved that all who come might have Voices, and it was ordered accordingly.'<sup>2</sup>

Edward Simpson apprised Joseph Mellish that:-

'all the members are to have voices in the Committee; it perhaps will be of service to us in case there should be a dispute, but I hope matters will be amicable adjusted.'<sup>3</sup>

When the committee met on 23 February, one of the principal supporters of the Don scheme was chairman. One M.P. complained to the committee on behalf of Lord Irwin that the undertakers had not informed the lord of the manor of Hatfield of their intentions, and therefore urged that the whole issue should be postponed until the following Parliamentary session. The committee considered that such a step would be too drastic, but did accept a short adjournment.<sup>4</sup>

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1. Mellish MSS. 166/18. Edward Simpson to Joseph Mellish:- 'am afraid we shall have some strenuous opposers, particularly Col. Liddell, who I find is too much concerned in Interest to side with us on any account.'

2. Mellish MSS. 165/11.

3. Mellish MSS. 166/5.

4. Temple Newsam MSS. TN.Corr.14.

When the committee met on the 3 March the allegations of the undertakers' petition were examined. Several witnesses were heard, but Richard Ellison, who had drafted details of the improvements needed, was not permitted to give evidence, having signed the petition:- 'the Committee wou'd not admit him either to explain the scheme or to be on evidence.'<sup>1</sup>

The proposed alterations to Goole bridge, and the removal of Rawcliffe bridge were now the principal matters of contention. The removal of Goole bridge higher up the Dutch River would necessitate the construction and maintenance of a footpath from the old to the new crossing point, but the undertakers were reluctant to accept full responsibility. The landowners were apprehensive that the removal of any of the bridges would allow the tides to flow higher up the river and that the dangers of inundation would greatly increase. Edward Simpson informed Mellish of the active role of Liddell:-

'very zealous for the navigation and seems to desire all the Bridges were taken away which in my opinion will hurt the country as much as widening Gool mouth . . .'<sup>2</sup>

When the committee adjourned it was resolved that at the next meeting those objecting to the proposals concerning the bridges should be heard.

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1. Mellish MSS. 166/3. On 24 February, Richard Ellison assured Joseph Mellish that he was:- 'heartily glad all about the River is settled . . . there can no private bills come in after 2(?) March so that I must be in Town to prove the allegations of the Petition before the Committee this week.' Mellish MSS. 166/13.

2. Temple Newsam MSS. TN.Corr. 14.



The committee met for the last time on 8 March, at which petitions were read which had been referred from the House.<sup>1</sup> The absence of witnesses to prove the allegations of some of these petitions, which advocated the removal of the bridges, meant that they were not seriously considered. After witnesses had again been examined on the undertakers' proposals, William Jessop was eager to put the question that their allegations had been proved. The opponents were not satisfied, the M.P.'s for York requesting that:-

'those people who had any objections against alterations of the Bridges might be heard that they might be better able to judge of the case after having heard both sides.'<sup>2</sup>

The principal landowners at Goole had felt confident that the Don undertakers would be compelled to accept saving clauses and provisoes, so much so that they had not organized petitions in favour of retaining the bridge. When this was intimated in the committee, it was the feeling of the majority present that:-

'as there had been no Petitions against the alteration of the Bridges they cou'd not suppose there were any objections to be made, and cou'd not hear both sides.'<sup>3</sup>

The opponents sought to delay proceedings by moving that the committee should be adjourned for a month, in order to give the landowners time to properly prepare their objections. However, the

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1. Petitions from York, Newcastle, Sunderland, Stockton, Whitby and Beverley. Several petitions had been obtained by Richard Ellison, including one from Thorne:- 'filled by the mob chiefly.' Mellish MSS. 165/9.

2. loc.cit.

3. loc.cit. The Empson family were the principal landowners at Goole.

motion was defeated by fifteen votes to nine. In the following days a Report was drawn up by the committee to be presented to the House of Commons. The riparian landowners in Yorkshire were informed that:- 'all was over before the Committee . . . so that now what is done must be by Petitions.'<sup>1</sup>

The landowners were determined to oppose the Bill if the undertakers refused to insert saving clauses and provisoes. The parties were further embittered since a lawsuit was pending over the haling of vessels in Hatfield manor. Francis Simpson opined that if the undertakers refused to accept specific clauses against the widening of Goole mouth and to guarantee compensation for haling, that it would be opportune for Lord Irwin to petition against the Bill and 'declare open war.'<sup>2</sup>

The petitions organized by the Bill's opponents were designed for two stages in its progress through the House of Commons. Petitions against the principles of the Bill and seeking to throw it out would be considered at the second reading; while petitions against particular clauses of the Bill would be heard and considered at the committee stage. The presenting of petitions against the Bill as a

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1. Temple Newsam MSS. TN.Corr.14. At previous meetings of the committee, the landowners had been confident that they were in a majority. Edward Simpson had informed his father, the Fishlake wharfinger that:- 'our friends in the Committee seemed to have them in their Power and if they had not Apprehended more trouble another Sessions could have sent 'Em downe.' The motion to delay the proceedings of the committee was largely the work of the M.P.'s for York and Henry Ingram.

2. Temple Newsam MSS. TN.Corr.14.



whole led to the deferment of the second reading for a month, which meant that it would be counted out by prorogation. Francis Simpson apprised Lord Irwin's agent that:-

'defeat has made the undertakers and their abettors very peevish and angry and they threaten to do mighty things next sessions.'<sup>1</sup>

The defeat of the new Don Bill, and the upholding of Lord Irwin in the lawsuit over haling rights produced much ill-feeling among the undertakers and keelmen of the waterway. It was becoming increasingly apparent that Francis Simpson would resort to almost any lengths to retain his position at Fishlake. There is some evidence of intimidation against Simpson, and against William Good, the collector of tolls for haling and mooring in Hatfield manor. Simpson complained that:-

'the wharfinger for Sheffield at Barnby and all their keels mett here and moord and wharfd in the Commons as near my warehouses as Possible . . . to Insult us expecting the cause would have gone for 'em . . . about fifteen Keels Boats and their crews, and made a great noise and bullying . . . a sort of mobb got into William Good's house and did some little outrage before he came home . . .'<sup>2</sup>

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1. Temple Newsam MSS. TN.Corr.14. In March 1731, the city corporation of York paid £1:- 'for drawing a petition and engrossing to the House of Commons against the undertakers of the river Dun.' A month later a further £1 was laid out:- 'for writing letters to the Earl of Burlington and all the neighbouring boroughs against the Bill depending about the Dutch Cut and fair copys.' Ouse Navigation MSS. 6.

2. Temple Newsam MSS. TN.Corr.14.

In 1733, a new Bill was successfully promoted to obtain statutory confirmation for the amalgamation of the Doncaster and Sheffield undertakers in one company. Few additional powers were sought, and the Bill aroused little controversy. Joseph Steer, a Sheffield mercer and Richard Ellison, the Thorne timber merchant each received forty guineas for soliciting the Bill.<sup>1</sup>

. . . . .

After 1733, the active direction of the affairs of the navigation was in the hands of a committee of seven, elected annually, and headed by a treasurer and chairman. Although annual general meetings took place at Doncaster and Sheffield, the control exercised by the holders of the 150 shares was largely nominal. Day-to-day administration was carried out by Thomas Radford, the book-keeper, and John Smith, a Brightside carpenter, who had been appointed engineer of the navigation, and who was responsible for purchasing materials and settling accounts of construction and maintenance.<sup>2</sup> The 1730's witnessed a rapid accumulation of capital in the Don undertaking, rising from from £12,466 in 1730 to £17,250 in 1732 and reaching £24,750 by 1740.<sup>3</sup>

By 1733, the first stage of the undertaking had been completed and warehouses constructed at Swinton and Aldwark, the latter serving

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1. Don MSS. River Dun Minute Book I, fol.42.

2. Hopkinson, 'Inland Navigation', p.232.

3. Figures of capital stock in 1730 and 1740 from Willan (1965), p. 34.

Figure for 1732 from records of the Company of Cutlers preserved at the Cutlers' Hall, Sheffield.



for some years as the head of navigation. When the Don committee framed a schedule of tolls for the river, it was decided that most commodities - iron, steel, cutlery wares, horns, boxwood, cheese, salt, groceries, tallow and wine - should be rated at 3s per ton between Aldwark and Doncaster and 1s per ton between Doncaster and Barnby Dun. Lock dues on coal were fixed at 1s 6d per ton above Doncaster, and the rate was probably fixed to enable the collieries around Rotherham to compete with those along the Aire and Calder. Navigation in markets throughout the Humber-Ouse-Trent waterway system.<sup>1</sup> Tolls on the river Idle were also taken into consideration when framing those for the Don: thus English timber was rated at 1s per ton above Doncaster and 8d below to attract parcels of wood felled on the Kiveton estate of the Duke of Leeds; while Derbyshire lead was to pay 1s 6d per fodder above Doncaster, and 10d below.<sup>2</sup>

Apart from receiving revenue for lock dues, the undertakers also provided boats for the carriage of goods.<sup>3</sup> In 1732, a total of £675 was earned from lock dues and freight, and the dividend on shares for that year amounted to approximately two per cent. Two years later

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1. At that time coal on the Calder and on that part of the Aire below Swillington Bridge paid 2s 6d per ton; on the Aire above the bridge 3s per ton. ACN 1/3.

2. Hopkinson, 'Inland Navigation', p.233. The undertakers had been empowered to levy 1d per ton on water-borne goods carried through Tinsley by road to Sheffield.

3. In September 1731, the undertakers had contracted for two boats to be built:- 'one by William Moody of Rawcliffe and the other by Thomas Long, the former to find the wood, the latter by our own wood which John Smith must buy at Firbeck.' Don MSS. River Dun Minute Book I, fol.35.

the dividend had risen to five per cent, the total received from lock dues and freight increasing to approximately £900 per annum.<sup>1</sup> An indication of the fortunes of the Don navigation may also be seen by a comparison of share transfer prices. In 1735, the average price of shares was £151 5s each; six years later the average price had risen to £230 10s.<sup>2</sup> The sale of shares, and their prices were partly determined by the fate of the undertakers' attempts to secure additional statutory powers. In December 1736, Henry Broadhead, a London merchant and one of the leading shareholders in the navigation informed Richard Ellison that:-

'as to the shares, I have not done anything about them . . . I think to respite that affair till I see what success we have in the House.'<sup>3</sup>

In 1736, the undertakers took the first steps in leasing the navigation, a practice which led to a shift in the administrative responsibility for the undertaking. Some years later one of the undertakers described one of the factors which prompted the change:-

'There were Books kept by the Company before the Income of the Navigation was lett; but were kept very incorrectly; and that, he believes, was one Reason of letting a Lease of the same.'<sup>4</sup>

The undertakers were anxious that competition should continue with other navigations of the region, particularly with the coal carrying

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1. Willan (1965), p.30.

2. Don MSS. River Dun Share Register, 1733-1841.

3. Mexborough MSS.(unsorted). In 1716, Henry Broadhead leased the corporation mills at Doncaster for eleven years at a rent of £85 per annum. Broadhead was one of the original shareholders in the Don Company in which he held eight shares.

4. H. of C. Journals, XXIII, 440.



waterway of west Yorkshire. When Henry Broadhead leased the Don Navigation in 1736 at a rent of £1,200 per annum, it was agreed that:- 'the River be lett to no person concern'd in the River of Aire and Calder upon any Terms whatsoever and that a Covenant to this purpose be made in such Lease.'<sup>1</sup>

In 1738, the Navigation was leased to Henry Broadhead, Francis Cripps and Richard Ellison for a seven year term at an annual rent of £1,200.<sup>2</sup>

#### (viii) TRADE ON THE DON NAVIGATION

Trade along the Don Navigation was carried on with both intra-regional and inter-regional markets. The old established trade in turves continued from Thorne and Fishlake to markets within the waterway system. Similarly, corn was sold intra-regionally, although considerable quantities continued to be forwarded to Hull for export to London, the outports of the east coast and the continent. The main effect of the extension of navigation to the Rotherham district was undoubtedly the development of the river trade in coal. By 1740, coal was being carried downstream in small vessels to Fishlake, where it was transhipped into larger vessels for York, Gainsborough and Hull, although it seems most unlikely that any coal was being exported from the region.<sup>3</sup> One commodity which was being exported from the

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1. Don MSS. River Don Minute Book I, fol.64. In 1737, Broadhead agreed:- 'not to joyn in partnership with any of the undertakers of the Aire and Calder, directly or indirectly, nor to let them or any of them into a share of this navigation.'

2. Willan (1965), p. 35.

3. H. of C. Journals, XXIII, 455-6.

region in increasing quantities was timber, consigned to shipyards along the east coast - particularly Whitby and Stockton - and to the North-East coalfield for a variety of purposes.

The tonnage of iron and cutlery goods exported, and of Scandinavian iron or Newcastle blister steel imported, was determined largely by the state of the metal and hardware industries. The fourth decade of the eighteenth century was marked by serious difficulties for indigenous iron producers, faced with falling prices and fierce competition from imported iron. In the late 1720's, the price of bar iron sold in Sheffield fell from £17 to £16 per ton, and rod iron was reduced from £18 15s to £17 15s.<sup>1</sup> In 1736, it was reported that the low price of iron had forced several ironworks in Nottinghamshire to cease production.<sup>2</sup> Two years later, John Fell, a partner in Attercliffe forge and one of the shareholders in the Don Navigation complained to William Spencer of the difficulties facing the charcoal iron industry of south Yorkshire:-

' . . . I think 8s per Cord ready Cutt for the Wood at Newhall and Edersley is full as much or more than the Iron Trade will allow off, it being in a very declining Condition . . . formerly we had a demand for all the Iron we could make but now is quite otherways for at this hour we have a great deal above £5,000 Stock of Charcole Mettall and

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1. Add.MSS. 27538, fol.327.

2. Spencer Stanhope MSS.(Sheffield) 60,515. 'Some of Lord Oxford's Works and Lord Bathhurst's in Nottinghamshire are to lie idle the price of iron being so low . . . as to your Treating with Mr Wortley Forreign Iron being so very Low I think he shd not Insist of too high a price for his Cordwood . . . the price we pay the Duke of Norfolk is 10s per cord. John Fell to William Spencer, 19 June 1736.



Iron on the Forge Hill at the Duke of Norfolk's Works, and Roach Abby, and the Mettall we are to have from the Furnaces this Sumr will come to about £4,000 which we shall have no Occasion for of almost two years . . . I have known at this time of year when our Stock of Char-cole Mettall and Iron has not amounted to £1,000 at the Works above, so you see how the stocks increase for want of Trade . . . The Credit we give is more than double to what was formerly.'<sup>1</sup>

The adverse conditions of trade in hardware and cutlery in the years after 1735 are revealed from the letter books of a Sheffield timber importer who also traded in iron, German steel, Hamburg pipe staves and horns for the cutlery trade.<sup>2</sup> In September 1736, Richard Dalton advised one of his agents at Hull:-

' . . . the iron trade mighty dull here at present . . . if it does not amend soon 'twill not be worth following.'<sup>3</sup>

In January 1738, Dalton received a large parcel of stag horns, forwarded by water from Hull to Aldwark and then brought by land carriage. However trade was bad, and cash scarce, so that Dalton had difficulty in settling accounts with the Hull merchants with whom he dealt. In March 1738, he complained to his factor Samuel Mould:-

' . . . the Horns lay by me yet unsold Trade is so very bad here at

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1. Spencer Stanhope MSS. (Sheffield). 60,515. Letter dated 22 May 1738.

2. Hopkinson, 'Dalton', p.16. Having served his apprenticeship with the Hull merchant house of James Mould, Richard Dalton worked in the firm of his relatives at Bawtry, the Dawson family business of timber and metal importers. In June 1735, Dalton moved to Sheffield, setting up as an importer of deals, wainscott boards, iron, German steel, Hamburg pipe staves, horn, German linen and Dutch oats.

3. Hopkinson, 'Dalton', p. 18.

present that the workmen dare not venture in them . . . I have been obliged to take near £40 worth of Scyths for an Iron Debt which I was a little afraid of. Pray could you dispose of any they . . . are as good as can be made. I can deliver them at Hull for 23s per dozen.<sup>1</sup>

It seems that the Sheffield cutlers were still sending most of their goods to London for disposal either by land carriage or the coasting trade, and that the south Yorkshire merchants had not yet established agencies either in the capital or on the continent.<sup>2</sup> Dalton urged his Hull factor to establish a foreign correspondence, as one means of reviving trade in horn hafted knives:-

'that Branch of Trade being so very dull at present doe you think it is not possible to find a market for Stagga Haft knives abroad it would help us a deal in that Article as I could by that means obtain some Influence over them that work therein . . .'<sup>3</sup>

Despite efforts over a number of years to build up a return trade in cutlery with the Dutch and Scandinavian concerns which supplied him, Dalton failed to establish a regular correspondence, although he maintained a successful trade with several Hull merchants in edge tools, frying pans, nails and spades.<sup>4</sup> Dalton also acted as agent at different times for some of the leading merchant houses in Hull - the Mould, Edge and Sykes families - buying lead for them in the

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1. Bagshawe MSS.(John Rylands Library) B/5/4/1.

2. Lloyd, p.329.

3. Bagshawe MSS. B/5/4/1.

4. Hopkinson, 'Dalton', p. 18.



market at Chesterfield, and arranging for carriage to Hull either by the Don route or the Trent-Idle axis.

Table 4. Charges on a Fodder of Lead when sold at Hull<sup>1</sup>  
(8 Pigs or 16 pieces being computed a Fodder)

	£	s	d
Freight, lock dues &c. to Thorne		4	10
Freight from Thorne to Hull		2	8
Woolhouse dues at Hull		1	4
Commission		1	6
		<hr/> 10	<hr/> 4

The business correspondence of Dalton shows clearly the state of the Don Navigation, and provides evidence that the Stockwith-Bawtry route was often used. Goods forwarded by water from Hull would be transhipped at Fishlake or Thorne and then sent in smaller vessels to Aldwark, whence they would complete the journey by land carriage. One keelmaster at least was conveying goods directly between Hull and Aldwark as early as 1738, Dalton advising his Hull agent that:- 'there is one Blackburn a keelman who comes directly up to Aldwark with goods if he's with you pray send the Iron and wainscott by him . . .'<sup>2</sup>

Communications on the Don - particularly in midsummer - were often hampered by water shortage, and Dalton's goods had to be diverted to Bawtry at certain times of the year during 1737, 1740, 1741, 1743, 1745 and 1747.<sup>3</sup> The maintenance of the Navigation might also cause delays. For example, in July 1740, Dalton advised James Mould of Hull:-

' . . . the deals, steel and iron is not yet got up which is occasioned

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1. Bagshawe MSS. B/5/4/2.

2. Bagshawe MSS. B/5/4/1.

3. Hopkinson, 'Dalton', p. 17.

by some of the Cutts being cleansed and the long Drought wee have had our River being very scant of water which is the reason I desired you would buy and send me by way of Bawtry.'<sup>1</sup>

If water carriage to the inland ports was sometimes difficult in summer, land carriage on the remaining stretch of the routes was both hazardous and expensive during the winter months. In 1735, Dalton complained that:-

'the Wainscott I have ordered will be to get home when the Roads are bad which will be a great Inconvenience to me as well as more charge . . . for wee have part Land Carriage and the Carters will have more wages when the Roads are bad.'<sup>2</sup>

In November, Dalton informed his correspondent in Amsterdam from whom he had purchased the wainscott boards that he could not assess their quality:-

'having got but very few of them home and don't expect any more of them this Winter the Roads are grown so bad.'<sup>3</sup>

In November 1740, Dalton advised James Mould of Hull:-

'I desire you will send me no more Deals until you hear further from me for they will come very heavily up now as wee have near five miles Land Carriage most of it as bad Road in Winter as any in England besides wee pay half as much more Winter Carriage than summer which will come to a deal of money.'<sup>4</sup>

Defects on the waterway, and dependence on Fishlake and Thorne as

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1. Bagshawe MSS. B/5/4/1.

2. loc.cit.

3. loc.cit.

4. loc.cit.



transshipment ports which were not subject to river tolls, prompted the Don undertakers and lessees to seek additional Parliamentary authority.

#### (ix) EFFORTS TO REALISE AND TO EXTEND MARKET POTENTIALS

It has already been noticed that families living and operating at one or other of the inland ports of the region sometimes combined the activities of surveyors, carpenters, masons, contractors, trade, shipbuilding, and the leasing of inland navigations.<sup>1</sup> The early history of the Don Navigation provides some evidence of the activities of Richard Ellison of Almholme and Thorne, a timber merchant, surveyor, contractor, and subsequently one of the leading inland navigation lessees in the Humber-Ouse-Trent region, who sought to extend control over several waterways.

The purchases of timber made by Ellison, as revealed by numerous indentures of sale extend throughout the third and fourth decades of the eighteenth century.<sup>2</sup> For example, in 1724 Ellison bought 1,747 oak and ash trees in Balne, together with the bark, ramal and cordwood from Charles Savile of Methley for £1,300.<sup>3</sup> In 1729, he purchased from Daniel Baker 3,057 oak trees in Streethorpshaw and Fenwick, together with the bark, ramal and cordwood for £1,500, an agreement which included the liberty to burn charcoal until March 1731.<sup>4</sup> In 1734, Ellison offered £370 for a parcel of Lord Irwin's

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1. Supra, p. 447.

2. In 1721, the corporation of Doncaster ordered that their steward:-  
'do give notice to . . . Ellison of Thorne . . . Fretwell and others concerned in buying wood of three trees felled in Hunster Wood to be sold to the highest bidder.' Doncaster Records, IV, 600.

3. Mexborough MSS.(unsorted).

4. Mellish MSS. 73/12.

wood at Hatfield.<sup>1</sup> In March 1734, he was purchasing timber from Sir Bryan Cooke of Wheatley:-

' . . . which I could not well refuse him of doing, as I've bought all the Timber that family has sold since I dealt.'<sup>2</sup>

In addition to sending timber down the Don, Ellison also used the Idle-Trent route. An invoice of 1737 reveals Ellison's dealings with the Kiveton estate of the Duke of Leeds:-

'Richard Ellison Dr:	£	s	d
To 6 Trees in Anstone Stones 427 foot @ 16d.			
His Grace paying carriage to Bawtry	28	9	4
To 65 tons 3 ft crooked wood @ 20s per ton...			
Ellison paying carriage to the Water	65	1	6
To 8 ton 8½ Crooked wood @ 20s	8	4	3
To his payment by Articles due Candlemas 1737	700	0	0
	801	15	1 <sup>3</sup>

Richard Ellison's principal markets for the sale of timber were the North-East coalfield, and the shipbuilding yards at Whitby and Stockton. As in other contemporary dealings, payments were usually made by using bills of exchange. In 1729, Ellison advised Charles Savile of Methley from whom he had purchased timber:-

'I've this post received a Bill from Whitby for £100 payable at Newcastle which I've sent to . . . Liddell's agent who transacts all my business for me there . . . to receive and send me a London bill for

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1. Temple Newsam MSS. TN. Corr.14.

2. Mexborough MSS. (unsorted).

3. Leeds MSS. Box 35.



the same value which I will send you as soon as ever I receive it.'<sup>1</sup>

In October 1733, Ellison apologised to Savile for not visiting him in person, because he was unable to leave Thorne:-

'I've some Whitby men here to buy timber.'<sup>2</sup>

In the months preceding the passing of the Act to extend the navigation of the river Don to Tinsley, Ellison was purchasing property in Doncaster, including a kilnhouse and tanyards.<sup>3</sup> In the following year he attended the House of Commons committee with Joseph Atkinson to give evidence in favour of the Bill for improving the Don between Holmstile and Wilsick House.<sup>4</sup> Ellison became a subscriber of the Don undertaking, and played a major part in the efforts to obtain further statutory authority in the following years. During the 1730's scarcely a year passed without Richard Ellison appearing to support Bills to improve the Don, or to express apprehension about efforts to improve the Ouse which might include Goole within the authority of the York trustees. It was almost certainly Ellison who prompted Colonel Liddell to give support to the abortive Don Bill of 1731. The following year he was again in London in order to scrutinise the proceedings of the Ouse trustees:-

'the Bill for the improving the Navigation of the River Ouse is now depending in the House of Commons, which the Proprietors of the

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1. Mexborough MSS (unsorted).

2. loc.cit. When at Whitby, Ellison stayed with John Pennitts, ship-carpenter.

3. In May 1725, Ellison entered a joint lease with Thomas Cooper - referred to sometimes as 'mariner' and at other times as 'wharf-finger' and Thomas France, a Doncaster butcher concerning a kiln-house and tanyards in Doncaster. W.R.D. W/36/42.

4. Supra, p. 538.

Navigation of the River Don were apprehensive would be prejudicial for them if they should extend their power to Goole.<sup>1</sup>

The undertakers of the river Don were anxious because they had no authority over the lower reaches of the waterway and might become subject to tolls imposed by the Ouse trustees.

The Don undertakers were not satisfied with the Act of 1733, which had sanctioned the amalgamation of the Sheffield and Doncaster bodies, but had not added to their authority below Wilsick House. Richard Ellison was eager to improve the facilities for the transport of timber, and was possibly concerned to extend the market for coal from south Yorkshire. Such factors form the background to one of the most curious inland navigation schemes of the period.

The improvement of river navigation above York, and its extension to Richmond on the Swale, and to Ripon on the Ure had probably been contemplated some years before Ellison decided to promote a Bill in Parliament for that purpose. In 1699, Thomas Surbey - having completed his survey of the Ouse - had viewed a stretch of the upper Ouse or Ure for William Aislable of Ripon.<sup>2</sup> In 1725, William Palmer and his partners had made a survey of the Ure and Ouse from York to Ripon, although this was probably in connection with the Ouse Bill of 1727, rather than a serious attempt to extend the waterway.<sup>3</sup>

Above York, navigation was possible as high as Milby, near

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1. Mexborough MSS.(unsorted).Ellison to Charles Savile, 13 March 1732.

2. Duckham (1967), p.55.

3. N.R.A.O. ZAG.310.



Boroughbridge for vessels of a burthen of twenty tons, although at some times of the year boats could not be fully loaded because the draught of water was insufficient. In 1736, Richard Ellison made two surveys as a basis for proposals to further improve and extend river navigation within the region. As far as the river Don was concerned, Ellison and the other undertakers wanted to improve the waterway between Wilsick House and Sykehouse Ferry by making cuts to avoid the shallows at Bramwith and Stainforth which had caused repeated delays to navigation.<sup>1</sup> Such proposals were likely to arouse great hostility from the riparian interest, and further opposition was soon forthcoming from Ellison's second proposals. The Thorne timber merchant and surveyor had made a survey of the Ouse above York and of the river Swale<sup>2</sup>, and a Bill was prepared for the development of two stretches of navigation, namely, the Don and the Ouse and Swale, which were separated by no less than forty miles of waterway under the control of the Ouse trustees.

Although the initiative for the scheme had come from the Don undertakers, the petition seeking leave to bring in a Bill did not come from south Yorkshire but from several traders of the city of York. This was presented to the House of Commons on 26 January 1736, and set out that in order to open trade between the Ouse and Swale and the towns of Doncaster, Rotherham, and Sheffield it would be necessary to improve the former rivers between St. Mary's Gate, York and Richmond, and to improve the navigation of the river Don between Wilsick House and Sykehouse Ferry.<sup>3</sup> The origin of this petition is

1. H. of C. Journals, XXII, 547.

2. N.R.A.O. ZAG.310.

3. H. of C. Journals, XXII, 526.

suspect, and was probably the work of Ellison. Certainly this was the view taken by the city corporation of York. Thus the Recorder was reimbursed:-

'for drawing a Petition . . . and remonstrance to the York members and reasons against Mr Ellison's Bill together with affidavits of facts of said Ellison's obteyning his petition.'<sup>1</sup>

The petition was referred to a committee for consideration, and reported back to the House on 4 February. The speed with which the work of the committee was carried out, was no doubt possible, since the scheme had been promoted without prior warning for the riparian proprietors of south Yorkshire. Ellison had informed the committee that the scheme was practicable and alleged that large quantities of goods were carried by land from Sheffield to Boroughbridge at 50s per ton, which by water would be reduced to 10s per ton. Having heard the Report, the House agreed that a Bill might be brought in for the improvement of the Ouse and Swale to Moreton Bridge and for the improvement of the Don between Wilsick House and Sykehouse Ferry. Although a petition was presented from several landowners in the Boroughbridge district in its favour, the Bill never got beyond the first reading.<sup>2</sup>

In the following Parliamentary session, Ellison renewed his efforts. He estimated that the total cost of improving the navigation to Milby, and of extending the waterway to Richmond would amount

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1. Ouse Navigation MSS. M.2. and M.6.

2. Willan (1965), p.33.



to £24,000, the distance being 68 miles. Lock dues between York and Richmond would amount to 9s 4d per ton, and the freight proposed on that stretch was 4s per ton.<sup>1</sup> Opposition to the scheme may be considered under four main aspects: firstly, the estimates produced by Ellison were the subject of much criticism; secondly, many of the landowners and traders affected were suspicious of the promoter's motives; thirdly, several of the riparian proprietors were apprehensive of flooding; and fourthly, there was the usual assumption that any modification in prevailing patterns of trade could only occur at the expence of other communities.

The estimates made by Ellison and the practicability of his proposals were matters for inquisition by those who opposed the improvement and extension of navigation. For example, the estimate of £5,000 as the cost of improving the stretch between York and Milby was criticised by Richard Wells, the wharfinger at the higher port, who claimed that it might be carried out for £500, and that if flat bottomed boats were used on that stretch, navigation would be possible at all times of the year for vessels carrying fifteen tons, without the need for improvement. William Aislable, one of the M.P.'s for Ripon concluded that Wells had:-

'navigated the river so long and having no Interest in this matter, at least not this way (above Milby) should be a tolerable judge . . .

I dare say all Ellison's computations are in the same degree of truth, exactness and honesty many of which I could prove to be so.'<sup>2</sup>

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1. Vyner MSS. 5642.

2. Vyner MSS. 5642.

Opponents of Ellison's projected navigation considered that the Thorne timber merchant was motivated by the expectation of private gain rather than public benefit. Lionel Smelt, the proprietor of an estate at Moreton Bridge, suggested to William Aislabie one possible motive of Ellison's activities:-

'I conclude that there is some job at the bottom of it . . . am informed that he purchased a great quantity of wood not far from the Swale; so that if he should make a Bubble of it by selling of shares, and getting his wood off at his own price, it would do his Business, whether the Thing succeeded or not, but it would be very hard that Gentlemen shall suffer in their Propertys by such projects as these.'<sup>1</sup>

Riparian interests employed an argument which was used by the opponents of other inland navigations of the period, namely, that they had not been consulted. It was argued that if fresh cuts were made in the river, pastureland would be divided; that the Swale was liable to inundations, and that the locks which were requisite to effect the navigation would make the river flood much more; and that horses used for haling would break down the banks. Some landowners were convinced that they had been duped and imposed upon by Ellison - who had some doubts himself about the practicability of a navigation

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1. Vyner MSS. 5642. Ellison estimated that the eight miles between York and Monkton would cost £5,000 to improve, with lock dues of 6d per ton or ½d per firkin; that the 44 miles between Monkton and Moreton Bridge would cost £9,000 to improve, with lock dues of 4s 10d per ton; and that the 16 miles between Moreton Bridge and Richmond would cost £10,000 to improve, with lock dues of 4s per ton. Although Smelt opposed Ellison's scheme of a navigation to Richmond, he was not unwilling that Moreton Bridge should be the new head of navigation



between Catterick Bridge and Richmond - while publicly claiming that it might be effected.<sup>1</sup>

Landowners were also anxious that their long established markets should not be exposed to competition from other areas. Many expressed apprehension about the possible effect on rents from an increase in intra-regional trade in grain. It was argued that:-

'as land is much cheaper in Holderness and Lincolnshire and some parts the wolds than with us, corn will be brought from Hull and other places to Richmond and lower the prices of our corn though at first (this) will fall upon the tenants but after will fall upon the landlord.'<sup>2</sup>

Arguments employed against Ellison's scheme provide further evidence that the agrarian and mining communities of Swaledale were dependent upon the land route to Yarm and Stockton, and were reluctant to acquiesce to the diversion of trade to the south, even if the new route was a water one. In the Swale valley between Moreton Bridge and Richmond the main traffic in agricultural products was in cattle and grain, the former of which could not be carried by water, while the latter found a market in Stockton. One landowner alleged that:-

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1. Vyner MSS.5642. One landowner, --- Crow claimed that Ellison had not informed him of the scheme:- 'tho by his design and draught, he proposed to make a new cut of no less than four miles long thro the heart of his estate.' Lionel Smelt expressed similar surprise that Ellison:- 'shoud not come...to talk with me about it . . . for if he had any proposals to Indemnify me they ought to have been settled . . . before the Bill was moved for.'

2. Vyner MSS. 5642.

'corn gives a better price with us than in most other parts of Yorkshire by reason of our neighbourhood to Stockton and those places from whence it is exported.'

It was asserted that since the port of Yarm was only eight miles from Northallerton, and only thirteen miles from Richmond:-

'what occasion is there for Swale to be made navigable either to Moreton Bridge or Richmond, when by . . . Ellison's map, Richmond by water is sixty-eight miles from York, besides the additionall distance from York to Hull.'<sup>1</sup>

It was argued that if trade was diverted to the south, many small farmers in Richmondshire - paying annual rents of £10 to £20 - who supplemented their income by carrying lead, butter and other things to Yarm, and by bringing goods from the Tees port to Bedale, Masham, Askrig, Richmond and other places would be ruined. From this assumption it was argued that the extension of navigation would lead to a fall in rents:-

'if the Swale be made navigable to Moreton Bridge or Richmond will ruin hundreds of familys besides lessning rents of those small farms by four pounds in each twenty, for those small farms is employed in keeping horses for carrying lead, butter and merchant goods and giveth better prices by above four pounds in each twenty than any grazier or farmer can afford.'<sup>2</sup>

The rates for freight and lock dues which Ellison calculated to be necessary between York and Richmond, in addition to a freight of

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1. Vyner MSS. 5642.

2. Vyner MSS. 5642.



3s per ton between York and Hull, and 2s 6d lock dues on the lower Ouse for lead and other goods meant that the cost of water carriage from the North Riding to the Humber port would amount to about 18s 10d per ton. This compared very favourably with the prevailing land carriage rates between Richmond and Stockton - the principal port for the North Riding - which amounted to about 40s per ton.<sup>1</sup> Nevertheless, attempts were made to refute arguments that the reduction of carriage rates would be generally beneficial. A comparison was made with other inland navigations within the region - particularly the Aire and Calder Navigation - it being alleged that:- 'the Proprietors of Locks will allow . . . no more profit than just what is sufficient to tempt us rather to employ them, than fetch or carry our wares by land; a penny in a shilling may perhaps be thought enough for that purpose.'

It was stressed that some merchants might benefit from an extension or improvement of the waterway, but that:-

'the effect of Saving will not reach the consumer (save in very gross wares) . . . suppose in sugars that 5s 2d be saved in the carriage of 2,000 pound weight . . . what abatement will the poor consumer have in his pound of sugar of 4d price.'<sup>2</sup>

The Bill which the Don undertakers promoted in 1737 did not include the Ouse and Swale scheme. Even before the Don Company's petition was presented, William Aislable was able to inform his constituents in Ripon that Ellison's scheme:-

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1. Vyner MSS. This seems very high, amounting to 32d a ton-mile.
  2. Vyner MSS.

'is now at an end at least for this year, and I am confident for ever up to Richmond.'<sup>1</sup>

As in 1731 and 1736, the Don undertakers failed in their efforts to secure statutory powers which would have enabled them to deal with the fords and shallows at Stainforth and Bramwith, and the bridges over the Dutch River and to extend their authority below Wilsick House.<sup>2</sup>

In 1737, the Don Navigation was leased to Henry Broadhead, Francis Cripps of Doncaster and Richard Ellison for seven years from 1738, at a rent of £1,200 per annum, and for a further seven years at a rent of £1,500 per annum, the lessees agreeing to pay 5 per cent on all money spent on the Navigation during the first seven years, and 6½ per cent on money spent during the term of the renewed lease, although the Company accepted full responsibility for the maintenance of the bridges.<sup>3</sup>

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1. Vyner MSS. 5642. Ellison's activities prompted several traders at Ripon, besides the Corporation to consider the prospects of extending navigation to the town. The estimated cost was £2,624, and the works proposed included a 550 yard cut at Boroughbridge. Calculations were also made of the volume of goods which were brought to Ripon by land, from which it was estimated that the navigation might yield £242 per annum, on a tonnage of 3,600 chaldron of lime, coal and cinders; 16,000 firkins of butter; and 960 tons of groceries, lead, iron, raff and potatoes. The Ripon interests suggested to William Aislabie that he should become the sole undertaker, but the Ripon M.P. advised them against proceeding with the project.

2. Willan (1965), p.33. The cost of the promotion which failed was £368 0s 10d.

3. Willan (1965), p.34.



Despite the failures of 1736 and 1737, Ellison seems to have contemplated the promotion of a new Bill for the Ouse and Swale in 1738, for in February the trustees for the Ouse agreed to petition the House of Commons against any attempt:-

'for making the River Ouse from St. Marygate upwards and the River Swale Navigable so far as relates to the Ouse as far as Swale mouth.'<sup>1</sup>

William Aislable summed up the difficulties which faced Ellison in attempting to secure Parliamentary authority for his scheme:-

'in the Middle part for four miles he hath nothing to do with the Swale, and with the further end the River is in other hands.'<sup>2</sup>

In 1740, the Don Company renewed their efforts to extend their control below Wilsick House and to carry out major improvements on the lower stretch of the waterway. Jospeh Steer, the treasurer and Richard Ellison were deputed to solicit the requisite Bill through Parliament, and gave evidence to the House of Commons committee appointed to consider the petition of the Don Company. Steer claimed that £24,750 had been laid out in making the Don navigable between Rotherham and Wilsick House, besides two years income which he computed at £900 per annum. Below Wilsick House there had occurred numerous delays on the stretch of the waterway to Fishlake, the highest transshipment port, so that the factors of Sheffield had sometimes carried goods by land and put them on board below Stainforth shallows, where - in dry seasons - there was not more than

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1. Ouse Navigation MSS. M.6.

2. Vyner MSS. 5642.

eight or nine inches of water for vessels of some twenty tons burthen and drawing between 28 and 38 inches of water. Although in exceptionally high tides vessels of forty tons burthen sometimes came up as far as Stainforth, it was deposed that:-

'it is usual for Vessels of 40 Ton to sail constantly from below Fishlock to Hull in Spring Tides.'

Steer also informed the committee that the road which the Company repaired between Sheffield and Tinsley was in very bad condition, particularly in winter.

Ellison confirmed the evidence given by Steer, and estimated that it would cost £3,750 to carry out the requisite works below Wilsick House. Having heard the Report of the Committee, the House of Commons agreed that a Bill might be brought in.<sup>1</sup>

Petitions in favour of the Bill were presented from the corporation of Lincoln and several traders of that city, from the shipbuilders and shipmasters of Whitby, from several traders and keelmen using the Don, from the Company of Cutlers of Sheffield, and from the corporations of Derby and Nottingham.<sup>2</sup>

Opposing petitions expressed apprehension about the imposition of additional duties below Wilsick House and about the activities of the

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1. Willan (1965), p.36. Steer did not estimate the tonnage of goods carried but maintained that:- 'duty thereof amounted to about £900 per annum and that the Navigation never exceeded that sum while the same was in the Proprietors hands.' Ellison declared that:-

'ever since the River was leased, the same Duty has been taken by the Lessees, as by the Company of the Proprietors of the Navigation.'

2. H. of C. Journals, XXIII, 456, 483.



lessees. They were presented from the city of York, from the corporation of Hull and the Trinity House at the port, and from the Ouse trustees, the latter claiming that if the Bill passed, the Don waterway would take up a larger volume of tidal water at their expense. A petition from Gainsborough claimed that large quantities of coal were carried down the Don to the Trent port, but that the passing of the Bill would:-

'in effect give to the Proprietors, or the Farmers under them, who are already possessed of several Boats, a Power to monopolise the Navigation . . . contrary to the intention of the Acts . . . to make it a free River.'<sup>1</sup>

The Act which was passed in 1740 empowered the Company of Proprietors of the River Don to improve the navigation of the waterway between Wilsick House and Fishlake Ferry, but the means by which this should be effected were closely prescribed, as in the Acts of 1726 and 1727, while much of the local river traffic was exempted from the payment of the small additional tolls.<sup>2</sup>

Having failed in his efforts to improve the Ouse and Swale, Richard Ellison turned his attention to other waterways within the region.

#### (x) THE LINCOLNSHIRE FOSSDYKE

Of all the navigations within the Humber-Ouse-Trent system, the one leased by Richard Ellison in 1740 seemed to offer the least

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1. H. of C. Journals, XXIII, 455, 456, 458, 461, 467. A petition from several Doncaster traders claimed that if the Bill passed, the additional duties would be imposed in a discriminating way.

2. Willan (1965), p.36.

prospects of an early profitable return. Tolls paid on goods passing along the Lincolnshire Fossdyke for the years 1714-24 inclusive and for 1732-37 inclusive contributed to a total of gross receipts of £1,846. After deductions for the maintenance of the waterway, the net receipt amounted to an average of about £50 per annum. In 1715, the largest vessel passing along the Fossdyke carried only 18 tons; a quarter of a century later it seems that the Fossdyke was used by vessels of five tons burthen, drawing only 18 inches water.<sup>1</sup> By 1737, John Durance - one of the principal merchants and shippers using the Fossdyke - owed £108 in arrears of tolls for five years.<sup>2</sup>

Although the decline in annual gross receipts from an average of £130 for the years 1714-24 inclusive to £108 per annum for the years 1732-37 probably reflects the condition of the Fossdyke rather than general economic conditions, the fourth decade of the eighteenth century was marked by difficulties for the agrarian economy of Lincolnshire, and possibly by demographic decline.<sup>3</sup> Visitors to Lincoln were unimpressed:-

'the town is large but decaying, have neither bowling green nor Assembly house.'<sup>4</sup>

Having decided to seek an undertaker to improve the Fossdyke, the common council of Lincoln looked to interests concerned in the rivers and inland ports of the West Riding, with which there were regular

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1. Hill (1966), pp.308-9.

2. Willan (1936), p.130.

3. Deane and Cole, p.103.

4. Letters of J.A. Lord Harley described Lincoln in 1723, noting

that:- 'ruin and desolation appears everywhere through this city.'

Hist.MSS.Comm., Portland VI, 86.



trade links, wool, corn, ale and pitprops being sent to the growing industrial communities of west and south Yorkshire in return for coal which the city's merchants distributed to distant parts of the county.<sup>1</sup> In 1739, Ellison inspected the Fossdyke and commenced negotiations with the common council of Lincoln over the terms on which he might lease the waterway and undertake improvements. It was agreed that the Thorne surveyor should provide and maintain a navigable channel of 3 feet 6 inches depth, which he estimated would cost £3,000 to effect. On 18 September 1740, the two-thirds of the city's share in the Fossdyke was granted to Ellison by lease for 999 years at a rent of £50 per annum, in return for which he was granted two-thirds of the tolls. The remaining one-third of the navigation, which had been assigned to Samuel Fortrey in 1672, had subsequently become vested in Robert Peart, who had mortgaged his interest to James Humberston for £750. In 1740, Ellison entered into a lease with Humberston for the remaining part of the navigation and tolls at an annual rent of £25.

By 1743, work on the Fossdyke had already cost £3,000 and was far from being finished. It seems that Ellison had agreed to supply the city of Lincoln with coal at the rate of 13s per ton, and this may have been a major factor in the decision of Ellison to lease the waterway, enabling him to extend the market for south Yorkshire coal.<sup>2</sup> In the four years before his death in 1743, Ellison also acted as surveyor and engineer to the Court of Sewers at Doncaster. He was succeeded by his son, Richard who continued to control the Fossdyke until his death in 1792.<sup>3</sup>

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1. Hill (1966), p.126.

2. Hill (1966), p.127.

3. Hill (1966), p.130.

## (xi) THE YORKSHIRE OUSE

The main purpose of the Ouse Acts of 1727 and 1732 was to permit improvements in the navigation of the river, about which numerous complaints had been received for more than a century. Extant records on the promotion of the Act of 1727 are scanty, but it seems not unlikely that the timing of the scheme was partly determined by the strenuous efforts which were taking place to secure statutory authority for neighbouring waterways. Certainly, the city corporation were apprehensive of any scheme which seemed likely to draw tides away from the Ouse. There is little evidence to suggest that vigorous changes were taking place in the Vale of York either in the years leading up to the passing of the Act, or indeed in the two decades afterwards.<sup>1</sup> Nevertheless, there was a notable improvement in the butter trade, following an Act which York corporation had secured in 1722 for the better regulation of their market. In the years which followed, York was achieving a reputation for carefully inspected butter.<sup>2</sup>

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1. In 1705, York was described as:- 'a place capable of great improvements, for the River Owse might easily be made navigable, which would soon render it a very flourishing City; Every thing is cheap about it, so that they have an opportunity of making their Manufactures at low rates, But the people are so lazy, that they loose all these advantages of Art and nature, and Hull, a Seaport Town about 50 miles distant, grows rich upon their Ruine, However they are to be commended for their excellent Causeways, leading to the City, which are kept in very good repair for some miles round. . .'

Joseph Taylor, p.66.

2. V.C.H. York, p.220.



The Ouse Act of 1727 placed the management of the river in the hands of a number of trustees who were members or officials of the city corporation, and a numerous body of landed proprietors were made commissioners. Amongst other powers given was that of deepening and straightening the course of the river.<sup>1</sup> Although William Palmer had made the survey and was appointed engineer, several other surveyors and engineers were consulted. It seems that about £5,000 had been spent on improvements by the early 1730's, the surveyors consulted including Captain John Perry, William Stephenson and Richard Harland.<sup>2</sup> The efforts made in the following years suggest that little had been accomplished before the passing of the second Act in 1732.

Three principal methods were considered to improve navigation, namely, the making of new cuts to avoid shoals and bends; the scouring of the river bed; and the construction of a lock and dam. The means adopted at any one time depended partly on the engineer on the spot, but mainly on the expense involved. In December 1732, a committee appointed by the trustees reported that a cut at Kelfield - the estimated cost of which was £2,433 - would prove most beneficial in the improvement of the waterway. It was maintained that such a cut would enable the tides to flow higher at York, would by-pass shoals between Kelfield and Cawood, and would enable the trustees to collect dues from vessels trading up the river Wharfe. Although the trustees agreed that steps should be taken for purchasing and en-

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1. Clarke, op.cit., p.75.

2. Duckham (1967), chapter 4.

closing ground for the cut, nothing more was heard of the scheme for some years.<sup>1</sup>

William Palmer had proposed to the committee that a lock and dam might be erected, and, in June 1733, the legal opinion of the Recorder was sought as to whether the trustees were empowered to take such measures under the Acts of 1727 and 1732. The case of the trustees set out that:-

'much money has been laid out so as to keep the water as high as possible, but that this method has not proved sufficient . . . can York erect a Lock and Dam on the Ouse within their own Jurisdiction or what prosecution will they be liable to if no Damage be done the landowners above?'

The Recorder considered that the Trustees had no power to obstruct the navigation of the Ouse, and, although there was some suggestion that further statutory powers might be obtained, the idea was abandoned.<sup>2</sup>

Cuts being considered too expensive, and locks and dams outside their statutory authority, the Trustees reverted to the cleansing of the existing channel of the river. In April 1733, Palmer was instructed to go to Yarmouth:-

'to view an Engine there for cleansing the bottom of a river without taking the water off in order to apprise him of the method used there that he may forme a proper method to cleanse the shoal between the Craine and Clementhorpe lane.'<sup>3</sup>

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1. Ouse Navigation MSS. M.2.

2. loc.cit.

3. Duckham (1967), chapter 4.



Other local surveyors and engineers were also approached. In June 1733, Palmer was instructed to consult his former partner, Joseph Atkinson of Rawcliffe, one of the lessees of the Aire and Calder Navigation:-

'to give his opinion to the trustees what is proper to be done or undertaken for further improving the Ouse navigation.'

The engineer employed by the Don undertakers, John Smith, was consulted, and was subsequently reimbursed:-

'for his trouble in viewing the Ouse and making a Report of the most probable method of improvement.'

Robert Wilkins, the engineer working on the improvement of Scarborough harbour also surveyed the Ouse, and opined to Palmer that:-

'the shoals or shallows might be removed and that he would make models of the Engines necessary for that purpose.'<sup>1</sup>

After the death of Wilkins in 1734, the new engineer at Scarborough,

--- Vincent was approached concerning an engine he was making:-

'for the easier lifting great weights which might serve to lift gravel from the River Ouse.'<sup>2</sup>

William Palmer, the first manager and engineer received an annual salary of £40, and it was his responsibility to draw up improvement plans, arrange for the purchase of raw materials and for the payment of the workmen. On the death of Palmer in 1737, Robert Walters was appointed at the reduced salary of £30 a year. The newly appointed engineer revived the scheme for Kelfield cut, but, once again there

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1. Ouse Navigation MSS. M.2.

2. loc.cit.

was insufficient money available to proceed with the work. Instead the Trustees resolved to deepen the river. It seems that little had been accomplished in the way of technical improvement in the early years of the Ouse Navigation.<sup>1</sup>

#### (xi) TRADE ON THE YORKSHIRE OUSE

In August 1727, the trustees laid before the commissioners the rates which had been previously charged for freight, in order that they might be confirmed or amended. Maximum freight from London to York was fixed at 14s per ton, usually calculated on the basis of casks for the principal commodities carried, namely, groceries, wine, tobacco, butter, hops, fruit; bales of linen; baskets of German spa water; all sorts of metal; all sorts of wood at forty feet per ton; corkwood; and items of furniture. Freight from York to London for tallow and hams was fixed at 7s 6d per ton; and firkins of butter were to pay 6d each. Freight from Hull to York also indicates the principal goods carried between the two ports: flax and hemp at 6s per last; iron at 2s 6d per ton; single deals at 4s per hundred; tiles at 5s per thousand; pipe staves at 15s per thousand; chalk and fullers earth at 2s 6d per ton; and baskets of German spa water at 2s each.<sup>2</sup>

Unlike many contemporary navigations, the trustees did not act as carriers. Revenue for the maintenance and the improvement of the

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1. Ouse Navigation MSS. M.2. Minute Book.

2. Ouse Navigation MSS. M.1. Commissioners Book.



Ouse was derived largely from river tolls which the trustees were empowered to levy above the mouth of the river Wharfe. The original tolls were fixed at 2s 6d per ton for groceries and wine; 1s per ton for iron; and sixpence per ton for all other goods. By 1732, it was apparent that the original scale of river tolls was not producing sufficient revenue to adequately maintain the navigation. In January, the city corporation instructed the Recorder to draw up a petition to the House of Commons seeking leave to bring in a Bill for the regulation of the tolls.<sup>1</sup> In February, the new rates which the city and trustees - who functioned increasingly like a committee of the corporation - wished to impose were agreed upon, and a Bill was drawn up.<sup>2</sup> Although the Bill passed without opposition, neighbouring Navigations kept a wary eye on the proceedings.<sup>3</sup>

A comparison between the old and new scales of tolls reveals that - as a result of the second Act - the rate for flax had been increased from sixpence to two shillings per ton; on butter the increase was 75 per cent; but there were no alterations in the rates for groceries, wine, iron, deals and coal. The largest increase was on salt, the tolls rising from 6d to 2s 6d per ton. Between 1734-38 inclusive, the amount raised in river tolls amounted to £3,933 9s 1d at an annual average of £786 13s 10d, which represented an increase of 25 per cent over the total for 1733.<sup>4</sup> By 1738, the trustees had a credit balance of £1,135 5s 5d.<sup>5</sup> Yet it must be noted that the

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1. Ouse Navigation MSS. M.2. Minute Book.

2. loc.cit.

3. Supra, p. 549.

4. Ouse Navigation MSS. M.2. Minute Book.

5. loc.cit.

increase in revenue did not reflect a marked growth in the volume of goods carried. In 1728, approximately 20,000 tons had been carried along the Ouse waterway, producing about £640 in tolls; ten years later some 18,250 tons of goods were carried producing about £850 in tolls.<sup>1</sup>

Table 5. Tonnage and Duty on the River Ouse Navigation<sup>2</sup>

(1) <u>Tonnage</u>	1728	1731	1733	1737
<u>Commodities</u>				
Groceries	907	925	1,267	1,245
Wine	416	366	216	308
Iron	289	238	183	209
Salt	266	337	230	224
Flax	170	134	113	201
Deals	915	534	650	764
Coal	9,698	8,416	8,258	8,745
Butter(firkins)	42,203	54,246	54,269	57,291
Tallow, horns, lead)				
corn, timber, hay, )				
flour, turves. )	6,009	4,360	3,065	4,813

(2) <u>Duty/Revenue</u>	1728			1731			1733			1737		
<u>Commodities</u>	£	s	d	£	s	d	£	s	d	£	s	d
Groceries	113	7	6	115	13	0	158	7	6	155	13	7
Wine	52	0	0	45	15	4	27	6	10	38	10	0
Iron	14	9	3	11	18	3	9	3	0	10	9	6
Salt	6	13	0	8	8	6	28	15	0	28	0	0
Flax	4	5	1	3	7	0	11	7	10	20	3	6
Deals	22	17	8	13	7	2	16	5	0	19	2	4
Coal	242	9	0	210	8	0	206	9	0	218	12	6
Butter	31	13	0	40	13	8	71	4	4	238	14	3
Tallow &c.	150	4	9	108	18	11	76	12	4	120	6	4
	637	19	3	558	9	10	605	10	10	849	12	0

Too much must not be read into four complete years of tonnage figures in a period of ten years, either in relation to the waterway

1. Newby Hall MSS. NH 2451.

2. loc.cit. In 1733 and 1737, groceries included newspapers, drugs, and haberdashery. The revenue for tallow &c. is calculated at the old rate for 1733 and 1737.



or the communities it served. Nevertheless, when the revenue for a further four years are also considered, certain tentative conclusions may perhaps be drawn. Between 1731-38 inclusive, a total of £5,837 2s 6d was raised from tolls, an annual average of £729 12s 10d.<sup>1</sup> The impression that there was little growth in the volume of goods carried along the waterway is strengthened when individual items are considered.

Rising tolls and what seems to be an absence of growth in the communities of the Vale of York prompted vociferous complaints from the trading interests of York. At a meeting of the Merchants' Company on 2 October 1738, it was unanimously agreed that:-

'the Act . . . passed in the 10th year of the late King for making the River Ouse more Navigable has not answer'd the expence, end, or design of the said Act, but on the contrary by several years experience, the heavy charge of Tonage upon Goods passing to and from this City, by Water, has decreas'd our Commerce, is a disadvantage to our Shiping, and a very great burthen, and hardship upon the generality of Traders which are most concern'd in water-carriage for their Goods.<sup>2</sup>

The following month the Merchants' Company complained that the tonnage duty was a heavy burden, and the trustees agreed that half the duty should be taken off.<sup>3</sup> Not satisfied with this, in December, a committee representing the merchants requested that the improvements

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1. Ouse Navigation MSS. M.2. Minute Book.

2. Newby Hall MSS. NH.2451A. Merchants Company Resolution about the Navigation.

3. Ouse Navigation MSS. M.2. Minute Book.

being carried out on the towing path at Acaster should be discontinued, that tolls should be collected for another twelve months and should then lapse, and that the salaries of those concerned in the navigation should be reduced. The trustees were petitioned by several citizens of York that river tolls might be respited. Having considered the evidence of keelowners and keelmasters, the trustees rejected the proposal that tonnage duty should be suspended, by twenty-two votes to two. They agreed however, by twenty-one votes to three, that half the duty should be taken off.<sup>1</sup>

As a result of this decision, river tolls in 1739 fell to £487 17s 8d, and the credit balance held by the trustees was reduced to £197 14s. Throughout the 1740's the annual tonnage did not exceed £500, and in only two years did it amount to over £450.<sup>2</sup>

To supplement the revenue from tolls, the trustees found it necessary to borrow several sums of money. For example, in April 1730, a year's interest at 4½ per cent was paid on £500 borrowed from Dr. Wintringham. Two years later, the trustees decided that the sum of £800 borrowed from Wintringham should be paid off in the following six months. The sums raised from tolls and by borrowing were employed in day to day administration and maintenance, in the payment of interest, and in efforts to 'perfect' the waterway.<sup>3</sup>

Perhaps the best summary of the position of York at this time is

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1. Ouse Navigation MSS. M.2. Minute Book. Those examined included

--- Davison, owner of a coal keel, Thomas Girdler, master of a sixty ton vessel, and John Gill, manager of the waterworks.

2. loc.cit.

3. Ouse Navigation MSS. M.6.



that of a contemporary topographer:-

'except some few wine merchants, the export of butter, and some small trifles not worth mentioning, there is no other trade carried on in the city of York at this day . . . What has been, and is, the chief support of the city, at present, is the resort to and residence of several country gentlemen with their families in it.'<sup>1</sup>

As in other inland navigations of the region, coal provided a major source of income, amounting to approximately one third in the years 1728, 1731 and 1733, and to about one quarter in 1737, by which time butter had taken a slight lead as a source of revenue for the Ouse trustees. Butter was sent mainly to Hull for transhipment to London or export to the Continent. By 1731, the city corporation were not prepared to lease the butter market to a weigher and searcher for less than £60 per annum.<sup>2</sup> Certainly the trustees must have found the growing trade in butter an invaluable source of revenue.

In general, it is clear that traffic along the Ouse in the third and fourth decades of the eighteenth century - with the exception of the trade in butter - showed almost no signs of marked economic expansion. In contrast, a growing volume of goods was passing along the Don and the Aire and Calder Navigations.

### (xiii) THE AIRE AND CALDER NAVIGATION c.1720 - c. 1740

After 1720, the fortunes of the Aire and Calder Navigation greatly improved, dividends on the undertakers' capital of £26,700 rising from

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1. Drake, p.240.

2. V.C.H. York, p.220.

six per cent to 12 per cent in the following twenty years. This was mainly due to an increasing volume of trade on the rivers, which enabled the undertakers to lease the navigation at a much higher rent, rising from £1,600 per annum in 1716 to £3,200 per annum in 1738. The receipts of the lessees for freight and lock dues rose from a total of £30,081 15s 6d for the years 1724-28 inclusive to £46,392 13s 10d for the years 1744-48 inclusive. The declared <sup>profits</sup> dividends of the lessees in the same two periods of five years rose from £6,384 3s 1d to £8,621 9s 0d.<sup>1</sup>

The lessees of the Navigation also took increasing responsibility for the maintenance of the waterway. In 1719 the undertakers allowed the lessees £100 for stoppages at Castleford and the repair of the mills there, on the condition that:-

'... the Farmers show the Treasurer all their Books concerning the profitts of the Navigation . . . and that for the future no Sum be allowed the farmers upon pretence of any promise from the Undertakers unless such promise be signed in writing.'<sup>2</sup>

Although the lessees assured the undertakers that the difference in monetary terms between their dividends and the gross receipts of the waterway was made up of rent, repairs and the wages paid to the keelmen, the latter were not entirely satisfied that the navigation was being deliberately undervalued with a view to preventing a large increase in the rent. In November 1729, William Milner one of the

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1. Unwin, 'ACN 2', pp.19-20, quoting ACN 4/36 for the returns of 1724-28 inclusive; and Milner MSS. 65/11 for the returns of 1744-48 inclusive.

2. Unwin, 'ACN 2', pp.19-20, quoting ACN 1/3.



trustees for the Leeds undertakers sent to John Smyth one of the Wakefield trustees, an abstract of the lessees' receipts and dividends over the previous five years:-

'which amounts to something above £6,000 per annum, and their Dividends to about £1,276 per annum and the rest they make paid for Rent, Repairs, Wages to Boatmen &c., but I believe there are some Mysterys & Secrets which we were not let into, for I am verily persuaded that their profits have been considerably more than £1,276 per annum much Good may it do them.'<sup>1</sup>

The lessees, who were concerned in the day to day maintenance of the navigation, had to contend with problems which were common to many contemporary waterways. Thus at times of drought or frost, land carriage was regularly used from Leeds and Wakefield to Selby, Knottingley or Rawcliffe.<sup>2</sup> Serious interruptions to navigation also occurred at times when the undertakers and lessees disputed with riparian millowners - particularly at Knottingley - over their respective uses of the waterway, the latter regarding it as a source of power rather than a channel of trade. At a meeting of the undertakers on 18 June 1730, the lessees complained:-

'of the great Damages they sustain by the Owner of Knottingley Mills drawing his Clows in Knottingley Dam, which Clows are not necessary for the working of his Mills, whereby the boats in the Summer time

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1. ACN 4/36. Letter dated 29 November 1729. The lessees were Joseph Atkinson, the Quaker carpenter and surveyor of Thorne, and John Burton, a retired London merchant who had taken up his residence at Heath near Wakefield.

2. The use of land carriage to Selby and Rawcliffe is apparent from numerous entries in the Temple Newsam estate accounts.

are stop't in their passage at Brotherton Town side.'

The undertakers agreed to contribute £60 as part of the cost of making weirs or hedges at Brotherton and below Castleford lock, which the lessees hoped might prevent further delays in navigation.<sup>1</sup>

The use of weirs and hedges to contract the channel of the river and raise the water level proved largely ineffective. In 1736, William Palmer the York surveyor and engineer - and a partner of Atkinson's in a number of undertakings - was requested:-

'to view the River from the Confluence of Air and Calder to Knottingley Dam and advise what works may be proper to be made to prevent the Drawing of the water by the owners of Knottingley Mills and Castleforth Mills.'

Palmer proposed that a new dam should be erected below Ferrybridge, and a cut made through Brotherton Marsh:-

'for the passage of boats into Knottingley Lock to prevent the owners of Knottingley Mill from drawing water so low as to stop the navigation below Castleford Dam.'<sup>2</sup>

The suggested cut across Brotherton Marsh was vigorously opposed by the inhabitants of Knottingley, one factor militating against the implementation of the scheme.<sup>3</sup> More significant in its abandonment was the demise of Palmer in 1737, following which a new plan was drawn up for a hedge in the river above Knottingley lock.<sup>4</sup> Despite

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1. ACN 1/3. The owner of Knottingley Mills was Arthur Ingram, 1660-1733.

2. Unwin, 'ACN 2', p.25, quoting ACN 1/3.

3. Knottingley at this time was described as 'a large place consisting of near 600 familys.' Temple Newsam MSS. TN/KN/E4.

4. Unwin, 'ACN 2', p.25. It seems that Palmer died in 1737 see



these efforts, complaints about the inadequacy of the waterway continued.

From the early eighteenth century, Rawcliffe - five miles below Weeland, the statutory limit of the Aire and Calder undertaking - formed the lowest transshipment port for the navigation. Goods were sent down the rivers in lighters to Rawcliffe, and there transhipped into keels or larger vessels for Hull. This arrangement was not entirely to the liking of the lessees who found themselves competing with other wharfingers, while the renewal of the lease on the wharf at Rawcliffe might be accompanied by complications and delays. In 1729, when the lessees were finding difficulty in renewing the lease of the warehouse and wharf from the proprietor, John Twistleton, it was suggested by the undertakers that an appropriate course of action would be the purchase of land at Rawcliffe at which an independent wharf might be established. The problems arising over the renewal of the lease provide an indication of the rivalry between Joseph Atkinson and John Stephenson, another Rawcliffe wharfinger who seems to have developed an extensive trade with Hull.<sup>1</sup> After 1735, the first steps may be discerned in the setting up of a new river port at Armin. In February of that year, the undertakers began negotiations for the purchase of a farm at Little Armin at the confluence of the rivers Aire and Ouse, almost ten miles below the statutory limit of the navigation. The lessees were anxious to develop this property

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1. Unwin, 'ACN 2', p.33, quoting ACN 8/29. On 8 September 1729, Richard Witton wrote to William Milner:- 'Capt. Burton told us that he and his Partners meete with some difficulty in renewing their Lease of the Warehouse and Wharf at Rawcliffe with Mr. Twisleton. And said he was informed by Joseph Atkinson that Mr. Stephenson was Endeavouring to take them.

by the establishment of a wharf. In July 1736, Joseph Atkinson wrote to Richard Wilson, one of the Wakefield trustees, intimating that:-  
' . . . as the undertakers have no Wharfe upon their own premises at the lower End of the river occasions the Farmers (lessees) to be frequently imposed upon. Therefore if the Undertakers would build at Armin such wharves and necessary Conveniences as trade requires it would contribute to benefit the same . . .',<sup>1</sup>

In the following years, Atkinson made more strenuous efforts to develop Armin as the principal transhipment port on the river Aire.

#### (xiv) TRADE ON THE AIRE AND CALDER NAVIGATION

The most valuable commodity carried down the Aire and Calder Navigation was undoubtedly the product of the West Riding woollen and worsted industry, the quantity at any given time depending partly on the condition of the waterway, but mainly on the state of trade. If there was insufficient water for navigation on the upper stretches of the rivers, packs of cloth were carried by land either to Rawcliffe or to Selby.<sup>2</sup> That a hard frost might prevent the shipping of cloth is clearly revealed from the letter book of John Firth a worsted manufacturer of Halifax, the most important centre for the new industry in the early eighteenth century. Firth forwarded cloth to Leeds and Wakefield for packing, whence it was shipped to Hull and then forwarded to London. In May 1739, he was anxious to open

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1. Unwin, 'ACN 2', quoting ACN 1/3.

2. Leeds Mercury, July 1742.



a new correspondence with a London merchant house:-

'1 May 1739 To Messrs Lord & Woolfenden . . . in order to take a tryal with you I have sent to . . . Turners of Leeds to be packt . . . wch I am advised are gon down the River to Hull . . . 60 Long Ells TH; 25 Shalloons L. And to give you, as you desire the Price, I expect you to sell them for in London the Long Ells I hope will bring 20s per piece and the shalloons 29s.'

Goods were forwarded to some of the leading shipping agents at Hull:-

'29 June 1739 To Rob: Rogers merchant Tower Hill, London.

I have sent for you to Leeds to be packt & sent forward by sea in one Bale . . . 200 shalloons consigned to Wm.Cookson of Hull . . . £270 | 18s 9d and I have for this agreed with the packer £1 4s. Shipp- ing and part of river freight 6s . . .'

The affect of the severe frost in the winter of 1739-40 on Firth's trading activities was probably typical of those dealing in woollens and worsteds. On 14 November 1739, he advised one of his London correspondents that:-

'we have had a strong frost above this week and the river is froze up at Leeds that no Boats go up or down . . .'

Two weeks later, Firth advised another London house that he was pre- pared:-

'to send as soon as the weather will permit, either by sea (the Hazard yours) or by Land wch I think will but little inhance the price of a fine shalloon not quite 6d per piece.'

A number of his London correspondents requested Firth to send goods

by land carriage, but the carriers found some difficulty in coping with the increased demand for their services. In January 1740, Firth apologised for the subsequent delay, but that he could:-

'by no means prevail with the carrier to take your pack all Carr: being stopt by water they are so vastly fuller than they can carry.'

Early in February, Firth advised Robert Rogers that he would:-

'be glad to serve you by Land Carriage for I take it that no vessells dare go down the River from Leeds for the great pieces of ice that will be brought down by the Torrent till three Weeks after the frost break, besides there are large Lumps of Ice floating in the Humber.' It was not until the end of February that navigation was again possible on the West Riding waterways.<sup>1</sup>

A major pointer to the volume of goods sent down the rivers from the clothing towns was the state of trade. The official value of all types of wool fabric exports for England and Wales increased by 40 per cent in the second and third quarter of the eighteenth century, due largely to the growing demand from the West Indies and the mainland American colonies. Yorkshire cloth and traders played an important part in the expansion of the transatlantic trade which doubled in the first half of the eighteenth century and then trebled in the next two decades.<sup>2</sup> The trend of exports from the West Riding to European markets was also upwards, but was neither so

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1. H.A.S. MSS.321. Letter book of John Firth, worsted manufacturer.

The letters cover the period May 1739 to January 1741.

2. Heaton, p.18.



so steady nor so spectacular as the growth of trade with the Western Hemisphere. Whereas northern Europe had provided the principal markets for the old established woollen fabrics, Spain, Portugal, Italy and the Levant were markets for the recently developed Halifax wares.<sup>1</sup> The Yorkshire woollen and worsted industries were the chief sources of the exports of the port of Hull. In the first half of the eighteenth century, exports of woollen cloth fluctuated between 100,000 and 200,000 pieces per annum, rising to 307,662 by 1768.<sup>2</sup>

A close study of estate correspondence, newspapers and the letter books and accounts of contemporary merchants provides an indication of the state of trade. At slack times, the vociferous complaints of clothiers and merchants were directed against the smuggling of wool or the need to maintain standards of production. By 1723, it seems that the worst of the depression of 1719-20 was over.<sup>3</sup> Three years later, however, it was reported that:-

'there is not at present that call for the Woollen Manufacture in Yorkshire (which was used to be exported to Germany) as formerly.'<sup>4</sup>

In August 1734, Cavendish Nevile described to Edward Wortley, a prospective candidate for one of the county seats, the conditions at the major cloth marketing centre in the West Riding during a trade

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1. Heaton, p.269. A trade with Guinea was being developed in 'says' of a strong blue shade.

2. V.C.H. Yorks. East Riding, p.175.

3. Leeds Mercury, November 1723.

4. Leeds Mercury, October 1726. In 1731, trade seems to have been brisk. On 27 April George Stansfield wrote from Fieldhouse near Halifax to two Amsterdam merchants:- 'I've ordered Wm: Mowld to forward 2 bales in each 50 ks...had I ten times as many could sell them...' Stansfield MSS.396.

recession:-

'Leeds . . . a great deal more burden'd with Poor than they were last year . . . meat was never known in the memory of any man here so cheap as it is now . . . Cloth is fallen 4d. a yard that is from 3s 6d to 3s 2d since the last year . . . the same quantity made and not the Same Quantity sold by more than one third . . . But halfe of the workmen have had employment since Xmas last.'<sup>1</sup>

In that year it was calculated that £30,000 worth of kerseys were manufactured a year; that of shalloons which were made around Halifax, £10,000 worth were exported annually, and that:-

'Tammys, Serges, Callimacoes and most sorts of stuffs are made about Leeds, Wakefield, Bradford and in the western parts of the county wch supply the North and many are sent into the Southern Parts and abroad alsoe, to the value of £10,000 every year.'<sup>2</sup>

These estimates - made by interested parties anxious to emphasise the problems facing the textile industry - must be treated cautiously. Almost certainly they understate the value of the various branches of the industry, particularly for kerseys.

The difficulties facing the woollen industry in the mid 1730's probably prompted a growing number of clothiers to turn to the manufacture of worsted fabrics. That it was no easy matter for newcomers to establish markets for worsteds is revealed from the letters of Samuel Hill. In 1737, Hill - a clothier in the Halifax district -

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1. Wharncliffe MSS. 117/2.

2. loc.cit. Kerseys - cheap, coarse woollen cloth made in white, blue, red and other colours - were the 'old draperies' of the West Riding. Shalloons were a light worsted fabric. Tammies were thin worsted material, sometimes glazed.



decided to diversify his production of kerseys and bays by imitating in quality and appearance the worsteds of Norwich and Exeter. He found that considerable difficulties had to be surmounted in making and selling shalloons and Exeter Long Ells, although half a century had elapsed since the introduction of worsted manufacture into the West Riding. It seems probable that the main reasons for Hill's failure to develop dealings in worsted fabrics as rapidly as he hoped were twofold: first, the slackening of demand for woollens was prompting more clothiers to manufacture worsteds, thereby increasing competition; second, that the quality of his wares could not match that of well established worsted manufacturers in the region. In 1738, Hill noted that:-

'the increase of the Bocking Bayes makeing I doe realy believe causes one third fewer Kerseys to be made.'

Hill, who had a large business, and an annual turnover of over £30,000 solicited the buyers of his kerseys to take a few worsteds as well. The response was far from satisfactory, and at first those who took Hill's shalloons and bays found it difficult to get rid of them:-

' . . . am perfectly sick of the little or no hopes of the Shalloon Business . . . '

Hill sent cloth by land carriage to Leeds, where it was packed and sent down the river to his shipping agents at Hull for despatch to London or the Continent. John Wilkinson usually arranged the packing, and William Mould was Hill's principal shipping agent at Hull:-

'30 January 1738 Mr. John Wilkinson. This accompanys 50 Kerseys which

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desire you pack make Mark and Number as per Margin and forward to Mr William Mowld by very first pray fail not to get them down as soon as possible. Likewise you have herewith 6 Bocking Bays which desire you pack with the other 14 . . .<sup>1</sup>

. . . . .

The Aire and Calder Navigation was also extensively used for the carriage of raw materials to the textile producing districts of the West Riding, particularly alum from Whitby, fuller's-earth from Rochester, dyeing wood and wool. Yorkshire had long since ceased to produce the huge quantities of wool demanded by the West Riding woollen and worsted industries. The coastwise import of wool to Hull was probably quite small at the beginning of the eighteenth century. Only 21 ships arrived from the six principal East Anglian ports in the year ending midsummer 1704; by 1728, the number of ships had increased to 145. Imports rose from 11,823 cwt in 1728 to 27,806 cwt in 1737. In Lincolnshire, Grimsby was sending ever increasing quantities of wool to Hull, rising from five shipments in the year ending midsummer 1704 to 22 shipments in 1758.<sup>2</sup> Considerable quantities of wool were also carried from Leicestershire and Lincolnshire either by land or by means of the waterway network, completing the journey by land carriage from Wakefield or Leeds. Wool was sold principally in the summer months, merchants finding it necessary to settle their accounts with clothiers by that time. In June 1739, John Firth advised two of his

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1. F. Atkinson, op.cit., p.2.

2. Jackson, p. 128.



London correspondents:-

' . . . I desire you to sell them (25 Shalloons and 60 Long Ells) as soon as possible and for as quick payment as you can. For midsummer time drawing near when all the makers want their money to buy their wool with, makes me the more desirous to hear they are sold.'<sup>1</sup>

Larger clothiers like Samuel Hill obtained their packs of wool at all times of the year, partly from the east coast ports and partly from neighbouring counties. In February 1738, he requested his agent at Leeds:-

' . . . shall be glad to hear of the 20 packs from Knottingley and I have advice of 12 packs from London . . . '<sup>2</sup>

Although carriage by sea and river was cheaper, it was not always satisfactory, as Hill advised his agent at Hull:-

' . . . Wonder have not yet heard any thing of the Sope or Wool pray advise me in what Conditions Both arrive when they doe come . . . the last Sope I have is such Stuffle as never was used, and they say It must be occasioned by the Salt Water getting into it.'<sup>3</sup>

Summing up developments in the West Riding textile industries in the second quarter of the eighteenth century, it seems that modest progress had been made. By 1750, the worsted industry was widespread throughout the Riding, and shalloons, calimancoes, tammies, camlets were being made as far east as Leeds and Wakefield. Of industrial centres Halifax was still the most important in the output of worsteds.<sup>4</sup> From the end of the seventeenth century up to about 1740,

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1. H.A.S. MSS. 321. Letter book of John Firth, worsted manufacturer.

2. F. Atkinson, op.cit., p.5.

3. Ibid.

4. Heaton, p.269.

the average rate of growth of Britain's woollen and worsted industries was apparently about eight per cent per decade, although the West Riding was growing in relative importance, owing to the decline of older textile centres, particularly the South-West.<sup>1</sup> The Aire and Calder waterway played an important role in these developments, and the growth of the industry contributed to the growing receipts of the navigation.

. . . . .

By the 1720's coal was being carried in considerable quantities down the Aire and Calder Navigation for sale in various parts of the waterway system. For example, in 1728 a total of 9,698 tons of coal paid toll on the Yorkshire Ouse; in 1731, a total of 8,416 tons; and in 1733, a total of 8,258 tons.<sup>2</sup> Although some coal may still have reached York from the North East coalfield - in 1728 Hull imported some 5,500 chaldrons of coal from Newcastle, Sunderland and Blyth - it seems likely that the city's main sources of supply were collieries along the Aire and Calder valleys.<sup>3</sup> The tax on sea borne coal which had provided a stimulus for the development of the west Yorkshire collieries provided an argument for the promotion of further waterway schemes. Coal from west Yorkshire was also carried in small vessels above York to Milby, whence it was distributed by land carriage to Ripon and other places.<sup>4</sup> Communities in the Derwent valley of the East and North Ridings were also supplied with coal brought down the

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1. Deane and Cole, p.52.

2. Supra, p.570.

3. Jackson, p.150.

4. Cunliffe-Lister MSS. Bundle 18 (unsorted).



## Aire and Calder Navigation:-

'that being the certain trade from Wakefield to Malton only.'<sup>1</sup>

Some coal from the Leeds district was also being carried by land, to a distance of at least twenty miles. When John Carr of New Malton undertook trials for coal in the Forest of Knaresborough, he felt confident that there would be no difficulty in finding a market:-

'. . . will intercept the Leeds Collierys in their Sale to Knaresborough, and most of that Neighbourhood . . .'<sup>2</sup>

The prospect of competition in the river trade for coal was probably the main reason why the undertakers of the Aire and Calder Navigation and the lessees opposed the extension of river navigation above Doncaster in the 1720's.<sup>3</sup> It was assumed that if the markets for the Rotherham collieries were extended into the Humber-Ouse-Trent waterway system, the sale of coal from the Aire and Calder valleys would decline. Thus in 1737, when the lease for the Aire and Calder Navigation was renewed, a saving clause was included, that:-

'in case the River Don should be made navigable to Rotherham before the seven year term should expire, the farmers (lessees). . . to have the choice of either completing their tenancy or giving twenty one months notice to hand it up.'<sup>4</sup>

There were similar considerations concerning the coal trade to Malton. The undertakers authorised to improve the Derwent in the 1720's had long associations with the Aire and Calder Navigation and

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1. Unwin, 'ACN 2', p.22, quoting ACN 8/10.

2. L.A.O. Aswaby MSS. 2/41/14. Malton 20 June 1729.

3. Supra, p.517.

4. Unwin, 'ACN 2', pp.24-5, quoting ACN 4/36.

were unlikely to interrupt the axis of trade which had been established between Leeds and Wakefield and Malton. The decision of the Earl of Malton to lease the Derwent Navigation to the highest bidder in 1744 aroused the apprehensions of the Aire and Calder lessees, anxious that the prevailing pattern of trade should not be modified. In a letter to one of the Wakefield trustees, Joseph Atkinson expressed his concern that his rivals - either William Fenton or John Stephenson of Rawcliffe - might lease the Derwent, affirming that:- 'whoever takes it (the Yorkshire Derwent) will not Contribute to the advantage of yours therefore either the undertakers or tennants should take that River . . . or if not the Coal trade in Wakefield River will dwindle to nought.'<sup>1</sup>

As in the early years of the navigation, the lessees actively engaged in the coal trade and were anxious to limit competition in the river valley markets. The undertakers themselves were suspicious of the methods employed by the lessees:-

' . . . they charge all the Wages to their Boatmen for the Coals which they carry down (which are very great Quantities) and pay no Lock DuesDues for them, and it does not appear what money is received for those Coals when disposed of which must be very considerable, and passes as a cover'd Waggon not to be looked into.'<sup>2</sup>

Riparian proprietors with coal on their estates found the opportunity to participate in the river trade a strong stimulus. In 1730

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1. Unwin, 'ACN 2', p.33, quoting ACN 8/10.

2. ACN 4/36. The opportunity to carry and sell goods, and to combine in one charge the lock dues and freight was undoubtedly an incentive to the lessees of the Navigation.



it was advertised that:-

'a Collery . . . in Rothwell, one Mile from Leeds, is now set on Foot . . . and for the Encouragement of the Inhabitants of Leeds, Coals will be brought up by Water.'<sup>1</sup>

In 1735 the first boat freighted with coal from Rothwell Haigh colliery was sent to Leeds:-

'under Triple Discharge of our great Artillery . . . now that it has got right into Motion, may Supply the River, and the Country for several Generations to come.'<sup>2</sup>

The facilitation of transport for coal was a major factor in the development of mining, and an additional incentive in the leasing of collieries. In January 1730, a lease was advertised for a colliery at Outwood:-

'convenient for Sale either for the Town of Wakefield or the River, being about half a Mile distant from each.'<sup>3</sup>

In May 1738, a lease of Sir John Bland's colliery at Houghton near Castleford was advertised:-

'within half a mile of the River Aire . . . There is no Colliery between this and the Sea.'<sup>4</sup>

Bland's father had negotiated an agreement with the original undertakers of the Aire and Calder Navigation empowering the family to dispose of coal down the river without the payment of lock dues, a concession which was included in the lease to George Warmoth of Castleford, who agreed to pay an annual rent of £150 over a term of

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1. Leeds Mercury, 21 July 1730. This colliery at Rothwell was developed by Samuel Hamer and Thomas and James Fenton.

2. Leeds Mercury, 24 February 1735.

3. Leeds Mercury, 12 January 1730.

4. Leeds Mercury, 16 May 1738. 589.

six years.<sup>1</sup>

Waggonways were also laid to the rivers from adjacent pits. In the 1720's Lord Bingley, one of the Aire and Calder undertakers and Sir John Bland of Kippax Park reached an agreement on the working of coal in Allerton Bywater which provided for:-

'waggon Wayes cross the Road or Wast Call'd Little More . . . and profits of Coles . . . shall be equally divided.'<sup>2</sup>

In September 1734, John Wilks, the tenant of Lord Irwin's coal mines at Halton and Seacroft near Leeds was anxious to construct a waggon-way:-

'begs your Lordship will sett me out a Coale Way to the River Which is much awanting att This time by the Occasion of the bad summer.'<sup>3</sup>

In 1745 a colliery at Outwood was advertised for sale:-

'where a Waggon Way is made from the said Pitts, to Bottom Boat Staith, situated on the River Chalder . . . a sufficient Number of Waggon is made to convey the said Coals and Cinders down to the River.'<sup>4</sup>

#### (XV) THE DEVELOPMENT OF THE YORKSHIRE DERWENT

Although statutory authority had been obtained in 1702 for the improvement of the Yorkshire Derwent between Scarborough Mills and the Ouse, little progress was made until the Malton estate - which included the waterway - came into the possession of Thomas Wentworth

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1. Bland MSS. 29/92.

2. Bland MSS. 212/204 n.d.

3. Temple Newsam MSS. TN. Corr. 14/169.

4. York Courant, 22 October 1745



of Wentworth Woodhouse.<sup>1</sup> In 1720 he authorised two new undertakers - both of whom had played an active role in the development of the Aire and Calder Navigation - to improve the Derwent. Mark Andrew of Castleford and Knottingley was an innholder, wharfinger and keelowner; his partner Joshua Mitchell had been concerned with construction and maintenance work on the west Yorkshire waterway almost from its inception.<sup>2</sup> In the 1720's, Joshua Mitchell was also in partnership with two other surveyors, William Palmer of York - who was consulted on the improvement of many of the rivers of the region - and Joseph Atkinson of Thorne and Rawcliffe, one of the lessees of the Aire and Calder Navigation.<sup>3</sup>

The Derwent Act of 1702 had empowered the undertakers to make the river navigable to the Ouse near Hemingbrough, by improving the existing channel of the waterway, and by making cuts and towing paths.<sup>4</sup> A number of commissioners - of whom a minimum of seven were competent to act - were appointed to mediate between the undertakers and riparian proprietors. In the event of disagreement, the Sheriff was authorised to summon a jury to view and assess damages, upon which the commissioners were to give their verdict, which would be binding on the various parties. After the payment of compensation, the undertakers had full authority to act. The tonnage rates were fixed at a maximum of 8s per ton on the stretch of the river between the Ouse and New Malton, and a further 8s on the stretch between New

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1. Duckham, 'Yorks. Derwent', pp.45-61.

2. Supra, pp. 349-50.

3. Willan (1965), p.15.

4. 1 Anne, c.14.

Malton and Scarborough Mills. In the case of non-payment, the undertakers were empowered to distrain merchandise. As in other river Acts of the period, the commissioners were given the same powers as Commissioners of Sewers, having:-

'sole Rule to survey the River and works for the better cleansing, removing annoyances . . . to keep that River open.'<sup>1</sup>

When the first meeting of the commissioners was held at New Malton on 3 June 1720, it was agreed that the Sheriff should be directed to summon a jury. A week later the jury was impanelled and charged:- 'to take a view of the Derwent and the lands adjacent from Darwent mouth nigh Hemmingborough . . . to New Malton Bridge and to Inquire and assess what damages might be done and what satisfaction ought to be made to landowners.'<sup>2</sup>

The presentment of the jury was heard on 19 July 1720, and indicates clearly that the improvements which George Sorocold had proposed in 1704 had not been effected.<sup>3</sup> The jury considered that trees and brushwood should be removed from the haling way at Hemmingbrough. At Barmby ferry a warehouse was to be built on land valued at 10s per acre per annum. Wheldrake bridge was in bad repair, and the undertakers were required to raise the central part:-

'for convenience of seayling for passage of Vessels under it and only so much thereof as the undertakers raise . . . for their convenience and no more we do present to be done at their own expence.'

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1. 1 Anne, c.14.

2. N.R.A.O. The Proceedings for making the River Derwent Navigable. ZCGd/35.

3. Supra, p.333.



A little below Sutton dam a lock was to be constructed; a lock and were to be built at Stamford Bridge; and from the mouth of the Derwent to that lock, the haling way was for 'foot or horse.' Other improvements contemplated by the undertakers included a cut at Buttercrambe, and a cut and lock at Shirrington. The total sum paid out for the purchase of land needed for the navigation, and for damages amounted to £156 12s 10d; and the charge for wood felled £47 10s 9d. The annual rent for the haling way totalled £7 1s 9d.<sup>1</sup> The value of land throughout the length of the towing path was far lower than for the waterways of the West Riding .

The work on the navigation was carried out rapidly by the new undertakers, it being subsequently noted that:-

'soon after September 1720 the River Darwent was made navigable.'<sup>2</sup>

Improvements were effected largely by dredging the existing channel of the river, James Mitchell - the father of one of the undertakers - having made an Engine:-

'to plow up the Shoals, and deepen the River.'<sup>3</sup>

Apart from Mark Andrew and James and Joshua Mitchell, other surveyors and engineers were consulted, notably William Palmer and Peter Hudson.<sup>4</sup> Thomas Wentworth later affirmed that he had spent about £4,000 in perfecting the waterway.<sup>5</sup>

Not all interests along the waterway were satisfied with these

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1. N.R.A.O. The Proceedings for making the River Derwent Navigable.

2. DER 4/7.

3. H. of C. Journals, XX, 141.

4. Mellish MSS. 162/20.

developments. When the commissioners met on 13 August 1720, they were petitioned by several farmers of West Cottingwith seeking compensation from the undertakers:-

'for loss of hay in West Cottingwith Ings occasioned by the Undertakers taking away Northall Bridge.'

The commissioners awarded the petitioners compensation of £3 'in full satisfaction.' More serious, the construction of a pound lock and dam at Sutton aroused the apprehensions of local landowners as to the danger of flooding, while traders and farmers resented the imposition of tolls on stretches of the river which had always been navigable. When the commissioners dismissed the latter issue as beyond their jurisdiction and scope, the complainants turned to Parliament for redress.<sup>1</sup>

On 15 January 1723, a petition was read in the House of Commons from several riparian proprietors at Sutton complaining of unwarrantable delays at the mouth of the Derwent:-

'although there had been sufficient Depth of Water, at all times, for Vessels of Forty or Fifty Tons.'

The petition was referred to a committee for consideration. Several witnesses testified before the committee that the undertakers had failed to cleanse the river, and had interfered with a previously free waterway. These allegations were countered by other witnesses who deposed that the improvements effected on the Derwent provided a

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1. At a meeting of the commissioners on 13 August 1720, several farmers sought exemption from river dues on that stretch 'where the same is already navigable.' This was dismissed by the commissioners 'as a matter not properly before the Court.' N.R.A.O.



cheaper and easier passage. Thomas Wentworth informed the M.P.'s on the committee that the waterway was beneficial to the region, flooding being caused as the result of extraordinary rains and high spring tides, and not by the navigation works at Sutton. In February 1723, the petition was rejected.<sup>1</sup>

Although navigation had been extended to New Malton, there seems to have been less incentive to improve the higher stretch of the river to Scarborough Mills. One traveller described this part of the Derwent in 1725, suggested possible improvements, but then rejected them on the grounds that the increased use of one route would lead to a corresponding decline of other commercial axes:- 'The Darwent, a River that Glides with many Meanders, through a pleasant vale of thirty Miles long, called Pickering Libbie, the frequent overflowing, however makes the Grounds about its banks wett and Moorish. I fancy if Scarborough could get an Act to make it Communicate with their Meer, Merchandize might this way be Supplied in a cheap way to York &c, but then this may Interfere with Hull you cannot in trade do good to one town, but you rob another.'<sup>2</sup>

#### (xvi) TRADE ON THE YORKSHIRE DERWENT

Although there is ample evidence of trade along the Yorkshire Derwent in the later eighteenth century, few records have survived for the earlier decades. The valley drained by the Derwent was almost

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1. Duckham, 'Yorks.Derwent', pp.48-9.

2. Letters of J.A.

entirely taken up with agriculture, the principal towns as markets for the main produce, particularly corn and butter. In 1725, Malton was described as:-

'a pleasant good Markett town, as any in the country, the lands as fertile of corn and cattle, particularly ryedale. The gentry for seven miles round are supplied hence.'<sup>1</sup>

Corn and butter sent by water to Hull were shipped to London and possibly to the outports of the east coast or to the Continent. In 1744, the inhabitants of New Malton were anxious to improve marketing facilities in the town, and a Bill was successfully promoted to establish a butter market:-

'Butter is One of the chief Commodities of the Product of several Parts of the County of York near to the said Borough; and great Quantities . . . are brought into the . . . Borough of New Malton, through which runs a navigable River, whereby the said Butter, and other Commodities, are from thence sent to London and otherwise disposed of . . .'<sup>2</sup>

It seems probable that the principal items brought up the river from Hull were groceries, wine, iron, salt and timber.

By the second quarter of the eighteenth century, intra-regional commerce had also developed, the agricultural produce of the East Riding being exchanged for coal and lime from the West Riding. It has already been noted that the lessees of the Aire and Calder Navigation were anxious that the commercial axis between Leeds and Wakefield and Malton should not be interrupted, and that the

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1. Letters of J.A.

2. H. of C. Journals, XXIV, 502.



proprietor of the Derwent should not lease the waterway to rival traders or wharfingers.<sup>1</sup>

(xvii) BEVERLEY BECK

By the middle decades of the eighteenth century, there is some evidence that the coal proprietors of the West Riding were seeking to lease the tolls of Beverley Beck, a waterway for which statutory powers had been obtained in 1727 and 1745.

In this period, Beverley was predominantly a town of small traders and shopkeepers, depending primarily on local markets and fairs and the patronage of the countryside.<sup>2</sup> The corporation had always regarded the Beck as its own property, and had levied rates on the inhabitants of the borough for its upkeep. Although tolls were also collected from the early years of the eighteenth century, it seems unlikely that revenue was always sufficient to maintain the waterway effectively. Certainly, the question of cleaning and deepening the Beck had become acute by 1725, matters upon which John Warburton made copious comment for the corporation.<sup>3</sup> The Act of 1727 - and a subsequent one of 1745 - provided for increased dues to be charged to cover both the costs of scouring and preservation, and the maintenance of the roads leading to the waterway, the corporation retaining its right to farm out two market boats.<sup>4</sup> It seems that a total of £1,395 was spent on the Beck between 1727 and 1731. Between May 1727 and May 1742, the

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1. Supra, p. 588.

2. Beverley Corporation Minute Books, 1707-1835, ed. K.A. MacMahon (Yorkshire Archaeological Society Record Series, CXXII, 1956), p. 21.

3. Ibid, p. 22.

4. Willan (1936), p. 116.

average annual income from tolls was £99. Traffic along the Beck between 1 June 1730 and 31 May 1731 amounted to 1,465 chaldrons of coal, 599,400 bricks, 685,000 turfs, 233 packs of wool, 411 quarters of wheat, 623 quarters of oats, 864 quarters of barley, 2,455½ quarters of malt, and lesser quantities of wood, cheese, leather and bark.<sup>1</sup>

The corporation of Beverley maintained control of the day to day administration of the Beck until the 1740's, appointing toll collectors at an annual salary. The leasing of the tolls led to a shift in the administrative responsibility for the waterway. In March 1748, the Beck tolls were leased to James Fenton of Rothwell near Leeds for four years at a rent of £100 per annum.<sup>2</sup> This may have been an attempt by the Fenton family of coal proprietors to extend their markets for the Rothwell Haigh colliery which had been developed on a larger scale in the 1730's.<sup>3</sup> By the third quarter of the eighteenth century coal was regularly carried between the west Yorkshire collieries to Beverley. Thus in 1771, the corporation deputed a number of representatives to attend a meeting in York:-

'in order to prevent excessive Lock duties now laid on all goods coming via the Aire and Calder whereby the price of coals in the town is greatly increased.'<sup>4</sup>

#### (xviii) EVALUATION

In the third and fourth decades of the eighteenth century, Acts of

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1. Willan (1936), p.126.

2. Beverley Corporation Minute Books, 1707-1835, op.cit., p.29.

3. Supra, p.589.

4. Beverley Corporation Minute Books, 1707-1835, op.cit., p.50.



Parliament had been passed authorising the improvement of about ninety miles of waterways within the Humber-Ouse-Trent region, while proposals to develop a further seventy miles - for the rivers Ure and Swale - had failed to reach the statute book. In the same years, the total mileage of the inland waterways of the region had been extended by about sixty miles to the overall length of 460 miles. Between 1720 and 1743 it seems that about £40,000 had been laid out on the development of the rivers Don, Ouse, Yorkshire Derwent, the Fosseydyke and Beverley Beck. Unfortunately, less information is available with regard to the Aire and Calder Navigation, the Derbyshire Derwent and the Idle.

The new or additional powers which were obtained in this period were vested in groups of undertakers or in corporate bodies, but the tendency was growing to shift day to day administrative responsibility to navigation farmers. The activities of the Ellison, Atkinson and Mitchell families provide some indication of the important role of interests at the inland ports in the pre-canal age. Richard Ellison of Almsholme and Thorne combined business acumen with surveying and engineering skill, and, having spent a lifetime in the timber trade, he became a lessee of the river Don, promoted schemes to improve the Swale, and finally secured a lease of the Fosseydyke. The Atkinson family, who were Quaker carpenters and boatbuilders at Thorne, played a significant part in the early history of the Aire and Calder Navigation. Joseph Atkinson, one of the lessees of the Aire and Calder Navigation between 1723 and 1758, was also consulted over improvements on the Don and the Ouse. Nevertheless, it seems likely

that the greater part of his income was derived from his activities as river lessee, shipwright and trader based on the Aire port of Rawcliffe.

Surveyors, engineers, boatbuilders and river lessees, often grouped in small partnerships or family concerns and residing at the inland ports, were employed by landed or commercial interests to effect, and subsequently to manage, new or revived navigation schemes. The professions of surveyor and engineer were still in an embryonic phase in the early eighteenth century, although the increased demand for public works enabled the specialist to find greater opportunities for continuous employment. George Sorocold's activities within the region have already been noted, but it would not be entirely apt to classify him as a specialist engineer, since he engaged also in hydrography and cartography and seems to have been anxious to gain a footing in the lead trade.<sup>1</sup> In the next generation, William Palmer of York probably comes closest to being regarded as a professional civil engineer operating within the region. Palmer, a York surveyor and engineer worked on various Yorkshire rivers, including the Aire and Calder, the Don, the Ouse, the Ure and Beverley Beck.<sup>2</sup>

It would obviously be overstating the case to argue that the various interests at the inland ports provided the sole stimulus for

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1. Supra, pp. 231-2.

2. Willan (1936), p.79. William Palmer seems to have specialised in surveying and engineering, without participating either in the administration of waterways or in leasing them.



the effective maintenance and further development of the waterways. Many examples have been quoted of wharfingers, boatowners and traders at established river ports opposing improvement schemes which seemed likely to threaten prevailing commercial patterns. Leonard Fosbrook and George Haynes maintained a quasi monopoly over the traffic of the upper Trent for more than a quarter of a century. Yet, provided they were willing to adapt to new circumstances, wharfingers, boatowners and traders at the inland ports must have recommended themselves to groups of river undertakers eager to lease their property. In addition to the possession of vessels immediately available for trade, such men had the asset of connections with other wharfingers and traders within the region, at the outports of the east coast and with London. Adjustment to changed conditions usually meant moving from one inland port to another. Joseph Atkinson moved from Thorne to Rawcliffe and later established new port facilities at Airmin. Mark Andrew moved from Knottingley on the Aire to Malton on the Derwent.<sup>1</sup> The Ellisons eventually established themselves at Lincoln, and became Parliamentary representatives for that city.<sup>2</sup>

Extant records of the trade of the river valley communities, of the revenues of the various navigation undertakings and of the rents paid by lessees provide some indication of the disparity of intra-regional rates of growth. Thus it is not going too far to suggest that communities largely dependent on the extraction and manufacturing industries of the West Riding were experiencing a more rapid phase of

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1. Duckham, 'Yorks. Derwent', p.47.

2. Hill (1966), p.218.

expansion than the essentially agricultural communities of the Vale of York and parts of the Vale of Trent. The search for new markets for coal, for new sources of timber supply, or the anxiety to control intra-regional axes of trade seem to have prompted interests in the West Riding to extend their activities eastwards into the waterway system. By the mid eighteenth century, the Yorkshire Derwent, the Fossdyke and Beverley Beck were leased by commercial or industrial interests who had their roots in the Aire, Calder or Don valleys. The development of the waterways of the region were also stimulating the flow of agricultural produce from Lincolnshire and the East and North Ridings into the more populous West Riding, where demographic growth was marked even in the first half of the eighteenth century.<sup>1</sup> Yet it would be unwise to confine our view to such intra-regional developments. Undoubtedly, a major factor in the disparity of development was the ability of the communities producing metal goods or woollens and worsteds to participate in the growing colonial trade. The benefits which had already begun to accrue to the West Riding were to grow more markedly in the following decades.

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1. Supra, p. 455.



## VI

### Turnpikes and Later River Navigations

#### (1) INTRODUCTION

The middle decades of the eighteenth century were marked by upward trends in many aspects of the national economy, general progress becoming once again identifiable. Although the growth in imports and exports was checked in the early years of the War of the Austrian Succession, a period of more rapid expansion commenced about 1745 and continued until the 1760's.<sup>1</sup> The movements in foreign trade probably reflect a similar momentum in manufacturing industry, and in agriculture the outlook gradually improved.<sup>2</sup> Although efforts continued to improve existing waterways and to extend navigation, the period was more noteworthy for the increase in attention given to road improvement.<sup>3</sup> The pace of new investment in roads can be gauged largely from statistics of Road Acts, which authorised the establishment of turnpike trusts, and which generally signified increased expenditure on road maintenance. In the first half of the century, Road Acts were passed at the rate of about eight a year; in the following four decades the rate increased to more than forty Road Acts a year.<sup>4</sup>

Considerable attention was focused on land and water communications within the Humber-Ouse-Trent region, partly to meet local demands, and

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1. Davis (1962), p.23.

2. Wilson, p.278.

3. W.T. Jackman, op.cit., p.742.

4. Deane and Cole, p.238. 603

partly as local manifestations of the general interest being taken in providing better transport. Before 1740, only ten Road Acts had been passed to establish turnpike trusts within the region. The years between 1740-1763 - which included two major wars - witnessed the passing of 69 Road Acts. There was a slight acceleration in the annual rate of promotions in the period between the conclusion of the War of the Austrian Succession and the outbreak of the Seven Years War, but evidence to suggest that the competing demands which the wars exerted for capital and labour delayed road and river improvement is far from conclusive. It was not merely in the Vale of Trent that turnpikes forged ahead during the Seven Years War.<sup>1</sup> Between 1740 and 1770, statutory authority was obtained to improve the upper Calder, the Witham and the rivers Ure and Swale, while established waterways - particularly those which carried large quantities of coal - proved increasingly profitable for shareholders and river lessees alike.

The turnpike trusts which were established within the region fall into five principal categories. A number of trusts may be considered as extensions of improvements previously initiated in the home counties. For example, the trusts set up to improve the road between Stamford and Grantham,<sup>2</sup> between Grantham and Little Drayton,<sup>3</sup> and between Ferrybridge and Boroughbridge<sup>4</sup> were all concerned with stretches of the Great North Road. A second category of trusts acted as 'feeders' to the inland and coastal ports or heads of navigation. Of the 22

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1. Chambers, p. 13.

2. 12 Geo. II, c. 8.

3. 12 Geo. II, c. 34

4. 14 Geo. II, c. 28



trusts established within the region between 1736 and 1749, all but three started or terminated at one of the inland or coastal ports. A third category of trusts sought to improve the old coal roads, sometimes as feeders to the waterways, sometimes independently of them. For example, the turnpike road between Ashbourne and Loughborough included the old coal route running southwards from Wilne Ferry;<sup>1</sup> while the road from Catterick to Durham was one of the principal land carriage axes for supplying the North Riding with coal.<sup>2</sup> A fourth category of trusts sought to improve trans-Pennine routes, along which growing quantities of agricultural produce, raw materials for the textile industries of Lancashire and the West Riding, and finished goods were carried. For example, the roads between Doncaster and Saltersbrook,<sup>3</sup> between Leeds and Elland<sup>4</sup> and between Richmond and Lancaster<sup>5</sup> were important links between the east and west coasts in the pre-canal age. Finally, a few turnpike schemes were designed to improve alternative - though by no means new - routes to stretches of waterway for which statutory authority had already been obtained. In this category must be included the roads between Leeds and Selby<sup>6</sup> and between Wakefield and Weeland.<sup>7</sup>

The prime purpose of this chapter is to examine the development of the turnpike trusts within the region. The progress of the water-

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1. 11 Geo.II, c.8.
2. 20 Geo.II, c.26.
3. 14 Geo.II, c.31.
4. 14 Geo.II, c.25.
5. 24 Geo.II, c.17.
6. 14 Geo.II, c.32.
7. 14 Geo.II, c.23.

ways will also be considered, and an analysis will be made of trading conditions at the inland and coastal ports on the eve of the canal age.

#### (ii) TRANSPORT DEVELOPMENTS IN THE VALE OF TRENT

In the fourth and fifth decades of the eighteenth century eight Acts were passed to improve stretches of road in the Vale of Trent, and two Bills were unsuccessfully promoted for the improvement of river navigation. The rejection by the House of Commons of a petition for a Bill for the river Soar navigation between Leicester and the Trent, on 8 March 1737, was probably one factor which prompted the promotion of two turnpike schemes in order to facilitate the trade in grain from Leicestershire and Northamptonshire to Nottingham and Derby, whence coal was brought in exchange.<sup>1</sup>

In 1738, the Nottinghamshire portion of the second great road from London to the north - that via Dunstable, Market Harborough and Leicester - was turnpiked between Cotes Bridge in Leicestershire and Nottingham.<sup>2</sup> It was the route by which coal travelled south from the Wollaton pits to Loughborough, and had long been in chronic disrepair.<sup>3</sup> In the same Parliamentary session, an Act was passed for the improvement of the Derbyshire coal road from Shardlow to Loughborough, which was continued north-westwards to Derby, Brassington and Ashbourne.<sup>4</sup> This turnpike road was joined by a link to the Buxton-Manchester road, which had been turnpiked in 1725, and had made possible the development of wheeled traffic in the Peak for the first time. Six years

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1. H. of C. Journals, XXII, 785. The petition was rejected by 140 votes to 98.

2. 11 Geo. II, c.3.

3. Chambers, p. 13.

4. 11 Geo. II, c.8.



later, preparations were made to promote a further Bill for the Loughborough-Ashbourne road. On 25 January 1744, a petition from the trustees was presented to the House of Commons seeking leave to bring in a Bill for further statutory powers and additional tolls.<sup>1</sup> The witnesses who appeared to prove the allegations of the petition informed the committee appointed by the House of Commons that £5,100 had been borrowed on the credit of the tolls. Of an annual income from the tolls of £521, a total of £450 had been applied as the expenses at the gates, and as interest to the subscribers, leaving only £71 to be used for the repair of the roads. Although twenty miles had been repaired, additional tolls were required if the road was to be adequately maintained.<sup>2</sup> The Bill which passed in that session was not opposed by petition in either House. In 1754, a renewal Act was passed for the Cotes Bridge-Nottingham road, a considerable part of its nine miles being in a ruinous condition, and the trustees indebted for £3,100.<sup>3</sup>

The growth in the scale of lead mining operations, and the increasing concentration of lead marketing in London, meant that the large companies and royalty owners became concerned with the transport of lead over greater distances.<sup>4</sup> In Derbyshire the difficulties of transport forced on the London Lead Company the policy of building a smelt mill in every locality as near as possible to the mines. Thus

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1. H. of C. Journals, XXIV, 518. Witnesses before the committee included John Heath and Francis Higgenbotham.

2. Ibid, 567.

3. 27 Geo.II, c.22. For evidence presented to the House of Commons committee see H. of C. Journals, XXVI, 844.

4. Raistrick and Jennings, p.268.

the mines near Matlock were situated at a considerable distance from the port of shipment, and consequently the Peak and Scarsdale districts felt very acutely the problem of transport.<sup>1</sup> During the eighteenth century, the pack-horse mode of conveyance was superseded by ox and horse drawn wagons, but whether this preceded the introduction of turnpikes, or followed it, is not easily established.<sup>2</sup>

The first turnpike trust in the Chesterfield district was only established after a Parliamentary struggle. In February 1739, a petition was presented to the House of Commons seeking leave to bring in a Bill to improve the road from Bakewell, via Chesterfield and Worksop, to Mansfield.<sup>3</sup> This route crossed the clays and shales of the coalfield, and provided a road link to Manchester.<sup>4</sup> When the Bill was in its committee stage, two counter petitions were referred to it, one from Mansfield itself, against the placing of toll-gates near the town, and the other from the Sheffield Cutlers Company. The latter petition alleged that large quantities of cutlery wares were sent every week by land carriage to London via Pleasley and Mansfield. The cutlers were anxious to prevent the setting up of a toll-gate at Pleasley, it having been proposed that tolls should be collected at or near the place where the Chesterfield road met the road from Sheffield.<sup>5</sup> An indication of the opposition to the Bakewell-Mansfield Road Bill was the approval given by the House on 2 April 1739, that

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1. A. Raistrick, Two Centuries of Industrial Welfare: the London (Quaker) Lead Company, 1692-1905, (1938), p.85.

2. S. Glover, Derbyshire (1831), I, 167.

3. H. of C. Journals, XXIII, 242.

4. A. Cosson, op.cit., p.11.

5. H. of C. Journals, XXIII, 300; 302.



the committee should be opened. However, when the Bill was reported, the House was informed that no witnesses had appeared to prove the allegations of the petition from Sheffield.<sup>1</sup> Clauses were added to prevent the setting up of any turnpike gate upon the road from Chesterfield to Mansfield on the west side of Stoney Bridge near Chesterfield and to assign and allocate the revenue received for the repair of the respective parts of the road.<sup>2</sup> No amendments were made to the Bill in the House of Lords.<sup>3</sup> In 1759, a separate trust was established to improve the road from Mansfield to Chesterfield.<sup>4</sup> Some of the roads linking the Derbyshire lead mines to Bawtry were turnpiked in the years 1756-66, including the road from Ashover to the Chesterfield-Mansfield turnpike, which was improved by a trust promoted by the London Lead Company and other mine operators in 1766. In most cases the new turnpike trusts retained the older parish routes.<sup>5</sup>

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The need to improve facilities for the transport of coal prompted the promotion of a number of trusts leading westwards from Mansfield, Worksop and Nottingham to the coalmining areas of the Erewash valley and south Yorkshire in the years after 1756. Petitions to the House of Commons for turnpike roads stressed the need for the improved transport of coal and lower prices.<sup>6</sup> Opposition sometimes developed

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1. H. of C. Journals, XXIII, 312,336.

2. Ibid, 355.

3. 12 Geo.II, c.12.

4. 32 Geo.II, c. 57.

5. Raistrick and Jennings, p.270.

6. Green, p. 50.

from established trusts to schemes for new turnpike roads. For example, in 1764, a Bill was promoted to make a turnpike road from Nottingham, through Ilkeston to Belper Lane End, which was supported by the manufacturers and artisans of Nottingham, Newark, Bingham and several parishes in the Vale of Belvoir, in hopes that the price of coal would be lowered. A counter petition was presented from the mortgagees of the tolls on one of the competing roads, namely, the Nottingham-Alfreton-Newhaven House trust, apprehensive that the new trust would attract traffic by offering lower tolls, and thereby diminish the takings of the established trust. Several of the mortgagees of the Nottingham-Newhaven House trust also petitioned, alleging that the new road would have very little affect on the older one. Cases for and against the Bill appeared in the Nottingham Journal, and a further counter-petition was presented from Derby to the House of Commons, claiming that other turnpike roads, serving the same district, had already been made at great expense. When the Bill finally passed in April 1764, the western terminus had been fixed at Smalley Common, some six miles short of the projected terminus at Belper Lane End. It seems likely that this curtailment of the route satisfied those interested in the Nottingham-Newhaven House road, which would still get the lead traffic from Derbyshire. On the other hand the Nottingham manufacturers would have an additional source of winter coal supply opened up by the eastern end of the route being turnpiked.<sup>1</sup> In several Nottinghamshire turnpike trusts special easy tolls were allowed for coal.<sup>2</sup>

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1. Cossons, op.cit., p. 12.

2. Green, p. 50.





administrative costs.<sup>1</sup> The post master at Post Witham petitioned in favour, but was anxious to ensure that a definite proportion of revenue raised from tolls was allocated to the repair of the post road, which carried six mails per week.<sup>2</sup>

The growing trade connections between the agricultural districts of Lincolnshire and the industrial towns of the West Riding prompted further turnpike developments utilizing the ferries which crossed the lower Trent. In 1755, Lincoln common council agreed to subscribe towards the cost of surveying the road from the north end of Dunsby lane - north of Sleaford - over Lincoln heath, through the city, and across Lincoln open field, and to lend £500 on the credit of future tolls. The roads across Canwick common and from the Stonebow westwards across Carholme and on to Dunham and Littleborough ferries over the Trent were soon added. A southern section of road from Dunsby to Peterborough was also projected, and both Bills passed in 1756.<sup>3</sup> The Grantham-Nottingham-Derby turnpike via Saley ferry was probably designed to facilitate the exchange of agricultural produce from Lincolnshire with coal from Derbyshire and Nottinghamshire.<sup>4</sup> In 1765, the Lincolnshire turnpikes were linked with the Great North Road, Acts being passed to improve the road from Dunham ferry to Markham Common,<sup>5</sup> and between Bawtry and Hainton via Walkerith ferry,

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1. H. of C. Journals, XXVI, 8,10. Witnesses heard by the committee included John Lely, and Nathaniel Wolmer surveyor of the road.

2. Ibid, 36, 51, 63, 76, 101.

3. Hill (1966), p.122.

4. 32 Geo.II, c.53.

5. 5 Geo.III, c.54.



which shortened the route from the wolds to the West Riding.<sup>1</sup> In the same year a turnpike road was sanctioned from Lincoln to Barton on Humber, where a ferry gave passage to Selby, York and Hull.<sup>2</sup>

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In the Vale of Trent - as in other parts of the region - there was an overlap in time between the later stages of river improvements and early efforts to develop canals. As early as 1755, a project to link the rivers Mersey and Trent was suggested by several Liverpool merchants.<sup>3</sup> Three years later, Thomas Broade of Newcastle under Lyme formed a scheme for making a navigable 'cut' forty miles long, eight yards wide and one yard deep between Stoke on Trent and Wilden Ferry.<sup>4</sup> Although it was projected that subsequent connections might be made with the Dee and the Severn, the scheme remained on paper. It was not until 1766 that statutory authority was obtained for a canal of 93 miles linking the Trent and Mersey, which was supported by - among others - Josiah Wedgwood in the Potteries and by Matthew Boulton in Birmingham.<sup>5</sup>

In the eighteenth century, Loughborough developed as an important market town for cattle, corn and malt. Almost thirty years elapsed

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1. 5 Geo.III, c.85.

2. Hill (1966), p.124.

3. Edwards, p.332.

4. Derby Mercury, 7 December 1758. It was estimated that over 30,000 tons of goods would be carried on the 'cut' each year, producing an annual revenue in excess of £4,000.

5. Edwards, p.332.

after the defeat of the Soar Navigation Bill before statutory authority was obtained to open the waterway to Loughborough in 1766.<sup>1</sup> In the same year it was proposed that the river Tame should be improved to Birmingham, but nothing came of it.<sup>2</sup>

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Further down the Trent, changes of another nature were taking place at Wilne Ferry. In 1758, a scheme was revived to build a bridge over the Trent at Wilne Ferry, and an Act was obtained in the same year.<sup>3</sup> The preamble set out that communications between the counties of Leicester and Derby would be facilitated by the construction of a bridge:-

'a more commodious, useful and safe Communication.'

The tolls to be collected on the new bridge were fixed at the same rates which had previously been paid by those using the ferry. The previous owners of the ferry, Sir Matthew, and Penistone Lamb lost all their rights, in return for which the bridge trustees were to pay an annual rent of £150.<sup>4</sup> The Duke of Devonshire provided most of the initial capital, and in 1758, Cavendish bridge was completed at a cost of £3,333.<sup>5</sup>

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Below Nottingham, the attempts made by the corporation of Newark

1. Edwards, p.331.

2. Derby Mercury, 19 July 1766.

3. 31 Geo.II, c.59.

4. loc.cit.

5. Derby Mercury, 7 April 1763. The bridge was 18 feet wide and 246 feet long.



to improve their branch of the Trent aroused the opposition of interests dependent on the other river ports, no doubt apprehensive that Newark's gain would be their loss. Witnesses who attended the House of Commons committee, which was appointed to examine the allegations of the Newark petition, affirmed that a design had been considered as early as 1646 for using the Newark branch of the river Trent. It seems that in the eighteenth century, Newark traded in corn, coal and wool principally:-

'which when they are to be sent or brought by water up or down the Trent, must be carried about two miles to and from Newark by land . . . waggons bring corn and load back with coals . . .'

Witnesses asserted that these inconveniences might be avoided by making the Newark branch of the Trent navigable from the upper weir to the Crankleys, mainly by the removal of sand and shoals.<sup>1</sup> Petitions in favour of the Bill were presented from Grantham, and from graziers and farmers of Long Bennington, Claypole, Doddington and Westborough. The corporation of Nottingham voted £50 to traders and watermen in the town, providing they agreed to spend twice as much in opposing the Newark Bill, and gave leave for interested parties to inspect the corporation records to provide evidence which might be employed.<sup>2</sup> In the House of Commons, petitions against the Bill were presented from Nottingham, Gainsborough, Hull, and the London cheesemongers.<sup>3</sup> The

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1. H. of C. Journals, XXIV, 111. Witnesses in favour of the Newark petition included Matthew Bradford, rector of Collingham, Robert Hall, Robert Hearne and Robert Spragging, the agent for the promoters.

2. Willan (1936), p. 44.

3. H. of C. Journals, XXIV, 136, 147, 160, 162, 163.

Bill of 1742 failed to pass and thirty years elapsed before Newark obtained the requisite statutory authority.

### (iii) THE FOSSDYKE AND THE WITHAM

After the death of his father in 1743, Richard Ellison junior held the lease of the Fossdyke. Although it was alleged in 1761 that the lessee had spent over £14,000 in the previous twenty years in excess of what he had received from the navigation, it was often necessary for the common council of Lincoln to goad him into action. For example, in 1747 it seems that Ellison made a new cut out of the old channel of the Fossdyke and erected a new wharf nearby. One affect of this was that part of the old river silted up, but it was only under the threat that Lincoln common council would take action, that Ellison agreed to provide a passage for keels from the new wharf into Brayford.<sup>1</sup> A more serious threat to Ellison arose from the revival of schemes to improve the navigation of the river Witham.

In the 1730's the common council of Lincoln had shown a growing interest in the improvement of the river Witham to the port of Boston. On 30 March 1736, the findings of a Commons committee - appointed to examine the petitions from Lincoln and Boston seeking leave to bring in a Bill for the improvement of the Witham - were reported to the House. One witness had affirmed that there had been continuous complaints of obstruction to navigation, and that the river was in danger of being lost by being silted up on the stretch above Boston.

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1. Hill (1966), p.130.



When an engineer, James Scribow was examined, he had confirmed the existence of several tortuous bends on the stretch of river between Chapel Hill and Boston, at which places the waterway was not more than 20 feet broad. He claimed to have seen watermen attempting to navigate between Boston and Lincoln, but finding it necessary to use lighting boats:-

'they could not get up thither, but were obliged to unload their goods, and put them in less boats; and that they told him, that they should be under a necessity of unlading them several times, before they should be able to get up.'

All the witnesses stated that the ruinous state of the river was responsible for extensive flooding, to alleviate which the riparian proprietors had had recourse to the commissioners of sewers.<sup>1</sup> To remedy these defects, the engineer proposed to make a cut, seven miles in length, from Anthony Goat to Tattershall for both drainage and navigation purposes. The estimated cost of the cut - which was to be 70 feet wide and 6 feet deep - was £6,363. Efforts to obtain statutory authority at that time proved abortive.<sup>2</sup>

It was the possibility of improving drainage rather than navigation which seems to have prompted the revival of interest in the Witham in 1761. In that year several landowners joined in a petition to Parliament seeking leave to bring in a Bill for draining certain low lands lying on both sides of the river Witham and for restoring

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1. H. of C. Journals, XXII, 661.

2. Ibid. It was maintained that the cut would help to drain effectively over 27,000 acres of land.

and maintaining the navigation of the waterway from Highbridge in Lincoln through the port of Boston to the sea.<sup>1</sup> Lincoln, and several towns in Yorkshire, opposed the scheme apprehensive that the Fosdyke navigation would be destroyed. In February 1762, Richard Ellison apprised Samuel Dawson - who was concerned in the growing intra-regional coal trade - of the likely repercussions if the scheme was effected, and of the challenge they would have to face from the import of sea coal:-

'A Bill is now preparing to be brought into Parliament this Sessions for improving the Navigation from the City of Lincoln to . . . Boston and for draining the low Grounds betwixt the two above places. The methods proposed for joyning this new Navigation with mine that goes from the River Trent to the City of Lincoln, will entirely destroy my Navigation . . . don't doubt but you are thoroughly sencesible of the benefits arising to you as a Coal Owner and Worker from my Navigation being supported, as the consumption up to Lincoln has been so very considerable, and will be more so in process of time if the same communication be kept open, but if the present scheme of the Gentlemen of Boston, pass into a Law and be putt into execution, that valuable branch of Trade which is now carried on betwixt the Countys of York and Lincoln, will be entirely lost, and carried on by the People of Boston and all that extent of Country which is now served with coal from Yorkshire will be served with sea coal by Boston. I hope you'll consider this affair and take what methods you think proper to prevent the above passing into a Law . . .'

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1. Hill (1966), p.131.

2. Wentworth Woodhouse MSS. Rockingham Letters R1/224. Dated at Thorne, 1 February 1762.



Although the Witham Bill passed in 1762, provisoes were written in, the effect of which was to ensure the continued use of the Fossdyke. The Aire and Calder proprietors and lessees seem to have played an active role in supporting Ellison. In May 1762, Peter Birt of Armin informed Richard Wilson, one of the Wakefield trustees:-  
' . . . I have the Pleasure to acquaint you that Mr. Ellison's attendance in London to secure the Navigation to Lincoln has been successful . . . Ellison was much obliged to you and the other Proprietors.'<sup>1</sup>  
Under the authority of the Witham Act, the river was to be cleansed and made navigable from Stampend Lock in Lincoln to Boston for vessels drawing 3 feet 6 inches of water. In addition to the erection of a number of flood gates designed to maintain the water supply of the Fossdyke, goods passing down the Fossdyke for Boston, or vice-versa, were landed at Brayford Bridge and carted through the city to the river Witham below Stampend.<sup>2</sup> The navigation continued in this state until 1793. The need to maintain the water level in the Fossdyke was possibly one of the motives which prompted Ellison to seek the advice of John Smeaton. However, only minor work seems to have been carried out on the waterway.<sup>3</sup>

#### (iv) THE INLAND PORTS OF THE VALE OF TRENT

Although there are extant statistics for the Fossdyke revenues, and of the volume of goods carried along the river Idle, it is not

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1. ACN 4/36.

2. 2 Geo.III, c.32.

3. Hill (1966), p.130. Richard Ellison jun. d.1793, bequeathing the Fossdyke to Richard Ellison of Boultham and Henry Ellison.

possible to provide a complete picture of the volume of commodities handled by all the inland ports of the Vale of Trent in the pre-canal age. Similarly, the total tonnage of vessels operating from the inland ports in intra-regional and inter-regional trade is still a matter for conjecture for the most part. It is less difficult to discern the principal commercial patterns.

. . . . .

Gross receipts on the Fosdyke rose from an annual average of £647 in the years 1746-55, to a mean of £1,038 per annum in the years 1756-65.<sup>1</sup> In 1768, it was estimated that twenty sloops and keels - a total tonnage of 400 tons which employed 40 men - were regularly trading between Lincoln and Hull.<sup>2</sup>

The intra-regional trade of Lincoln by water was mainly concerned with the import of coal and the export of agricultural produce, in particular grain and wool. Coal was brought from the Don, the Aire and Calder and the Trent valleys, and by 1745 was being offered at less than two-thirds of the price it had formerly been sold at.<sup>3</sup> It seems probable that Richard Ellison was actively engaged in this trade, together with the dealings in timber which remained the main business concern of the Thorne family.<sup>4</sup> In exchange for coal, grain and wool were sent to counties west of the Trent. For example, in

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1. Hill (1966), p.308.

2. Wentworth Woodhouse MSS. R/61/22/1.

3. T.Allen, op.cit., I, p.72.

4. Sheffield Central Library. Archives Department. M.D. 2764.



April 1755, it was recorded in the Derby newspaper that:-

'owing to the shortage of corn in Derby market, large quantities have been bought in Lincoln and elsewhere and sent here by boat up the river Derwent.'<sup>1</sup>

By the 1760's at least one Lincoln vessel was visiting Leeds fortnightly with wool, and taking back goods up the Trent.<sup>2</sup>

. . . . .

Although the Idle-Trent axis continued to be used by Sheffield traders when the Don waterway could not be employed, dealings at Bawtry wharf were increasingly confined to lead, timber, coal, and the shipping of a variety of goods for local estates.

Table 6. Goods sent from and brought to Bawtry for year ending  
1 January 1768

<u>Commodity</u>	<u>Tonnage</u>
6,420 pigs of lead is 802 fadders @ 24 cwt.	962
684 barrels red lead @ 8 cwt per barrel	273
sundry other goods sent down	340
sundry goods brought up	1,730
timber	57
stone and freestone	97
Paul Smith has paid dues for	707
--- Bingley has paid dues for (in his boat)	249
	<u>4,415</u>

One of the wharfingers at Bawtry, James Gunthrop noted that:-

'all the years prior to that of 1767 contains more tuns as the business at the Wharf has been gradually decreasing for a number of years.'<sup>3</sup>

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1. Derby Mercury, 24 April 1755.

2. Thoresby Society Miscellanea, XXXIII, 203-4.

3. Sheffield City Library. Archives Department. M.D. 3707.

The records of Bawtry wharf are scanty for the mid-eighteenth century, but it seems that Gunthrop was not the sole wharfinger. In 1758, Paul Smith, one of the wharfingers at the Idle port entered into partnership with John Ella, a timber merchant of Snaith, and advertised that they had:-

'leased land on the river Idle near Bawtry Bridge and have made a Commodious Wharf, warehouse and coal yard and have built boats for conveying timber, lead &c to and from Stockwith and Gainsborough on Trent.'<sup>1</sup>

. . . . .

The quantity of goods carried along the Trent in the pre-canal age is a matter of speculation. In the eighteenth century the use of water transport for the conveyance of coal to both local and distant markets from the mining districts of Derbyshire and Nottinghamshire provided the greatest impetus to the growth of intra-regional trade in the Vale of Trent. Boats having a capacity of 30-40 tons carried regular shipments to Derby, Nottingham, Newark, Lincoln and Gainsborough and even as far as the Humber, some being used to bring return cargoes of corn, malt, stone and timber.<sup>2</sup>

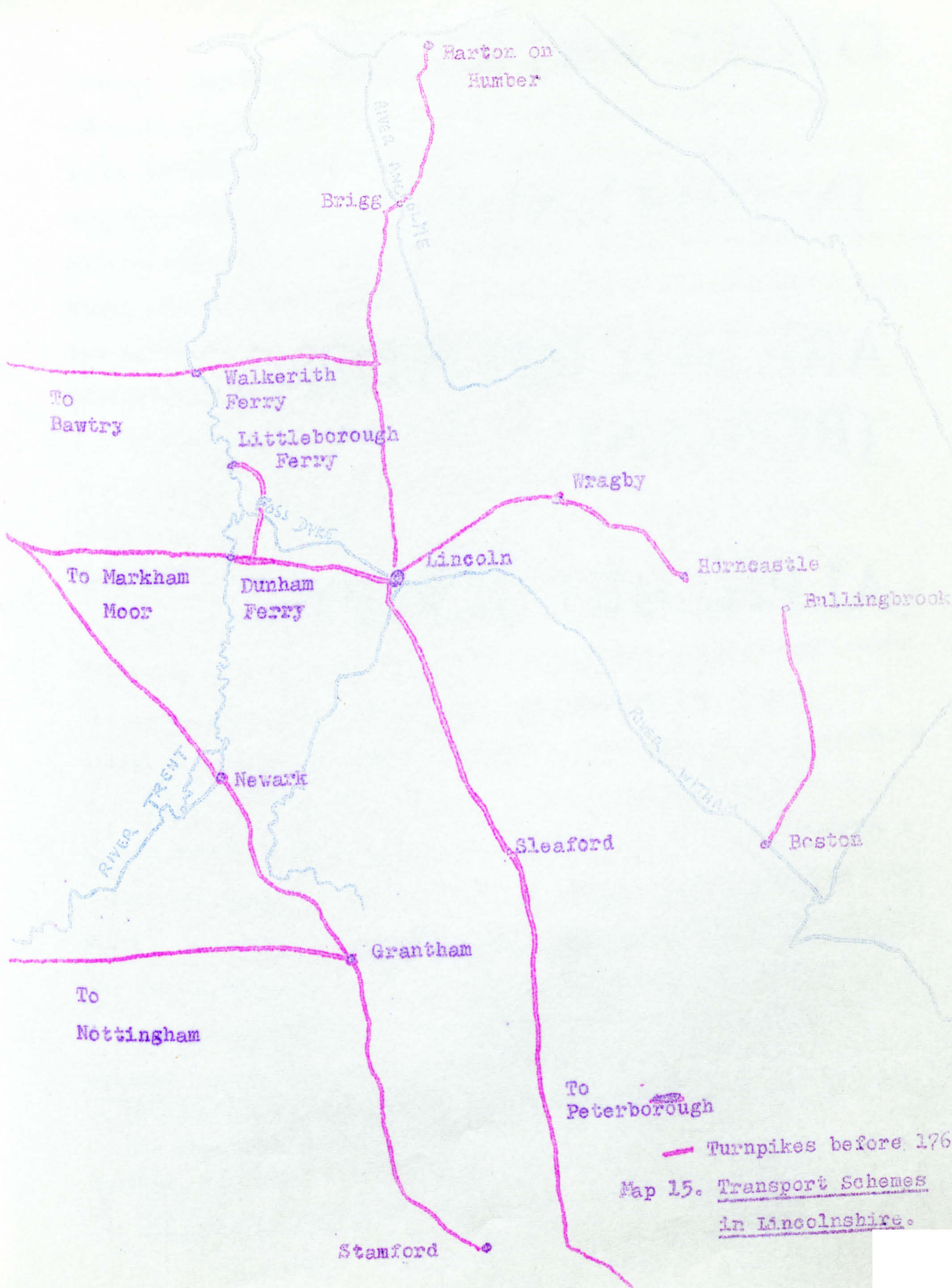
Despite the monopolistic practices of the lessees of the upper Trent navigation, it is apparent that the waterway was being used to

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1. Derby Mercury, 2 October 1758.

2. Edwards, p.331. According to Deerring the regular down river trade of Nottingham in the eighteenth century consisted of coal, lead, timber, corn, wool, pottery, and cheese from Staffordshire, Cheshire and Warwickshire.





Map 15. Transport Schemes  
in Lincolnshire.



Burton. In 1765, it was stated that Cheshire cheese, pottery, and hardware from the Birmingham district were being shipped down the river to Gainsborough. A notable development was the transport of ale from Burton, either coastwise to London, or as an export to Europe, chiefly to the Baltic countries. At Burton several breweries which were to become renowned - particularly Worthington and Allsopp - had agents in Gainsborough and Hull, who shipped ale to Danzig, Elbing and St. Petersburg, and arranged for return cargoes.<sup>1</sup>

During the first half of the eighteenth century the lessees of the upper Trent navigation did their utmost to retain their quasi-monopoly, while a clause in the Act of 1699 rendered it impossible to build wharves between Burton and Shardlow without the consent of the Earl of Uxbridge or the lessees to whom he farmed the waterway. Following a quarrel in 1749 between the lessees and a company using the navigation, the former resorted to blocking the waterway for almost a decade.<sup>2</sup> The challenge to the Fosbrooke family of Shardlow Hall and Ravenstone, who had controlled the upper Trent with the Haynes family of Burton, almost certainly came from Francis Ward, a Nottingham wharfinger who subsequently set up as a merchant at Wilne Ferry. Ward had earlier been involved in protracted litigation with the corporation of Nottingham over their right to wharfage toll.<sup>3</sup> When he died in May 1752, a short obituary in the Derby Mercury noted:-

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1. Mathias (1959), p.176. The Worthington firm was founded in 1744; the Bass firm in 1777.

2. Wood, p. 22.

3. Nottingham Records, VI, 130.



'the present flourishing state of trade and navigation up the river Trent are chiefly owing to him, and his opening a free navigation on the said river from Gainsborough to Burton of his own expence is a lasting memorial of his public spirit in the defence of the Common Rights of Mankind.'<sup>1</sup>

Vessels employed on the Trent were built locally, in particular at Stockwith and Gainsborough. During the controversy in 1745-46, concerning the import of sail-cloth from the Baltic, a petition was presented to the House of Commons from sail-makers, rope-makers and sail-cloth manufacturers in Gainsborough, which affirmed that:-

'several sloops, of forty or fifty tons, built upon the river Trent have been entirely fitted out with foreign sail-cloth and have navigated to Hull, without any exception taken at them by the officers of Customs.'<sup>2</sup>

Witnesses who appeared before the Commons committee alleged that about 150 sloops, keels and ketches were regularly employed on the river Trent, excluding larger vessels which engaged in the coasting trade.<sup>3</sup> In 1768, it was calculated that 30 sloops and keels were regularly employed between Gainsborough and Hull, a total burthen of 1,500 tons and navigated by 90 keelmen.<sup>4</sup> When Arthur Young visited Gainsborough, he saw ships of 700 tons costing £3,800 on the stocks in the yard of Henry Smith and Son.<sup>5</sup> On the eve of the canal age,

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1. Derby Mercury, 27 May 1752. Death of Francis Ward, merchant of Willington.

2. H. of C. Journals, XXV, 42.

3. Ibid, 99.

4. Wentworth Woodhouse MSS. R/61/22/1.

5. Young, I, p.102.

the port of Gainsborough was flourishing. A witness in a lawsuit in 1769 affirmed that:-

'Many private Wharfs and Warehouses (have been) built at great Expence since the Increase of Trade there . . . of very great extent which are commonly used for landing corn and absolutely necessary for carrying on the Trade there.'<sup>1</sup>

Some years later, a topographer recorded that:-

' . . . about sixty years ago, the Trent was rendered navigable as high as the town of Burton. In consequence of this improvement considerable business began to be done upon it. And it was calculated, that the goods carried down it every year amounted to about fourteen thousand tons.'<sup>2</sup>

#### (v) THE EARLY TURNPIKE TRUSTS OF SOUTH YORKSHIRE

The growing interest in road reform and road making, which may be dated from the 1730's, was prompted partly by local needs and demands, and partly as local manifestations of the increasing general concern at the state of the highways. As in other parts of the region, the turnpike trusts may be classified partly according to traffic specialisms, namely, trans-Pennine routes, north-south routes, 'feeder' routes to the inland ports, and coal and lead mining routes.

In the seventeenth and early eighteenth centuries, goods were sometimes sent by land carriage from Manchester and Stockport to

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1. Beckwith, p. 18.

2. J. Pilkington, View of the Present State of Derbyshire (1789), I, 276-7.



Doncaster, the head of navigation before the extension of the waterway. In 1732, an Act was passed to turnpike the road from Manchester to Saltersbrook via Ashton under Lyne and Mottram in Longdendale. Two years later, proposals were made to turnpike the remaining stretch of the trans-Pennine route from Saltersbrook to Doncaster via Barnsley. However, no Act was obtained at that time.<sup>1</sup> The late 1730's seems to have witnessed an increase in inter regional dealings, which encouraged the development of Barnsley. In 1739, William Marsden one of the leading inhabitants of the town described the prevailing patterns of commerce to the agent of the new lord of Barnsley manor, the Duke of Leeds:-

' . . . the advantage our town of Barnsley received from our corn market, and that it was in a great measure supported by the Demand from the western Countys, Lancashire and Cheshire . . . another advantage that has accrued to our neighbourhood of late years, by Grinding the wheat upon the mills situate upon the streams near to us, and sending it in the flour instead of the grain, from which watermills are grown much more valuable than they were, and take greater rents than they formerly did, and still they are deficient, and unable to doe whats required . . . that a windmill or two being erected upon some part of our Common would certainly meet with encouragement to answer what money would be required to be laid upon the project. . .'<sup>2</sup>

Three roads from Doncaster were among the six West Riding turnpike

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1. J. Wilkinson, op.cit., p.172.

2. Leeds MSS. Box 36 (unsorted).

Bills promoted in the 1740-1 Parliamentary session, namely, the route to Saltersbrook via Barnsley, to Halifax via Wakefield, and to York via Ferrybridge. In December 1740, Cavendish Nevile wrote to William Spencer at Cannon Hall:-

' . . . There's to be a meeting at Doncaster . . . upon the Several Schemes for carrying the Roads thence to York, Wakefield and Barnsley to meet the Cheshire and Lancashire Roads. I believe they would be advantageous to our Countrey and convey everything wanted to our Trade with more dispatch and safety and be of a General Service to our Carriers . . .'<sup>1</sup>

On 19 December 1740, a petition was presented to the House of Commons from traders and farmers living in and around Doncaster and Barnsley seeking leave to bring in a Bill for the repair of the twenty-two miles of road between Doncaster and Saltersbrook, part of the route:-  
'for conveying Goods from the Eastern to the Western Seas.'<sup>2</sup>

A week later William Marsden apprised the Duke of Leeds that:-

'in regard to the affair of our Turnpike which goes on very well, and I believe at last wee shall have a generall Consent; but wee have had a great friend of my Lord Dupplin. I know not how wee should have done if His Lordship had not engaged in the affair, for at our generall meeting no one appeared either so willing or so able to serve us.'<sup>3</sup>

At the end of January the committee nominated by the House of Commons to examine the allegations of the Doncaster and Barnsley

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1. Spencer Stanhope MSS (Sheffield). 60524.

2. H. of C. Journals, XXIII, 568.

3. Leeds MSS. Box 36 (unsorted).



petition reported back to the House. Witnesses had testified that the stretch of road between Manchester and Saltersbrook had been improved following the implementation of the 1732 Act:-

'but the road from Saltersbrook to Doncaster is in a very ruinous condition and dangerous to Passengers travelling the same in the Winter season notwithstanding statute work has been done.'

Cheese, salt, potatoes and manufactured goods were carried by pack-horse from Manchester and Barnsley to Doncaster, with back carriage in hemp, flax and German yarn for the Lancashire textile industries. It was anticipated that the improvement of the Doncaster-Saltersbrook stretch would enable wheeled traffic to be used:-

'... trade could be carried on much easier, by sending Commodities in Waggon, Carts . . . the Yarn which comes over in great Fats (B) could be carried much more conveniently . . . a great advantage would arise to the Traders of Manchester, Barnsley and Parts adjacent, they being at present obliged to send their Goods in Packs to London, which they could then bale at home.'

It was also expected that interests concerned in coal mining in the Barnsley district would benefit:-

'in the great Increase in the Sale of coals which in the present ruinous condition of the Roads can now only be carried a few Months in the Summer; but if the Roads . . . repaired might be carried at all times of the year.<sup>1</sup>

Traders and farmers at Rotherham were anxious that the road from their town to the Doncaster-Saltersbrook road in Penistone might be

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1. H. of C. Journals, XXIII, 613.

included in the Bill. George Phipps had informed the committee that the passage of heavy waggons had rendered the Rotherham-Hartcliffe Hill road in a ruinous condition, despite the expenditure of an assessment of 6d in the pound. The road was a 'feeder' to the river Don, it being maintained that the proposed improvement in land carriage would benefit the manufacturing towns of Lancashire and would facilitate the conveyance of iron from Wortley forge to Rotherham:-

'for the further Convenience of Water-carriage, the River Dun being navigable to the said Town.'

Having considered the report, the House agreed that a Bill might be brought in to improve the road from Doncaster to Saltersbrook and from Rotherham to Hartcliffe Hill.<sup>1</sup>

The passage of the Bill met little organised opposition, although the lessees of the river Don, and landowners with interests in coal were apprehensive on some points. On 12 February 1741, William Marsden informed William Spencer of the efforts being made by Henry Broadhead to hinder the progress of the Bill:-

'who pretends he does it by reason the toll for Coaches is charged too high, but the truth of the story is, he's a farmer of the Navigation of the river Dunn, and therefore does not like it.'<sup>2</sup>

Delays in the committee stage were also occasioned by differences between Lord Effingham and Edward Wortley about the location of the various toll bars:-

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1. H. of C. Journals, XXIII, 613.

2. Spencer Stanhope MSS (Sheffield). 60515.



'the former would not have one placed nigher Rotherham than Park Gate, by which means his Coals would goe to Rotherham and the river without paying any toll, the latter insisted upon its being left in the breast of the Commissioners to sett it where they thought most proper.'<sup>1</sup>

After long discussions and several meetings of the committee, it was finally agreed that the placing of the toll bar should be left to the Commissioners named in the authorisation instrument. On 28 February 1741, Marsden informed William Spencer that:-

'I expect our Turnpike will be reported Monday . . . Wortley being now satisfied . . . he and Lord Effingham has caused some delay in regard to the Rotherham branch.'<sup>2</sup>

The later stages of the Bill's progress in the House of Commons aroused no further contention, and it passed the Lords without amendment.<sup>3</sup> In the same session, Acts were passed to turnpike the roads from Doncaster to Halifax via Wakefield,<sup>4</sup> and from Doncaster to York via Ferrybridge.<sup>5</sup>

An indication of the progress made by the various trusts may be discerned from an examination of the Parliamentary proceedings which occurred when renewed or additional statutory powers were deemed requisite. In 1756, the trustees for the Red House (Doncaster) to Wakefield and Wakefield to Halifax roads promoted a renewal Bill. On 3 February, Sir Lionel Pilkington reported to the House of Commons from

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1. Spencer Stanhope MSS.(Sheffield). 60515.

2. loc.cit. Marsden had previously expressed some doubts about the inclusion of the Rotherham branch:- 'I always apprehended we should or might be delayed by suffering Rotherham to joyn...'

3. 14 Geo. II, c.31.

4. 14 Geo. II, c.19.

5. 14 Geo. II, c.28.

the committee nominated to consider the several petitions. Witnesses had alleged that the trustees for repairing the Wakefield-Halifax stretch had borrowed £3,180 and that £5 remained due for interest. The Redhouse-Wakefield trustees had raised £1,107, and the sum of £67 was outstanding for the payment of interest.<sup>1</sup> Subsequently, the sum of £289 was remitted to Samuel Harper the promoters' solicitor, but the Bill failed to pass in that session. In 1757 the necessary authority for renewing the powers of the trusts was secured.<sup>2</sup>

In June 1757, subscriptions were opened to obtain additional loan capital for the Redhouse-Wakefield road, the former creditors to be paid off unless they agreed to a reduction of interest to four per cent. If any of the former creditors subscribed additional sums then:- 'their old and new Debts put together that the whole may carry Interest from one and the same time.'

Table 7. Creditors of the Redhouse-Wakefield Turnpike Trust in 1758.<sup>3</sup>

William Ledgard of Wrenthorpe	500
Sir Rowland Winn of Wostell	300
John Roebuck of Heath	300
Charlotte, Frances, Jane and Mary Ramsden,) all of Pontefract, spinsters. )	300
Marquis of Rockingham	250
Thomas Thornhill of Fixby	250
Thomas Yarborough of Campsall	200
John Smyth of Heath	150
Sir George Savile	150
Sir William Wentworth of Bretton	100
Metcalf Proctor of Rothwell	100
Dr. Cookson of Wakefield	100
John Sylvester Smyth of Newland	100
Mrs Sarah Ingram of Wakefield	100
Lord Downe	100
Richard Weddell of Newby	100
Thomas Winn	50
John, Robert and Pemberton Milnes of Wakefield	150
	<u>£3,300</u>

1. H. of C. Journals, XXVII, 421.

2.

3. W.R.A.O. Redhouse-Wakefield Turnpike Trust. Minute Book 1.



When the new Act was implemented, it was agreed that toll bars should be located at Agbridge, Windmill and Wragby on the Redhouse-Wakefield road. In 1768, the tolls were first leased for a term of three years to John, Richard and George Blackburn at an annual rent of £380. By 1774, the rent paid by the new lessee - James Barber of Hutton Bank bar near Ripon - had risen to £407 per annum.<sup>1</sup>

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. . . . .

. . . . .

The chief exit from Sheffield by road was by way of Lady's Bridge, from which point two roads diverged, namely, the route to Tinsley and Rotherham and thence to Bawtry, and the route to Barnsley, Wakefield and York. A southern exit went via Far Gate, Barker's Pool, Coalpit Lane and Button Lane to Little Sheffield.<sup>2</sup> The Sheffield Company of Cutlers and the Town Trustees were associated in a number of turnpike undertakings with the double motive of contributing to the town's development and providing a source of investment.

During the Seven Years War, a number of turnpike Acts were passed authorising the improvement of some of the more important stretches of road in south Yorkshire and north Derbyshire. In 1756, a trust was authorised to improve the Sheffield-Derby road, which was part of the London road via Chesterfield. Two years later, the road between Sheffield and Wakefield via Barnsley was also turnpiked. By 1776, the indebtedness of this important north-south route amounted to a

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1. W.R.A.O. Minute Book of Redhouse-Wakefield Trust. In 1774, it was necessary to establish a new toll bar at Ackworth because the tolls raised from the gate at Wragby had diminished:- 'by reason of the New Road being opened to . . . colliery at Nostell.'

2. A.W.Goodfellow, 'Sheffield Turnpikes in the Eighteenth Century', Transactions of the Hunter Archaeological Society, V (1943) ,p.71

a total of £5,300.

Table 8. Creditors of the Sheffield-Wakefield Turnpike Trust in 1776

Duke of Norfolk	1,200
Earl of Strafford	900
Mrs Wood	800
Duke of Devonshire	600
Marquis of Rockingham	600
Mrs Mawhood	400
Sir Thomas Wentworth	300
Mrs E. Robinson	300
Sheffield Town Trustees	200
	<u>£5,300</u>

An important factor in road improvement in the middle decades of the eighteenth century was undoubtedly to facilitate coal traffic and the extension of markets. For example, it seems that the chief purpose of the turnpike road from Sheffield to Buxton via Grindleford Bridge and Hucklow, and the road to Sparrowpit via Hathersage, Hope and Castleton, was to enable coal mined around Heeley to compete with coal mined in Cheshire, which was carried along the Sherbrooke Hill trust's road from Chapel-en-le-Frith toll free.<sup>2</sup> These roads were turnpiked under an Act of 1758.<sup>3</sup>

In 1726 and 1740, the undertakers of the Don Navigation had been authorised to improve the road between the statutory limit of the waterway at Tinsley and Sheffield and to rate goods at 1d per ton. When proposals were made in 1759 to turnpike the road from Bawtry to Sheffield via Tinsley, the Don undertakers were apprehensive that the trustees of the new turnpike might set up a gate on the stretch of road between Tinsley and Sheffield, and exact tolls in addition to

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1. A. W. Goodfellow, op.cit., p. 78.

2. Hopkinson, 'Coalfield', p.307.

3. 31 Geo. II, c.62.



the impost which the undertakers had been authorised to collect. If this occurred, it was anticipated that the trade of the river Don would be discouraged, and the undertakers were anxious either to prevent the location of a toll bar between Tinsley and Sheffield, or to exempt carts and carriages conveying goods to and from Tinsley wharf.<sup>1</sup> It soon became clear that the undertakers would not be able to abort the Bawtry-Sheffield scheme, which induced them to consider the pros and cons of either seeking to have saving clauses and provisoes written into the Bill, or of securing additional powers for their road between Tinsley and Sheffield.<sup>2</sup> The interests at Bawtry, who were largely responsible for the promotion of the road Bill received support from Sir Lionel Pilkington, an M.P. who seems to have had a poor opinion of the tactics employed by the Don undertakers:- 'and not only sees through all their little mean shifts, but has guarded against them . . .'<sup>3</sup>

When the Bill was being considered at the committee stage on 5 May 1760, it was agreed that:-

'no bar will be erected between Tinsley and Sheffield but the trustees have a power to lay out not exceeding £10 yearly if they shall think fit, in the Repairs of the portion of road belonging to the Navigators.'<sup>4</sup>

The Act which passed in 1760 authorised the improvement of the roads from Bawtry to Sheffield and thence to the south side of Wortley where

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1. Don MSS. River Dun Minute Book I, fol.171.

2. Tibbitts Collection. T.C.522/162.

3. loc.cit. T.C. 404/15.

4. loc.cit. T.C. 522/173.

the route joined the turnpike road leading from Rotherham-Manchester.<sup>1</sup>  
 Of the £3,000 borrowed by the trustees, a considerable part was subscribed by the leading inhabitants of Bawtry.

Table 9. Creditors of the Bawtry-Sheffield Turnpike Trust in 1765<sup>2</sup>

John Lister of Bawtry	1,200
Richard, Earl of Scarborough	500
Robert Townrow of Glentworth, Lincolnshire	200
John Dawson of Bawtry	200
Robert Banks of Bawtry	200
Mary Maw of Bawtry	200
William Mellish of Blyth	200
William Robinson of Wickersley	200
Thomas Ward of Arnold, Nottinghamshire	100
	<u>£3,000</u>

To what extent the promoters of road Bills for the highways of south Yorkshire took into consideration the prevailing rates of interest is a matter on which little information has yet come to light. As in the Vale of Trent, road Bills continued to be promoted during the Seven Years War, accelerating a little in numbers in 1764-5. Reference to the relationship between the rate of return on loan capital and the timing of a turnpike promotion may be seen in the case of the Doncaster-Tinsley road. In December 1763, Lord Rockingham was informed of a meeting held at Doncaster to promote the requisite Bill, at which time it was agreed to pay five per cent interest:-

'at which rate a large Subscription is made, and not extraordinary that on the eve of the lowering of Interest, people should be ready

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1. 33 Geo.II, c.55.

2. W.R.A.O. Minute Book of the Sheffield-Bawtry Turnpike Trust. Box 35.

Robert Townrow was the steward of Lord Scarborough.



to lend their money on so good and lasting a Security.'

Rockingham was urged by John Wrightson of Cusworth to use his interest so that the promotion of the Bill might be postponed:-

'for if it was thought proper to delay it some time since, on account of the high Interest of money, it certainly will be prudent to delay it one year longer at least, when it is probable money may be borrowed at 4 per cent. Besides the affair does not seem to be conducted with that knowledge and caution necessary, and appears to be entered into, with too much precipitation and inattention by some, by others with deliberate Views of private Interest, more than the general good of the Country. Whenever the Heads of a Bill can be framed in the Country upon equitable terms, and money borrowed at moderate Interest, I shall be very glad to see a Turnpike promoted, as the badness of the Roads in some places calls for it.'<sup>1</sup>

In 1764, Acts were passed to improve the roads between Doncaster-Tinsley<sup>2</sup>; between Sheffield-Worksop<sup>3</sup>; and between Rotherham and Pleasley.<sup>4</sup>

#### (vi) TRADE AND TRANSPORT ON THE RIVER DON IN THE PRE-CANAL AGE

Between 1741-50, the Company of Proprietors of the River Don raised an additional sum of £14,250, which was principally required for carrying out improvements below Wilsick House and in extending

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1. Wentworth Woodhouse MSS. R1/39/9(a).

2. 4 Geo. III, c.64.

3. 4 Geo. III, c.52.

4. 4 Geo. III, c.65.

navigation to Tinsley. By 1751, when the river was opened throughout its length, the total capital of the undertaking was £40,500, after which time additional expenditure went mainly on routine repairs and minor improvements.<sup>1</sup> Although toll receipts for the years when the waterway was leased by navigation 'farmers' have not come to light, the increasing rent paid by the lessees was undoubtedly a reflection of the growing trade on the river. The rent paid by the lessees rose from £1,200 per annum in 1740 - allowing for an annual dividend of 4½ per cent - to £3,500 per annum between 1751-58 - allowing for a dividend of nearly 9 per cent on an increased capital.<sup>2</sup> When the Company resumed direct management of the navigation in 1758, the return on the proprietors' capital compared favourably with most of the transport undertakings of the region. However, the proprietors could scarcely have been confident either that the waterway had been perfected, or that its commercial and revenue potential had been fully realised. Not merely were their powers limited by the Act of 1740 to deepening the channel from Fishlock Ferry to below Stainforth ford and to making any cut or lock on the south side of the river, but much of the local water traffic was exempted from additional tolls.<sup>3</sup>

Having carried out improvements between Stainforth and Fishlock, the proprietors turned their attention to the lower stretches of the waterway. For example, in 1759 the channel of the river below Barnby Dun was contracted to give a better flow of water, and in the following year James Brindley was employed to design the leaves for three bridges

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1. Willan (1965), p.38.

2. Ibid, pp. 34, 39.

3. Hopkinson, 'Inland Navigation', p.233.



across the Dutch river for which authority had been obtained in 1727.<sup>1</sup> In the 1760's the Don Company began to acquire water rights at as many points along the river as possible, a policy which led to a prolonged dispute with the Walkers of Masborough, who had leased water rights at the Holmes, the property of the Earl of Effingham. When the Don Company resumed direct control of the river in 1758 the preferential tolls enjoyed by the Walkers had been abolished, and the ironmasters complained that this meant that all boats were paying the same dues irrespective of destination. On the other hand, the Don undertakers complained that the Walkers' new works - rolling and grinding mills and a furnace - took three times as much water out of the river as the old slitting mill of John Fell had done. In 1761, the committee members of the Don Company made an unsuccessful approach to the Earl of Effingham, offering him compensation if he would agree to a diminution of water used by the Walkers' works. In the following year the Don proprietors attempted to secure an Act to enforce what they considered as their rights, but it seems that Effingham's influence was sufficient to secure its rejection.<sup>2</sup> The dispute dragged on, and in 1770 the Walkers completely paralysed the waterway by preventing all traffic from passing through the Long Cut at Thrybergh. Eventually, the Don proprietors were compelled to admit defeat and to pay the Walkers £90 annually and to concede the claim for freedom from tolls between Holmes and Rotherham, in return for which the ironmasters promised to keep the navigation supplied with water.<sup>3</sup>

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1. 13 Geo. I, c.20.

2. Hopkinson, 'Inland Navigation', p.235.

3. Ibid.

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An analysis of the extant toll revenues of the Don Navigation between Lady Day 1759 and Lady Day 1769 - the total yield of which amounted to £70,061 - provides an indication of the importance of intra-regional trade. Of a mean annual total of £7,006, the revenue from coal amounted to £3,732 16s per annum, or something over 53 per cent.<sup>1</sup> The construction of the Don Navigation tended to canalize mining along one narrow section of the coalfield. The short distance movement of coal was facilitated by the construction of wagonways, notably at Sheffield in 1722-3, at Kimberworth between 1742-5 and at Park Gate in 1747.<sup>2</sup>

By the 1760's coal mined around Rotherham and the terminus of the Don Navigation at Tinsley had penetrated the Trent valley as far south as Newark and along the Fossdyke to Lincoln whence adjacent parts of the county could be supplied. In 1769, it was estimated that 30,000 tons of coal were sold between Gainsborough, Lincoln and Newark, most of which was supplied from around Rotherham.<sup>3</sup> It seems that the acquisition of these markets was facilitated by the temporary exhaustion of collieries around Nottingham, and the inability of the south Derbyshire mines of Heanor, Shipley and Langley to compete while the roads to the Trent were in such a poor condition.<sup>4</sup>

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1. Willan (1965), p.40.

2. Hopkinson, 'Charcoal Iron', p.131.

3. Hopkinson, 'Inland Navigation', p.236.

4. Hopkinson, 'Coalfield', pp.303-4. A traveller in Lincoln in 1772 noted that the supply of coal in Lincolnshire was chiefly from the Yorkshire collieries.



Another extensive market for coal mined in south Yorkshire was along the Derwent Navigation to Malton, an inland navigation controlled by the Marquis of Rockingham and leased by the most important coalmasters on his estate, the Fenton family. In 1757, Thomas and William Fenton leased coal under the Wentworth estate at a rent of £324 for the first two years of the lease and of £648 for the remaining 19 years.<sup>1</sup> In the 1760's the Marquis of Rockingham attempted to supply his London house and his estate in Northamptonshire with coal mined on the Wentworth estate at Low Wood. Coal was first sent by barge to Thorne, where it was placed in larger keels for shipment to Hull, and was then forwarded by collier to London and Lynn. For example, in October 1765 Lord Rockingham was advised by William Martin, a former employee of the Don company:-

' . . . I have engaged a sloop to take in about 40 Dozen of Low Wood Coals for your Lordship's use in Town. The Vessel is now lying at Thorne and the Coals are getting down to Kilnhurst. I hope they will all be down Tomorrow. The principal difficulty will be to get Boats to carry them down to Thorne, they are all so much engaged on Account of the Navigation being stop'd so long. I hope I can prevail with the River Don Co. to let me have two of their Boats.'<sup>2</sup>

It seems probable that this traffic was merely designed to meet domestic requirements, and was in no way an attempt to gain a foothold in the London coal market. Altogether it was estimated that the total

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1. Hopkinson, 'Coalfield', p.305.

2. Wentworth Woodhouse MSS. R.186/2.

volume of coal passing down the Don from all collieries in 1772 amounted to some 40,000 waggons - probably between 80,000 and 90,000 tons - of which about half was supplied by the Fentons.<sup>1</sup>

In addition to the intra-regional trade in coal, peat was also carried to many points within the Humber-Ouse-Trent waterway system. When Pococke visited Thorne in 1750, he recorded that:-

'Thorn is a populous market town, and subsists by the water trade, by farming, and by the wood which they raise out of the Moors; the oak they call black-oak and the firs moor-wood, they find it from 2 to 3 feet underground; the deeper it is the better: that found near the clay or surface is rotten and good for nothing. At about the depth of 3 feet they meet with a white sand when they dig for peat and for this wood, and so throwing in the surface on the sand, they plough it, and it makes very good land.'<sup>2</sup>

Some years later, a topographer recorded of Thorne that:-

'Before the Stainforth and Keadby canal was cut, an extensive trade was carried on in which was employed between 30 and 40 boats, and more than the latter number of families earned a comfortable subsistence in cutting and preparing peat which they transported by means of the peculiar boats used for that purpose to the river Don; there it was shipped into larger vessels for the supply of all the different towns on the banks of the Don, Ouse, Trent and Humber.'<sup>3</sup>

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1. Hopkinson, 'Coalfield', p.305.

2. Pococke's Travels, p.184.

3. S. Whaley, op.cit., p.122. The boats employed on the boating drains were clinker built, about 27 feet long and 13½ feet wide.



The trade in stone and lime along the river was also largely of an intra-regional nature, the annual average of tolls paid on those items amounting to £179 6s in the years 1759-69 inclusive.<sup>1</sup> There is evidence of numerous lime kilns along the valley, at Conisborough, Hoover, Wentworth, Kilnhurst, Sprotborough, Tinsley, Rotherham and Warmsworth.<sup>2</sup> A study of the records of the lime quarries at Warmsworth provides a picture of the water trade in lime, which was carried in four vessels to Thorne quay, New Bridge, Fishlake, Townside, Wheatley, Rawcliffe, Littleborough Ferry, Yokefleet, Staggin side, Gunhouse, Wentworth Bridge, Sykehouse Ferry, Althorp, Owston Ferry, Swinefleet, Keadby Ferry, Wilsick House, Dunham, Maydike Staith, Brigg, Misson, Doncaster, Bawtry, York and Nottingham. In 1764-5 inclusive, 2967 chaldrons were carried by water. Coal for the lime works at Warmsworth was obtained from Denaby and forwarded down the river Don.<sup>3</sup>

Although the number of vessels employed on the river Don seems to have risen markedly during the eighteenth century, it is clear that at certain times there was a shortage rather than a surfeit in their number. For example, in 1758 the proprietors of the Warmsworth lime quarries complained that the scarcity of vessels was certainly one factor limiting expansion:-

'If I had had Boats at . . . Command last year I cou'd have delivered more lime and stone a Great deale and am at a great loss at Present as I cannot get Boates. . . .'<sup>4</sup>

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1. Willan, (1965), p.40.

2. Hopkinson, 'Coalfield', p.305.

3. Battie Wrightson MSS. BW/A/216.

4. loc.cit.

It is difficult to estimate how many vessels were regularly employed on the river Don in the pre-canal age. When the Walkers' paralysed the long cut at Thrybergh in 1770, they succeeded in grounding between 70 and 80 boats for a week on the Don.<sup>1</sup> In 1768 it was calculated that there were 150 vessels - a total tonnage of 5,000 tons and employing 350 men - regularly trading between Thorne and Hull.<sup>2</sup>

The vessels trading through or transshipping at Thorne were not solely concerned with intra-regional commerce. The most important items exported from the region via the river Don were undoubtedly Derbyshire lead and Sheffield wares. Between 1759-69, the annual average revenue from lead on the Don Navigation amounted to £366 5s or about six per cent of the total mean yield. Of revenue from other goods, which averaged £2,727 13s per annum, about £1,500 was said to be for articles of Sheffield manufacture.<sup>3</sup>

#### (vii) TRANSPORT DEVELOPMENTS IN THE AIRE AND CALDER VALLEYS

In the 1730's, trading interests on the Lancashire-Yorkshire border began to pay increasing attention to the improvement of land and water communications on an east-west axis. There were several factors responsible for the growing concern at the inadequacy of the

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1. Hopkinson, 'Inland Navigation', p.236.

2. Wentworth Woodhouse MSS. R.61/22/1.

3. Willan (1965), p.40.



Pennine routes. The development of the Aire and Calder waterways facilitated the carriage of grain from the East Riding and Lincolnshire to the growing industrial districts of the West Riding and Lancashire. The journey was completed along land carriage routes which had changed little from their seventeenth century condition. Cheese and salt provided important items for back carriage. The same routes were used to supply raw materials for the textile industries which were soon to attain a position of national predominance; wool from Lincolnshire and Leicestershire found its way to the woollen and worsted manufacturing districts west of Leeds and Wakefield and their offshoots in the Colne and Burnley valleys. One of the main water routes between London and Manchester was via Hull and then by river navigation to Wakefield, whence cotton and yarn were brought by horse or waggon to Manchester.<sup>1</sup> Similarly, linen yarn imported from the Continent through Hull was forwarded by water to Leeds and then carried by land to Bolton and Rochdale.<sup>2</sup> The markets for finished goods from the textile districts could also be more easily served if the trans-Pennine routes were improved; Lancashire fustians were sold in considerable quantities to the Continent, while the woollens and worsteds of the West Riding were finding favour in colonial America. The years after 1730 were marked by considerable ferment and contention concerning the numerous proposals to improve land and water routes.

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1. Wadsworth and Mann, p.221.

2. Ibid, p.270.

The first turnpike Act to include roads in Yorkshire was passed in 1735, for the improvement of the routes from Manchester and Oldham to Saddleworth, and from Rochdale over Blackstone Edge to Halifax and Elland.<sup>1</sup> When the Bill was passing through the House of Commons, the inhabitants of Elland solicited the assistance of Sir George Savile to secure the exemption of coal from the payment of tolls, a feature of many turnpike Acts, which usually served to deprive the trustees of sufficient revenue to pay interest on loan capital or to repair the roads.<sup>2</sup> By 1740, the trustees of the Rochdale-Halifax road were indebted for £2,500, and the money taken in tolls averaged only £3 10s per week. One of the trustees noted:-

'Our Act was obtained in a hurry and there are some omissions. If the statute work of each township was to be paid in money or compounded for with the surveyor it would answer better.'<sup>3</sup>

The improvement of the upper Calder above Wakefield was favoured by trading and manufacturing interests on the Yorkshire-Lancashire border, but aroused the opposition of the riparian proprietors - particularly the owners of fulling mills - and the apprehension of towns already enjoying the benefits of heads of navigation. In May 1735, Sir George Savile was apprised of a scheme to extend the navigation of the Calder above Wakefield. When several of the riparian

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1. 8 Geo.II, c.7. Although Manchester had lost most of its importance as a centre of the woollen industry, it still remained the market for the clothiers of Saddleworth, Stalybridge and Bury, who attended its 'Woollen Hall'.

2. Savile MSS. DDSR 211/3/35.

3. ACN 4/108. William Whitworth was surveyor, clerk and treasurer of the trust with a salary of £25 per annum.



proprietors met at Wakefield, it was agreed:-

'to get into the Confederacy for a Strenuous Opposition both in their Contributions and Intrest.'<sup>1</sup>

The principal opponents to the upper Calder scheme included Cavendish Nevile of Chevet near Wakefield, whose inheritance in the West Riding included fulling mills at Wakefield and Horbury.<sup>2</sup> Nevile wrote to Lord Strafford for his interest in opposing the navigation project, and Lord Malton and the Duke of Leeds agreed to support the landowners. The leading traders of Wakefield - who already enjoyed the benefits of a head of navigation - also opposed any extension of the waterway, and Sir George Savile was informed that:-

'it is confidently reported that Leeds are of opinion that they would be greatly damaged by such a navigation.'<sup>3</sup>

Savile's steward at Thornhill was convinced that a well organized opposition was essential:-

'for they say all the Gentlemen and Tradesmen in Lancashire and the Edge of Yorkshire will promote it and venture the Expence, and it is said they will meet with some Contributors out of Lincolnshire.'<sup>4</sup>

However, no petition for a Bill to effect the upper Calder navigation was presented at that time.

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1. Savile MSS. DDSR 211/3/33. William Elmsall described to Sir George Savile a meeting at Wakefield of 'a Club of our neighbouring Gentlemen.' 23 May 1735.

2. Savile MSS. DDSR 211/4/14. Cavendish Nevile, who was a clergyman succeeded to the estate on the death of his two elder brothers. It was noted that:- 'if the river be made navigable his loss will exceed any recompense or provision that will be allowed.'

3. Savile MSS. DDSR 211/3/33. William Elmsall to Sir George Savile.

4. loc.cit.

In the autumn of 1738 renewed efforts were made to extend the waterway above Wakefield. On 24 October, Sir George Savile was informed that:-

'there are large Contributions we are informed carried on secretly and made in the Bounders of Yorkshire and Lancashire, and we believe Lincolnshire in order to bring in a Bill and obteine an Act of Parliament the next Sessions to make the River of Calder navigable as far as Eland.'<sup>1</sup>

The riparian proprietors were apprehensive that:-

'as such Bills are esteemed a publick Good . . . it may succeed into an Act to the Prejudice of Wakefield, Leeds, Pontefract, and all that Part of our Country near those Townes . . . our streams will be clear spoiled and a great deal of . . . low land greatly damaged thereby and all our coalls exhausted and then we shall have done with our Manufactories all hereabouts.'<sup>2</sup>

On 12 February 1739, the interests opposed to the navigation project met in Wakefield, where it was unanimously agreed to oppose any Bill:-

'as very destructive to our Cloth Trade and injurious to our Lands and Mills (which) . . . would be rendered unable to dispatch the business so that thousands must leave of(f) Trade or goe into another Countrey . . . by taking of Water to supply nineteen Water Locks which are proposed to be erected upon the River above Wakefield.'<sup>3</sup>

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1. Savile MSS. DDSR 211/4/18.

2. loc.cit.

3. B.M. Add. MSS. 24,470, fol.221. Cavendish Nevile to the Earl of Strafford. Figures for the production of broadcloths in the West Riding are unreliable before 1768. In 1724, the total of broadcloths recorded was 26,065, rising to 42,154 in 1738.



If any reliance can be placed on the statistics produced by the mill-owners, it seems that about one third of all broad cloth milled in the West Riding was at fulling mills on the Calder.<sup>1</sup> Cavendish Neville assured the Earl of Strafford that if the mills on the Calder were adversely affected by the proposed navigation, other rivers in the region - notably the Aire and the Wharfe - would not be able to cope with the additional business.<sup>2</sup>

In addition to opening a subscription to oppose the upper Calder scheme, the riparian proprietors also decided to approach the promoters living around Halifax and on the Yorkshire-Lancashire border, to request their co-operation in obtaining a turnpike Act for the road between Halifax and Wakefield:-

'which they think if a good Waggon Road be thereby made it will as well every jott answer the End of the Carriage of Wool and Cloth as by the River.'<sup>3</sup>

If this road was turnpiked it would join the Rochdale-Halifax road and provide an improved land carriage route to Manchester. It was also proposed to petition Parliament to regulate the lock dues on the Aire and Calder Navigation, some Wakefield merchants affirming that they had their goods carried:-

'to and from Sweden to Hull for half the price it costs them from Hull to Wakefield.'<sup>4</sup>

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1. B.M. Add. MSS. 24,470, fol.221. In 1738, the total of broadcloths milled on the upper Calder was 12,776, out of a total for the county of 42,154 broadcloths.

2. loc.cit. 'Air and Wharf have business more than they can well Execute at all Seasons.'

3. Savile MSS. DDSR 211/4/12.

4. B.M. Add. MSS. 24,470, fol.260.

The concerted efforts of the opponents of the upper Calder scheme may have persuaded the promoters to postpone petitioning the House of Commons for the requisite statutory authority. On 2 March 1739, Sir George Savile was apprised that:-

'the petition for the Navigation will not be presented this Sessions of Parliament.'<sup>1</sup>

. . . . .

The severe frost of the winter of 1739-40, was almost certainly one factor in stimulating renewed efforts to improve transport routes. On 18 January 1740, it was recorded in the Leeds Mercury that:-

'the Frost has a long Time hindered the Passage of any Ships, the Humber being full of Ice.'<sup>2</sup>

It would be incorrect however to regard inclement climatic conditions as the prime factor in stimulating projects to improve communications on the east-west axis. Although the 1740-1 Parliamentary session saw the promotion of six turnpike Bills to repair roads in the West Riding, and a Bill for the upper Calder navigation, there is no record of petitions to improve roads or rivers in any other part of the Humber-Ouse-Trent region.

The strenuous efforts to obtain statutory authority for transport undertakings in the West Riding may be explained largely in terms of local rivalry and mercantilist assumptions which typified the period. A scheme to improve one line of communication produced

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1. Savile MSS. DDSR 211/4/11.

2. Leeds Mercury, 22 January 1740.



not merely opposition from neighbouring interests dependent on alternative routes, but also the prospect of emulation, by the development of their own commercial arteries. In December 1740, William Marsden of Barnsley described to the Duke of Leeds the various schemes afoot:-

'wee have petitions for Turnpikes without end going forward . . . The exorbitant Lock dues upon the river to Wakefield and Leeds, and the petition for carrying it up to Ealand and Hallifax seems to have put them all upon mettle prodigiously.'<sup>1</sup>

During December and early January 1740-1, petitions were presented to the House of Commons, requesting leave to bring in Bills for the extension of the navigation of the Calder above Wakefield, and for six turnpike schemes, namely, the roads between Selby and Halifax; between Wakefield and Weeland via Pontefract and Knottingley, with a branch to the Great North Road; between Elland and Leeds; between Doncaster and Saltersbrook; from the Red House near Doncaster to Halifax via Wakefield, Dewsbury and Elland; and from York to Doncaster.<sup>2</sup> Five of the proposed turnpike routes were designed to improve stretches of trans-Pennine routes and to provide feeders to established inland ports; of these, two sought to provide alternative lines of communication to existing waterways.

On 9 December 1740, a petition was presented in the House of Commons from the trading communities of Halifax, Elland and Ripponden alleging that the extension of navigation above Wakefield to Elland

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1. Leeds MSS. Box 36 (unsorted).

2. H. of C. Journals, XXIII, 554, 561, 568, 570, 573, 580.

thence by the Brook Mouth to Salterhebble Bridge, and so up Halifax Brook would be beneficial:-

'to all the Clothing Towns and Places adjacent, and to the Publick in general, by preserving the Highways - which are now maintained at a large annual Expence - and by the cheap and easy Conveyance of all Sorts of . . . Commodities to and from London and several other Parts of this Kingdom, the Prices whereof, by the heavy Charge of Land Carriage, are very much enhanced, to the great Discouragement of Trade.'

The petition was referred to a committee of 28 M.P.'s together with the members for the counties of York, Lincoln, Lancaster, Nottingham and Cheshire.<sup>1</sup>

After six weeks, the committee reported that the allegations of the petition had been examined. James Alderson, one of the principal manufacturers and traders of Halifax affirmed that there were about 60,000 inhabitants in the town and parish employed in the manufacture of woollens and worsteds, and double that number in adjacent parishes. Goods were sent by land carriage to Leeds and Wakefield to be baled:-

'which is a great Detriment to the said Goods, by packing and unpacking, and a Charge to the Manufacturer, at least double to what it would be, if he had an Opportunity to bale his Goods at home; which he might do if the River were so made navigable.'<sup>2</sup>

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1. H. of C. Journals, XXIII, 554

2. Ibid, 608.



On being asked whether the roads could be repaired to such an extent that the proposed navigation would not be needed, Alderson insisted that the existing routes:-

'could never be repaired, and made so easy for Carriages, but that the price of Carriage by Land would be near a Third Part more than it would be by water; and that, was it possible to make them as level and as good as any Turnpike Road in the Kingdom, the Carriage by Water would be still cheaper than it would be by Land.'

It was confidently estimated that if the navigation scheme was effected, the cost of carriage of wool and manufactured goods would be reduced by at least one third, and that grain brought from Wakefield by land for 3s per quarter might be supplied by water for 15d or at most 18d per quarter, lock dues included.<sup>1</sup>

The proposed waterway had been surveyed by --- Steers and John Eyes, who informed the committee that the cost of carriage of woollen cloth and other goods would be reduced from 15s to 9s per ton, including lock dues, and that no improvement in the roads could render land carriage so cheap. Having heard the report, it was agreed by the House that a Bill should be brought in.<sup>2</sup>

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1. H. of C. Journals, XXIII, 608.

2. Ibid. Probably Thomas Steers, the engineer of Liverpool's first dock in 1710, surveyor of the Mersey and Irwell in 1712, and active in the improvement of the river Douglas. Between 1737-42, he was engaged in a canal-building venture in Ireland which may be considered as a significant forerunner of the Canal Age in Britain. Steers died in 1750. T.C. Barker, 'The Beginning of the Canal Age in the British Isles', Studies in the Industrial Revolution (1960), 1-22.

Opponents of the proposed Bill had not been inactive, endeavouring to draw off some of the promoters by proposals for a turnpike road between Wakefield and Halifax. It was observed that Cavendish Nevile was supporting several turnpike schemes:-

'in order to discourage the people from proceeding to make the river Navigable higher than Wakefield on account of his Mills; and says he can make it appear the Cloth trade will be greatly injured by the loss of water, which must of course be by the number of Locks that must be made, there not being water sufficient (even now) to mill the cloths they now make.'<sup>1</sup>

Several petitions were presented against the Calder and Hebble Bill from the fulling mill owners and other riparian proprietors who were apprehensive that the extension of navigation would lead to extensive flooding of their lands.<sup>2</sup>

At the second reading of the Bill, it was moved on behalf of the opponents that they might be heard by counsel at the committee stage.<sup>3</sup> By the end of February, the committee had met several times to consider the Bill:-

'and the attendance from the Lancashire members is very great, and they are very sanguine for it, the Yorkshire members are much against it, but they doe give such an attendance, that in any Question in the Committee, they are outvoted.'<sup>4</sup>

On 3 March, the opponents of the Bill made a determined attempt to

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1. Leeds MSS. Box 36 (unsorted). 27 December 1740. William Marsden of Barnsley to --- Trymmor, agent of the Duke of Leeds.

2. H. of C. Journals, XXVIII, 92,98.

3. Spencer Stanhope MSS.(Sheffield). 60511/15.

4. loc.cit. 60515/16.



overthrow it. One description of the committee meeting held on that day noted that:-

'the very moment Sir Miles took the Chair a motion was made, and the Question put, whether he should not immediately leave it, and it was Carried that he should by a majority 23 to 17 so whether the Committee will be again revived, its not yet known. Its thought it will not this sessions.'<sup>1</sup>

The promoters of the Calder and Hebble navigation undertook after the defeat of their Bill to print a plan which might be considered by the millowners. However, at a meeting held at Wakefield on 22 October 1741, a majority agreed that:-

'in Regard the projectors of this Navigation had printed and published no Plan of their Design according to their promise before the Committee of the last Parliament therefore no Bill should be offered at this next Sessions.'<sup>2</sup>

Sir George Savile was apprised that both sides had agreed that no new Bill should be promoted in the forthcoming session.<sup>3</sup> It was almost fifteen years before renewed efforts for the upper Calder navigation would be seriously contemplated.

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The six turnpike Bills for West Riding roads promoted in the 1740-1 Parliamentary session all passed, though not without

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1. Spencer Stanhope MSS.(Sheffield). 60511/18. Sir Miles Stapylton was one of the M.P.'s for Yorkshire.
  2. Temple Newsam MSS. TN/PO/10/9. Richard Witton of Lupset to Lord Irwin. 23 October 1741.
  3. Savile MSS. DDSR 211/2/33.

considerable opposition. The project to turnpike the road from Elland to Wakefield aroused the suspicions of several Leeds merchants, apprehensive that it might prejudice their own dealings in the Halifax and Rochdale districts, since Elland - two miles from Halifax - was eleven miles from Wakefield, as compared to twelve from Leeds.<sup>1</sup> Unable to thwart the Wakefield commercial community, the Leeds traders decided to promote a Bill to turnpike the road to Elland. The survey of the road that between the boundary stone at Beeston and Elland there was merely a one-horse causeway. It seems that stone and gravel were readily available, and the surveyor concluded that the road might be easily and cheaply repaired.<sup>2</sup> In the autumn of 1740, it was therefore resolved that application should be made for an Act to turnpike the Leeds-Elland road, and a further proposal was made to continue the road to Tadcaster.<sup>3</sup> The latter project was soon abandoned, and attention concentrated on the road to Selby, formerly the principal port on the Ouse for the West Riding towns. On 5 December, a meeting was held in Leeds:-

'to consider measures for obtaining enactments to turnpike the roads leading thro' and over that part of the West Riding which lics between Halifax, Leeds, York and Selby.'<sup>4</sup>

At a second meeting in December, a subscription of £205 16s was raised to promote a Bill to repair and turnpike the roads leading

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1. Unwin, 'ACN 2', p.26.

2. ACN 8/5. J-- Barker the surveyor recorded of the Leeds-Elland road that it consisted of 'in many places very high cawsway and very dangerous to turn off.'

3. ACN 4/120. 15 December 1740. Richard Wilson to George Fox.

4. Leeds Mercury, 5 December 1740.



from Selby through Leeds, Bradford and Bowling to Halifax.<sup>1</sup> It was subsequently affirmed that:-

'the confessed original design of (the Selby-Leeds turnpike) was to make Selby the shipping port for Leeds.'<sup>2</sup>

The leading subscriber was Sturton Walmsley, a wealthy merchant manufacturer of the Rochdale-Halifax district.<sup>3</sup> Many merchants and wool-staplers of Leeds, and from parishes west of the town subscribed, anxious to promote an effective alternative to the Aire and Calder Navigation. The leading inhabitants of Halifax itself - the Alderson, Royd and Hill families - appear to have concentrated their efforts on the promotion of a Bill for the upper Calder navigation, the fate of which has already been considered.<sup>4</sup> The Selby-Halifax scheme was not acceptable to all the Leeds merchants, and, when the town council met, it was resolved - almost unanimously - to apply for a Bill to turnpike the road between Elland and Leeds, a petition for that purpose being sent to Sir William Milner. In an attempt to have their own petition presented first, the Selby-Halifax promoters sent theirs express to Sir Miles Stapylton.<sup>5</sup>

A powerful motive for the use of alternative routes of land carriage arose from hostility to the lock dues and freight charges on the Aire and Calder Navigation. A perennial source of complaint in the pre-canal age was that inland navigation undertakings were

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1. Unwin, 'ACN 2', p. 26.

2. Leeds Mercury, 21 February 1769

3. Wadsworth and Mann, p. 281.

4. Supra, p.655.

5. ACN 4/120. 15 December 1740. Richard Wilson to George Fox: Several shareholders of the Aire and Calder Navigation were aldermen of Leeds.



exploiting a monopoly position:-

'the Proprietors of the Locks will allow more profit than just what is sufficient to keep us rather than, that fact that carry our value by less a penny in a shilling may be thought enough for that purpose.'

The decision taken by the trustees of a neighbouring waterway to reduce river dues, may have prompted the undertakers of the Aire and Calder Navigation to examine their own rates. In 1739, calculations were made of the losses sustained by the West Yorkshire waterway.

Coal, which cost 5s 6d per ton at Wakefield was 1s per ton at Knottingley, paying 2s for lock dues at Castleford, and 2s 6d for freight. It was computed that the same quantity brought by land

carriage could be bought for 9s or 9s 6d at Knottingley. Similarly, corn and seed were scheduled at 9s per quarter for river dues, which led to a great quantity being brought from Knottingley by horses,

which returned with coal and slates to be shipped. Wool packs paid 1s each for lock dues, and 1s each for striking at Wakefield, while carriers were to bring them from Knottingley at the rate of 1s per pack, and return with coal. Wheel freight for deals had been

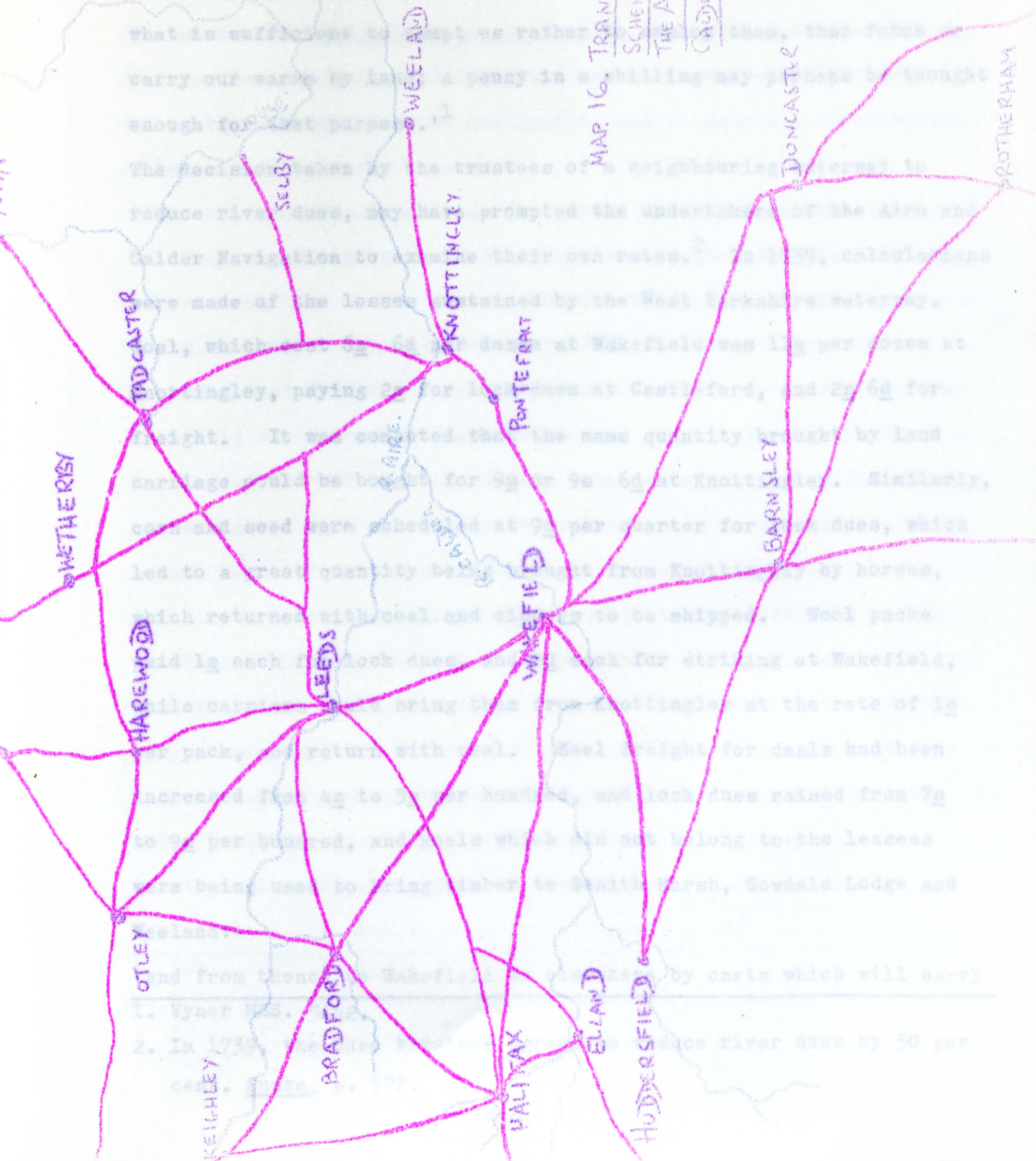
increased from 4s to 5s per hundred, and lock dues raised from 7s to 9s per hundred, and wheels which did not belong to the lessees were being used to bring timber to Smith Marsh, Sowdale Lodge and Weeland.

and from thence to Wakefield by carts which will carry 1. Vynar MS.

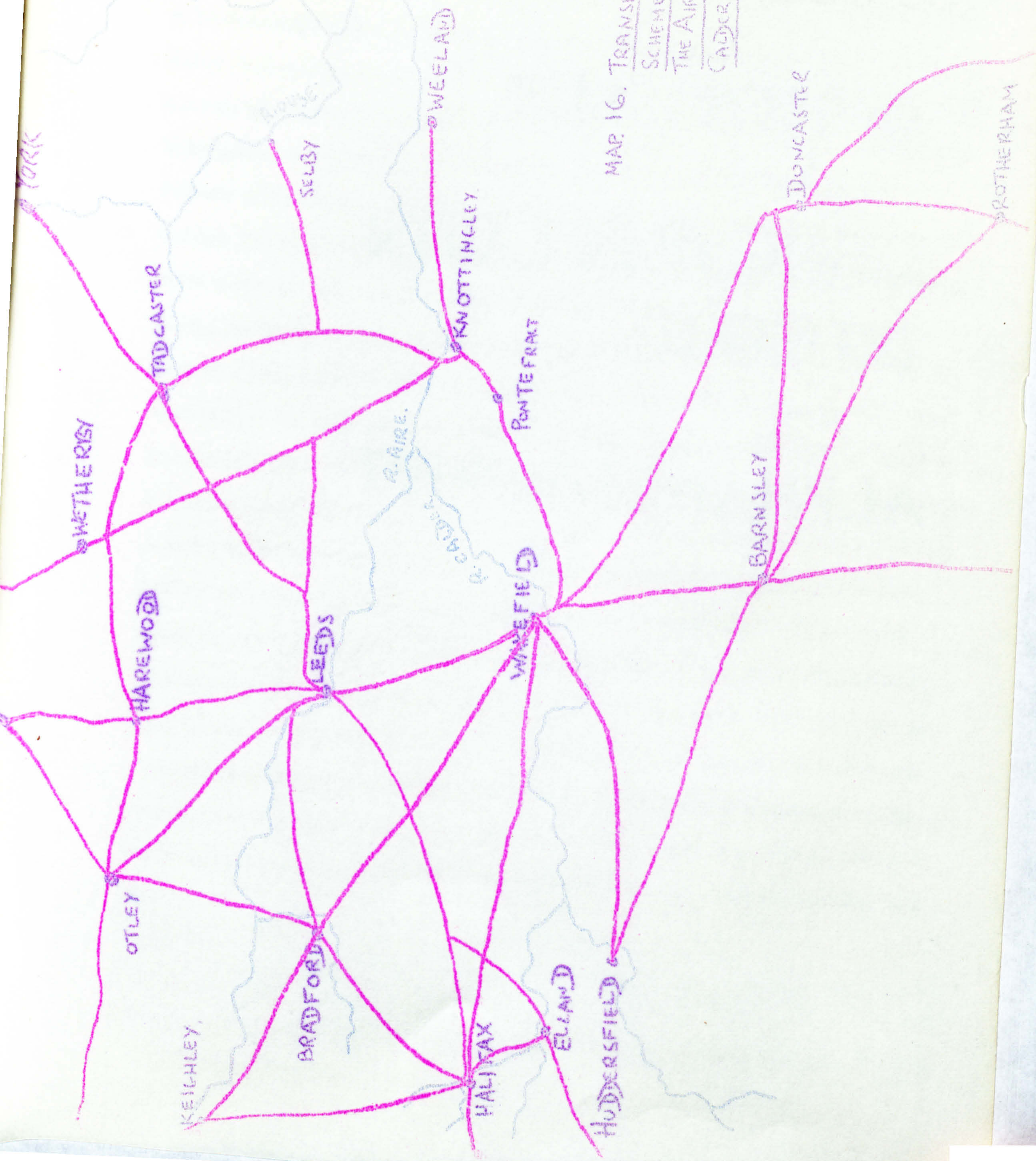
2. In 1739 the dues were reduced by 50 per cent. 1739. 1739.

MAP 16. TRANSPORT

SCHEMES IN  
THE AIRE AND  
CALDER VALLEYS







MAP 16. TRANSPORT  
SCHEMES IN  
THE AIRE AND  
CALDER VALLEYS



exploiting a monopoly position:-

'the Proprietors of the Locks will allow us no more profit than just what is sufficient to tempt us rather to employ them, than fetch or carry our wares by land; a penny in a shilling may perhaps be thought enough for that purpose.'<sup>1</sup>

The decision taken by the trustees of a neighbouring waterway to reduce river dues, may have prompted the undertakers of the Aire and Calder Navigation to examine their own rates.<sup>2</sup> In 1739, calculations were made of the losses sustained by the West Yorkshire waterway. Coal, which cost 6s 6d per dozen at Wakefield was 11s per dozen at Knottingley, paying 2s for lock dues at Castleford, and 2s 6d for freight. It was computed that the same quantity brought by land carriage could be bought for 9s or 9s 6d at Knottingley. Similarly, corn and seed were scheduled at 9d per quarter for lock dues, which led to a great quantity being brought from Knottingley by horses, which returned with coal and cinders to be shipped. Wool packs paid 1s each for lock dues, and 2d each for striking at Wakefield, while carriers could bring them from Knottingley at the rate of 1s per pack, and return with coal. Keel freight for deals had been increased from 4s to 5s per hundred, and lock dues raised from 7s to 9s per hundred, and keels which did not belong to the lessees were being used to bring timber to Snaith Marsh, Gowdale Lodge and Weeland:-

'and from thence to Wakefield or elsewhere by carts which will carry

1. Vyner MSS. 5642.

2. In 1739, the Ouse trustees agreed to reduce river dues by 50 per cent. Supra, p. 572.



coals to those Places to supply those Keels withal . . . and Leeds Deals will go by way of Selby.'

The memorandum, Losses to the Navigation concluded that the prevailing freight rates and lock dues served to stimulate the growth of ports below the head of navigation, and prevented a more profitable use of the whole waterway:-

'for none can afford to trade (by water) further than Knottingley.'<sup>1</sup>

Many merchants in the West Riding were eager that the schedule of rates charged on the Aire and Calder Navigation should be regulated by Parliament. In December 1740, the Duke of Leeds was apprised that John and Richard Milnes - who were among the leading Wakefield cloth merchants and carried on an extensive trade to Russia and the Baltic - in company with other traders in the clothing districts were taking the initial steps to promote a turnpike scheme as an effective alternative to the waterway:-

'are . . . solicitous for em (Parliament) to distress, and reduce the navigators and the Lock dues upon the river up to Wakefield and pretend to make it appear that (even now) the goods which come by land, come cheaper than by water and if the road is made good from a place called Weeland which lyes upon their river about thirteen miles below Wakefield they will be carryed to and from thence at a little more than half the price they now pay, which if true, they have certainly reason to seek for redress . . .'<sup>2</sup>

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1. Unwin, 'ACN 2', p.25, quoting ACN 4/119.

2. Leeds MSS. Box 36 (unsorted). William Marsden to the Duke of Leeds. 27 December 1740.

A revision of the lock dues and freight rates on the Aire and Calder Navigation was urged on the undertakers and lessees as one means of circumventing the proposed turnpike schemes. On 4 January 1741, Robert Hopkinson, a Wakefield attorney recommended to Richard Wilson - one of the trustees of the waterway - that the undertakers should:-

'agree upon a Table or Schedule of lock dues evidently under land carriage this after you have try'd other methods must at the last I think be approved on and recommended by the Comitty to the Scheamers.'<sup>1</sup>

However, it was too late to head off opposition to the navigation.

On 7 January, a petition was presented in the House of Commons from merchants, keelmen and farmers in Halifax, Wakefield and Knottingley complaining of exorbitant lock dues on the rivers, and of the inadequacy of the waterway at times of drought or inundation. Leave was requested to bring in a Bill for turnpiking the road from Wakefield to Weeland, with a branch through Pontefract to the Great North Road.<sup>2</sup>

Richard Wilson, one of the leading Wakefield undertakers and a trustee, expressed his concern to another undertaker - George Fox of Bramham - at the possible repercussions of two of the turnpike projects. He considered that the Selby-Halifax and Wakefield-Weeland turnpike schemes were designed by merchants and traders:-

'who have resentments against our farmers of the Rivers . . . the like scheme to distress us is carrying on at Wakefield by a Turnpike road proposed from thence . . . to Weeland . . . the utmost extent

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1. ACN 4/108.

2. H. of C. Journals, XXIII, 570.



of our Navigation.'

Wilson sought to counter contemporary claims of the benefits accruing from the passing of Road Bills, urging the Hedon M.P. to consider his personal interest in the navigation as well as his concern for the general good:-

'the great cry in these Popular Schemes of turnpike roads is the Publick Good; but on examination, this, like others, will appear to have its foundation, either in private Interest, or what is worse - I mean wt proposes to carry Goods to Selby and to Knottingley and Weeland . . . I hope not only your own Interest but the public Good, which in my apprehension is best promoted in supporting those Rights that are derived by authority of Parliament will induce you to oppose with vigour these schemes of distressing the Navigation, which on the credit and at the expence of near £30,000 has been near brought to Perfection and greatly enriched these parts of the Country.'<sup>1</sup>

Sir William Milner, the principal Leeds undertaker and trustee, and M.P. for York tried to draw off some of the support for the Selby-Halifax scheme, by persuading Sir William Lowther to present the petition for the Leeds-Elland turnpike Bill:-

'as thinking it must in decency draw him off from Supporting the Selby Petition (to which he was no ill-wisher).'

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1. Unwin, 'ACN 2', p.27, quoting ACN 4/120. Wilson's share in the Navigation was £2,140. George Fox (1696-1773): married Harriet, da. and h. of Robert Benson, Baron Bingley of Bramham Park. Fox, who was M.P. for Hedon 1737-41, and for York 1742-61, acquired shares worth £1,500 in the Navigation through his wife.

2. Unwin, 'ACN 2', p.28, quoting ACN 4/120. Sir William Milner to Richard Wilson. 25 December 1740.

Milner opined to Wilson that he considered it unlikely that the proposed turnpikes would seriously affect the fortunes of the waterway, and outlined what he calculated to be a plausible means of rendering the Bills ineffective:-

'my thoughts upon the Navigation Subject, have always been to be Quiet . . . the only effectual way in my opinion of opposing them, a very fair one, and a very plausible one, Which is the Preventing any Tax being laid upon Coals from these Turnpikes; which must be a great Burthen upon all the Manufacturers . . . and if that Tax should be prevented upon which all their Hopes must depend for raising any Considerable Sum, I cannot see what advantage a Turnpike Either from Leeds or Wakefield Eastwards can be to them.'<sup>1</sup>

Milner felt confident that if the line he suggested was adopted, there would be considerable support from those landowners who derived part of their income from colliery rents, in particular from Lord Irwin, Sir John Bland and Sir Edward Gascoigne.<sup>2</sup>

Wilson wrote to other M.P.'s to solicit their support. He stressed to one of the Yorkshire members, Cholmley Turner, that the undertakers had spent over £60,000 to complete the navigation of the rivers Aire and Calder, and had never exceeded the tolls granted by the authorising Act of 1699.<sup>3</sup> He outlined the various turnpike

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1. Unwin, 'ACN 2', p.28, quoting ACN 4/120. Sir William Milner was the son of the original Leeds undertaker. He was created a baronet in 1717, and had a large estate at Nunappleton.

2. Unwin, 'ACN 2', p.28, quoting ACN 4/120. Lord Irwin of Temple Newsam leased out collieries in Whitkirk. Sir John Bland of Kippax Park leased a colliery at Houghton near Castleford. Sir Edward Gascoigne was working coal at Seacroft, Garforth and Barwick.

3. Unwin, 'ACN 2', p.28, quoting ACN 4/120.



schemes, emphasising that the erection of turnpikes eastwards of Leeds and Wakefield would prejudice the West Yorkshire waterway.

Turner was urged to consider:-

'whether it consists with the Honour of the Legislature that has granted to the Undertakers an Estate in the tolls which they may be said to have purchased for very valuable sums on the Credit of an Act of Parliament to lay a Tax upon the Country to defeat the Undertakers of these tolls.'<sup>1</sup>

The Aire and Calder undertakers and lessees were naturally eager to counter the arguments of the turnpike promoters concerning the various delays and hazards which might be encountered on the waterway.

Turner was apprised that:-

'as to the obstructions . . . by very severe frosts and excessive droughts at these times all Roads are Turnpike Roads and passable without the help of an Act of Parliament . . . and as to the case of floods whenever the navigation is thereby obstructed between Weeland and Leeds and Wakefield, its certainly more and longer so below Weeland, where the country is low and flat and appears in those times as a sea, so that no Boats dare then navigate, the course of the river not appearing.'<sup>2</sup>

Finally, Wilson intimated to the Yorkshire M.P. the line of argument which Milner had recommended, namely, that to impose tolls on coal

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1. Arguments along these lines were more common during the conflicts between canal and river companies in the 1760's and 1770's.

2. Unwin, 'ACN 2', p.29, quoting ACN 4/120.

and lime to support the proposed turnpikes east of Leeds and Wakefield would affect York and other towns and be burdensome to the manufacturing interest.<sup>1</sup>

On 26 January 1741, Sir Miles Stapylton the other Yorkshire M.P. reported to the House of Commons upon the petitions for the Selby-Halifax, Wakefield-Weeland, Red House-Halifax and Leeds-Elland turnpikes. Witnesses examined to prove the allegations set out in the petitions affirmed that all these roads were in a ruinous condition, despite large sums spent on them and the use of statute labour. Henry Pawson, a Leeds attorney gave evidence to support the Selby-Halifax scheme, informing the committee that carriages laden with woollen goods, wool, dyeing wares and corn rendered the road so bad, that, in winter, wheeled traffic could not pass in safety, and that corn prices in many parts of the West Riding and Lancashire rose when the farmers were unable to supply their markets. It was stated that in times of drought, frost or inundation, the Aire and Calder Navigation proved inadequate, so that land carriage for lime and other goods was commonly used.<sup>2</sup>

The report on the Wakefield-Weeland petition was worded more strongly against the Aire and Calder Navigation. John Milnes, a leading Wakefield merchant had informed the committee that lock dues

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1. Unwin, 'ACN 2', p.29, quoting ACN 4/120. To add further weight to his argument, Wilson informed Turner that:- 'in our Bill for a turnpike from Elland to Leeds . . . we propose to exempt all Coal carriages from Toll.'

2. H. of C. Journals, XXIII, 614. Henry Pawson had subscribed five guineas towards obtaining the turnpike Act.



upon the waterway were so high that woollen goods being dispatched from the West Riding, and wool and corn being brought from Lincolnshire, could be carried more cheaply by land carriage. Carriages laden with lime and coal had led to the deterioration of the road, so that farmers using lime at Pontefract, Wakefield and Elland were obliged to fetch it from Knottingley in summer, the roads being impassable at other times. This summer traffic had produced congestion at Knottingley and much delay because lime could not be burnt fast enough. Similar difficulties arose over the carriage of coal mined near Wakefield to Pontefract, Snaith and Knottingley, whence it was sent by water to towns throughout the waterway system. When all the reports had been considered, the House agreed that Bills might be brought in for the improvement of the various roads.<sup>1</sup>

In London, Lord Irwin and Sir Edward Gascoigne joined in the opposition to the Selby-Halifax Bill, offended that they had not been consulted on the proposed turnpike, and eager to exempt coal from the payment of toll. On 29 January, the first reading took place of the Bill for the roads from Selby to Leeds, and then in two branches, one through Bradford and Horton, the other through Bowling and Wibsey, to Halifax.<sup>2</sup> The following day, a meeting was held at Lord Irwin's house, which was attended by Sir William Milner and the son of the Leeds Recorder, Richard Wilson. It was at this meeting that Edward

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1. H. of C. Journals, XXIII, 615. The road from Wakefield to Weeland was about thirteen miles long, and ran via Pontefract and Knottingley.

2. Unwin, 'ACN 2', p.30.

Thompson, one of the M.P.'s for York, and Andrew Wilkinson, one of the M.P.'s for Aldborough, were persuaded to join the opponents of the Bill. Others were to be solicited, notably the Sussex M.P.'s:- 'who will take their directions from Colonel Ingram and Mr. Wilkinson and attend when desired.'

It was agreed that at the committee stage of the Bills, Thompson should move that the consideration of all the turnpikes should be adjourned until the following Session, in order that they might be further considered by those immediately affected.<sup>1</sup> Despite these efforts, the Selby-Halifax Bill was read for a second time on 3 February 1741, and committed.<sup>2</sup> Six days later the Wakefield-Weeland Bill was also committed. The composition of the latter committee was to allow for the inclusion of all the merchants who were M.P.'s.<sup>3</sup>

In Yorkshire, Richard Wilson was busy organising opposition, having been advised that the most effective way to obstruct the turnpikes was by petitioning the House of Commons and mentioning the by-roads that appeared detrimental to the Aire and Calder Navigation.<sup>4</sup> Having prepared petitions and clauses to exempt coal and certain sections of the roads from toll, Wilson sent servants of the Navigation to surrounding parishes and townships to solicit support. Between 4 and 6 February, George Newstead was at Tadcaster, Bramham, Thorner, Barwick, Selcoles and Seacroft obtaining signatures to a petition to

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1. Unwin, 'ACN 2', p.30, quoting ACN 4/114. 31 January 1741. Richard Wilson jun. to his father. As estate agents for the Dukes of Newcastle, the Wilkinson family managed the boroughs of Aldborough and Boroughbridge. Vicount Irwin controlled both seats at Horsham.

2. H. of C. Journals, XXIII, 625.

3. Ibid, 636.

4. ACN 4/120. Cholmley Turner to Richard Wilson, 16 January 1741.



the House of Commons that no toll bar should be placed between Halton Dial and the market place in Leeds.<sup>1</sup> One of the Leeds undertakers, John Pullein circulated a petition among his tenants and the freeholders of Grimston and Tadcaster, and wrote to a number of M.P.'s - including Colonel Bladen and Robert Fairfax - who were apprised of the exemption clauses which the opponents hoped to have inserted in the Selby-Halifax Bill.<sup>2</sup> It was alleged in a petition from Leeds that if the exemptions were not included:-

'the coals from a colliery of Lord Irwin in the parish of Whitkirk, adjoining to the parish of Leeds, will be thereby, in effect, prohibited to be brought to Leeds.'<sup>3</sup>

In the committee, promoters and opponents of the Bill endeavoured to secure numerical superiority. Early in February it was noted that the opponents of the Selby-Halifax Bill:-

'who are the proprietors of Ayre and Calder moved . . . to add 36 members to the Committee.'

The committee was then adjourned until 16 February, when the turnpike promoters:-

'had leave to add as many, and that all such as came to the Committee should have voices.'<sup>4</sup>

The concerted efforts of the undertakers, lessees, and landowners with interests in coal were successful, for the Selby-Halifax Bill

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1. Unwin, 'ACN 2', p.31, quoting ACN 4/108. -- Newstead spent £1 8s 6d on the leading farmers.

2. Colonel Martin Bladen (1680-1746): M.P. for Malden. Commissioner of trade and plantations, 1717-46. D.N.B. Robert Fairfax was M.P. for Maidstone, and a cousin of Pullein.

3. H. of C. Journals, XXIII, 639.

4. Spencer Stanhope MSS.(Sheffield). 60511/15. 12 February 1741.

was badly mauled in committee. When the Bill passed the House of Commons, a clause had been inserted:-

'that no toll . . . shall be demanded . . . for any coals.'

It was also provided that:-

'no toll bar to be fixed nearer to Leeds . . . than West Garforth Bridge.'<sup>1</sup>

The Wakefield-Weeland Bill was not opposed by petition in the House of Commons. Several petitions were presented in favour of the Bill, between 10 and 17 February, from Gainsborough, Beverley, Brigg, Lincoln, Grantham, Norwich and Manchester, affirming that the turnpike would be beneficial, and permit the carriage of goods with more expedition and certainty to market, and at more moderate rates than prevailed on the Aire and Calder Navigation.<sup>2</sup> The Bill passed the House of Commons on 27 February.

The passage of all the turnpike Bills through the upper House was delayed by a quarrel between the two Houses on the question of whether Road Bills were money Bills, and whether the Lords might alter them.<sup>3</sup> The Aire and Calder undertakers realised that this

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1. 14 Geo.II, c.32. A proviso to protect the interests of Lord Irwin was also included, that nothing in the Act:- 'should empower any person to dig for . . . gravel in any pit or grounds belonging to . . . Irwin, lying on the south side of the House and park of the said Lord, down to the River Aire.'

2. H. of C. Journals, XXIII, 649, 651.

3. Unwin, 'ACN 2', p.31. The Lords had attempted to alter the Kensington Road Bill by adding two trustees, to which the Commons objected. On 11 March 1741, after the Bill had been reported, it was ordered that it should be read for the third time two and a half months later. Spencer Stanhope MSS.(Sheffield). 60511/16.



deadlock might enable them to defeat or amend the Wakefield-Weeland Bill. Signatures to two petitions were hurriedly obtained in Huddersfield, Knottingley, Brotherton, Ferrybridge, Fryston, Castleford, Sharlston, Horbury and Ossett. John Beaumont, an employee of the Navigation, then rode to Ferrybridge 'after the Post' to carry the petitions to London.<sup>1</sup> The two petitions were couched in such terms that - if accepted - the Wakefield-Weeland Bill would be a dead letter. One of them, from Warmfield, Heath, Pontefract, Houghton, Preston, Normanton and Castleford requested the exemption of those townships from all tolls to be levied on the stretch of road from Wakefield to Pontefract; the other, from Snaith and Rawcliffe sought exemption from toll on the stretch of road between Pontefract and Weeland.<sup>2</sup>

When the Lords finally agreed with the Commons on the issue of the Kensington Road Bill, and gave up any attempt to amend turnpike legislation in that session, it became possible for the Yorkshire promoters to proceed once more. At the report stage on the Wakefield-Weeland Bill, Lord Westmorland moved that the Bill should be re-committed, but, following a debate and the examination of the two petitions opposing the turnpike, the motion was defeated.<sup>3</sup> John and Richard Milnes had written to the Duke of Newcastle to solicit his support for the Wakefield-Weeland Bill, and stressing that:-

'the persons concerned in our navigation having monopolised the

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1. Unwin, 'ACN 2', p.32, quoting ACN 4/108.

2. H. of L. Journals, XXV, 625.

3. Ibid.

advantages by high tolls.<sup>1</sup>

At the third reading of the Wakefield-Weeland Bill, another attempt was made to prevent its passage, but it ended in failure. The Selby-Halifax Bill was also delayed by the contention between the two Houses. The Bill passed the House of Commons on 9 March, but it was not introduced into the Lords until 16 March, the three readings and report stage taking place on the four succeeding days.<sup>2</sup>

The road between Elland and Leeds formed part of the trans-Pennine route which linked Chester, Liverpool, Warrington, Manchester and Rochdale with the West Riding. Woollen cloth made in Rochdale and adjacent parishes, and in the western parts of Yorkshire was carried by land to Leeds, where it was baled and shipped. After the presentation of a petition from the town corporation of Leeds, seeking leave to bring in a Bill for the repair of the road to Elland, a committee of the House of Commons was nominated to examine the various allegations.<sup>3</sup> On 26 January 1741, Sir Miles Stapylton reported back to the House that the committee had considered the allegations of the petition, and that several witnesses had testified as to the condition of the road. John Ramsden had informed the committee that the twelve miles of road were in a ruinous condition, and that certain stretches were impassable in winter. Owing to an increase in the number of waggons bringing cloth to Leeds to be shipped, the parishes through which the road passed had found it impossible to maintain it.

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1. Walker, p.453.

2. H. of L. Journals, XXV, 628, 630, 632, 635, 637.

3. H. of C. Journals, XXIII, 561-2. There was virtually no cotton manufacture at Rochdale or in Rossendale until the coming of spinning factories. Wadsworth and Mann, p.270.



adequately. Having heard the report, the House agreed that a Bill might be introduced.<sup>1</sup>

The Bill passed the House of Commons without opposition, but the promoters appear to have been lax in organising the requisite technical details. In January 1741, Robert Hopkinson a Wakefield attorney complained to Richard Wilson, the Recorder of Leeds that he had had some difficulty in getting witnesses to appear before the Commons committee in support of the Leeds-Elkland petition.<sup>2</sup> On 12 March 1741, Sir William Milner informed Wilson that the Bill would be presented to the Lords:-

'but I don't Hear of any Person that is in Town, to appear before the Committee of the Lords, that can give any Account of the Road; which before that Committee must be done upon Oath.'<sup>3</sup>

The York M.P. went on to chide the Recorder:-

'I do not find, that any Person has taken the Least Care to provide Money for the Elkland Bill. The House of Commons Fees are all unpaid, and the Fees of the House of Lords, fifty-four pounds must be paid before the Second reading.'

Milner was anxious to delay the progress of the Bill until the dispute between the two Houses concerning their respective powers, and the nature of turnpike Bills, was settled. He informed Wilson that:-

'I desired it might not be read the first time to-day least we should

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1. H. of C. Journals, XXIII, 615.

2. ACN 4/108.

3. ACN 4/120.

be liable to the fees, till the dispute between the two Houses is determined.'<sup>1</sup>

Four days later, Milner urged the promoters:-

'to send up somebody immediately upon the Elland turnpike otherwise it will be in Danger of being lost . . . I will Endeavour to get the Committee of the House of Lords adjourned till that time.'<sup>2</sup>

The Bill passed the House of Lords without opposition.

The merchants and traders of Wakefield were also determined to improve their land route to Elland and Halifax, along which growing quantities of grain, wool and woollen cloth were being carried. On 20 December 1740, a meeting of landowners and traders was held at Wakefield:-

'upon the Bill intended to be preferred this Sessions of Parliament, for erecting Turnpikes between the Redhouse near Doncaster, through Wakefield to Elland and Halifax.'<sup>3</sup>

The promoters proceeded rapidly, for some five weeks later, on 26 January 1741, Sir Miles Stapylton reported from a committee appointed to examine the allegations of a petition from Wakefield. The surveyor, William Dickenson had informed the committee that the 34 miles of road were in a ruinous condition:-

'occasioned by many heavy carriages passing through the same, loaden with the manufactures of that part of the country that in the winter season, it is dangerous for coaches, carriages and travellers on

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1. ACN 4/120.

2. ACN 4/108.

3. Leeds Mercury, 23 December 1740.



horseback to pass through them.'

John Ramsden confirmed this evidence, and affirmed that the townships and parishes through which the road passed had laid out more than their statutory assessments for repairs but to no avail. He considered that the setting up of a turnpike road would lead to more effective improvement, which would prove particularly beneficial to the trading communities of Halifax and Wakefield. John Baldwin of Halifax apprised the committee that about 1,500 loaded horses passed weekly with raw materials or finished cloth on the road from Halifax via Lightcliffe, Hightown and Dewsbury to Wakefield, but that in winter it was almost impassable. It seems that there were two alternative proposals concerning the stretch of the road near Halifax, either to improve the route over Halifax Bank, or the route via Elland. John Milnes, the Wakefield cloth merchant affirmed that the carriers used the first road, bringing woollen cloth from Lancashire to Halifax and Wakefield, and returning with grain. William Whitworth, surveyor of the Blackstone Edge turnpike had surveyed the road over Halifax Bank which was three miles shorter than the road through Elland. He considered that the former route might be repaired to carry wheeled vehicles for about £3,000, which was less than would be required for the other stretch.<sup>1</sup> The Bill, which subsequently passed, authorised the repair of the road from the Red House near Doncaster to Halifax, via Wakefield, Dewsbury, Hightown and Lightcliffe.<sup>2</sup> The cost of obtaining the Act

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1. H. of C. Journals, XXIII, 615.

2. 14 Geo. II, c.19.

amounted to £292 8s.<sup>1</sup>

. . . . .

The prime objects of the Selby-Halifax and Weeland-Wakefield Acts were to provide effective alternatives to the Aire and Calder Navigation and to improve the land routes to the transshipment ports on the Ouse and Aire. Although the fifth decade of the eighteenth century witnessed no further attempts to improve land communications between the growing industrial districts of west Yorkshire and the inland ports, significant changes were taking place on the waterways.

From the early years of the century, Rawcliffe - five miles below Weeland, the statutory limit of the Aire and Calder Navigation - formed the lowest transshipment port for the waterway. Goods were sent down the rivers from Leeds and Wakefield to Rawcliffe, where they were transhipped into keels or larger vessels for Hull.<sup>2</sup> It has already been noted that many merchants, who complained of high lock dues, preferred to order their goods to Knottingley - whence they were carried by land to the west Yorkshire towns - rather than use the whole length of the waterway.<sup>3</sup> In the 1730's and 1740's

there were many complaints about delays in the forwarding of goods due to insufficient water in the rivers for navigation. At times of drought, goods were sometimes sent by land to Selby, whence trade

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1. W.R.A.O. Doncaster-Halifax Trust. Minute Book 1. Of this sum, John Baldwin and Richard Cooke as witnesses received £31 and £22 respectively. William Whitworth the surveyor received £47. A total of £10 was paid to --- Burman, one of the clerks of the House of Commons. The principal sum of £180 was received by Robert Hopkinson, the Wakefield solicitor.

2. Unwin, 'ACN 2', p.32.

3. Supra, pp. 659-660. 675



was carried on directly with London and other east coast ports, in contrast with Rawcliffe whence trading patterns were mainly with Hull and the inland ports of the waterway system.<sup>1</sup>

The use of Selby rather than Rawcliffe aroused the apprehension of the lessees of the Aire and Calder Navigation. In the summer of 1742, Joseph Atkinson found it necessary to advertise that:-

'whereas divers Merchants and Tradesmen in the West-Riding . . . have ordered their Goods to Selby, to have them by Land Carriage during the late Drought, they fearing some Delay in the Navigation of the Rivers Air and Calder, though in the very droughtiest Time, Boats have passed regularly and quickly to and from Leeds and Wakefield to Rawcliffe; And for the further Encouragement of those Gentlemen that may have been misinform'd or through their own Timorousness ordered their Goods to Selby, if they please to give Orders to . . . Joseph Atkinson, at Rawcliffe . . . he will send Boats to Selby for such Goods as are there lodged; and forthwith bring them to Leeds and Wakefield without loss of Time.'<sup>2</sup>

Nevertheless, Atkinson and his partners were already contemplating major changes in the organization of transshipment facilities on the lower Aire. Their motives for developing a new transshipment port at Armin were two-fold: firstly, it would enable them to compete more effectively with other wharfingers and shippers at

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1. Evidence of the continued use of Selby by west Yorkshire

interests can be seen from local estate muniments. 'Selby 15 June 1731. Lord Irwin's note. To John Johnson, master of the Admirall from London for 2 packt hds of bottles to Selby for freight Warehouse and dues at Selby 12s.' Temple Newsam MSS. TN/EA/12/15.

2. Leeds Mercury, 6 July 1742.

Rawcliffe and Selby; secondly, it would provide an opportunity for more direct participation in the coastal trade.

Joseph Atkinson had long been a rival of John Stephenson of Rawcliffe, the owner, or part-owner of several sloops, which operated within the waterway system and particularly to Hull. In September 1729, Atkinson had apprised Richard Wilson that the lessees had met:-  
'with some difficulty in renewing their Lease of the Warehouse and Wharf at Rawcliffe . . . Mr. Stephenson was Endeavouring to take them . . .',<sup>1</sup>

In 1736, Atkinson first encouraged the Navigation undertakers to purchase property at Armin:-

' . . . as the undertakers have no Wharfe upon their own premises at the lower End of the river occasions the Farmers (lessees) to be frequently imposed upon. Therefore if the Undertakers would build at Armin such wharves and necessary Conveniences as trade requires it would contribute to benefit the same . . .',<sup>2</sup>

The lessees were anxious to retain their trading position in the waterway system, particularly in the carriage of coal, being apprehensive that rival wharfingers would become lessees of neighbouring

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1. Unwin, 'ACN 2', p.33, quoting ACN 8/29. In 1722, John Stephenson was referred to as a wharfinger at Rawcliffe. W.R.D. S/619/850.

In 1733, he was referred to as a merchant. W.R.D. EE/180/263.

2. In 1744, when the Earl of Malton was eager to find a lessee for the Yorkshire Derwent, Joseph Atkinson wrote to Richard Wilson expressing concern that either William Fenton or John Stephenson of Rawcliffe might secure the lease, and warning that:- 'whoever takes it will not contribute to the advantage of yours.' ACN 8/10.



waterways.<sup>1</sup>

In 1744, Atkinson was taking steps which were designed to make Armin the principal transshipment port on the Aire and Calder Navigation, and to weaken the trading position of John Stephenson, who had developed an extensive trade with Hull.<sup>2</sup> In October, advertisements appeared in the Leeds and York newspapers informing the public that:-

'by reasons of Shallows and Sands in the River Air, between Rawcliffe and Airmin . . . the Passage of Keels . . . in times of Neap Tides, has been obstructed or rendered very difficult . . . Now for the remedying the same . . . Warehouses, Wharves, Cranes . . . will be ready prepared at Airmin, whence Goods may be carried in Keels or Sloops to Hull . . . and in like manner brought . . . in the lowest Neap Tides, and Lighters will be also ready to carry Goods down to Airmin, and up the said Rivers from Airmin . . . as to and from Rawcliffe . . .'<sup>3</sup>

Efforts to develop a new river port did not remain unnoticed by other wharfingers. An advertisement in the York Courant a few weeks later - it did not appear in the Leeds Mercury - asserted

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1. ACN 8/10. In 1744, Atkinson suggested that £460 p.a. should be offered for the Yorkshire Derwent Navigation. However, Sir Rowland Winn used his influence with the Earl of Malton in favour of William Fenton who secured the lease of the waterway at an annual rent of £440.
  2. It seems that Stephenson was owner or part-owner of the Rawcliffe sloops, which numbered 12-14 vessels, each of at least 50 tons burthen. York Courant, 13 November 1744.
  3. Leeds Mercury and York Courant, 23 October 1744.

that Atkinson's motives for encouraging the development of Armin<sup>1</sup> were prompted by the hope of private gain:-

'for Aire between Rawcliffe and Armin is always perfectly navigable . . . for Vessels of fifty Tons Burthen and upwards, such as the Rawcliffe Sloops are . . . and at Spring Tides for Vessels of 150 or 160 Tons Burthen. And that whenever there has been any Reason for Complaint . . . the . . . Delay has been made at Rawcliffe, who for a great many years past have neither kept a sufficient Number of Boats to forward such Goods in any reasonable Time, nor suffer any other Boatmen to carry them, by Reason of the exorbitant Tolls they imposed upon all Persons Navigating on the said Rivers in any other Boat or Lighter.'

Rivals of Atkinson also sought to point out drawbacks in the choice of Armin as a major transshipment port:-

' . . . an open, void . . . dangerous Place . . . especially for such low built Boats or Lighters as bring Bales of Cloth and other valuable Goods from, and carry very valuable Goods to Leeds, Wakefield and other Places . . .'<sup>1</sup>

The lessees of the Aire and Calder Navigation could not allow charges of monopoly and extortion to remain unanswered. The Leeds and York newspapers carried further advertisements in early December:-

'as to the false Insinuation of exorbitant Tolls being taken by the

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1. York Courant, 13 November 1744. Armin is situated at the confluence of the Aire and Ouse, about two miles below Rawcliffe. Armin was 'opened' as a port on 2 November 1744.



Farmers of the Rivers Aire and Calder These may assure the Publick there's been no Advance of Tolls for this Forty Years . . . nor any Partiality shewn to any Person that ever carried Goods.'<sup>1</sup>

To justify the establishment of shipping facilities at Armin it was maintained that:-

'this last Summer, several Times in Neap Tides, several of the Sloops employed constantly in carrying Cloth and Goods from Rawcliffe to Hull, have been on Ground between Rawcliffe and Armin . . .'<sup>2</sup>

Three weeks later a letter, addressed at Hull and signed 'A Lover of Truth' appeared in the York Courant, affirming that:-

' . . . Delays have mostly happen'd by Stoppages in the Rivers above, by too little (and sometimes too much) Water, and not after they came from Rawcliffe . . . '

The same writer - possibly the wharfinger and merchant John Stephenson - argued that lock dues on the Aire and Calder Navigation were exorbitant.<sup>3</sup>

To refute criticisms of the new river port, Atkinson obtained the signatures of several shipmasters trading between London and Armin to a memorial in favour of the facilities being provided on the Aire:-

'one of the most Comodious inland harbours in the North of England, Notwithstanding what hath been published to the contrary.'<sup>4</sup>

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1. Unwin, 'ACN 2', p.34.

2. Leeds Mercury and York Courant, both on 4 December 1744. In the York Courant of 25 December 1744, the signatories of the letter - John Howell, William Moody and William Cawthron - were referred to as 'a crazy man and two boys.'

3. York Courant, 25 December 1744.

4. ACN 7/2.

In spite of the efforts of the lessees, some merchants continued to forward their goods to Rawcliffe, both ports being used in the 1740's and 1750's. In times of drought, land carriage was used from the lower Aire ports to Leeds and Wakefield. In June 1748, Atkinson wrote to Richard Wilson, complaining that some Leeds merchants were still sending packs of cloth to Rawcliffe, but insufficient water in the river often meant that the sloops were stranded on the stretch to Armin.<sup>1</sup> Atkinson assured the trading communities of the West Riding that goods shipped from Armin would reach Hull with more expedition than shipments from Rawcliffe.

The Aire and Calder lessees also tried to increase their carrying trade between Armin and Hull. In 1752, they made further proposals that:-

'if merchants and Traders will order all their goods up in the Farmers vessels from Hull to Armin and cloth down in the said boats, the Farmers will carry goods from Hull to Leeds and Wakefield cheaper by 1s per tun than hath been Customary heretofore, which upon a moderate computation will save the Country in sea and River freight above £1,000 a year.'

Atkinson and his partners urged the undertakers of the Navigation to support them:-

'in taking Lock dues of all other vessels for goods as the Act of Parliament permits then it will enable the Farmers to perfect the Navigation to Armin to the great advantage of the Country . . . And

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1. ACN 4/114. Joseph Atkinson to Richard Wilson, 8 June 1748.

Concerning a pack of cloth from William Dennison, one of the principal Leeds merchants.



for the Encouragement of Shipping by reason ther's more Tyde by 4 foot at Armin than Rawcliffe or Selby.'<sup>1</sup>

. . . . .

It was not until the sixth decade of the eighteenth century that there were renewed efforts to turnpike the roads leading to the Aire and lower Ouse ports and to improve other trans-Pennine routes. In the same years, several Acts were passed to improve road communications within the textile districts of the West Riding.

Of the six Acts passed in 1741 authorising the improvement of roads in the West Riding least progress was made in the following decade on the Selby-Halifax turnpike. Owing to several provisos in the authorisation Act, the trustees soon came to regard the turnpike as a dead letter unless further statutory powers could be obtained. In October 1750, a meeting was held in Leeds to consider a Bill which it was hoped to introduce in the following Parliamentary session:-

' . . . for erecting Turnpikes between . . . Halton Dyal near Leeds and Tadcaster . . . and also for altering, explaining and amending so much of an Act of Parliament . . . as relates to the repairing of . . . Road between Leeds and Selby.'<sup>2</sup>

When proposals were being discussed for a renewal Act, there was some suggestion that it might be more advantageous to turnpike the roads to the river ports on the Aire, rather than to the Ouse, but

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1. Unwin, 'ACN 2', p.35, quoting ACN 4/114.

2. Leeds Mercury, 30 October 1750.

the matter was not pressed.<sup>1</sup> Whereas the original promotion of the Leeds-Selby turnpike had come from the industrial and commercial communities of west Yorkshire, efforts to renew the Act seem to have come partly from trading interests at the Ouse port. Lord Downe, one of the Yorkshire M.P.'s was apprised that preparations for a renewal Act were taking place at the port, to which he was forced to admit that:-

'what a Bill coming from Selby, when they know of one coming from the quarter of Leeds, means, I don't yet comprehend.'<sup>2</sup>

Downe felt confident that he could render any opposition to a Bill ineffectual:-

'for I think I could carry down a great majority that would vote with my question without entering into or knowing anything of the affair.'<sup>3</sup>

On 22 February 1751, Lord Downe presented to the House of Commons the petition of the turnpike trustees, setting out that the tolls collected were insufficient to repair the road, the nearest turnpike gate to Leeds being at West Garforth Bridge at a distance of over five miles.<sup>4</sup> Witnesses who appeared before the committee to prove the allegations of the petition insisted that if a turnpike gate was erected nearer to Leeds, more money would be collected

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1. Temple Newsam MSS. TN/LA/4/1. 8 January 1751. Lord Downe from Cowick to Lord Irwin, seeking the latter's sentiments 'of a Turnpike to Rawcliffe instead of Selby.'

2. Temple Newsam MSS. TN/LA/4/2. 5 February 1751. Same to same.

3. Temple Newsam MSS. TN/LA/4/3. 21 February 1751. Same to same.

4. H. of C. Journals, XXVI, 56.



for the repair of the road. John Gibson had surveyed the Tadcaster-Bramham Moor-Seacroft-Leeds road, which joined the Leeds-Selby road at Halton Dyal, two miles from Leeds. After the report had been considered, it was agreed that a Bill should be brought in.<sup>1</sup>

Although the Aire and Calder proprietors did not organize an open campaign against the renewal Bill - probably realising that no turnpike road could ever provide an effective alternative to the waterway - the undertakers and lessees watched every stage of the Bill's progress. Lord Irwin was apprised by Lord Downe that he had received a letter from Richard Wilson, one of the trustees for the Navigation:-

'raising every trifling objection that can be invented to the Bill.'<sup>2</sup>

Downe considered that the right tactics were to allow Wilson to present his objections at the committee stage of the Bill:-

'for if he intends to raise any difficulties we can more easily defeat them in the Committee where I think we have secured a great majority.'<sup>3</sup>

One indication of a struggle taking place over the Bill may be seen from a resolution of the House of Commons that the committee should be opened.<sup>4</sup> At the report stage of the Leeds-Selby Bill it was agreed that a clause should be added:-

'to prevent Tolls being taken upon any Part of the Road between

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1. H. of C. Journals, XXVI, 79.

2. Temple Newsam MSS. TN/LA/4/5. 14 March 1751. Downe to Irwin.

3. Downe was apprehensive that in the House, Wilson 'would get somebody to agitate his objections.'

4. H. of C. Journals, XXVI, 152.

Selby and Leeds, by virtue of the former Act.<sup>1</sup>

Although the renewal Act was secured, the powers of the trustees were less than they had hoped to secure.<sup>2</sup>

In 1752, the trustees of the Leeds-Halifax road also promoted a renewal Act, it being alleged that £1,300 had been subscribed on the credit of the tolls but that the road remained ruinous, partly because the turnpike gates were placed too far from Bradford and Halifax. In the same Parliamentary session, a Bill was passed to repair the road between Leeds and Harrogate.<sup>3</sup>

In spite of restrictions and provisos which the Aire and Calder Navigation 'interest' had successfully imposed on some of the early west Yorkshire turnpikes, the merchants in the textile districts continued their efforts for road improvement.<sup>4</sup> Between 1753 and 1756 inclusive, Acts were passed to improve the roads between Keighley-Wakefield-Halifax;<sup>5</sup> between Keighley-Kendal;<sup>6</sup> between Tadcaster-Otley;<sup>7</sup> between Otley-Preston;<sup>8</sup> between Leeds-Otley-Skipton-Clitheroe;<sup>9</sup> and between Leeds-Wakefield.<sup>10</sup> Renewal Acts were also passed for the Leeds-Elland<sup>11</sup> and Rochdale-Elland roads.<sup>12</sup> One

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1. H. of C. Journals, XXVI, 190.

2. 24 Geo.II, c.22.

3. 25 Geo.II, c.58.

4. R.G. Wilson, 'Transport Dues as Indices of Economic Growth, 1775-1820', Econ.Hist.Rev., 2nd ser. XIX (1966), 110-123.

5. 26 Geo.II, c.83.

6. 26 Geo.II, c.86.

7. 26 Geo.II, c.64.

8. 28 Geo.II, c.56.

9. 28 Geo.II, c.60.

10. 28 Geo.II, c.32.

11. 26 Geo.II, c.48.

12. 27 Geo.II, c.35.



characteristic feature of the early turnpikes in the Pennines was that all those constructed before 1770 were pre-existing highways, and only for short stretches did they take a new course, usually where the gradient was steep.

During the Seven Years War, landowners and traders with interests in the west Yorkshire-Lancashire industrial districts continued their efforts to improve land and water routes. By 1763, Road Acts had been passed to improve the roads between Leeds-Wakefield-Sheffield;<sup>1</sup> between Dewsbury-Elland;<sup>2</sup> between Halifax-Burnley-Littleborough;<sup>3</sup> and between Wakefield-Austerlands.<sup>4</sup> Unfortunately, the early turnpikes in the Pennines were often so timid in conception, and their promoters so unaware of the problems to be solved, that they proved to be quite unsuitable for wheeled traffic everywhere in the Pennines, and had to be reconstructed in the last quarter of the eighteenth century.<sup>5</sup>

Eastwards of Wakefield, the road to Weeland was in need of further improvement by the 1750's. The preamble of the authorising Act had emphasised that the road was an important 'feeder' to the waterway system. Statutory authority had been deemed requisite:- 'that there should be the most easy Conveyance of Goods and Merchandizes at all Times of the Year from Wakefield and other Western parts of the West Riding to Weeland which joins to the River Ayre,

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1. 31 Geo.II, c.63.

2. 32 Geo.II, c.54.

3. 33 Geo.II, c.48.

4. 32 Geo.II, c.59.

5. Crump, p. 53.

and from which Place the said River hath been, Time immemorial navigable to the Rivers Ouse and Humber and from thence to York, Hull and many other Parts of Great Britain.'

The Act had also noted the position of Knottingley as an important port for intra-regional trade:-

'the farmers and Inhabitants of the Western parts of the West Riding are chiefly supplied with Lime from Knottingley . . . and carry thither great Quantities of Coal, which are sent from thence on the . . . Rivers to York, Hull, Malton, Burroughbridge, Lincoln and divers other Places.'<sup>1</sup>

The tolls on coal were markedly lower than those on all other commodities with the exception of lime, partly no doubt to satisfy local landowners who drew part of their income from mining leases, possibly to attract some of the trade in those commodities which had fallen to the undertakers and lessees of the Aire and Calder Navigation.<sup>2</sup> Although the trading community at Wakefield had promoted the authorising Act, the trustees had difficulty in raising sufficient capital.<sup>3</sup>

It seems that some attempts were made in the first years of the

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1. 14 Geo.II, c.23.

2. loc.cit. Whereas waggons drawn by six horses and carrying all goods except coal or lime were to pay 2s, those with four or five horses, 1s 6d, and by two or three horses 1s; the corresponding rates for waggons loaded with coal or lime were 9d, 4½d and 3d respectively. Similarly, packhorses laden with those commodities paid only ½d as against 1½d for all other goods.

3. W.R.A.O. Wakefield-Weeland Trust. Minute Book 1 (1741-1826).

Several meetings were adjourned in 1742 when there were no offers to lend money to the trust.



trust's history to improve the route to the lower Aire ports. In May 1741, it was agreed by the trustees that:-

'in Consideration of the Dearness of provision at this time . . . the Surveyor do allow the workmen one shilling a Day per man and no more, and that he employ no more than fifty labourers, or if more, then to allow them no more than 10d per day the usual rate.'

By the end of 1741, over £320 had been laid out in repairs and administrative costs, in addition to an initial £1,000 borrowed on the security of the tolls. In June 1742, a further sum of £1,000 was borrowed on the security of the tolls at five per cent interest. The accounts of the surveyor, Thomas Acaster show that, by April 1743, the additional subscription had been expended, and that £167 15s was owing to the non-salaried treasurer.<sup>1</sup>

It was not until 1755, that preparations were made to secure further statutory powers and additional tolls. In November of that year, it was recorded that:-

'the trustees have perused the . . . Acts for the Red House and the Weeland Roads and do Order that the same be immediately prepared and presented to Parliament with a petition for that purpose.'<sup>2</sup>

On 3 February 1756, Sir Lionel Pilkington reported from the committee appointed by the House of Commons to consider the allegations of the trustees' petition. On the Wakefield-Weeland road, the sum of £2,102 10s was outstanding to subscribers, of which £52 10s was for interest payments. William Whitworth had informed the

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1. W.R.A.O. Wakefield-Weeland Trust. Minute Book 1 (1741-1826).

Between January 1742 and April 1743, the surveyor Thomas Acaster paid out £930 13s 4d in repairs and labourers' wages.

2. loc.cit.

committee that, in spite of some progress, the tolls were insufficient to repair the road and also pay administration costs and interest on subscriptions.<sup>1</sup> The Bill which was subsequently introduced failed to pass that session, the trustees paying out £289 to Samuel Harper for soliciting the Bill in Parliament:-

'and that it be recommended to him in Consideration that the Bill was lost, and of the prompt payment that he would remit the Interest for the Money laid out.'

In the following Parliamentary session, a new - and this time successful - promotion of a Bill for the Wakefield-Weeland road occurred. Subsequently, Robert Yeates received £440 18s 6d for soliciting the Bill, Alan Johnson, the clerk to the trustees was allowed £166 4s 2d, while John Milnes was paid, £10 12s 6d for his expences in appearing as a witness to prove the allegations of the trustees' petition.<sup>2</sup>

Having obtained further powers,<sup>3</sup> the trustees sought to place the finances of the trust on a more realistic footing, by adjusting the rate of interest on the initial sums subscribed. At a meeting of the trustees on 4 June 1757, it was agreed that:-

'a Subscription be immediately opened for money to compleat the Roads and it is hoped and proposed that every Commissioner will subscribe and lend for that purpose at four and a half per cent . . . the present Creditors to be paid off unless they will agree

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1. H. of C. Journals, XXVII, 421.

2. W.R.A.O. Wakefield-Weeland Trust. Minute Book 1.(1741-1826).

3. 30 Geo.II, c.38.



to a Reduction of Interest and to take the same Securities with the Subscribers.'<sup>1</sup>

In 1758, it was agreed that the tolls and profits arising on the Wakefield-Weeland road should be divided into one hundred equal shares:-

'and that one of such shares be mortgaged or assigned . . . to every person who hath Advanced or shall Advance . . . the sum of £50.'

Table 10. Creditors of the Wakefield-Weeland Turnpike Trust.<sup>2</sup>

	<u>Before 1757</u>	<u>After 1757</u>
Bridget Harvey	1,000	
Selwood Hewitt	600	
William Crewe	400	100
Richard Long	50	50
Marquis of Rockingham		250
Sir George Savile		150
Sir Rowland Winn		100
Sir William Wentworth		1,000
John Smyth		100
Metcalf Procter		100
Thomas Winn		50
John Milnes		50
Robert Milnes		50
Pemberton Milnes		50
Sarah Ingram		100
Thomas Yarborough		200
Lord Downe		100
Richard Weddell		100
John Milnes jun.		100
Thomas Thornhill		250
	<hr/>	<hr/>
	£2,050	£2,900

Several surveyors and engineers were responsible for work on certain stretches of the Wakefield-Weeland road in the following years. On 19 August 1758, the trustees entered into an agreement

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1. W.R.A.O. Wakefield-Weeland Trust. Minute Book 1.(1741-1826).

2. loc.cit.

with an engineer who was subsequently to achieve national fame. John ('Blind Jack') Metcalf agreed to repair the stretch of road between Crofton and Streethouse, leaving nine yards:-

'between ditch and ditch in a circular manner and covered twenty feet broad by eighteen inches thick in the Crown and six inches on the sides and to be laid on in a circular manner in three Covers of the strongest and best stone . . . to observe a Straight Line as much as be in carrying on the same . . . and the Horse Causey to be made good where there is one.'

In September 1760, the trustees agreed with Richard Liley of West Hardwick to repair the stretch between Pontefract and Sharlston for seven years for £20 a mile yearly, the contractor being permitted to open a quarry on Featherstone Moor. Two months later, a new contract was made with Richard Beecroft, who was appointed surveyor for the stretch from the eastern end of Pontefract to Weeland for seven years at a salary of £30 a year, the statute work of the parishes along the line of the road to continue.<sup>1</sup>

Until 1763, the trustees kept the administration and collection of tolls in their own hands, but in July of that year an agreement was reached, whereby Beecroft became lessee of the tolls for three years, paying £520 annually to the trustees. In 1766, the tolls were leased for three years at an annual rent of £560, and continued at that level until 1772, when the rent was increased to £590 a year.<sup>2</sup>

Although the trustees had relinquished the administration of the

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1. W.R.A.O. Wakefield-Weeland Trust. Minute Book 1.(1741-1826).

2. loc.cit.



tolls, their responsibility for the maintenance of the road continued. An entry of the trustees in January 1765 suggests that they had been forced to admit that no improvement of the road could ever render it as satisfactory as the west Yorkshire waterway for the cheaper carriage of bulky materials. Three trustees were instructed to purchase a boat:-

'for Carrying materials by Water for Repairing the Road from Wakefield to Weeland.'<sup>1</sup>

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The most significant new undertaking to improve river navigation in west Yorkshire in the middle decades of the eighteenth century was undoubtedly the Calder and Hebble Navigation, for which statutory authorization was obtained in 1758.<sup>2</sup>

After the abortive attempt to promote a Bill in 1740-1, interest in the upper Calder navigation seems to have lapsed for some years. The scheme was revived in 1751, but does not appear to have reached the Parliamentary level.<sup>3</sup> Five years later the waterway project was seriously reconsidered, although a further two years were to elapse before the Act was passed. The project was taken up and promoted by members of the Union Club - a body of the leading landowners and merchants in the Halifax district which had originated

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1. W.R.A.O. Wakefield-Weeland Trust. Minute Book 1.(1741-1826).

2. 31 Geo. II, c.72.

3. CHN 1/1. In 1758, it was agreed that three guineas should be paid to Joshua Mitchell:- 'for the Trouble he had with Respect to the Navigation in 1751.'

in the panic of the Young Pretender's uprising of 1745. On 2 September 1756, at a general meeting of the Union Club held at the Talbot Inn, Halifax, it was agreed to take up the Calder and Hebble scheme once again:-

'to consider of Proper Measures, to obtain an Act of Parliament for Making the River Calder Navigable from Wakefield to Elland, and so on to Halifax.'<sup>1</sup>

A committee was appointed to raise the requisite capital and to manage the promotion of a Bill.

A leading promoter of the upper Calder scheme, and subsequently the leading shareholder in the undertaking was Sir George Savile of Thornhill, whose family had opposed the earlier attempts to effect the navigation above Wakefield. Yet it is not difficult to see why Savile should have given his active support, for, as his steward had apprised him in 1741:-

'there will be so many Warehouses erected on the River banks at Eland and the land they must be built upon yours on both sides the River will be an equivalent Proffit to the damages you will sustain in the cutting and flooding your lands in Thornhill . . .'<sup>2</sup>

The promoters of the Calder and Hebble Navigation included many of the leading figures in the rapidly expanding industrial and commercial economy of the parishes of Halifax and Rochdale. For example, John and Jeremiah Royds were wealthy merchants and bankers of Halifax who had built up extensive trading connections in

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1. CHN 1/1.

2. Savile MSS. DDSR 211/4/12.



London<sup>1</sup>; Samuel Lees was a Halifax worsted manufacturer; George Stansfield was a white kersey maker of Sowerby Bridge; David Stansfield a Halifax merchant; while William Gream was described as a 'gentleman tradesman of Halifax of at least £700 a year.'<sup>2</sup> John Caygill of 'the Shay' subsequently offered Talbot Close to the Halifax clothiers for the erection of a new Cloth Hall.<sup>3</sup> In both the Halifax and the Rochdale districts, merchant capital was to be found on a large scale.<sup>4</sup> Interests in Lancashire who favoured the Calder and Hebble scheme included members of the Smith and Walmsley families of Rochdale, who were among the wealthiest merchant manufacturers of the district and who had intermarried with the Royds family of Halifax.

The earlier efforts to secure the upper Calder navigation had been frustrated largely by the opposition of the riparian fulling mill owners, and the promoters in the 1750's were anxious to allay the apprehensions of likely opponents. Throughout the summer of 1757, John Smeaton - who had been appointed surveyor of the proposed

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1. A. Porritt, 'The House of the Royds', Yorkshire Illustrated, February 1952. In 1766, John Carr designed and built a new house for John Royds, the king of Denmark being entertained there in 1768. Lord Rockingham wrote of John Royd:- 'he is not only a very considerable merchant, but also a very respectable Man.' Wentworth Woodhouse MSS. R.11/10.

2. Savile MSS. DDSR 4/41b.

3. Clegg, p. 209.

4. Wadsworth and Mann, p.270. There was virtually no cotton manufacture in Rochdale until the coming of the spinning factories.

undertaking - was urged to start his survey. The promoters realised that even when the surveyor's report had been completed:-

'much will remain to be done . . . previous to any application to Parliament in the way of Answering Objections, and reconciling the Several persons interested on the River; and therefore wish to have as much time for that purpose as may be.'<sup>1</sup>

In order to bring to light, and if possible to satisfy, would be opponents of the prospective Bill, an advertisement was inserted in the Leeds, Manchester, York and London newspapers outlining the intended scheme.<sup>2</sup> The promoters regarded it essential to proceed in the open:-

'and convince the Publick how much the Gentlemen concern'd wish to know the real Merits of the intended scheme.'<sup>3</sup>

To elucidate the likely arguments of the riparian interest, the promoters obtained from the solicitor who had acted on the previous occasion, all the relevant information and copies of the former Bill.<sup>4</sup> Smeaton assured the promoters that it would be necessary to convince the House of Commons committee which examined the petition seeking leave to bring in a Bill, that the upper Calder scheme could be effected:-

'without Lessening the Effect of the Mills in general, which alone can affect the Trade in General; and that respecting particulars,

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1. CHN 1/1.

2. loc.cit. The London newspapers in which the advertisements appeared were the Whitehall Post and the General Evening Post.

3. loc.cit., fol.8.

4. loc.cit., fol.23. --- Woodcock of Lincoln's Inn, one of the Lord Keeper's secretaries had solicited the Bill of 1741.



the Detriment will be very minute in proportion to the general Advantage, this will take off every Objection that can be openly urged.<sup>1</sup>

Anxious to find precedents, the promoters consulted Postlethwayt's recently published Dictionary, and found that Congreve's scheme to unite the rivers Trent and Severn might be particularly appropriate.<sup>2</sup> By the end of November 1757, the case of the promoters had been completed, one thousand copies being printed of Answers to Several Objections and of Reasons for the proposed waterway.<sup>3</sup> These were sent to the promoters' deputed agents in London for circulation to M.P.'s.

While Smeaton was taking his survey of the upper Calder, a deputation of the principal promoters waited on the leading riparian proprietors - who included Lord Rockingham, Lord Irwin, Sir John Kay, Sir John Ramsden and Sir George Dalston - in order to obtain support. Other landowners and millowners were urged to sign a certificate if they were willing to acquiesce to the upper Calder scheme.<sup>4</sup> Although Smeaton was largely satisfied with the survey made by John Eyes and Thomas Steers in 1740, the promoters were anxious to present a new survey and plan in case changes had

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1. CHN 1/1, fol.15.

2. CHN 1/1, fol.18. The Universal Dictionary of Trade and Commerce had appeared between 1751-55. Dr. Congreve had argued that the Trent-Severn scheme could be effected without any damage to 42 mills and forges situated upon the two rivers.

3. CHN 1/1, fol.18.

4. CHN 1/1, fol.19.

occurred in the course of the rivers.<sup>1</sup> By early December 1757, Smeaton was ready to present his report, and the promoters instructed that one thousand copies should be printed, and six hundred copies of the engraved plan.<sup>2</sup> On 7 December, a public meeting was held at Wakefield at which the promoters presented the proposed scheme to the landowners and millowners. Smeaton concluded in his report that it would be practical to continue the waterway above Wakefield for a further 23 miles to Brooksmouth, and on for a further half-mile to Salterhebble Bridge. The proposed navigation would carry boats and barges of the same burthen as those on the Aire and Calder Navigation, not drawing above 3 feet 6 inches water in dry seasons, but capable of carrying 20-25 tons if 4 feet of water were available. It was estimated that the cost of completing the navigation would not exceed £30,000, and that it would take about seven years to complete the requisite improvements. Smeaton assured the riparian proprietors that his scheme could be effected:-  
'without sensibly affecting the Mills, either by backwater, or loss of water, or the meadows adjoining.'

The promoters were willing to make certain concessions to the proprietors of Dewsbury upper mills, but it soon became clear that not all the millowners on the upper Calder were amenable to the proposed navigation. Nevertheless, the promoters seem to have been satisfied that opponents who had attended the meeting on 7 December

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1. Smeaton's work on the Eddystone Lighthouse prevented him from starting the upper Calder survey until October 1757. He affirmed of Steers and Eyes that:-'they were esteemed, especially Mr. Steers in their profession.'

2. CHN 1/1, fol.43.



were unlikely to oppose the scheme openly, it being unanimously agreed that:-

'no material Objection appears to the renewing an Application to Parliament for extending the Navigation of the River Calder from Wakefield up to Salter Hebble Bridge near Halifax. Resolved that Application to Parliament be made this present session, and that a Petition be immediately drawn up for that purpose.'<sup>1</sup>

Not only were the parishes of Halifax and Rochdale unable to provide an adequate supply of indigenous raw materials for their staple industries, they were also compelled to import considerable quantities of foodstuffs. The waterway system facilitated intra-regional dealings, grain from the East Riding and Lincolnshire being exchanged for the coal and lime of the West Riding. The promoters had examined the accounts of local turnpike trusts, and opined that about 600 horse loads of grain were carried from Leeds and Wakefield to Halifax every week. The Halifax witnesses deposed that wheat sold in the markets of Leeds and Wakefield at prices which ranged from six shillings to seven shillings per quarter lower than at Halifax, while meat was one farthing or one halfpenny per pound cheaper at the former towns. The difference in price was ascribed partly to the cost of land carriage and partly to the profits of middle-men or badgers which amounted to about one shilling

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1. CHN 1/1, fol.49. The meeting on 7 December 1757, was attended by the trustees of the Aire and Calder Navigation. The concession to the millowners at Dewsbury noted that:- 'Dewsbury upper Mill, occupied by John Greenwood and John Whiteman to be particularly consider'd in the Clause to prevent the Millers from stanging their wheels if such a Clause be thought necessary.'

per horse load.

The disposal of the woollens and worsteds of the Halifax and Rochdale districts was carried out in four main ways. Firstly, manufactures were sent by land to Leeds and Wakefield where they were baled and forwarded by the Aire and Calder Navigation to Hull, whence they were shipped by the coastal trade to London. Secondly, goods followed the above route to Hull and were then exported directly to the continent. Thirdly, goods were sent by pack horse to Leeds and Wakefield and then by waggon to London, it being attested that ten times more goods were carried along this route in wartime, wool constituting one of the items of back carriage.<sup>1</sup> Fourthly, many of the woollens and worsteds for export to the American colonies were taken by land carriage over Blackstone Edge, through Rochdale to Manchester, and from there to Liverpool by the Mersey and Irwell Navigation.<sup>2</sup>

The condition of the roads and the cost of land carriage between the heads of navigation at Leeds and Wakefield, and the parishes of Halifax and Rochdale provided the principal causes of complaint and the main argument for effecting the upper Calder navigation scheme. Witnesses affirmed that the new turnpike roads had largely followed the old pack horse tracks which were often steep and difficult. For example, an incline near Halifax rendered the use of wheeled vehicles difficult, and virtually impossible for any load over one ton in weight. Although the roads were not ruinous, the promoters

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1. H. of C. Journals, XXVIII, 133.

2. Clegg, p. 199.



urged that they could never provide as cheap a mode of transit as water carriage. It seems that the completion of the Leeds-Bradford-Halifax turnpike had not led to any fall in the cost of land carriage, but rather the reverse.<sup>1</sup> Prospects of a reduction of the cost of carriage seemed no brighter, largely due to the difficulty in using waggons on the steeper Pennine gradients.<sup>2</sup>

The proposed schedule of freight and tonnage for the upper Calder Navigation was not to exceed 12s per ton, with lower rates for lime, limestone, and freestone, and exemption for marl, manure and the materials required for the repair of the riparian mills.<sup>3</sup> The promoters were confident that if the upper Calder scheme was carried out on these terms, nine main benefits would soon become apparent. It was argued firstly, that the reduction in the cost of carriage would prove particularly beneficial to the woollen and worsted industries of the Halifax and Rochdale districts, enabling merchants to export cloth at about 1½ per cent cheaper. Secondly, it was maintained that the cost of obtaining raw materials and provisions would be lower and the services of many middle-men would be dispensed with.<sup>4</sup> Thirdly, witnesses were confident that goods

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1. H. of C. Journals, XXVIII, 133. Witnesses for the promoters deposed that formerly the cost of land carriage between Leeds and Halifax was 1s 6d per horse pack of 240 lb. After the turnpike had been completed, the cost of carriage had risen to 2s sometimes 2s 6d or 3s per pack. They ascribed the rise to an increase in the number of inhabitants in Halifax and in consequence an increase in the volume of goods carried.

2. Ibid, p.133.

3. CHN 1/1, fol.52.

4. H. of C. Journals, XXVIII, 134.

carried by water would receive less damage through friction. Fourthly, an argument common to most inland navigation schemes was employed, namely, that the proposed waterway would lead to an increase in the numbers of watermen and mariners. Fifthly, it was confidently expected that the navigation would improve the competitive position of the Halifax and Rochdale industries, which would compel manufacturers in other districts to maintain a high standard. In the sixth place, the promoters anticipated further developments in intra-regional trade as the navigation of the Calder was extended westward. Slates and flagstones in the neighbourhood of Halifax could not bear the cost of land carriage over long distances, but, once the waterway was improved, might be carried cheaply to the East Riding, Lincolnshire and Nottinghamshire where there was a ready market. Lime from Knottingley would provide an important item of back carriage, at a lower cost than the prevailing rates of land carriage in that commodity. A seventh reason in favour of the upper Calder scheme concerned the cost of carriage between London and Halifax. Thus witnesses affirmed that the steep gradient of the roads near Halifax meant that waggons were constricted in the quantities of goods which they might carry, loads of 10 or 12 horse-packs being carried to Wakefield where consignments were made up to about 30 horse-packs and dispatched to London. A reduction in carriage costs which was likely to follow the effecting of the upper Calder scheme would lead to economies in the rates at which goods were carried along the London-Wakefield-Halifax axis. Eighthly,

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it was maintained that the extension of navigation would help to preserve the highways westwards of Leeds and Wakefield. Finally, the interests who hoped that navigation would be extended to Sowerby Bridge argued that the new waterway would provide an important link with one of the main trans-Pennine routes.<sup>1</sup>

Opponents of the Calder and Hebble Navigation Bill revived many of the arguments formerly used to render the scheme abortive. The allegations of the promoters that the cost of land carriage had not been reduced with the coming of turnpikes were disputed by Joseph Willis, a deponent acquainted with the London-Wakefield-Halifax axis. He attested that the use of broad-wheeled waggons - drawn by eight horses and capable of carrying 30 packs each of 240 lbs - had led to a reduction in carriage rates between London and Wakefield. Extending this argument, he anticipated that the completion of the Wakefield-Halifax turnpike would lead to other reductions, although it is noteworthy that this witness made no attempt to explain how heavily-laden waggons would get up the steep gradients near the western terminus of that road.<sup>2</sup>

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1. H. of C. Journals, XXVIII, 134. Witnesses testified that:-

'several gentlemen would have ordered corn in the late time of scarcity to supply the poor at Halifax, but they were deterred by the expence of carriage, the need to purchase sacks and to hire Granaries for it at Wakefield.' It was estimated that £5,700 a year would be saved in Halifax in the cost of carriage and profits of middle-men or badgers.

2. Ibid, p.134. Willis deposed that the price of carriage from London to Wakefield had been reduced from 14s a pack to 7s 6d a pack, which he ascribed to the use of broad-wheeled waggons. From Wakefield to London, the cost of carriage had been reduced from 1s to 10d per stone.

Although many of the millowners had expressed willingness to acquiesce to the proposed waterway, they seem to have taken the precaution of having their case heard before the House of Commons committee, it being argued that:-

'any navigation upon the River Calder must of necessity render the adjacent Grounds much more liable to be overflowed, injure the fulling and other Mills by occasioning back waters, and above all by the continual wash of water at the Locks, as well as at the Times of the passing and repassing of the Boats, so much interrupt their Working in dry seasons, as would not only injure the particular Cloths in the Stocks, but so far obstruct the Fulling of it in general as to prevent the demands of trade being supplied in due Time.'<sup>1</sup>

It seems possible that many of the millowners joined in the petition against the Bill, in order to receive the maximum compensation.<sup>2</sup>

The chief opponent of the Bill was William Banks, a Leeds merchant and owner of Sands Mill near Dewsbury, who was apprehensive that any diversion of the river Calder from its natural bed in the direction of his mill would subject it to backwater. While the Bill was in embryo, the promoters took steps to satisfy Banks. An agreement was signed on 28 February 1758, whereby the promoters

1. CHN 1/1, fol.10.

2. H. of C. Journals, XXVIII, 94. Sir Lionel Pilkington, proprietor of Wakefield and Horbury mills, John Greenwood, proprietor of Dewsbury mill, and --- Darby, proprietor of Hall's mill were the principal petitioners. It seems that Smeaton had performed some engineering work for Pilkington. CHN 1/1, fol.19.



committed themselves to the purchase of the mill in question, Banks promised to advance £1,000 as a subscription in the proposed navigation, and he promised to give no further opposition to the Bill.<sup>1</sup>

The community of interest which had persisted between the manufacturing and commercial interests on the Yorkshire-Lancashire border was seriously strained in the weeks which followed the presentation of the Halifax petition for the Calder and Hebble Bill on 25 January 1758.<sup>2</sup> For some time the traders of Rochdale had had under consideration a new waterway from Rochdale to Sowerby Bridge, and they now urged the Halifax promoters to include a clause in their Bill to continue the upper Calder navigation to Sowerby Bridge and thus connect the two systems.<sup>3</sup> The Halifax promoters were anxious that the Sowerby Bridge scheme should not be pushed at that time, on the grounds that it might jeopardise the upper Calder navigation, and arouse the latent jealousy of the commercial communities of Leeds and Wakefield, and of many of the West Riding landowners:-

'that the Trade of the West Riding is likely to be remov'd Westward, and consequently obstruct if not hazard the Success of the Bill.'<sup>4</sup>

Having agreed to Smeaton's proposals at a public meeting, the Halifax promoters considered that the Lancashire scheme could not be incorporated in their Bill without inconsistency:-

'with Honour and their Engagement to the Public.'<sup>5</sup>

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1. Clegg, p. 206.

2. H. of C. Journals, XXVIII, 94. Petition of gentlemen, clergy, merchants, traders and other inhabitants of the town and parish of Halifax.

3. Clegg, p.208.

4. CHN 1/1, fol.66.

5. CHN 1/1, fol.72.

In an attempt to resolve the differences between Halifax and Rochdale, Lord Strange offered his good services, being willing to recommend that the Rochdale scheme should be deferred until the following session:-

'if we cou'd secure the Attendance of such Yorkshire Members as appear in Behalf of our Bill, whenever they shall think proper to push theirs.'<sup>1</sup>

When the Rochdale interests apprised the Yorkshire promoters of their intention to push for a clause to be inserted in the Calder and Hebble Bill to extend the waterway to Sowerby Bridge, the Halifax committee resolved that:-

'the Success of the Bill be risqued upon our own Plan and Interest, even tho' the Lancashire Gentlemen shou'd continue to oppose us.'<sup>2</sup>

After a good deal of correspondence and several joint meetings of the two committees, the Halifax promoters were induced to include the stretch in question in the Bill.<sup>3</sup>

Having resolved their differences, the Halifax and Rochdale interests were able to concert measures in order to present their case before the House of Commons committee which had been appointed to consider the allegations of the promoters. In early February, petitions in favour of the proposed navigation were presented from Grantham, Lincoln, Newark and Hull, towns which were anxious to

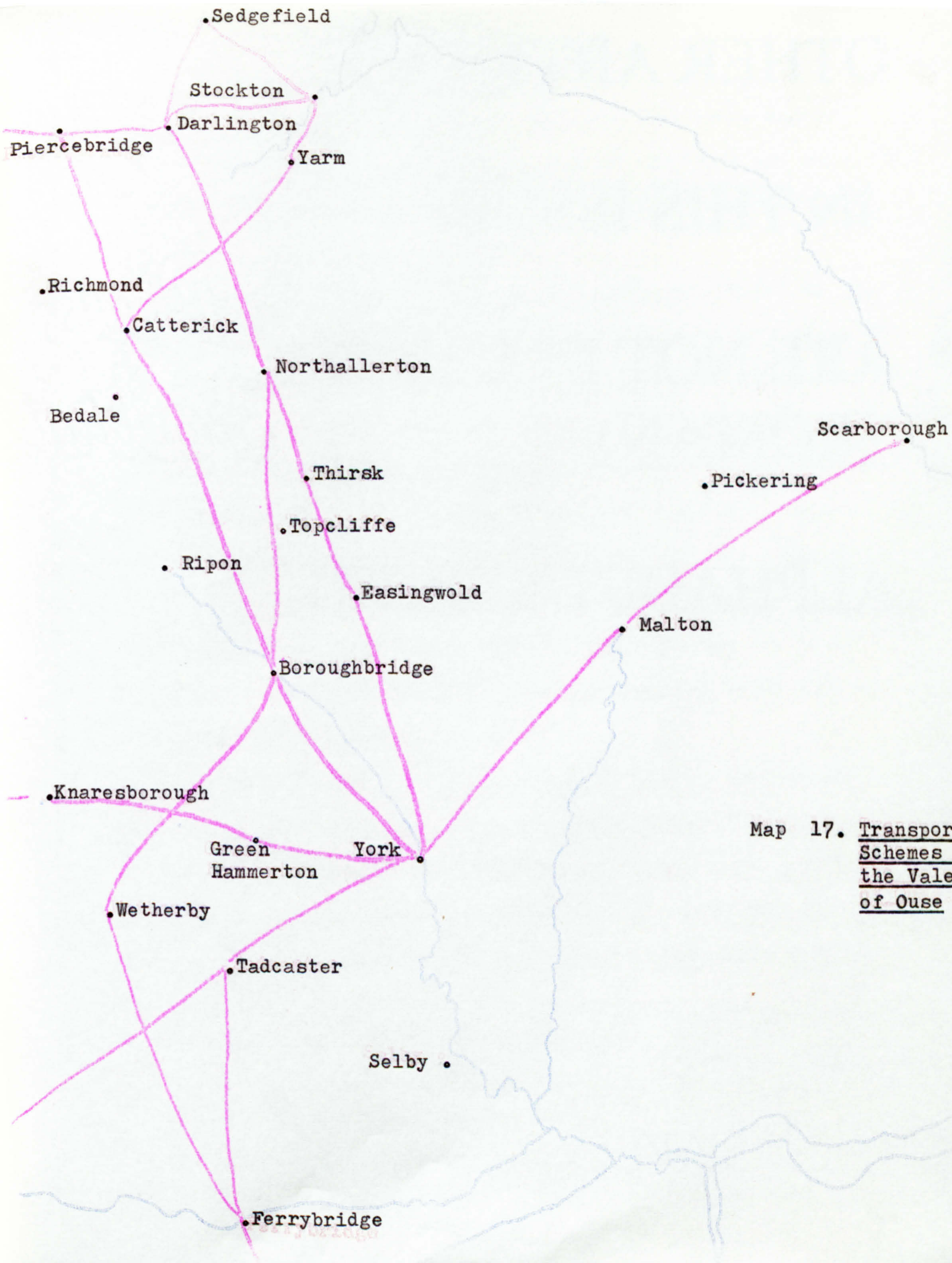
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1. CHN 1/1, fol.76. The Halifax promoters argued that they had given all reasonable assurances that they would not oppose the Rochdale scheme in any future session.

2. loc.cit.

3. Clegg, p.208.





Map 17. Transport Schemes in the Vale of Ouse



support a scheme which was likely to facilitate intra-regional dealings in agricultural products, coal and woollens and worsteds.<sup>1</sup> Smeaton joined the promoters' agents in soliciting support among M.P.'s.<sup>2</sup>

Although the promoters claimed that they had reached an agreement with the riparian interest, several petitions were presented against the upper Calder scheme. In addition to a petition from the principal millowners, the commercial interests in the finishing towns of Leeds and Wakefield were apprehensive that any extension of navigation would be prejudicial to their position.<sup>3</sup> Opponents also were active in soliciting support among M.P.'s. For example, William Horsfall of Storthes Hall wrote to the Earl of Dartmouth, outlining probable effects of the new waterway upon the fulling mills of the river Calder. Horsfall opined that there were other important reasons against the Bill:-

'if the Exportation of Coals be not prohibited it will be the intire Ruin of this Country, for it is by the Cheapness of coals that we keep our Trade, but if Coals be exported They will soon grow dear, and then our Trade will remove up westward. I am told the Town of Wakefield already feels the bad effects of coals going down the present Navigation.'<sup>4</sup>

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1. H. of C. Journals, XXVIII, 87,89,91,93.

2. Smeaton had been requested to seek support from Sir Conyers D'Arcy, Lord Downe, Lord Strafford, Lord Strange, Sir George Methem, the Duke of Leeds, as well as --- Burroughs, --- Ramsden, --- Wilkinson,--- Thornhill,--- Joddril,--- Reynolds and --- Lane.

3. H. of C. Journals, XXVIII, 92,95,98.

4. Dartmouth MSS.(Leeds).Misc.Corr.4.



The allegations of the promoters and opponents were examined by counsel before the House of Commons committee, and the subsequent report provides a picture of trading patterns, and a description of the prevailing conditions of land carriage. David Stansfield and Samuel Lees, who had been deputed to transact the promotion of the Bill in London affirmed that about one-third of the woollen and worsted manufactures of the West Riding were produced by the 50,000 inhabitants of the parish of Halifax. In the neighbouring Lancashire parish of Rochdale, large quantities of white kerseys and bays were produced. Witnesses attested that less than a thousandth part of the wool required was produced locally, and that there were four principal routes used in providing the requisite quantity. Firstly, wool from the East Riding, Lincolnshire, Nottinghamshire and Leicestershire was brought by means of the Humber-Ouse-Trent waterway system to Leeds and Wakefield. Secondly, wool from Norfolk, Suffolk and the port of London was shipped by coasting vessel to Hull and then forwarded by river craft to the market towns of Leeds and Wakefield. Thirdly, smaller quantities reached those towns by land carriage from the North Riding and other northern counties, largely as back carriage from the West Riding. Calculations based on the turnpike accounts for the roads between Leeds, Wakefield and Halifax led to the conclusion that about 500 packs of wool were carried westwards every week. A fourth route for the import of wool was from the west coast ports.<sup>1</sup>

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1. H. of C. Journals, XXVIII, 133. In 1752, Lancaster was opened as a port for the import of Irish wool and yarn. Heaton, p.256.

The agreement which the promoters had reached with Banks was not carried out in consequence of a change in the nature of the Bill while passing through Parliament. Witnesses who gave evidence before the House of Commons committee were closely questioned about the fortunes of the existing west Yorkshire waterway, and were asked to opine whether they considered the Aire and Calder Navigation a monopolistic undertaking. The promoters were willing to acknowledge that if the profits of the proposed navigation ever amounted to as much as 30 per cent - the prevailing dividend on the capital of the Leeds and Wakefield undertakers - it was likely to constitute a monopoly for the Calder and Hebble interests.<sup>1</sup> To prevent this arising, the promoters apprised the committee that a proposal had been incorporated into the Calder and Hebble Navigation Bill to the effect that whenever the dividend amounted to more than a certain sum per cent, duties would be lowered. Even this does not appear to have satisfied the House of Commons committee. The original design - that the new Navigation should not be of a public nature but should be the property of the subscribers - had to be abandoned. The waterway was to be managed by commissioners and limits were placed on the dividends which might be earned.<sup>2</sup> Some years later, Sir George Savile recalled the change which was effected in the nature of the Bill:-

'Shock'd with the enormous gains, as they pleas'd to term them of

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1. H. of C. Journals, XXVIII, 134.

2. H.A.S. MSS. 333. Evidence in a Chancery lawsuit, Banks v. Stansfield. Deposition of John Smeaton; and of Christopher Rawden of Halifax, merchant.



the Wakefield and Leeds Adventurers, they tied the Halifaxians, to the terms of a Turnpike five per cent . . .<sup>1</sup>

Another clause which was written into the Bill stipulated that no coal was to be carried down the proposed waterway to Wakefield. Whether this proviso was designed to satisfy the clothing interests, who were apprehensive that the export of coal from the region would prove detrimental to the woollen and worsted industry, or whether it was the work of mining proprietors around Wakefield, who were anxious that competition in the river trade in coal should not increase, is not easy to determine. Certainly, to many concerned in the manufacture of woollens and worsteds, it must have seemed that two of the main advantages possessed by the Calder valley - water power and coal - were threatened by the proposed waterway. Against this was the prospect of cheaper rates of carriage for raw materials and finished products. The short term affect of the restriction would be to deprive the navigation of a major source of revenue in its early stages when large sums of additional capital expenditure were often needed.

The determined efforts of the Halifax and Rochdale promoters were rewarded with a considerable degree of success. Early in April, Richard Beaumont of Huddersfield noted that:-

'I hear the Navigation bill will pass; the Lancashire gentry are very hot I suppose they will have a Cut through Blackstone Edge.'<sup>2</sup>

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1. Temple Newsam MSS. TN/LA/5/1/13.

2. Whitley-Beaumont MSS. DD/WBC/133. Richard Beaumont to Samuel Fenton at Green Head near Huddersfield, 8 April 1758.

It seems that a total of £36,000 was subscribed to effect the upper Calder undertaking.<sup>1</sup>

Table 11. List of Subscribers to make the Navigation of the River Calder from Wakefield to Sowerby Bridge near Halifax.

Sir George Savile	6,000
Messrs. Royds of Halifax	3,000
John Caygill of Halifax	2,000
Thomas Aked	2,000
Thomas Thornhill of Fixby	2,000
William Gream of Halifax	1,200
Rev. --- Sandford	1,200
Valentine Stead of Halifax	1,000
Samuel Burroughs of Dewsbury	1,000
George Stansfield	1,000
William Banks of Dewsbury	1,000
Rev. Cyril Jackson of Halifax	1,000
John Woolmer	1,000
Robert Alenson	1,000
Messrs. Coulthursts of London	600
David Stansfield of Halifax	500
--- Baldwin of Halifax	500
Lea Haughend	500
Samuel Lees of Halifax	500
John Walker	500
John Waterhouse	500
--- Peace of London	500
John Baldwin of London	500
--- Todd of London	500
William Marsden of Barnsley	500
Samuel Taylor of Rochdale	500
--- Turner of Mirfield	500
Rev. --- Braithwaite	500
John Smeaton	500
--- Hargreaves	500
--- Taylor of Sowerby Croft	500
James Wetherherd	400
Richard Townley of Rochdale	300
Christopher Rawson	300
--- Yates of Heptonstall	300
John and Samuel Lister	300
Dr. George Legh of Halifax	200
John Smith of Rochdale	200
--- Walmsley	200
--- Nicholls of Booth Town	200
--- Powell of Heptonstall	200
Joseph Bramley	200
Dr. --- Jackson	100
--- Moore	100
	<u>£36,000</u>

1. Spencer Stanhope MSS.(Bradford). 2171.



Within a few years of the passing of the Calder and Hebble Act, vessels were able to get up to Elland and Brooksmouth where warehouses were established.<sup>1</sup> However, the original promoters soon found that the statutory powers which they had obtained in 1758 were inadequate. A second Act was obtained in 1769, which removed the waterway from the hands of the commissioners and accepted the proprietorship of the subscribers.<sup>2</sup> The provision of the second Act which aroused the greatest controversy was that which permitted coal to be carried down to Wakefield and the river valley markets. Sir John Ramsden of Byram had apprised the Earl of Dartmouth of his apprehensions on that score, besides outlining what he considered to be the motives of the Calder and Hebble promoters. Ramsden was convinced that if coal was carried downstream:-

'it will be the greatest shock, if not the total destruction of the Woollen Manufactory'. . . and why is this now to be attempted to be done? To reimburse some People in and about Halifax, who have idly schemed away a Considerable Sum in the late Navigation, at the expence not only of this Country, but the adjacent ones also. The plenty, and cheapness of Coals, together with the Brooks for Milling their Cloths first established the Trade in that part of the Country, where it has subsisted ever since, and will continue to do so, provided no unnecessary, or unjust restrictions should be lain upon it. Should the Trade fail, the Inhabitants must follow it, for the

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1. Sowerby Bridge Library. Stansfield MSS.410.

2. 9 Geo.III, c.71. An Act for extending the Navigation of the River Calder to Salterhebble Bridge and to Sowerby Bridge and for repealing an Act for that purpose.

Cultivation of the Land, will not be sufficient to maintain such a number of People.<sup>1</sup>

(viii) TRADE ON THE AIRE AND CALDER NAVIGATION IN THE PRE-CANAL AGE

In the absence of tonnage figures for the various commodities carried on the west Yorkshire waterway, it is no easy task to calculate the volume of trade passing along the Aire and Calder Navigation on the eve of the canal age. It has been estimated that the annual number of laden vessels passing into and out of the borough of Leeds by the waterway increased six or seven-fold between 1711-13 and the 1770's, but so far it has not been possible to substantiate this view.<sup>2</sup> Goods consigned to Hull for shipment to London and the Continent - principally woollen and worsted pieces - were transhipped at Rawcliffe and Armin. In 1768, the customs officers at Hull were informed that there were 112 keels and sloops which regularly operated between Rawcliffe or Armin and the Humber port, amounting to 3,480 tons total burthen and employing 236 men.<sup>3</sup> The bulk of the goods shipped from the lower Aire ports to Hull were brought down the west Yorkshire navigation in smaller vessels, the number actually employed being swelled as a result of defects on the

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1. William Salt Library. Dartmouth MSS. D.1778 v.844. 1 March 1769.

On the second application to Parliament, and the navigation becoming a proprietorship, William Banks put in a claim for damages done to his property caused by making the upper Calder navigable. A lawsuit was held at York Assizes in July 1774, as a result of which Banks was awarded damages of £3,300. Clegg, p.207.

2. G.Ramsden, 'Two Notes on the History of the Aire and Calder Navigation', Publications of the Thoresby Society, XLI (1954), 384.

3. Wentworth Woodhouse MSS. R.61/22/1.



waterway:-

' . . . vessels will be frequently from Stock Reach to Leeds or Wakefield, a week or more in making good their passage, that otherwise would be performed in fifteen hours . . . necessary for a greater number of vessels being employed upon the rivers than would otherwise be sufficient to do the business . . .'<sup>1</sup>

Although Rawcliffe and Armin were the main transshipment ports for the Aire and Calder Navigation, a few vessels continued to be employed directly from Knottingley to Hull. By the 1760's it was apparent that Knottingley's role as one of the principal ports for the West Riding woollen and worsted industry had not been maintained. Thus in 1768 only two keels - a total of sixty tons in burthen and employing four men - are recorded as trading regularly from Knottingley to Hull.<sup>2</sup> Naturally, any description of the trade handled by the transshipment ports and designed for coastal shipment or export from Hull takes no account of the vessels engaged in intra-regional dealings within the Humber-Ouse-Trent waterway system. The trade in coal, lime, slate, flags, wool and grain was considerable by the mid-eighteenth century, many of the vessels employed never passing into the Humber. In 1766, Lord Rockingham was informed of the qualities attributable to Knottingley lime:-

'Have collected minutes relative to the lime I had from Knottingley . . . The quantity was 32 dozens, and was delivered at Swinton Warehouse at 13s 6d per dozen from the Proprietors Vessell the price

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1. Reports of the late John Smeaton (1812), II, p.131.

2. Wentworth Woodhouse MSS. R.61/22/1.

at the kiln being but 7s that of the carriage seems exorbitant when it is considered it pays no lock dues, if a Vessel belonging our River was employed to fetch it, should suppose the expence would be considerably lessened.<sup>1</sup>

A plan of Knottingley in 1772 shows four lime staiths.<sup>2</sup>

The increasing rent for which the Aire and Calder Navigation was leased was indicative of an ever increasing volume of trade on the rivers. The rent paid by the lessees rose from £800 a year in 1704 to £6,000 a year in 1758, the latter sum representing an annual dividend for the Navigation proprietors of over 20 per cent.<sup>3</sup> The teething troubles of the undertaking in the early years of the century had clearly been overcome, and, instead of searching for likely tenants, the proprietors were approached by several trading interests anxious to lease the Navigation.<sup>4</sup> For example, the intense competition to secure the lease in 1751 by mining, trading and shipping partnerships provides further evidence of the promising prospects of the waterway. Thomas and William Fenton, the Rothwell coal proprietors, together with Richard Ayrton offered £5,000 a year for the Navigation and expressed their willingness to accept the appointment of an inspector at Rawcliffe.<sup>5</sup> Proposals were also

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1. Wentworth Woodhouse MSS. R.187/41. J. Payne to Lord Rockingham.

2. Vyner MSS. C.29/F/10. Some years later, William Marshall described Brotherton and Knottingley:- 'from whence vast quantities of lime are sent to distant parts of the Vale of York, particularly towards Easingwold.' W. Marshall, Rural Economy of Yorkshire (1788), I, 346.

3. Unwin, 'ACN 2', p.35.

4. ACN 4/115/3.

5. loc.cit.



made by Richardson Warburton and John Berkenhout, who offered an annual rent of £4,800. Eventually a new seven years lease was granted to Joseph Atkinson, the Thorne shipbuilder and carpenter who had been a lessee since 1723, in partnership with Thomas Wilson son of the Recorder of Leeds and one of the trustees of the Navigation, at an annual rent of £4,400. The lessees agreed that they would pay a salary of £50 a year:-

'to such person as the traders or major part of them shall appoint . . . such person to be employed at Rawcliffe as an Inspector of the Goods imported and exported and to certify the condition they are in.'<sup>1</sup>

The apprehensions of the commercial communities of the West Riding that their interests would be adversely affected if the Navigation was leased by traders dealing in commodities carried along the waterway, were strengthened in 1758. In that year the Navigation was leased to Peter Birt, a merchant with many years experience in the Russia trade who had invested in several local collieries, in partnership with Sir Henry Ibbetson, an opulent Leeds merchant.<sup>2</sup> After Ibbetson's death in 1761, there were growing complaints from colliery owners and merchants that the vessels of

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1. ACN 4/115/3. The lessees agreed to repair the Navigation works and to allow the undertakers five per cent for all sums requisite for the improvement of the waterway.

2. R.G. Wilson, 'Records for a Study of the Leeds Woollen Merchants, 1700-1830', Archives, April 1967.p.13. Sir Henry Ibbetson bart., second son of Henry Ibbetson of Red Hall, Leeds by Elizabeth, da. and coheiress of James Nicholson M.D. of York. Created a baronet, 1748. Mayor of Leeds 1753. He died 1761 aged 53.

Birt, now sole lessee, received preferential treatment at the locks.<sup>1</sup>

The practices attributed to the lessees of the Navigation were but one of the sources of complaint of the trading communities concerning the waterway. Although it was apparent that the undertakers of the Aire and Calder Navigation had realised their aim of securing an adequate return for their investment, it was also clear that they had failed to perfect the waterway. Interests using the rivers experienced defects common to many inland navigations of the period, namely, seasonal variations in the depth of the rivers, meanders, silting and disputes with millowners. In 1754, John Smeaton the Austhorpe engineer reported to the undertakers:-

'a method of Preventing Annoyances to the Navigation by the occupiers of Knottingley Mills by making a Dam from the Landfall on the South side of Knottingley Lock across the River . . .'<sup>2</sup>

As trade increased, the inadequacies of the waterway were manifest in a growing number of complaints. In 1771, Smeaton, in a report on the alterations necessary to improve the Navigation considered that:-

'the original undertakers not having had any notion of the extensive trade that was likely to be carried on by means thereof, formed their plan upon too diminutive a scale, and particularly with respect to the depth of the water . . .'<sup>3</sup>

By that time a new age was dawning, thinking in new terms and on a larger scale of how to solve its transport problems.

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1. Temple Newsam MSS. TN/LA/5/2/5.

2. Unwin, 'ACN 2', p.35.

3. Ibid, p.36.



Throughout the eighteenth century the most valuable goods sent downstream from Leeds and Wakefield were provided by the woollen and worsted industries of the West Riding. Considered from the point of view of total national production, it is well known that the woollen and worsted industries were not expanding at a great pace and that the increase in the value of exports between 1700 and 1760 was only about 30 per cent. However, the first half of the eighteenth century witnessed marked progress in the West Riding which was appropriating to itself a greater share of national industry, and was attracting trade from other parts of the country, notably from the West Country and East Anglia. By 1772, worsteds made in the West Riding equalled in value those made in Norwich and the surrounding districts.<sup>1</sup>

The role of the Yorkshire waterways and turnpikes in the growth of the woollen and worsted industries of the West Riding must now be considered. Wool from Lincolnshire, Leicestershire and the midland counties was sent along the waterway system to Leeds and Wakefield, or was imported via Hull. Dyewood, fullers' earth and alum were also imported via the principal Humber port and forwarded by water to the market towns which served the clothing districts. If there was insufficient water to navigate the whole stretch of the Aire and Calder waterway, goods would complete the journey from

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1. V.C.H. Yorks. II, 429. Although the Norfolk monopoly was breaking down in the manufacture of worsteds, the export of Norwich stuffs rose steadily in the eighteenth century, reaching a peak in the 1750's and 1760's. Wilson, p.299.

Armin, Rawcliffe or Knottingley by land carriage.<sup>1</sup>

Many of the turnpikes west and north of Leeds and Wakefield were designed to facilitate transport in the woollen and worsted producing districts. For example, when the Leeds-Otley-Kildwick-Preston turnpike Bill was under consideration in Parliament, Sir Henry Ibbetson an opulent Leeds merchant apprised the House of Commons committee of the advantages which would accrue to the clothing districts if the route was improved:-

'for several Years past, the Norwich Stuff Manufacture has been carried on about Kildwick, and that several People at Leeds have set up this new Manufacture; but that they cannot employ a sufficient Number of People there to carry it on; and therefore employ all the Manufacturers they can find in a twenty miles circuit, who, when they have finished their Work, carry it to their Employers at Leeds on Horses . . . and that the Manufacturers, who are for the most part very poor and have no Horses of their own, might then join in a Carriage for conveying their Goods, and thereby save some part of their present Expences; and, by this Turnpike, the Masters would likewise have an Opportunity of getting Wool from Hull to Tadcaster, and from thence, through Leeds, to that part of the Country where their Manufacturers live, at the same price as from Hull to Leeds entirely by Water.'<sup>2</sup>

At Halifax, Huddersfield, Leeds and Wakefield goods were finished

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1. H. of C. Journals, XXVIII, 134.

2. H. of C. Journals, XXVII, 123. 28 January 1755.



dyed and sold, sometimes at the cloth halls, sometimes by direct contracts with factors and merchants.<sup>1</sup> Although pedlars and drapers continued to take some of the cloth sold at the cloth halls, many merchants and factors bought directly from the makers without going into the market.<sup>2</sup> In the eighteenth century the Yorkshire clothiers and merchants moved swiftly into army contracts, the wartime demand for uniforms constituting an important factor in the expansion of the West Riding industry.<sup>3</sup> Some years after the ending of the Seven Years War, Arthur Young recorded that:-

'The business of this town (Leeds) flourished greatly during the war but sunk much at the peace, and continued very languid till within these two years, when it began to rise again.'<sup>4</sup>

In the early decades of the eighteenth century, considerable quantities of cloth from the West Riding were still sent to Blackwell Hall, either by coasting vessel or by land carriage. Similarly the earliest contracts with Russia were usually arranged through London merchant houses.<sup>5</sup> It has already been noted however that with the development of the Aire and Calder Navigation there was a growing tendency for trade to settle on a Leeds/Wakefield-Hull-Europe axis.<sup>6</sup>

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1. From the mid-eighteenth century an increasing number of cloth halls were established in the market towns of the West Riding.

The Leeds Coloured Cloth Hall was built in 1757; the Huddersfield Manufacturers Hall in 1766; and Wakefield Tammy Hall in 1766.

2. Heaton, p.299.

3. Wilson, p.280.

4. Young, I, p.139.

5. H. of C. Journals, XXVIII, 134.

6. Supra, p. 382.

In this commercial development, the role of the west Yorkshire ~~rivers~~ was not unimportant, since it seems that cloth for Russian contracts - made in the districts between Wakefield and Halifax - could be supplied at rates which were 10 per cent cheaper after the opening of the Aire and Calder Navigation, while white kerseys for clothing Dutch troops were five per cent cheaper.<sup>1</sup> It must be emphasised however that many of the cloths produced in the West Riding were not sold in European markets, but were sent to the American colonies, where the coastal towns were well sprinkled with Yorkshire cloth merchants on the eve of the American Revolution.<sup>2</sup>

The Aire and Calder Navigation also played an important part in supplying the growing townships and cloth-producing communities with food and basic consumer goods. Although population estimates must be treated with caution, there can be little doubt that there was marked demographic growth in the West Riding during the eighteenth century. For example, in 1771 there were approximately 4,000 houses and over 16,000 inhabitants in Leeds, compared with 2,500 houses a generation earlier, and 1,000 houses in Thoresby's time.<sup>3</sup> In addition to the intra-regional trade in agricultural products - which enabled grain from the East and North Ridings and Lincolnshire to be exchanged for the coal, lime, flags and freestone of the West Riding - considerable quantities of groceries and wine were imported via Hull.

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1. H. of C. Journals, XXVIII, 134.

2. H. Heaton, 'Yorkshire Cloth Traders in the United States, 1770-1840', Thoresby Society Publications, XXXVII (1941), 226-87.

When the Stamp Act of 1765 provoked an American boycott of British goods, Leeds merchants joined in the demand for its repeal.

3. Beresford and Jones, p.189.



Complaints from grocers and wine merchants against defects in the Aire and Calder Navigation were not uncommon in the eighteenth century.<sup>1</sup> Like Leeds, Wakefield was an important market centre for a variety of agricultural produce which was distributed over a wide area.<sup>2</sup>

Evidence for the increasing volume of coal carried on the west Yorkshire waterways must be derived largely from the extant accounts of collieries adjacent to the Aire and Calder Navigation. Reference has already been made to several waggonways which provided feeders to riverside staithes.<sup>3</sup> The opening of the Rothwell Haigh and Middleton collieries marked a significant change in the scale of mining operations on the west Yorkshire coalfield.<sup>4</sup> In 1758, Charles Brandling offered to deliver to Leeds 23,000 tons of coal annually from his pits at Middleton, at a fixed price, in return for the right to construct a waggonway. An Act to this effect was passed in the same year. The predominance of Middleton coal in the Leeds market, and its expansion in the river market dated from that time, since Brandling was able to neutralise the relative disadvantages of

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1. For example, when the Aire and Calder proprietors were seeking to promote a Bill for additional statutory powers in 1771, complaints about conditions on the waterway were made by various trading interests in Leeds. George Oates, a Leeds grocer complained about 'embezzlements, alterations and detentions of goods' and affirmed that 'at a public meeting at Leeds several grocers declared their apprehension of being obliged to shutt up shop if they signed complaints in writing which they then declared.' Temple Newsam MSS. TN/LA/5/2/5.

2. Walker, p. 402.

3. Supra, p. 590.

4. Ashton and Sykes, p.26.

isolation and distance under which the colliery had laboured compared with rival collieries at Beeston, Halton and nearer the river in Hunslet. The quasi monopoly of Middleton coal in the Leeds market rested largely on lower transport costs with which other collieries - dependent on river or turnpike tolls - could not compete.<sup>1</sup>

Since the price of Middleton coal sold in Leeds was fixed by statute, Brandling and his agents concentrated on more distant markets to compensate for rising costs. In the development of the west Yorkshire coalfield the river markets were very important, and coal from Middleton was sent to Lincoln, Brigg, Gainsborough, Hull, Beverley, Driffield, York, Brotherton, Knottingley and other centres accessible by water from Leeds.

Table 12. Coal Sales from the Middleton Colliery of Charles Brandling.<sup>2</sup>

	<u>Leeds staith</u> (township sales in tons)	<u>Hunslet staith</u> (river sales in tons)
1762	29,063	15,631
1763	29,384	15,808
1764	31,782	15,139
1765	30,871	15,863
1766	32,384	22,266
1767	31,195	18,800

1. Rimmer, 'Middleton', p.48. The waggonway was one and a half miles long, and ran from Middleton colliery across Hunslet Moor to the Old Staith, a wharf near Leeds Bridge. The Brandling family came from Tyneside, and inherited the Middleton property in the late seventeenth century. The statutory price for Middleton coal in the Leeds market was one third below the level prevailing a year earlier.

2. Ibid, p. 54. In the 1760's Middleton coal sold at 4½d to 4½d a corf at the river staith compared with 4½d a corf in Leeds, the statutory price. With rising costs, the price of coal sent to 'distant' markets was raised by ½d in 1767.



The Aire and Calder Navigation also enabled mining equipment to be brought to Middleton colliery. Thus in the mid eighteenth century a variety of iron goods were being purchased, Newcastle wheels, Birmingham engines, Manchester and Sheffield castings, and above all sundry articles from Samuel Walker of Rotherham. The timber supply for the Middleton colliery came either from the purchase of standing woods in the vicinity or by measured pieces from more distant parts of Yorkshire and imports from the Baltic.<sup>1</sup>

A map of the Aire and Calder Navigation in 1774 shows numerous coal staithes along the rivers as far as the confluence of the rivers at Castleford. The Fenton family had been associated with mining in the seventeenth century, and after 1750 they were mining pits close to the river beyond Hunslet. The Fentons were also concerned in the colliery at Rothwell, where one of the first pumping engines to be installed in the West Riding was used at the Carr Lane pit.<sup>2</sup> The output of coal was probably increasing at Oulton, part of the manor of Rothwell, where James Milnes a Wakefield merchant purchased an estate in 1765. At Roids Green there was a colliery belonging to Sir William Lowther of Swillington, whose family had

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1. Rimmer, 'Middleton', p. 44.

2. J. Batty, History of Rothwell (1877), p. 173. Between Bell Hill and Hunslet was a large colliery which belonged to the Duke of Norfolk and which was leased by William and Thomas Fenton. The Fentons were rivals of Charles Brandling in the coal trade of Leeds and its environs. When the Middleton waggonway was first proposed, the Fentons and John Wilks, another local coal trader offered house delivery of coal at 6d a corf - a reduction of 15 per cent - with a seventy years contract if required.

negotiated terms from the original Aire and Calder promoters for sending coal downstream,<sup>1</sup> which were favourable to themselves.

Several of the river valley coal proprietors and their agents played significant roles in the development of a local pottery industry. Soon after the construction of the Middleton waggonway, a partnership was formed between Richard Humble, Joshua Green and John Green to produce pottery in Leeds, a factory for that purpose being constructed near the new coalway. Richard Humble originated from Tyneside and was employed by Charles Brandling to manage the Middleton colliery. Besides his interests in mining and pottery, Humble ventured on his own account in brewing and ironfounding. Joshua Green of Middleton was a sub-contractor at Brandling's colliery, having engaged to carry coal along the waggonway to Hunslet staith. John Green was a potter from Hunslet. By 1772 the new pottery was using 2,600 tons of coal a year, rising to some 3,600 tons in 1780. The cream-ware was disposed of in both home and foreign markets.<sup>2</sup>

William and Thomas Fenton probably founded the Rothwell pottery in the hope of sharing the success of the so-called 'Leeds Pottery' established by Humble and his partners. In 1768, the old glasshouse at Rothwell was converted into a pottery. Six years later, the Fenton family secured the services of Samuel Shaw a Staffordshire potter who made cream colour, red, yellow and painted wares.

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1. ACN 4/119/1.

2. Rimmer, 'Middleton', p. 50.



Although the Rothwell pottery continued to produce earthenware until 1802 it was never a great success commercially.<sup>1</sup>

(ix) TRADE AND TRANSPORT IN THE LOWER WHARFE VALLEY IN THE PRE-CANAL AGE

The defects of the west Yorkshire waterways prompted a number of Leeds merchants to send their goods ten miles by land to Tadcaster, the old port on the Wharfe, for shipment to Hull. Although it was conceded by these traders that the Tadcaster route was neither more expeditious nor cheaper than the Aire and Calder Navigation, it was nevertheless maintained that there were fewer mills on the Wharfe, a river which had not fallen under the control of statutory proprietors or their lessees.<sup>2</sup> Naturally, Tadcaster had continued to serve many of the communities of Wharfedale as the nearest inland port.

The fifth and sixth decades of the eighteenth century saw the establishment of several turnpike trusts which were designed partly to improve the feeder routes to Tadcaster, and partly to improve the trans-Pennine routes through Airedale. In 1740, the trading interests of the cloth producing districts had considered the possibility of a turnpike from Leeds to Tadcaster, but had dropped the plan in favour of the Leeds-Selby route.<sup>3</sup> The Leeds-Tadcaster scheme was revived in 1744-5 at the time when a Bill was being promoted for the Tadcaster-York, but was not incorporated in the

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1. Rimmer, 'Middleton', p.50. Thomas Fenton founded a copper and brass works, and carried on mining operations in Cornwall as well as Yorkshire. H. Hamilton, op.cit., p.168.

2. H. of C. Journals, XXVIII, 134.

3. 14 Geo.II, c.32.

resultant Act.<sup>1</sup> It was not until 1751 that statutory authority was obtained and a start could be made on a turnpike between Leeds and Tadcaster.<sup>2</sup> Two years later, Parliament sanctioned the Tadcaster-Otley turnpike,<sup>3</sup> and in 1755, an Act was passed for the improvement of the roads between Leeds-Otley-Skipton-Clitheroe-Preston, thereby facilitating trans-Pennine traffic.<sup>4</sup> The opportunity to improve communications in Wharfedale and Nidderdale was also provided by the Act for the Wetherby-Knaresborough-Pateley-Grassington roads which was obtained in 1759.<sup>5</sup> The new turnpike routes usually followed existing lines of packhorse road and not all of them could be easily adapted for wheeled traffic in the Pennines. It must be emphasised that many of the new turnpike trusts were not financially sound in their early years.<sup>6</sup>

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1. 18 Geo. II, c.16. In December 1744, a meeting was advertised to be held at the King's Arms in Leeds to consider a Bill for the road to Tadcaster. Leeds Mercury, 11 December 1744.
  2. Beresford and Jones, p.148. The road from Leeds to Harrogate and Ripon was turnpiked as a result of an Act of 1752. 25 Geo.II, c.58.
  3. 26 Geo.II, c.64. Samuel Popplewell the steward at Gawthorpe advised --- Collings:- 'As I told you before you may safely advance £1,500 upon Otley Road' . . . ' Harewood MSS. Stewards Correspondence (1).
  4. 28 Geo. II, c.60. One aim of this turnpike was to contribute to the expansion of the West Riding's wool textile industry. It was also designed to facilitate local dealings in coal and lime. H. of C. Journals, XXVII, 123.
  5. 32 Geo.II, c.71. The three stretches of the Wetherby-Knaresborough-Pateley Bridge-Grassington turnpike, although governed at first by one Act, were administered as three separate financial entities.
  6. Beresford and Jones, p.148.



By the mid eighteenth century, Tadcaster had a well established reputation as a halting place for pack-horse and stage-coach, and Arthur Young was able to express a very favourable impression of at least one of the roads leading to the town.<sup>1</sup> In addition to its role as a road and river centre, Tadcaster had long been noted for its ale, a reputation enhanced after the founding of a new brewery in 1758.<sup>2</sup>

When the Bill to improve the Leeds-Tadcaster road was being considered by Parliament, traders and landowners using the Wharfe port had raised the question of the improvement of the river, although nothing came of the proposal.<sup>3</sup> Nevertheless, it seems that a number of the riparian proprietors did enter into an agreement concerning the navigation of the Wharfe during the 1760's, but the full details of the arrangement have not yet come to light.<sup>4</sup>

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1. H. Speight, op.cit., p.40. The road from Doncaster to Tadcaster had been turnpiked under an Act of 1741 - 14 Geo.II, c.28. Joseph Atkinson, one of the Aire and Calder Navigation lessees and a noted local surveyor was paid by the turnpike trustees to supervise the stretch of road across Brotherton Marsh.

2. A. Ellis, Yorkshire Magnet (Tadcaster, 1953), p.7.

3. Healaugh MSS. He/37a.

4. Harewood MSS. Stewards Correspondence (5). For example, in May 1768, it was noted that:- 'the debts owing by the Gentlemen of the Tadcaster Navigation to Lord Egremont and other persons at Hull are daily called for . . . let Sir Thomas Wentworth know . . . that those Gentlemen are very desirous of Raising their Quotas to have everything paid of . . .'

Descriptions of trade by water from Tadcaster to Hull or to other ports within the Humber-Ouse-Trent waterway system cannot be found either in the records of a navigation company, or in municipal archives. In the absence of corporate sources, it is necessary to revert to estate accounts and letter books, from which a little of the prevailing patterns of trade and transport can be gleaned.

The building of Harewood house on the Gawthorpe estate of the Lascelles family between 1759-1771 necessitated the import of considerable quantities of slate, and of timber and iron from the Baltic. The stone for the house was quarried on the estate and lead was brought by land from Wharfedale smelting mills.<sup>1</sup> The principal timber merchants at Hull from whom John Carr contracted deals, Riga timber and Danzig pipe staves included George Holden, Samuel Sketchley, William Jolliffe, Edward Nixon, Robert Fretwell, and the partnerships of Thorley and King, Haworth and Stevenson, and Jones and Osborne. Burden Wells of Gainsborough supplied small quantities of square fir timber which he imported from Riga to Hull. Several of the merchants also dealt in iron and slate.

Timber, iron and slate were keeled at Hull and sent by water to Tadcaster, although the number of vessels actually employed was never more than half a dozen.<sup>2</sup> To find additional vessels suitable for

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1. The Harewood estate with Gawthorpe as the house on it was bought by Henry Lascelles, a wealthy man whose money came from the ribbon trade and the collecting of customs in Barbados. His son began the new house in 1759 and finally demolished Gawthorpe in 1771. The plans for the new house were by John Carr. N. Pevsner, Yorkshire: The West Riding (1959), p.245.

2. Harewood MSS. Stewards Correspondence (1-5).



the river Wharfe was not easy, those used on the Ouse drawing a greater depth of water so that lightening would be necessary in order to get up to Tadcaster. In September 1763, several Hull timber merchants were anxious to avoid the payment of demurrage and requested Edmund Knipe a Tadcaster raff dealer to send down as many keels as possible to the Humber port. Knipe advised the steward at Gawthorpe:-

' . . . before I got Yours had dispatched all the Vessells in my Power . . . last post I had a letter from George Holden wherein he says before he even knew the Ship was arrived her days of laying was out that all is in Sad Confusion at Hull and he is forced to hire Vessells there at a very high Rate to save demurage. Now I sent Vessells of Our Own and from Selby that I thought would have Cleared with Ease in the Time mentioned but as it happens he's Obliged to take on Others not only at an Extra Expence but I fear some of the Vessells I sent will be disappointed of Loading . . .'<sup>1</sup>

Although there was regular water communication between Tadcaster and Hull, trade to the Wharfe port from other river ports of the region was not well developed. Thus, when George Hopwood of Thorne was arranging to send a small quantity of oak boards to Gawthorpe, he advised that:-

' . . . must send them to warfes mouth by a York keel for I cannot get a Keel to come up with so small a Quantity to Tadcaster.'<sup>2</sup>

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1. Harewood MSS. Stewards Correspondence (4).

2. Harewood MSS. Stewards Correspondence (5).

When a parcel of twenty tons of slate was forwarded by water from Hull to Knottingley by mistake, Edmund Knipe the Tadcaster wharfinger advised the steward at Gawthorpe:-

'Will forward to Knottingley as fast as possible but as I've only one Vessell that can go throw those locks it will be saturday or Monday before she will be there to take it on board.'<sup>1</sup>

The Harewood correspondence provides brief references to some of the traders at Tadcaster who dispatched goods to the Gawthorpe estate by land carriage. Dealings with Francis Iles, a Tadcaster iron and timber merchant indicates a rise in the prices of these commodities during the Seven Years War. The discount allowed for large parcels of iron was explained to the Gawthorpe steward:-

'its a rule in Trade to make a person that takes 5 tons and upward the same abatement as if he took 100 tons and is allways 10s per ton lower to such than any that take a smaller quantity.'<sup>2</sup>

In 1755, the best Gothenburg iron was selling at Hull at £17 per ton; by 1760 it was again £18 per ton; it fell to £17 10s per ton in 1761; but rose again to £17 17s 6d in 1762. Small quantities of iron were obtained from Wortley iron works, and wire from the Swillington works of William Evers.

In addition to woollen cloth and lead, a variety of goods were shipped down the river Wharfe for Hull. The Harewood correspondence indicates the use of the waterway for the carriage of a variety of

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1. Harewood MSS. Stewards Correspondence (5).

2. loc.cit.



domestic articles as the first stage in their conveyance to London.<sup>1</sup> Small quantities of rape were also sent by water from Tadcaster to Hull, the freight amounting to 6d per quarter. In return, the firm of Joseph Pease and partners sent casks of white paint to the Gawthorpe estate.<sup>2</sup>

The number of vessels regularly engaged in trade between Hull and Tadcaster was small. In 1768, the customs officers at the Humber port calculated that six vessels - a total tonnage of 180 tons and employing 18 men - used the Wharfe-Ouse-Humber axis.<sup>3</sup> This estimate seems to confirm the impression given by the Harewood correspondence. Although a number of Leeds merchants used the Wharfe route, it was a poor substitute for the Aire and Calder Navigation. By 1770, the west Yorkshire cloth districts were once again looking to the Ouse ports for an outlet. To developments in the communities of the Vale of York, and the efforts to improve land and water communications there, we must now turn.

#### (x) TRANSPORT DEVELOPMENTS IN THE VALE OF YORK IN THE PRE-CANAL AGE

Improvements in land and water communications in the Vale of York and Teesdale show some similarities to the timing and nature of development in other parts of the Humber-Ouse-Trent region.

After the defeat of Ellison's proposals to extend river navigation

1. Between 1756-63, about twenty coasting vessels are mentioned in the Harewood correspondence as being concerned in the carriage of goods for the Lascelles family.

2. Harewood MSS. Stewards Correspondence (1-5).

3. Wentworth Woodhouse MSS. R.61/22/1.

above Milby in the 1730's, interest in the following two decades seems to have been focused on the promotion of turnpikes.<sup>1</sup> Only after 1760 were serious attempts revived to improve and extend navigation. Chronologically therefore, it will be appropriate to consider the principal road Acts before turning to an analysis of the river schemes and a description of the patterns of trade of the inland ports on the eve of the canal age.

. . . . .

Between 1740-1763, more than twenty Acts were passed to sanction road improvements in the Vale of York and Tees valley, either authorising the establishment of turnpike trusts, or renewing and increasing their statutory powers. These Road Acts may be broadly classified in four categories according to their principal function: firstly, a number of trusts were concerned with the improvement of stretches of the Great North Road; secondly, were the trusts which were designed primarily to ameliorate the trans-Pennine link routes; thirdly, several trusts were established to link market towns with roads which had already been turnpiked; finally, were those trusts which were designed to improve the feeder routes to the river or estuarine ports. It must be emphasised however that a number of trusts seem to have served a dual purpose, for example by improving a feeder route an effective alternative might be provided to a stretch of the Great North Road.

In addition to providing an important artery for communication

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1. Supra, pp. 558-9.



between parishes and townships in Yorkshire, the Great North Road was the principal north-south land axis, and was thus of more than regional importance. By 1740, many trusts had already been established to improve stretches of the road south of Doncaster, and the fifth decade of the century was to witness the turnpiking of the Yorkshire sections of the road. In January 1741, Sir John Ramsden reported from a House of Commons committee which had been appointed to examine the allegations of a petition from the J.P.'s in the West Riding, that the roads from Doncaster to York and from Ferrybridge to Boroughbridge could not be adequately maintained under existing statutory provisions. William Dickenson, the surveyor had informed the committee that the road between Doncaster and York was in a ruinous condition because of the heavy loads carried, together with the large numbers of cattle which were driven southwards for the London market each year. Witnesses also affirmed that the road between Ferrybridge and Boroughbridge - which included eight miles of the post road north of Wetherby - was urgently in need of repair:-

'so dangerous to travellers in coaches that they are obliged to go several Miles about, although the Statute work was performed.'

Having heard the report, it was agreed that a Bill should be brought in to repair the roads.<sup>1</sup>

Doubts concerning the proposed Bill arose on two principal counts, namely, whether the administration of the Doncaster-York road should be the charge of separate divisions with distinct groups

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1. H. of C. Journals, XXIII, 593.

of trustees, and whether the location of the requisite turnpike gates should be specified in the Act. Edward Thompson one of the M.P.'s for York was urged by local landowners to promote the inclusion within the Bill of a separate list of trustees for the Ainsty of York:-

'as it is a separate Division, and always has been so, as in the Land Tax.'<sup>1</sup>

It was hoped that, if the Ainsty was kept separate, the trustees for that division would have full powers to undertake repairs on the stretch of road in the environs of York. It was also considered to be in the best interests of the Ainsty landowners to have the location of the turnpikes fixed by the terms of the Act. The York M.P. was urged to take into consideration that:-

'if the Trustees are all joynt in one intire Body, and no limitation of Liberties; then in all points they of the West Riding will always outvote the Ainsty, will order when, where and in what manner Repairs shall be done, will take all the money raised in the Ainsty to repair their Roads, and leave the Ainsty part unfinished till the last, for perhaps twenty years . . . whereas if the Ainsty is kept under the Direction of its own Trustees may and certainly will do its own part of the Roads to be open again in four or five years at farthest.'<sup>2</sup>

There was also apprehension that the trustees might fix a toll gate

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1. Healaugh MSS. He/37a.

2. loc.cit.



between the bridge and the market cross in Tadcaster, thereby imposing an additional burden on traffic between the west Yorkshire towns and York, although such traffic used the Doncaster road for less than one hundred yards of its length. It was argued that the affixing of a toll bar in Tadcaster would have repercussions on the trade in coal and lime brought from townships in the Aire and Calder valleys to York, in return for which agricultural produce was marketed in the growing townships in the cloth producing districts.

Having apprised the M.P.'s of York of their reservations concerning the proposed Bill, the landed proprietors of the Ainsty set down the stipulations they hoped might be incorporated into the authorising Act. Thus it was argued that if toll bars were set up at or near Doncaster and Ferrybridge under the direction of trustees in the West Riding, and if a third gate was located at or near Streethouses under the direction of trustees in the Ainsty, and provided the sums raised were used for the repair of the respective stretches of road:-

'this would sufficiently raise as much in each District as would answer the end designed.'<sup>1</sup>

It seems that the Ainsty interests met with a considerable degree of success, for in the Act which was passed in 1741, the statutory limit of the turnpike was stipulated to be at the south side of Tadcaster cross. The Act to repair the roads from Doncaster

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1. Healaugh MSS. He/37a. It was argued by the Ainsty interests that the London waggons and wool carriages should pay high tolls 'because they more than anything cut and break up the roads.'

to Tadcaster and from Ferrybridge to Boroughbridge also included a number of toll exemptions, as a result of which the trustees were deprived of sources of revenue which alone would enable effective improvements to be carried out. Thus it was stipulated that all carts and other wheeled vehicles carrying coal and lime on any part of the road between Ferrybridge and Boroughbridge were to be exempt from the payment of tolls between 1 May and 30 October, and would be subject to only one quarter of the tolls on other goods between 30 October and 1 May.<sup>1</sup>

Although some progress seems to have been made in the improvement of the Ferrybridge-Boroughbridge road in the following decade, the trustees were soon aware that additional powers were necessary. By 1753, the trustees had borrowed £3,800 on the credit of tolls which amounted to about £400 per annum, but were convinced that it would not be possible to improve the road to a satisfactory condition until the exemptions written into the authorising Act had been removed. The allegations of the trustees were confirmed in the evidence given by Thomas Oastler the surveyor of the road to a House of Commons committee, which had been appointed to consider a petition requesting leave to bring in a renewal Bill with additional powers.<sup>2</sup> Following the report of the committee, the House instructed the legal agents drafting the renewal Bill:-

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1. 14 Geo. II, c.28.

2. H. of C. Journals, XXVI, 660. Oastler informed the committee that 6,000 wagons laden with coal and lime used the road each year causing much damage but paying either no toll at all or minimum rates.



'that they do make Provision in the said Bill, for the subjecting of Lime to the Payment of the Duties to be laid by the said Bill.'<sup>1</sup>

There are a number of similarities to the experiences of the Ferrybridge-Boroughbridge trustees in the promotion of improvement Bills for the more northerly stretches of the Great North Road and in the prescribed limits of their statutory powers. In December 1742, a petition was presented to the House of Commons from the North Riding magistrates concerned at the condition of the roads between Boroughbridge and Northallerton, and between Boroughbridge and Piercebridge via Catterick.<sup>2</sup> Both of the north-south routes crossed feeder routes for the estuarine ports on the Tees, whose merchant communities were anxious that the commodities in which they dealt should not become subject to the payment of road tolls. A petition from the commercial community at Yarm urged the House to consider that the roads from Boroughbridge-Northallerton and Boroughbridge-Piercebridge lay between the Tees port and market towns in Swaledale and Wensleydale with which important trading links had been established:-

'great Quantities of Lead, Butter-firkins, Corn, Tallow, and other Commodities, which are there brought, and shipped for London, and other Places, are almost daily brought to Yarm . . . by Land-carriage, from the several inland Market Towns of Richmond, Bedall,

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1. H. of C. Journals, XXVI, 699. Oastler had also alleged that the trustees had insufficient powers to enforce the statute work of the parishes, and estimated that an additional £1,860 was needed.

2. H. of C. Journals, XXIV, 349.

Middleham, Masham, Askrigg, Reeth, and Hawos . . . and likewise great Quantities of Grocery Wares, Flax, Iron, Tar, Timber, Fir Deals, Salt, and other goods are sent by Land-Carriage from Yarm . . . to the . . . Seven Several Market-towns . . .<sup>1</sup>

As in many of the early turnpike Bills, it was finally agreed that coal should be exempt from the payment of toll in certain months and should be rated exceptionally low at other times of the year.<sup>2</sup> Within two years the trustees of the Boroughbridge-Northallerton-Darlington-Durham road had borrowed £6,600 at five per cent interest on the credit of tolls which produced - on average - a total of £918 12s a year. It was conceded however that the road between Northallerton-Darlington was still bad, occasioned largely by the many coal carriages - about 400 in the summer months - which passed through Northallerton.<sup>3</sup> In 1749, the trustees of the Boroughbridge-Piercebridge turnpike petitioned for a renewal Act which would give them additional powers, in particular that the exemptions in the authorising Act should be waived. It seems that about £4,000 had been borrowed by the trustees on the credit of tolls which amounted to about £400 per annum, but which was insufficient to pay interest and to maintain a road over thirty miles in length.<sup>4</sup> Petitions

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1. H. of C. Journals, XXIV, 394.

2. 16 Geo.II, c.7.

3. H. of C. Journals, XXIV, 817.

4. H. of C. Journals, XXV, 755. The authorising Act of 1743 had included the proviso that carts and horses carrying coal should be exempt from toll between 1 May and 30 October in each year, and should be rated at only one quarter of the toll for other goods at other times.



against the proposed Bill were presented on behalf of the J.P.'s of the North Riding who were anxious to prevent additional tolls.<sup>1</sup>

The Tees ports of Yarm and Stockton not merely maintained a wary surveillance of the turnpike trusts which had been authorised to improve stretches of the north-south routes, they were also anxious to improve the feeder routes which tapped the agricultural and mining hinterlands of the North Riding and county Durham. In 1747, two Bills were successfully promoted to establish turnpike trusts, one to repair the roads between Catterick-Yarm-Stockton-Sedgefield-Durham, the other for the Stockton-Darlington route.<sup>2</sup> By 1753, the trustees of the Catterick-Yarm-Stockton-Durham road had borrowed £6,000 on the credit of tolls which averaged between £500 and £600 per annum. Although it was claimed that all but one of the 42 miles of road had been improved, additional statutory powers were deemed requisite to maintain an important highway to the Tees ports:-

'and is also in many Parts, for a considerable Way together, the Common Road to several Coal Mines, Coal Pits and Lead Mines.'<sup>3</sup> It seems that interest payments outstanding amounted to £100, and that the tolls taken each year fell well below the average expenditure of £955 15s. laid out in interest and repairs.<sup>4</sup> The stretch

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1. H. of C. Journals, XXV, 791.

2. Ibid, 264, 267.

3. H. of C. Journals, XXVI, 717.

4. Ibid. The application of the trustees of the Catterick-Yarm-Stockton-Sedgefield-Durham road for increased powers followed a period of controversy in which the magistrates of the North Riding had become implicated. N.R. Sessions, IX, 218.

of road between Catterick-Yarm-Stockton constituted by this time an important part of a trans-Pennine turnpike route which had been authorised in 1751, and was designed to establish:-

'a much shorter and better Passage for all Sorts of Wheel and Horse Carriages which would be of general Service to . . . all Traders and Inhabitants in and to the . . . Ports of Stockton and Lancaster.'<sup>1</sup>

Similarly, the Stockton-Darlington-Winster-Barnard Castle coal road constituted the eastern section of the trans-Pennine route via Bowes-Stainmoor-Brough which had been turnpiked under an Act of 1743.<sup>2</sup>

Contemporary travellers were impressed with the appearance of the Tees ports on the eve of the canal age. In 1760, the bishop of Meath described a visit to the principal Yorkshire port on the estuary:-

'I went four miles to Yarum (by a turnpike road) situated on the Tees in Yorkshire, over which river there is a bridge here of five arches. The river forms a peninsula and small vessels come up to the town, which consists of a very handsome street, a small town

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1. H. of C. Journals, XXVI, 70. At a meeting of the trustees in October 1751, it had been ordered that:-'whereas the carriers of lead do load and unload the same several times per day to avoid tolls . . . all carriers of lead shall for the future pay the whole tolls payable at the three turnpike gates erected at Low Worsall, Mark Stone, and North Cowton on passing through any one of them and pass through the other two toll free.' A number of carriers complained to the North Riding J.P.'s who ordered an enquiry into the question of the tolls. N.R. Sessions, IX, 218-19.

2. The road between Stockton-Darlington was turnpiked under an Act of 1747, and the powers of the trust extended to Winster and Barnard Castle in 1749.



house and some lanes which go from the streets. They have a handsome church of stone almost new built. There is a great market and large store houses, the merchants of Stockton buying up goods here which are brought even from Cumberland.<sup>1</sup>

By the mid-eighteenth century it must have been apparent that Yarm had irrevocably lost its position as the premier Tees port to Stockton:-

' . . . finely situated and most beautifully laid out, the principal street is about fifty yards broad, with a town house and shambles in the middle of it, and it is a quarter of a mile long. Two streets run parallel with it from the east for about two hundred yards, and there are three or four streets which lead from it to the keys and bank, for there is a key at each end; and to the east they build ships . . . Beyond the church (handsome and well built) is a bowling green with buildings on three sides of it, among which is a store-house for giving out of flax to spin, as they have a great manufacture of sail cloath, and other coarse cloaths. They have also an export of corn, butter, bacon and lead.'<sup>2</sup>

. . . . .

The improvement of the feeder routes to the river ports of Milby and York was marked by controversy, a number of the roads concerned providing alternatives to stretches of the major north-

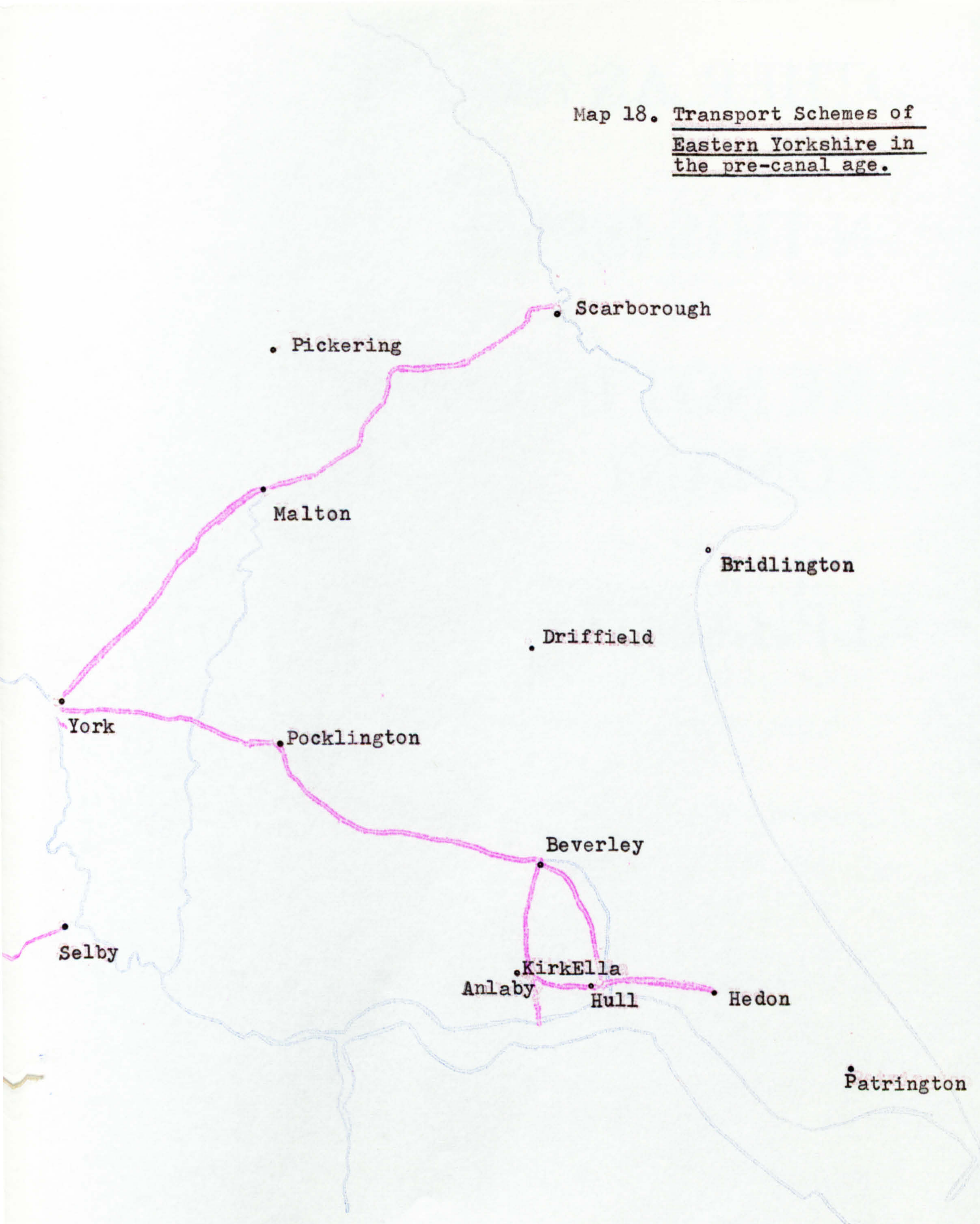
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1. Pococke's Journeys, p.250.

2. Ibid, p.251.



Map 18. Transport Schemes of  
Eastern Yorkshire in  
the pre-canal age.





south routes. In the 1740's the only turnpike road linking York and the market towns of the North Riding was the one via Boroughbridge. After an abortive attempt to promote a Bill to turnpike the York-Northallerton road in the 1748-9 Parliamentary session, the promoters renewed their efforts the following year.<sup>1</sup> Richard Lancaster, the surveyor of the highways for the parish of Easingwold, apprised the House of Commons committee which had been set up to examine the allegations of a number of North Riding landowners, that the route from Northallerton to York via Thirsk and Easingwold was five miles shorter than the road via Boroughbridge and two miles shorter than the road via Helperby. It was proposed that the Northallerton-Thirsk-Easingwold-York road should be made five yards broad at the top and eleven or twelve yards between ditch and ditch, the average cost amounting to £150 per mile. It was estimated that a toll of 4½d per horse would raise £352 annually without taking into consideration other forms of traffic:-

'that some Persons have calculated it at that Rate, a Man having been set to observe what passengers passed and repassed at the Places where the Toll-bars were proposed to be set up.'<sup>2</sup>

The major task confronting the promoters of the Northallerton-

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1. On 18 November 1749, Sir William Robinson of Newby was informed by his steward that:- ' . . . the last Sessions of parliamt there was a petition presented for a turnpike between Northallerton and York which was referred to a Committee and rejected, in doing of which Sir Miles Stapylton was said here to have had a principal hand, and in short the clamour in that part of the Country was very great against him . . . ' Newby Hall MSS.

2. H. of C. Journals, XXVI, 640.

Thirsk-Easingwold-York turnpike scheme was to convince M.P.'s that the improvement of the proposed route would not merely prove beneficial to the communities through which the road passed, but that the improvement of the York-Boroughbridge road would not provide an adequate substitute. From the phrasing of the report of the House of Commons committee, as well as from the correspondence of the scheme's opponents, it is clear that the proposal to turnpike the Northallerton-Thirsk-Easingwold-York road was regarded with much hostility by interests dependent on the route via Boroughbridge for their livelihood. The promoters - principally the inhabitants of Easingwold and Thirsk - sought to justify the turnpike for reasons which may be classified under seven principal heads. In the first place they used the argument which was common to almost all the turnpike schemes of the period, namely, that statutory labour and parish assessments could never provide an effective solution to the problem of highway maintenance. For example, it was stated that carriers who were unable to travel from Darlington to York via Thirsk, because of the poor state of the road, were forced to go via Boroughbridge, adding six miles to their journey and adding  $1\frac{1}{2}$ d per stone to carriage rates to Easingwold. Secondly, it was argued that the turnpike would prove beneficial to all purchasers or vendors at the five markets weekly and 16 fairs annually held at towns along the route and at the city of York. Thirdly, the inhabitants of Easingwold and Thirsk anticipated that coal might be more easily supplied to them from the Ouse ports. A reduction



in the price of coal was a major consideration, the North Riding market towns complaining that the commodity had risen from 5½d or 6d a bushel to 16d or 18d. Fourthly, witnesses attested that trade would increase between Yarm, Stockton, Stokesley, Gisburn and York, where much of the linen manufactured in Cleveland was marketed. Fifthly, it was pointed out that the proposed turnpike would be used by those members of the gentry of the North Riding who liked to sojourn in Scarborough during the summer months. In the sixth place, it was argued that travellers coming from Newcastle to York would find the turnpike beneficial. Finally, several witnesses testified to the benefits which were likely to accrue to those concerned in the butter trade. Although butter and bacon from the Thirsk and Easingwold districts was sometimes sent by land to Milby and then by water to York, it had been found from experience that navigation above the city was often delayed or interrupted by frost or drought as a result of which the perishable commodities were spoiled. A few witnesses were convinced that land carriage was both cheaper and more expeditious than water carriage.<sup>1</sup>

Opponents of the Northallerton-Thirsk-Easingwold-York scheme were concerned that the improvement of the north-south route would divert some traffic away from Boroughbridge. It was noted that at least one of the M.P.'s for the boroughs of Aldborough and Boroughbridge was active among the opponents:-

'as it may robb Burrowbridge of part of their passengers.'<sup>2</sup>

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1. H. of C. Journals, XXVI, 727.

2. Andrew Wilkinson, M.P. for Boroughbridge was a leading opponent of the Northallerton-Thirsk-Easingwold-York scheme. Newby Hall MSS.

One of the arguments put forward by the scheme's opponents was that the road from York to Boroughbridge, for which turnpike authorization had already been obtained,<sup>1</sup> might be repaired more cheaply than the road via Thirsk and Easingwold. The main tactics employed by opposing interests were to cast doubt on the validity of the promoters' petition, and to question the motives of the surveyor responsible for the preliminary work. That the opponents were not to be easily satisfied is apparent from the proceedings in the House of Commons. On 27 February 1750, the Bill was read for the second time and committed. On 8 March, the committee was opened, and when it was reported nearly three weeks later, the opponents endeavoured to have the Bill re-committed, a motion which was defeated by 104 votes to 62.<sup>2</sup> By this time the Bill's scope had been extended to include the road between Knaresborough and Green Hammerton.<sup>3</sup> For the lead mining industry of Nidderdale and the linen industry of the Knaresborough district the most important roads in the eighteenth century were probably those which provided feeders to the river ports of Milby and York, whence lead was exported and where Baltic flax was unloaded.<sup>4</sup> Whether the mounting opposition to the Northallerton-Thirsk-Easingwold-York Bill, or the amendments made in the House of Commons prompted the promoters to

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1. 23 Geo.II, c.38.

2. H. of C. Journals, XXV, 1018, 1038, 1090. The petition was not signed by the J.P.'s meeting in Quarter Sessions nor by the Grand Jury, although the promoters insisted that the leading landowners were in favour of the scheme. It was suggested that Richard Lancaster had carried out the preliminary survey in expectation of being appointed contractor-surveyor.

3. Ibid, p.1029.

4. A History of Nidderdale, ed. B. Jennings (Huddersfield, 1967), p.198.



drop the scheme is not clear, but it is certain that the Bill did not reach the statute book in that session. However, a Bill was passed authorising the improvement of the York-Boroughbridge road.<sup>1</sup>

In the autumn of 1751 efforts were revived to secure an Act to turnpike the Knaresborough-Green Hammerton road, the initiative for which seems to have come from the commercial community at York.<sup>2</sup> The steward at the Allerton Mauleverer estate of Lord Galway advised his employer:-

'The York people . . . are very busy for a turnpike from Hammerton to Knaresborough and are preparing petitions to Parliament for that purpose. I believe the thing woud do very well and oblige all our neighbours . . .'<sup>3</sup>

The inhabitants of Knaresborough and its environs were also confident of the benefits of the turnpike:-

'that it woud be very agreeable to this part of the country and also to the Craven people to have a turnpike road to Hammerton.'<sup>4</sup>

On 15 January 1752, petitions were presented to the House of Commons from York and Knaresborough requesting leave to bring in a Bill.

Progress through Parliament was delayed when the House of Commons agreed that the Bill should be re-committed,<sup>5</sup> and the resultant Act incorporated a clause that private agreements already in existence should not be made void.<sup>6</sup>

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1. 23 Geo. II, c.38.

2. Galway MSS. 12210/34.

3. loc.cit.

4. James Collins to Lord Galway, 17 December 1751. Galway MSS.12210/35.

5. H. of C. Journals, XXVI, 437.

6. 25 Geo. II, c.53.

In the following session a new Bill was promoted for the improvement of the Northallerton-Thirsk-Easingwold-York road, a petition from the North Riding magistrates being presented in the House of Commons on 22 February 1753. Support came from Cleveland and from Stockton where it was hoped that the Bill would also provide for the improvement of the Thirsk-Topcliffe road.<sup>1</sup> Once again, the Bill was opposed by interests who were apprehensive that traffic might be diverted from the Boroughbridge-Northallerton turnpike. Opponents of the Bill were less sanguine of their chances of defeating the scheme than on the previous occasion of its promotion:-

' . . . sorry to hear that Lord Downe's petition for the Easingwold turnpike is so well supported . . . it will Intirely distress Burrowbridge and Wetherby. At the latter place they have no leading men in the Town to assist them, or Else I know they have applyed to some persons that are Employed by the Duke of Devonshire to represent the injury that it will be to Wetherby if the road should be made to York the other way and prevent them both from ever being kept in repair.'<sup>2</sup>

The Bill seems to have passed with little opposition.<sup>3</sup>

The citizens of York were naturally anxious to improve road links with the agrarian and mining communities of the Pennine dales. For example, in 1756 the Common Council instructed the M.P.'s for the city to support a Bill for repairing the Knaresborough-Ripley-

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1. H. of C. Journals, XXVI, 714.

2. Galway MSS. 12210/43. James Collins to Lord Galway, 27 February 1753.

3. 26 Geo. II, c. 62.



Pateley Bridge roads:-

'it being thought of advantage to this city.'<sup>1</sup>

Three years later, a Bill was passed to improve the Knarensborough-Pateley Bridge-Wetherby-Spofforth-Grassington roads, the low rates for coal wagons reflecting the hope that turnpike projects would bring cheaper coal into the area.<sup>2</sup> The civic leaders of York were also active in the promotion of a Bill to improve the road to Scarborough.<sup>3</sup>

. . . . .

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By the 1760's it was apparent that the turnpike Acts which had been passed to improve the feeder roads to the inland and estuarine ports had failed to fulfil the expectations of their promoters. One of the main purposes of the turnpike trusts was the provision of road surfaces fit for wheeled traffic which would lead to a marked reduction in transport costs. Even when the turnpike roads were kept in good repair, not all of them were well designed for wheeled traffic. The seventh decade of the eighteenth century witnessed a revival of interest in river navigation and a growing concern in the promotion of canal schemes.<sup>4</sup>

Above York, navigation was already possible to Linton 'at all

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1. York MSS. House Books, XLIV, 9 February 1756

2. 32 Geo. II, c.71.

3. 25 Geo. II, c.74.

4. For example, in December 1766, one newspaper in the region noted that:-'It is said that the Improvement of Harbours and the Inland Navigations of Great Britain will be one great object of Parliamentary consideration this Session.' Derby Mercury, 26 December.

times of the year', but Boroughbridge could only be reached when there was a 'fresh' in the river, and it seems that the riparian proprietors at the former place made capital out of its use for transshipment. The prevailing carriage rate between York and Ripon averaged about 10s per ton.<sup>1</sup> The improvement of the river Ouse above York, and of its tributaries had long been advocated by traders dependent on land carriage routes and by topographers such as Francis Drake.<sup>2</sup> In 1767, three separate Bills came before Parliament to promote navigation, one to make the river Ure navigable to Ripon, another to improve the upper Ouse, a portion of the Swale and Bedale Brook, and the third to extend the benefits of water transport to Northallerton through the development of the Cod Beck, another small tributary of the river Swale. In order to extend navigation to Ripon, the promoters of the river Ure scheme were advised that certain works would be necessary below the confluence with the Swale, thereby arousing the apprehensions of the riparian proprietors along the latter river, and encouraging the agrarian and lead mining communities in Swaledale in the hope that a waterway might be effected to Moreton Bridge. The months which preceded the promotion of the Bills in Parliament were thus largely given over to negotiations between the various groups of promoters.

John Smeaton, who was responsible for the requisite preliminary survey of the proposed waterway to Ripon, recommended a lock near

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1. Duckham (1967), p.67.

2. Ibid.



Linton-upon-Ouse, and another five to take the navigation into the town. The engineer estimated that only £3,000 would be needed to make the necessary improvements to Boroughbridge, and that the cost of effecting the whole scheme would amount to £10,844. The promoters of the waterway to Ripon agreed to advance £14,000 on the security of the tolls but agreed that interest on capital should not exceed 5 per cent per annum. It was anticipated that prevailing carriage rates could be reduced by at least one-third if the navigation scheme was carried out.<sup>1</sup> Smeaton made use of the previous surveys which had been made by William Palmer and his partners in 1725, and by Richard Ellison in 1736.<sup>2</sup>

The activity of the Ripon inhabitants prompted the agrarian and lead-mining communities in the more northerly dales to revive the scheme for the improvement of the river Swale, anxious to obtain the benefits of cheaper carriage, and apprehensive that the Ure scheme might prejudice their own project. In December 1766, Leonard Smelt - subsequently one of the leading investors in the Swale navigation - described the circumstances which had led to a renewal of interest in the project:-

' . . . it appear'd that about Thirty Years ago the Navigation of the Swale up to Linton had been proposed . . . but by the Opposition of the Duke of Somerset (as I think) it was given up, tho the practicability of it was not the least doubted. The project remained

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1. H. of C. Journals, XXXI, 192-3.

2. N.R.A.O. ZAG.310.

dormant till now that the town of Ripon have prepared a Bill for making the Ure Navigable from Milby to that place, in order to effect which, they find it necessary to erect a Lock below the Confluence of the Swale and Ure. Everyone must see the Tax which this might lay upon the Navigation of the Swale, should it ever be Effected, as it would be natural for them to avail themselves of such an aid - the only way to prevent such an Obstruction . . . to have the two Rivers to have a common property in this Lock common to both Navigations and to lay no greater tolls than are necessary for each separate Navigation.<sup>1</sup>

Interests concerned in the improvement of the river Swale were confident that a profitable waterway could be developed. It was argued that large quantities of corn and butter would be shipped downstream, and that those parcels of lead from Swaledale and Wensleydale which had previously been sent by land carriage to Milby would be shipped at Bedale or Morton Bridge for Hull. It was optimistically asserted - though with little real foundation - that the tonnage of goods carried on the river Swale would amount to four times the tonnage likely to be carried on the river Ure.<sup>2</sup> When the traders and riparian proprietors concerned in the Swale scheme met at Thirsk on 29 December 1766, it was resolved that application should be made to Parliament for leave to bring in a Bill for making the river navigable to Morton Bridge, and a subscription amounting to £6,800 was agreed.<sup>3</sup> The landowners were willing to countenance

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1. Newby Hall MSS. 2307. Leonard Smelt to Frederick Frankland.

2. loc.cit.

3. loc.cit.



a scheme which only thirty years before the riparian proprietors had successfully rendered abortive. No doubt they were now convinced that cheaper lime and coal were adequate compensation for any short term inconvenience which might accompany the extension of navigation.<sup>1</sup>

When the inhabitants of Thirsk and Bedale were apprised of the Ure and Swale schemes, they became actively concerned in the possibilities of extending the proposed waterways along the Codbeck, which joined the Swale a little below Topcliffe, and along the Lening brook, which joined the Swale a little below Morton Bridge. At first it was hoped that a Bill might be promoted which would authorize the improvement of the rivers Ure and Swale, together with the Codbeck and Lening brook, or, alternatively, that agreement could be reached between the various groups of promoters concerning the works which were deemed necessary on the upper Ouse, and in particular the lock which Smeaton had proposed should be erected at Linton.<sup>2</sup>

One of the main points of contention arose over the insistence of the traders and other inhabitants of Thirsk, that provision should be made for the improvement of the Codbeck. When a deputation from Thirsk attended a meeting at Bedale on 12 January 1767, which had been called to consider proposals for the navigation of the river Swale and Lening brook, they requested that the Codbeck scheme might be included in the same Bill. However, they were informed that:-

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1. Newby Hall MSS. 2307.

2. loc.cit.

'the Petition for the other two Rivers being already drawn and signed, they were too late.'

The Thirsk traders and landowners were suspicious about the motives of the Swale promoters, being convinced there was a design afoot to make Topcliffe on Swale the river port or quay from which Thirsk and its environs would be served:-

'and that Thirsk is to be for ever precluded from having a navigation.<sup>1</sup>

The Thirsk interests were particularly aggrieved that Bedale brook had been included in the Swale Bill while another tributary of the river had been excluded. The Swale promoters justified the inclusion of Bedale brook on the grounds that the inhabitants of Bedale had completed a subscription, and above all because the improvement of the tributary was essential to the success of the main scheme:-

'open the Intercourse with the Dales for Lead, Corn &c. which must be the great support of the Navigation itself down the Swale, and could be nowhere secured at so small an expence as along the Beck from Bedale. That the being secure of this Trade must be the great encouragement to the Subscriptions - that the same reasons did not hold good in any degree to any of the other Brooks, and that it was therefore very absurd that a general should be rejected because it proved a particular one to the town of Bedale . . .'<sup>2</sup>

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1. Newby Hall MSS. 2307. S. Butterwick of Thirsk to Vice-Admiral Frankland, 13 January 1767. There may have been some foundation in the suspicions of the Thirsk interests. The steward of Lord Egremont, the proprietor of much of Topcliffe, three miles from Thirsk threatened to withdraw his Subscription if the Codbeck was made part of the Swale plan.

2. loc.cit. Leonard Smelt to Frederick Frankland.



On 26 January 1767, petitions from Ripon, Northallerton and Hull, and from the landed and mining interests of Swaledale were presented to the House of Commons requesting leave to bring in Bills to improve the river Ure to Ripon, and to improve the river Swale between Widdington Ings and Morton Bridge and Bedale brook up to Bedale 'for keels, lighters, boats and other vessels.'

A petition from the traders of Thirsk and other local landowners was presented on the same day seeking to include the Codbeck in the Swale Bill.<sup>1</sup> West Riding interests supported the navigation Bills, hoping to benefit from cheaper foodstuffs and an extended market for coal and lime. It seems that Hull was prepared to back any venture calculated to extend its hinterland and to increase its own transshipment trade.<sup>2</sup>

During the five weeks when the committee appointed by the House of Commons examined the allegations of the various petitions, negotiations continued in London between the promoters and their agents. On 6 February, the Archbishop of York, the Earl of Holderness and the Earl of Thomond on behalf of the Swale promoters met Sir Fletcher Norton and --- Aislabie for the Ure interests. The hasty planning of the Swale scheme, and the persistence of inclement weather had prevented the promoters from taking an exact up to date survey. Although Smeaton had been approached, he had not had sufficient time to survey the Swale and its tributaries. Nevertheless, it was hoped that sufficient information would be

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1. H. of C. Journals, XXXI, 68.

2. Duckham (1967), p.67.

available to prevent the Ure promoters from being granted exclusive rights on the stretch of the proposed waterway below the confluence with the Swale. The Ure promoters were unwilling to postpone their Bill, but were anxious to reach an accommodation with the Swale interests concerning the proposed lock at Linton:-

'the only Article in which both the Navigations are combined.'

It was thus proposed that the undertakers of the proposed navigations should share the cost of constructing and maintaining Linton lock and the profits which would arise thereon.<sup>1</sup> By the end of February, matters had been adjusted between the various groups of promoters. Henry Stracey the agent for the Swale interests was then able to advise the landowners that:-

'the whole is amicably settled . . . Linton Lock is to be an independent Lock, and the two Navigations will go on without a rub.'<sup>2</sup>

On 2 March 1767, the committee's Report was considered by the House of Commons. Smeaton had informed the committee that, as a result of his survey of the river from Linton to Ripon, he was convinced that navigation below Milby was often obstructed by the insufficiency of water in a channel which included many shoals. This evidence was confirmed by Thomas Horner who testified that in dry seasons there was only twelve or fourteen inches of water in the river. Robert Wilson, who plied regularly between Milby and

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1. For some weeks the fate of the Ure and Swale Bills seemed in doubt. On 11 February 1767, J. Hewett wrote to Sir George Savile:-  
' . . . Swale and Ure are revived . . . both I think must fail ...'  
Savile MSS. DDSR. 221/100.

2. Newby Hall MSS. 2307. H.Stracey to Sir William Robinson, 25 February 1767.



York, affirmed that in times of flood he had been able to carry coal and lime as high as Topcliffe, but that this was impossible at all other times. It seems that flat-bottomed vessels, with iron plates fixed under the keel to prevent excessive wear, were used to get over the many shallows. To effect navigation to Ripon, Smeaton proposed to build a lock and dam near Linton which would provide a navigation to Milby at all times of the year, the estimated cost of the works on that part of the waterway being £2,897 10s. The cost of the works above Boroughbridge - five locks and a cut nearly three miles long to take the waterway to Ripon - Smeaton estimated at £7,560 6s. He calculated that the cost of making the requisite towing paths would amount to £96, to which it would be necessary to add £3,000 for the purchase of 44 acres of land, and £289 15s for contingencies. Smeaton concluded that the proposed navigation was unlikely to prove injurious to the riparian proprietors:-

'for that, of all the Rivers he had ever examined, the Ure and Swale were the least liable to overflow the Lands, of any he had met with.'<sup>1</sup>

As in the case of the Ure scheme, the river Swale and Bedale brook were to be improved by the use of cuts. It was calculated that a navigation of 28 miles between the mouth of the Swale and Morton Bridge would reduce the cost of carriage in many places by almost one half, and in other places by one third. The riparian

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1. H. of C. Journals, XXXI, 192-3.

proprietors were likely to find the provision of coal and lime at cheaper rates of particular benefit.<sup>1</sup> John Grundy, a well known engineer in the field of land drainage estimated that the works required to effect the waterway would amount to about £20,000.<sup>2</sup>

Full details of the Codbeck scheme have not yet come to light, but some ill feeling seems to have persisted between the Thirsk interests and those landowners and traders who wanted to make Topcliffe on Swale the wharf for Thirsk.<sup>3</sup>

Although no major economic consequences followed from the passage of the three Acts in 1767, the improvement of the river Ure and the upper Ouse was of some local importance. The Act which the Ripon interests had promoted empowered a number of commissioners - with similar functions to turnpike trustees - to make the river Ure navigable from Milby.<sup>4</sup> Smeaton was the engineer responsible for

the major works on the waterway, which included five locks and

three cuts, the longest of which ran for 2½ miles on the south side

1. H. of C. Journals, XXXI, 192-3.

2. Duckham (1967), p.67.

3. On 26 May 1767, Thomas Martin wrote to another of the Codbeck promoters, Ralph Bell of Thirsk, and enclosed a 'poem' composed to mark the successful promotion of their Bill:-

By Strict Union my Lads, we'll remove e'ry Hill, (William Hill)

That oppose Navigation, now we've pass'd our Bill,

Let little Clough's envy, Our Craft as they sail,

Yet our Streamers shall play, and Ourselves we'll regale,

Navigation's our Theme,

River Cod is our Stream,

That will bring us the Ready,

Steady Boys Steady.

4. 7 Geo. III, c.93.



of Ripon. The Act sanctioned the commissioners to charge tolls of up to 3s a ton for general merchandise, 1s 6d a ton for bricks and stone, and 1s 6d a chaldron for coal and lime. It seems that the maximum dimensions of the boats were 58 feet in length, 14 feet 10 inches in width and 4 feet 9 inches in draught.<sup>1</sup> Some years after the waterway had been opened, it was recorded that the vessels in use were of about 30 tons burthen.<sup>2</sup> Linton lock was erected and maintained by a large and unwieldy body of commissioners.

By the early 1770's, the navigation had been completed to Ripon. In May 1774, Roger Beckwith the clerk and treasurer of the waterway advised Thomas Aislable of Studley Royal that:-

'Our navigation indeed has of late begun to wear a more favourable aspect than ever . . . more than 600 chalders of coals have been imported at Ripon within the month past (chiefly for lime) and that trade greatly increasing . . .'<sup>3</sup>

In addition to coal and lime, manures and manufactured goods reached the upland districts more cheaply. Baltic flax was unloaded at Boroughbridge, which was able to function for many years as the river port for Knaresborough's linen industry. By the 1770's it was easier to transport Pennine lead and the mines of Nidderdale gained some advantage from the improvement of the river Ure. Corn and sand were also sent downstream, while York gained slightly through increased toll revenue.<sup>4</sup> From the start the Ouse trustees

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1. B. Jennings, op.cit., p.199.

2. Tuke, p.24.

3. Vyner MSS. C.29/F/10.

4. Duckham (1967), p.67.

had maintained a careful watch on those groups of promoters who were intent on extending river navigation to Ripon, Morton Bridge and Thirsk.<sup>1</sup> Nevertheless, it seems that the old policy pursued by the city fathers of York to ensure that the city remained the head of the Ouse as the highest point for practical navigation was long dead.<sup>2</sup>

It was soon apparent that the river Swale could never be improved for any craft larger than somewhat diminutive barges, but, in an age of expensive and often unsatisfactory land carriage, even limited water transport had appeared attractive to the original promoters. Although John Grundy was responsible for the estimates for the requisite works on the river Swale and Bedale brook waterway, he did not carry them into execution. John Smyth, who some years earlier had built the lock and dam at Naburn, was appointed engineer-manager of the Swale and Bedale brook navigation, although he agreed to follow Smeaton's advice if any differences of opinion arose. The original estimate fell far short of what was actually required, so that, by November 1768, John Raper the clerk of the navigation was forced to advise investors that an additional subscription of £10,875 would be required, or 50 per cent more than the original subscription. Many of the original subscribers were

1. In January 1767, --- Raper was instructed by the trustees:- 'to observe the proceedings of persons concerned in the Navigation of the Rivers Ure and Swale and to give as early an intelligence thereof from time to time to the Trustees as possible and act for the safety and security of the navigation of the Ouse.'  
Minute of Ouse Navigation Trustees 27 January 1767.

2. Duckham (1967), p.68.



reluctant to comply, so that the second subscription amounted to only £5,500, only about one half of the sum deemed requisite.

Table 13. Subscribers to the Swale and Bedale Brook Navigations  
in September 1769.<sup>1</sup>

	<u>First</u>	<u>Second</u>		
Mrs --- Fothergill	1,200			
--- Morritt	1,100	550		
William Hill	1,000			
Lionel Smelt	1,000	500		
--- Swann	1,000	512	10	0
--- Stapleton	1,000	500		
John Clough	1,000			
--- Scroope	1,000	500		
--- Low (or Law)	1,000			
--- Montagu	1,000	500		
Sir William Robinson	1,000	500		
--- Morley	800			
Ralph Dodsworth	750	375		
Thomas Heddon	500			
John Jackson	500			
Mrs Rockliffe	500			
John Raper	500	250		
--- Hardcastle	500	312	10	0
--- Milbanke	500			
Timothy Mortimer	500			
Miles Stapleton	500			
Edward Clough	500			
--- Moor	500			
--- Prest & Co.	500			
--- Steele	500			
Sir Marmaduke Asty Wyvill	500			
Lady Anderson	500			
--- Hopwood	500	250		
Ralph Bell	500			
Rev. --- Place	300	150		
--- Wastell	250			
--- Appleby	250			
--- Butler		600		
	<u>£21,650</u>	<u>£5,500</u>		

By November 1769, many of the investors in the Swale and Bedale Brook Navigation were complaining vehemently about the non-attendance of many of the commissioners, opining that:-

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1. Newby Hall MSS. 2896. Compiled on 30 September 1769.

'if more did not appear at the next Meeting, those that had the Interest of the Navigation at Heart woud be obliged to apply to Parliament for making the same private Property . . .'<sup>1</sup>

Despite a further Act in 1770, which reorganized the proprietorship and provided for further capital, the navigation was ultimately abandoned.<sup>2</sup> Some years later, Tuke recalled that:-

'An Act was some years since obtained for rendering the Swale navigable as far as Northallerton with a branch up the Cod-beck to Thirck and another up Bedale-beck to Bedale but the navigation never was completed either for want of money or an unwise expenditure of it.'<sup>3</sup>

. . . . .

On the stretch of the river Ouse for which statutory powers had been obtained in 1727 and 1732, it has been estimated that something of the order of £18,000 or £20,000 was spent in the first thirty years after authorization, but without an end of navigational difficulties being reached.<sup>4</sup> Although the trustees had contemplated the construction of a lock and dam below York as early as 1733, they hesitated to take the requisite steps, apprehensive that they had not been granted sufficient powers in the improvement Acts. For

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1. Newby Hall MSS. 2308. Sir William Robinson, one of the leading subscribers was advised by his steward that:- 'as no more Money could be had on the present footing they thought it woud be best to apply to Parliament to empower such Persons as woud undertake to compleat the Navigation, to fix the Tonnage, rendering to the present Subscribers 5 per cent for their Several Sums advanced and taking the overplus to themselves.'

2. Duckham (1967),p.68.

3. Tuke, p.26.

4. Duckham (1967),p.66.



example, in 1748 John Smith - a Brightside carpenter who was responsible for a number of navigation works on the river Don - was consulted by the Ouse trustees, but reported that:-

'as a Lock and dam cannot under the power of the statutes be erected therefore the only method left is by dredging and harrowing the bottom of the Ouse where shallows are at Upper Acaster, Low Acaster and Wallridge . . .'<sup>1</sup>

Efforts to improve the natural course of the river Ouse by vigorous dredging continued until April 1752, when the trustees decided that:-

'the present work on the Ouse be stopped until the next meeting of the Trustees and that no person be employed in harrowing or any other business upon the River or in altering the boats or other materials belonging to the Trustees until further order. It being the opinion of the Trustees that one or more Locks is necessary to be erected on some parts of the River and it is further ordered that advertisements be published in the London papers and the York Courant of the intent of erecting Locks and of taking proposals for erecting the same and an estimate of the expence.'<sup>2</sup>

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1. Minute of Ouse Navigation Trustees 6 August 1748. Following

Smith's report, George Wilson was instructed:- 'to gett boats, harrows and dredges in order to begin to harrow and dredge the Ouse beginning at the bottom of Upper Acaster.' In the same year, negotiations were entered into with the participants of Hatfield Chace:- 'in an attempt for an Act to straiten the mouth of the new River at the joynt expence of the participants and the trustees the same being so much widened since the first making thereof as to swallow greater and greater quantitys of the Tide from the Ouse.' Nothing came of these proposals.

2. Minute of Ouse Navigation Trustees 30 April 1752

What prompted the trustees to take a firm line on the construction of a lock and dam after almost twenty years of vacillation on that score is not clear. When John Smith drew up a plan for a lock at Naburn he estimated the cost at £5,517, a sum which could not be raised merely from current toll revenue which never exceeded £500 in any one year in the 1750's. At first the trustees considered mortgaging the tolls to raise the requisite money, but eventually abandoned the idea in favour of a transferable share subscription of £2,500, each £50 share being raised upon the security of one-eightieth part of the tolls. The effect of the dam and lock at Naburn, which were completed in 1757, was to raise the water level on the York side of the dam about 4 feet 6 inches, enough to give a reliable depth from Naburn up to Ouse Bridge. However, below Naburn silting persisted, particularly at Acaster Selby.<sup>1</sup>

The prospect of improved and extended waterways above York prompted the Ouse Navigation trustees to renew their efforts at tightening up the collection of tonnage dues. Certainly, the avoidance of navigation tolls was no new problem. Vessels were not properly checked, while some of the craft unloading between Wharfe mouth and York were missed altogether.<sup>2</sup> A major difficulty arose from the reluctance of keelmasters to deliver accurate bills

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1. Duckham (1967), p.66.

2. In 1766, the trustees decided that the lock at Naburn should be a 'check-point' and instructed John Vickers, the lock-keeper:-  
'to take account of all vessels which pass Naburn Lock or load or unload between York and Wharfe's mouth and do transmitt the same weekly or oftener to John Richardson collector of tonnage duties.' Minute of Ouse Navigation Trustees 26 August 1766.



of lading.<sup>1</sup> In April 1767, a committee appointed to consider the whole question of river tolls reported that:-

'there are many omissions in the Books of tonnage accounts for want of a proper person to minute down the vessels which pass . . . lock, or which load or unload above the mouth of the Wharf, without touching the place where the lock keeper attends . . . tonnage dues frequently uncollected especially the dues for rape seed, timber and other commodities not usually landed at York. The method of auditing the Crane Keeper's accounts is defective and unsatisfactory for want of vouchers and there is no possibility of adjusting accounts without a Bill of Lading. As the navigation will be extended upwards thro Swale, Ure &c. these inconveniences must increase unless a more effective way of noting vessels passing and repassing from Mary-Gate End to the mouth of the River Wharf or any part thereof and a strict method of auditing tonnage accounts is pursued.'<sup>2</sup>

Two months later the trustees modified the collection of river dues, by insisting that tolls on goods unloaded between the mouth of the river Wharfe and Fulford Landing should be paid at Naburn and remitted at least once a fortnight to John Richardson the collector at York.<sup>3</sup> This did not prove any more satisfactory, it being reported in August 1768 that:-

'exclusive of the last audit, more omissions were discovered than

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1. In August 1766, Robert Wilson, the leading keelmaster at Millby was threatened with prosecution unless he presented a bill of lading with each cargo. Minute of Ouse Navigation Trustees.

2. Minute of Ouse Navigation Trustees 15 April 1767.

3. Duckham (1967), p.69. 766

had been noted in any prior quarterly account.<sup>1</sup>

Early in the following year, the trustees were again contemplating legal action against such masters and owners of keels who were evading the payment of tolls, and, at the same time decided that in future one-third of the dues should be collected at Naburn lock and the remaining two-thirds at the Crane in York.<sup>2</sup> In 1770, the trustees prepared the draft of a Bill intended to render the earlier authorization Acts more effective and to define more closely the legal powers of the trustees. Improved arrangements for the collection of tolls formed one item of the proposed Bill, which was not in fact promoted.<sup>3</sup>

#### (x1) THE RIVER PORTS IN THE VALE OF YORK IN THE PRE-CANAL AGE

From what has already been written concerning the difficulties in the collection of the Ouse Navigation tolls, it would obviously be rash to draw too many conclusions concerning the volume of trade on the waterway from the extant annual revenue returns.

Table 14. Mean Quinquennial Returns of Ouse Navigation Toll Revenue.<sup>4</sup>

	£	s.	d.
1739-43	423	10	9
1744-49 (1748 not extant)	446	10	7
1750-54	440	9	11
1755-59	439	12	2
1760-64	529	4	11

Even when allowance is made for toll evasion, a number of factors

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1. Minute of Ouse Navigation Trustees 3 August 1768.

2. Minute of Ouse Navigation Trustees 8 March 1769.

3. Duckham (1967), p.69.

4. Ouse Navigation MSS. M.6.



combine to suggest that the rate of commercial growth in the Vale of York in the middle decades of the eighteenth century was very slow. It has already been noted that the revenue raised from river dues on butter sent down the Ouse constituted a high proportion of total toll receipts by the late 1730's.<sup>1</sup> During the War of the Austrian Succession there seems to have been a temporary dislocation in the butter trade,<sup>2</sup> while outbreaks of distemper among cattle in the 1750's decreased commercial activity in dairy products.<sup>3</sup> The main factor in the stagnation of commerce in the Vale of York was probably the absence of any marked population increase. For example, it seems that the population of the city remained at about 12,000 for the first sixty years of the eighteenth century.<sup>4</sup>

Although the rate of commercial growth was slow, the number of vessels employed on the river Ouse was not inconsiderable. In 1768, the customs officers at Hull calculated that 50 keels and sloops - a total burthen of 1,600 tons and employing 110 men - were regularly operating between York and the Humber port.<sup>5</sup> It must be emphasised that this total probably does not include either those vessels which traded regularly between York and the other inland ports of

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1. Supra, p.570.

2. Healaugh MSS. He/37a. In March 1746, Stamp Brooksbank of Healaugh wrote to Thomas March:-'. . . I hope things will mend as to trade especially if the Embargo on the butter and cheese is taken off which there is expectation of, application having been made to the King and Councill . . .'

3. V.C.H. York, p.221.

4. Ibid, p.212.

5. Wentworth Woodhouse MSS. R.61/22/1.

the Humber-Ouse-Trent waterway system, nor does it take into account the much smaller number of vessels which continued to sail from York to London.

The number of vessels owned by traders in York and engaging in intra-regional commerce in grain and butter to Leeds, Wakefield, Thorne, Doncaster, Aldwark and Tinsley, whence coal, lime, stone and slate were loaded, is a matter of conjecture. By 1772, the West Riding was said to be the chief source of York's coal supply, and the importance of this trade led the city corporation to support several projects for improving the waterways of west and south Yorkshire.<sup>1</sup> Nevertheless, the greater proportion of the vessels engaged in these branches of intra-regional trade were almost certainly owned by traders and shipmasters living at the ports of the Aire and Calder and Don waterways. The principal keelmasters and keelowners who were accused of toll evasion were concerned in the intra-regional trade in coal and lime. For example, in 1761, the trustees agreed to accept 40 guineas from Peter Birt of Armin - the lessee of the Aire and Calder Navigation and an opulent timber and coal merchant - in respect of the non-payment of Ouse tonnage dues for a considerable length of time which amounted to £72 5s 7d.<sup>2</sup> In 1768, the trustees were apprised that Birt's vessels were not being accurately entered in the tonnage books and that he was in arrears of £72 10s. The Fenton family, who were

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1. V.C.H. York, p.223.

2. Minute of Ouse Navigation Trustees 26 August 1761.



important coal and corn merchants and lessees of the Yorkshire Derwent navigation were also indebted to the Ouse Navigation trustees for £59.<sup>1</sup>

By the 1760's the number of vessels which traded directly between York and London was probably very small.<sup>2</sup> This is certainly suggested by the preamble of a scheme promoted in York in 1769, a group of traders and merchants - over 40 in number - subscribing to the building of a brigantine which would ship goods directly to and from London without the necessity of transshipment at Hull. By 1771, six vessels had been built for this 'new contract', all brigs of which the largest was 110 tons. As a leading authority on the Yorkshire Ouse has pointed out:-

'the re-opening of regular coastal trade from York could scarcely have been achieved without the improvements of the 1750's.'<sup>3</sup>

The Ouse Navigation trustees willingly countenanced the new scheme, it being agreed that shipmasters concerned in this New Navigation would deliver bills of lading signed by the wharfinger in London whenever required. The trustees noted at least one important improvement which was requisite to effect the proposed undertaking

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1. Minute of Ouse Navigation Trustees 3 August 1768.

2. In March 1769, three months before the launching of the York Union, the first of the brigs under the 'new contract', the steward at Newby Hall wrote to Sir William Robinson:-

'... I thank you very kindly for the Porter . . . but had it been sent to Stainton Wharf we should have received it much sooner, because the York Sloops from that Wharf come directly through without calling or changing Bottoms at Hull.' Newby Hall MSS.2309.

3. Duckham (1967), p.81.

successfully:-

'the vessels now building for the new trade are of much larger burthen, by several Tons, than what have been used upon the Rivers for numbers of years past, and more difficult of course to hale up and down. Hence the conveyance of them must be greatly retarded thro' some reaches of the River, for want of more power than can be provided by manual strength to overcome the resistance of an obbing tide and contrary winds.'<sup>1</sup>

As in the case of other river navigations dependent on manpower for haling, the advantages of horse haling were coming to be increasingly recognised. It is scarcely surprising therefore that statutory authorization for horse haling should have constituted one of the clauses in the Bill which was contemplated in 1770.<sup>2</sup>

The commercial community at York had anticipated three main advantages from the 'new contract'. In the first place, it was argued that the shipping of goods directly from York to London would lead to a considerable saving in time. Complaints of delay at Hull were common, a week often elapsing before transhipment and Customs clearance had been completed. Any prospect of reducing the time taken in sending butter to London was an obvious attraction to the York traders, who were well aware that:-

'The Dairymen within 8 or 10 miles of York eastward, leading to Hull are so sensible of it (the time factor), that in some fickle Seasons of the year, they dispose of their butter to Hull factors

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1. Minute of Ouse Navigation Trustees 8 March 1769.

2. Minute of Ouse Navigation Trustees 25 June 1770.



at 3s per firkin more than the York Dealers can afford, by reason butter thus shipped from Hull a week earlier than the other, will sell as much better in proportion at London than what is shipp'd from York and conveyed via Hull.'

Secondly, the butter traders were confident that there would be a considerable saving in freight costs by the elimination of transshipment at Hull. It was estimated that this would lead to a saving of 2d per firkin of butter, which was about equal to the amount expended in insurance costs. With a total of 80,000 firkins shipped annually from York and its environs to London, it was calculated that there would be a total saving of about £700 a year. Thirdly, the opportunity to recover losses which resulted from damages in shipping seems to have been a powerful argument for those dealers who had been dependent on the common carriers.<sup>1</sup>

. . . . .

Less information has come to light about the river trade of the tiny shipping points on the Ouse below York such as Bishopthorpe, Naburn, Stillingfleet, Cawood and Wistow. Records relating to Selby and Howden are also more sparse for the middle decades of the eighteenth century than for the latter decades of the seventeenth century.

It has already been noted that at least one Selby wharfinger had been astute enough to move his business to Rawcliffe after the opening of the Aire and Calder Navigation.<sup>2</sup> Certainly, the lower

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1. York Courant, 19 January 1769. It was asserted that these benefits were already enjoyed by the cheesemongers.

2. Supra, p.383.

Ouse port could not maintain its position as the major transshipment centre for the clothing townships of the West Riding which it had held before navigation was extended to Leeds and Wakefield. One object of the Leeds-Selby turnpike, for which statutory sanction had been obtained in 1741 and 1751, had been to provide an alternative route to the west Yorkshire waterway. By the late 1760's many traders were aware that the attempt to provide a viable land connection with the lower Ouse port had failed:-

'Had the first promoters of the Leeds-Selby turnpike (the confessed original design of which was to make Selby the shipping port for Leeds) but once conceived how practicable it was to join Leeds and Selby by navigable canal, they would (if wise) soon have changed the scheme from a Land to a water carriage which would not only have prevented some thousands being thrown away upon that turnpike, but would also have saved Leeds more money in a few years than such a canal would cost besides bringing in a sufficient interest and being a lasting and undoubted security for the money laid out. It would also have enriched Selby in more than equal proportion; which advantages cannot be secured by any Land Carriage scheme though made ever so complete and perfect, as it is with great reason supposed it never will be.'<sup>1</sup>

Such hindsight criticism of the promoters of the Leeds-Selby turnpike must be seen in perspective. In the 1740's commercial and transport interests in the West Riding - and in most other parts of

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1. York Courant, 14 February 1769.



the country - were thinking in terms of improved road transport and were confident that the use of wheeled vehicles instead of the packhorse mode of conveyance would lead to a marked reduction in costs without the inconveniences which attended many of the inland waterways. Thirty years later, a new generation were thinking in new terms and on a larger scale, of the ways in which their transport problems might be solved.

From what has already been said, it will be no surprise if we conclude that in the three quarters of a century between the opening of the Aire and Calder Navigation and the opening of the Selby canal, the lower Ouse port experienced a relative decline in its fortunes. One traveller who visited Selby in this period was Dr. Richard Pococke, who noted that:-

'they have some trade in building small vessels but the principal is what the navigation brings, and they send out some flax and a large quantity of salmon; they also manufacture wool and linnen for their own use, and many of them are farmers . . . To the back of the town is a rivlet called Thorp Dam which makes a morass to the west.'<sup>1</sup>

The contract prices of the Selby shipwrights seem to have compared very favourably with at least one other shipbuilding centre in the region. For example, in 1734 a vessel of 70 tons burthen was built at Selby for £195; in the following year a vessel of 80 tons burthen was built at Hull for £360.<sup>2</sup> Vessels built at Selby were probably delivered to other ports of the region. The number of Selby-owned vessels was almost certainly very small on the eve

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1. Pococke's Journeys, p.173.

2. Davis (1962), p.373.

of the canal age. In 1768, the customs officers at Hull noted that only four keels or sloops - a total burthen of 120 tons and employing 12 men - were owned by Selby interests and plied regularly to and from the major Humber port.<sup>1</sup> Naturally this does not include those vessels which traded to other inland ports in the Humber-Ouse-Trent waterway system. In addition to flax, an important item in Selby's outward trade was timber, together with bark for tanning.<sup>2</sup>

Below Selby there were a number of shipping points on the Ouse. The development of Armin near the confluence with the river Airo has already been dealt with, and it has also been noted that Goolo was merely a tiny riverside village in the eighteenth century, the major port of the south Yorkshire navigation being several miles upstream at Thorne.<sup>3</sup> However, it seems that Howden Dyke, Swinefleet, Saltfleet, and Whitgift continued to enjoy some trade by water.

Table 15. Sloops and Keels Trading to and from Hull in 1768.<sup>4</sup>

	<u>Number of Sloops/Keels</u>	<u>Tonnage</u>	<u>Men</u>
Howden	2	40	4
Swinefleet	3	60	9
Saltfleet	4	80	12
Whitgift	4	80	12

#### (xii) TRADE AND TRANSPORT ON THE YORKSHIRE DERWENT ON THE EVE OF THE CANAL AGE

The rate of commercial growth of communities within easy access of the Yorkshire Derwent was not marked in the early decades of the

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1. Wentworth Woodhouse MSS. R.61/22/1.

2. E.R.O. Petre MSS. D/DP/A/194.

3. Supra, pp. 642-44.

4. Wentworth Woodhouse MSS. R.61/22/1.



eighteenth century. Before 1780 the navigation does not appear to have been much of a commercial asset. From Thomas Wentworth the ownership of the waterway descended to his son and grandson, the first and second marquesses of Rockingham, who leased the tolls of the waterway to the Fenton family of Malton, a firm of coal and corn merchants who also owned a number of keels.<sup>1</sup> The rent paid by the lessees rose slowly at first and amounted to £500 per annum in the early 1750's. In 1754, an increase in the rent by £150 per annum prompted the lessee, William Fenton to raise freight rates on merchandise carried on the river, notably upon firkins of butter and hogsheads of hams:-

'the chief Articles on which the trade of that Town (Malton) depends.'<sup>2</sup>  
The butter traders of London complained to the marquess of Rockingham and pointed out the possible repercussions on local patterns of commerce:-

'as it will induce us as well as deter others from Dealing to Malton at a disadvantage from York.'<sup>3</sup>

Despite such protests the rent for the navigation continued to rise, reaching £684 per annum in the years 1767-1777. To what extent the increase was absorbed by the lessee or was passed on is not clear, although it seems that the rent of the waterway was much less than the river trade was worth.<sup>4</sup>

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1. Duckham, 'Yorks. Derwent', p.48. The Malton estate, comprising a large part of the town and surrounding countryside was bought by Thomas Watson-Wentworth in 1713.

2. Wentworth Woodhouse MSS. R.177/5.

3. loc.cit.

4. Duckham, 'Yorks. Derwent', p.50.

Trade along the river Derwent may be classed in two main categories. Firstly, there were the keels which were regularly employed in intra-regional commerce which carried grain, butter, bacon, malt and oat-shilling from Malton or Stamford Bridge to the ports of the Aire and Calder and the Don waterways, whence coal, lime, tiles and stone were brought in exchange, together with woollen textiles. Secondly, a few vessels traded constantly between Malton or Stamford Bridge and Hull, carrying down butter and hams which were mainly exported to London, or bringing up a great variety of grocery goods. Some vessels did not come up to Malton but stopped at Kexby, Stamford Bridge and other places. In 1768, it was recorded that 8 sloops or keels - a total burthen of 240 tons and employing 24 men - regularly traded from Malton to Hull.<sup>1</sup> A larger number of vessels were probably employed in the intra-regional trade, although the major proportion would almost certainly belong to interests at the ports of the Aire and Calder and the Don Navigations.

Although the Derwent waterway may not have been a going concern before the latter decades of the eighteenth century, it was able to serve adequately the agricultural communities of the valley. Five fairs were held annually at Malton, one of which - the September horse fair - was nationally esteemed. In addition to the fairs, the weekly market served the farming community. At least one contemporary agricultural propagandist was doubtful of the possible effects of canal navigation to Malton:-

'with two sea ports in its neighbourhood, and an inland port on its  
1. Wentworth Woodhouse MSS. R.61/22/1.



margin, requires no farther assistance from water carriage. A removal of the obstructions of the courses of rivers is wanted here rather than more artificial ones.<sup>1</sup>

The improvement of land carriage routes with the inland port of York and with the seaport of Scarborough had been authorised by a turnpike Act of 1752.<sup>2</sup>

#### (xiii) THE TRADE OF HULL ON THE EVE OF THE CANAL AGE

From the early decades of the eighteenth century the trade of Hull was growing steadily, the pace quickening in the 1730's.<sup>3</sup> By the middle of the century, Hull was pressing upon its medieval bounds, presaging a period of growth which at last overtaxed the capacities of the port. The extension of water communications within the Humber-Ouse-Trent region, the development of turnpikes, and the associated demands of the northern and midland industries in the first stage of their industrial revolution set the Humber port out on a phase of expansion comparable to that of Liverpool.

Through the river network and turnpike 'feeders' the growing industrial hinterland was able to export its finished products and to import a rising volume of raw materials, food and other goods, such commercial patterns enhancing the role of Hull as the major transshipment port of the region. In 1768, it was calculated that

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1. W. Marshall, op.cit., I, p.16.

2. Supra, p. 750.

3. Davis (1962), p.39.

500 sloops and keels - a total burthen of 15,920 tons and employing 1,096 men - traded regularly between Hull and the inland, or lower estuarine ports of the Humber-Ouse-Trent region.

Table 16. An Account of the Sloops and Keels Trading from the Branches of the River Humber to and from Hull in 1768.<sup>1</sup>

<u>Port</u>	<u>No. of Sloops/Keels</u>	<u>Tonnage</u>	<u>Men</u>
Hull	70	2,100	70
Grimsby	4	80	12
Patrington	3	60	9
Beverley	20	600	60
Malton	8	240	24
Howden	2	40	4
Swinefleet	3	60	9
Saltfleet	4	80	12
Whitgift	4	80	12
Selby	4	120	12
York	50	1,600	110
Tadcaster	6	180	18
Knottingley	2	60	4
Armin	112	3,480	236
Thorne	150	5,000	350
Gainsborough	30	1,500	90
Lincoln	20	400	40
Brigg	8	240	24
	<u>500</u>	<u>15,920</u>	<u>1,096</u>

It must be emphasised that these figures, which were prepared by the Customs officers at Hull, represent only a fraction of all the vessels employed on the waterways and using the inland ports. No account is taken of those vessels which 'fed' the inland transshipment ports and plied between them and the higher ports and heads of navigation. Many vessels were employed almost solely in intra-regional trade and it seems unlikely that they were recorded at this time. Finally, a number of vessels traded directly from

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1. Wentworth Woodhouse MSS. R.61/22/1.



the major inland ports to London and the outports of the east coast.

Although the bulk of Hull's trade with its hinterland was conducted by water carriage, it would be an oversight to completely ignore the development of the land routes of the East Riding. In the 1740's Hull was the focus of three turnpike schemes designed to improve local feeder routes. In 1744, an Act was passed for the turnpiking of the road between Hull and Beverley, the powers of the trustees being renewed and enlarged in 1763.<sup>1</sup> In 1745, an Act was obtained for repairing the road from the Sacred Gate on the south-east of Hedon to the North Bridge in Hull, the statutory powers being extended in 1767.<sup>2</sup> Short stretches of the highways from Hull westwards to Anlaby and Kirkella were repaired under Acts of 1745<sup>3</sup> and 1767.<sup>4</sup> In spite of these developments, Hull remained virtually a cul-de-sac for land transport.

By means of the water - and to a minimal extent, of the land - routes described above, Hull received a wide variety of goods from a hinterland which was expanding and radically changing in the character of its economy. Agricultural produce from the East Riding and the Vale of York - in particular butter, corn and hams; cheese from Staffordshire, Warwickshire and Cheshire via the Trent and Gainsborough; woollens and worsteds from the West Riding; cotton velvets from Lancashire; hosiery from Derbyshire, Nottinghamshire

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1. 4 Geo. III, c.66.

2. 18 Geo. II, c.6 and 7 Geo.III, c.71.

3. 18 Geo. II, c.4.

4. 7 Geo.III, c.70.

and Leicestershire; cutlery, tools, stoves, grates, tinned iron plates and other hardware from south Yorkshire and Birmingham; pottery from Leeds and Staffordshire; lead from Derbyshire and Yorkshire; and coal from the Aire and Calder and Don valleys for Hull's internal consumption: these, and other goods were transhipped in growing quantities at the major Humber port.<sup>1</sup>

The import trade of Hull was largely determined by the demands of the hinterland communities. American and oriental products were obtained by direct correspondence with the London merchants, the principal English houses with which the Hull community traded. Many goods from Europe and the Baltic also arrived at Hull by way of London. Wool for the West Riding industry was obtained partly via Hull from a number of the east coast ports besides London, in particular from Grimsby, Yarmouth and King's Lynn. Grain, linseed, malt, rape-seed and herrings were also shipped to Hull from the East Anglian ports. Much of Hull's coastal trade - both outward and inward - was carried out on behalf of the merchants and

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1. V.C.H. Yorks. East Riding (1969), pp. 174-178. Exports of woollen cloth fluctuated between 100,000 and 200,000 pieces a year in the first half of the eighteenth century, rising to 307,662 pieces in 1768, the chief source of Hull's exports. Cotton velvet exports via Hull rose from 20 in 1758 to 8,352 in 1768. Exports of woollen hose totalled 4,448 dozen pairs in 1702 and 9,680 dozen pairs in 1768. The export of manufactured iron goods rose from about one ton in 1702 to 2,267 tons in 1768. Exports of tinned iron plates rose from 3,375 pieces in 1758 to 500,000 in 1768. Exports of earthenware rose from 15,840 pieces in 1737 to over 1,500,000 pieces in 1768. The exports of lead and lead shot rose from about 2,000 tons in the early eighteenth century to 3,244 tons in 1768.



manufacturers of the hinterland.

The overseas trade of Hull was heavily concentrated on the countries of northern Europe and the Baltic, most of which seem to have imported the whole range of available goods. A decline in the number of ships clearing from Hull for Scandinavia was offset by an increase in the number of ships sailing to Russia, Poland and Prussia. Throughout the eighteenth century however, Germany and Holland were the principal markets for Hull's overseas exports. Trade with France, Flanders, Spain, Portugal and Italy was of less importance. The number of vessels entering Hull from America rose from one in 1728 to 15 in 1772.<sup>1</sup>

Raw materials constituted the greatest demand of the Humber-Ouse-Trent region. Iron from Sweden and Russia; timber from Norway, Russia and Prussia; flax and hemp from Russia; raw Dutch linen yarn from Amsterdam, Rotterdam, Bremen and Hamburg; narrow linen and spruce canvas from Russia, Germany and Holland; linseed from Danzig; tar, pitch and tobacco from America; and a wide variety of wooden and metal goods from Germany and Holland: these, and other goods were forwarded from Hull to the inland ports for distribution.<sup>2</sup>

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1. Davis (1962), p.35.

2. V.C.H. Yorks. East Riding (1969), pp.176-8. The tonnage of iron imported through Hull rose from 2,356 in 1702 to 6,058 in 1758. The import of deals rose from 1,498 hundreds in 1702 to 2,604 in 1758. Hemp imports rose from 838 cwt in 1702 to 13,152 cwt in 1737; while in the same period Hull's flax imports rose from 1,679 cwt. to 29,758 cwt. The import of raw Dutch linen yarn rose from 37,544 lb. in 1702 to 839,274 lb. in 1758. Between 1742 and 1758 the average annual import of tobacco was over 400,000 lb. much of which Hull re-exported to the Baltic.

Some indication of the development of Hull's industrial hinterland is provided when the extant statistics of the coal trade are considered. In the later seventeenth century many of the communities in the Humber-Ouse-Trent region had received coal from the North-East coalfield. Arguments that this inter-regional trade would be ruined if river navigation was extended in the Yorkshire coalfield were prevalent when the Aire and Calder and Don schemes were afoot. In 1728, Hull received 5,500 chaldrons from the North-East, but the quantity imported from the Tyne and Wear fell greatly during the course of the eighteenth century.<sup>1</sup> Instead, growing quantities were obtained from west and south Yorkshire. By 1768 the principal inland ports trading to and from Hull were Armin and Thorne, the former dealing in the coal and textiles of the Aire and Calder valleys, the latter in the coal and metal goods of the Don valley.<sup>2</sup> It has already been noted that small quantities of coal were being shipped from south Yorkshire for London by the 1760's to meet the needs of the Rockingham household.<sup>3</sup>

The total tonnage of coasting vessels belonging to Hull rose from 4,467 tons in 1709 to 5,384 in 1723 and to 5,704 in 1737. In the 1740's there was a decline in Hull's coastal tonnage which stood at 4,950 tons in 1751.<sup>4</sup> During the years 1761-67 inclusive

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1. V.C.H. East Riding, p.179.

2. Supra, p.779.

3. Supra, p. 641.

4. Willan (1938), p. 221.



the annual average total of Hull's coasting vessels was 5,548 tons.

Table 17. An Account of the Coasting Vessels of, or belonging to Hull from 6 January 1761 to 5 January 1768.<sup>1</sup>

			<u>No. of Ships</u>	<u>Tonnage</u>	<u>Men</u>
6 January 1761-5 January 1762			99	4,894	435
" 1762-	"	1763	105	4,756	435
" 1763-	"	1764	108	5,090	465
" 1764-	"	1765	116	5,486	498
" 1765-	"	1766	124	6,760	601
" 1766-	"	1767	114	6,105	565
" 1767-	"	1768	106	5,743	530

During the first half of the eighteenth century, the tonnage of coasters 'belonging' to Hull was approximately equal to that of foreign going ships. Extant statistics for 1761-67 inclusive indicate that by that time the number of Hull's vessels engaged in foreign trade was growing much more rapidly than the number of coasters.

Table 18. An Account of the Vessels of, or belonging to Hull and engaged in Foreign Trade.<sup>2</sup>

			<u>No. of Ships</u>	<u>Tonnage</u>	<u>Men</u>
6 January 1761-5 January 1762			55	6,746	459
" 1762-	"	1763	53	6,630	448
" 1763-	"	1764	58	7,266	504
" 1764	"	1765	70	8,256	574
" 1765	"	1766	75	9,071	628
" 1766	"	1767	87	10,630	735
" 1767	"	1768	80	9,465	655

1. Wentworth Woodhouse MSS. R.61/22/1. Port of Hull. An Account of the Total Number of Ships and Vessels that were of or belonged to this Port their Tonnage and the Number of Men . . . from 5 January 1761 Exclusive to the 5 January 1768 Inclusive, Accounting each Ship the Tonnage and Number of Men but once in the Year.

2. loc.cit.

It seems that the total tonnage of vessels belonging to Hull rose gradually from over 7,000 in 1702 to over 20,000 in 1773.<sup>1</sup>

Statistics of the tonnage of all vessels entering and clearing the port also provide some indication of the volume of coasting and foreign trade, but no indication of its value.

Table 19. Coasting and Foreign-going Shipping Entering and Clearing the Port of Hull, 1709-1770<sup>2</sup>

<u>Year</u>	<u>Coasting Shipping</u>		<u>Foreign-going Shipping</u>	
	<u>Inwards tons</u>	<u>Outwards tons</u>	<u>Inwards tons</u>	<u>Outwards tons</u>
1709			8,090	5,780
1716			10,565	8,571
1723			11,005	7,050
1730			12,440	8,168
1737			19,008	9,245
1744			11,328	9,185
1751			23,598	15,794
1758			20,713	12,258
1765			34,011	15,926
1766	39,438	36,062	31,750	16,610
1767	37,091	37,798	42,006	16,267
1768	38,921	40,902	40,790	17,207
1769	41,300	44,239	40,631	18,191
1770	42,867	40,634	46,475	19,795

Although the import trade was larger in volume than outgoing trade, consisting largely of raw materials, the export trade was greater in value, being made up of a high proportion of manufactured goods.

Fishing - particularly the whale fishery - seems to have played a small part in the economy of Hull in the middle decades of the eighteenth century. Anglo-French hostilities in North America in the 1750's whence Hull had been accustomed to import whale oil

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1. V.C.H. East Riding, p.181.

2. Ibid, p.180.



provided the opportunity for local initiative, which was manifested particularly in the formation of the Hull Whale Fishery and Company which monopolized the trade until American imports were resumed in 1762. Four years later, the whaling trade was revived, largely under the initiative of Samuel Standidge.<sup>1</sup> The fluctuating fortunes of Hull's fishing activities is no doubt reflected in the extant statistics.

Table. 20. An Account of the Fishing Vessels, Smacks etc.  
belonging to Hull from 1761-68.<sup>2</sup>

				<u>No. of Ships</u>	<u>Tonnage</u>	<u>Men</u>
6 January	1761-5	January	1762	2	656	85
"	1762-	"	1763	2	656	84
"	1763-	"	1764	-	-	-
"	1764-	"	1765	-	-	-
"	1765-	"	1766	-	-	-
"	1766-	"	1767	1	315	44
"	1767-	"	1768	2	662	82

The expansion of Hull's trading activities in the eighteenth century enhanced the value of property within the walls of the port but rendered the haven inadequate. In 1746, Randolph Hobman, who was anxious to sell his house in Hull advised his agent of the favourable conditions for such a transaction:-

' . . . by what have heard from others of late the Town of Hull increases that they can't find room within the walls towards further building, that the price of houses has rose considerable to what

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1. V.C.H. East Riding, pp.182-3.

2. Wentworth Woodhouse MSS. R.61/22/1.

they were in former years . . .<sup>1</sup>

When Arthur Young visited the port in 1770, he was much impressed by its appearance:-

'Hull is a large, and in general a close-built town, but some of the streets are wide and handsome; all of them, down to the narrowest alley, excellently paved and perfectly clean; but in winter I suppose the latter circumstance not so great, although there are scavengers publickly appointed for cleaning them. The houses in general are well built, and great numbers of them new, but I saw few large ones. The trade carried on here is very great, for a number of the most considerable manufacturing towns in England being situated on the rivers that fall into the Humber, are infinitely advantageous to the commerce of this place; enabling its merchants to export largely to most parts of the world, a variety of manufactures at the very first hand; and the same rivers . . . which bring them these fabricks, likewise give them a vast share of the corn trade, and then the return by wine, deals, coals, iron, hemp, American products . . . form together a prodigious traffic. They have even entered into the Greenland fishery . . . Three large ships, of above 500 tons each, made the voyage this year . . . There are about 150 sail of ships belonging to Hull, rising from small craft to 600 tons. The harbour is small, but very secure; at its entrance from the Humber is a regular fortification, garrisoned, but of no great strength . . . They reckon in Hull that the number of souls is 24,000; but from the size of the town, I have no

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1. E.R.A.O. Sykes MSS. DDSY 101/47.



conception they can amount to 20,000.<sup>1</sup>

The Acts of 1559 and 1674 which had exempted Hull alone among English ports from the necessity of landing and shipping goods at a legal quay were still in force in the middle decades of the eighteenth century. The merchants of High Street, whose families had long held a virtual monopoly of the congested staiths on the west bank of the river Hull were anxious to retain their position. It was maintained that there was no space for a legal quay, that a few public wharves already existed, and above all that the exemptions which the port enjoyed were based on the authority of Parliament. On the other hand, it had long been apparent that the existing facilities of the haven could not effectively handle the ever-growing volume of traffic trading to and from the port. After the 1740's complaints by merchants and shipowners became increasingly frequent, and the Commissioners of Customs, who were anxious to prevent smuggling, declared it was absolutely necessary that legal quays should be established at Hull. Although the government called upon Hull to establish a dock with a legal quay, neither Trinity House nor the Corporation - both of which received dues on shipping - would undertake the work. Hull merchants without staiths in High Street also demanded that quays should be built which were independent of the private proprietors on the west bank of the haven. The inland merchants and manufacturers were very anxious that the inadequacies of the Humber port should be rectified. 'In 1772, it was proposed that a new port should be

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1. Young, I, pp.175-6.

set up at Gainsborough so that ships bound to and from the Trent valley could by-pass Hull. Opposition from the Customs House at Hull and the merchant community there, rendered this proposal abortive. However, this threat that a port would be made elsewhere was undoubtedly one of the factors which finally led to the setting up of the Hull Dock Company in an Act of 1774, the first statutory dock company in Britain.<sup>1</sup> This was the final development of the port on the river Hull. From this time the port turned gradually from the river Hull which increasingly assumed the character of an inland waterway. In the later decades of the eighteenth century, Hull began to align itself along the Humber, although it was not until 1809 that the first use was made of an estuarine frontage.<sup>2</sup>

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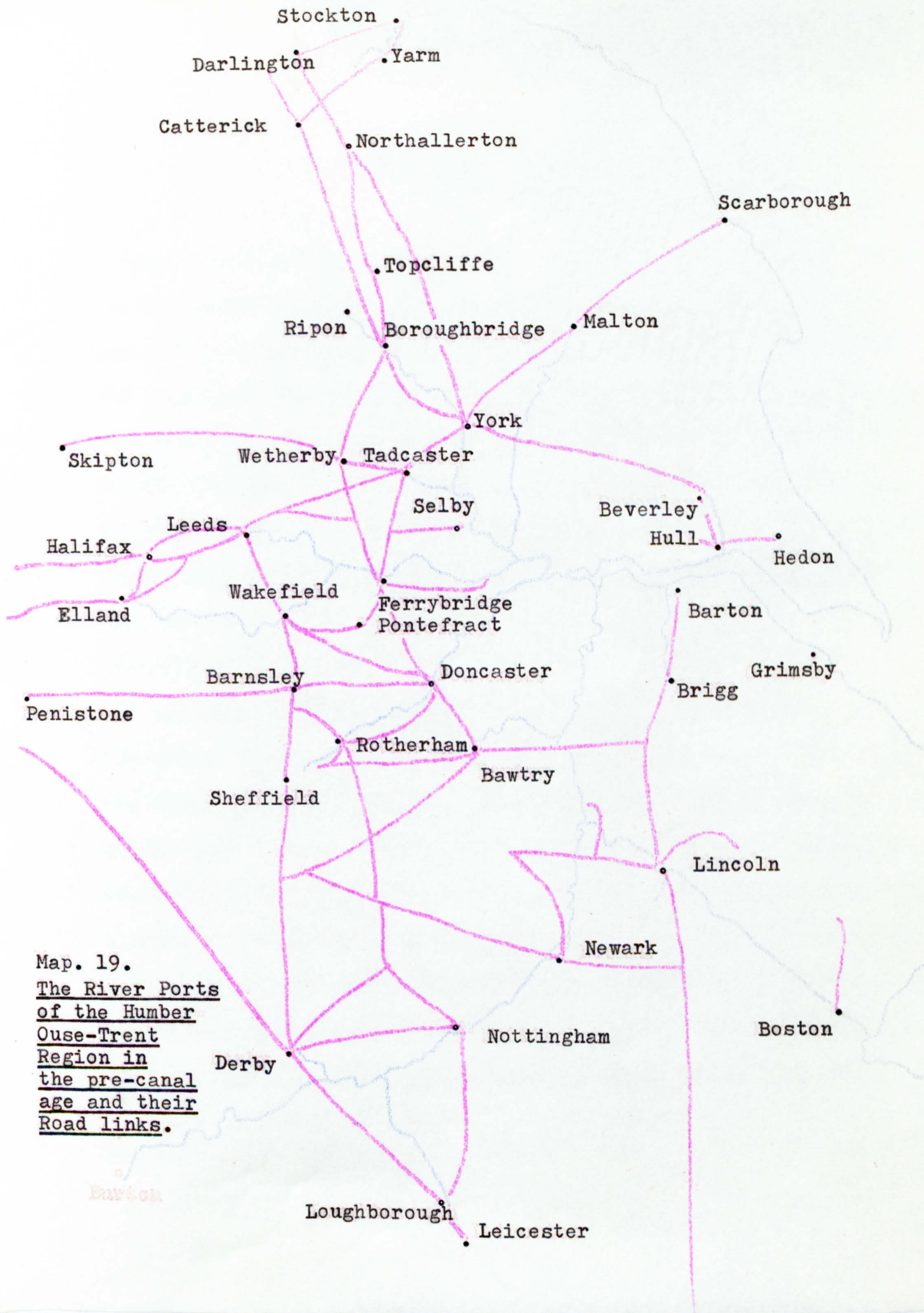
The controversy concerning the improvement of the haven at Hull should be seen in the broader context of regional development. By the 1760's the mercantile and industrial communities in the Humber, Ouse and Trent basins were becoming increasingly critical of the prevailing network of communications, and were thinking on a larger scale of the ways in which existing inadequacies might be overcome. To what extent they were successful, either in the development of canal schemes, or in the conflicts which arose with existing transport undertakings, is outside the scope of this work.

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1. V.C.H. East Riding, p.185.

2. De Boer, op.cit., p.144.





Map. 19.  
The River Ports  
of the Humber  
Ouse-Trent  
Region in  
the pre-canal  
age and their  
Road links.



## EPILOGUE

Between 1660 and 1770, the overall length of river navigation within the Humber-Ouse-Trent region had been extended by more than 150 miles to a total of over 450 miles of inland waterways. By 1770, the control of the waterways was largely in the hands of groups of undertakers or corporate bodies, with the exception of the Yorkshire Derwent and upper Trent navigations. In many instances, day to day control had been leased out to navigation farmers in return for annual rent payments. Between 1720-70, about 100 Road Acts had been passed to establish turnpike trusts for stretches of road within the region, or to renew the powers of the trustees.

The impetus for improvement had not been felt with equal force throughout the region, nor was it uniformly maintained throughout the whole period. The thirty years after the Restoration had witnessed a number of locational and structural changes within the region's economy, but, with the exception of the Derbyshire Derwent scheme, wider market potentials do not seem to have been sufficiently attractive to have encouraged sustained efforts to effect transport improvements. Low agricultural prices, the irregular meetings of Parliament, inter-regional commercial patterns which enabled many of the river valley communities to be served with coal from the



North-East coalfield, and the greater attractions of overseas trade as a source of investment, were probably among the factors which must lead us to the conclusion that the years from 1660-1690 saw few promotions of transport schemes at Parliamentary level.

The reversal of many of the above factors in the 1690's cannot be ignored in any explanation of the minor transport revolution at the end of the seventeenth century. Mercantilist assumptions and the commercial jealousy of neighbouring communities dealing in similar commodities also contributed to the renewed interest in local transport schemes and to the fierce and protracted struggles at Parliamentary level. This forward movement seems to have received a severe check for some years after 1702, the incidence of wartime taxation being felt very heavily at a time when agricultural prices were again low. The new undertakings launched at the turn of the century had considerable difficulty in weathering the storm. However, by 1720, the principal new navigation within the region - the Aire and Calder - had surmounted its worst difficulties, and was developing intra-regional trading links which were to have ever greater significance as the century progressed.

From the third decade of the eighteenth century the impetus to develop transport undertakings became more marked and was more resolutely sustained. Few years passed in which no additions were made to the number of statutory local bodies, or in which delegates from the communities within the region were not in London soliciting an interest.

Intra-regional growth rates cannot be exactly determined, but it seems clear that by the 1740's the Aire, Calder and Don valley communities were developing more rapidly than the mainly agricultural communities of the Vale of Ouse and Lincolnshire. The Navigations of west and south Yorkshire were able to benefit not merely from the intra-regional trade in coal, but also from the rapid expansion of the textile and metal industries. The increasing rents for which these Navigations were leased were undoubtedly indicative of a growing volume of trade on the rivers. Turnpike and waggonway 'feeders' tapped dual economy communities which were able to weather the years of low farm prices and rents which seem to have checked many purely agricultural communities in the 1730's and 1740's. In general, demographic and economic growth was more marked in the West Riding than in any of the adjacent counties with the exception of Lancashire. The growing commercial influence of interests at the river ports in the Aire, Calder and Don valleys has been seen in the broadening of the activities of the Navigation lessees. By 1770 over 60 per cent of the tonnage of vessels trading to and from Hull from the inland ports operated from Armin and Thorne.

By 1770, it was clear that one of the principal objectives of transport undertakings - an adequate return for capital investment - had been accomplished by a few of the region's inland navigations. However, the undertakers of the waterways, and the turnpike trustees were less successful in their aim of perfecting transport routes. Interests using the waterways experienced a host of defects, seasonal variations in the depth of the rivers, meanders, silting and disputes

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with millowners. When John Smeaton reported in 1771 on the alterations necessary to improve the Aire and Calder Navigation, he emphasised that:-

'the original undertakers not having had any notion of the extensive trade that was likely to be carried on by means thereof, formed their plan upon too diminutive a scale . . .'<sup>1</sup>

This judgement would have been equally apt for many of the waterways and trading facilities. As trade increased, the inadequacies of the waterways, roads, ports and marketing facilities were manifest in a growing number of complaints against undertakers and lessees, who were often accused of exploiting a monopoly position.

When compared with subsequent developments in communications, the importance of the inland navigations and early turnpikes all too easily pales in significance. Between 1766-1775, Parliament authorised the construction of over 270 miles of canals, partly within the Humber-Ouse-Trent waterway system, and partly trans-Pennine, inter-regional water links, which it was anticipated would help to break the economic watershed running down the spine of the country. Looked at quantitatively, these ten years witnessed statutory sanction for more miles of new waterways than had been authorised throughout the previous hundred. The Leeds-Liverpool canal proprietors alone were empowered to raise £260,000 - more than the combined capital stock of all the existing navigation undertakings in Yorkshire. By the 1770's a new age had dawned in some parts of

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1. Reports of the late John Smeaton, F.R.S. (1812), II, 131.

the country which was thinking on a larger scale of how to solve its trade and transport problems. The engineers were already at work preparing the new channels and slipways on which the next phase of industrialisation was to be launched.

However, these developments must be seen in perspective. The canal age grew out of a growing momentum of effort in the improvement of river navigation, and it would be a mistake to suppose that river development ceased once the effectiveness of the canals had been demonstrated. In many instances, the early canals were complementary to, rather than substitutes for, established river undertakings, providing new 'feeders' or eliminating the worst features of the older waterways. The river undertakings played an important - if sometimes controversial - role in the economic development of the region, and the country. Despite the conservatism of many of the undertakings and their failure in solving some of the basic engineering problems of their concerns, it is clear that they provided a cheaper method of carriage than by land, particularly for bulky commodities. Contemporaries clearly recognised that it was the extension of water carriage which could enhance the wealth of the nation:-

' . . . by means of water carriage a more extensive market is opened to every sort of industry than what land carriage alone can afford it, so it is upon the sea coast and along the banks of navigable rivers that industry of every kind naturally begins to subdivide and improve itself . . .'<sup>1</sup>

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1. Mathias(1969), p.108, quoting A. Smith, The Wealth of Nations



## GLOSSARY

### Chaldron

A former unit of weight, especially for coal. After 1686, the tonnage conversion factor for the Newcastle chaldron is usually taken as 53 cwt. The London chaldron was about 28 cwt.

### Corf

A former unit of weight, especially for coal. In the West Riding, the corf was about 2 cwt. 1 qr., the equivalent of a horse load.

### Dozen

In the West Riding, the dozen was equivalent to about 12 corves of coal.

### Firkin

A measure equivalent to about 56 lbs.

### Fodder

A unit of weight used for lead, which varied from place to place. The London fodder of  $19\frac{1}{2}$  cwt. and 112 lb. per cwt. was 2,184 lbs; the Hull fodder of  $19\frac{1}{2}$  cwt. was 2,340 lbs; at Thorne, Bawtry and Stockwith, the fodder was taken as  $21\frac{1}{2}$  cwt or 2,408 lbs; at Stockton the fodder of 22 cwt. was 2,464 lbs; and at Derby and Wirksworth the fodder of  $22\frac{1}{2}$  cwt. was 2,700 lbs.

### Horse Pack

In the case of wool, a load equal to about 240 lbs carried on horseback.

### Keel

A small estuarine vessel, which in the Humber was distinguished by its single square-rigged mast.

### Ships Pack

A large bale of cloth for shipping, probably of about 10 cwt.

### Sloop

Small single-masted vessel used mainly in river navigation.

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