

Successes and shortcomings

Transport in Catalonia over the last few decades

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1.- An attempt at justification

To attempt an assessment of events such as successes and shortcomings in a short article prevents the necessary qualifications from being made. They are two clearly polysemic concepts which require a prior delimitation of the different meanings. Simplistic, and even frivolous, reductions of the complexity of the universe and of human society are frequent in the university word, in the political field or in the media.

Therefore, before making a particular classification, and avoiding the danger of dogmatism, I considered it convenient to make some considerations of a general type to justify expressions or, in any case, to lower the tone. It is clear that the objective is to recall, in a certain order, well-known ideas which very often are completely or partially forgotten without constituting a coherent thought. The reader not interested in justifications can disregard sections 2 and 3 and go directly to the list of successes and shortcomings.

2.- The space-time

Mobility and transport involve moving in space, an activity which is impossible without "moving" in time. It may appear to be ingenuous to recall such an elementary principle. Everyday experience, however, teaches us how exceptional it is to be aware of forming part of a universe in which space and time are two sides of the same dimension.

2.1.- Temporal units in the organization of the territory. Insects live for less than 50 hours and there would be no point in measuring their age in years. The same applies to flies which do not live for more than 75 days. Human history is measured in centuries and the evolution of the universe in thousands of millions of years, without forgetting geological eras which are counted in millions of years. The progresses of astronomy have consolidated the human measurement of the solar year. Does it make sense to use the same measurement in the field of the organization of a territory? One year is obviously too short and one century too long. An agreement is thus needed to define (in a congress?) a suitable temporal unit, between these two extremes, to measure territorial changes. Provisionally we will use the decade.

The Eixample Cerdà in Barcelona, for example, is being completed 15 decades after its formulation. The Vallvidrera Tunnel has just been bored (a gallery) two

decades after the first proposal (in 1960). The Ring Roads (Litoral and Dalt) came into service in the same period. In forecasting, it is not the same to talk about one or 2 decades as 10 or 20 years.

2.2. Significant spaces in Catalonia....and Europe. Infrastructures, as the name implies, support the structures, but the ground is the common substratum of infrastructures. To plan and organize the territory, it is necessary to define spheres in order to distinguish global visions and local actions. Just for operational purposes, we can talk about divisions which are not really divisions, but rather simple visions of the territory, identifiable through physical maps (orographical, hydrology, geology....) and nocturnal photos from satellites.

From an operational point of view, what are the significant spaces (spheres) inside and outside Catalonia and on the understanding that they are inseparable? The most universal (with small variants) and the oldest is the municipality, which requires the greatest respect, although nowadays it cannot solve all the problems by itself. What does a significant sphere mean? They are those which can offer solutions for the majority of their internal problems. In Catalonia, these would be the comarques (or group of comarques) which in some cases are metropolitan areas.

The urban region appears starting from certain limits of territorial density (Catalonia is already approaching it). Urban galaxies can already be identified in the world (Eastern USA, Europe-centre North, Japan, and, in an incipient manner, Western USA, India, Eastern China). They have indeed gone from municipalities of hundreds of inhabitants to galaxies of hundreds of millions. There is an obvious revolution and continuous evolution.

3.- Ideas and events: from planning to action

There is nothing more illustrative than reviewing the history (the histories) of science to understand the importance of the essential components of the great evolution of the world starting from the time of the appearance of the human being: ideas and events. Conceptually speaking, they are two ways of acting. They are really inseparable. Behind every action there is always an explicit or implicit, conscious or unconscious thought. The virtual world is not comparable with the real world. They are heterogeneous magnitudes. In any case "autonomous" ideas should be compared with those "connected" (and not explained) to the events.

The planning of transport is moreover inseparable from the organization of a territory, a long and complex process, in each part of which ideas and events are mixed. Both can lead to successes or shortcomings. Simplifying the different scales greatly, the sequence is:

Basic information
Planning
Programming
Management
Monitoring

In this case the order of the factors can alter the result and, moreover, a mistake in the planning is much more serious (even irreparable) than in the programming.

Successes

Any action (a motorway, a railway line, a park, isolated housing or a residential neighbourhood) organizes or disorganizes the territory. To pass judgement on the suitability (or the failure), a simultaneous valuation is always essential in space (in all spheres) and in time (from short to long term). In practice this demand cannot be met literally. For many other reasons, because there are not forecasts in all the spheres and the short and the long term have not even been universally defined. These major limitations are real. However, they cannot be an excuse to do without the efforts necessary always to operate with hypotheses of more or less explicit spatial and temporal frameworks.

It is not possible to talk about successes without simultaneously considering the global and the local vision (from the microscope to the telescope) and the short-term (4 years, for example) and long-term (25 years or more) perspective. Moreover, it can be very harmful to raise specific, formally successful, actions to the category of successes when they do not contribute to or even go against the overall coherence. The (town planning or territorial) partial plans are frequent archetypal examples, on the margin of or clearly clashing with the general plans which can only be altered by means of (specific) modifications or (overall) reviews.

4.1.- Around Barcelona

Coming down from the sky, from where we can see an Earth with almost seven billion inhabitants, to our territory, where we find almost seven million, it is still possible to find successful actions.

Good, complete, reliable and up-to-date basic information is an essential instrument. It is not out of place to compare the situation in the 1950s in our territory and in many countries. It is not chauvinism to consider as great successes the creation of the Cartographic Institute of Catalonia and of the Statistics Institute of Catalonia. Any deficiencies come from bad cartography or from insufficient and never updated statistics!

In the sphere of planning, the master plan of Barcelona Metropolitan Area was the cornerstone to review the General Urban Organization Plan (27 municipalities) of 1953, replacing it with the General Metropolitan Plan of Barcelona (1976), which prevented the degradation of the metropolitan heart and which permitted, taking advantage of the 1992 Olympic Games, a transformation of Barcelona and the adjacent municipalities. The drastic reduction in the legal densities made it possible to substantially improve the urban quality with more educational and health facilities, urban and territorial parks, the renewal of old city centres... The implementation of each specific

project has part of the responsibility for the final success, but the foundation and overall cohesion come from respect for the general planning, a policy which has gradually been abandoned, without confronting the need for an overall review.

In the transport sector general successes should be considered: the expansion of the Port of Barcelona, with the deviation (insufficient) of the River Llobregat; the expansion of Barcelona Airport with the new terminal and the renewal of the old terminals, in addition to the railway access and the adaptation of the car parks; the extension of the underground railway network, including the new line 9; the arrival of the High Speed Train; the Litoral and Dalt Ring Roads with the North and South branches; the Vallvidrera Tunnel, the only new access, through Collserola, from “the transcendental routes” of the Cerdà Plan; the reinforcement of the Llobregat axis, with the motorway on the right bank; the opening up of Diagonal to the sea, already in the municipality of Sant Adrià del Besòs; the Orbital Route (Terrassa-Abrera); the Diagonal axis (Igualada-Vilanova) and the Mataró-La Roca motorway.

It is not a construction work, but undoubtedly the most important success in the field of transport is the tariff integration. A decisive spectacular innovation in the improvement of public transport, positioning it as an essential complement to private transport, aiding all kinds of movements and, in the long term, redistributing the population and the activities around the whole metropolitan area (164 municipalities) and even beyond. This is certainly one of the most important recent actions in the field of town planning and organization of the territory.

4.2.- Successes in the rest of Catalonia

Giant steps have been taken in the field of territorial planning. The European Territorial Strategy stands out, where the development has been slow since the first version (1999). This is a “literary” document of principles and objectives without any graphic commitment and therefore not very precise. Despite everything, the future lines have been defined. The next steps would have to be aimed at overcoming certain aspects, furthermore offering graphic precision. With a view to the future a global agreement would be decisive on the system of natural spaces needing urgent protection and, at least, the interconnected diagram of basic networks of European interest (railways, roads, canals, ports, airports, very high voltage electricity lines, water, gas, telecommunications.....).

In Catalonia, and in many other territories, there are Regional Territorial Plans which are a primary success, but which have two limitations: they are the result of independent preparations with little emphasis on coordination with the neighbours and without paying attention to European planning. In the case of Catalonia, the first Territorial Plan of Catalonia (1995), still in force, requires a revision parallel to the Partial Territorial Plans of the future *veguerías* (regions). There would thus be an essential instrument for a united Europe respectful of the environment without renouncing the requirements of prudent progress of an evolving society. In Catalonia successes include the protection actions (Spaces of Natural Interest, Big Parks, coastal area, river beds, marshes, natural and cultural heritage, etc.).

It is just necessary to coordinate it and unite it all on a regional and European scale, linked to the basic infrastructures. For example, planning and implementation successes (despite some failures due to lack of a global vision) include actions such as: an incomplete, but significant, motorway network; road tunnels such as those of Cadí, Vielha, Collabós, Bracons, ...; the widening of main roads (Llobregat Axis, Transverse Axis, Pyrenean Axis, former National II, Western Axis, Congost-Ter Axis, former National N-340, accesses to the Costa Brava and ...); High Speed Line (state and regional high-speed train); improvements to Ferrocarrils de la Generalitat de Catalunya; Baells, Llosa del Cavall, Rialb reservoirs; major irrigation canals (Sagarra-Garrigues, Xerta); Ter-Llobregat connection; Ebro-Tarragona mini-transfer; water treatment and desalination plants; coastal defence; regeneration of beaches; improvement of commercial ports; construction of marinas; improvement of airports (Girona, Reus, Sabadell); aerodromes and heliports; natural gas; telecommunications.

Shortcomings

5.1.- Type of shortcomings

Strictly speaking a shortcoming is a lack of action at a specific time which can cause a temporary distortion or seriously affect the objectives (the “model”) of a specific sphere, causing multiple distortions (of a neighbourhood in a city or of a city in a metropolitan area). In another sense a mistake (shortcoming of overall quality) is more serious than a delay. Not boring a tunnel in a mountain would be a delay. Suppressing without justification or without alternative a section of the basic road grid or of the railway network is a major mistake which affects the coherence of the planning.

5.2.- The major shortcoming

Whether or not recognized, successes come from planning, and failure to plan (paradoxically a form of planning) is the major shortcoming. Two years ago (2007) the Land Law had its 50th anniversary and next year will be 150 years from the approval of the Barcelona Reform and Expansion Project. These are two remarkable milestones, although the process has not followed the needs of the increasingly large territories arising from the population explosion.

It is increasingly essential to complete (or review, in some cases) all spheres of the urban and territorial planning cycle, although with a new development which is unique in history. The cohesion and coherence from bottom (municipalities) to top (Europe and, for some matters, the world) are now essential and can only be obtained by means of a continuous process of adjustment of the smaller spheres to the bigger ones and vice versa. The district, the region, the continent or the world have to join up continuously. The wheel of organization of the territories turns chaotically, pushed by the different autonomous institutions at each level. They all give orders and they all receive orders. What is needed is a will to coordinate and institutional loyalty. There are systems within other systems, moreover affected by transverse systems (all kinds of networks governed by institutions which are not always well defined).

5.3.- Other shortcomings

Apart from the global shortcoming, in the sectorial fields deficits are also abundant and can seriously affect the good progress of the whole. These general considerations are not Utopian, symptoms of weakness or impotence. In practice it will never be possible to find all the hiding places of possible failings or insufficiencies. Despite everything, the effort to revise actions capable of causing catastrophes will not be superfluous. Experience teaches us that the attempt is worthwhile.

5.4.- Examples of shortcomings

In the field of planning: review the General Territorial Plan of Catalonia; complete the Partial Territorial Plans; review the General Metropolitan Plan of Barcelona (1976); approve Programmes (five-year, ten-year, ...) for the territorial and general urban planning; introduce a systematic monitoring of all the plans paying particular attention to the partial modifications.

In the railway sector: complete the high-speed train line with a new station in Cerdanyola, an essential node of the metropolitan and regional interconnection; the direct connection under Collserola, Sagrera-El Vallès high-speed train station; the Vallès “eight” of Ferrocarrils de la Generalitat de Catalunya (Terrassa-Sabadell-Cerdanyola-Sant Cugat-Barcelona-Sants- Plaça Catalunya-Sagrera-Cerdanyola-Terrassa); the Terrassa-Martorell link of ADIF; the Mataró-Granollers-Sabadell-Terrassa-Villafranca-Vilanova belt; complete the improvement of the Barcelona-Martorell to Igualada and to Manresa lines of Ferrocarrils de la Generalitat; the new Castelldefels-Sant Boi-Barcelona line; double the Barcelona-Vic-Ripoll railway line and extend it as an international line through CampdevànoI-La Pobla de Lillet-Bagà-Alp-Puigcerdà-La Tour de Carol, to make it suitable for goods and passengers, leaving the CampdevànoI-Alp-Puigcerdà section, with considerable inclines, as a tourist line to link up with the French Train Jaune; complete the Mediterranean axis between Tarragona and Castelló de la Plana; resolve the Tarragona-Reus-Valls-Camp de Tarragona station system; complete the railway service of the Costa Brava.

As for road infrastructures, we need to complete the basic grid of Catalonia: to complete the three lanes along the whole AP-7 motorway; extend the C-32 Maresme motorway to the Costa Brava, adding lateral lanes to be able to convert the main Maresme road (C-31) into a boulevard; complete the Orbital Route, initially between Vilafranca and Granollers; new Granollers-Vic motorway; improve the Collada de Toses route, adapting it as a tourist road to access La Molina and Masella ski resorts; improve the route of and expand to four lanes the main CampdevànoI-Coll de Merolla-Guardiola road to link the Ter Axis with the Llobregat Axis, moreover aiding access at a lower height (through the Cadí Tunnel) to Cerdanya, from Ripoll, and giving an alternative to the Pyrenean Axis between CampdevànoI and Alp; complete the transformation into four lanes of the access to the Costa Brava from the south (Llagostera-Palafrugell) and from the north; continue the Eastern Axis (Ebro) up to the French border through the new Vielha Tunnel; improve the main Balaguer-

Pallars Jussà-Pallars Sobirà road with new tourist access to France through the Salau tunnel; finish the Diagonal Axis (Manresa-Igualada-Vilafranca-Vilanova).

6.- Epilogue

Parallel to the specific actions of the previous section, three major historical anomalies need to be resolved, a very heavy burden which does not allow true integration in Europe or the internal cohesion of Catalonia:

Firstly, unify the whole railway network with standard gauge (UIC), a feasible operation in the medium term and with a moderate cost if it is planned taking advantage of the compulsory renewals of the lines every 15 or 20 years and we continue with the policy of installing multi-purpose sleepers in all the renewals.

Secondly, convert the direct tolls into indirect tolls (paid by the public administration) in a planned manner to benefit from the advantages for the private economies arising from a more rational use of the different networks (main roads and motorways); a very significant social benefit (notably lower accident rates, similar to those of the countries without direct tolls); and a significantly positive repercussion on GDP which, with more collection, would allow a public financing of the operation in the short term.

And, thirdly, more interconnection. "The urban development of the networks" (Gabriel Dupuy) indicates the need to interconnect (as is done in Europe) all the transport networks, both in the railway and motorway sectors, and in the services (telecommunications, gas, electricity and, a highly topical issue, water to be able to connect with the major reservoirs of the Alps and never again suffer from the irregularities in our territory of *the wrong kind of rainfall*).

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