Barcelona and Glasgow The Similarities and Differences in the History of Two Port Cities

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If the principal function of ports is to load and unload goods, they also act as centres for a variety of other activities from warehousing to trade and industry. This varied range of activities and operations necessarily has important consequences too for the economy of the regions neighbouring the ports, although the nature of relations between a port and its hinterland are complex and vary from case to case. These relations are always reciprocal, and may be affected by changes in shipping technologies and in overland transport, as well as in the structure of the local or international economy.

In the last decade, the changing function of ports and developments in maritime technology have caused port operations to move to areas that are often distant from urban centres. As a result, the functions and the structures of the former port cities have been affected in ways that have often created major problems for the future of their economies and those of surrounding areas. The analysis of these changes and of the solutions that might be offered has, therefore, become a matter of major concern throughout the world.

It is widely recognized that the role of a port city and the nature of its economic relations with its neighbouring areas are determined by the interplay of a variety of different geographical, economic, political and technological factors. The comparative study of the similarities and differences evident in the historical development of port cities in different locations can illustrate how these factors shaped the development of the relations between a port, its city and neighbouring region.

The recent appearance of two new studies on major port cities, Barcelona [1] and Glasgow,[2] makes it possible to compare the historical experiences of two ports which in the past showed many similarities, although their responses to the political developments within their respective countries and

[1] A. GIBB, *Glasgow: The Making of a City* Croom Helm, London 1983, pp. 197.

[2] J. ALEMANNY, *El Puerto de Barcelona, Historia y Actualidad* Puerto Autonomo de Barcelona, Barcelona, 1984, pp. 247.

to changes in the world economy over the last two decades have been very different. Glasgow is today a port-city that no longer has any function as a port. Barcelona, on the other hand, has benefitted from a recent phase of economic expansion which has been due largely to external factors and whose strength and duration are difficult to assess. Nonetheless, both cities are still closely tied to their own pasts, and in particular share a common traditional of expertise in transport and international trade, as well as strong entrepreneurial vocations that have inevitably made themselves felt even during the recent period of economic difficulties and transformation that has affected all the older industrial centres.

In his study of Glasgow, A. Gibb provides a detailed reconstruction of the social, economic and territorial changes that have occurred in Glasgow over the last eight centuries. His account shows that while the major economic crisis that hit the city and caused the widespread closure of industries, unemployment, social hardship and demographic decline has been the common experience of many major European industrial centres, in the case of Glasgow the crisis was particularly virulent and occurred relatively early. The solutions that have been proposed gravitate around the concept of the "post-industrial city," with its emphasis on the need to find new forms of economic development to escape from a situation of advanced de-industrialization. Glasgow is an important example, therefore, for anyone concerned with the future of the great industrial cities of the past. At the same time, Glasgow's experience is relatively unknown and is often depicted in unduly pessimistic terms as an economic and social disaster to which there are no solutions. But although the difficulties facing the city and its inhabitants cannot be underestimated, neither should the very successful outcome of many of the initiatives undertaken in the last ten years be overlooked nor the possibility that they reflect a process of more profound change.

Because the city's economic crisis became apparent so early, Glasgow has become a laboratory for a variety of different planning experiments many of which have only made things worse. Glasgow's problems have arisen not only from the city's economic difficulties and from the demoralization caused by high levels of unemployment. The feeling of alienation towards the city amongst its inhabitants, the break-down of relations between the city and the citizen, between the administrators and the administered has been equally important. It was not until quite recently that this was acknowledged, and since then important changes have taken place. But as Gibb rightly states at the end of his book:

> "It is obvious, however, that the new people-orientated philosophy in planning is going to have to work overtime to fulfil its promise to the two-thirds of Glasgow's population which wait, in trepidation or in apathy, for the next round of projects embarked on in their name, and on their behalf."

The author teaches at the University of Glasgow and is a Glaswegian who has experienced at first hand the trauma of his city. Reading his book and

speaking to its author it is clear that it is dedicated to the people of Glasgow, so that they might be able to know the history of their own city better and through a closer understanding of the past contribute to its future development.

J. Alemanny's book, on the other hand, is concerned with the port of Barcelona and its role in the economic and urban development of the city, which he deliberately sets in the wider context of the port's role in the social and urban development of Barcelona. The study was commissioned by the Board of Administration of the Free Port of Barcelona to examine the origins of this body which came into being in 1978 for political rather than economic reasons. Since 1968 the port had been run a Giunta whose rigid bureaucratic structures proved to be a major obstacle to economic growth and improved services. Although a public body, the new Board of Administration functions like a private mercantile enterprise. Within the terms of its constitution it is free from state interference, and has been able to achieve the growth and improvements that were previously lacking. Alemanny has been directly involved in the decentralization of both the port authority and also of local and regional government in Catalonia, and his book expresses a well justified sense of optimism at the consequences of these changes, which he believes will give Barcelona and its economic infrastructures a more rational and durable form of economic development. His conclusions derive from a detailed historical analysis which indicates how Barcelona's economic development has historically been closely dependent on the activities of its port, which in turn reflected the prevailing ups and downs in the economic prosperity of Catalonia as a whole.

Alemanny traces the main features of Barcelona's economic development from antiquity to the present, emphasizing the fortunes of the city's maritime economy, the development of trade and the commercial and cultural experience and expertise that this brought with it.

Since the economic processes that determined the development of the urban and social structures of Glasgow and Barcelona were in many ways the same as those that shaped the development of other British, Spanish and European cities, these two studies provide an excellent starting-point for a comparative study.

Historical Origins

The first traces of civilization in Catalonia date back to the palaeolithic and neolithic periods, but commercial contacts with the Phoenicians and then on a more regular basis with the Greeks developed thereafter. Down to the first century AD the principal port in the region was Emporion, but during the Imperial age this was overtaken by Tarraco. The first settlements in the area of modern Barcelona date from the appearance of Monte Montjuic, and were located between the mountain and the mouth of the river Llobregat

where the coast forms a natural harbour. Barcino, the Roman colony that was sited on what is the centre of modern Barcelona, was established on the other side of Montjuic and lay close to the sea and the inland routes towards the Taber hill which was something of a focal point for local trade routes. Barcino soon became the second most important city in Catalonia after Tarraco, and was engaged in fishing, processing of fish and fish products and viticulture.

In the Vth and VIth centuries, after the fall of the Roman Empire, the city became the capital of the Visigoth Kingdom and continued to grow in importance between the IXth and XIth centuries when it became a centre for trade between the Christian and Muslim worlds and exchanged fabrics, hides, arms and slaves for jewels, gold and silk.

Barcelona's major period of expansion occurred after the mid XIIth century and was based on the expansion of Catalan agriculture, the development of certain new manufactures and a new phase of commercial expansion. The latter owed much to the Mediterranean policies of the Catalan rulers. The conquest of important Mediterranean islands and ports provided Barcelona with new outlets and safer shipping routes, enabling Catalan trade to expand first in the Western Mediterranean and North Africa and then towards the East. The routes to the East offered outlets for textiles and supplies of grain and silver from the European ports, as well as dyes, pigments, sugar, spices and other goods from India and South-West Asia. These oriental routes were soon linked with those directed towards the Atlantic, where Catalans traded in wool and tin in the English ports of Southampton and London and sold textiles in other Northern European ports. The *Consules de ultramare* were established to organize and encourage foreign trade, and in the XIVth and XVth centuries — the period of Barcelona's greatest economic prosperity — there were over 70 consuls representing Catalan interests in the major ports of the Mediterranean. Important technical progress was also made in shipping, maritime law and related financial activities in the same period.

The 1420s saw the onset of a new period of crisis, and Barcelona's trade fell back on regions closer to home (except for continuing contacts with Sicily, Sardinia and Naples). Domestic production also fell, while activity in the port declined drastically as did the population as a consequence of plague and civil war. The port, which had never been particularly safe, was also badly damaged by storms. The action of the prevailing currents and silting from inland rivers made the port unusable, and attempts were made to move it closer to the seas. These factors, together with the gradual increase in the size and tonnage of ships, made it necessary to build a new port. A royal privilege authorizing the work was signed by King Alfonso V on 8 December 1438, but the economic crisis that followed and the shortage of funds meant that the project was only put into effect with great delays and by stages.

Glasgow's geographical position was, on the other hand, quite different. Its region was dominated by the river Clyde, which between Lanark and the

Moledinar Burn is narrow and easily crossed: thereafter it broadens out and flows into the sea. The river therefore offered valuable opportunities for transport and trade and from antiquity had encouraged high levels of settlement in the region. It was not until 1175, however, that Glasgow became a recognized market town. The original town grew up around the port, sited on the confluence of Moledinar Burn and the Clyde, and the hills to the North which was the site of a monastery. These remained the poles of urban development down to the XVIth century, during which time the city was governed by the Bishop of Glasgow.

Economic Change from the XVIIth to the XIXth centuries

Barcelona's maritime trade continued to decline during the XVth century and reached its nadir in the period 1483-4 when the total value of goods entering and leaving the port reached barely 5% of the values of the period 1433-4. Protectionist measures were adopted to remedy the situation and restrictions were placed on the entry of foreign ships into Catalan ports. But such measures has short-term effects and could not compensate for the real causes of the crisis — the lack of commercial initiatives and of technological progress, together with the shortage of capital which preferred more speculative investments. Further problems were posed by Seville's monopoly over trade with the Americas and — in international terms — the growing strength of the Dutch and English who now possessed merchant vessels that were smaller, faster and safer than those of the Spanish.

Glasgow's economic prosperity and commercial expansion dated from 1560 when the temporal powers of the Church of Scotland were ended and its goods disposed of. The axis of the city's expansion moved away from the upper city around the religious sites to become concentrated along the Clyde and the port. But with the exception of a few churches and public buildings most of the city was built of wood and about a third was destroyed by fire in 1652. The city's later urban development was largely determined by the principles that were employed in the rebuilding after the fire of 1652.

Glasgow's relatively peripheral position in relation to the rest of Scotland protected it from invasion and also from the destruction that followed the civil wars of the XVIIth century. But its westerly location and its very fertile agricultural hinterland also favoured the development of trade with the Western Isles, with Ireland and with America. Thanks to these geographical advantages and the commercial enterprise of its citizens, Glasgow was already Scotland's second city by 1672. The final quarter of the XVIIth century saw the emergence of new commercial activities which were financed by the city's merchants, and the city's first industrial undertakings.

In the case of Barcelona, a new period of economic expansion began around 1680, which was interrupted by the War of the Spanish Succession in 1714 but revived again after 1718. Improvements in agriculture provided a

surplus of olive oil, dried fruit, wine and brandies for export. The relaxation of controls on trade with the Americas in the same period ushered in a period of rapid expansion both in trade and shipping. Capital accumulated in agriculture and trade increasingly found its way into investment in manufacturing in the late XVIIIth century, paving the way for the development of a modern industrial sector (in particular paper-making, iron working and textiles).

The textile industry was the key factor in the transformation of the economy of Barcelona and of Catalonia. In 1770 Carlo III had banned the import of calicoes and all other finished textiles to force domestic consumers to buy Spanish cloth. The Catalan entrepreneurs responded to this opportunity more effectively than those of other regions. They carefully studied the manufacturing techniques used elsewhere in Europe and did not simply imitate them but often improved them and made further innovations. But this new phase of expansion was interrupted in 1793 by the European war, then by the French invasion of 1800 and finally by the rebellion of the American colonies. It was not to revive until after 1834.

Although the Act of Union of 1707 was forced on the Scottish people, it removed the economic restrictions previously imposed by the English and enabled the Glasgow merchants to expand their commercial activities. Glasgow's principal markets were in Ireland, Europe, North America and the Caribbean, and ships that sailed from North America for Glasgow the headed for Europe before returning to America of the Caribbean. Ships from Ireland unloaded at Glasgow and then went on to France, Holland or Norway before returning to Ireland. The most important and valuable commodity in Glasgow trade was tobacco, which was imported from America, processed in the city and then re-exported to European markets. Although in 1707 Glasgow does not seem to have had a merchant fleet of its own, by 1777 this had reached 60,000 tons.

Before 1800 there was not a great deal of shipping higher up the Clyde, and despite the proximity to the port there was little attempt to exploit the potential of the hinterland. But this began to change when work began to deepen the shipping channels and strengthen the river banks. In 1826 the use of steam pumps enabled the work to proceed much faster.

The outbreak of the American War of Independence brought an end to tobacco imports and forced Glasgow to diversify its economy by branching into trade in textiles, sugar, coal, fish and chemical products. These were exported to Europe and Russia, and it was in this period also that East India cotton became a major Glasgow import, the volume increasing from 503 bales in 1775 to over 12 million pounds in 1807. By then cotton had become they key component of what is described as the "textile phase", of the industrial revolution in Western Scotland.

Barcelona's trade was also concentrated in three geographical areas: Spain, Europe and America. It exported wines, brandies and manufactured goods to

other parts of Spain, and the same goods were exported to Europe as well as sugar and cocoa from the American colonies. From the mid-XIXth century the ships that sailed from Barcelona carried wine, oil, dried fruits, building materials and manufactured goods. In the ports of San Carlos de la Rapita and Torrevieja they loaded salt and crossed the Atlantic to Montevideo where they took on cured beef before proceeding to Cuba and returning to Barcelona with sugar, rum, tobacco, cotton and timber.

In order to cope with this greatly expanded volume of trade the ports of Glasgow and Barcelona underwent considerable rebuilding to make them accessible to larger ships. In 1796 1,326 ships entered the port of Glasgow, none of which exceeded 80 tons — in 1823 the total number was 3,937,456 of which were over 80 tons. Barcelona presented particular problems because its port was subject to constant silting from the prevailing sea currents. Contemporary records show that in 1743, for example, the sand formed a reef that made entry into the port impossible. While only manual dredging techniques were available it was not possible to find any lasting remedies, but the situation improved when steam dredgers were used for the first time in 1829, although it did not prove possible to establish a permanent bed for the harbour until after 1854.

From the Second Half of the XIXth Century to the First World War

The second half of the XIXth century saw the rapid industrialization of Catalonia, and this created a new demand for raw materials like coal, iron and cotton which were transported mainly by sea. Cotton imports increased rapidly, rising from 4,000 tons in 1842 to 16,000 in 1850 and about 25,000 per annum between 1856-61. The American Civil War did not slow down the rate of expansion: in 1870 26,000 tons of raw cotton were imported; 1899, 83,000 tons; in 1915, 126,000 tons.

The XIXth century saw two major changes in merchant shipping: the adoption of steam power (1833) and the use of first iron (1837) and then steel (1856) for ship-building. The Catalan mercantile fleet failed to adapt to these changes, however, and this threw both the shipping industry and the Catalan ship-yards into crisis. Despite the unfavourable climate, work on the port made it possible for larger ships to enter and for modern lifting and unloading gear to be installed. Laureano Figuerola's decree of 1868 brought to an end the protection of native shipping and marked the beginning of a new period of free-trade in Spain. The volume of shipping increased thanks also to the opening of the Suez Canal, but the new trade policies did not benefit Barcelona.

In the XIXth century, 734 sailing vessels but only 8 steam ships were built in Barcelona, although maritime commercial enterprises proved much more dynamic. The first steam ship was launched in 1834, and in 1848 the first railway line, from Barcelona to Mataró, was opened. But as is shown by a recent

volume on "A Century of Catalan Industrialization",[3] the main obstacle to Barcelona's economic development in these years was fuel. Only 7% of the coal used in Catalonia came from domestic sources, and since all the rest had to be imported this became the primary function of the port of Barcelona. But the high cost of coal meant that water-power remained much more economic, and the new Catalan textile industries were sited along the rivers and canals of the region, while coal prices effectively blocked the development of the iron and steel industries. At the end of the century, however, the situation changed when hydraulic power was harnessed to produce electrical energy, enabling Catalonia to develop new iron-making, chemical, steel and cement industries.

In the case of Glasgow, the 1840s saw the beginning of the decline of the cotton industry owing to competition from Europe and America and then the shortage of supplies of cotton after the American Civil War. Industrial growth became more heavily dependent on iron and steel and ship-building. In 1861 the textile industry employed 48,500, in 1891 29,000, and in 1911 25,500, whereas employment in steel and ship-building rose from 4,500 to 33,000 and 60,000 in the same period. Scotland now produced 90% of British exports of pig-iron, the bulk of which passed through Glasgow or was controlled by Glaswegian companies. The output of ships also rose rapidly — from about 40,000 tons in 1858, to 400,000 in 1883, climbing to a peak of 757,000 tons in 1913. The engineering and machine-building industries also experienced strong growth in these years, particularly railway locomotives (60% of which were exported). Until the First World War, Glasgow entrepreneurs did not show any particular concern that the city's industries were concentrated in a relatively small number of specialized sectors that were highly dependent on exports and hence on international markets. Excessive specialization was to prove the main cause of the city's economic crisis, but this had already been indicated by the recessions of 1874-81 and 1884-8: no-one seemed prepared to draw the necessary lessons.

Glasgow's economic fortunes also owed much to entrepreneurs who proved able to invest their capital well even during periods of crisis. They were prepared to take risks in the pursuit of large profits, and as a result ensured that even in moments of recession the market retained some life. Companies like Burrel and Son [4] went on commissioning new ships even during periods of recession, partly because prices were then at their lowest but also

[3] An exhibition entitled "Cento Anys d'Industrialitzaciò Catalana 1833-1936" was held in the old central market of Born between June and November 1985. A very well documented and illustrated catalogue was published under the same title. The exhibition was organized by the Museum of Catalan Science and Technology which the regional government is setting up in the city of Terrassa, a former industrial centre that has since been incorporated into Barcelona.

[4] R. Marks, "Sir William Burrel 1861-1958" *Glasgow Museum and Galleries*, Glasgow 1982.

because experience taught that the new ships would be ready in time to take advantage of the next upswing in demand. This enabled the ship-owners to move in quickly when demand did pick up, and to offer efficient service at highly competitive prices. Once the ships had been in service for a certain period they were sold as the market reached its peak, so that the cycle could be repeated once the right conditions presented themselves.[5] Between 1890 and 1914 Burrel & Son repeated this strategy at least three times. In the first instance they built 12 ships, in the second 20, and then a dozen more. The company then sold virtually its entire fleet at the beginning of the War when its value had increased enormously.

The growth of the city's economy naturally also influenced the development of the port and its organization. After 1770 the river came under the authority of the Glasgow Town Council, but in 1825 all those with a direct interest in commerce and shipping were given representation on the administration of the port, and in 1858 the Clyde Navigation Trust was formed. As a result of massive investment between 1840 and 1914, the Clyde was turned into an immense navigable waterway capable of carrying all types of ships. The port infrastructures were constantly renewed and up-dated, making the business of loading and unloading ever faster and more efficient — in short, Glasgow became in these years one of the largest and most important ports in the world (Fig. 1).

The port of Barcelona also underwent major changes. In 1860 the government approved a project to expand the port, and this proved to be the first systematic and technically informed attempt to overcome its geographical and physical short-comings. The work was carried out quickly and without interruption until 1914, with the result that in less than forty years the size of the port was increased fourfold and the length of its quays extended tenfold. But the structure of the port was also radically changed. It ceased to be merely an expanse of water that was partially protected from the tide with a few cranes for loading and unloading, and now provided Barcelona instead for the first time with a proper network of quays, dry-docks, warehouses, and cranes at the service of commerce and shipping. In the same period, the administration of the port was freed from dependence on the central government. The first Port Authority was established in 1868, and included representatives of central and local government as well as those of the traders and companies most directly interested in the activities of the port and maritime trade.

In 1854 Barcelona's ancient walls were demolished and the city began to expand by incorporating neighbouring towns (Fig. 2). Previously all the major Spanish cities had retained their walls for reasons of defence. In the case of Barcelona, the expansion of the city's economy before the demolition of the walls had resulted in a population density of 859 inhabitants per hectare

[5] K. Clark, "Sir William Burrel: A Personal Reminiscence" *The Scottish Review* 2 (6) 1982.

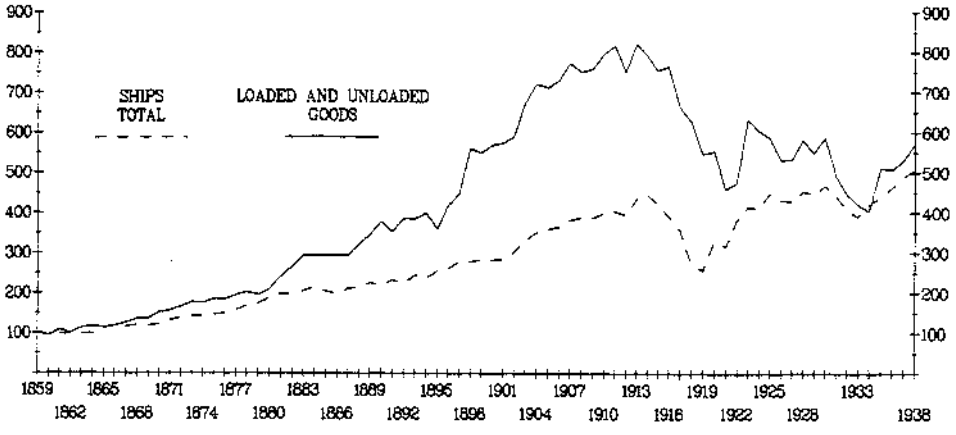

Fig. 1 - Port of Glasgow, Greenock and Aldrossan, total ship traffic and goods, 1859-1938 (1859=100).
Source: 1859-1929, Clyde Navigation Trust - Annual statistics 1929; 1930-36, Clyde Navigation Trust - Annual statistics 1938.

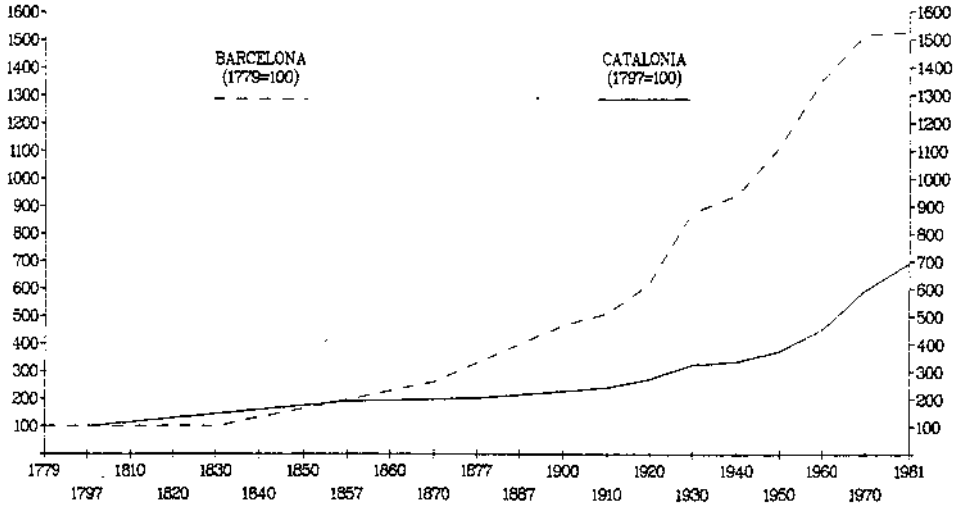

Fig. 2 - Barcelona and Catalonia, population change 1779-1981. (Barcelona 1779 = 100).
Source: Census of Population.

— amongst the highest urban population densities in the world, and one which in the absence of adequate infrastructures and hygenic services constituted a major hazard.

The city's development plan was drawn up by Ildefonso Cerda in 1859, and was approved by the central government in the following year. The plan was based on a well articulated and functional system of communications linking the port with the city and the city with its hinterland. It was premised on the creation of three axes that would cut across the old historical centre of the city to form new areas of expansion which would be linked directly with the port. But of the three arterial roads that were projected, only one — Via Layetana — was built, and then only 60 years later. Nonetheless, the Cerda Plan marked an important new chapter in the history of Barcelona, and by laying the basis for a more orderly expansion of the city it also anticipated the economic expansion that occurred in the following decades.

Glasgow was also transformed as a result of the expansion of its economy. The factories and workers' houses were located mainly to the East, while the western part of the city became the city's commercial and middle-class residential districts. But urban expansion proved unable to keep pace with a population that grew fourfold in less than 70 years (Fig. 3). Shortages of houses, services and infrastructures caused over-crowding and exposed the poorer sections of the population to disease and recurrent epidemics. But it was not until the very end of the century that the municipal authorities re-

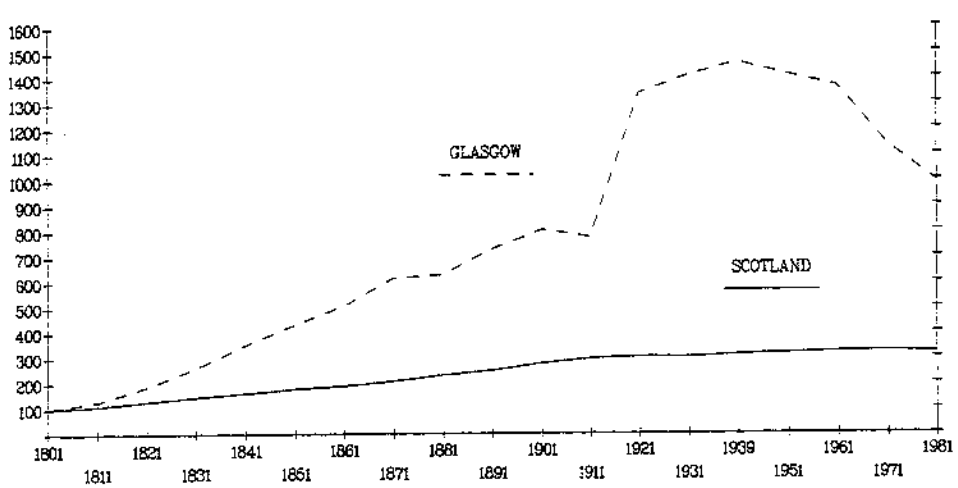

Fig. 3 - Glasgow and Scotland, population change 1801-1981. (1801 = 100).
Source: Census of Scotland.

sponded to growing public pressure and began to take action both to limit and prevent disease: but their initiatives were undermined by the fact that no solution was found to the root cause of the problem — the shortage of houses for the workers and their families.

From the First World War to the mid-1970s

The fall in trade after 1914 due to the European war soon undermined Glasgow's economic dynamism. Although both the First and the Second World Wars brought important new military and naval orders to the city they proved to be only momentary pauses in a longer-run process of economic and social decline that has continued to the present.

By the end of the First World War Glasgow's economy was still based mainly on ship-building. Its ship-yards gave work to over 43,000 men, but the numbers fell to 29,000 by 1930, and then to 16,000 in 1936 before rising again to 24,000 in 1939 as a result of government efforts to stimulate demand. Ship-building and engineering in 1924 still accounted for over 54% of Scotland's entire industrial production, and the figure tended to move upwards, reaching 57% in 1935. But in Britain as a whole in the same period these sectors were declining from 29% to 26.5%. In Glasgow's case, wartime and post-war commissions for ships disguised the weaknesses of a sector which had experienced little change since the start of the century, with the result that it became extremely vulnerable and showed no capacity for change or development.

The outbreak of the First World War also marked the beginning of a new period of economic difficulties for Barcelona due both to the war itself and then the damage and destruction was caused by the civil war. This was followed by a period of economic autarchy which ended only in the late 1950s.[6] After a period of major economic difficulties for the whole Spanish economy and resulting in high inflation and a deteriorating balance of payments, a «Stabilization Plan» was adopted in 1959. The plan introduced new economic and financial policies that affected both the domestic and the external economy, and foreign investment was permitted for the first time.

These measures lay behind the renewed phase of economic growth experienced by Barcelona in the 1960s and 1970s, and the rapid expansion of trade through its port which doubled between 1959 and 1965. But until 1975, when the Franco regime came to an end, Catalonia's economic and entrepreneurial potential remained limited because of the opposition to any form of regional decentralization, and the campaign against all forms of linguistic or cultural autonomy.[7]

[6] In 1930 53.3% of the Catalan population were employed in services, in contrast to 34% in Spain as a whole.

[7] In Catalonia, business and enterprise had traditionally been the goals of social achievement, whereas in the rest of Spain the civil service, the army and politics have

In the periods before and after the Second World War, British government policies sought to encourage industrial diversification and the decentralization of major industrial and residential centres. In the Glasgow region these years saw the creation of a number of New Towns — Cumbernauld, East Kilbride and Irvine. In the immediate neighbourhood of Glasgow these policies did have some success, but they made little impact on the older industrial districts of the city itself where the decline of the old industries was unchecked and after 1968 became precipitate. The failure of these attempts to encourage the development of new forms of industry and services, combined with the effects of the international economic crisis and the technological changes that grew out of it, soon turned Glasgow into an "industrial desert". The number of those in employment fell by 2% between 1951 and 1961, by over 15% between 1961 and 1971, and by a further 5% in the next decade. After 1969 unemployment levels in Glasgow were far higher than anywhere else in Scotland — in 1971 unemployment rates in Glasgow were 7%, 6% in Scotland and 3.5% for Great Britain as a whole: ten years later these figures had risen respectively to 14.3%, 12.6% and 10.3%. The decline in jobs was not uniform in all industries, but the worst hit sectors were iron and steel (−49%), engineering (−35.6%), ship-building (−35%), paper-making and printing (−29%) — precisely the industries that had played the central role in Glasgow's economic fortunes in the previous century.

The closure of the old factories, many of which were vast, left huge areas of the old industrial part of the city empty and derelict. The buildings were expensive to maintain or restore, and could not easily be adapted for use by small industries which needed less space and different layouts. At the beginning of the 1980s the abandoned industrial premises covered an area of over 300,000 square metres, mainly in the eastern part of the city.

The problems posed by the city's economic crisis, the obsolescence of its industries and the rising levels of unemployment were not tackled with adequate seriousness in the 1950s and 1960s by either central or local government. Attention was focused primarily on social issues, and investment was directed mainly towards house building.

Even in the inter-war period living conditions in Glasgow had not changed much from the previous century. In 1921 over-crowding remained high with 27.8% of the population living two to a room, 17.2% three to a room, and 10.7% four or more to a room. A programme of council house building was started before 1939, but after the war was taken up on a much larger scale to overcome the problems of overcrowding. But Glasgow had already become identified with poverty, social deprivation, violence and van-

higher priorities. This is why Catalan representation in the civil service has always been small, with the result that few civil servants in Catalonia were Catalans, spoke the language or understood the region's customs and outlook. The central administration kay for that reasons always been looked on as a manifestation of a distant and alien power.

dalism. In the 1970s "moving out" became the order of the day for the young with ambitions and for forward-looking business managers. The facilities and job prospects offered by the New Towns proved particularly attractive for the more dynamic sectors of the population, who left behind the old, the unemployed and the unskilled. This process created a vicious circle by which the city's economic and social situation itself became a major obstacle to attracting new investment or new industries. Immigration into the city was interrupted at the end of the last century, and between 1931 and 1951 about 120,000 people emigrated from the city, with a similar number in the next decade. According to the 1981 census, Glasgow had a population of 763,162 – 300,000 less than in 1961 (Fig. 3).

Until the mid-1970s the authorities looked on this exodus as a positive factor and did little either to prevent it or to create new jobs. The condition of many areas of the city became so bad after years of decay and neglect that the only solution seemed to be the wholesale demolition of entire districts and complete rebuilding. Although the city had suffered little damage during the war except around the port, the years after the war witnessed widespread demolition and urban development. Between 1945 and 1979 119,544 new houses and flats were built on new and formerly built-up land, while the demolitions removed 76,914 flats. By 1979, 25,377 new flats had been provided in high-rise tower blocks over 8 floors high, of which 68% were in buildings of between 30 and 31 storeys. But the results were poor in both economic and social terms.

The post-war tower blocks have been beset by permanent conflicts and the rapid increase of crime and vandalism. In 1975 the Scottish Development Department published a report on "The Social Effects of Living Off the ground" which revealed that psychological and nervous diseases were twice as frequent amongst those living in tower blocks, and that the ratio increased with the height of the accommodation. The reorganization of the layout of the city that resulted from these drastic destruction of whole districts had brought about a total separation of its industrial and residential zones, without leaving any space for new enterprises, thereby making the creation of new small industries, services or other commercial activities capable of creating new jobs more rather than less difficult.

The lack of jobs has caused many forms of social tension, which have in turn lessened the supply of jobs. Youth unemployment causes crime and vandalism, while adult unemployment caused poverty, depression and illness in ways that have had deep consequences for family life. Children are often left to fend for themselves and forced to leave school early to help support the family. This is why barely half the children in the peripheral districts of the city stay at school, preferring to enter the job market without skills and therefore with little chance of finding work. It is also clear that the lack of skilled people is a further obstacle to the development of new high technology industries.

Since 1959 there have been major changes in international shipping with the advent of larger ships and more specialized forms of transport. To meet these new trends, the port of Barcelona was increased by 200 hectares and a new container quay came into operation in 1965, even though it was not until after 1970 that this form of transportation became more widespread. The port has also been equipped since the early 1970s with modern specialist terminals for gas, inflammable liquids, and cement.

In Glasgow's case, however, the port began to contract as soon as the city's economy ran into difficulties (Fig. 4). Glasgow was primarily a terminal where ships arrived after unloading at other British ports or else set sail after using Glasgow as their first loading point. This meant that Glasgow's hinterland was restricted to Scotland, and this was another reason for the specialization in repairing and converting ships. The decline in shipping was therefore doubly damaging for the city's yards.

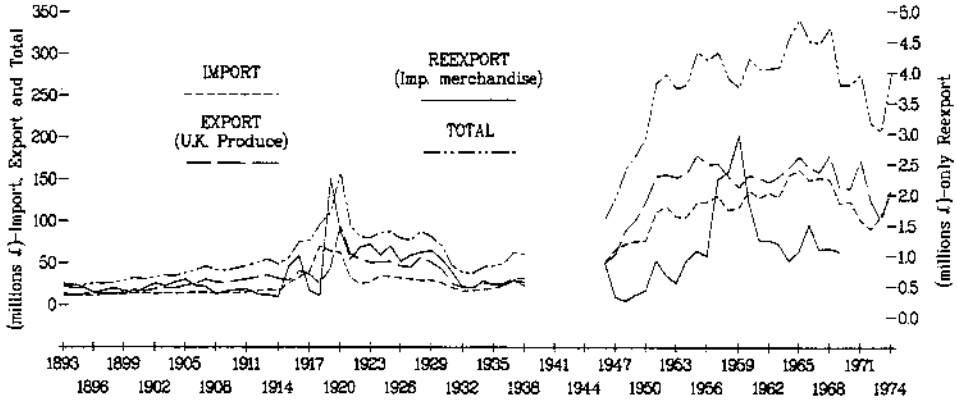

Fig. 4 - Port of Glasgow (incl. Bowling), annual trade (Million £), 1893-1974.
Source: Annual statement of the trade of the U.K. with Commonwealth and Foreign Countries, HMSO, London. Central Statistical Office, Annual Abstract of Statistics, HMSO, London.

A new harbour was opened further downstream for larger ships and work to extent the port continued after the war until 1958,[8] although in part this was simply to provide work for the unemployed. In its report for 1960 the

[8] J.H. Bird, *The Major Seaports of the United Kingdom* London, Hutchinson, 1963.

Glasgow Dock and Harbour Authority summarized the port's development over the previous two centuries:

> "Summing up, it might be said that traffic responded well to expenditure on the Port until 1914, but since then it would appear as if the Trustees' New Works have only maintained traffic not increased it".

The creation of the Clyde Port Authority on 1 January 1966 with overall responsibility not only for the port but for the whole Clyde estuary as well was the pre-condition for better planned and more coherent initiatives, and led to the closing down of the port of Glasgow and the transfer of the port facilities further down the Clyde (Fig. 5). In 1967 the Kingston Docks were closed, and the Queens and Princes Docks soon followed and were filled in with material taken from the demolition of the central districts of the city.

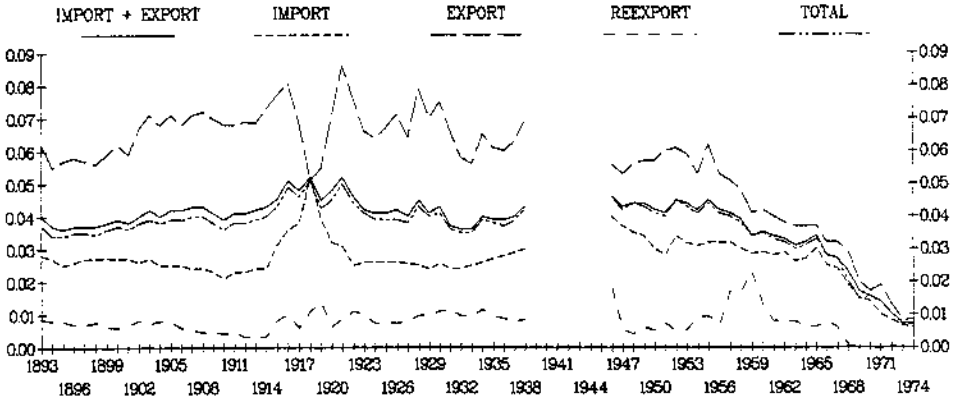

Fig. 5 - Port of Glasgow (incl. Bowling), annual trade (value in £) as per thousand of the external trade of the United Kingdom.
Source: Annual statement of the trade of the U.K. with Commonwealth and Foreign Countries, HMSO, London. Central Statistical Office, Annual Abstract of Statistics, HMSO, London.

The Last Ten Years - New Economic and Cultural Growth

The international economic crisis that started in 1973 brought further difficulties for traditional industrial areas. In Catalonia and Barcelona, the crisis revealed the structural limitations of the industrial expansion of the previous

decades. For Barcelona, the new wave of unemployment proved particularly difficult to cope with because of the lack of welfare and social services.[9]

At the same time a number of important new initiatives have been launched over this last decade in both Glasgow and Barcelona. By the Royal Decree of 29 September 1977, the Catalan *Generalitat*, one of Europe's oldest administrative institutions that had frequently been abolished by earlier Spanish rulers and most recently by Franco in 1939, was reconstituted. The regional autonomies conceded in the new Spanish Constitution of 1978 opened the way for the formation of the first Catalan Regional Government, whose first legislature lasted until 1984. In 1980 the regional government launched a programme of "Economic Action" [10] with six objectives: to combat unemployment, to make good the city's major infrastructural short-comings, encourage the restructuring of industrial enterprises, provide support for companies in difficulties, set up an agency for Catalan economic development and move to an independent system of public finances in the region. Little of this programme has actually been achieved[11], and the results were particularly disappointing in the field of unemployment. This had already been high in 1981 when 16.2% of the active population were unemployed in the whole of Spain, 16.5% in Catalonia and 19.5% in the metropolitan area of Barcelona.[12]

Between 1981 and 1985 unemployment in Catalonia grew by 38%, at a rate faster than in the rest of Spain (30%). If the Catalan government did not succeed in achieving the objectives which it set itself, the problems which these posed should not be under-estimated. At the same time, its improved capacity for planning, for running public administration, and for combining action by the public and the private sectors has been amply demonstrated.[13] Catalonia has also experienced a period of strong autonomist politics, and if at times these have appeared excessive they are more than justified after the long years of rigidly centralized administration.

The Scottish Development Agency was created in 1975 with the aim of encouraging industrial expansion, economic growth, the creation of new jobs, new investment, the restructuring of existing industries, and the protection of the environment. As part of this programme the GEAR (Glasgow Eastern Area Renewal Programme) project was launched to rehabilitate some 1600 hectares in the worst areas of urban decay. GEAR brought together a num-

[9] J. Roig Marti, *La Nova Politica Economica Local i Metropolitana en Front de la Crisi* Barcelona, Corporacio Metropolitana, 1984.

[10] E. Gasch, "Politica Economica de la Generalitat" *Nous Horitzons* 1981, pp. 73-4.

[11] M. Hebbert, "Regional Autonomy and Economic Action in the First Catalan Government 1980-4" *Regional Studies* 1985, pp. 19-25.

[12] *Corporacio Metropolitana de Barcelona* Batos Basicos (Barcelona, CMB, 1984).

[13] *Corporacio Metropolitana de Barcelona* Pla d'Objectius 1985-1992 (Barcelona 1985, CMB).

ber of different local authorities, and its novelty (in relation to previous initiatives) lay in the attempt to reconstruct not only the environment but also the image of a city which — as we have said — needed to be completely recreated in ways that could not be done simply by attracting new industries or new technologies. The Glasgow authorities set out to re-establish the identity between the people and the city that had existed in the past, but which had been completely destroyed in the post-war attempts to solve the city's problems. After 1979 the demolition works came to a standstill, and public investment was directed towards the restoration and conversion of XIXth and XXth century buildings, while less than 3% of the municipal budget was allocated to new housing.

In 1978 the port of Barcelona received autonomous status by Royal Decree. The Free Port is a public body that is run like a private enterprise. Its Management Board includes representatives of public administration and all economic sectors with an interest in its activities, and its performance is judged on criteria of profitability. In the years that followed, and in contrast to what was happening in most other world ports, traffic in the port of Barcelona increased, due mainly to greater administrative efficiency which encouraged the diversification of traffic, commodities and geographic areas served (Fig. 6). This increased efficiency has made Barcelona highly competitive with other French and Italian ports in the Mediterranean.

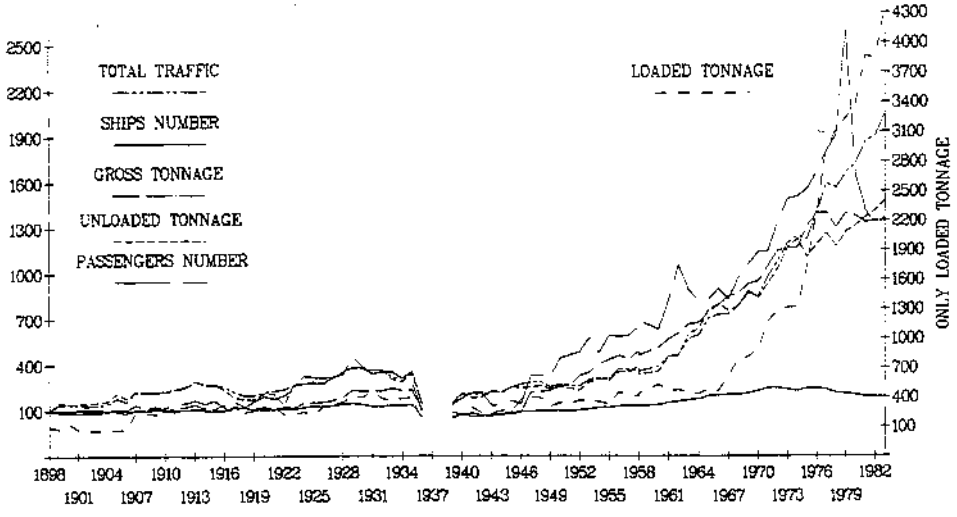

Fig. 6 - Port of Barcelona, total passenger and ship traffic, and goods, 1893-1983 (1898 = 100).
Source: Memorias anuales del Puerto Autònomo de Barcelona.

Glasgow's port no longer exists, and has been moved physically away from the city. Some of the jobs that were lost with the closure of the docks and ship-yards have been recovered in services. There has also been a notable increase in employment in the electronics industry, 40,000 people in 200 companies in Scotland (1986). The new companies are very different from their predecessors in terms of the number of people they employ, in the high degree of skill they demand, and in their siting. But given the dramatic condition of Glasgow's economy they constitute important signs of a new process of growth which the English press was quick to title: "Glasgow, from ships to chips."

Glasgow also has many other important advantages which could be exploited in any new phase of growth. It is still one of the most important commercial centres in Britain; its universities enjoy a world-wide reputation; its cultural life is rich and has been greatly enhanced by the opening in 1983 of the Burrel Collection[14] in a modern building in Pollock Park where some 8,000 paintings and artifacts collected by the ship-owner Sir William Burrel and donated to the city are exhibited.

Barcelona's first democratically elected administration launched a fifty point plan for the city's developement, which is of major psychological and economic importance and combined public and private initiatives. Part of the programme will involve the conversion of the oldest part of the port, which is no longer suited to modern industrial needs, into a leisure centre. The Municipal Government and the Free Port Authority have worked together on this project, which will make access to the port easier for the citizens of Barcelona. Much of the infrastructure for the Olympic Games, which will be held in Barcelona in 1992, will be built on the area between the city and the sea which has been cleared after the demolition of old port buildings and factories.

[14] When opening the Burrel Collection in October, 1983, Queen Elizabeth stated that it was "proof, if it is needed, that Glasgow leads from the front in matters artistic."