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Latin America – Links with the Community

Betsy Baker

Latin America, long considered the exclusive preserve of the United States, has increasingly rejected this northern dominance during the past decade and sought to expand its ties with other regions of the world. It has looked to the European Community as one area where it should be able to revive old links and create new ones.

Although the Latin American countries have been interested in the Community since it began in 1958, it was only in 1970, with the Declaration of Buenos Aires, that they began a concerted effort through CECLA, the Special Coordinating Committee for Latin America, to increase their ties at the regional level. Latin America wishes both to increase its exports to the Nine and to encourage more investment from them. It also wishes to learn all it can about regional integration from the experiences of the EEC. The revival of historic and cultural links with various Community countries is also sought, for many Latin Americans are descendants of Europeans and still have strong personal ties with their parents' or ancestors' country of origin.

Latin American Integration

The creation of the Latin American Free Trade Area (LAFTA), the Central American Common Market (CACM), and the Andean Group were all based on efforts by various Latin Americans to give their countries larger markets and to increase trading opportunities. All three of the above organisations have been influenced to varying degrees by the attempts at integration made by the European countries, first in the European Coal and Steel Community (ECSC), and later in the Common Market. LAFTA was set up on February 1960 under the Treaty of Montevideo. Its aim was to create a South American customs union. However, it has been very slow to realise its objectives. The shortcomings of LAFTA led to the creation of the Andean Group in November 1969, under the Cartagena Agreement. This was signed by Bolivia, Chile, Colombia, Ecuador and Peru. Later Venezuela joined the Group.

One of the key institutions in the integration of the Group has been the Andean Development Corporation, established in 1968 before the final signature of the Andean Pact. The two formal institutions of the Group are the Commission and the Board. The first deals with general policy-making and external relations and the second attends to details of administration, such as preparing budget estimates. The cornerstone of the system is thus the Commission – Board tandem, but it is the Board which is the driving force behind integration.

CACM was set up on December 13, 1960 under the General Treaty on Central American

Economic Integration signed at Managua, Nicaragua. Like the Andean Group, the main objective of the CACM was the creation of an economic union. Unfortunately the armed conflict between El Salvador and Honduras in 1969 sparked off a crisis which affected the whole concept of CACM and integration came to a halt. It is clear that the structure of CACM must be completely overhauled, and machinery for such restructuring was set up in 1973.

Of the three groups the Andean Pact is by far the most dynamic and of greatest interest to the European Community. Not only is the Community impressed by the speed with which the Andean Group has achieved a reasonable degree of integration, but in some ways, particularly in the field of industrial planning on a regional basis, feels that the Andean Group is integrating faster than the Europeans. The discovery of oil in Venezuela will greatly strengthen the Andean Group, provided the Group can continue to integrate and form a unified bloc. (Venezuela is now the largest oil exporter in the Western Hemisphere and one of the largest in the world.) As the Andean Group industrialise, having such a major source of wealth and energy in one of its members should give it a much stronger position than it could otherwise hope to achieve. In the early days the EEC sent out experts on integration to help with technical questions regarding the setting up of the Andean Group. Today some writers think that the Community has almost as much to learn from the Group as it has to teach it.

Past ties

Latin America was colonised between the sixteenth and eighteenth centuries by the Spanish and later by the Portuguese. Spanish is the official language of most Latin American countries but Brazil, the largest, speaks Portuguese. During the nineteenth century many immigrants came from other European countries, especially Germany and Italy, and these people retained strong ties with their home countries.¹ Although the British were very active in providing finance for investment all over Latin America, few Britons actually emigrated in large numbers to any

Latin American country except Argentina. However, trade grew rapidly because Britain was exporting capital goods for the many projects she was financing in the region, as well as importing large amounts of food and raw materials.

By the mid-twentieth century a growing feeling of nationalism and an increasing awareness of their dependence on the US was causing many Latin Americans to make a major effort to increase their contacts with other countries. **The search for economic partners who would treat them as equals was of primary importance.** After the US, Europe was Latin America's most important trading partner and a large part of this trade was with the Six and Britain. Although the Latin Americans made attempts to institutionalise

¹ In Argentina over 50 per cent of the population is thought to be of Italian descent. In 1927 there were 2,250,000 Italians in Argentina and over 1,250,000 in Brazil out of a total of some 5,000,000 in all Latin America. More Italians arrived after World War II.

their contacts with the Community they had no success until 1968, when a memorandum from the Italian Government to the Council of Ministers inspired some interest in Latin America. As a result of this, in July 1969, the Commission published a report on the Community's relations with the Latin American states. This stressed the need for European Member States to inform each other of their policies towards the region, to link the trade and financial aspects of their policies, and to support integration within the continent.

New developments

Although the Special Coordinating Committee for Latin America (CECLA) was created as early as 1963 to coordinate Latin America's relations with Europe, until the Declaration of Buenos Aires little progress was made in significant cooperation. The declaration, drawn up on July 29, 1970 by 20 Latin American and two Caribbean states, stressed the need to strengthen ties between the Community and CECLA's members. It appealed for greater access to the EEC markets, more European investment in Latin American exports, and more scientific and technical cooperation. The Council of Ministers accepted the general aims of the Declaration of Buenos Aires and of the resolution which accompanied it, and it was agreed that the Latin Americans, through CECLA, should have regular meetings with the EEC to further cooperation.

Latin American links with the Community since 1971 have mainly taken the form of non-preferential trade treaties. Argentina was the first Latin American country to sign such a treaty with the Community, in November 1971. Since then Uruguay and Brazil have signed similar treaties. The treaty with Brazil is much wider than those with Argentina and Uruguay, which had concentrated heavily on these countries' beef exports to the Community. In addition to beef exports the negotiations with Brazil covered the questions of coffee, cocoa-butter and Brazil's rapidly growing merchant navy. Mexico is now showing interest in a trade treaty.

Trade and its constraints

These recent trade treaties with the Community are the main concrete links forged with the Community to date, but they grant only relatively minor advantages to the Latin American countries, insofar as two obstacles to increasing trade with the Community – the Common Agricultural Policy (CAP) and the Common External Tariff (CET) – remain. The original object of the CAP, to make the Community as self-sufficient as possible in temperate climate food products, has worked against those Latin American countries wishing to begin or increase exports of such goods to the Community. The means used to keep out such goods is the CET, which adds levies to the prices of such imported goods, to bring their prices up to the Community's target price. The recent rapid rise in world food prices, however, has changed the situation, relieving some of the pressure on the Community to alter the CAP, while at the same time the policy is being administered in a more flexible way. (See the **Common Agricultural Policy – E.S.T.S. 19 and 20.**)

Latin America's tropical products remain unfavourably affected, though by other policies. Firstly, internal Community taxes, by raising consumer prices, have adversely affected consumption.² Secondly, the Community's policy of association with the African and Caribbean states tends to make it more difficult for Latin American tropical products (which are covered by *non-preferential* treaties) to compete in Community markets with those of the Associates, which get special *preferential* treatment. Brazilian and Colombian coffee must compete against Kenyan and other African

² In 1969 the EEC received about \$500,000,000 by taxation on coffee alone.

coffees. Latin American tropical fruit and cocoa-butter also compete with similar products from Africa.

Latin America's Main Trading Partners 1970

Country of Origin/ Destination	Exports f.o.b.*		Imports c.i.f.†	
	(\$ million)	%	(\$ million)	%
USA	4,354	30.4	5,753	41.4
Germany	1,222	8.5	1,336	9.6
Japan	962	6.7	871	6.3
UK	663	4.6	640	4.6
Italy	711	5.0	478	3.4
Canada	463	3.2	454	3.3
France	396	2.8	417	3.0
Netherlands	524	3.7	227	1.6
Spain	349	2.4	248	1.8
Belgium	328	2.3	199	1.4
Other	3,740	26.3	3,248	23.3
Total	14,300	100.0	13,918	100.0

Source: *IMF Direction of Trade*.

*'Free on board'. In relation to a contract for the sale of goods from one country to another, the vendor bears the cost of transport to the ship.

†'Cost including freight'. The vendor bears the cost of delivery to the port in the purchaser's country, including insurance to that point.

The Latin Americans also wish to sell more manufactured goods in Europe, and in 1973 Brazil held a major exhibition in Brussels to show Community buyers what it had to offer. This was highly successful. Items such as Brazilian shoes, and ponchos from the Andean states, are already becoming commonplace in many EEC countries, and other Latin American exporters would like to develop trade. The Community's main encouragement to manufactured and semi-manufactured products from non-associate developing countries, such as those of Latin America, is its Generalised Preference Scheme (known as the GSP). This offers tariff-free quotas on manufactured goods, but no single country may use up more than half of the global quota. For sensitive products (i.e. those that Community industries see as most threatened by foreign imports), the quota is allocated in fixed proportion among the Nine. These products are usually those developing countries are best able to export.

The system, while a step in the right direction, is complicated, and its benefits are significantly reduced as more and more countries become associated with the Community. For countries not already producing the goods covered by the scheme, the margin of preference granted may well not be a sufficient incentive to encourage them to set up export industries. It appears that the scheme is of most help to those countries best able to export without it. Also, the fact that the tariff quota is fixed in relation to *existing* export capacity means that there is no room for increased exports from countries already supplying the EEC, nor any incentive for them to create new export capacity. If the non-associates are to receive real benefits from the scheme, there will have to be either an enlargement of product coverage in the agricultural and fishery section, which is very small, or a great increase in the export capacity of these countries for manufactured and semi-manufactured goods.

Regional blocs

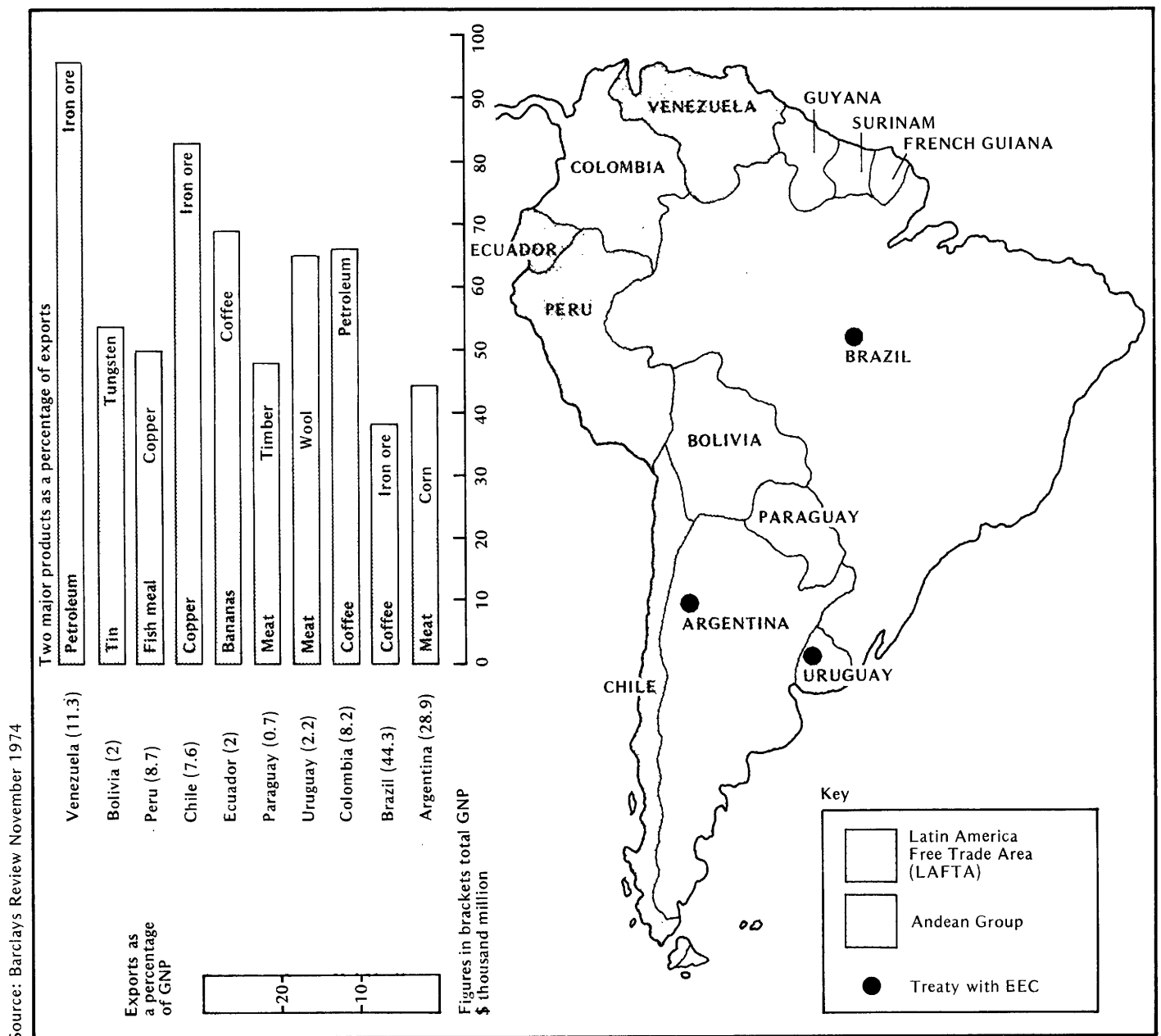
These policies make the Latin Americans feel that not only are they losing out commercially to the Associates, but they are being prevented from creating strong economic and political ties with Europe to give

Latin America

ECONOMIC DATA 1969

	Area thousand sq. miles	Population millions	% growth rates p.a. 1960-69 population	GDP/head \$ p.a.	% growth rates p.a. 1960-69 GDP/head
Argentina	1,084	23.9	1.6	1,060	2.6
Bolivia	411	4.8	2.6	160	2.4
Brazil	3,286	92.3	3.2	270	1.4
Chile	286	9.6	2.5	510	1.7
Colombia	440	20.5	3.2	290	1.5
Ecuador	105	5.9	3.4	240	1.2
Paraguay	157	2.3	3.1	240	1.0
Peru	496	13.2	3.1	330	1.4
Uruguay	72	2.9	1.3	560	-0.8
Venezuela	352	10.0	3.5	1,000	2.5

Source: Foreign and Commonwealth Office and the Central Office of Information 1972



them significantly more independence from the US. Enlargement of the Community and the subsequent expansion of the group of Associates gave the Latin Americans cause for both gloom and simultaneously a ray of hope with regard to the prospects for their future relationship with the Community. On the one hand the inclusion of Britain's ex-colonies in Africa, the Caribbean and the Pacific as Associates will certainly not help Latin America's trade with the Community. On the other hand, Britain's world-wide historic ties and its general dislike of the bloc division of the world³ offers Latin America its first indication of a change in Community policy towards developing countries. The UK has been actively pushing for a more global approach to development cooperation on both the aid and trade fronts. Britain's dislike of, and desire to change, the CAP also augurs well for Latin American exporters.

The beef crisis

July 16, 1974 found the Industrial Union and the General Confederation of Industry in Argentina asking their government to ban all imports of goods from the EEC. This did not mean that they wanted to cease trading with the Community, but that they were disturbed by the Community's ban on beef imports (70 per cent of Argentina's beef exports normally go to the Community and beef is the main export). When Argentina signed a trade treaty with the Community in November 1971, she had hoped this would give some assurance of a reasonably stable market. However, events during 1974 proved otherwise. In the summer of that year the Council of Ministers overruled the Commission and decided that all beef imports would temporarily be halted until October 31, 1974, in order to raise prices for Community beef producers.⁴ All the countries affected protested bitterly, particularly Argentina and Uruguay, although several Eastern European countries were even worse hit in the short-term.

Argentina and Uruguay felt especially disillusioned because the treaties with the Community which they had fought to obtain now seemed meaningless. The Argentines deplored the failure of the Community to consult with them before the ban was put into effect, for the measures are more restrictive for frozen beef than for other kinds, thus seeming to discriminate particularly against Argentina, which is the world's largest exporter of frozen beef. The Argentinians clearly see the Community's action as exporting its own internal problems to other countries and damaging the world's beef market. Uruguay's Minister of Agriculture also spoke out against the suspension of imports, which constitutes a serious threat to Uruguay's economy. The EEC used to purchase about half of Uruguay's meat production, and the amount bought in 1974 fell to 7 per cent. The beef import ban came at a moment when Uruguay had invested a large amount to observe Community health standards, and the Community's apparent lack of interest in the problems created by the unilateral decision caused disquiet in Latin America.

By August, Argentina, Colombia, Paraguay and Uruguay had sent a memorandum to the Commission asking that an arrangement for programming Latin American beef exports be worked out as soon as possible. They believe in the long-term the Community will have a beef shortage which they can and wish to fill. In order to implement the above proposal they have proposed the creation of a 'permanent beef group'. This idea of programming has now gained support from Brazil and from other beef exporters

³ The 'bloc theory' of international politics postulates a world divided roughly into five power groups. 1) The Western Hemisphere dominated by the US. 2) Euro-Africa dominated by the EEC. 3) Eastern Bloc dominated by the USSR. 4) South East Asia dominated by Japan. 5) China and its border area - but increasingly challenging both the USSR and Japan in the Far East.

⁴ This ban did not affect licences already issued or imports in GATT.

outside Latin America - Australia, New Zealand and Yugoslavia. By mid-September Mr Lardinois, the Community's Commissioner for Agriculture had said the Commission would organise meetings with these countries to discuss the establishment of a stable regime for beef imports.

While Lardinois and Ortolí (the President of the Commission) have admitted that the accusations against the Community are justified, they have stressed that the beef crisis in the Community has become a political question, and until it can be resolved it is likely that a ban of some kind will be maintained.

Investment and finance

Although trade is certainly the most important question concerning the improvement of Latin America's relations with the Community, it is certainly not the only interest of the Latin American. Almost all the members of CECLA still need vast investment to finance their development, new technology, and improved management and marketing techniques.

In the coming decade Latin America's gross external financing needs will continue to be large, even if exports make great strides. The less developed of the Latin American countries, such as Paraguay, Bolivia, and most of the Central American states, will continue to require real resource transfers to supplement their insufficient savings. Also, a number of the Latin American countries owe large sums of money (both to other countries and to international organisations) and the interest rates are often so high that it seems many of these countries will never be able to pay off their debts.

The Latin Americans want the Community to play a larger role in this field. They want its members, and preferably the Community itself, to participate in the Inter-American Development Bank. If subscriptions to the bank were based on each industrialised country's importance in the world economy and its trade and financial relations with Latin America, as many Latin Americans think they should be, then the enlarged Community would hold about 40 per cent of the capital subscribed by non-Latin Americans. Subscriptions of ordinary capital and contributions of low interest loans by the Community governments could in part replace the financing its members now provide in the form of suppliers credits. These further increase the Latin Americans' debt burdens because they are short-term and bear high rates of interest.

Latin America is also seeking private investment from European companies and other organisations throughout the Community. While in the nineteenth century the vast majority of private foreign investment in Latin America was British,⁵ by 1950 most of it was American. In order to lessen their dependence on the US the Latin Americans have been encouraging investment from as many other sources as possible. The Germans and Italians have both been taking an ever increasing interest in investing there. In 1965 Germany's largest investment abroad was Volkswagen's Brazilian subsidiary, and in 1971 it appeared that by the end of the decade Badische Anilin und Soda-Fabrik (BASF) would be South America's leading chemical company.

During the past decade Japanese investment in Latin America has grown very rapidly. It already outstrips the investment of any European country in the region, and unless there is a significant increase in investment by Europeans it will continue so to do. The last five or six years have seen several attempts to revive the interest of British business in Latin America, but with only relatively small success.

The Latin Americans prefer to work with Europeans rather than Americans. They favour joint-ventures and

⁵ In 1913 the UK had \$3.7 billion (US) invested in Latin America, more than in any other region, except North America where it had \$3.6 billion (US) in the United States and \$2.3 billion (US) in Canada. In Latin America at that time most British investment was concentrated in Argentina, Brazil and Mexico.

these are usually fairly acceptable to Europeans, who seldom wish to meddle in Latin America's internal politics. Europe's use of nationalised industries and greater government involvement in industry is also similar to the approach followed in Latin America.

In addition to working with private companies, Latin American governments would like to be eligible for loans from the European Investment Bank. The answer to date has been negative, but they hope the Community may one day change its mind. However, some European-Latin American cooperation in the field of finance is taking place in the private sector. For example, it was announced in September 1974 that the Dresdner Bank and a group of European and South American banks have formed Euro-Latin-American Bank (Eula Bank) in London with a capital of £12 million to extend Eurocurrency credit for financing major projects in Latin America.

Aid

Apart from Community help as such, Member States give bilateral aid to Latin American countries. (Table 1.)

Germany tries to coordinate its aid with its private investment. UK aid to Latin America is not very large,

Latin American politics which came first with Che Guevara. It is very likely that young people will continue to watch political developments in Latin America far more closely than did their parents.

On a different level, any world recession is likely to hit all Latin American countries, except Venezuela, rather hard. Their new export industries need buyers to keep growing, and if the buying power of the rest of the world declines, then Latin America will suffer. The need for certain basic metals may help to ease the situation somewhat for the countries that possess these resources, but generally speaking less developed countries are always worst hit by a world-wide recession than are developed countries. However, Latin America has many natural resources, particularly minerals that industrial countries need, so the Community will certainly develop its dealings with the Andean Group, and when the CAP has been reformed trade with Latin America's beef producers should greatly improve.

In the coming years European interest in Latin America is certain to increase, therefore. It will be interesting to note the developments, for Latin America provides a test case of the much stated intention of the EEC to concern itself with the development needs of the non-European world.

Table 1
Gross receipts of aid to Latin America average for 1969-1972 in \$ million (US)

Countries in order of 1971 GNP	GNP per capita in \$ (US)	Total Bilateral aid from individual EEC Member States (<i>not</i> given as Community aid)	European Development Fund	Total aid received from all sources
Argentina	1,230	13.8		24.9
Bolivia	190	5.2	0.1	38.0
Brazil	460	34.0		155.0
Chile	760	23.8		62.0
Columbia	370	11.0	1.6	117.6
Ecuador	310	4.7		21.8
Paraguay	280	3.1		16.0
Peru	480	16.6	0.5	40.5
Uruguay	750	2.1		16.8
Venezuela	1,060	2.8		9.8

but has increased during recent years. The Community developments in Chile continued to fuel an interest in itself has given small amounts of technical aid and sent experts to help with sub-regional integration, such as the Andean Groups' attempts to link its development programme to its timetable for integration. The main interest of the European Community in Latin American development projects to date has in fact been in the Andean Group. In September 1974 the Commission asked the Council to reinforce its delegation in Latin America by the creation of an office in Lima, Peru, the headquarters of the Andean Group. (The Community has had a delegation based in Santiago for a long time.)

Future prospects

While the cultural heritage of Latin America is of European origin, young people in the Community are becoming increasingly interested in Latin American books, films, plays and music. Student and other exchanges and visits can be expected to increase.⁶ If Spain and Portugal do eventually join the Community, as both hope to do, the Community's links with South America will be given a very strong boost. Simply making Spanish or Portuguese Community languages would draw it closer to Latin America. The political

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STOP PRESS:

Beef import ban review

The EEC is going ahead with plans to loosen its beef import ban, imposed in July last year, sometime next month. Following prolonged discussions in the Council of Agricultural Ministers the Commission evidently feels it now has a mandate to pursue its idea for allowing imports of 100,000 tons of beef, providing the meat traders concerned export an equivalent quantity.

⁶ Currently about 80-90 Spanish speaking Latin American students come to the UK each year as language assistants. In the late 1960's there were only about two or three.

Canals and Waterways in the EEC

John Tuppen

The present inland waterway network of the EEC is characterised by the inequality of its distribution, capacity and function. This reflects the different historical and geographical influences which have fashioned its evolution. Canals have long been an important means of transport, but recognition of the inefficient use of much of the network has encouraged rationalisation and modernisation. Improvements to infrastructure and transport techniques have resulted, and attempts have been made to widen the scope of canalisation projects. Slow progress towards greater international integration is also occurring. The present paper provides a background to these various developments.

Historical context

By the end of the Middle Ages certain European rivers already acted as important means of communication and locations of economic activity. It was not until the invention of the lock at the end of the fifteenth century, however, that the use of canals and canalised rivers for transport became widespread.

The great expansion of inland waterways and their pre-eminence as a form of transport came during the eighteenth and early nineteenth centuries. Subsequently the development of Europe's rail networks produced a decline in freight carrying on canals. In Britain, for example, despite the density of the waterway system, many canal routes were unable to compete with the railways due to their haphazard construction resulting from the varied specifications adopted by different speculative developers. Transport of goods was either restricted to relatively short hauls or faced with the problems of constantly changing conditions of navigation.

In the twentieth century new canal construction has been limited to certain key routes, and greater emphasis has been given to improvement and rationalisation of the network. Concentration of investment has allowed the major arteries to play an important role in transportation, but many smaller waterways have fallen into disuse.

Canal and waterway networks

The use of water as a means of transport is subject to far greater physical restrictions than those which apply in the use of road or rail networks. Canals demand relatively gentle relief and the use of rivers is dependent upon the existence of a certain minimum size and flow qualities. A river's location in relation to urban and industrial centres is equally influential in determining its navigational potential.

Basic characteristics of Europe's present pattern of inland waterways include the restricted length of the network, its uneven distribution and the great variety in the quality and capacity of the branches. European waterways are classified according to their carrying capacity, based upon the use of self-propelled barges (Table 1). The critical limit is 1,350 tons, adopted in 1953 by the European Conference of Ministers of Transport as a minimum standard for the structure of a European network of waterways.

Table 1
Waterways classified by carrying capacity

Class	Range of Capacity (tons)	Standard Barge Size (tons)
O	50 - 250	-
I	250 - 400	300
II	400 - 650	600
III	650 - 1,000	1,000
IV	1,000 - 1,500	1,350
V	1,500 - 3,000	2,000
VI	≥ 3,000 -	≥ 3,000

An indication of the network's variability in length and quality on a national basis is provided by Table 2. Comparison of the situation in 1963 with that of 1972 shows a general decline in the extent of waterways regularly in service, explained by the increasingly uneconomic character of the smaller branches. In contrast to this overall reduction, the length of canal and canalised river of European gauge (1,350 tons) has increased, particularly in France, Italy and the Netherlands, as modernisation has occurred. Nevertheless, large capacity waterways remain only a relatively small proportion of the total network, reflecting the long-term character and high cost of improvement projects.

The United Kingdom's network compares unfavourably with its European neighbours. It is rapidly contracting in extent and is characterised by the absence of any European gauge waterways, with the majority accessible only to laden barges of under 300 tons.¹ The relatively small size of Britain's rivers has long provided a basic constraint to the system's improvement, but the necessarily short-haul character of most movements, exacerbated by the haphazard pattern of canal development and the advantages of other means of transport, have further reduced its competitive position.

Major waterways

The Rhine, navigable from Basel to Rotterdam, overwhelmingly dominates Western Europe's inland waterways by its length and carrying capacity (Fig. 1). It also provides the central focus for numerous tributary systems.

¹ Exceptions to this are the Manchester Ship Canal and the lower reaches of the Thames, which can take sea-going vessels up to 11,000 tons and barges of up to 2,000 tons. For various reasons, however, barge traffic on each of these routes rarely exceeds 500 tons.

Table 2
Length and capacity of inland waterways

	Total Length (Kms)		Length accessible to barges 1,350 tons (Kms)	
	1963	1972	1963	1972
Belgium	1,598	1,536	317 (20%)	352 (23%)
France	7,658	7,136	1,109 (14%)	1,805 (25%)
West Germany	4,489	4,393	1,247 (27%)	1,258 (28%)
Italy	2,655	2,237	-	491 (22%)
Netherlands	6,374	4,832	1,628 (25%)	2,289 (47%)
United Kingdom	1,352	624	-	-

Ever since the opening of the St. Gotthard pass in the thirteenth century, the Rhine has acted as an important international routeway, but its modern development dates from the mid-nineteenth century, when it responded to the requirements of the Ruhr's rapidly expanding heavy industries. Downstream it enabled the cheap export of Ruhr coal and the import of raw materials; upstream it supplied the coal to meet industries' increasing demands. The importance of the Rhine resulted in the constant improvement of its course, utilising modern transport techniques. As a result, most of the river is now accessible to self-propelled barges of up to 3,000 tons and to push-barge convoys² of up to 13,000 tons between Koblenz and Rotterdam and 8,000 tons between Basel and Strasbourg.

As the Rhine has been improved, similar attempts have been made to increase the capacity of its tributaries, aiming to provide access for 1,350 ton single barges and push-convoys of up to 3,000 tons. In recent years the Dortmund-Ems and Mittelland canals, the Main (Mainz to Nuremberg), the Neckar (Mannheim to Stuttgart) and the Moselle (Koblenz to Nancy) have all been upgraded to these limits. More heavily used links have necessitated even greater improvement. The Amsterdam-Rhine canal, originally opened in only 1952 to accommodate barges of up to 2,000 tons, is currently being enlarged to accept push-convoys of 11,000 tons by 1980.

² Push-barge convoys, for long used on American rivers such as the Mississippi, were initially tested in Europe along the Rhine and Seine in 1957. The system involves the use of a small but powerful pusher vessel to propel as a solid unit a series of 'dumb' barges which are easily varied in number according to changing demand, or navigational conditions.

Other major arteries are slowly improving. In France, for example, the Seine will be navigable to Paris by push-convoys of 8,000 tons by 1976, but with the exception of the Rhine and Moselle, the only other waterways of European gauge are the recently upgraded Dunkerque-Valenciennes canal and the incomplete developments along the Rhône and Saône.³ The Belgian network is dominated by the Albert canal, opened in 1947 to link Antwerp and Liège, and currently being modernised for 9,000 ton push-convoys. The Meuse and Juliana canals are canalised to 1,350 ton requirements and the Escaut is being similarly modernised to (ultimately) link with the French and Dutch systems. Italy's network, in contrast, is centred almost exclusively on the Po, now navigable between its delta and Cremona for 1,350 ton craft.

Transportation

Although water transport is important in selected regions and for certain types of freight, its relatively limited extent and capacity reduces its significance on a national scale. Competition from other forms of transport is often acute; Tables 3 and 4 assess the relative significance of different modes in various European countries.

The total volume of goods carried by waterways is generally modest, but their influence is greater if the distance over which freight is moved is considered, particularly compared with the essentially short-haul

³ By 1978 the Rhône-Saône ought to be accessible to 1,350 ton barges throughout its length between Fos and St. Symphorien (north of Chalons).

Table 3
Relative importance of different transport modes (1971)

		Transport Modes			
		Road	Rail	Waterway	Pipeline
		%	%	%	%
Belgium	Tons	64.7	13.7	19.0	2.6
	Ton-kilometres	40.1	30.4	27.2	2.3
France	Tons	76.3	13.4	5.7	4.6
	Ton-kilometres	33.2	43.0	9.5	14.3
West Germany	Tons	21.0*	40.4	27.7	10.9
	Ton-kilometres	25.6*	38.1	25.9	10.4
Italy	Tons	86.6	5.8	0.4	7.2
	Ton-kilometres	74.6	23.4	0.5	1.5
Netherlands	Tons	53.5	3.6	38.0	4.9
	Ton-kilometres	25.5	6.3	59.2	9.0
United Kingdom	Tons	88.5	9.8	0.3	1.4
	Ton-kilometres	77.1	20.0	0.1	2.8

*Long distance transport only, i.e. 50 km.

Source: *Annual Bulletin of Transport Statistics for Europe 1972* (United Nations 1973).

Table 4
Freight transport in Europe

a. Volume of Goods Transported by Different Modes (Million tons)

	Road		Rail		Waterway		Pipeline	
	1963	1971	1963	1971	1963	1971	1963	1971
Belgium	126	219	68	69	65	95	-	13
France	984	1,412	255	249	77	107	34	86
Germany	119*	174*	327	335	167	230	27	90
Italy	748	-	65	60	3	4	6	78
Netherlands	220	346	32	23	151	245	8	32
United Kingdom	1,320	1,763	239	192	9	5	15	27

*Long distance transport only, i.e. over 50 km.

b. Increase in Traffic 1963-71 (%)

	Road	Rail	Waterway	Pipeline
Belgium	74	0.1	46	1,300
France	43	-2	39	153
Germany	46	2	38	233
Italy	-	-8	33	1,200
Netherlands	57	-28	62	300
United Kingdom	33	-20	-44	80

Source: *Calculated from Annual Bulletin of Transport Statistics for Europe 1972* (United Nations 1973).

Europe's major inland waterways

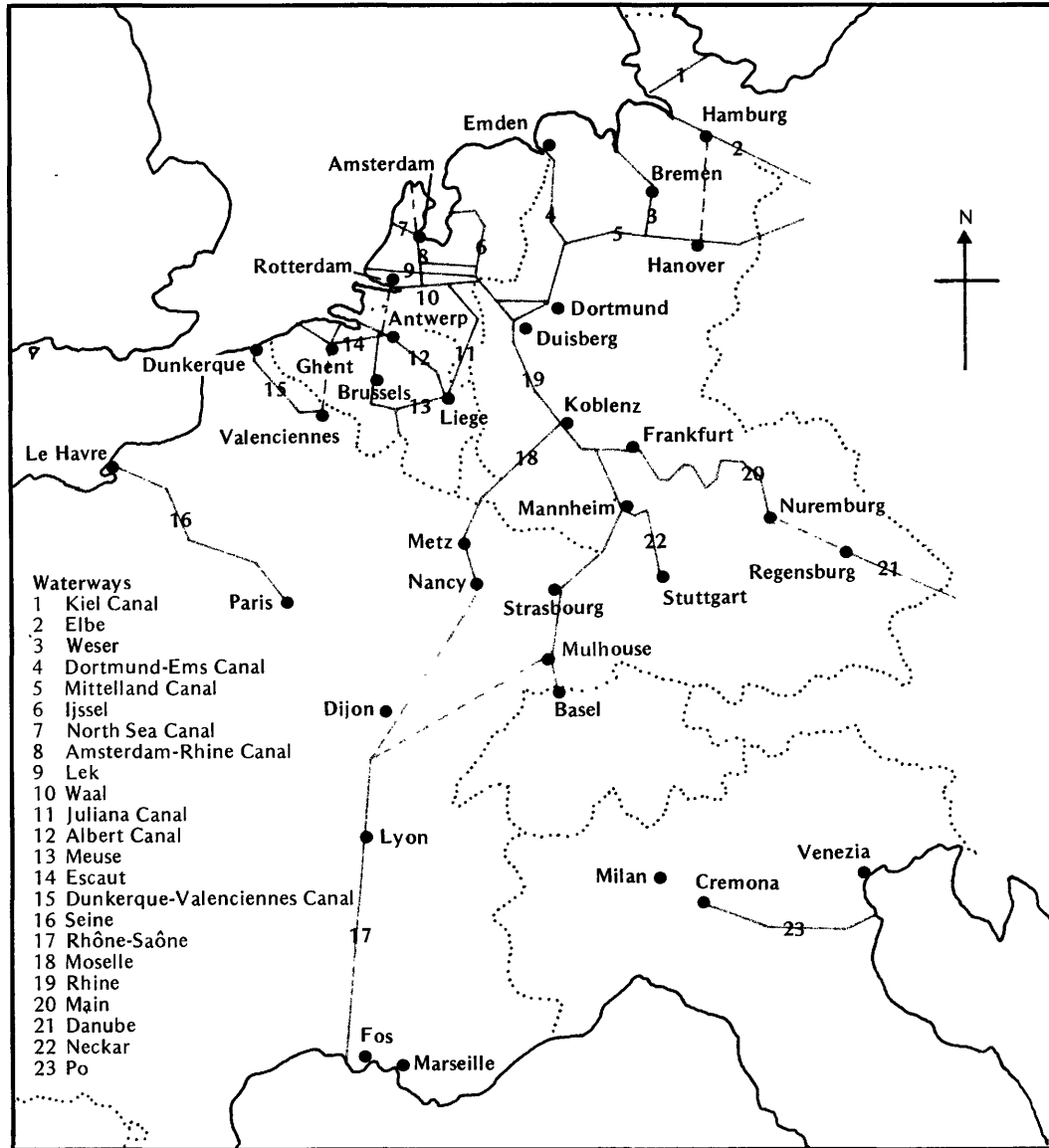
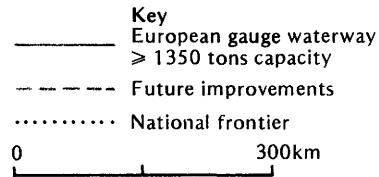


Fig 1

Major traffic flows

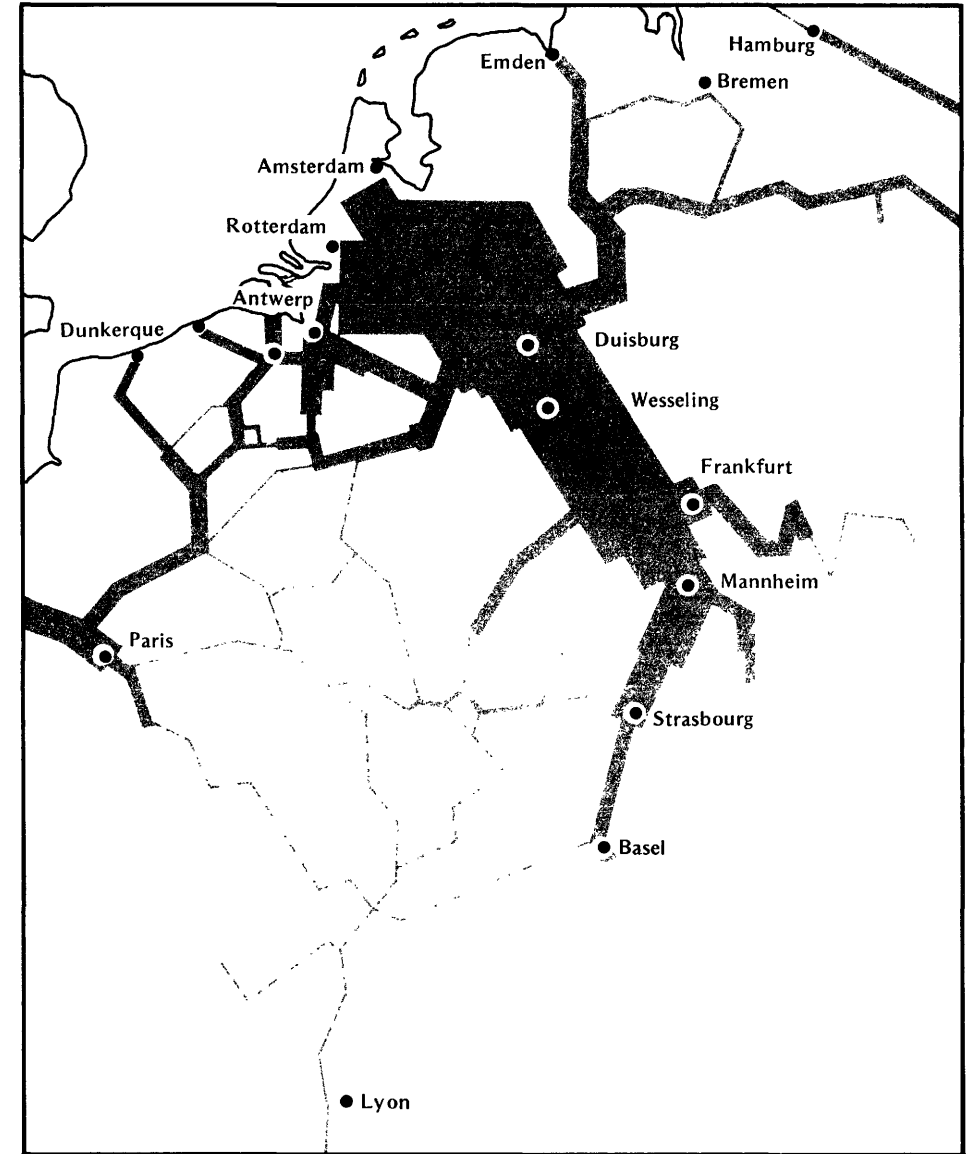
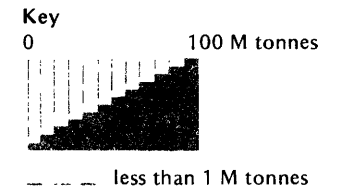


Fig 2

Density of traffic

THE RHINE BETWEEN RHEINFELDEN AND THE GERMAN/DUTCH FRONTIER - 1972

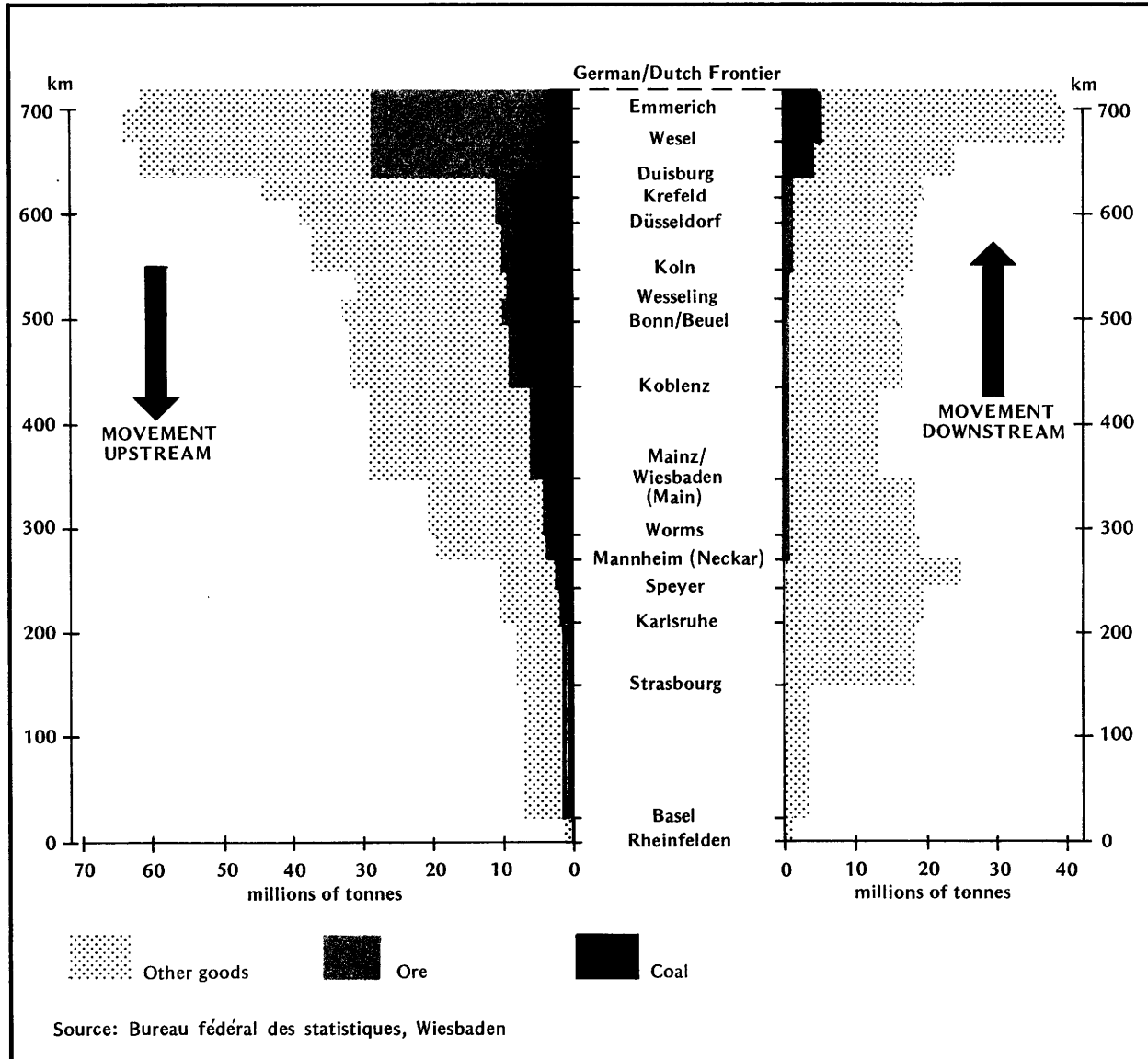


Fig 3

Rhine improvements along the Alsatian border

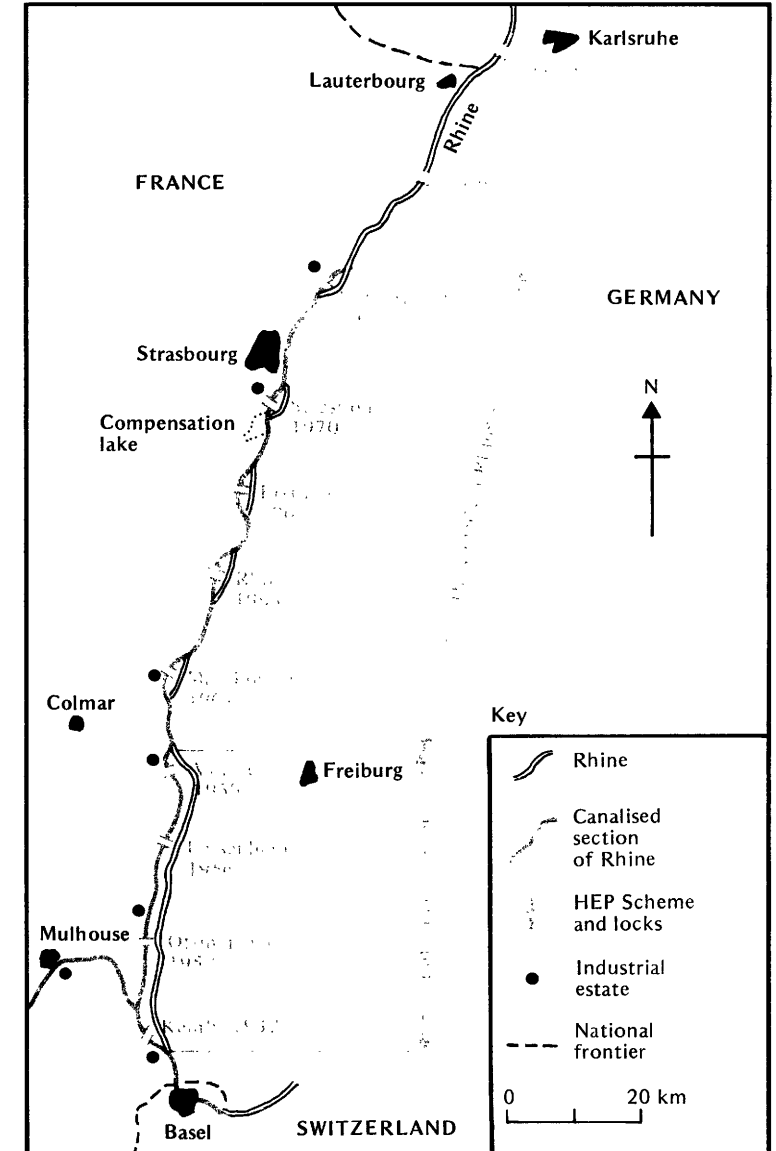


Fig 4

nature of road transport. Small amounts of barge traffic in the United Kingdom and Italy reflect the limited quality and extent of their waterways. The minor role of waterway transport in France is more surprising. It points to a high degree of under utilisation, an unequal spatial distribution of the network, and strong competition from the railways for bulk hauls. Overall, the commercial importance of waterways is demonstrated by the *expansion* of traffic, a feat not matched by their major competitor, the railways.

Inland waterways do not provide a competitive means of transport for all types of freight. Their principal advantage lies in the low movement costs per ton-kilometre which arise from their ability to transport large loads with comparatively little expenditure of man power or fuel. Waterways compete most effectively with other forms of transport where speed is unimportant and the distance the freight is carried is sufficient for the low movement costs to offset the high terminal charges. The advantages have traditionally been greatest for the carriage of bulk cargoes with a relatively low value per ton – products such as coal, ore, gravels, chemicals, cereals and oil. Expressed as actual costs, and assuming no special pricing policies, the price per ton-kilometre for such freight over a distance of between 200 and 600 kilometres would range from 0.2 to 0.4p by European gauge waterway, 0.6 to 1.0p by railway, and from 1.2 to 2.0p by road (1973).

In reality, competition between transport types may considerably modify these cost differentials. **The railways' use of unit trains for bulk freight movements and of competitive pricing policies has produced a strong challenge for waterway traffic.** Faced with increasing losses of merchandise to road transport, railways have found it easier to compete for the bulk traffic of canals than to recapture general freight lost to the roads. A characteristic example of rail/waterway competition is provided by the opening of the canalised Moselle to the Lorraine steel industry and its lowering of transport costs. French and German railways responded by making rate reductions of up to 40 per cent for the import of Ruhr coal and coke, and the export of steel products to North Sea ports.

New developments

Movement by waterways has remained competitive owing to continuous and related improvements to infrastructure and transport technique. Modernisation of canals aims to increase carrying capacity and efficiency. Several measures are usually required, including the deepening, widening or straightening of the waterway, increasing lock capacity and regularisation of the water flow to limit seasonal fluctuation. Waterways designed for push-convoys of at least 9,000 tons require a minimum depth of 3.5 metres and locks 200 metres long and 24 metres wide. The most significant advance in technique has been the introduction of the push-convoy, which has great advantage in terms of flexibility and high carrying capacity per unit of power and labour. The use of modern navigational equipment, including radar, enables movement at night, further increasing speed and utility. Large reductions in transport costs have resulted, but further improvement of waterways is essential if these advantages are to become more widespread.

Another new concept in waterway transport was introduced in 1969, utilising ocean barge carrying vessels, typified by the LASH (lighter aboard ship) system. The special LASH barge (370 tons) is loaded at a river-side wharf or factory, pushed to a parent ship moored in the river and lifted aboard. The parent vessel then sails to its port of discharge where the barges are unshipped and again pushed to their individual destinations. This technique theoretically offers increased ease and speed of handling, and a

reduction of transshipment costs. Several services operate linking Mississippi and European ports (particularly Rotterdam), but the system has so far been more of a technical than a commercial success. Traffic is lower than anticipated and frequently from port to port rather than door to door. The barges also have limitations, being too small for bulk cargoes and too large for mixed merchandise. In March 1974 a service similar in conception, BACAT (barge aboard catamaran), was inaugurated between Hull and Rotterdam. It aims to link industrial areas such as Leeds, Sheffield and Rotherham with those of the Rhine, using special 140 ton barges designed for use on Britain's smaller canals. The parent vessel is capable of transporting ten BACAT barges on deck and three LASH barges between its twin hulls.

These attempts to increase the competitiveness of waterway transport have had little direct impact on the nature of traffic however. Changing demand situations, especially for fuels, have had greater significance. Moreover, most improvements have been concentrated along major arteries, *reinforcing* rather than *extending* existing flow patterns. A detailed illustration of the character of waterway traffic is given in Table 5, which analyses the French position in 1966 and 1973.

Table 5
Waterway traffic in Europe

	1966		1973	
	Tonnage*	%	Tonnage	%
Agricultural products	7.0	7.5	10.8	9.9
Food products	3.1	3.3	3.2	2.9
Solid fuels (coal)	9.6	10.3	5.7	5.3
Ore	1.9	2.0	2.7	2.5
Metal products	4.7	5.0	5.2	4.8
Construction materials	44.9	48.0	54.8	50.4
Fertilisers	2.2	2.4	2.4	2.2
Chemicals	2.1	2.2	1.9	1.7
Manufactured goods	0.4	0.4	0.5	0.4
Oil products	17.6	18.9	21.6	19.9
	<u>93.5</u>	<u>100.0</u>	<u>108.8</u>	<u>100.0</u>

*Million tons

At both dates bulk cargoes are emphasised by their predominance, with a narrow range of products providing the largest tonnages. Sands and gravels continue as the dominant traffic, reflecting the high demands of Europe's construction industry. Rapid growth in the use of oil products has maintained their importance, despite the expansion of pipelines, but coal traffic has steadily declined. The restricted spatial distribution of the French canal system is demonstrated by the fact that over 60 per cent of total traffic in 1973 was carried by the Rhine and Seine.

The Rhine, Europe's main industrial artery, is by far its most heavily used inland waterway (Fig. 2),

Table 6
Rhine traffic at the Dutch/German frontier 1972
(million tons)

	Upstream	Downstream	Total
Ore	26.2	0.2	26.4
Sand and gravels	4.5	20.2	24.7
Iron and steel products	3.7	6.3	10.0
Oil products	12.1	0.8	12.9
Coal	2.9	4.7	7.6
Others	12.8	7.1	19.9
	<u>62.2</u>	<u>39.3</u>	<u>101.5</u>

Source: *Rapport Annuel de la Commission Centrale pour la Navigation du Rhin 1972 (Strasbourg)*.

transporting 270 million tons of goods in 1972. Comparison with the Amsterdam-Rhine canal (33 million tons), the Main (16 million tons), or the Moselle (9 million tons) indicates its pre-eminence. Over 60 per cent of the traffic (measured at the Dutch/German border), comprises upstream movements, principally of iron ore and oil products destined for the Ruhr (Table 6).

Sands and gravels, mainly en route to Belgium and the Netherlands, form the bulk of downstream flows. The pattern has altered little in recent years, but the current weakness of coal shipments ought to be compared with the inter-war years when coal was *le roi du Rhin*, providing the river's major single cargo. In 1973 44 per cent of the traffic at the German/Dutch border comprised coal; by 1972 it represented only 7 per cent. Although over 7 million tons (1972) of Ruhr coal are still transported upstream (Fig. 3), overall demand is falling in response to changing needs, exhaustion of seams, and cheaper overseas imports.

The multi-purpose character of canal development

Although the most obvious advantage of canalisation is improved navigation, work is often undertaken with several aims. Hydro-electric power installations are commonly incorporated where the fall is sufficient, but other benefits in the form of irrigation or recreational possibilities may result.

An illustration of a multi-purpose project is provided by the Rhine along its French border between Lauterbourg and Basel (Fig. 4). The Treaty of Versailles recognised France's right to exploit the river for energy, and upon this basis proposals were outlined for a combined project aimed at hydro-electric power production and improvement of the Rhine's navigation. These envisaged the construction of a lateral canal, linking a series of generating stations parallel to the river, along the French bank between Basel and Strasbourg. Although this policy was pursued between Kembs (1932) and Vogelgrün (1959), creating the Grand Canal d'Alsace, a Franco-German agreement of 1956 limited further exploitation to a series of diversions instead of a continuous canal. This gives Germany access to the improved Rhine and maintains the river's level to the benefit of German agriculture. Five diversions have since been opened between Marckolsheim (1961) and Gamsheim (1974), each with an associated hydro-electric complex. The Gamsheim barrage forms the first stage of a further Franco-German agreement of 1969 which extended the original project beyond Strasbourg to Lauterbourg, and envisages two further diversions at Iffezheim (under construction) and in the Karlsruhe region. Power production from these schemes will be harnessed by Germany, not France.

Numerous advantages have resulted from these schemes. France is able to produce 7,600,000,000 kilowatt hours annually from the nine power stations, representing 13 per cent of her total hydro-electricity output. The Rhine is now navigable by 8,000 ton push-barge convoys following the increase and guaranteeing of its minimum depth. Regularisation of the river has also had the important effect of limiting flooding and erosion. Agricultural and recreational benefits have been created. Germany uses the Rhine's discarded loops for irrigation projects and leisure activities, while the compensation lake south of Strasbourg is being utilised by the French as an outdoor recreation centre. In this context it is interesting to note the recent active and profitable exploitation of many British waterways for leisure purposes now they have outlived their freight carrying role.⁴ Finally, a

series of industrial estates has been established adjacent to the Rhine, aimed at using its navigational advantages and power supplies to attract industry to Alsace.

This final objective has met with mixed success, yet the notion of canals attracting industry is frequently put forward in favour of their development. Waterways traditionally offer a favourable means of transport for heavy industry, but their ability to attract new factories is limited by the increasing tendency towards coastal location and high costs of relocation. In contrast the development of improved transport techniques has attracted new traffic to canals, and the location of the large Renault car plant at Le Havre in 1965 was influenced by the possibility of shipping cars along the Seine to Paris. Nevertheless, a waterway alone is rarely sufficient attraction for large scale industrialisation. Additional factors such as a market, labour supply and the ability to realise external economics are required.

Future outlook

There is little evidence to suggest the decline of inland waterway transport. Indeed, increasing road congestion and soaring oil costs have produced a reappraisal of transport policies to the benefit of waterways. If we are to fully exploit their potential, however, various problems which currently limit the effectiveness of inland navigation need to be resolved.

Certain inherent features of waterways such as delays caused by fog, low water and ice, and the relatively slow rate of transport, are difficult to overcome. Limitations posed by the old age, smallness, and surplus capacity of many barge fleets are easier to rectify, although they present financial and organisational problems. **Rationalisation of waterway transport is essential.** During the 1960s the extreme competition created by numerous small operators, allied to strong competition from other types of transport, reduced profitability to a level where the introduction of new techniques was severely retarded. Push-barge operation still only accounts for 20 per cent of traffic on the lower Rhine, and less than 9 per cent of self-propelled barges in Belgium, France, West Germany and the Netherlands have capacities exceeding 1,000 tons.

The continued introduction of new techniques, and the modernisation of waterways is essential to increase the industry's efficiency and competitiveness. **For its long-term survival a more vital need is to establish an integrated system of European waterways, an implicit requirement of the EEC's common transport policy.**

National transport policies, such as the German Leber and Infrastructure plans, and the intention of the European Commission to give water transport a fair chance, are indicative of a desire to increase the scope of canals. Ultimately, however, the future of inland waterway transport is linked to individual Governments' priorities in transport investment, and their willingness to co-operate in joint ventures.

Further reading

- | | |
|--|-------------------------------|
| BENEST, E.: <i>The Inland Waterways of Belgium</i> | } Imray Laurie Norie & Wilson |
| " <i>The Inland Waterways of France</i> | |
| " <i>The Inland Waterways of the Netherlands</i> | |

CALVERT, R.: *The Inland waterways of Europe*: Allen & Unwin.

HADFIELD, C.: *British Canals*: Phoenix House, Rev. ed. 1959.

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The Bulletin and Congress papers of the Permanent International Association of Navigation Congresses or PIANC, Enquiries to British Section, PIANC, c/o The Institution of Civil Engineers, Gt. George Street, London S.W.1.

⁴ The 1968 Transport Act gave the British Waterways Board the power to provide services and facilities for amenity and recreational purposes, and now a network of cruising waterways now exists. For details see 'Leisure and the Waterways', British Waterways Board, London 1967.

Europe's Architectural Heritage

Sir James Richards

The whole of our built environment – the towns, villages and suburbs in which the majority of Europeans nowadays live – should be subject to critical appraisal, since it forms the background to our daily lives and provides at the same time one of the best indications of the quality of civilisation we have achieved. Past ages may be judged by the buildings they have left behind them, and posterity is likely to judge us similarly. Yet recent events, and especially the expansion of towns and the development of industry and transport, have made us aware that the past, so valuable a part of our cultural and environmental background, can be almost obliterated if positive action is not taken to protect it.

The present grows out of the past, and we should not regard the latter as something fixed and isolated. Conserving the heritage represented not only by historic buildings – by outstanding examples of the art of architecture – but by the towns and villages that provide their settings, is nonetheless urgent. A few years ago Europe Nostra, with the sanction of the Council of Europe, nominated 1975 as European Architectural Heritage Year, during which a concerted effort would be made to draw the attention of all the European peoples to the need for conservation and the means available to implement it, so that countries could learn from each others' experience.

This article attempts to summarise the problems that Europe's built environment faces at the outset of European Architectural Heritage Year, with special emphasis on the conservation of old towns and buildings.

The need for conservation

There was a time – some generations ago – when it was reasonable to let old towns and buildings take their chance; that is, when the normal process of replacing obsolete or worn-out buildings by new ones, and providing for new needs and the increasing population, resulted in the loss of only a few valued buildings. Even though they may have been designed in a different style, these new buildings harmonised with the old because they were similar in scale, purpose, and materials.

But now if we leave things to chance the result is chaos, with the loss of too many buildings that are part of the culture we have inherited and that we owe it to future generations to keep. The change is due to several factors:

- the different scale and greater bulk of many new buildings, especially those intended for commercial and industrial purposes, which overwhelm their neighbours;
- the shortage of building land, which has encouraged the replacement of old buildings by new ones on the same site;
- the consequent increased land values which have led to a desire to use central sites profitably rather than allow them to be occupied by old and perhaps obsolete buildings;
- new developments in transport, which demand the use of extensive tracts of land, often in central areas.

The rapid growth and overcrowding of cities has led – initially for reasons of health and hygiene – to stricter control over all new building by means of town-planning legislation, and incorporated in most countries' legislation are measures for the protection of the old buildings that the new intensity of urban development might have swept away. This happened first in countries like Britain where town expansion was rapid.

Towns as well as buildings

British controls were initially concerned only with the safeguarding of *isolated* old buildings, as were the measures introduced in other countries. **The big change that has taken place in recent years has been the realisation that the architectural value of the environment resides just as much in the groups of minor buildings and in the streets – and sometimes whole quarters – of consistent style or character.** These may not contain individual buildings outstanding as works of architecture but, looked at as a whole, give the town its quality and its recognisable identity. Georgian Dublin, now being sadly eroded, is just one example.

Recent conservationist legislation has concentrated on protecting such groups or quarters on the presumption, not wholly justified, though more so than a century ago, that our major monuments, our cathedrals, castles and palaces, are now safe. There is at least the intention of keeping them safe, the chief problem being a financial one. This is especially serious in the case of country houses, since social changes have removed the basis on which they were inhabited.

Historic monuments, we now understand, should not be left stranded in an alien setting, and our new desire to preserve more of the historic *fabric* of our towns has led to a gradual change, at least among the more enlightened planning authorities, away from policies of comprehensive redevelopment and towards policies requiring a mixture of rebuilding and rehabilitation, so that the new is being continually woven into the fabric of the old. **Such a change is consistent with our present-day realisation of how much human welfare and contentment depend on an environment in which the individual can feel at home and secure and can achieve a satisfactory relationship with his fellows.** Preserving historical continuity, in topographical and architectural terms, in the place in which he lives is important for establishing a sense of security and of belonging for the individual.

Threats to our heritage

Social factors thus support the cultural demands for active conservation of our architectural heritage, and the reasons why it is increasingly threatened have their social, as well as their cultural origins. One of these reasons has already been mentioned: the higher land values which demand the replacement of old buildings by new. Enlightened governments try to control this, but are faced with the problem that property speculators and developers, whom they rely on to inject capital into city modernisation, are most willing to do so on the central sites – often the historic sites – that can be most profitably exploited. Also in Britain at least, the problem is compounded by the fact that the very authorities that should be safeguarding old buildings depend for their revenues on the increased rateable values created by rebuilding.

Another threat to old towns and buildings is the growth of modern traffic. Streets are ruthlessly widened to let vehicles flow more freely and often a town is torn apart in the belief that traffic convenience must have priority. Spaces are cleared to make way for car-parks and the very presence of motorised vehicles may damage old buildings through the vibration they cause. Moreover, people are driven away from central areas because of the noise and smell and danger.

Remedies for this state of affairs have been much discussed, and successful experiments have been made, notably in Germany, the Netherlands, and Denmark, in banning motor traffic from certain streets, especially shopping streets, so that the pedestrian can use them safely and in comfort. It is disappointing that Italy, the European country richest in old towns with narrow streets crowded with historic buildings, has made few efforts of this kind. It is perhaps due to the individual Italian's emotional involvement with the motor-car.

Techniques of traffic management have been evolved to steer dense traffic away from the more vulnerable areas, but a more important reform is the provision of better, and if necessary subsidised, public transport. This would offer an alternative to the floods of private vehicles driven daily in and out of our congested cities, a menace which only the East European countries have avoided because car-ownership has not become a habit. It remains to be seen whether they will learn from the lessons of the West. Only these countries, too, and a few others that are not yet highly developed industrially, are free from those pressures on behalf of the unrestricted use of cars which are exercised by car-manufacturing, road-building and commercial transport interests.

Paris offers a tragic example of the damage that can be done to the beauty and amenities of a city when traffic-flow is given priority. A fast motor-road has been built through the centre of the city alongside the Seine, creating noise and ugliness where once there was the chance of peace and relaxation. It has cut the citizens off from their own river. A threat similarly to destroy the opposite bank was only averted after organised protest.

Motor-cars are not the only intruders that modern technology has inflicted on our townscapes. Along with them have come a complexity of traffic signs, and to these are added overhead wires and all kinds of signs and advertisements. Keeping these under control is an important aspect of the care of the urban environment.

In addition, as a result of social as well as technological changes, supermarkets and multiple stores tend to replace the traditional small shops, inserting bulky buildings into old shopping streets and requiring strict control of design and siting if they are not to be wholly

destructive. Even more disturbing changes occur when, encouraged by the habit of shopping by car, big shops leave the congested town centres and establish themselves in the suburbs. The old centres are left half empty and less able to maintain the variety of activity on which their vitality depends.

Such tendencies, common in America and now beginning to appear in Europe, can be legitimately opposed by governments who have provided themselves with the necessary control over the siting of new buildings when these are simply the result of commercial undertakings seeking higher profits or evading the congestion caused by undisciplined motor-traffic. However, when such trends result from unforced

The EEC in Heritage Year

A Community subsidy has been paid to the organisers of European Architectural Heritage Year in each of the last three years. There is provision for a further subsidy in the Communities' draft Budget for 1975.

A Commission representative has sat on the International Organising Committee since its creation.

The Commission is at present considering whether it should recommend that Member States associate themselves with the various events planned. The Commission itself intends to play an active role at the final Congress to be held in Amsterdam in November 1975.

changes in social habits, to deal with them is more difficult. Out-of-town shopping may have to be accepted and the old town centres prevented from becoming derelict by measures designed to ensure their continued use as focal points of social and cultural life, sufficiently active to make up for the loss of a busy commercial life. Such measures may include assigning new uses for key buildings no longer required for their original purposes. This is an important aspect of conservation, which will be discussed later.

The problem of tourism

There is another threat to the survival of old towns and buildings, of a somewhat different kind: that created by the growth of the tourist industry. Historic towns, and especially those with a wealth of old buildings, are sought out by tourists in great numbers. This helps to preserve the buildings because of the prosperity a flourishing tourist trade brings and because entrance fees provide revenue for upkeep and repair. Yet tourism, especially the relatively modern phenomenon of *mass* tourism, can harm, if not destroy, the very things the tourist comes to admire.

The peaceful streets of an old town cannot survive the invasion of crowds, especially those in cars or motor-coaches. Tourists need refreshment, and new restaurants and cafes upset the balance, social and architectural, of the towns they frequent. Tourism can also assault a town's integrity through mistaken attempts at designing the new to be in keeping with the old. Nothing devalues a building like an imitation of it placed alongside. Tourists also need guidance and information, and the small items provided on their behalf, like direction signs and notices, turnstiles and postcard stalls can, unless very carefully sited and designed, be aesthetically ugly in a sensitive environment. This last problem is not confined to tourist-infested towns. Isolated monuments like castles and

abbeys are particularly vulnerable because their relationship to the landscape can be so easily ruined by clutter.

Mass tourism presents problems all over Europe since there are few countries where it is not an important part of the economy. Some countries in which tourism has developed fastest, such as Yugoslavia, appear to be taking exemplary care of their historic towns. Hotels are kept out of the centre, though sometimes at the cost of destroying unspoilt landscapes nearby. (Stretches of the Dalmation coast have been as over-developed with brash modern hotels as parts of the coastline of Spain, Malta and Italy.) The danger the Dalmation towns and villages have to face is of a somewhat different kind: they are so meticulously preserved that real life is being driven away from some of them. They have lost their original purpose and now serve only as backgrounds for tourism, so that they are little more than film-sets.

This is a danger, of course, that faces all towns that become dependent on tourism. Such hollow towns exist in most parts of Europe: Mont Saint Michel in France, Rothenburg in Germany, Volendam in the Netherlands, Mykonos in Greece, San Marino in Italy, are just some examples. By contrast with these one can admire the success with which other towns in Yugoslavia, notably Dubrovnik and Kotor, have retained their integrity, accommodating crowds of tourists at the height of the season and yet maintaining a busy life of their own. These two ancient walled towns, in addition, have preserved their historic character, and the dignity of their historic streets, by keeping all motor-traffic outside the walls – an example to many other countries.

Public and private action

The modern developments just referred to that threaten the survival of old towns and villages and the buildings in them can only be comprehensively dealt with by the planning laws with which governments and civic authorities all over Europe are increasingly equipping themselves. **But planning legislation is only as effective as the officials who operate it and the impetus put behind it.** The private citizen must take a hand, if only as a watchdog. The care of old buildings is often in the hands of civic or local authorities, and yet we find on many occasions that it is they who have been responsible for the very destruction they ought to be taking steps to prevent. Britain, for example, has in theory the most advanced planning legislation of any country in the EEC, but we only have to look around us to see how ineffective it can sometimes be in conserving our inheritance, and this is often through the inattention of those legally responsible for safeguarding it.

This underlines the value of unofficial vigilance. Britain, uniquely, has a long tradition of voluntary effort on behalf of old buildings, of groups and societies which over the years have been more effective in preserving the national heritage than governments and local authorities. The Society for the Protection of Ancient Buildings was founded by William Morris more than a hundred years ago and still flourishes. The National Trust (supported only by subscriptions and endowments) has acquired and preserved many country houses on the public's behalf; the Civic Trust promotes the cause of better towns; the Georgian Group and the Victorian Society work to safeguard buildings of those periods and, perhaps the most important of all, there are hundreds of local civic and amenity societies all over the country, run and financed by private citizens.

Their importance lies not only in such conservation projects as they initiate themselves but also in the influence they have established and the watchfulness they exercise. They persuade the authorities not only to make fuller use of their powers but also to plan with the needs of conservation in mind.

Policies of restoration

Over and above the threats to old buildings that modern conditions increasingly pose, there are the obvious threats that buildings have always faced; notably those of age and decay and the effects of time and weather. These become increasingly serious since buildings become weaker, and their materials deteriorate, as they grow older.

Conservation of old buildings must thus be supplemented by the restoration of their fabric, and this requires knowledge of old methods and ability on the part of craftsmen to use materials and tools in the old ways. Special measures have to be taken to train these craftsmen, and the restoration of historic buildings has become, in many countries, a craft in itself, practised perhaps most successfully in Eastern Europe where standards both of scholarship and of skill are remarkable. Examples of the conscientious use of that skill can be found in places as far apart as the palaces of Leningrad and the monasteries of Romanian Moldavia.

Western Europe, though, has its triumphs of restoration: Urbino in Italy, Sarlat in France, York Minster, the war-devastated cities of Germany, and Edinburgh New Town in Scotland, are some obvious examples. Moreover, most of Europe has learnt not to *over restore* to the point of destroying the vitality that centuries of use have brought to an old town or building, turning it into a mere museum or depriving a town of the role that keeps it part of everyday life. Historic mansions lose their vitality if they become mere exhibits, and when large built-up areas are conserved, however sedulously, the work can kill what it is aiming to protect. The Paris authorities are making praiseworthy efforts to restore the ancient Marais quarter but at a risk. As each great mansion, many of which had become overcrowded tenements, is brought back to its original condition and its old architectural grandeur is recreated, the life and vitality of the whole quarter is diminished.

Elsewhere in France, and in some other countries, dedication to the principles of exact and scholarly restoration, in the interiors of buildings as well as on their exteriors, leaves old towns as beautiful pieces of urban scenery but detached from everyday life. **Conservation must be related to present needs as well as to past history.**

New uses for old buildings

One way of preserving vitality is by keeping old buildings in use even when they are no longer wanted for their original purposes. This becomes yearly more difficult, not only because of the increase in the total number of buildings worth preserving but because changes in fashion and taste cause us to value, and wish to preserve, buildings of comparatively recent date which we previously despised.

We have only lately learnt to look dispassionately, and appraise on strictly architectural grounds, the buildings of the nineteenth century, which had been the victims of our natural instinct to react against the taste of our parents and grandparents. If we fail to preserve the best of these, there will be a gap in future generations' retrospective view of history as well as in our own cultural heritage. Preserving them, however,

poses particular difficulties. Many occupy sites, or are in quarters of our cities, which for social or other reasons are due for rehabilitation. They are a part, for example, of the equipment of industry which has constantly to be modernised as improved techniques develop; and to modernise a whole industrial area, or a railway or canal system or some other typical nineteenth-century creation while preserving the individual buildings raises obvious problems.

This is where a search for new uses for buildings that have become obsolete can be rewarding, by both preserving them as works of architecture and giving them a new lease of life. The same applies of course to buildings of other periods, but here the limitations tend to be greater. A redundant church can only rarely be adapted to a different purpose (though St. John's, Smith Square, in London is now a successful concert-hall); a medieval castle perhaps more rarely still. Town and country mansions can become offices and clubs, and many country houses have been converted into schools and other educational institutions.

By contrast, some of the best of nineteenth-century buildings – warehouses, dock buildings, railway stations – offer large spaces and types of structure that can hold many people and be made to shelter activities of the kind most in need of accommodation today. In Britain alone (where this problem – and this opportunity – first arose because modern industry developed first in Britain) unwanted maltings have been transformed into highly successful concert halls (at Snape, in Suffolk), into community halls (at Ely) and into arts centres (at Bishops Stortford); corn exchanges, which new marketing methods have made redundant but which are often among the key architectural ornaments of our smaller market towns, have been converted into meeting halls and libraries (at Sudbury), and the Round House in London, previously a railway-engine shed, into a theatre. There is an ambitious scheme for preserving Albert Dock at Liverpool by converting its noble range of warehouses into a polytechnic.

Other countries can show similar achievements. France has converted Ledoux's famous saltworks at Arc-en-Senans into a conference centre and, returning to buildings of earlier epochs, town houses in many cities, notably in German cities, have become hotels. Conversely a disused nineteenth-century hotel at Helsinki has been transformed inside into a city hall and an obsolete complex of almshouses at Louvain, Belgium, has become a university. Representing a more ambitious programme still are the great numbers of *paradores* (in Spain) and *pousadas* (in Portugal), government-owned hotels converted from ancient castles and country mansions. It should be a rule with planning authorities in all countries to allow no demolition of a valuable old building, especially one that plays an important part in the townscape, until every effort has been made to find a new use for it.

The monuments of the future

This brings us to a final point. Sometimes a new use cannot be found, or for some other reason an old building has to be replaced by a new one, perhaps in the middle of an historic area. Even in the latter case we must not be afraid of acting boldly and endeavouring to make the new building as good an example of the architecture of our day as the old one was of its day, rather than a pale imitation of some style that belongs to the past. **All the most lively townscapes are a mixture of the work of several centuries, and nothing is gained by trying to freeze their development at a certain moment.**

This principle is more generally understood than it was half a century ago; in fact a commoner error today is too much self-assertion. The new should show a civilised regard for the presence of the old, which means paying careful attention to scale, colour and materials. Nothing is so destructive to the environment as arrogant new buildings that aim to draw attention to themselves and stand out unnecessarily from their background. The quality of the new is inseparable from the preservation of the old, because the buildings we construct today, and the environments we create, are – or should be – the historic monuments and built-up areas that future generations will seek in their turn to preserve.

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Secondary Schools in Europe

Michael Hart

Exchange teachers visiting continental schools soon notice the ways in which they differ from our own. The contrasts in the working conditions and salaries of their continental colleagues, the different attitudes towards extra-curricular activities or pastoral work, the relative weight given to the claims of specialisation or of general education, the presence or absence of educational devices like repeating or streaming, are all obvious features. Exchange students will be struck by marked differences in the relationship between teachers and pupils, by the importance or lack of importance attached to communal games or worship, the presence or absence of school uniform and the degree of conformity that tends to go with it.

However, looking at more general educational developments in secondary schools in Europe, similarities rather than contrasts become evident. The common theme, with obvious variations due to different national circumstances and idiosyncracies, is a gradual move away from a traditionally vertical and hierarchical pattern of secondary schooling to a more horizontal and partially comprehensive one which postpones early selection and differentiation and which aims to offer all children an equal chance of access to those secondary schools which can effectively prepare them for higher education.

The 'explosion scolaire'

Two main causes account for the 'democratisation' of education – a term which, in its original usage, referred to the extension of educational opportunities and benefits to all sections of society. The first is a growing and basically humanitarian concern for a more just society, which implies a major redistribution of educational opportunities among the young. The second is the demand, by an increasingly technological and industrial society, for a greater number of properly qualified and trained young people.

The results are well known. Most European countries have raised the school leaving age, and of the major European countries only Italy still ends compulsory schooling at 14. In West Germany pupils may leave secondary school at 15 but compulsory part-time education continues for another three years. Most countries have fixed the school leaving age at 16, though in Russia the great majority of young people now continue full-time education till 17 and in Sweden till 18.

The decision to make lower secondary education universal, and the tendency for more and more adolescents to stay on voluntarily beyond the mandatory school leaving age have led to what the French have called the *explosion scolaire*. In the five years from 1967 to 1972 the secondary school population of France rose from 2.8 to 3.8 million. As far as the United Kingdom is concerned, the percentage of 17 year olds in full-time education rose from 15 per cent in 1965 to 26 per cent in 1973. But even this notable increase lies some way below the European average which is closer to the French figure of 46 per cent. It is now forecast that in England and Wales some 24 per cent of each age group will hold a two A-Level qualification by 1980. This corresponds closely to the West German forecast that 25 per cent will hold an *Abitur* qualification by that date.

Problems of growth

This expansion of the secondary sector has created major and still largely unsolved problems for higher education, for it has been unable to provide sufficient vacancies for the soaring number of applicants. Countries have encouraged their adolescents to stay on at school without at the same time creating adequate provision in higher education for those who have completed the course. The situation can be compared with the building of the Hyde Park underpass which, it was said, simply moved the bottleneck a few hundred yards further west. In 1973, for example, France had about 300,000 candidates for the *baccalauréat*, or nearly 40

per cent of the age group. About two-thirds of them passed, and of these 80 per cent made use of their right to claim a university place.¹ The results are a hopeless overcrowding of the universities and the likelihood of a huge wastage rate – about half the new students will have been failed or will have dropped out by the end of their second year. In West Germany, where certain faculties now maintain a restrictive entry policy or *numerus clausus*, 50,000 *Abitur* holders were unable to find a university place in 1974. It is forecast that this figure will rise to 80,000 in 1978.

Large numbers of dissatisfied *bacheliers* and *Abiturienten* are highlighting the problem caused by an expansion of secondary education without corresponding reforms of higher education. Such reforms involve changes in university admissions policies, the shortening of first degree courses, the provision of alternative routes in higher education and of a vocational training programme, which school leavers do not automatically reject as a cinderella. This is an area in which the United Kingdom, by creating through the polytechnics, the colleges of further education and the Open University a very diverse and flexible provision for higher education, has been significantly more successful in meeting new demands than many continental countries.

It must be mentioned that, measured by the proportion of university students who come from working class homes, the quantitative boom in secondary education has so far done little to promote greater equality of educational opportunities, and has not yet made much impression on the social system. In France only 11 per cent of the 1973 university students came from a working class background although 45 per cent of the French population are working class families under this definition. The West German figures tell exactly the same tale: only 11.5 per cent of the university students in 1973 were of working class origin. The English figures compare more favourably. In 1963 Robbins assessed them as being as high as 25 per cent, and although the definition of 'working class' varies slightly from country to country, the English figure is clearly above the European average.

Lower secondary education

Some progress has been achieved in providing greater equality of chances in lower secondary education. In order to reduce the influence of social disadvantage

¹ The *baccalauréat* carries automatic eligibility for university. However, sweeping changes in the structure of French higher education are being prepared by M Jean-Pierre Soisson, Secretary of State for Universities. The *baccalauréat* will no longer be an automatic passport to university, and mature students without the 'bac' will be given more opportunity to study at university. Plans are also being drawn up to bring the elite *grandes écoles* into closer contact with the rest of higher education.

and to give more young people a fair chance of developing their full potential, most countries have reconsidered the practice of selecting 10 or 11 year olds for different types of secondary school. Experience had shown that selective systems, like our own tri-partite system, tended to reflect and perpetuate existing social inequalities and to waste the educational potential of many young people. The traditional single examination at 10 or 11 has few advocates today, and even where early selection continues, significant changes have often been made in procedures. Thus in some of the West German *Länder*, selection depends largely on parental choice and primary school assessment. Where these are not in accord, parental wishes are met by offering a selective place on a trial basis of six months or a year.

Generally, throughout Europe, however, the more favoured solution is a comprehensive lower secondary school with a common curriculum and a prolonged period of observation and 'orientation', after which pupils are guided into streams which have academic or technical/vocational biases. This generalisation, like so many others dealing with secondary reorganisation on comprehensive lines, conceals a variety of national idiosyncracies. In Eastern European countries, in Sweden, and in some areas of England, the comprehensive middle school is part of an all-through nine or ten year comprehensive. In West Germany, where the development of comprehensive schools is still in its infancy in most of the 11 *Länder*, an agreement has been reached to introduce a two-year *Orientierungsstufe*, an orientation stage for the first two years of secondary school when a common curriculum will be taught prior to a final allocation of the pupils to a particular type of secondary school.

By contrast, France, allegedly the stronghold of educational conservatism, is moving towards the comprehensive middle school, the *collège d'enseignement secondaire*, which embraces the 11-15 age group. This provides a common curriculum before differentiated courses are introduced, leading to a two-year upper secondary course in the *collège d'enseignement technique* or a three-year course in the *lycée*, now to all intents and purposes a sixth form college. In Holland a commission has been set up to examine proposals for a 12-16 comprehensive middle school. There are obviously great variations of pace and emphasis but the general trend is unmistakable.

Upper secondary education

There is less agreement on the appropriate educational organisation for upper secondary education. In Eastern European countries and Sweden the horizontal and comprehensive pattern continues though pupils are offered increasingly differentiated courses and opportunities for specialisation. In Sweden approximately 85 per cent of all 15 year olds continue full-time education for a two or three year course in the integrated *gymnasium* which offers both academic and vocational courses. In Russia some youngsters join a special technical or vocational school at 15, but the majority stay for two years at a ten-year school, or transfer to one for their final two years. This usually offers opportunities for specialisation in one or two subjects in addition to a compulsory common core of studies.

In France the distinction between academic and vocational streams is clearly preserved, the *lycée* offering 15 year olds courses leading to the general *baccalauréat* or to the *baccalauréat de technicien* whereas the *collège d'enseignement technique* offers 14 or 15 year olds courses leading to the *brevet d'études professionnelles* or the *certificat d'aptitude professionnelle*. In West Germany, Austria, and most of the Mediterranean countries vertical divisions comparable to our old tripartite system still continue, with few attempts to provide bridges between academic and vocational

education. In West Germany the old division between *Gymnasium* and *Realschule* continues² and 75 per cent of the 15 year olds take the vocational route which leads to a great variety of full-time or part-time training institutions. Only a few of the comprehensives (*Gesamtschulen*) outside Hessen have so far introduced an upper secondary section for the 16 to 19 group.

There are considerable differences of opinion as to the appropriate educational environment for the upper secondary student. Should he be educated as a senior member of an all-age secondary school, in a separate sixth form or junior college, or as a junior member of some institution of further education? Should these schools and colleges be selective or comprehensive in their intake? To what extent could and should academic and vocational courses be provided in one and the same institution? The arguments for and against various solutions, including the arguments between schools and colleges of further education about the relative importance of continuity of schooling as against a more adult educational environment, are too numerous to rehearse here. Moreover, the matter is complicated by the considerable differences in age between 'sixth formers' in one country and another. Whereas it is customary for British pupils to complete their secondary studies at 18, many German *Abitur* candidates are over 20.

'Sixth form' curriculum

But whilst considerable differences continue in the location and age range of the European 'sixth former', a marked consensus can be noted in the ideas concerning an appropriate curriculum for him. It is obvious – though not always readily conceded by their teachers – that the traditional academic curriculum of the *lycée*, *Gymnasium*, and grammar school is unsuitable for many of those pupils who are not aiming at a university degree course. In the past some 85-90 per cent of the leavers of selective secondary schools on the continent would proceed to university. The *baccalauréat* or *Abitur* served as a uniform passport to higher education. The curricula of these schools were therefore almost exclusively geared to prepare their students for the university. Today the situation is very different. Many of the young people in upper secondary schools will not proceed to university. The *baccalauréat* and *Abitur* no longer guarantee university places, and as a result there is a general trend to review upper secondary school curricula and school leaving examinations. Most countries favour an increasingly 'open' curriculum, the introduction of new subjects, and a much more liberal system of options to meet the demands of more heterogeneous upper secondary forms.

Examinations

These trends are also clearly reflected in the school leaving examinations. The latest proposals for the *baccalauréat* – it has been remodelled or reformed almost annually – provide for five sections, two of them technological and concentrating on industrial and economic subjects respectively, and three of them of a traditionally academic nature concentrating on mathematics and science, on the humanistic studies and the arts, and on the social sciences respectively. West German upper secondary schools are also moving away from the old form structure towards a more flexible course system. Students in the *Oberstufe* have a wide choice of options and specialist courses

² The *Gymnasium* (secondary general school leading to higher education), comprises grades 5 to 13 and leads, generally, to the *Abitur* (maturity examination) giving general access to higher education. The most frequent types are the modern language, the mathematics-science and classical. The *Realschule* (intermediate school; formerly called *Mittelschule*), comprises grades 5 to 10. In the *Realschule* English as one foreign language is compulsory while French is optional. The *Realschule* leads to an intermediate leaving certificate which provides for the following vocational and educational opportunities:
 – of taking up vocational training at intermediate stages;
 – of transferring into a college of engineering or another college after completion of a practical and theoretical vocational training;
 – of attending the continuation type classes of a *Gymnasium* according to qualification.

and the *Abitur* combines optional with compulsory subjects.³ Proposals to introduce an *Abitur* offering a wide range of technological and modern subjects are also under discussion.

In this connection it is interesting to note that one of the main criticisms made of the six EEC European Schools is the lack of flexibility of their curricula and of the school leaving examination, the European Baccalaureate. Only the Luxembourg school so far provides an alternative to the European Baccalaureate in the form of a special diploma based on technical and vocational studies.

The International Baccalaureate, which was developed by Mr A. D. C. Peterson and is in regular use in a large number of international schools is also unashamedly academic but offers much more flexibility and choice than the European Baccalaureate. It is a six subject examination, three of which are taken at higher and three at subsidiary level. The subjects of study are a first language and literature, a second language, a topic from the 'Study of Man', an experimental science, mathematics, and an option which could, for instance, be a third language, a second science or general subject, or further mathematics. In addition, students follow internally assessed courses in the creative arts and the theory of knowledge.

It is in this area of the upper secondary curriculum and school leaving examinations that England is the odd man out. Whereas continental countries are introducing more choice and specialisation into their formerly very rigid upper secondary curricula, our own attempts to move away from excessive A-level specialisation – which seems particularly unsuitable for the non-university candidates among the new sixth formers – have so far failed to make any significant progress. Private initiatives, like the Peterson four A-level scheme, as well as Schools Council projects like the Q and F or, more recently, the N and F proposals have aroused more opposition than support.⁴

Whilst a majority of educators are likely to accept

European Social Fund gives £2½ million aid to Commonwealth Immigrants

The Commission of the European Communities has recently announced a grant of £2,643,300 in the form of aid towards assisting UK immigrants from non-EEC countries, mainly Commonwealth immigrants.

The help will be provided mainly to Local Authorities, and also via the Community Relations Commission, in the following way.

- (a) *The Community Relations Commission* (Field Work Division), local Community Relations Councils and other Local Agencies sponsored by the CRC. For reception, information, advice and language teaching for immigrant workers and members of their families in order to ease their employment situation. (£46,300: approx. 40,000 persons.)
- (b) *Local Authorities* (Section II of Local Government Act). For special teaching and language training for children of immigrants and language training for immigrants and adult members of their families. (£2,480,000: approx. 50,000 children, plus 2,500 adults.)
- (c) *Local Authorities* (Urban Programme). For reception, information and advice to improve employment situation of migrants and the integration of their families. (£117,000: approx. 100,000 persons.)

³ The German *Abitur* is administered in a fashion akin to the Mode III CSE. It is set and marked by the schools, with an external moderator.

⁴ The development of CEE and A/O levels is, however, an indication of change. It is true that the CEE successes can only be certificated in the CSE form but the addendum that the subject has been taken in a course appropriate to the sixth form level is there.

the proposition that we specialise too early and too much and therefore fail to achieve a satisfactory balance between study in depth and general education, a similar consensus on a viable alternative to the present system is much harder to achieve. And whereas in other countries curricula changes can be imposed by decrees from the centre, in this country they have to wait on an agreement between the LEA's, the schools, the universities, the examination boards and the Schools Council. We are the only European country which lacks central control and a final arbiter in matters of the curriculum.

European co-operation

This last point highlights one of the main difficulties which impede attempts at co-operation between different European educational systems, namely the fact that different countries have lodged responsibility for educational provisions in many different authorities and institutions. It is not simply a matter of getting an agreement between different Ministers of Education. The degree of centralisation of educational authority varies greatly from country to country. Focussing on the countries of the EEC, we find a relatively highly centralised system in France where the Ministry has not only administered radical policies of reorganisation but also closely supervises the curriculum, timetables, national examinations and teacher training. West Germany, on the other hand, has a federal system in which responsibility for education lies with each of the 11 *Länder*, though co-operation is maintained through the Permanent Conference of Ministers of Education.⁵ In England responsibility for school organisation and finance is shared between the DES and the LEA's, whereas the curriculum, as mentioned above, lacks central control. (It does not follow, of course, that educational change only thrives in countries with a highly centralised administration. Central control can stifle local initiatives and centrally conceived reforms can be thwarted by the united opposition of the teaching profession, as has happened more than once in France.)

The Conference of Ministers of Education of the Member States of the European Communities, 6 June, 1974

The Ministers of Education, meeting within the Council, decided that co-operation in the field of education would relate mainly to the following priority spheres of action:

- better facilities for the education and training of nationals and their children from other Member States of the Communities and non-member countries;
- promotion of closer relations between educational systems in Europe;
- compilation of up-to-date documentation and statistics on education;
- increased co-operation between institutions of higher education;
- improved possibilities for academic recognition of diplomas and periods of study;
- encouragement of freedom of movement and mobility of teachers, students and research workers, in particular by the removal of administrative and social obstacles to free movement for such persons and by the improved teaching of foreign languages;
- creation of equal opportunity for free access to all forms of education.

To conclude: Europe faces common educational problems but lacks the machinery to enforce common

⁵ The last years have seen attempts to co-ordinate a number of educational developments through the *Bund-Länder Kommission für Bildungsplanung*, a joint commission for educational planning.

solutions. Neither the EEC, nor the Council of Europe, nor OECD – the three organisations mainly concerned with educational developments in Western Europe, can provide this machinery. However, as is clearly recognised in Brussels and Strasbourg, the role of the international bodies is not to replace national structures and policies but to complement and assist them by providing comparative data and information, by prompting research projects, by paving the way for the mutual recognitions of qualifications, and by encouraging a greater mobility of ideas, teachers and students. The different Member States of Europe will have to find their own solutions through their own institutions and it is to be hoped that in doing so they will not ignore the experiences of other countries facing similar problems.

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