

“Organizing Capacity of Territorial Actors in Medium-sized Cities”

Jaume FELIU

Jaume FELIU

Departament de Geografia, Història i Història de l'Art
Universitat de Girona
C/ Ferrater Mora, n.1
17001 Girona
Spain

Abstract: We are interested in the capacity of organisation and the difficulties to create networks of actors in medium-sized cities that receives a station of High Speed Train (HST). HST is constructed mainly to serve big cities, but it is also an opportunity to create interesting processes local development in those territories between big cities. Local actors can play an important role in it. We study three cities through the application of a new metrology to evaluate the degree of local development that HST supposes.

1. INTRODUCTION AND STATE OF THE ART

In a globalized world, more territorially competitive, big cities expect to receive great events to prosper, as Olympic Games, Universal Exhibitions or International events. Intermediate or medium-sized cities, however, have to trust in other events to progress, as «High-Speed Train» (HST). Really, many medium-sized cities expect this great infrastructure of transport to allow them to make a considerable qualitative jump in their economy, city planning, territorial position and quality of life. The interest in this field has taken us to investigating to what degree HST drives to processes of local development.

We understand local development as the process that increase and reproduce, in the long term, local resources, material as well as immaterial, from the implication of the collectivity (Feliu, 2005). Likewise, local development presupposes the activation of explicit and implicit factors. Explicit elements would be those essential characteristics of the city and its territory for development, which one can describe, enumerate and detail objectively «from outside», from an exterior point of view. In the case of HST, for example, we can determine that the existence of an important contingent of qualified population, a powerful economic sector or a significant cultural patrimony are factors of success for the new infrastructure. But these factors are not the only ones to take into account. Also implicit factors, those that are gestated «from inside», from territorial agents and their relationship with resources, are fundamental. They are difficult factors to systematize and configure the particularity of every urban context, that what some call the «genetic code» of every city (Rabin, 2002). These implicit factors are established in the relationship between local actors and the contract that leads to the local project of development.

HST is a French invention developed in the 60s and 70s of the 20th century. French government defended the creation of a new fast and efficient transport system to join main cities of the country. On the other hand, they wanted to make use also of the existing train system to prevent important costs that could be caused. This way, the *Train à Grande Vitesse* (TGV) was born, a train that would circulate to more than 250 km/hr in the new train lines and at less speed by conventional ones: it would be as «Clark Kent in the conventional line, and Superman in the special lines» (Lolive, 1999). The first TGV line was inaugurated in 1981 between Paris and Lyon. Rapidly, it was proved that it was very profitable and that it could extend towards other directions, always from Paris. Seeing French success, other European countries were added to the adventure of High Speed: Italy, Germany, Holland, United Kingdom and, in 1992, Spain. HST network was considered from the European Commission as a Trans-European Network of Transport.

As HST network kept extending through Europe the need to connect smaller cities, those situated among big cities, was made evident. First, these stations were placed in the periphery, but medium-sized cities asked for more centric stations, urban stations. The rulers of these cities thought that HST could provoke processes of economic and social development. That is, that they could entail «positive effects» in the territory.

At present, after some years, we can make balance of socioeconomic effects of this transport infrastructure in the intermediate cities. Numerous investigators that have worked

in this subject are not too optimistic about this (Martí-Henneberg, 2000; Bellet, 2000; Rabin, 2003; Plassard, 2003; Feliu, 2006a). From the study of different medium-sized cities as Mâcon, Montchanin, Valence, Aviñón, Le Mans, Mannheim, Utrecht, Ciudad Real or Puertollano, authors determine that HST does not contribute, by itself alone, to economic growth of the city. In any case, HST speeds up those socioeconomic and territorial processes that were already taking place before its construction. HST, therefore, «moves what was already moving», and hardly provokes automatically some new effects in economic and social structure of cities.

In relation to this, many authors had already criticized socioeconomic concept of «effect» of the High-Speed Train (Offner, 1993; Plassard, 1997, 2003; Joignaux, 1997; Burmeister and Colletis-Wahl, 1997; Governa, 2001; Miralles 2002...). The effects of any infrastructure are usually described as direct effects and indirect effects. First ones happen in the short term, and entail a greater mobility of population, a greater activity of the station or an increase in the expectations of the city. They usually take place in a similar way in all the studied cities. However, indirect effects, those that are produced in the half and long term, are usually different according to every city. In some cases, station area has entailed an increase of state prices, in others not. In some places, new infrastructure has entailed the change of use of residence to tertiary (offices), but in others not. The conclusion closes that great infrastructures in general, and HST in particular, do not generate same socioeconomic and territorial effects in different cities. That is, that «effects» of HST are not foreseeable in terms of cause-effect relationship.

This fact shows that territory is a complex phenomenon. It is formed by places, cities, regions, configured in a historical way through social relations and their material and immaterial resources, and they answer differently to external stimuli. As Dematteis (1985) explains, «the land turns into territory when it is means of communications, working object, production, exchanges, cooperation». Thought this way, territory can not be observed as an abstract space, simple and foreseeable where some determinist relations of cause-effect are produced, as those that are described many times with High-Speed Train. It has to be thought in another way, for example, as a complex system.

Indeed, a way to face the study of the city as a complex phenomenon, and its relationship with HST, is the systemic theory (Maturana and Varela, 1984; Conti, 1996). We can see the city as a complex system, as a set of subjects and elements that interact between themselves. And we can see HST also as a transport system. The relation between both systems will not be, therefore, of cause-effect, but a mutual adjustment («structural coupling»). Transport system will affect the city, but it will not determine its behaviour.

So, which are the elements that play in a process of local development for a city? Many authors think that the answer is in the subjects, in the economic and social agents of the city (Berg and Pol, 1998, Pol, 2002; Plassard, 2003). If local agents -government, enterprises, University, Chamber of Commerce, business, environmental and cultural associations, etc.- are organized adequately and they create joint strategies to make use the advantages of HST, development improvements will take place. If strategies are not created, the expected effects will not take place. And more, it's necessary a perception of HST as an endogenous resource for the city. It is necessary that local agents understand it

as a way of promoting their own resources (Pucci, 1996; Governa, 2001). If it is not like this, the only ones that will make use of the new infrastructure will be a few agents, many times external ones.

All these reflections relocate the debate of local development towards the political arena. That is, that one of the most important elements for the local development will be the planning, or more precisely, how local agents are organized to plan strategically the utilization of HST, and how local agents interact with other agents for the location of the station in the city. Therefore, we will have to determine which is the organisation of the internal local network and which is the dynamic of multilevel government at national and regional scale.

For this reason it's necessary the creation of a new methodology that takes several elements into account. In the first place, technical conditions will have to be analyzed, as which it is the location of the station, -centric, peripheral, semiperipheral-, which are the urban characteristics of the city and the station neighborhood, which are the economic potentials of the city. In the second place, it will have to be studied how local actors are organized and which planning dynamics has occurred among different levels of government.

This last exercise of analysis and diagnosis (the organization of territorial actors), is the one that has been extended in this research for three medium-sized cities. The chosen cities have been Lleida, Avignon and Novara, situated respectively in Spain, France and Italy. The three cities are considered as medium-sized by several reasons. In the first place, for the dimension: they are about a hundred thousand inhabitants. In second place, because the functions: they are intermediaries between the big city and the territory. Finally, because they have an identity of capitality, institutional thickness and historical roots that configure them as territorial service centres. Another common element is that they are located in the European Mediterranean Arc, a dynamic space in process of growth.

Finally, it has been wanted to analyze which are the issues that affect specifically intermediate cities in relation to the organization of the actors implicated in HST planning. For this reason a transversal reading of the three studied cases has been elaborated showing the fields where problems of organization of this kind of cities.

With this research, we want to deepen in the processes of organization of actors who allow processes of local development, especially in this urban context (the intermediate city), that sets off from a situation of weakness in aspects of governance.

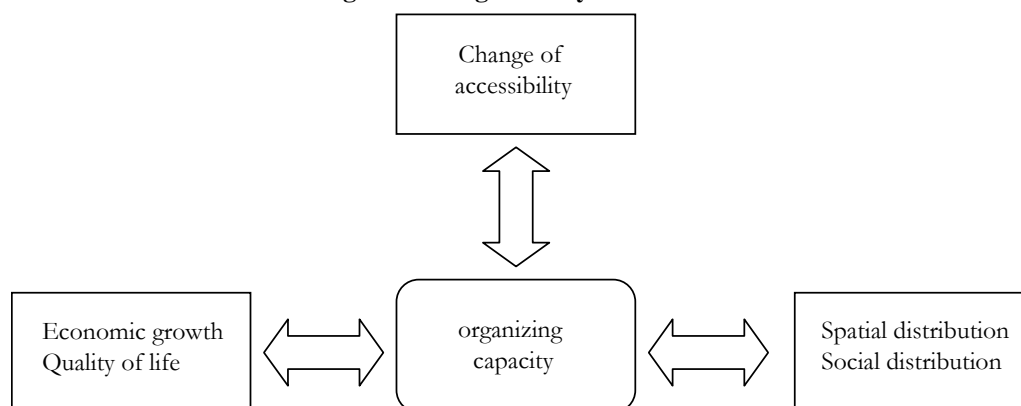
2. METHODOLOGY

To evaluate the degree of local development that HST involves has been configured a methodology that, from qualitative and quantitative information, analyzes, firstly, technical characteristics of the intervention (objective factors) and organizational characteristics of the agents (subjective factors). These last one divide into internal and external interaction of the actors. In the second place, a concluding reading that evaluates the process and the product of the introduction of HST in the city from the Territorial Local System (SLoT) as instrument of analysis is carried out.

An interesting model that allows analyzing the interaction of such objective and subjective elements is that configured by Dematteis (1995) and that it's called Territorial Local System (SLoT), defined as "a group of reciprocally interacting bodies which, as a function of their specific relationships with a particular environment or local *milieu*, behave, in certain circumstances, as a collective body" (Dematteis, 1993, cited by Governa, 1997, p. 40).

Then, methodological referents who have been used are two. The first is Dematteis (2003), who elaborates a methodology for the analysis of SLoT. The second is Berg and Pol (1998), who analyze the capacity of organization of 14 European urban areas with HST. They use a double methodology. Firstly they obtain information from interviews carried out to different stake holders, as local and regional authorities, chambers of commerce, etc., to acquire valuable qualitative information. Afterwards, they carry out an analysis of every city following a schema that tries to cover the complexity of each city, a schema that leads to an «integral analysis». The criteria that are considered for the analysis (figure 1) are six: Change of accessibility, Economic Growth, Quality of live, Spatial and Social distribution of the activities and, joining all together, Organizing capacity.

Figure 1. Integral analysis of HST.



Source: Berg and Pol, 1998, p. 9.

One of the studied aspects by Berg and Pol (1998) is the «organizing capacity», a substantial condition for good implementation of HST into an urban system. It is considered fundamental because it comprises the interests of implicated actors and it allows the optimum use of knowledge, work and capital. Organizing capacity is defined as:

“The ability of those responsible for solving a problem to convene all concerned partners (public and private, internal and external), in order jointly to generate new ideas and formulate and implement a policy that responds to fundamental developments and creates conditions for sustainable economic growth” (Berg, Der Meer y Pol, 2003, p. 1.961)

So, we can synthesize the suggested methodology in the next schema. In the first place, it's needed the elaboration quantitative and qualitative information. Interviews to local experts in this field of study is considered important for qualitative information. In the second place, information is ordered following the first part of the schema, which comprises two

ways of observing the characteristics of the city: technical characteristics of the intervention and organizational characteristics of the agents. The sections of this analysis are subdivided like this:

Technical characteristics of the intervention

Aspects of transport system

 Territorial position of the city from HST

 Characteristics of HST station

Aspects of urban intervention

 Urban model to urban scale

 Urban model to station scale

Aspects of the economic planning

 Different economic projects of the city related with HST

Organizational characteristics of the agents

Capacity and typology of external structuring

 Supralocal agents and their projects

 Degree of conflictivity and cooperation between local and supralocal agents

Capacity and typology of internal organization

 Capacity to create a city project from HST

 Agents that take part in local project and their dynamics

 Territorial area of the projects

Finally, a concluding reading that evaluates process and product of the introduction of HST in the city from Territorial Local System (SLoT) as instrument of analysis is carried out. The schema is the following:

Evaluation of the territorial process

Network of local actors

Range of actor's network

Functional Cohesion

3. CASE STUDIES

This methodology has been applied to three medium-sized towns of the Mediterranean Arc: Lleida (Spain), Avignon (France) and Novara (Italia). They are all cities with HST, of about 100.000 inhabitants and near to important metropolises. We show here the synthesis of their situation.

The first case is Lleida (118.000 hab.), situated in the northwest of Catalonia. It has a central High-speed station. When the train is going to operate completely it will place the city at 50' of Barcelona and at 2 hr of Madrid. The arriving of the AVE (*Alta Velocidad Española*) in Lleida was taken for pretext to improve intermodality of the station, urban characteristics of the quarter and economy of the city. The most of performances were

configured from a strategic plan called «*Pla de Dinamizació de l'Alta Velocitat de les Terres de Lleida*» (www.lleidatav.org). It was driven by the Chamber of Commerce, the Town Council, the Regional Government, the University and other institutions of the city. The Plan managed to create positive dynamics among the actors and to assert –with other plans– a local project capable of making use of resources of the *milieu*. The matter came from the negotiations with the central government. Although were obtained –with many difficulties– certain investments in the main station, the lack of dialogue provoked also the loss of an opportunity for Lleida: the refusal of building the second station on the by-pass. This affects negatively the development of the Technological Park and the development of the model of city considered in the last General Plan.

The second case is Avignon (89.500 hab.), in the French Region of *Provence-Alpes-Côte d'Azur*. The semiperipheral TGV station places the city at 30' of Marseille, 1 hr of Lyon and 2 hr 30' of Paris. The decisional process of the HST route in Provence and the location of the station in Avignon were long and troubled (between 1989 and 1995). It provoked a great protest of local agents and severe internal tensions between municipal government and local environmentalist groups. Everything flowed into the change of political majorities in the government of the city and of the Department. The new government did not have any project of development for the new quarter of the station –and this would be one of the causes that no performance has been carried out around the TGV station yet. For this reason, the project of Courtine was ordered to an external institution, without too much leadership of the local governments. The result has been a Plan for the quarter where it's suggested a «*Cité de la formation*» –a new space with centers of seminars, congresses, etc., for the permanent training of workers. The Plan foresees also the construction in the sector of some hotels and logistic equipments.

The last case is Novara (102.000 hab.), in the Italian Region of Piemonte. The HST station, central, will place Turin at 30' and Milan at 15'. At the beginning, there only had to be a single station HST in the city, at the historical station. But finally, for pressures of the biggest cities, a second station will be built in the outskirts of Novara, in the by-pass, to prevent to pass through the town center. The investment of HST was taken as an opportunity to remodel all the train system of the city, to restructure urbanistically the degraded neighborhoods around the station and to locate next to the station the two large equipments that symbolizes the economic specializations of the city: the Technological Park of the chemistry and new materials, and the CIM (a logistic center). The second station will be placed in the outskirts and allow connecting cities as Turin with the airport of Malpensa directly, although it will take potential of transformation away from the central station. Local government did not agree with this decision, but they could not take part in the negotiations where its accomplishment was decided.

3.1. Transversal reading of the cases

From the transversal reading of the cases of study we can extract some ideas concerning to the organization of territorial actors in relation with new rail infrastructure.

Multi-scalar conflictive relationship

Three scales of performance (that correspond to three interests groups or three levels of projects for the High-Speed Train) can be distinguished: national, regional and local. At the national scale, represented by the state government and rail companies, HST is considered mainly to join and articulate biggest cities of the country, giving preference to the most direct and efficient lines. At the regional scale, represented by regional government and big cities, predominant interests are those of the articulation of regional territory giving priority to the interests of connectivity of bigger cities. Finally, to local scale, represented by local agents and medium-sized cities, interests are in the positioning of medium-sized towns in the territory and its local development.

In this context, local scale is the one that is in a weaker position, but it is, at the same time, the one that can produce better processes of local development. For this reason, and because of the existence of several territorial interests, local actors must take an active and propositive role, even of leadership, in front of other scales of decision, in front of attitudes of constrained government of superior levels (national, regional).

Contained local network of local actors

The network of local actors that lead transformations usually correspond to a few actors and very institutionalized ones. On the one hand, municipal government is the one who usually leads the network, especially because the station is located into the municipality, it has urban competences and it has internalized -when it has leaders with vision- an economic and social model of the city.

Another actor is the «territorial administration» (province, department). This actor gives territorial legitimacy to the project, as well as representativeness of smallest municipalities (which don't usually take part in the network who decide the project). Territorial administration usually maintains certain relationships of conflict with municipal government, which are not always of political character, but due to the competition between both administrations.

Chambers of Commerce and Universities (all of them present in the studied cities) are the other two actors that use to be involved in the project of transformation, together with many other actors (enterprises, business associations, other municipalities, citizens, etc.). Usually, implication of other actors is made difficult because the few mechanisms of participation that institutions are endowed and for the fear to solve the conflicts that rise up among internal actors.

Difficulty to go beyond the municipal area

In territorial terms, the difficulty that entails an urban project that goes beyond the strict municipal limits of the city is confirmed. In spite of supramunicipal arguments, reality is that small municipalities that limits with the city, and that many times have elements in common (industrial estates, neighborhoods, stations, areas of growth...), do not take part in the core of actor's network.

On the other hand, it's difficult to think that this dynamics changes by itself if doesn't appear superior administration initiatives that produce supramunicipal planning with some real contents.

Crisis and project capacity of the city

A close relationship between the needs of the city to be endowed with a new local project of development and the exploitation of HST occurs.

Cities that have been highlighting situations of economic or territorial crisis in the last years or decades are those more activated to benefit from new situation in the network of cities and those more able to make use of the new station to carry out new urban projects, in economic and urban terms. Often, these projects already existed before the arrival of HST, but they could not be carried out because the high cost or the lack of consensus among the actors. HST, in these cities, acts as a revulsive, a sparkle that lights a new historical stage of the city.

Difficulty to extend HST profits to the territory

One of the goals for the construction of the new infrastructure is the extension of profits to the rest of the territory. Benefits should not be concentrated only in the city where station is located. They should be also a factor of development of other regional towns and other spaces that are not exactly near to the city.

The establishment of alliances with local actors of other cities and next territories can be a recommendable policy to extend HST profits and to give activity and sufficient critical mass to HST station of medium-sized city. These alliances should go accompanied with a system of physical, strategic and territorial planning to different scales: station, municipality, urban area and territory.

4. CONCLUSIONS

The methodology elaborated to study the organization of territorial actors allows the analysis of the most important subjective (or implicit) components in the process of local development from High-Speed Train. But we should remember that the analysis of objective (or explicit) factors is equally essential, even if in this text they have not been described deeply for reasons of subject and extension.

Presented methodology acts in accordance with two phases. In the first place, it tackles the study of technical characteristics of the intervention and organization of the agents. In the second place, from this information, it interprets the process of local development that provides the introduction of new infrastructure in the urban context. The process of development carried out in the three analyzed cities shows us organizational differences in the Spanish, French and Italian contexts, differences that correspond to more or less hierarchical, or more or less formal schemas of planning.

But the analysis also shows us many similar elements among the cases. In all of them, intermediate city appears as a very weak actor in the relationship with other implicated actors in HST planning. In the first place, intermediate city plays a fragile role in the

process of decision of HST at multilevel scale, when, in fact, it is the best positioned actor to lead the processes of local development. In second place, the reduced dimension or critical mass make more difficult to store a powerful network of local actors with capacity of influence. In the third place, and as consequence of the previous realities, intermediate city is more sensitive to local conflict that rises up with the project of development. In the fourth place, the problem of improvement of municipal limits is confirmed to establish a greater area for the project -a question that has been an objective in some countries as France, but without too many positive results at the moment. In the fifth place, it's observed a close relation between the sense of crisis of the city and the will to reinvent itself with a new project of development. Finally, the last but not the least, it's confirmed also the difficulty that other territories or next cities can make use of the arrival of HST for their own development. Then, the capacity to create regional development is lower.

Probably, not all the problems that affect intermediate city have solution, or it exists in different degrees. But many problems are originated from the lack of a correct organization of local actors. We can distinguish, besides, both areas where this organization is deficient: multilevel relationship among the different actors, and among local actors themselves. In both cases, organizational improvements can be produced in the line of what many authors call the change of a process of government to a process of governance (for example, Governa, 2002). This way, we can talk about actions addressed to external and internal governance. For correct external governance, supralocal institutions must favour dynamics of dialogue and negotiation. They must also favour instruments for adequate planning at the urban area scale and the adequate management of intermodality at regional scale. For internal governance, local actors must follow some guidelines: taking an active and propositive role facing other scales of decision; establishing a wide network of local actors, with specialized roles of different actors; increasing the degree of real participation of different agents; and seizing the opportunity that HST represents to carry out substantial changes, or to reaffirm own development axes in the model of city.

REFERENCES

- Bagnasco, A and Le Galès, P. (1997) Introduction. Les villes européennes come société et come acteur. In *Villes en Europe*, pp. 7-43, Bagnasco, A and Le Galès, P. (eds.). La Découverte. Paris.
- Bellet, C. (coord.) (2000) *Les oportunitats del tren d'alta velocitat a Lleida*, Pagès Editors, Lleida.
- Berg, L. Van den; Der Meer, J Van; Pol, P. (2003) Organizing Capacity and Social Policies in European Cities, *Urban Studies*, vol. 40, n° 10, pp. 1.959-1.978.
- Berg, L. Van den; Pol, P. (1997) The organising capacity of metropolitan regions, *Environment and Planning C: Government and Policy*, vol. 15, pp- 253-272.
- Berg, L. Van den; Pol, P. (1998) The European high-speed train-network and urban development: experiences in fourteen European urban regions, European institute for comparative urban research, Ashgate.

- Burmeister, A.; Colletis-Wahl, K. (1997) Les interactions productio-transport-espace: quelle(s) logique(s) de proximité(s)?", *Revue d'Economie Regionale et Urbaine*, n° 3, 1997, pp. 363-3861.
- Castells, M. (1997) La era de la información. Economía, Sociedad y cultura, Vol. 2 El Poder de la Identidad. Alianza editorial. Madrid.
- Conti, S. (1996) Il linguaggio dei sistemi, pp. 181-233, Conti, S., *Geografia Economica: teorie e metodi*. UTET Libreria. Torino.
- Dematteis, G. (1985) Le metafore de la Terra. La geografia umana tra mito e scienza. Feltrinelli. Milano.
- Dematteis, G. (1994) Possibilità e limiti dello sviluppo locale, *Sviluppo locale*, n° 1, pp. 10-30.
- Dematteis, G. (1995) Progetto implicito. Il contributo della geografia umana alle scienze del territorio. Franco Angeli. Milano.
- Dematteis, G. (2003) Il modello SLoT come strumento di analisi dello sviluppo locale. In SLoT quaderno 3. Una geografia dei luoghi per lo sviluppo locale. Approcci metodologici e studi di caso, pp. 13-27, Rossignolo, C. and Imarisio, C. (eds). Baskerville. Bologna.
- Feliu, J. (2005) Les grans infrastructures i el desenvolupament local de les ciutats mitjanes. El Tren d'Alta Velocitat a les ciutats de Lleida, Avinyó i Novara. Directora: Margarida Castañer. Girona: Universitat de Girona. Institut de Medi Ambient.
- Feliu, J. (coord.) (2006a) Estudio marco de los efectos del tren de alta velocidad en la ciudad intermedia. Interreg III A- Evaluación del impacto socioeconómico del tren de alta velocidad (TAV) en el espacio transfronterizo. Girona.
- Feliu, J. (2006b) Tren d'Alta Velocitat. Desenvolupament a Lleida, Avinyó i Novara. Cambra de Comerç, Indústria i Navegació de Girona, Girona.
- Feliu, J. (2006c) High-Speed Train and local development. Experiences on three medium-sized cities. In *Urban changes in different scales: systems and structures*, Lois, R. (ed.), IGU-Santiago de Compostela.
- Feliu, J.; Turró, X. (eds.) (2006) Estrategias de desarrollo del Tren de Alta Velocidad. Experiencias de la Ciudad Intermedia, InterregIII Project-Ajuntament de Figueres.
- Governa, F. (1997) Il milieu urbano. L'identità territoriale nei processi di sviluppo. Franco Angeli. Milano.
- Governa, F. (2001) Ripensare il rapporto infrastrutture/territorio. Il valore aggiunto territoriale delle infrastrutture di trasporto. In *Contesti locali e Grandi Infrastrutture. Politiche e progetti in Italia e in Europa*, pp. 27-48, Dematteis, G. and Governa, F. (eds). Franco Angeli. Milano.
- Governa, F. (2002) Del government a la governance. En canvi de les formes i les modalitats de l'acció col·lectiva en el camp urbà i territorial, *Documents d' Anàlisi Geogràfica*, n° 41, pp. 43-62.

- Joignaux, G. (1997) L'approche des relations entre infrastructures et territoires: retours sur la théorie et les méthodes, en Burmeister, pp. 17-38, Joignaux, G. Infrastructures de transport et territoires. L'Harmattan. Paris.
- Lolive, J. (1999) Les contestations du TGV Méditerranée: Projet, controverse et espace public. col.logiques politiques. Harmattan. Paris.
- Magnaghi, A. (a cura de) (1990) Il territorio dell'abitare. Lo sviluppo locale come alternativa strategica. Franco Angeli. Milano.
- Magnaghi, A. (2000) Il progetto locale. Bollati Boringhieri. Torino.
- Martí-Henneberg, J. (2000) Un balance del tren de alta velocidad en Francia. Enseñanzas para el caso español, *Ería*, nº 52, pp.131-143.
- Maturana, H.; Varela, F. (1989) El Árbol del conocimiento: las bases biológicas del conocimiento humano. Debate. Madrid.
- Miralles, C. (2002) Transporte y territorio urbano: del paradigma de la de la causalidad al de la dialéctica, *Documents d'Anàlisi Geogràfica*, UAB-UdG, nº 41, pp. 107-120.
- Offner, J. M. (1993) Les "effets structurants" du transport: mythe politique, mystification scientifique, *L'Espace Geographique*, nº 3, p. 233-242.
- Plassard, F. (1997) Les effets des infrastructures de transport, modèles et paradigmes, pp. 39-54, Burmeister, A.; Colletis-Wahl, K., *Infrastructures de transport et territoires*. L'Harmattan. Paris.
- Plassard, F. (2003) *Transport et territoire*. La Documentation française. Paris.
- Pucci, P. (1996) *I nodi infrastrutturali: luoghi e non luoghi metropolitani*. Franco Angeli. Milano.
- Pol, P. (2002) *A renaissance of stations, railways and cities: economic effects, development strategies and organisational issues of European HST stations*. Delft University Press.
- Rabin, G. (2003) *Villes et grande vitesse. La révolution ferroviaire en France et Allemagne*. Mardaga.
- Ribaygua, C. (2005) *Alta Velocidad y ciudad: estrategias de incorporación de las nuevas estaciones periféricas francesas y españolas*, Colección CIU, 44, Instituto Juan Herrero, Universidad Politécnica de Madrid. Madrid.