

EARLY MODERN EUROPEAN SEAPORT STUDIES: HIGHLIGHTS & GUIDELINES

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When Ralph Davis, the leading British maritime historian of his generation, persuaded me, exactly 50 years ago, to write my PhD thesis on the Port of Hull in the Eighteenth Century, there was, so far as we could discover, not a single academic history of a British port. There were plenty of eighteenth and nineteenth century antiquarian histories ‘from the earliest times’, full of romance and great names — Hansards from the Baltic, home-grown smugglers, pirates, press-gangs and ‘great merchants’ who, like William Wilberforce of Hull, played a well-remembered rôle in national politics. They were full of facts illustrating the supposed greatness of the British: the Romance of Ports; the Romance of Commerce; and the worship of warships.² But Ralph Davis was adamant that facts are meaningful only in context, and I was sent off to London to ransack national archives for anything I could find on British trade and British ports in general — before I began serious work in Hull itself.

Since there were no published works to provide guidelines I had to make them up as I went along, and these have been expanded and changed over the last forty years. But the central theme was easily developed over time. Clearly the history of ports is of necessity complicated, and the easiest way to understand the complexities is to regard port history as a leading constituent of economic history. So: three texts above your bed or on your desk:

- Favourable factor endowments
- Factors of Production: Land (Resources), Labour, Capital
- Knowledge and Connections

And a warning:

- There is rarely long-term permanence in the life of ports

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2 My critical view on early maritime ‘histories’ forms the opening part of G. Jackson, ‘The Significance of Unimportant Ports’, *International Journal of Maritime History*, Vol. XIII No.2 (Dec. 2001), pp.1-17.

‘Early’ Ports : A Romance? Nineteenth Century invention of a mythical past?

Ports have existed since ‘Ancient times’ and were celebrated as part of the nineteenth century fixation with the archaeology of lost worlds and dead languages. The Egyptians, Greeks, Romans, Phoenicians – and Vikings – all had ships and ports, and poets to write about them. They were useful for trade & Odysseys, but since it took Odysseus 10 years to get from Troy to Ithaca it is just as well that the Maritime world moved from Greece to the West and North where Vikings – according to their Sagas – did things much quicker. But ports supported conquests and incipient imperialism. Romans in the Mediterranean secured corn from Africa; and in the North conquered Britain in search of corn, wool and tin, to be followed by the Angles, Saxons and Vikings in search of booty or living space. For Britain and France ports were, from 1066, the means of extracting value from Saxon peasants and providing luxuries for new rulers; and later for the incessant warfare between the two monarchies. However, the real purpose of trade which developed after invasions was the exchange of favourable factor endowments. Some regions lacked materials, others food; and trade was commonly determined by climatic zones: wood and tar do not mix with wine, or coal and salt with herring. Port People use their knowledge to shift things round and even things up. Port Historians use records to understand the nature of production and consumption and the methods adopted by Port People for balancing them.

So far as the evolving physical structure of ports is concerned it is useful to start with the earliest and to consider the spatial development model published by a British geographer, James Bird, in 1963.³ This is more appropriate for major than for minor ports, and for Britain’s flat-land ports rather than Porto with its hills, but two of his concepts are part of any port: *Water site* and *Water situation*, both of which can determine a port’s success.

The *water site* is, quite simply, the physical structure such as depth of water, water-front land and staithes (or quays) of the port itself, and its relationship with its close surroundings and wider hinterland. Some early ports were simply shore lines in sheltered bays; small vessels beaching on the pebbles, sand or mud. Landing places might be built if foundations were suitable: wooden staithes required piling, and stone quays required rock foundations. Many beaching places – they were hardly proper ports – were still used in the nineteenth and early twentieth centuries, especially for coastal coal deliveries, and in some shallow imperial ports where steamers used their own derricks to off-load into barges. Flat-bottomed steamers called ‘Puffers’ were built for over-side working in Glasgow to serve its extensive coastal distribution trades on the West coast of Scotland.⁴

More usually ports were either near the mouth of tributaries or rivers entering the sea, sometimes both. Or they were up rivers at suitable bridging places. River ports were well integrated with the hinterland transport & trade routes, and their rivers avoided poor roads to and from the coast. They were usually market and/or fair towns, and

3 James Bird, *The Major Seaports of the U.K.* (London, 1963), chap.1, The development of *Anyport*

4 For landing place ‘ports’ with minimal facilities and poor hinterlands see Gordon Jackson, ‘The Maritime Experience of a Region without Ports: Argyll, Scotland, c.1740-1840’, in *International Journal of Maritime History*, XVII, No.2 (December 2005), pp.1-18.

often were – or became – religious, legal and political centres, especially on major rivers such as the Rhine, Maas, Scheldt, Danube, but also the Elbe, Weser, Clyde, Thames, Seine, Gironde, Loire, Rhone, Tagus, Duoro. Ports on these major rivers usually had very substantial up-river hinterlands, and we need to know how they interacted with the surrounding countryside.

In order to examine the port structure and its success it is essential to know whether they came under Royal, Aristocratic or Ecclesiastical domination, and how far this affected their operations through taxes and physical controls. When did they acquire independence? Glasgow, for instance, rebelled against its archbishop, and welcomed the ‘Glorious Revolution’ when the Stuart monarchy was expelled, and ‘William & Mary... declared the town free.’ It was controlled thereafter by the City Council which maintained the harbours and encouraged both trade and industry. On the other hand, Glasgow also suffered depredation several times by marauding armies, and it is important to note how far up-river ports, with their area’s chief or only bridges, suffered in this way, especially in the seventeenth and early eighteenth centuries.⁵

Port Facilities in upriver ports were obviously determined to a large degree by the width of the river and the condition of its bottom and banks, as well as the flow of water. Embankments depended on the foundations, and the best were obviously founded on rock. Generally there were wooden or stone quays on one side of river, with simple cranes or large Treadmill Cranes.⁶ Use of both banks of rivers was rare because they increased congestion in the river and hampered through traffic and the transfer of goods to up-river barges. More seriously, all early ports had city walls, and these were almost always practical on only one side of the river.

The way in which a port handled and stored goods is also important because of the time loss and labour involved, as well as the potential for dishonesty and theft, which in London led to massive warehouses and walls for the East India Trade, and the creation of the Police Force to protect sugar cargoes highly susceptible to pilfering. Early engravings of ports in Northern Europe (and in Portugal) show narrow quays and (wooden) staithes fronting onto the waterside to the front and merchants warehouses to the rear, with their houses above or behind the warehouses, and fronting onto the streets behind them which were used to disperse goods by road to the hinterland. Mediaeval topography commonly survived into the eighteenth century, an increasing problem as trade expanded.

This leads to a further troublesome aspect of port life and development, namely the ownership of property in ports. Open quaysides might be owned by city authorities, with the warehouses some distance behind them, which was not always convenient when goods re-shipped up-river or abroad criss-crossed cargo-handling areas. Many ports had privately-owned quays, which made it difficult for merchant apprentices to establish new businesses, an increasing problem as old trades grew and new trades developed in the eighteenth century. Private property in the immediate vicinity of port operations was always a physical and human obstacle to the periodic development of new and necessary port facilities; it also tended to raise their cost!

⁵ For the problems hampering Glasgow, see G Jackson, ‘Glasgow in Transition’ in D M Devine & G Jackson, *Glasgow Volume 1: Beginnings to 1830* (Manchester, 1995), chapter 2.

⁶ The only surviving port treadmill crane appears to be in Harwich, in East Anglia, England.

It is clear that up-river ports on small rivers were losing their advantages by the late Middle Ages. Big ports on big rivers were vulnerable to warfare & political upsets in the seventeenth and subsequent centuries. Ports on narrow rivers suffered as they changed course or lost depth through silt coming down river or sand washing in from the sea.⁷ In England the south coast Cinque Ports of mediæval legend sank behind their sand bars; in East Anglia Wells-next-the-Sea was no longer next the sea! They all lacked space for building, repairing and wintering ships, and there were recurring difficulties as vessels changed shape and size. The northern Cog, for instance, was a sizeable and deep-draughted vessel, but not easily sailed in shallow meandering rivers.

The second aspect of ports, their *Water Situation*, covered their down-river or direct contact with deep, safe and suitable seaways for transacting overseas business. This determined the early development of German, British, French and Spanish ports. With some exceptions, and depending on internal communications, ports on Western coasts do not trade Eastwards and ports on Eastern coasts do not trade Westwards, and this was especially true for Britain with dangerous seas around the north of Scotland and down the east coast of England. Not until the end of the eighteenth century were ship canals cut from the Clyde to the Forth, and from Fort William to Inverness. In the meantime, by the fifteenth century British upriver ports were declining as ships got bigger and trade increased. York moved its port functions to Hull; Lincoln to Boston; Norwich to Yarmouth; Glasgow to Port Glasgow and Greenock, and so on. The future lay with ports at the mouths of tributaries or in sheltered bays and estuaries, except for ports on wide and navigable rivers.

For substantial and dramatic change – in any period – it is wise to turn from geography to the growth or decline of enterprise and initiative amongst Port People. Although hydraulic engineering was an art well known in the ancient and mediæval world, the forces driving the move to ‘modern’ maritime experience – and therefore ports – were chiefly intellectual. The Renaissance and printing press brought freedom of thought and experimentation, killing off the flat earth and other aspects of Mediaeval ignorance, enabling long-distance navigation and exploration, from which maps, charts, compasses, small arms and ship’s cannons offered a reasonable chance of safe return. Charts and maps based on Mediterranean experience were copied and used by Spanish and Portuguese explorers, and Navigation schools were founded in Seville and Lisbon.⁸ In 1492 Columbus famously found America; da Gama went eastwards in 1498 to Mozambique and Calicut; Cabral claimed Brazil for Portugal in 1500; around 1510 Albuquerque reached Java and the Pacific; and, rather late in the day Francis Drake circumnavigated the globe in 1577-1580.

It is also important that port history is founded on a clear understanding of the activities of non-port people, especially rulers, governments and the political and military elites surrounding them, whose decision-making rarely took into account the effects on the economic and social life of ordinary subjects, and especially the well-being of seaports dependent on stable hinterlands and good international relations which have, for five centuries or more, been regularly disrupted by wars and rumours of war.

⁷ In England Grimsby moved down the coast with its river’s mouth; Wisbech, more remarkably, started on one river and ended up on another, admittedly owing partly to drainage schemes.

⁸ One of the best accounts of maps and charts in English is: Kees Zandliet, *Mapping for Money* (Bata-vian Lion, Amsterdam, 2002).

Obviously empire was created by violence and a fair measure of cruelty, seizing territory, enslaving labour, prepared to fight off any potential take-over from rival Europeans. In such circumstances South/Central American bullion and luxury goods on the ‘Spanish Main’ in the early days of development were the happy hunting ground for assorted thugs, venerated – at least by the British – as State-approved pirates, welcome in their home ports in the English South West, so long as they did not steal from local merchants.⁹

By comparison with Spain and Portugal, the Dutch and British appeared to gain little more than plunder in the first European penetration of the ‘New World’,¹⁰ though in Holland’s case resident Portuguese Jews ensured that a third of all exports from Brazil were destined ultimately for Holland.¹¹ Their gains elsewhere were *potentially* greater as Eastward voyages in the wake of Portuguese explorers secured trading stations and ultimately territories in South and East Asia that became the envy of the rest of Europe. However, although Catholic Spain was viewed with caution after the Dutch won their Independence and the British repelled various Spanish invasions, the two Protestant nations turned to fighting each other to secure their overseas territories. The Dutch expelled the British from Spitsbergen and the East Indies, and the British expelled the Dutch, (and subsequently the French) from North America, and in this area Britain had the best bargain. Serious occupation and exploitation of Jamaica began during the Republic, when the Protector sent an army there and subsequently a ship-load of London prostitutes to raise a self-perpetuating labour force to produce spices and sugar. When this failed, slave labour was imported because Africans supposedly endured the climate and ‘Fever’ which decimated white settlers. Ultimately more important for Britain’s ‘Commercial Revolution’ was the occupation of New Amsterdam (renamed New York) and the gradual spread of immigrants through the Northern Colonies and down to the Chesapeake from the late seventeenth century. They became powerful consumers of British products, as well as producers of tobacco, flax seed, wood and eventually cotton shipped exclusively in British or colonial ships to British ports under the terms of the Navigation Acts designed to increase Britain’s mercantile income and naval strength. Britain became an entrepôt for a much wider area than Northern Europe, especially after taking partial control over India in the 1740s, and despite the efforts of other European countries in establishing their own East India Companies. In this, London was by far the chief beneficiary.

This westwards movement of people and ‘Settler Goods’, the return movement of colonial goods, and the concurrent acquisition of trading stations and territories in South and East Asia, with the subsequent interlocking of colonial and European trade, is fundamental to the way in which British, Dutch and other European ports interacted

⁹ The economic and social activities of Bristol in opening up transatlantic and Mediterranean trade, together with the dynamics of the port’s move from a Mediaeval commercial economy to an early capitalist one, is discussed fully in D. H. Sacks, *The Widening Gate: Bristol and the Atlantic Economy, 1450-1700* (University of California Press, Berkeley and Oxford, 1991.)

¹⁰ The best survey of European expansion and the factors determining the relative prosperity of the various imperial powers is still Ralph Davis, *The Rise of the Atlantic Economies* (Weidenfeld & Nicolson, London, 1975). A more modern but restricted study of the earlier period is J.D. Tracy (ed.), *The rise of Merchant Empires: Long-distance trade in the Early Modern World, 1350-1750* (Cambridge, 1990).

¹¹ J. De Vries and A. Van der Woude, *The First Modern Economy: Success, Failure and Perseverance of the Dutch Economy, 1500-1815* (Cambridge, 1997), p. 397.

for much of the next two or three centuries. In the Netherlands, Hapsburg territory until 1556, Amsterdam remained the chief entrepôt between the Iberian peninsula and the Baltic, encouraging its domination of Northern European Trade, while their East India Company – VOC – provided luxuries desired throughout Europe and their territories were the prime area for expanding Dutch factors of production: new land and labour producing new goods and increasing domestic capital. Moreover, Amsterdam was also the major port handling the vast herring trade, based on the virtual monopoly of the fisheries which were a serious obstacle to British-Dutch accord in the mid-C17th. Nevertheless, in peace-time Amsterdam remained the entrepôt between Britain and Baltic ports, and Dutch ships were commonly involved (as they were in Portuguese imperial trade), relieving the pressure on Britain's inferior stock of ships and on mercantile capital that was soon needed elsewhere. Amsterdam was also the centre of international payments and credit, something which was at the heart of port development. In tracing the success of ports the inter-relationship of their trade and financial connections, and their ability to use Dutch shipping, suitably 'coloured', is always instructive.

In almost every country one or perhaps two ports were - and still are - outstanding. In exploring the reasons it is important to bear in mind that early dominance may owe more to primitive politics than to trading skills. In Britain benefits accruing from expanding transatlantic territories and from Indian and South East Asian trade, were not enjoyed directly by all ports, or even the leading ones. London, with its excellent water site and situation, had always been the leading port, catering for the needs of its own population, especially the monarchy, aristocracy, government, church and, of course, the country's greatest merchants, who grew fat on servicing (and in some measure creating) by far the largest and richest city, with the most demanding market and a high productive capacity from craft industry, supplying miscellaneous luxuries to the elite.

London also benefited from sixteenth and early seventeenth century joint-stock monopoly companies which were seen as a way of enriching both Crown and courtiers while making rich merchants richer. The Levant (or Turkey) and Russia (or Muscovy), companies, and especially the East India Company, were not closed to new capital, but traded out of London and were controlled by cliques of London merchants and shipowners with little or no input from other ports, whose merchants were 'interlopers' if they tried to circumvent the London Company's monopoly, and in the case of the Greenland monopoly of the Muscovy Company found themselves facing battleships in the Arctic, in sharp contrast with the Dutch situation where each of the provinces had its own East India Chamber and whose chief ports (Amsterdam, Enkuizen, Hoorn, Middelburg and Rotterdam) had representatives on VOC's 'Heeren XVII', the governing Chamber.¹²

Most of the busiest and wealthiest British (and cosmopolitan) merchants operated in London, where, in the case of the East India Company, caring for its grand East-Indiamen and its huge warehouses and walled estate provided maritime employment for both rich and poor far exceeding that in any other port.

However, the Commercial Revolution did not inhibit the growth of old-established

¹² This reflects the amalgamation of earlier companies in 1602; Davids & Lucassen (eds.), *A Miracle Mirrored* (Cambridge University Press, Cambridge, 1995), p.72.

trades and the regional ports were beginning to make their name in old and new activities, whether in the direction or the commodity composition of trade, or both, according to the dictates of their geographical position and their hinterland's needs. Bristol, the leading South-Western port was early into transatlantic ventures and had a flourishing interest in Newfoundland dried codfish which was exchanged in Spain and Portugal for oil, wine and fruit, and she was also well-placed for Mediterranean trade, initially at the Marseilles entrepôt, which offered Eastern and Southern Mediterranean goods as well as oil and wines from Provence. By contrast Liverpool was of minimal importance until the early eighteenth century, when its port was significantly improved and its transatlantic interests began their rapid growth in time with the industrialization of Lancashire and its demands for wood, whale oil, turpentine, and eventually cotton (first from the West Indies and then from the Southern colonies), as well as the sugar, tobacco, spices and other luxury items that were turning into necessities. Moreover, while Liverpool did not trade extensively with Europe in her own ships, contacts were maintained via an extensive coastal trade, also booming throughout the eighteenth century. Further north, Glasgow, with minimal foreign trade and shipping in 1670, also experienced vast and rapid growth in many aspects of mercantile and industrial experience in the early eighteenth century.¹³ Her merchants thrived on importing and refining sugar, and by advancing capital to Chesapeake tobacco farmers Glasgow was by the 1740s dominant in the trade, importing more tobacco than any other British port, much of it re-exported to Europe, especially France, where Glasgow had acquired the state tobacco monopoly.¹⁴ Glasgow is probably the best example of a direct relationship between foreign trade and hinterland development, though much of it was in or close by the city itself. Transatlantic trade also involved large shipments of 'settler good' for people who made little for themselves, including products of the distilleries, 'glasseries', potteries, tanneries, forges and foundries, and of printers, shoemakers, woollen and linen weavers, hosiery knitters and by, the 1740s, cotton spinners, weavers and printers. More surprisingly, perhaps, was the export of locally-mined coal to growing towns in the colder parts of America. Glasgow was on the way to becoming the 'Workshop of the Empire'.

Bristol and Liverpool, as well as dealing with America, also took part in African trade, sending out manufactures and salt to exchange for slaves for the Plantations, and also dealt in 'settler goods' for the plantation owners and 'slave irons' and 'slave cloth'. Even the smaller western ports such as Whitehaven and Dumfries dabbled in transatlantic trade, importing sugar and tobacco, wood and spices sometimes for transshipment coastwise. Whitehaven, like other ports adjacent to coalfields, shipped coal to the Northern colonies, a trade which often goes unnoticed. Ironically some of this plantation-oriented trade was with Portuguese and Spanish America, the latter under the 'Asiento' treaties of 1743-50, the main beneficiary being the English South Sea Company.

It would seem logical that developments in overseas trade and domestic industry

¹³ Glasgow city was the up-river commercial, warehousing and industrial centre; trade was transhipped in her two satellites – Port Glasgow and Greenock – some twenty miles down river where it entered the Firth of Clyde

¹⁴ The importance of the tobacco merchants in the rise of Glasgow is discussed in T.M. Devine, *The Tobacco Lords, 1740-90* (Edinburgh, University Press, 1990).

associated with the westward ‘expansion of Europe’ would shift the emphasis from Eastern to Western ports, but this was only partly the case. The growing importance of Glasgow, Liverpool and Bristol certainly outclassed all but London, which remained the leading ports with interests in all directions, and at least some manufacturing capacity and the great advantage of the financial sector in the ‘City’. However, the Eastern Ports played an indispensable rôle in developing both trade and industry, the leading ones growing substantially in importance in during C18th.

We are back to Favourable Factor Endowments. Transatlantic connections provided new goods and outlets for surplus population, but Britain still lacked many of the essential ingredients of industrialization on which export trades to her colonies and Europe depended. Industries requiring heat certainly developed on the coalfields in the hinterlands of the most serious contributors to industrial development: Glasgow, Liverpool, Bristol, Leith, Newcastle and Hull. But coal underground was useless without cribwood to line shafts and pitprops to support galleries. Factories and forges demanded building timber, scaffolding poles, malleable iron, acid steel, copper and tin plate. Cotton came from America, but linen yarn, oils, chemicals and dyestuffs, came from Northern Europe. Nor could Britain build large ships without Baltic ‘Naval Stores’ (masts, spars, oars, cordage, oak knees, sails, treenails and tar). So Hull on the east coast imported goods from Europe for its huge hinterland stretching almost to Liverpool. Without these imports there could have been no industrial revolution, and at least until the middle of the eighteenth century the ordinary things of life also came from the Continent, usually from Holland. A British sugar merchant might count his English barrels, but the staves came from the Baltic, and his office wainscot, candlesticks, ledgers, paper, ink, sand-shaker, tape, sealing wax, maps and globe were all Dutch, as was his coach or sedan chair. His house was decorated with Dutch pantiles and paint, and protected by his insurance company’s Dutch fire pump against accidents in his Dutch fireplace. His children played with the latest Dutch toys while his wife, having put aside her Dutch Spinning Wheel, made China tea from the Dutch tea-caddy, at the Dutch tea table, while admiring her Dutch prints and paintings, understanding, as she squirmed within her Dutch whalebones corset, why well-built Dutch artists models appeared so willing to take their clothes off. Perhaps she calmed her thoughts by reading (with her Dutch glasses) her Dutch bible (to the annoyance of English printers) or perhaps only Spinoza. One could continue for far too long through the world of printing, fine cloth, clocks, machinery, tools, and the brass, copper and tin-plate utensils, taps, and stills used in brewing, distilling, oil manufacturing and a variety of similar trades.¹⁵

The change beginning around 1740 was immense as Britain began to export manufactures she previously imported from Europe, such as tin plates, linen, pottery and edge tools, mostly manufactured in the hinterland of Liverpool, shipping to America, and Hull, shipping to Europe. The towns on a map of Hull’s river communications with

¹⁵ The international importance of developments in the Netherlands is well covered in J. De Vries and A. Van der Woude, *The First Modern Economy: Success, Failure, and Perseverance of the Dutch Economy, 1500-1815* (Cambridge, 1997), and K. Davids and J. Lucassen (eds.), *A Miracle Mirrored: The Dutch Republic in European Perspective* (Cambridge, 1995), especially Chapters 8, 10 and 11. My own ‘discovery’ of Dutch importance appeared in G. Jackson, ‘Anglo-Dutch Trade, 1660-1760’, in C. Wilson and D. Proctor (eds.), *1688: The Seaborne Alliance and Diplomatic Revolution* (National Maritime Museum, Greenwich, 1989), pp. 75-88. Activities ‘turning the course of British trade’, are discussed in G. Jackson, ‘Trade and Shipping’, in J.R. Jones (ed.), *The Restored Monarchy, 1660-1688* (London, 1979), pp. 136-154.

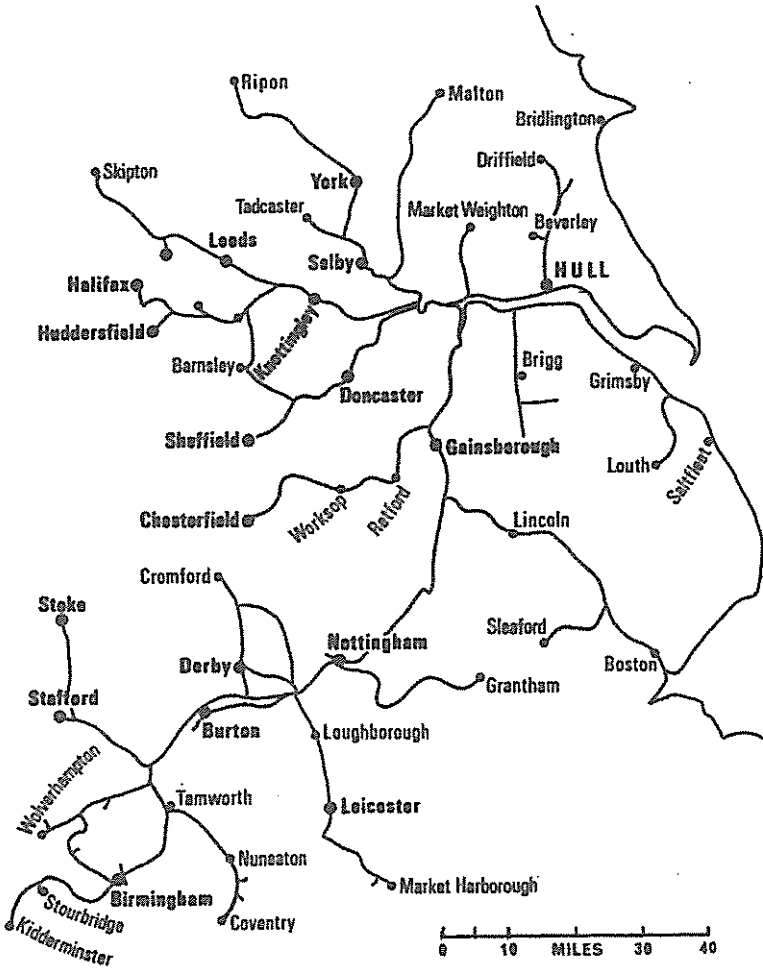


Figure 1 – The Hinterland of Hull, showing the chief navigations at the end of the 18th century.

its hinterland read like a checklist of industrialization. (*Figure 1*) It is worth bearing in mind the close relationships between developing overseas connections, ports, and hinterland connections, in assessing factors facilitating or obstructing port development during the eighteenth and nineteenth centuries.

Understanding our own country's port and hinterland development is best set against the experience of other countries with different characteristics. Considering their early lead in exploration and annexation it is appropriate to ask why Spain and Portugal, initially successful, subsequently fell so dramatically behind Britain and Holland

in maritime affairs. This leads to consideration of the nature of early transatlantic mainland colonies. Did the slave economies on which Spain and Portugal concentrated have inherently inferior potential to the mix of Slave Plantations and settlement colonies suitable for European emigrants. Were the tropical colonial factor endowments unfavourable rather than favourable for anything but slave production? Did West Indian and Brazilian production fail to match the demands of the metropolitan market, or to stimulate industrial development and encourage ports to explore and create an interlocking colony-port-homeland economy? So far as Spanish America is concerned, was trade development warped by the relatively easy access to bullion and the lack of demand for settlement colonies?

Trading colonies will always, at least to some extent, reflect the economic and social environment of the home country. Does the lack of an expanding colonial colony reflect the social and political backwardness to be found at home? Almost inevitably a mercantile or industrial society tends to spread wealth a little more than an atavistic, autocratic and parasitic one. It is also necessary to ask whether it is possible for a society to be too rural and agricultural to set the mercantile ball rolling. To test this I examined in great detail the isolated region consisting of Argyll and the Hebrides which stretches over 8,000 square miles of the west of Scotland but had only one two very minor ports, chiefly engaged with fishing.¹⁶ There was widespread poverty and starvation caused by the wet climate, very poor land, and too many living off those who did the work. One would not expect to find too many happy peasants in a country famed – as Scotland is – for its many castles. Nor would one expect to find such an area, with no manufacturing industry, engaging in profitable foreign or colonial trade. Paradoxically, the region had a great, though indirect interest in colonial trade and development: there was widespread emigration of excess population to the American colonies throughout the eighteenth century, and many reports in the 1790s echoed two cries for help in changing both society and economy: ‘We Need Industries’ but ‘We have no Coal’.

Was this perhaps also the problem of arrested development elsewhere? On the other hand it is evident that hinterlands of ports in the warm south have a ready supply of wine, fruit and oil so long as economical transport systems are available. We might adopt a different approach: did Northern European countries have to search beyond their Borders more widely to live decently – like the people of Argyll? Britain was still relatively backward socially and economically in the sixteenth and early seventeenth centuries because of its lack of important resources, and developed enormously when they became available. Ignoring political susceptibilities, we might also consider how far the ports in Portugal, Spain and France were helped or hampered by autocratic rulers? Were they subsidized by the state, if only to create facilities suitable for battle-ships? What sort of customs regulations assisted or hindered the growth of trades which might have emerged if merchants had been allowed to follow economic rather than political incentives? Finally, in considering the inter-action of major ports and imperial expansion we need to examine how far, and why?, the Britain colonies differed from those of Spain and Portugal, in terms of encouraging new industries in their hinterlands.

¹⁶ Gordon Jackson, ‘The Maritime Experience of a Region without Ports: Argyll, Scotland, c.1740-1840’, in *International Journal of Maritime History*, XVII, NO 2 (December 2005), pp.1-23.

Were these differences caused by the ports, the colonies or the hinterlands? Was it related to the landholding? What sort of port-based industry was possible? Were industries discouraged by lack of demand or the ease of obtaining goods in exchange for oil or wine? In particular, how far was it an advantage to Britain that colonies in North America were British in population and culture, whereas those (including the British) in the Southern States, Caribbean and South America had more-or-less monocultures employing slave populations — with little consumption of goods from home. Indeed, what there was in the Spanish colonies tended to be supplied by British merchants getting round any official ‘Mercantilism’. British Jamaica was made a free port [without rigorous Customs checks] for this purpose. How far were Spanish and Portuguese ports engaged in supplying the colonial ports with goods which they themselves have secured from Northern European ports serving the Northern Industrial Revolution?

Most of these are questions relating to the benefits derived from European ports exchanging the products of each others’ hinterlands, or with the ports of their colonies. In any event it was not as simple as it sounds. Straight exchange may have happened in the distant past, but at least by the seventeenth century trade and shipping was far more complex, and settling payments in uneven trades was far from easy. Trade did not develop because someone in Newfoundland caught a codfish and someone in Sweden cut down a tree. Trade was created by merchants, shipowners or adventurers in home ports, or their agents in colonial as well as European ports. Since everything in trade depends on human knowledge and connections, a port’s ability to arrange and maintain suitable relationships was as important as the changes in its domestic hinterland. How did Glasgow, Hull or London — or any other ports — find suppliers or markets in Europe or the Colonies? The Mediterranean trades relationships had been long established, and the Northern European ones were organized by Vikings and later by the Hansard League of ports. British ports relied on these agencies, and then on the great Dutch entrepôt with some of this trade initiated or organized by Dutch merchants whose ships were often seen in British ports.

British transatlantic trades, on the other hand, were chiefly established by emigrants from and representing Glasgow, Liverpool, Bristol and London. In the 1690s Glasgow city council employed a Captain experienced in the transatlantic trades to teach others how to find their way to American ports. Was the same true of Porto or Lisbon? Within the ports themselves, mercantile and shipping information was spread through the Exchanges and Coffee Houses where merchants assembled. But for intimate knowledge of conditions abroad merchants in British ports were beginning to send their own Factors to maintain or establish connections. By 1700 there was a Glasgow Factor in Stockholm, selling Clyde herring and buying brass and pin wire, iron barrel hoops, malleable iron, steel and wood. There was soon a sizeable contingent of Scots in Sweden, who played a part in the establishment of the Swedish East India Company. A stint in the Baltic was not always welcome. One Hull factor (Henworth) complained to friends enjoying the lively society of Hull that he was ‘tied and nailed down in this hole [Gothenburg] by the fate of a younger brother’. With this sort of direct interest, three Hull firms were exporting 40% of the iron leaving Gothenburg by 1730.¹⁷

¹⁷ Jackson, *Hull in the C18th*, pp.122-3.

In listing the important issues in port development overseas credits and payments must be ranked highly. How did merchants in western Europe pay for timber from ports, or obscure shipping place, in Sweden or Russia? They looked to London or Amsterdam where someone was sure to be owed money in those places. In the eighteenth century the more generalized Bills of Exchange increased in popularity, but these still needed intermediaries if money was to be transferred speedily. In most ports leading merchants with widespread debts and credits began acting for their less active neighbours. In Hull, for instance, this happened almost accidentally. Robert Pease, who fled to Holland in 1663 following the Restoration of the Stuart monarchy, entered the oil seed trade there with the help of Dutch friends and in 1708 established an international business with sons in Amsterdam, Limerick and Hull, where Joseph Pease, who always maintained his Dutch connections, opened Hull's first bank involved extensively in overseas payments.¹⁸ Wilberforce & Smiths, one of Hull's greatest Baltic traders, also opened a bank, named Smith & Thompson's because it was run by Thomas Thompson, their chief clerk and *confidant*. An alternative to this was Thorley & Co.'s bank in Narva to cover Hull/East Baltic payments from the other end.

Hull was not one of the greatest ports. Glasgow, Liverpool and of course London were much superior in trade and finance, and their overseas payments may have been more easily made because of the volume of business involved. In fact we know very little about this, and it would be interesting and instructive to discover how Iberian ports tackle this problem in trade management when they were dealing largely with their own colonies and also had British and presumably other foreign merchants resident in their ports? Indeed, how far was their colonial trade dependent on the Portuguese Jews resident in Amsterdam?

The Shipping Side

The provision of an adequate supply of suitable vessels was another of the tasks of Port People in the late-seventeenth and eighteenth centuries. British shipping was backward compared with Holland, and well into the eighteenth century British ports were relying on Dutch shipping to bring goods from the Baltic as well as from Holland itself, and small Norwegian vessels often brought wood on master's account to be sold down the coastline. Many ports built their own vessels, though some, especially on the North-east coast, specialized in shipbuilding, but because of the lack of 'naval stores', which had to be imported from the Baltic, British North America soon began building the largest sailing ships, whose maiden voyages brought wood to Britain.

The traditional division of vessels into sixty-four independent shares allowed for single merchant ownership, but simplified the raising of capital by permitting groups of share-owners assembled by 'managing owners', made easier because, apart from huge East Indiamen, 'ships' were still small. The 100-tonner was the 'handy size' for most purposes, good enough even for the transatlantic run! Many were not ships at all by the true definition of 'ship' which was not a vessel but a specific rig. Brigs, Barques,

¹⁸ Ibid., chapter IX deals with the Financial sector

Snows and Sloops were all involved, the smaller vessels chiefly in coastal trade. As a result, a vessel was suitable for various routes, with the managing owner switching between voyages to secure maximum employment and ensure she was not caught in Baltic ice which might cost several months earnings. Does a similar search for maximum deployment apply also in Portugal? A variant on this theme of maximum deployment was the growing tendency for merchants who owned ships to use masters as supercargoes to sell outward cargoes and purchase return ones, especially common in British voyages to the West Indies. This sort of record appears usually in private merchant-shipowner papers which are fairly scarce in Britain, or in Court Cases which may be full of detail but very difficult to find.¹⁹

For Britain, rapid industrialization from the mid-eighteenth century demanded a corresponding increase in shipping to carry the resulting trade. Some of these vessels were trade-specific, such as Glasgow's large 'tobacco fleet', the East India Company's ships, and the Whaling fleet, which were subject to special regulations. For other vessels, which were not registered by the State before the Registration Act of 1786, information is less easily available. In consequence it is not easy to trace who was funding the new vessels in the eighteenth century and whether they coincided with the emergence of shipowning as a separate profession. In Britain the first specialist shipowners appear to have been those owning whalers, which were not involved in normal trade except between seasons. They were *very* expensive — as much as the insurance valuation of Arkwright's first three cotton mills — and usually owned by small partnerships, some of which owned more than one whaler. Colliers, of which large numbers were engaged in fuelling London from the Northeast coalfields, were also usually trade-specific, and owned in fleets, especially in Whitby, with a bay suitable for wintering them.²⁰ It should be noted that both whalers and herring busses were subsidized in Britain because both were seen as a valuable source of sailors in war time, and whalers in particular were valuable as naval auxiliaries. Were vessels subsidized in Portugal?

Although Major ports undoubtedly played a great part in economic growth by importing raw materials and exported finished goods, we must remember that there was a great demand by the middle of the eighteenth century for new ports, especially for the coastal coal trade, but also for the distribution of things such as China clay, lead, tin, and of course the foodstuffs demanded by the growing industrial towns and London. Coal ports sprang up on the east and west coasts, wherever there was coal adjacent to the sea in Scotland, Wales and Northern England, some with direct rail connections between pit and quay. In the nineteenth century Cardiff became the leading British port in tonnage terms because of vessels carrying coal all over the world, and even the 'commercial' ports such as Glasgow and Hull tended to have a larger tonnage of shipping engaged in exporting coal than in general commerce. For this reason, if for no other, a

¹⁹ English Court of Admiralty records are in the Public [i.e. British] Record Office, Kew, while Scottish Customs and Court of Admiralty records are in the Scottish Record Office in Edinburgh, which also has a vast holding of Court of Session Records dealing with industry, merchants and trade. The burgh records of many but not all ports also contain much local information, especially about the harbour structures.

²⁰ Jackson, *Hull*, Chap. VI, deals with the development of the shipping industry, and Jackson, *The Trade & Shipping of Dundee, 1780-1850*, Chap. V, examines Dundee ships and shipowners. The standard work on collier owners is S. P. Ville, *English Shipowning during the Industrial Revolution, 1770-1830* (Manchester, 1987).

large number of ports were created to export large amount of coal and other minerals and were distinct from the commercial ports which grew in size rather than in number to serve the changing economy, new commercial ports being very largely nineteenth century creations by railway companies.

It is necessary, therefore, to examine the functions and performance of the Minor Ports, which were actually the majority, and many of them boasting a notable past, though some never handled foreign trade.²¹ Their hinterland connections were generally poor in size or transport, and their water sites unsuitable for the larger vessels of the eighteenth century. Nevertheless they provided a necessary and cheap contribution to the regional distribution network, particularly for foodstuffs and coal, the latter sometimes landed overside from beached vessels. They also shipped raw materials from primitive quays or piers that sea-going ships could not have used with safety. Moreover, minor ports also inter-acted with nearby major ones by distributing their foreign imports sent coastwise, and collecting goods for export by them. More directly they provided labour for shipping and other port work, sending boys for apprenticeships, and in some cases providing ships and masters to their bigger neighbours – as in the Glasgow tobacco fleet, with ships from the minor ports to the south of the Clyde. In these and other ways minor ports (often the leading town of their area) were essential to the smooth functioning of both coastal trade and some elements of foreign trade. They might have been small cogs, but even small cogs help the wheels of commerce to revolve!

The decline of the Merchant?

The eighteenth century witnessed the rise of the old-established major commercial ports to a position of great importance in the economic development of Britain, though trade was not the only factor contributing to that growth.²² In this movement the old-established Port People generally took the lead with their mercantile information, access to shipping, established overseas and inland connections, credit-worthiness and assured means of payment. However, towards the end of the century the rise of the shipowner appears to be related to the decline of the great merchant houses. Many leading British merchants retired to their English mansions or Scottish castles; Castle Toward, on the Clyde, sheltered Kirkman Finlay of Glasgow, M.P., whose flourishing trade and cotton manufacturing business is the only eighteenth century one known to be still in existence.²³ Of the Hull house Wilberforce & Smiths, Wilberforce was in Parliament and Smith was a peer; and soon their chief clerk, Thomas Thompson, also entered Parliament. Hunting, Shooting and Fishing was – quite literally – taking over merchant inter-

21 Gordon Jackson, 'The Importance of Unimportant Ports', *I.J.M.H.*, vol xiii, No 2, Dec 2001.

22 This may not be what happened in other countries. It would, nevertheless, be instructive to know the relationship between trade and economic growth in Portugal.

23 James Finlay & Co shifted from Scottish manufacturing to Indian manufacturing and tea merchanting with 74,000 acres of plantations. Anon., *James Finlay & Co, Manufacturers and East India Merchants* (Glasgow, 1951), p.47.

ests.²⁴ Did it matter? Mercantile Information was now generally available through Newspapers, and in many ports merchants had their offices some distance from the riverfront and left the handling of goods there to a rising group of Agents and Brokers who acted for merchants and shipowners. This was especially the case when the shipping side moved to deeper water and more land space; Greenock Agents began handling goods for Glasgow merchants, twenty miles up-river. Moreover, with Newspaper advertisements of 'ships laid on' inland manufacturers no longer needed to use merchants as intermediaries, but could use supposedly cheaper Agents instead. By the 1780s Customs ledgers were including Agents names along with the owner of the goods. With companies such as Boulton & Watt sending travellers with catalogues and samples to the Continent it may have been less necessary to employ an export merchant, but finding ever-more raw materials abroad still kept the knowledgeable import merchants in business.

For the early nineteenth century the case of Thomas Wilson of Hull is instructive. Having been apprenticed to Hull's leading iron importer he apparently inherited the business, becoming in turn one of Hull's leading Swedish traders. Deciding to employ his own ship he bought a small sailing vessel (mortgaged with a Northern partner) and eventually expanded into steam having secured the Swedish Mail contract. Trade apparently ceased and Thomas Wilson & Sons ended with the largest steamer fleet in the world by number of ships in 1913, running shipping lines as far as America in the west and India in the east, but especially to Northern Europe.

The impact of timetabled regular liners was twofold. On the one hand they supplied ports – not necessarily their home ports – with an assured service. On the other hand they finally separated merchanting from shipowning. Much depended on their loyalty, and a port without its own shipping line might have difficulty attracting ships, whatever goods were being offered. The arrival of steam lines and railways made matters worse for traditional Port People because they allowed the development of new railway ports such as Grimsby, but did not provide the shipping. When Grimsby dock was opened a banner was tied to the Hydraulic Tower ironically announcing 'Ships Wanted'. They never came, and here, as elsewhere, railway companies with new ports were forced to buy their own shipping line, with which they established 'through traffic', for example from Manchester to Berlin. The new port of Manchester is perhaps the best example of inexperienced port builders who failed to realise that ships do not appear automatically out of sea mists (or in their case canal mist). They had to buy a Manchester fleet.

Port Systems?

There have been many conferences on various aspects of Port Systems. The Association for the History of the Northern Seas conferences usually consist of comparative studies of specific themes. The eighth, in Bremerhaven in October 2005 was on *Crisis and Transition in the North Sea Region*. The International Maritime Economic History Association and International Commission for Maritime History hold regular meetings

²⁴ Hunting was a safer pursuit. William Wilberforce, who was short sighted, very nearly shot his close friend, Prime Minister William Pitt.

at which the maritime experience of member nations around the world is explored. In October 1995 there was a similar conference in Madrid, *Puertos y Sistemas Portuarios* (Siglos XVI-XX) at which Jacob Price, examined *British ports & the Tobacco trade*, the late Frank Broeze tackled *Ports and port systems in the Asian Seas* Maria Sirago spoke about *The Italian Port System* and Gordon Jackson about *The British Port System*.²⁵ However, But I am still not clear how we should deal with the subject of Port Systems, and particularly international systems.

What is a 'Port System'? Indeed, what is a 'System'? The Standard *Oxford English Dictionary* offers three definitions: (a) "An organized or connected group of objects" which British ports were certainly not. Apart from a very brief period after WWII nobody has ever tried to organize British ports. (b) "A whole composed of parts in orderly arrangement according to a plan", which again is laughable in the British context; and (c) "A set of things connected, or interdependent, so as to form a complex unity", a definition which might just reflect reality. In the inter-war period a British economist wrote that "The British do not plan to plan; they plan to muddle". It was not a joke!

My own studies of port development over time would certainly support only the last definition. I studied a series of individual ports while building up evidence about the 'system' as a whole: Aberdeen, Leith, Dundee, Montrose, Hull, Grimsby, Glasgow, Liverpool, London, Cardiff, and many other places in less detail, though my trade and shipping statistics cover all British ports. This material provided the basis for a context against which ports might be examined in *The History and Archaeology of Ports*. But for this it was essential to study individual ports in depth and to set them in context in a variety of ways:

1. **Their Hinterland:** How good is its economic potential and development, its production and consumption of trade goods; how did its population change; what transport developments occurred?.
2. **Their Purpose:** What service do they offer to the hinterland?; what is unique about it? Did they fulfil that service? Or are they engaged principally in Coastal Trade? What part did ports play in feeding their hinterland?
3. **Their People:** Were the merchants enterprising and capable of initiatives in the hinterland. Did they establish adequate contacts with credit-worthy merchants abroad? Did they employ Factors abroad to search for new suppliers and consumers? How were they recruited and trained? Did the mercantile elite contain foreign merchants who raised the over-all trading ability of the port? What about the Workers: How were these employed? Did trade fluctuate during the year? What did Port Workers do when trade was slack?
4. **Their Shipping:** Were the merchants able to provide the required ships with, or without the assistance of other contributors. How were ships owned? Were they profitable? Were they built locally?
5. **Their Financial capability:** Had the port people established their credit-worthiness in international trade? Did they arrange finance for themselves or through

²⁵ The lectures at this conference were published in A. Guimera y D. Romero (eds), *Puertos y Sistemas Portuarios Siglos XVI-XX*, (Madrid, 1996).

- another port such as London or Amsterdam? Did they have Banks which facilitated the development of the port. Was there adequate insurance available for shipping and goods? How did they organize and pay for port improvements?
6. **Their port-based Industries:** Had the processing of imported raw materials such as sugar and tobacco and fibres added to the port's self-contained economy and employment patterns? Did it make goods for export? Did the port build and maintain its own ships?
 7. **Their National Support:** Did they benefit from State imperialism using superior military and naval power to annex overseas factors of production? Did the State build or subsidise ports and interfere in their affairs for good or ill? Did the State develop its naval/military power to assist territorial acquisitions in the interests of trade and ports — as in the acquisition of Africa slave ports for supplying colonial plantations? And did the State, by engaging in warfare, assist or hamper port development? Did the State subsidize trades or port facilities?
 8. **Their port facilities:** Topographical situation and physical structures are important to any port, and in any comparison they should be taken into account. What form did they take? Piers, Quays, Docks, or overside working? Was the engineering good, and how was it adjusted (and paid for) in accordance with need? Who owned and managed the port facilities? Were they competent? Was there adequate space for the storage of goods? Was this publicly or privately owned? Was there a State interest in taxing shipping or trade. Was the Custom House adequate for the trade of the port, and conveniently situated? Did it have a bonding warehouse? Was it suited to the flow of trade? How did port facilities interact with the changed in shipping over time?
 9. **Their Social life.** Although I don't think this is mentioned in my *Ports Book*, it is important in individual port studies to survey the way in which port society differed from other towns and cities, and the way in which port societies worked at all levels.²⁶

Adding all this together does not imply that ports were part of a system serving the national economy. They appear to be a collection of independent places interacting with each other according to their advantages which change regularly with the direction and composition of trade and the size of vessels. The national economy clearly influences these changes, but the major problem seems to be the accelerated changes which occur because of Government activity, particularly in waging war and achieving foreign trade agreements (such as the Methuen treaties, 1703 which facilitated trade between Britain and Portugal), and the imposition of taxes and restriction or prohibition of trades.

Obviously ports secure and dispense goods *appropriate to their hinterland* and this clearly differs from port to port. The country is not so arranged and the transport possibilities are not such that trade can be shared out between ports. So from that point of view there is no *system* in the sense of collaboration and parts of a whole. But the ports between them do cater for the whole business of the country. For this reason I find it difficult to talk of a port's *Hegemony* or *leadership*. It may be at the top of a rank-

²⁶ A recent book on port societies is R. Lawton & R Lee, *Population and Society in Western European Port-Cities, c.1650-1939*, (Liverpool, 2002).

ing by volume or value of trade, number of ships, and so on. But its trade is limited by its hinterland. Liverpool exported more cotton goods than Cardiff, and Cardiff exported more coal than Liverpool, but this was not a competition. Liverpool had a cotton hinterland and Cardiff had coal. Of course Liverpool interacted with its hinterland by importing raw cotton so may be said have facilitated or fostered the production of cotton, but Cardiff could not import raw coal, though presumably it had a flourishing trade in pit props. Many ports shipped coal without being in competition since they served different coalfields, or handled different sorts of coal, of which there were many.

Competition between ports in the same country came when the spread of railways allowed the cross-penetration of hinterlands, the level of port charges might persuade inland customers or shipowners to use one port rather than another.— but only if the railways overcame the ‘private hinterland’ which port people hitherto enjoyed.²⁷ Similarly, if we talk of Hegemony when reviewing ‘leading’ ports in ‘leading’ countries, are we actually considering their national or their international status? Are these ports engaged in international competition, and if so, how did it work? This might be true of modern ship operations where container or bulk carrier companies decide which countries’ biggest ports will be one of the five visited by their computer-operated giants. But again, I am not sure that it is meaningful for eighteenth and nineteenth centuries ports, except perhaps in phrases such as ‘Amsterdam was Europe’s leading port’, which it certainly was; but it was never Europe’s leading coal port, though it may lead the world trade in Dutch cheese.

In any case such statements might first be set against the National standing of ports, and this meant, for me, the detailed examination of National trade & shipping records, showing direction and composition of trade; Local Government records and statistics, which often contain details of what people were doing and thinking; and private mercantile papers (as available) which reveal things not to be found in ‘public’ papers.

Should ports be assessed by the value of their trade?

If we follow the usual course we encounter statements of value, because that is what interested the officials drawing up Customs statistics, and because that is a component of the ‘balance of payments’ which most concerns economists, governments, and many economic historians to the present day. The value of trade may well have a bearing on the wealth of a particular port, either directly through profits derived from valuable imports or exports, or indirectly through the value adding by processing imports, especially sugar and tobacco. From this standpoint some ports bring more wealth into the national pot than others, though this may appear more in the wealth accruing to the Treasury than in that enjoyed by the lower level of port and shipping workers. But does that cover all aspects of a port’s contribution to industrial or general social well-being? Boxes of bullion may well stimulate demand, but cotton factories are perhaps less dependent on imported silver than on imported cotton, and you cannot make acid steel with imported silver.

²⁷ See G. Jackson, ‘Shipowners and Private Dock Companies: the case of Hull, 1770-1970’, in L.M. Akveld & J.R. Bruijn (eds.), *Shipping Companies and Authorities in the 19th and 20th Centuries: Their common interest in the Development of Port Facilities* (Den Haag, 1989), pp.47-61.

Or by the volume and commodity composition of trade?

The interaction of ports and their trade with industrial and social demands is more easily learned from the far more complex statistics of commodity composition which show the vast range of imports that kept the British economy going, and without which the British people would have starved; indeed, Customs figures show that 1771 was the year in which Britain became a food importing country. The volume statistics show the impact on port structures of increasing trade flows, or, in reverse, how ports adapted or changed their physical structure to cater for increasing demand. These changes can be followed in evidence given to support the Acts of Parliament which were required for harbour works to take place.²⁸

It is fairly obvious which are a country's major ports. Their hinterlands can be mapped, and the volume and commodity composition of their trade goods can be linked to the demands of industry, and compared with similar activities elsewhere, while the total volume of shipping entering and clearing is an important physical measure of their importance.²⁹ But how are we to compare Cardiff with Bristol, not far away yet completely different in commodity composition of trade? It seemed best in the British case to group ports by their chief purpose and the sort of facilities required for their primary trades. Coal ports enjoy a far greater through-put of goods – and therefore shipping – because their handling methods were completely different from, say, those importing large amounts of wood requiring extensive handling and storage areas, and ports handling valuable and small parcel goods requiring huge or secure warehousing capacity. It is also possible to take into account the number of foreign trading connections. The number, tonnage, and type of shipping owned is also an important indicator of status, especially with the development of steamshipping with timetabled lines and dedicated berths which assured that trade would go via 'their' port.

So far as major ports are concerned it is necessary to bear in mind that they also had a leading rôle in the regional distribution trades and consequently had serious problems caused by the necessity of accommodating large numbers of coasters, which hindered the working of larger vessels.

Medium ports are less of a problem because they were much smaller and often trade-specific, shipping or importing coastwise coal and other minerals, grain, beer, live animals, salmon, lobsters and crabs; or London's dirty clothes, laundered in Perth! Some handled the Mail and passenger packets crossing the Channel and the Irish Sea. Many of them – such as Whitby – were important for owning or sheltering ships used by the Major ports and supplying seamen and apprentice merchants. Since these smaller ports played an essential rôle in regional distribution trades, they too were important to the national economy and should not be overlooked despite their lack of significant overseas business.

Comparing ports in different countries is a far more difficult exercise. Listing ton-

²⁸ This means that we have details of all the engineering works and of all the engineers from the eighteenth century. See D. Swann, 'The Engineers of English Port Improvements 1660-1830', in *Transport History*, Vol 1, No 2 and No 3, (1968).

²⁹ See G. Jackson, 'Sea Trade', in J. Langton & R.J. Morris (eds.), *Atlas of Industrializing Britain, 1780-1914* (London, 1986) pp.94-106, has diagrams showing the relative growth of ports by tonnage of foreign and coastal trade, c.1791-1901

nages of shipping and value of trade does not work so well if the ports are situated in differing economic, social and political structures. A port which is highly subsidized for political reasons may well have better facilities and cheaper rates than one which is not so favoured. If we regard ports as servants of specific economies it seems hardly just to compare ports in two or three different economies, especially when ports suffer from the mal-functioning of the international economy which may affect different countries in completely different ways. It might be more realistic to use their percentage of the total trade of their own countries, and make allowances for the relative size of those economies. What, in any case, do we mean by competition and ranking? ‘We are the biggest/best/fastest/and lots of other things port’ looks rather like Port Authority publicity. It is easier to understand it when real competition is possible. The best example of this is when two ports serve the same hinterland, and the best European example is the current ‘competition’ between Rotterdam and Antwerp, both of which have good access to the Central Europe. Rotterdam is immensely attractive as the European Gateway for global traders, largely because huge amounts of money and planning were lavished on it while Britain was busy shutting down ports and the industries for which some of them existed. Now various European countries are trying to establish their own ‘Gateways’ for transshipment to smaller vessels, from Glasgow in the North to Bilbao in the south, but the most determined is Antwerp. It is, however, interesting to read the literature from the aspiring companies. Ports used to be thought of in terms of their service to the economy. Now they are seen in terms of profit for their owners,³⁰ and this is now largely derived from property development on their urban ‘land-sea’ interface while port business is conducted in deep-water down-river ‘terminals’ employing only a fraction of the former workforce and importing the goods produced by more active low-wage economies which now have the world’s most active ports: all save Rotterdam are in the Far East. The part which these played in South and East Asian developments in the twentieth century may well be instructive in a study of the rise and fall of European ports.³¹...

30 It maybe unfair to argue in this way, but that is what I glean from publicity by Clydeport and Hull, and in the most substantial work on modern competition: R Loyen, E Buyst & G Devos, *Struggling for leadership: Antwerp-Rotterdam Port Competition 1870-2000* (Heidelberg, 2003)

31 The late Frank Broeze worked on globalization and the Asian ports, and can be found in D. Starkey & G. Harlaftis (eds.), *Global Markets: the internationalization of the sea transport industries since 1850* (Research in Maritime History No.14 (St John’s, 1998), pp. 385-423, which includes a comparison of the major container ports; and ‘Introduction’, in F. Broeze (ed.), *Gateways of Asia, Port Cities of Asia in the 13th – 20th centuries* (London, 1997, which also contains very interesting chapters, including K. Trace, ‘ASEAN [Association of S-E Asian Nations] Ports since 1945: Maritime Trade and Port Rivalry’, pp.318-38.