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CHANGES IN THE REGIONALISATION OF TRANSPORT AND NEW ORIENTATION OF CENTRALITY IN EUROPE

ABSTRACT

The emergence of the service economy and the globalisation put an end to the theory of central places elaborated by Christaller and Lösch at the end of the industrial period. The growing mobility of persons and goods and the breakthrough of technologies favouring speed and information flows have given the main importance to the notion of space-time. The resulting mutation of transport, renders ever more emphasis to the network connection of relais stations and gives rise to network systems development, especially at large scale, that reduces considerably the interest of old urban hierarchical patterns appropriate to a relatively static era which has now gone by in the developed countries.

KEY WORDS

regionalisation of transport, Central Europe, centrality

1. INTRODUCTION

Over more than a century a seemingly stable pattern of central places has been established, in particular within the present boundaries of nation states; and the degrees of marginality and centrality have been defined in relation to this pattern. The last great change in the hierarchies of cities was introduced by industrialisation and the development of the railway network, but this took place within individual countries involving some temporal changes in ranking. The established structures find expression in important investment in building and construction, and form therefore an impediment to radical change. The classical presentations of these phenomena are due to v. Thünen, 1826 (pre-industrial), Christaller, 1933 and Lösch, 1944. For Christaller, the powers of endurance of the established pattern were made evident in the changes in Alsace-Lorraine with the French administration after 1919, and in Bohemia and Moravia with Czech administration following centuries of Habsburg rule. Today, in late-industrial or post-industrial times,

we must see the existing central place structures as the mark of an outgoing epoch, but with regionalisation functions still in close relationship to the current development.

Where the changes stemming from the rapid advances from the eighties of high tech industries have given man and their needs an increasing material and immaterial mobility, the quicker shrinking of time distance has been more important than the unchanged spatial distances. Transport, both general and specialised, plays now a new role in relation to the dimensions of the region for service industries; it clearly weakens the inherited pattern of centrality (Wackermann 1995, 1997b). To be precise, we can detect three waves of innovation which followed each other in the course of the 20th century and re-ordered the European central-place hierarchy in regionally differentiated ways: first, the general electrification, then general motorisation and finally, modern telecommunications techniques. The consequences of these innovations have been the removal of disadvantages stemming from agglomeration, by decentralisation or dispersion. This trend is evident in the growth of filialisation, globalisation and sustained liberation from the consequences of pollution. In the developed world, siting in the countryside brings the benefit of less polluted air; siting in the Third World brings the advantage of escape from costly pollution controls. As a further result we have the urbanisation of rural space, and in contrast to the beginning of the century, completely new regional relationships.

2. NEW DEMANDS RESULTING FROM SOCIAL AND TRANSPORT- POLITICAL CHANGE

The increase in productivity still continuing from the so-called recovery years (1945-75) has been both in theory and in practice linked with the inherited pat-



Figure 1

tern of centrality. In the eastern block, where until 1990 the emphasis was on heavy industry and scarcely any suburbanisation occurred, the discrepancy was not in evidence. Also, in the last decade there has been very little adaptation of inherited structures to the needs of the world-wide service industries. The result will be the overloading and the complaints of the inherited central place system. Economic policy and the

standards of the transport system follow the developments in general, only with considerable distortion. In general, urban rebuilding was worked in an absurd way as a brake on innovation. The inherited installations are simply not suitable for the spatial linkages of telecommunications and rapid transport to match the needs of the economic region expanding to a global scale. The mismatch overloads the labour market.

The extensive conservation areas in the city cores have had the effect of driving modernisation to the margins of the city and beyond. Many cities, particularly in France, but also elsewhere, are more or less strangled by railway embankments with few underpasses. In defence, these embankments should have been intended for military use, but that was rarely the case. Today, they are a lasting nuisance.

New needs are also revealed by the changed role of national frontiers. As complementary and transitional regions, they can achieve vitality in complete contrast to the earlier marginality and the corresponding phenomena of desertion and loss. The collapse of the Soviet system (Wackermann 1997c, Wackermann et al. 1997), with its thorough-going frontier paranoia, has made way in Europe for a wide reaching transcontinental transport system. These perspectives will influence not only sheer distances, but even more, space-time aspects. There follows therefore, inevitably, new orientations in centrality. The new geopolitical situation (Wackermann, 1997a) needs the most modern of transport systems, in order to widen the free-trade zone and to further the development in this zone of a new central place system.

Transport has to play its part in relation to these needs by, in the first place, more flexibility. For this, road traffic is at present the best placed. Instead of the restricted exchange points in old agglomerations, new freight exchange areas have been established. The railway offers in places a 'rolling road', that is to say container (or truck) transport, in order to overcome, for some lines, the conditions inherited from the 19th century. That is essentially true for the highspeed traffic (TGV and ICE). In flexibility, however, the rail cannot match the road. This leads to three disadvantages: 1. lorry traffic brings high and undesired pollution of the environment; 2. the railways offers solutions for a speedier freight transport that are still not satisfactory; 3. the usage of old railway networks makes the necessary modernisation of the central place hierarchy difficult.

In resolving this dilemma, an alternative transport system, protective of the environment, has appeared only in Japan and Germany, where long-distance linkages with service speeds of 300 to 500 km/h have been obtained, and can noticeably relieve pressure on road and short-haul air traffic. The magnetic levitation technology, 'maglev', that in Germany appears under the name Transrapid, will be put to test between Hamburg and Berlin (300 km) early in the next century. And yet, despite the test results in Japan, and although the German Transrapid technique is far advanced, an innovative breakthrough has still not taken place. Planning and transport policy still hold it firmly back. The question is still widely asked if, as well as the post and courier services, the maglev technique is applica-

ble to other freight, and if the problem of modal compatibility can be solved facilitating the change from one means of transport to another. In the end, the transport systems dependent upon tracks (the conventional railway and Maglev) must win back traffic from road and air. In Germany, the Greens and the Communists in their policies oppose new techniques, just as in France the Green minister for the environment has opposed the canal linkage of the North Sea and the Mediterranean. In both cases, the 'pharaonic costs' serve as argument, linked with a sneering reference to the initial deficit in running costs in the Channel Tunnel. In this argument, however, the steeply rising costs of environmental protection are not balanced with the inability to improve regional structures.

3. LOGISTICS AND NEW SPATIAL CENTRALITIES

Whether new transport alignments are rapidly taken up, whilst officially no need is recognised, is usually lost in the polemic 'roads generate traffic'. Urban administrations refuse to recognise the facts, and react often by raising more difficulties and rejections. The wished-for density of functions in the core is thus as little attainable as dispersion in the outer urban area. No functionally-competent strategy for urban planning exists at present. The retention of inherited administrative and financial structures hinders or prevents the reorganisation of living and work space and the necessary means of access thereto.

The introduction of the maglev technique for long-distance transport instead of extension of conventional railways calls for a supervising organisation with the remit to bring about the necessary modal split and the corresponding reorganisation in the levels of centrality. (Fig 1). That is true in particular for the major centres, less true for lower level centres. In various parts of Europe, this trend has been in evidence for about the last two decades. This logistic, transferred from North America, has already loosened many central place systems, in so far as they had been in place. Also transport has deviated to an increasing extent from its focus on the old structures which are seen as a hindrance. In the inner-city transport it has been long accepted, and without complaint, that the old market places can no longer serve as transport nodes. Today, they have mainly more of a museum function.

For the transport profession it is a necessary task to produce the best modal split, the optimum space-time relationship, and good cost-use balance.

In the changing play of site selection by economic activities, new logistic axes have evolved, for example freight routes, that in the ideal state can be used round

the hour by various undertakings and branches of undertakings as much for freight as for passenger traffic.

The thorough geopolitical and economic transformation processes that Europe must undergo in the coming decades requires a short term variable transport infrastructure supported by a comprehensive telecommunications or information service. This is an important instrument for the most flexible linkage of production and market needs. The resulting transport determines the scale of the centrality of present-day central places. The domination of the complex and very complicated and ever-changing to and from delivery services to subcontractors, including diverse associated costs such as those due to outsourcing, customer information and insurance, is shown by the fact they amount to up to 70% of the total transport costs. This high proportion justifies the high-grade networking of all the places in a region involved in the value-adding process. Globalisation provides further impulse for this networking.

Transport science is at pains to use all technical developments. In the last two decades containerisation, multimodal transport and appropriate modal split have made remarkable advances. Thus, in the total inland European transport kombi-transport has reached a level of 6-7%, and in sea transport it is often already more than a half. Re-equipment of harbours is essential to this. State bodies should support this development, but a comprehensive regionalisation concept has not become part of the political will yet.

Logistics demand that a number of central places take up on all sides a certain range of complementary functions, and thus establish a new regionalisation. Ports as the exchange points in transport show this trend very clearly (Wackermann 1998). Large seaports have a very extended hinterland. The central places of the hinterland orientate themselves in terms of a logistical axis and in network towards the seaport, whilst the type of transport and the means of transport behind the logistics of the multimodal transport become less important. In Europe, where the land and sea interdigitate more than anywhere else in the world, this phenomenon leads to multiple overlapping, and this has particularly interesting consequences in the economic geography.

The transition from a classical central place scheme to a general urban network has already begun (Wackerman (ed.) 1998). Modern information technology is now the decisive factor in the current and planned direction of industry and commerce. Correspondingly, the spatial concentration of undertakings and the transport demand has changed. In secondary and tertiary economic regions, new core areas develop, with the establishment of a new location-geography in which transport plays a dominant role. Unfortunately, the railway has not kept abreast

with this development. Even the great continental wide long distance travel linkages have not yet separated from the conventional railway systems.

The imperative necessity stemming from economic needs is for compatibility in the various transport systems, not to be achieved by means of the present conventional railway or its extension. Freight transport and passenger transport must reach the same level of compatibility already attained by information technology in order to profit from the means of efficiency provided by the network of the new centrality system. Local, regional and continental transport must employ the most modern space-time relationships. It is for long-distance transport to take the first steps. Only then will the advantages enjoyed by the service industries, with the corresponding network of central places, come to fruition for carrier services.

4. REINVIGORATION OF A LABILE CENTRAL-PLACE CONCEPT, AND GLOBALISATION OF A MOBILE 'CORE-PERIPHERY-MARGINALITY' SYSTEM

The present relationship of space and transport, of centrality and periphery, is indicated in two ways: 1. mobility within the great central places loses all significance, 2. the flow of information is independent of spatial continuity, extends beyond continental limits and already encompasses the whole globe. It has completely separated from the conventional scheme of core-periphery and marginal region.

Also, the hierarchical ordering of central places loses meaning. Central places of a low order interconnect directly with each other. National boundaries play no further role in this. This trend is promoted by steadily falling transport costs. At the same time, however, the starting point varies in relation to national conditions, as can be made clear by a comparison of France and Germany. The highspeed transport in France is built almost exclusively from the commercial viewpoint of the national railway (SCNF). An increase in passenger traffic and competition with air transport to obtain a larger share of the market were the aims - in contrast to Germany. In France, the highspeed transport (TGV) took no account of the central place hierarchy. The new tracks link the endstations and disregard important places in between. In Germany, the ICE links many places within a dense urban network. The south-east TGV stops at relatively unimportant places such as Le Creusot and Macon, but not at Auxerre and Chalons-sur-Marne, and the south-west TGV stops at Vendome, but not at the much more important Orleans. The economic efficiency of the TGV trains depends thus on access from the central places

in the intermediate region with the interlinkage envisaged in classical theory. This extends the question to the spatial and socio-economic functions of the various categories of train, and no political concept can be distinguished. An intelligent ordering of various categories of train to provide a comprehensive feeder service might provide a solution for most of these problems.

Much depends upon the level of technical development, that from case to case may be very different. The same applies to the economic-system and administrative co-ordination. Through the lack of such things, geographically close places can be considered far apart. An example is the textile industry at Ivanovo, about 300 km from Moscow. Installation by Deutsch Telekom of satellite communication with telephone and fax to Berlin has resulted in a far better access from this region to the world market than many similar undertakings in Moscow.

Long-distance communication techniques have therefore introduced changes in centrality, periphery and marginality, and in their relative stances. Now, undeveloped intermediate areas can participate in and profit from transit traffic. The French and Iberian Atlantic coasts, the Alpine region and eastern Central Europe are examples of varying importance. Before the entry of Spain and Portugal into the European Union, the French Atlantic coast was economically bypassed, having lost the importance it had enjoyed in colonial times. The preferred site location in Europe was the North Sea coast and the often-cited axis extending from England via Frankfurt and Munich to Milan. Even here, however, a few of the old central places, as a consequence of shut-down and de-industrialisation have a 'land's end' air. First, with inner opening-up of Europe, the building of the motorway network and the development of the TGV system has western Europe been brought nearer to the core, and new interrelationships established. The port of Barcelona has already regained continental importance, and Bordeaux and Nantes are en route to do so, too. Thanks to modern logistics south-east France, as part of the Mediterranean sunbelt, belongs sooner to the growth regions than north France. The decentralisation policy contributed to this development.

Also, in the Alps, where for centuries only the gap towns could aspire to high central-place functions, with many isolated valleys, a great change has taken place in more recent times. Building and improvement of the larger transverse axes, and opening-up of most side valleys has made the whole mountain region very active, participating in the often multimodal transit traffic between Italy and Central Europe. Tourism profits throughout the year from the comprehensive

infrastructure, and contributes at the same time to its maintenance. The Alps have just become part of the Central European activity region.

Also, the fall of the Iron Curtain, which divided Europe for a half century, led to a re-ordering of centrality along its whole length. In place, newly-formed regions provide administrations with new opportunities. This transformation, for understandable reasons, has been most quickly established in Germany.

The effects of the long break in development, that Europe has suffered because of the long-enduring political division, will be most easily healed by the establishment of a new high performance transport structure with its central point in Central Europe. Centrality and marginality will then be re-ordered. With time and space, the dynamics will become differentially established. Old established hierarchies must adapt or convert; new will flourish, but many of the old will be reinvigorated.

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