

TRANSPORT AS AN INTEGRATIVE / DISINTEGRATIVE FORCE FACTOR IN URBAN REGIONS. The Study Case of La Plata City.

1. Introduction

Road and railway infrastructures constitute the archetypical networks that contributed to the territory design, favouring the growth of new cities and the development of the existing ones, establishing their hierarchy system, defining relations between society and space, and producing dynamics of integration/disintegration regional.

This paper analyzes the territorial organization process considering the development of such networks since the modernization stage in Argentina, by the mid-19th century, up to date.

During this stage, three historical periods corresponding to different technical-economic paradigms may be seen (Pérez, C., 2005). The "cheap steel" paradigm takes place between 1870 and 1930, under an agroexporting country model undergoing an accelerated modernization period. The railway was one of the essential factors of this paradigm and its development was consistent with economic expansion and the creation of new cities.

The second period, between 1930 and 1970, is considered a truncated industrialization stage, with political instability and social development hindered by coups-de-état and the loss of constitutional guarantees. The technical-economic paradigm, whose key factor was oil and the development of the automotive industry as one of its by-products, encouraged road constructions.

The third period includes the three latest decades and it is a stage of industrial restructuring, financial capital and market globalization, as a result of a new paradigm where information and computer technologies have become the key factors of economic development, manipulated by neo-liberal policies.

2. National Context

First Period

Up to the mid-20th century, the railway was the fundamental precursor of connection among existing cities. Furthermore, it contributed to the growth of a network of cities, with the creation of new urban sprawls as from railway stations or as advanced stands in the struggle with the Indians. Besides, it contributed to changes in mobility and, hence, in urban rhythms. With the railway, the 16th and 17th century colonial cities and populated areas of the Humid Pampas (originally built as fortlets) were able to develop their regional economies as from a safe and quick transportation means to move their production and mobilize their inhabitants. The train increased passenger mobility and gave rise to exchanges that would have been impossible before the railway system was built.

Hence, the construction of the railway system had two differentiated goals: the first one was to reinforce national unity by interconnecting the provincial capitals and the country with neighbouring countries, thus attracting immigration with investments made by the Argentine State. The second goal was to connect profitable agricultural areas with the Port of Buenos Aires. Although the first railway branch line was built (in 1857) to facilitate passenger transportation, the main objective of the improvement and expansion of the railway system was the development of productive forces, the consolidation of the country and its incorporation to the international market. However, this objective had its limitations and the railway became an instrument oriented towards a single purpose: transportation and trading of certain agricultural products required in Europe, i.e. cereal crops, beef and wool. Hence, a contribution was made to the requirements of the European capitalist development and the associated international division of labour.

Railway construction was a priority for the Central Government. The Government had to secure not only economic relations but also cultural relations among the different regions of the country, creating links within such a huge and scarcely inhabited territory after the aborigine extermination campaigns had come to an end. This project was carried out with national capitals and foreign investments. The former secured connectivity between different regions of the country so as to consolidate the National Project; the latter secured the laying

of the railway system in areas where an immediate economic benefit could be obtained (Scalabrini Ortiz, R., 1958, 1974).

Within this context, in 1890, the railway system had a 9397 Km run, out of which 90% was located in the Littoral zone. Forty-eight percent of the branches were the property of the State whereas private companies owned the remaining 52%.

Between 1880 and 1913, the railway system grew at a rate of 900 Km/year and, by 1910, it was 27,994 Km long. Between 1880 and 1910, the average growth rate was 6% (Sbuscio, S., Frediani, F., 1995) (Table 1).

Between 1913 and 1928, the railway system length grew at the rate of 300 Km/year while the Gross Domestic Product growth was in the order of 3.5%/year. In 1930, 38,900 Km rails were running through the North of Argentina, out of which 8,700 Km rails were the property of the Argentine State. However, such spectacular development as far as the railway was concerned was not supported by a plan that could allow for the development of an integrated system between the different branch lines or between the branch lines and the river transportation means.

	1880	1888	1895	1910
Country Total	2432	7571	14116	27994
Pampeana Region	1685	6183	10662	20616
Prov. of Buenos Aires	1070	3152	4522	10606

Table 1: Railway system extension and its distribution. Period: 1880-1910 (in Km). Source: Sbuscio S., Frediani, F., 1995.

Figure 1 shows the radial distribution of the systems towards two ports: Buenos Aires and Rosario. This structure responded to the demand of the two power groups existing in the country. Both obtained huge economic profits from the production of meat and wool in Buenos Aires and cereal crops and oleaginous seeds in the Rosario region, whereas other regions not suitable for the production of exportable goods depended on the actions to be decided by the government (Ortiz, R., 1974). Those two ports defined, to a great extent, the country's spatial structure. The laying of the line towards Rosario had the purpose of decentralizing the activity to create an economic development pole to compete with Buenos Aires.

During the 80s and the 90s of the 19th century, both the government and the local economic groups promoted the privatization of all the branch lines that were the property of the State. As a result of such privatization, foreign capitals had the decision-making power as regards Argentina's economic development and its territorial organization (Ortiz, R. 1974). While such capitals were obtaining the domestic transportation monopoly, the State contributed to the valorisation of land and the promotion of industrial activity by laying railways, encouraging connection possibilities and offering reduced rates.

The direct consequences of the State policies implied the absolute freedom of action and the uncontrolled determination of rates by the foreign companies -mainly English companies-, which prevented the development of certain business and industry sectors. Vis-à-vis the groups opposed to such policies, the Government considered that the role of the State was to secure *maximum possible freedom, by separating all and any useless resources that were undoubtedly suitable for the State apparatus*. This was a classical mechanism used every time foreign interests urged the Government to privatize the Nation's assets.

Investments made by foreign capitals in the railway sector have been highly profitable for the foreign companies but burdensome for the country. The companies received from the State significant subsidies, securities on invested capitals, tax-free imports for 40 years, and also lands along all the railway system.

The railway system had two contradicting functions. On the one hand, it was a factor of civilization, city founding and mobility democratization and on the other, it became a factor of growth repression and economic activity diversification. In the hands of foreign capitals – mainly English–, the railway systematically hindered domestic trading and local industrialization, i.e. whatever activity that could compete with the English industry.

The railway policy developed during one century was based on the descending transit of agricultural products towards the port and the ascending transit of goods from the port towards the interior of the country (Scalabrini Ortiz, R, 1940; Ortiz, R., 1974).

This policy was translated in the impossibility to create industries and manufacturing plants in the regional economies and the destruction of local industries and manufacturing plants existing before the railway was built.

The discriminating management of rates and freights, exercised by foreign companies not regulated by the State, was one of the factors that contributed to the uneven development of regional economies. The other factor that prevented regional growth has been the lack of population and development policies, based on the railway system, to promote the specific potentials of each region.

Notwithstanding such contradictions, the railway has played a modernizing role, defining the territorial structure and its hierarchical network of cities, and has considerably modified everyday habits and lifestyle in Argentina. The supreme importance of the railway in the history of Argentina is clearly evidenced in the differential urban development of the country. The railway system was laid northwards the Colorado River while vast extensions of the Patagonia have never been connected to the railway system.

Transportation structured the country's territorial organization while, at the same time, it created conditions for the social and economic fragmentation of the space (Figure 1). In the Northern Region, the railway consolidated the network of existing cities and contributed to the creation of new ones. The Southern Region was consolidated as a huge empty space up to date, notwithstanding the existence of some populated zones operating as enclaves.

The isolated construction of a railway system in the North of Patagonia promoted the creation of cities and towns. This was the case of the South Railway System (Ferrocarril del Sur) that ran through the Northern portion of Patagonia -with its final destination in Bariloche- and fostered tourism development in one of the most beautiful regions of the Andes Mountain Range. Another example is the Puerto Madryn-Rawson-Trelew branch line, where Irish people developed small cities. This was a real colonization enterprise undertaken by the immigrants. There are other two isolated examples in Patagonia but, as a whole, they are only small "islands-on-the-sea" in such a huge region. Nevertheless, they show the potential development of the region if the railway would have run through all its extension. Within such context, we may refer to two Argentinas: the one enjoying the benefits of the railway and the network of cities northwards the Colorado River, and the one in the South, with a low urbanization rate.

At the level of the railway system, the freedom of action given to corporations implied the possibility for them to build different gages, precluding integration among different regions. The absolute predominance of the railway along with its concentration in the region with the highest agricultural productivity have imprinted special characteristics to the territorial structure and the population distribution.

Second Period

Notwithstanding the fact that the railway has been a civilization and urbanization factor, the role played by roads and routes has been essential for urban development as from the mid-20th century. In general, the road system was laid parallel to the railway system, to compete with it.

Towards 1920, the development of new economic sectors with a weak production of goods required the possibility of diversified size vehicles, with greater flexibility and capacity to move outside exclusive fixed networks. In the light of this new scenario, railway companies built many branch lines to meet the new demand requirements. However, such extensions did not meet the expectations of the new players –small and medium producers–, who were looking forward to the introduction of changes in the transportation means that would suit their production volumes, not large enough to render the railway branch line extension profitable. This change had already been introduced for passenger transportation, allowing population to move far from the railway system nodes. The new rules of world economy demanded a transportation means swifter than the railway.

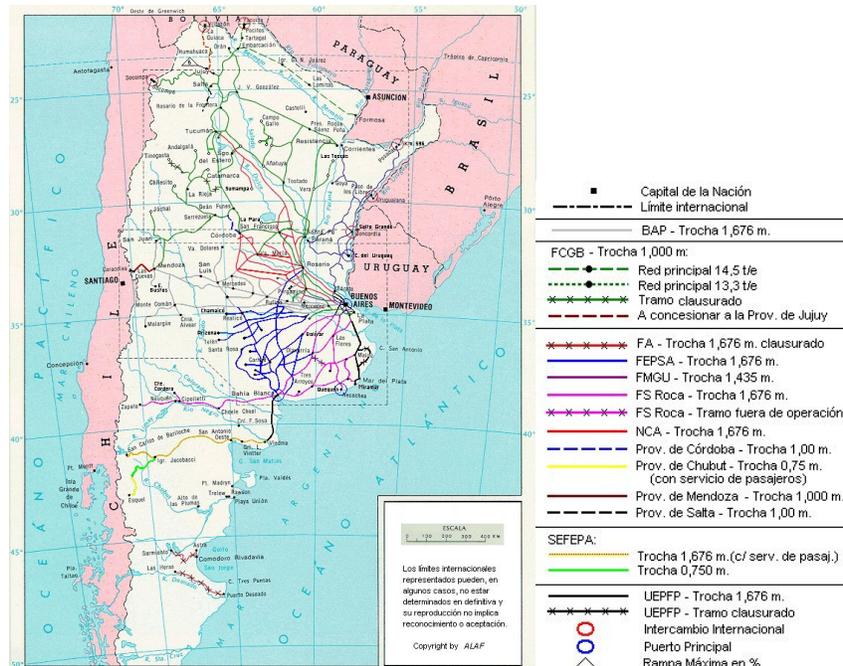


Figure 1. Railway System Distribution in Argentina. Year: 2006. Source: National Transport Regulation Committee (Comisión Nacional de Regulación del Transporte - CNRT).

With the introduction of oil, motor-vehicles became the necessary innovation for this new stage of development of the productive forces (Hobsbwam, E. 1998). The railway system gradual decline started, *inter alia*, as a result of the transformations undergone by production means that required new forms of mobility; thus, between 1929 and 1932, a 23% reduction was recorded in carried cargo.

The road system modernization and extension at the beginning of the 20th century had to cope with the constant pressure of railway monopolies. The 1923 Road System Law (Ley de Rutas de 1923) was demanded by all sectors –particularly the cattle breeding sector–, and promoted by North American capitals related to the automobile, meat packing and oil industries.

Within this context, although transformations of productive processes and the international division of labour were determining factors for the changes in the transportation means, the articulation between the different modes was defined by the action of the State, playing the role of mediator in the conflicts among the dominating actors.

Great Britain's loss of power, the system's lack of technological adjustment versus demand requirements and the absence of government policies led to the gradual deterioration of the railway system, which did not produce the significant benefits of the preceding period (Sommi, L., 1945).

Two different protagonists met to hasten the construction of routes. On the one hand, important production sectors that did not consider railways a suitable means to carry their products; on the other, the introduction and consolidation of U.S. capitals through the meat packing industry -up to then, an absolute monopoly of the British companies- and the automotive industry. Such competition between railway and road transportation was based on the flexibility of the latter, both with regard to routes and transported cargo volumes. However, necessary improvements had to be introduced in some impassable roads of vast regions of the country to allow for circulation (Smith, P., 1986; García Heras, R. 1990). This situation was aggravated in the absence of government policies capable of harmonizing the two systems (Potash, R.1981).

Towards 1947, in the face of the deterioration of the railway system, the government decided its nationalization, a measure with strong political effects and huge economic losses for the country, while favouring the British companies. Between 1947 and 1989, the national transportation policy privileged the automotive system through subsidies on the gas-oil price

and the road system infrastructure. However, the government developed no railway technological modernization policies, notwithstanding the fact that, through this transportation means and its low rates, the government could encourage the promotion of the peripheral zones of the cities and the farthest regions of the country.

By the 50s, the railway system was considered obsolete as a result of the development of automotive transportation at a world level. This situation reverted in 1973, as a result of the oil crisis, and the railway system was revalued and considered an essential factor for the European future development. The railway system allowed for a reduction in fuel consumption and, consequently, in contaminating emissions, as well as reduced traffic congestions while facilitating speed increase. However, the railway system modernization was not promoted in Argentina, in spite of the important benefits it could offer for the country's development. The relatively lower costs of the automotive transportation have been some of the arguments upheld by the different governments, as the political establishment responded to the pressure of the economic groups connected to the oil and automotive industries (Potash, R., 1981).

During the first period, construction of new roads was limited to the region close to the Capital City. England was still exercising some power. Domestic immigration growth, mainly concentrated in the outskirts of Buenos Aires, urged the paving of roads and the introduction of motor-vehicles as a necessary condition for land subdivision (Ferrer, A., 1977). There were no government policies capable of harmonizing both transportation systems (Potash, R., 1981).

The development of the national road system has been uneven, fostering the development of new ports (Quequén, Mar del Plata) and becoming a key factor for the expansion of large cities. Hence, pieces of land that were distant from urban centres were subdivided, no matter how far they may have been. A paved route could quickly connect the different urban centres and also increase the land value while promoting urban development (Fajnzylber, F., 1983).

Although the participation of the industry in the GDP had increased in the order of 24% in 1960, 50% of the industry added value resulted from the production of perishable consumer goods. Hence, the developmentalist government launched the third industrialization stage, substituting imports and promoting the creation of petrochemical, metallurgical and automotive industries, which massively burst in the market.

This economic development encouraged the road system expansion that experienced a sustained expansion during the 60s up to the mid-70s. The development of production forces, the international division of labour, and the population's demands urged the modernization of the roadway system.

Eighty-five percent of the present road system, covering 436,000 km, was built during that period. However, 43% was not paved. Out of the total paved roads, 60% was concentrated in the Province of Buenos Aires and Greater Buenos Aires. Consequently, it may be considered that the road system was built in terms of the population rate.

Third Period

As from the 70s, the import-substitution model started a period of crisis. Industrial reorganization and market globalization brought about a production system transformation in line with a new technical and economic paradigm where key factors were computer, information and communications technologies.

Argentina adopted neo-liberal policies, based on privatizations, market deregulation, labour flexibility, dismantling of public services and cut backs on public expenditure. Within this context, the railway system methodical dismantling process was deepened, concluding with the railway system privatization in 1993, although the government is still providing subsidies in excess of those agreed upon before the privatization. Out of 398,000 Km in 1947, now there are only 8,900 Km, which were granted under concession to several private companies. Table No. 2 shows the impact of such policies as a consequence of the cargo and passenger railway traffic reduction.

	1965	1975	1985	1990
Cargo	14,186	10,659	9,501	7,506
Intercity Passengers	6,373	6,890	4,943	4,700
Buenos Aires Metropolitan Region Passengers	9,065	7,973	6,801	5,960
Total Traffic Units	29,624	25,522	21,245	18,166
Index No.	100	86	72	61

Table 2. Argentine Railway Traffic (mill. Ton-Km/Pass-Km). (Traffic Units = Pass-Km + Ton-Km) Source: CNRT, 2000- 2001

Passenger railway transportation has been kept only in the Metropolitan area. The rest of the system is used for transportation of specific goods produced by their owners, for instance, cement. System dismantling has caused important problems in the territorial organization and city network. Numerous cities have been deprived of an economic transportation means in a huge country whose road system has not been modernized.

The political power granted privileges to the automotive sector in detriment of the railway that has practically disappeared, while the paved road system expanded at a rate of 3.07% per year. The State disregard for the road system maintenance and the deviation of the funds assigned for such maintenance led to the privatization of 32% of the national system. In total, 10,000 Km of the system -along which 75% of the transit used to circulate- were privatized (Azpiazu, D., 1997).

The excessive cost of tolls and the absence of alternative routes in addition to the lack of improvements in the road system infrastructure damaged not only production activities –with a consequent increase in transportation costs– but also the movement of people, whose mobility it reduced. This was translated in a new social and economic fragmentation.

Furthermore, provincial road systems were paved in terms of agricultural and tourism production needs, and took on the role previously played by the railway systems. Roads connecting main cities allowed for the development of new villages that turned into a social and economic exchange network. The complementary network linked small agglomerates with already consolidated cities.

3. Case Study

The city of La Plata, capital of the Province of Buenos Aires, is located 60 km. away from the capital of Argentina, Buenos Aires. Together with the neighbouring cities of Ensenada and Berisso, and their respective suburbs, La Plata forms a conglomerate of approximately 750.000 inhabitants that will be designated as Micro Region of Greater La Plata.

La Plata was envisaged at the end of the 19th century within the frame of an external context of technological innovations incorporated to the project of the city while allowing for a level of development that may be perceived even today. Such innovations took regional and local scales into consideration by including the railway and the tramway as structuring axes of the project. On the other hand, its categorized road layout enabled the subsequent incorporation of cars without serious drawbacks until very recently. Its location, based on its proximity to a port, and the existence of a railway and road infrastructure to the capital city and the inland provincial territories defined its integrating nature with the country and abroad right from the outset.

La Plata shaped up its profile around three axes: production activities (port and meat packers); administrative activities, as capital city of the Province of Buenos Aires and link between the Humid Pampa and the great metropolis (i.e. England), and cultural-educational activities, through a network of artistic stages of international standing and the University of La Plata as a pole of education, research and transference. However, this region, which had incorporated the most cutting-edge technologies with respect to means of communication at an early stage, gradually lost its initial characteristics. In order to take them up again, it is essential for the power circles to know or be willing to avail of its comparative advantages, much in the same way as those men of the Generation of the 80s did.

First Period: 1882-1929

La Plata was founded in 1882, a key moment of Argentine history. In this first stage, its spatial organization met, through its movement system, the demands of the first process of globalized economy by incorporating the new technologies that the prevailing paradigm allowed in those days and benefiting from a high-end technology (port, railway, electric tramway, electric light, telegraph, radio), with the urban innovations determined by the European hygiene trends (green trends, public spaces, number of buildings, waterworks, electricity and drainage system, education and health). The new refrigerating technologies enabled the development of the meat packing industry, under English capitals, turning the economy up to that date into obsolete and putting an end to salting houses.

The foundation of La Plata was concurrent with the period when the Argentine railways expanded, and their connection with the interurban network was one of the aims of the provincial government. Laying networks to enlarge those existing prior to the foundation was performed throughout the period of the following ten years. This allowed connecting La Plata and its port with the network running along the West and South of the Province of Buenos Aires, and, in its turn, with the city of Buenos Aires, from where it connected with the rest of the country.

The North branch -the only one existing prior to the foundation- connected Buenos Aires with the Port of La Plata, where the local agricultural and livestock production departed from. This railway line generated the creation of population nuclei around the stations located throughout the different network sections. These locations have presently turned into increasingly independent growth nodes.

In the foundational proposal, accessibility is posed as a concept of integration between the city and the country as well as abroad (figure 2). To this end, an integral transportation system was designed, encompassing railways, roadways and tramways.

The railway, conceived as a regional and urban connection, surrounded the foundational central area. Three stations of the beltway network allowed accessibility to different points in the city, speeding up the inhabitants' mobility; however, nowadays, only derelict buildings remain in those places. Other twenty-eight stations within the district perimeter completed the population and farming production transportation to and from the rest of the province. Most of them have gone out of existence today as a result of policies contrary to those implemented in other countries in the world as from the 1973 oil crisis and the new demands of the current economic paradigm. The four interurban stations that presently remain have revitalized the mobility and accessibility of the urban projects they service.

Roads played an active role in connecting the city with its surrounding area of influence and the rest of the province. The initial plan considered part of the current system to be completed by the end of the 1930s. By that time, the configuration of the road system, as it is known today, had been almost concluded (Ravella, O. et al, 2005).

The tramway, on its part, allowed the connection to inward district locations. The initial network was inaugurated in 1885 (horse-driven tramway), covering the central area and reaching the periphery, where the different activities were performed, while gradually expanding its coverage area, hand in hand with urban growth. It was also adapted to the new technology by electrifying them.

At this stage, a strong relationship between the transportation network and industrial activity become evident. This was the case of the regional rail corridor with the following features along the run: "Abasto" slaughterhouse (1884), "Melchor Romero" Hospital, YPF oil distillery (1925) and the Swift (1904) and Armour (1914) meat packing plants. The peak evidenced by meat packing plants, along with the subsidiary industries arising as a consequence thereof, extended up to the crisis of 1929.

The above mentioned transportation-industry relationship was also experienced around Arsenal Río Santiago, set up in 1905. It was the only integral shipyard in the country with production capabilities that allowed undertaking an extremely diversified production.

The oil distillery, built between the port and the city of La Plata, formed a pole of secondary activities together with the meat packing plants, with a heavy labour absorption which generated a considerable volume of new movements. This also brought about a factor of attraction for other activities and new housing agglomerates essentially settled in the

peripheral area, configuring a scattered, disarticulate, and socially fragmented urban structure. This process was consolidated in subsequent periods.

Until the end of this stage, marked by the coup d'état of 1930, urban growth had kept the balance of the foundational ideals, as well as the principle of connectivity with the mediate and immediate environment, in spite of the scanty regulations. The expansion was mainly centred upon two sectors with distinctly different socioeconomic profiles: the Northeast zone, along the corridors connecting La Plata with the Capital City (secondary dwellings), and the Southwest zone (permanent housing related to productive activities).

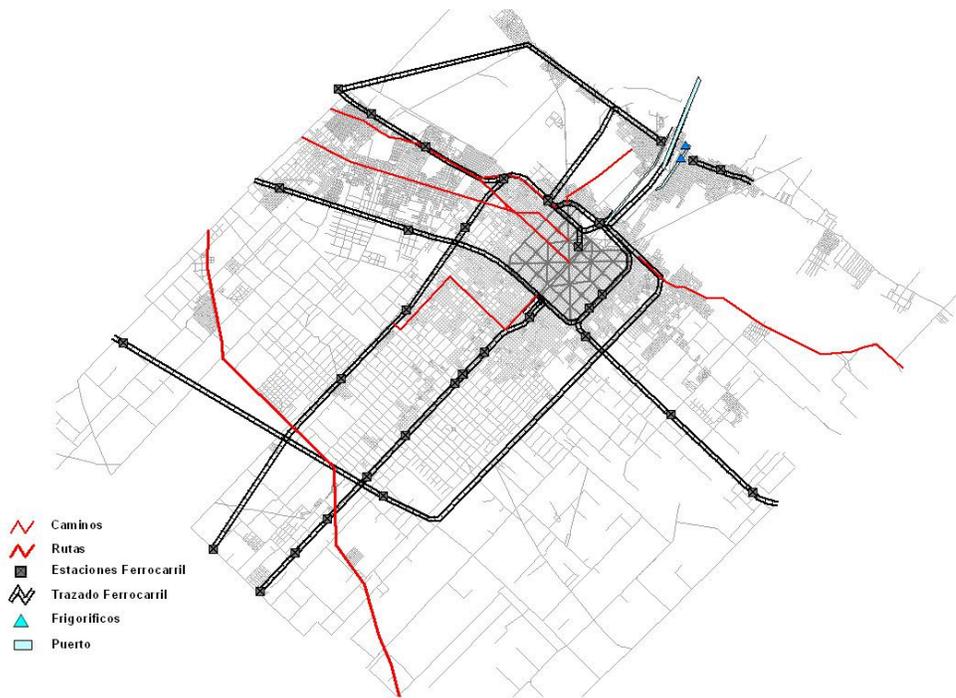


Figure 2. Links of La Plata Region, Period 1882- 1929. Source: UI6B, IDEHAB.

Second Period: 1930- 1970

This stage is characterized by a twofold phenomenon impacting the region. On the one hand, the economic concentration generated as from the petrochemical industry settlement, started in 1929 with the establishment of YPF, a state-owned company devoted to oil refining, which gave rise to one of the most important petrochemical poles as from the end of the 70s. The process went hand in hand with the emergence of small and medium auto parts companies related to the automotive industry located in the surrounding area of La Plata (Peugeot). Also, metallurgical and machine tools SMEs start growing. On the other, the crisis of the agroexporting model affected the local meat packing industry, which glided into a long process of agony, triggering the closure of the meat packing plants between the decades of the 60s and the 80s. The obsolescence of their technology, requiring unskilled labour, the closure of the port to trade their products, lately channelled through Buenos Aires, and the restrictions imposed by the European Common Market on meat imports were among the factors that gave rise to such a situation.

The absence of the State in what concerns implementing restructuring policies and the partition of La Plata into three districts in 1958 (La Plata, Ensenada, Berisso) were some of the causes that originated the unemployment spiral and productive depression characterizing the region as from that period onwards, of which situation it has not recovered up to date. The fact that the Port of Buenos Aires captured the flow of port operations diminished the operation capacity of the Port of La Plata and turned into a genuine deathblow for the regional economy, with a negative impact on its future development. Also, the fact that the flow of exports was captured and lost by the Port of La Plata and a pole of concentration of activities was created only to be later disarticulated made the region undergo a fifty-year

period of de-structuring processes of its production capacity as well as its inability to restructure its socioeconomic possibilities. This was accompanied by a decline in the road system construction dynamics and maintenance, which system had not been modified ever since its configuration in 1940 and has remained up to date with only few changes (figure 3). The automotive public transportation system that had started in 1932 with a medium distance service covering the section La Plata-Magdalena was extended in 1934 with an urban and a long distance service: Buenos Aires-La Plata-Mar del Plata (along Provincial Route 11). In 1935, the section La Plata-Buenos Aires started to be covered, with an overlap between the road and railway system on the same corridor. This situation gave rise to a concentration of the offer on the La Plata-Buenos Aires axis.

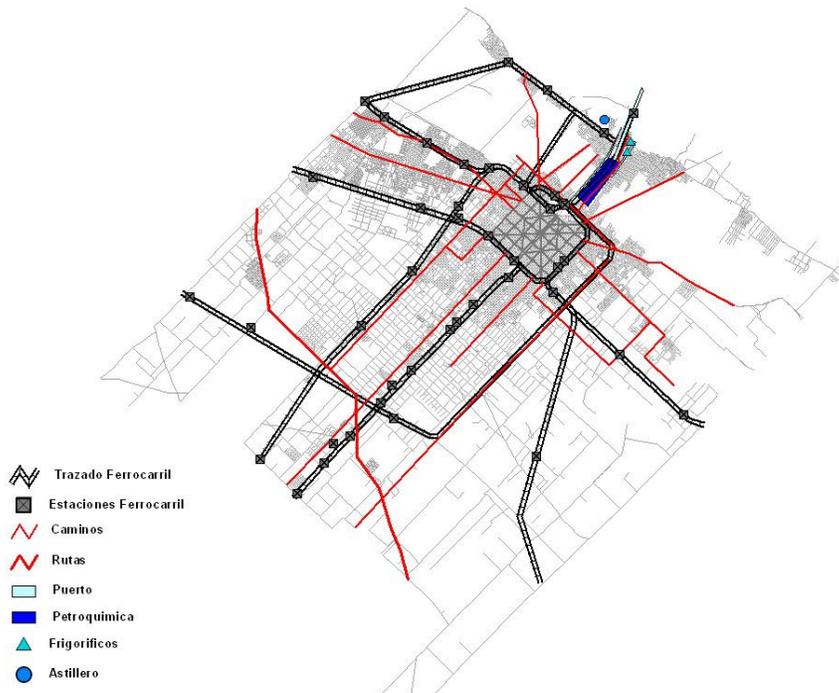


Figure 3. Links of La Plata Region, Period 1930- 1969. Source: UI6B, IDEHAB.

The overflow of the original tissue, favoured by the appearance of automotive public transportation for passengers, occurred mainly along the communication routes towards Buenos Aires and the access to Route 2, without a prior occupation planning of this space.

The tramway system was also affected by the competition posed by the new automotive services to the same points of attraction. The growing decay ended in their disappearance in 1966.

On its part, the railway continued with the expansive development of the prior period, but started a process of irreversible decline as from the 60s. By lifting branch lines, such decline led to the isolation of those sectors lacking an adequate level of accessibility and connectivity.

The same disparity experienced at a national level between the Northern region, serviced by the railway, vis-à-vis the South, with vast unoccupied areas, was also evidenced in the district of La Plata. Thus, it was possible to draw a distinction between the Northeast sector, with a great expansion in terms of population, commerce and services, favoured by a triple connectivity with the Federal Capital (two roadways and a railway branch line), and the Southeast sector, where lifting the railway network exercised a direct influence on the stagnation of the area in terms of population (until the 80s) and production, to the extent of being considered today the backyard of the city, forgotten and relegated. The growth of the population evidenced in recent years is related exclusively to two comparative advantages with respect to the rest of the area: better opportunities with respect to available vacant lots

and the price of the land, which enabled the access of middle class sectors to self-owned housing.

Among the several factors that had an impact on the characteristics of the period, the following deserve being considered: the pressure exercised by the economic interests related to the automotive industry, the promotion of using oil, and the low profitability reached by the guided transportation system, nationalized at the end of the 40s. This consolidated the development of a model known as "urban-automotive" that worsened the urban fragmentation in the areas where it evidenced no capacity whatsoever to replace the absence of the railway.

Third Period: 1971 – The present

In the decade of the 70s, a deindustrialization process started, wherein priority was given to financial activities coupled with an indiscriminate market opening. Such circumstance caused the disappearance of many small and medium enterprises and placed the country and the region in a position of disadvantage with respect to the new world economic order. In the region, it generated a concentration in the petrochemical industry, evidenced in the growth of GDP per capita from 1415 in 1970 to 3408 in 1985. This industry is characterized by the incorporation of capital intensive modern technologies and the implementation of new organizational forms, facts leading to a rise in unemployment that reached 19.5% of the economically active population in the area. This percentage exceeded national unemployment rates (14.5%) by far, in spite of the creation of small and medium service industries that incorporated part of the staff ousted from the labour market, which configures the present social profile of the region.

Throughout the stage of the economic transformations undergone in the Micro Region, changes were reflected in the mobility of goods and people.

A plurality of factors influenced the territorial transformations of this last stage, deepening the trends of the spatial-territorial organization of the previous periods: embryo centralities were emphasized while the growth of population nuclei on the La Plata-Buenos Aires axis was maximized fostered by the construction of the highway. Along this axis there is a continuous tissue of mixed destination (dwelling, commercial and entertainment) directed to middle and middle-high sectors that is gradually configuring a linear suburbanization. The current process of territory occupation deepens spatial and social fragmentation, which is reflected in a substantial raise in the polarization of the habitat: at one end, illegal settlements in low areas and fiscal lands, and at the other, gated urbanizations.

Very much like at the beginning of the 20th century housing agglomerates evolved around railway stations, the highway attracted, in its case, the construction of a new kind of undertaking: *gated neighbourhoods* resulting from real estate businesses that do not adjust to an integral process of territorial organization. These urbanizations, a product and consequence of the urban-automotive model, generate new demands of mobility absorbed by private cars, the number of which increased heavily from one car every 4.5 people in 1993 to one car every 3.8 people in 2001.

Simultaneously with this increase in private cars, a decrease of approximately 20% of public transportation for passengers was evidenced. Such decline has been the result of a deep crisis due to, among other reasons, the obsolescence of its organization -that was not adapted to the new forms of mobility demands-, keeping the "Ford type" of structure adopted in the 50s, highway congestion, no updating of state policies, etc. As a consequence of its incapacity to adapt to the present needs, part of the users of traditional public transportation was transferred to other forms of mobility; this is the reason why taxis and chauffeur driven cars have substantially increased their demand.

With respect to the old railway system, only the corridor Buenos Aires-La Plata is kept, while the remaining branches constituting the integrated connectivity network to the region and the rest of the country were lifted, as shown in figure 4. Thus, whole towns and production areas become confined, with limited possibilities of access to national and foreign markets and greater gaps between the profitable and non profitable circles. At the same time, certain sectors of the population have a restricted accessibility because of the lack of mass public transportation means (Ravella, O. et al, 2005).

Although the railway branch line joining La Plata and Buenos Aires has improved its operation since it was privatized (between 1994 and 1998 travels increased from 0.1% to 12%), it has not reached its historical levels because of the competition of automotive transportation in terms of speed, schedule, safety and comfort, though not in rates.

Concurrently at this stage, new commercial forms appear in the territory. They constitute specialized centralities, far from the urban centre, such as large areas, gas stations with their supply centres, entertainment areas, etc. A new form of disintegration arises as a result of mobility, essentially related with private cars, which excludes those segments of the population who do not have such means of transportation from the access to these facilities and services.

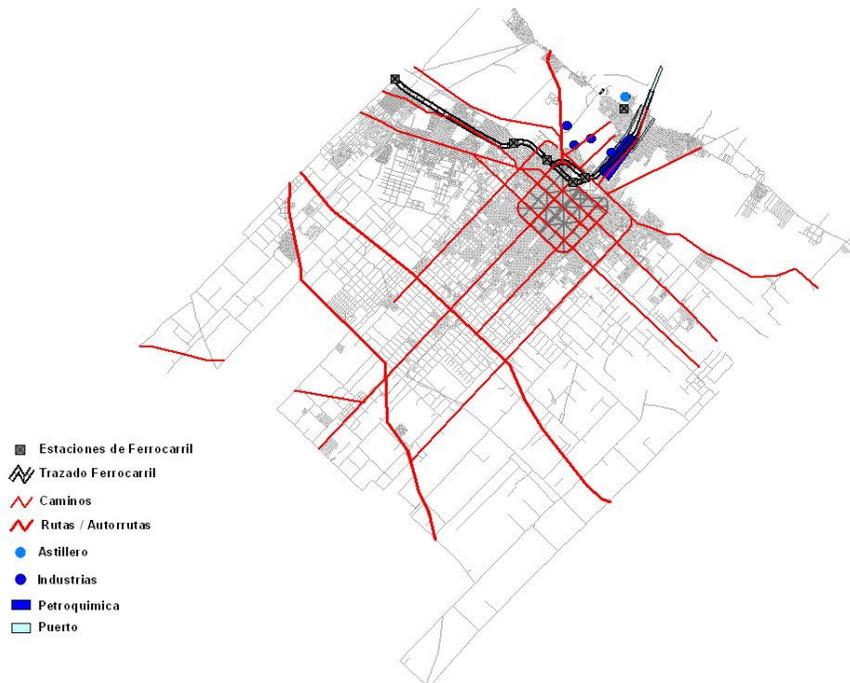


Figure 4. Links of La Plata Region, Period 1971 – The present. Source: UI6B, IDEHAB.

4. Conclusions

The growth tendency of La Plata region was conditioned right from its foundation by the attraction towards the Federal Capital. At the beginning it was the railway, then the double road, and recently, the highway. The need to privilege the Northeast axis expansion as well as the connectivity of both freight and passengers with the Capital City never ceased to strengthen during the one hundred and twenty-four years ever since La Plata was born. A privileged area from a scenic, social, bioclimatic and transportation standpoint, it generates a dynamics that fortifies itself while consolidating new centralities.

The regional imbalances between the Northwest and the Southeast areas under study show that this latter has experienced a sustained process of decline as from the 70s. The origins of this situation are related not only to socioeconomic reasons but also to the disappearance of transportation, a determining factor for the stagnation of this area. Its pre-eminently farming nature of dairy exploitation required the railway as an almost excluding connectivity factor. The scattered population, reaching five thousand inhabitants, is not profitable enough for passenger public transportation companies. Thus, lifting the railway branch lines not only deprived this population of marketing its production through an efficient and low cost means but also de-structured relational life and hindered the access to facilities and services. The stations located only some kilometres away from each other were the link articulating the immediate rural periphery with the urban area.

The two railway workshops relevant for the regional economy, now derelict, exhibit their vacant areas as witnesses of a recent past that will never return. The buildings of the railway

stations that mark a phantom trail in a sector where the railway system is no longer an alternative option are also the testimony of that past. The present claim of the population as to the need of communication and production development is related to reopening the railway branch lines.

The processes of integration /disintegration generated in the peripheral regions are related to the trend factors maximized by the political decisions inherent to the neo-liberal principles. Dismantling the railway in the country has had a negative impact on the peripheral regions where the local political decision does not foresee or introduce an alternative for the connectivity of a given sector.

The region of La Plata, during its foundational stage, was conceived as an urban centre supplied by a semi-rural strip. Transportation systems secured a homogeneous connectivity for production activities and the population throughout the whole area and among areas of primary, secondary and tertiary activities. The absence of a plan to correct the tendencies appearing as a consequence of the obvious gravitational force of the Capital City and its port coupled with decisions made at both provincial and national levels with heavily negative repercussions for the region and the lack of interest of local powers, were the determining factors to configure a disarticulate zone, detached from the region.

Bibliography

Azpiazu, Daniel. (1997), "El nuevo perfil de la élite empresaria. Concentración del poder económico y beneficios extraordinarios". *Realidad Económica*, N° 145, Buenos Aires, (enero-febrero).

Fajnzylber, Fernando. (1983). *La industrialización trunca de América Latina*. México: Ed. Centro Editor de América Latina.

Ferrer, Aldo (1977) *Crisis alternativas de la política económica Argentina*. México: Fondo de Cultura Económica.

García Heras, Raúl (1990) "Las Compañías ferroviarias y el control de cambios en la Argentina durante la Gran Depresión". *Desarrollo Económico* N° 116, (enero /marzo)

Hobsbawm, Eric (1998) *Historia del siglo XX*. Buenos Aires: Ed. Crítica

Ortiz, Ricardo M. (1974) *Historia Económica de la Argentina*. Buenos Aires: Plus Ultra, 4^a ed.

Pérez, Carlota. (2005) *Revoluciones tecnológicas y Capital Financiero*. México: Siglo XXI Editores.

Potash, Robert. (1981) *El Ejército y la Política en Argentina, 1928 – 1945. De Irigoyen a Perón*. Buenos Aires: Ed. Sudamericana,

Ravella, Olga. Giacobbe, Nora, Frediani, Julieta. (2005). "Tendencias y rupturas en la expansión urbana analizadas desde la movilidad". *Revista IDEHAB* N° 8

Sbuscio, Silvia; Frediani, Fernando, (1995). *El Ferrocarril Debate de un Siglo*. La Plata, Congreso de Historia Argentina, Mimeo.

Scalabrini Ortiz, Raúl (1940) *Historia de los Ferrocarriles Argentinos*. Buenos Aires, Ed. Plus Ultra.

Smith, Peter (1986) *Carne y Política en Argentina*, Buenos Aires. Ed. Paidós.

Sommi, Luis. (1945) *El monopolio inglés del transporte en Buenos Aires*, Buenos Aires: Ed. Claridad.