"RET: Network for the understanding of the territory. The case of Buenos Aires, Argentina"

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Abstract: The RET "Red para el Entendimiento Territorial" is the Network for the Understanding of the Territory of the Province of Buenos Aires, in the Republic of Argentina. At present the RET is in the instance of formation of a Partnership in which participate: the UTN (National University of Technology), the Zanetta Foundation, the Government of the Province of Buenos Aires, which is now working to contribute to the UJFK (University John F.Kennedy), the UNLP (National University of La Plata), the CONICET, (National Board of Scientific and Technological Investigation) and differents Municipalities. The methodology is organized around three key questions: 1- why a network?, 2-why territorial understanding? and 3 - why real, legal and thought territories? The project is developed from a sense of the communication related to theories that put emphasis in the intersubjective processes and the cultural processes. Among other activities, at present the RET: a) publishes georeferenced territorial information per rural allotment and blocks referred to theoretical use (urban codes) and real use of the ground for 134 Municipalities of the Province; y b) it does research about legal, real and thought territories. The publication is organized as follows: 1-methodological criteria; 2antecedents and beginning; 3-conception of the RET; 4-theoretical concept of territory, place and management; 5-territorial concepts and axis analysis; 6-Real territories: applied to RET; 7-legal territories: applied to RET; 8-thought territories: applied to RET; 9development of programs and instruments, and 10-institutionalization of the Network. Conclusions are referred to theoretical and epistemologic bases in territorial understanding.

1. INTRODUCTION

When decided to construct the present, like Network of Cooperation and Complementariness, the context of political-institutional crisis in 2001 and 2002 was the deepest from the crisis of 1930 in the Argentine Republic. There, the leading **problem** in relation to this Network was the null knowledge and information dissemination in the matter of real territories, legal territories and territories thought between institutional public actors, the scientist-academic world and the citizenship in general, as much in the metropolitan region of Buenos Aires, like in the province of Buenos Aires, the greater Province of Argentina (305,000 km2 and 14.3 million inhabitants). A second **problem** derived from that talks about to the important dissociation between the academic knowledge and the institutional task in the Argentine Republic.

We wished to express our recognition to the Lic. Felipe Rodríguez Laguens,to the Architect Verónica Vásquez, as well to all the members of the Undersecretary's Office of Municipal Subjects of the Province of Buenos Aires, and to the members of the "Atlas Metropolitano de Buenos Aires" Project of CONICET-UNLP, Argentina, by their valuable participation in this work.

2. WORK DEVELOPMENT

The publication is organized as follows: 1-methodological criteria; 2-antecedents and beginning (the Metropolitan Atlas and the SIOUT); 3-conception of the RET Network for the Understanding of the Territory; 4-theoretical concept of territory, place and management; 5-territorial concepts and and axis analysis; 6-real territories: applied to RET; 7-legal territories: applied to RET; 8-thought territories: applied to RET; 9-development of programs and instruments (soft, Web site and maps server), and 10-institutionalization of the Network. Conclusions are referred to theoretical and epistemologic bases in territorial understanding.

2.1. Methodological criteria

The methodology is organized around three key questions: 1- why a network?, 2-why territorial understanding? and 3 - why real, legal and thought territories?

1- Why a network? Because a network of this nature constitutes an unique opportunity to put inot practise the principles of cooperation, complementary and transparency in a society where the Political and Institutional chaos caused a very important crisis. In a society where the serious 2001-2002 political-institutional turmoil caused a deep confidence crisis; the worst situation happened at the same moment we were having five presidents in Argentina within a two weeks' time. Trust rebuilding and transparency promotion is one of the main purposes of this net. This kind of net makes possible to make the most of the present potencials present in the new information and communication technologies: open and net structures generate feedback processes and promote sinergy. A net promotes the formation of transdisciplinary groups and as well as intersectorial ones, tailored to different needs, all of them useful to satisfy the territory needs.

- 2- Why territorial understanding? Because a deep understanding of the territory does not only mean having information as well as territorial knowledge. It has to do with a gradual and progressive exercise where knowledge, expertise, as well as knowledge of the academic and scientific world, together with political and institucional world, will start several instances which can give an answer to the following logical collective construction: information about the territory, knowledge of the territory, awareness of the territory, and understanding of it, widening and improving the possibilities in different ways in which a management could be shown. Going by this sinous path would make it possible a shared territorial intelligence among citizens and employees in the field as well as having the possibility of a democrat and good system access of information. It is all about a process oriented territorial intelligence applied to micro, meso and macro scales as well as in a wide variety of neighbourhoods, in cities and in regions, nedless to say in very different programmes, plans and politics where the presence of of specialists and territorialities give a theoretical and practical sense and to the territorial intelligence as well.
- 3- Why real, legal and thought territories? A rational and creative procedure within a network would allow us to achieve a better understanding of ourselves, to value ourselves better, in our own land (terra torium) (Lobato Correa, in Montañez Gomez, 2001) the land belongs to someone and within each of our stlocus, as pointed out by Hegel, de place of something or of someone. There are many territories but because of the net we have selected real, legal and thought territories. It is important to consider that the real, legal and thought territories of this net have been created taking into account its usefulness and applicability in a gradual process of territorial understanding.

There could be different views of real territory, this project is such that the main use of real land could be interpreted by rural allotment and block. Its knowledge answers the following question: "Which are the main visible activity signals of this territory?"

There could be different visions of legal territories and this project is the one which gives an answer to the territorial and urban regulations ruling in each of the city halls at present standing in each of the city halls. Its knowledge answers the following question: Which are the existing regulations in each urban and rural allotment in terms of urban and territorial order?

There could be different visions of territoriality thought in that place understood as a sample of inhabitance and territorial ownership in a micro scale. Its knowledge answers to the following question: which are the main models and practices of inhabitance and ownership of the territories?"

It is important to highlight that, on the occasion of the Workshop in Huelva, participants posed useful and interesting questions related to the second and third questions above mentioned. These contributions will be mentioned in the conclusions.

2.2. Antecedents and beginning

The three steps that lay out the institutionalization of RET -2003, 2005 and 2007- aim to

solve the created **problems**, gradually developing an institutional culture of democratization of the information related to the analysis, the ordering and the management of the territory. From the origin of the Network is promoted, under principles of transparency and cooperation, the diffusion of methodologies and tools of easy use between different actors oriented to the Understanding of the Territory, as support in tasks of diagnosis, observation, evaluation, pursuit and participative investigation-action.

The first step (2003). It is born the Network of Cooperation and Complementariness "Metropolitan Atlas Buenos Aires" within the framework of the self-titled Project, from the National University of La Plata and the CONICET National Advice of Scientific and Technical Researches of Argentina. More than 80 academic and institutional nationals, provincial and municipal referents participate in this event. The Network begins making available of all a digitized map of the metropolitan "real territories": 23 real uses of the ground by rural parcel and square corresponding to the totality of the Metropolitan Region of Buenos Aires (158,000 squares and 4400 interstitial fractions and urban periphery). In 2004 the first digital map of fourteen "thought territories" is gotten up to the Network, denominated places or patterns of occupation and territorial appropriation: centers, neighborhoods, industrial groups and others.

The second step (2005). It is born the SIOUT Site of Urban and Territorial Ordering of the Province of Buenos Aires, from the conjunction of joint works between the Undersecretary's office of Municipal Subjects of the Government of the Province of Buenos Aires and the National University of La Plata, by means of an Agreement subscripted in 2004. Having realized the lack of cooperative culture and exercise in these thematic ones in the Argentine Republic, has been managed - without effort - to make available in the Web site of the SIOUT public information of territorial ordering of the Province from Buenos Aires at level of detail (square and rural parcel) useful for the task of institutional actors (local governments, provincial and national offices), of the scientist-academic world (investigators, educational and students) and of the public in general. The obtained results are referring to "legal territories" (codes of urban and territorial ordering of each municipality), "real territories" (real uses of the ground by rural parcel and square) and "thought territories" (places or patterns of occupation and territorial appropriation in the microscale). The SIOUT can be consulted in the following directions:

www.gob.gba.gov.ar/cdi/images/siout.swf or http://200.41.22.117/siout map/index.html

In this stage, one of the pillars to make specific the network was the normalization of the cartography-base; the same one was tried by the Provincial Direction of Territorial Cadastre, by means of agreement of cooperation and complementariness with the Direction of Strategic Planning of the Undersecretary of Municipal Subjects; complementarily the contribution of cartography of the Direction of Geodesy and the Municipalities was received.

The third step (2007). The RET "Red para el Entendimiento Territorial" is born: Network for the Understanding of the Territory of the Province of Buenos Aires. At the present time the RET is in the instance of formation of a Partnership in which participate: the National University of La Plata, the CONICET, the Government of the Province of Buenos Aires,

the University Kennedy, the Municipalities of La Plata, Ramallo, General Belgrano, Colón and other cities.

2.3. Conception of the RET Network for the Understanding of the Territory

The project is developed from a sense of the communication related to theories that put emphasis in the intersubjective processes and the cultural processes. From this place, it is important to emphasize that the management of the communication is related to this tie dimension when communicating, to the dialogue, the interchange, to the relation to share, to put in common, beyond the value of technology GIS free and gratuitous like tool. Thus the management of the communication is associated to the possibility of forming a network of cooperation relations and complementariness in which the involved actors not only accede but that to the information also can contribute their glance, its experience and its work and increase and optimize the development and the management of the concrete projects.

The present net places itself theoretically from a collective real place and at the same time a virtual place from where the Province of Buenos Aires can be reached, trying to reduce the digital gap which is still very important. (Trejo Delarbre, R;2001:9) existing in our vast territory, between societies with and without access to the internet. This being understood as a hypernet of nets. This fact above mentioned, placed in a democratic context that can help to strengthen and to make a more transparent and well informed politics in knowledge and later understanding of our real, legal and thought territories, with the moto that more information means more knowledge (Trejo Delarbre, R;2001:8), and more knowledge means more awareness of each and every one of our territory. In other words, the more knowledge and awareness of our territory the better understanding we can have from it.

Talking about the Internet, democracy and international politics, Manuel Castells (2001:13) express: "It was expected that the Internet could be an ideal tool to foster democracy (and in fact this still could be possible). It seems easy to have access to political information through the Internet, and because of that, the citizens could be almost all well informed as their leaders from a start. Counting with the good will of the government, all official documents and the considerable amount of confidential information should be at hand on line. This interactivity allows the citizens to ask for information, express their opinion and ask for a personalized answer from their representatives. Instead of the government controlling people, people would control the government. Something that should be their right. Since in theory, power lays on the people. However, in many of the studies and reports this is quite negatively described with the likely exception of Scandinavian democracies".

It is not necessary to wait till the Scandinavian countries and supposedly a big number of well known rich countries change this negative view to start doing it ourselves. It is all about building a basic agreement and put it into practise.

Stating that the World is based only in cooperation, or that the World is based only in conflict are nowhere leading and simplistic conclusions. As Milton Santos (1996) points out cooperation and conflict are both inherent to our human essence. Therefore, facing the

building of a net as a proposal, cooperation and team work should learn to interact with conflict.

The oustanding progress in the latest five years in terms of Tics and Sig in the Republic of Argentina, nourishes the theoretical methodological improvements previous to other countries; and which are fundamental because they generate a very favourable scenery for a more virtuous social transformation than a vicious one.

However, if a collective decision oriented to cooperation and complement is not made among different teams and groups the net would end being more virtual than real.

The net is an invitation to a horizontal and organized link from the Argentinian University. It is not a question of rebuilding it in a month, it has do with constantly following a collective path. The nets as any liason, need time to build trust and transparency. Only under these basis a more genuine cooperation ad complement could be thought.

Going through a progressive, continuous and gradual information exercise about territory-knowledge, territory-awareness, territory understanding it could be possible to aim at a territorial intelligence shared by operative employees and citizens. A creative and rational management in networks would allow us to get a better understanding of ourselves in order to improve our self-worth, in our terra torium (Lobato Correa, in Montañez Gomez, 2001), land that belongs to someone and in each of our stlocus, as Hegel pointed out, the place of something or someone.

2.4. Theoretical territorial concept

How do we place ourselves in order to define a territory? From what concept?

Our theoretical position is based on the understanding of a complex, solidarian and contradictory dialectic of social processes and natural processes; or else, from the protagonists and individuals who with their perceptions, interests and actions, build up places in a permmanent relation between the man and the environment. According to this preliminary definition the object of study is the territory, with its places, its processes and its participants.

This theoretical conception sustains that it is not possible to study places without its processes and protagonists. Why then taking as a point of departure processes, protagonists and places? Because the protagonists give a continously new significance within different processes. Because the processes have an explanatory strength difficult to put into practise without people and places. Because the places of something and someone are explained through processes, those which at the same time are made real by people. Because processes, actors and places can be studied as a synthesis of a real concrete thought, both in an isolated form as well as interrelated. Because actors, processes and places synthesize virtuous and viced transformations.

Why then taking processes, actors and places as a point of departure for the study of the territory? Because actors continuously do and give new meaning to the places under the light of different processes. Because processes have an explanatory strength difficult to work with or to operate with practices without people and places.

This theoretical conception sustains that it is not possible to study places without processes and protagonists. Because the processes have an explanatory strength difficult to work with without people and places.

It is because the places of something or someone are explained through processes, which at the same time are put into action through people. It is because the processes, actors and places are simultaneous and permanent. Time percolates them. Because processes, protagonists and places can be studied as a synthesis of a real concrete and a thought concrete, both in isolation as in an articulated form. Because processes, actors and places synthesize virtuous and vicious transformations in our Planet.

Because processes, places and actors become interrelated through epistemological traditions which specially belong to the field of Geography, and other Social Sciences. Because places without processes and people are meaningless, because process without people and places too, because individuals without processes and places are also meaningless. Society is the essence and the reason of being of the processes, protagonists and places. Social Sciences are, all and every one of them, resources –strategies- of our knowledge that, somehow -central or secondary- includes their objects of study-or make an attempt to it-processes, protagonists and places.

Which are the main concepts that give sense to this net? Territory; in a wide sense; place and management: from a little diminished level of theoretical abstraction. To put a limit to the territory and place is not easy; probably, because it deals with two polisemic concepts with a millenarian epistemologic tradition, about what has been studied and done research from theoretical perspectives and very different theoretical methodological approaches. To define what is understood by management, though recognizing a tradition of knowledge younger than the ones of territory and place is also a complex work.

Speaking about the territory Geography and other scientific disciplines, though with a less influence, as well as other scientific disciplines of nature such as (Geology, Biology, Ecology, Hidrology, Edafology, Climatology et al.) and social like (Urbanism, Sociology, Political science, Economics in Politics, History, Antropology, Social Antropology, Social Communication, Agronomy, Veterinary and others) gather needs and experiences coming from an important heritage related to expertise and work in the field.

Reflections and applications on the place, record heterogeneous epistemic traditions, among which play an outstanding place Literature, Linguistics, Architecture, Antropology, History, Geography, Psichology, Social Work and Genetics.

With relation to management, Law and more recently Political Science, are disciplines with an oustanding performance in relation to this issue. Many other recent disciplines could be incorporated like (Territorial Management, Urban Design, Local Development, Endogenous Development, Institutional Politics, Territorial Marketing, Environmental Management and others) to the three basic ones making the pardigm even more complex.

Territory, place and management are introduced to us by three approaches. The territory (in latin: *terra torium*) is not the nature, the natural physical substrate and/or constructed it is not the society in action either, nor the citizen, broadly speaking he is something and

somebody in dialectic. Place (in old latin: *stlocus*, in new latin: *locus*) is not the natural physical or built environment, nor the subject, the individual, the citizen, broadly speaking is something and somebody in a dialectic interaction. Management (in latin: *gerere* and *gestatio*) is a racional administration with creativity that pronounces in one action intention where communication, leading, controlling, planning and organizing are the main participant components so as to develop internal political support in order to implement programs.

It is interesting to dive into these three concepts. The term territory, as stated by Lobato Correa (1997, cited by G. Montañez Gómez; 2001) comes from the latin words *terra* and *torium*, which together mean land belonging to someone. Land and someone, land as any place on Earth no matter its scale; someone: an individual, a social group, a social sector, a society. In etimological terms the origins of the word territory is considered dialectic.

For ten years in a very heterogenous University courses in public, professions and places our investigation team CONICET-UNLP has been systematizing hundreds of territory pre notions with the purpose of doing a content analysis. Until the moment, in culture and imaginary of each strong inductive and deductive traditions prevail over dialectic thought, also nomotetic (in spanish: *nomotéticas*) and idiographic traditions are highlighted.

The word place derives from the latin *locus* and, as of century XII, of his derived *localis* and to *logar*, that they mean the premises and of the place, although its origins they are previous. The reader can consult from diverse perspective Rossi (1971) Muntañola (1974), Corominas (1987), García Olvera (2002) and Fernández López (2006). This last author (from Corominas) slogan that *locus* comes from the old latin *stlocus* that means place, site, address, whereas the root of the term is *stlo-kos*, that in old indian means mainland, earth, ground or *sthálam*. In the greek, the place is the *topos* ($\tau \acute{o} \pi o \varsigma$).

As Muntañola raises, (1974 mentioned by García Olvera; 2002), the place "... it is something that accompanies man"; recalling Hegel's words he remembers to us that the place "... it is always a place of something or of somebody", I Hegel's thought can be applied in the Genetics. We see, *locus* is the place of a chromosome, where a given gene is located; one is the place of something. Meaning that, in this notion - the being of the place exhibits Garci'a Olvera- "... not only has the identity of the self being it is not just because of the place itself, if not in the relation of what or who inhabits it". From this perspective, the place has a relational nature of leibnizian basis; it is possible to investigate how the reason and the emotion in the meaning of the term take part.

The dialectic origin or of the term place belongs to linguistics; nevertheless in the present sense of the term, there is in the meaning of the term place a dialectic between *locus* and somebody, or between *locus* and something, between a house and its inhabitant: its address, *stlocus* of the old latin. It is very probable that in the process of origin of the term place a turn to a dialectic basic content has taken place from the ground, the Earth, *sthálam* of the old indian to the address, *stlocus* in the old latin.

From this perspective the real meaning of the term place owns its meaning to the taking over of the people, who give their identity to every square, neighbourhood, cafe. On this

basis a neighbourhood, an urban center and its life get their real identity from thousand of individuals, who live, enjoy, pollute, and give a new meaning to them every time.

Aldo Rossi (1971, 1° Spanish edition), since 1966, poundered similar components in a more analytical way than dialectic one. Rossi poses that "... the bonds and the same precision of locus like a singular fact determined by the space and the time, its topographic dimension and its form, by the being soothes of old and modern vicissitudes, by his memory... But these problems are to a large extent of collective nature and they force us to briefly stop in the study of the relations between the place and the man; to see, then, the relations that are with the ecology and psychology." (Rossi; 1971) They underlie to the ecology and psychology, the nature and the subjects; as we analyze soon is opportune to work how the place notion becomes absorbed in three relations: subject-object, natural-artificial object-action and; first of them it presents/displays in G.Bachelard (1935, 1ª ed), P.Bourdieu (1996) and F.Schuster (2002), and the remaining two in M.Santos (2000) and a good number of authors worked by Santos.

The origin of the word management (in spanish: *gestión*) is latin and it goes back to two terms: *gerere* and *gestatio* (P.Robert; 1988:865); first one talks about the action to administer used since 1455, the second gestation it alludes to the gestation, originally in the maternal belly comes from 1537, soon its meaning is extended and in 1866 the term is used in a figurative way as "...getting ready for something new, preparing a new situation, potentially working for a new spiritual creation." (P. Robert; 1988:865)

In other words management should be understood in administrative terms as creation. Although being contradictory creativity and rationality form an unit, form an hybrid. The absence of one of them invalidates the relation and eliminates de management. Management is thought dialectically.

2.5. Territorial concepts and axis of analysis

Territory: it is a place of varied scales –micro, meso, macro- where the protagonists begin complex processes of interaction between action systems and object systems, formed by a significant amount of techniques- naturally and artificial hybrids—and easily identified according to instances of a territorial organization process during special events-in time and space- and with several degrees of adaptation the the local-meso global relationship. A constant redefinition is the characteristic of a territory.

Starting off of this previous and provisory definition of territory, in a level of greater operacionalization and like a way to begin a dialectic joint between knowledge and reality, at least seven axes of analyzes that are resisted with the reality, in very diverse tactical missions are identified: 1-actors of the public sector, the private sector and the citizenship; 2-techniques like natural-artificial hybrids; 3-systems of objects, systems of action, like occupation landlords and landlords of appropriation of each place; 4-instances of the process of territorial organization (creation, expansion, consolidation, fortification, stagnation and retraction) and events in time-space; 5-local, meso and global: landlords of of concrete action, institutional organization and accumulation/distribution; 6-horizontalities and vertical in relations of being able: events hierarchic, homologous and

complementary. These six axes of analysis are previous in the construction of the concept territory, whereas there is a seventh axis of analysis that, in the analysis, arises a posteriori: one is the euclidian and topologic spaces, and absolute, relative and relational spatialities (in spanish: *espacialidades*), derived from the definition of territory and places.

Place: it is an occupation landlord and territorial appropriation in micro and/or meso-scale where actors start up hierarchic continuous-of conflict and shared in common- everyday happenings, counterpart and complementary, giving new meaning back to consciousness, action and objects of perpetual way in instances of a process of territorial organisation. The place is always redefined.

Referring to the concept of place, it is understood by micro-scales places such as a square, a school, a bar, a church; while in a meso-scale we are referring to places such as a neighbourhood, a shopping centre, a farm, an airport. The concept of place at a meso-scale notion is an application of M. Santos approach about systems of objects and systems of action in the micro and meso scale in order to apply it to concrete research with subjects and objects as objects of study¹³. From the theoretical-empirical point of view it is related with the taking over and the action of becoming inhabitant of a specific territory, for example a district, a neighbourhood, a rural area; that is to say, the place as a basis of take over. It is where the acto f inhabitance become related to systems of objects and taking over together with systems of action and/or social practises by individuals. At the microscale, such concept has been investigated in a lesser degree by our team.

Territory and place are two basic concepts and dialectic application; it explains what them, his explanans, and those questions that must be explained, its explanandum (F. Schuster; 2002: 37) are necessary. In the territory and the place "...two categories, object and action, materiality and event, must be dealed with unitary form... At every moment there is a relation between the value of the action and the value of the place where the value of the space is realized... is not independent of the actions that is susceptible to include." (Holy; 1996: 74) In this both of dialectic culture between knowledge and reality he is opportune to work how these slight knowledge of territory and place become absorbed in three relations: subject-object, natural-artificial object-action and.

How does the management enter in territories and places? Reviewing the six axes of analysis and the generic notion of mentioned territory one is to recognize the modalities in which the actors of the State, the market and the citizenship cause changes in each place of the Planet no matter their scale and its intentionality. That is to say that tomorrow the actors will continue producing new techniques that will give new meaning and renew systems of objects and systems of action generating new events in time-space and deepening or cushioning the contradictions of the perverse relations between the global, meso and local.

It must be taken into account that the management notion conceives from a joint rationality/creativity. Slight knowledge underlies to the management such as action,

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¹³ If it is of interest of the reader it can consult by mail: Bozzano, H. and Sergio Resa (2007) UNLP-CONICET (unpublished)

change, transformation, possibility, uncertainty, vision, projection, opportunity and future, in which it is it is important to give a new meaning to the relation subject-object incorporating to the analysis the agents of development (professional) and the subjects of change (actors public, industralists and citizens) to define more real objects of intervention.

Management (in spanish: *gestión*): It is a rational administration with creativity which is shown in an intended action where valuing, take over, organization and communication participate. Within this conditional and previous definition, at least four analyis axis are identified: comunication, appraisal, taking over (assume control) and organization. Each individual or collective action has an implicit or explicit intention. Communication is the communicatio = that is to say the action of sharing with others in a more or less participative manner as a point of departure personal bonds and very different events among State protagonists, the market and the citizenship. The appraisal has at least three interpretations: socio-cultural (as a use worth value, including the symbolic value), economic (as value of change) and public (as complex use of value). The taking over is understood from the point of view of a horizontal-vertical dialectic where the individuals take over or else are excluded from the action or process within which they are included. The organization is referred to the planning, systematizing and instrumenting the action to be carried out¹⁴.

In the RET, real,legal and thought territories are nourished by a theoretical nourishment. As long as each territory and each place is continously transformed, its redefinition is permmanent: there come to play in a varied way taking over, appraisal, organizing and communication. That is to say that in each real, legal and thought territory, underly some of the axis of analysis above presented.

2.6. Real territories: RET application

It must be remembered that as a first approach to a real territroy is when the main real uses of the territory are interpreted per rural lot and block.

It is understood by the use of the real territory the visible evidence in the land-lot, block, rural lot, fraction – of an activity of the territory, as long as this reflects a way of inhabitancy and take over of the place.

The visible outcome refers to the possibility of observation through different sources (direct observation, aerosnapshots, satellite images, maps, cartographs, plans) objects and actions closely related with any activity. Such as commercial, services, residential, tourism, industrial, farming and others.

Real territories are caracterized as follows;

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¹⁴ The analysis axis "communication" was worked with contributions of Eleonora Spinelli and Julia Fedeli (UNLP), from García Canclini, M.J.Barbero, García Mata and Paulo Freire. The analysis axis "valuation" was worked mainly from classic works and of interviews with Christian Topalov. The analysis axis "appropriation" was worked from Jorge Karol and Silvia Bolos and of the concrete work with Sergio Resa, Adriana Peña, Alejandro Jurado and Jorge Heller. The analysis axis "organisation" with the groups of investigation of "*ProHuerta*" and IPAF (of the INTA) respectively directed by Roberto Cittadini and Gustavo Tito.

- 1- Blocks of mixed tipology: maximun density: people per square kilometre with building construction which varies among, malls, comerse and services.
- 2- Blocks of tipology with continuous residences: medium density with more than a half of the block built.
- 3- Blocks with tipology of residential discontinued: density of inhabitants medium low, between 25 and 50% of built block.
- 4- Blocks of discontinued residential tipology: density of inhabitants very low between 10 and 25% of the built block.baja, entre el 10 y el 25%.
- 5- Block of residential tipology of isolation: density of inhabitancy with less than 10% of the block built.
- 6- Set of houses: it has to do with planned neighbourhoods and horizontal two story houses and one floor house.
- 7- Congested settlement with a high population density, having grown in an unplanned manner and facing problems o infraestructure deficiency.
- 8- Garden residencial: includes park neighbourhoods (big urban lots and small rural park lots.
- 9- Country clubs and private neighbourhoods.
- 10-Blocks and empty lots.
- 11- Squares and open green spaces for the public.
- 12- Industrial settlements and big stores.
- 13-Blocks of mixed tipology. Residencial and deposits with more of the 50% built.
- 14-Block with mixed tipology: residentials and stores with less than 50% built.
- 15-Big stores: sanitary, military, education etc.
- 16-Poultry and faro industry.
- 17-Green house effect with flowerculture.
- 18-Greenhouse and Horticultura production, it also cobres hoticulture allotments in desuse.
- 19- Dominating forestation: induced and natural.
- 20-Extensive agricultura, includes extensive land cultivated in previous opportunities.
- 21- Cattle breeding without apparent use.
- 22- Intensive cattle breeding: feed lot.
- 23- Swamps and querries with "cavas" active and inactivate.
- 24-Swamps.
- 25-Deltic: includes large packsaddle cultivated land (in spanish: albardones and maciegas)

Such real uses of the land have been totally under the research by Buenos Aires Metropolis- All the real uses of the land have been investigated by this organization.

2.7. Legal territories: RET application

Having seen different realities, the legal territory is the area with definite boundaries identified for administrative purposes subdividing the city into a number of smaller units: this is usually coming from the general interest that the Government must respect and protect. In the case of the territory of the Province of Buenos Aires-formed 134 Municipal governments it has to do with the Provincial law n° 8912/77 Territorial Organization and land uses. Such law is applied by each of the Municipal governments who through statutes or ordinance (in spanish: ordenanzas), define Areas and Zones in which urban signals are given, allowed uses and different boundaries identified for administrative purposes subdividing the city into a number of smaller units.

In territorial terms, regulations take related definitions to the urban and territorial development such us land value, the definition of growing trends, profiles promotions for specific places and the definition of morphological architecture, among other aspects.

Although the law establishes a common criteria each Municipal government is allowed to write its own ordinance; it is important that from 30 years ago up to now, it has not been possible to obtain an agreement with an uniformity of criteria. It is important to highlight that the Province of Buenos Aires has very different realities: metropolitan territories, pampa territories, touristic areas, periurban spaces, basin of rivers, and other territories.

It is important to highlight the significant contribution which represents having been able to make a cartographic version of one single map with the territories for the first time.

Legal territories are caracterized as follows:

- 1- Centrality of first range
- 2- Centrality of second range
- 3- Centrality of third range
- 4- Main commercial corridor or walkaway
- 5- Secondary commercial corridor or walkaway
- 6- High density residencial
- 7- Medium density residential
- 8- Low density residential
- 9- Park residential
- 10- Country clubs area
- 11-Closed neighbourhoods
- 12- Mix residential
- 13- Service corridor

- 14- Mixed industrial
- 15- Exclusive industrial
- 16-Specific use
- 18-Green areas
- 19- Center of watch rural zone (in spanish: subcentro de servicio rural)
- 20- Service road zone
- 21- Intensive agricultural
- 22-Extensive agricultural and cattle
- 23-Protection zone
- 24- Recovery zone
- 25- Reserved zone

2.8. Thought territories: application to the RET

The thought territory is that one place understood in terms of occupation landlord and territorial appropriation in the micro and meso-scale: a district, a commercial centre, an industrial group, an agricultural place and others. Its knowledge responds to the following question: "Which are the main practical landlords and of occupation and appropriation of the people in the places" One is to recognize the systems of objects (M. Santos; 1996) in terms of landlords of territorial occupation, fixed, space forms, natural and/or constructed territorial configurations; and simultaneously, to recognize the systems of action (M. Santos; 1996) in terms of landlords of territorial appropriation, flows, social but salient processes in each place.

The investigation in thought territories - territorial Air places or landlords Good register 16 years of scientist-academic antecedents. Of this footpath of work reference next to two applications becomes: a) Argentina and b) Municipality of General Belgrano, to constitute ends of the case which occupies us in the RET, is worth to say, Buenos Aires is one of the 23 Argentine Provinces and General Belgrano is one of the 134 Municipalities of the Province of Buenos Aires.

a) Argentina and Buenos Aires Province: In 2005 a proposal of a preliminary classification of 30 places for the whole argentinian territory. The proposal of "Purposes and Places of the Argentina" (CONICET-UNLP). This proposal for all the Argentine Republic is almost feasible-per stages, in different provinces, in this case Buenos Aires with an economic reduced budget.

From the combined interpretation of different sources, direct observation, Google Earth satellite information, public information corresponding to the cartographic authorities and national statistics (IGM and INDEC), of the argentinian educational system (MECyT and provinces jurisdictions) of the know-how from the university (UNLP and other universities) as well as the technological-scientific system (CONICET) build a map in order to get to know ourselves we argentinian better.

The places or areas of settlement (standard of inhabitance) and territorial take over make together an explanatory basic instance to study the Argentinian territory. In the last two years the task is stablished by the combination of two criteria: territorial analysis unit and classification: a) territorial unit of analysis: the territorial unit of analysis is the set of a variable amount of blocks, equivalent urban spaces, urban interstices, and/or rural lots b) classification: places of lots will be given and territorial take over would be classified according to the categorizing of 30 places.

The thought territories corresponds to the following places or standards of settlement and territorial take over:

spaces	place (lugar, stlocus)		
	1-centers, sub centers and commercial walkaway (malls)		
	2-consolidated neighbourhoods		
	3-neighbours in consolidating stage and weak suburbs		
urban	4-industrial parks and zones and wholesalers merchant activities.		
spaces	5-big green spaces		
	6-big equipments		
	7-big degradated and weak areas: slums		
	8-areas of tourism (seaside resorts, hot springs and others)		
	9-intensive-primary productions and underused in value		
periurban	10-leisure and green open and closed city		
spaces	11-big equipments(in spanish equipamiento)		
	12-periurban mixed (productive, leisure, big equipments, deposits, green city and expeculation		
	13-villages (between 20 and 100 inhabitants; it includes railway stations, big <i>ranchos</i> and other		
	houses conglomerations)		
	14-small villages (less than 20 inhabitants; it includes railway stations, big <i>ranchos</i> and other houses conglomerations)		
	15-rural sites, <i>parajes rurales</i> (includes rural schools and governments headquarters: prefecture, gendarmerie, police and others)		
	16-agricultural with irrigation		
	17-agricultural without irrigation		
	18-farming		
	19-cow cattle		
	20-woollen cattle		
	21-subsistence pastoral		
	22-forest natural and/or induced		
	23-land-silvo-pastoral		
	24-extractive and/or industrial mining		
	25-industrial parks and great industries in the middle rural		
	26-big dams		
	27-big equipment		
	28-tourist sites in spaces nonprotected		
open spaces	29-national, provincial and municipal parks and natural reserves natural		
	30-tourists places in protected places		

^{*} This proposal is ready to form part of a specific Program within another one which is ongoing-Territorial Argentinian Organization 2004-2016 within the Federal Ministry of Planification of the Nation, which is continued by the new Government of the P. H Cristina Fernandez de Kirchner.

Resource: CONICET-Geography UNLP (2005) Places and uses proposals of Argentina, directed H.Bozzano.

b) General Belgrano and Municipalities Governments of the Province of Buenos Aires: In 2007 theoretical-methodological criteria were proponed to define places at the General Belgrano Municipal council. Such investigation was the basis to the conception and writing of the territorial and Urban Planning (legal territories) according to the inforce Province Law 8912/77 (Bozzano, H and S. Resa; 2007; op.cit).

The methodological criteria are organized mainly on the following hypothesis: "To conceptually define with the highest possible accuracy place and territory in term of an object of study, offers valid contribution in order to be used on a second instance together with others such as polites, programming, management, strategic intervention, territorial development, local development, institutional development, planning and organizing in terms of concrete intervention objects".

Within the definition of place 4 questions are incorporated to the day to day concrete issues of investigation a) the relation subject-object and the other episthemological obstacles, b) the articulations between knowledge and reality in a problematic field, process of object construction strictly speaking and its relation with the object of study; c) the process of construction of the object of study in itself; and d) nature of the object of intervention and its relation with the object of study.

The application of the methodological theoretical concepts are based on a dialectic exercise between theory and empiricism from the beginning to the end of the job. The definition of the criterium comes from a particular interview relation among categories, concepts and variables. The concepts, categories and variables which are next shown here as a way of analytic matrix, make a provisory and preliminary definition of the object of study (Bachelard;1986 reedition), based on previous investigations (CONICET – UNLP) referred to places (2005) lots of inhabitance and taking over (2003), territorial standards, and to logics of territorial inhabitancy (1993).

Analytic matrix oriented to understand the place in terms of an object of study

Categories	Operational concepts	Variables
(categorial concept or essential concept)		(operational variables)
or essential concept)		
•	-	
bigger theoretical weight	empirical theoretical nexus	bigger empirical weight
	territorialities	urban territoriality
		periurban territoriality
		rural territoriality
		natural territory
	vocation	residential vocation
		vocation of centrality
		recreational vocation
		industrial vocation and compatible
		vocation for equipment
		intensive productive vocation
		farming vocation extensive mining-
		extractive vocation
		harbour vocation
4		vocation of natural reserve
territory place (stlocus, lugar)		other vocation
place (strocus, rugur)	rationalities	environmental rationalities
		social rationalities
		economical rationalities
	processes	sinergetic
		procesos conflictivos
	trends	value trends
		vulnerability trends
		accessibility trends
	actors	public actors
		private actors
		citizens
	spatialities	absolute spatiality
		relative spatiality
		relational spatiality

Bozzano, H.and S.Resa, 2007, op.cit.

The applied methodology is organized in five stages, called as followed.

- 1) Territorialities and territories.
- 2) Vocation and "pre-places".
- 3) Rationalities, processes, tendencies and protagonists.
- 4) Place mapping.

5) Matrix synthesis: "places, concepts and employed techniques".

In each stage the operational concept is checked to see if it is understood and employed thechniques are given, both with relation to the use of the sources as well as the procedure. (Bozzano, H y S. Resa, 2007, op. cit)

The investigation done by General Belgrano organization gave as a result the knowledge of 16 places, 12 of which are urban, 10 periurban and 14 are rurals.

Urban Places

- 1. Central
- 2 Consolidated residential
- 3. Block of houses
- 4. Residential in consolidation
- 5. District-park and residential garden (permanent and temp)
- 6. Weak residentials
- 7. Commercial and services runner
- 8. Residential compound (with sheds and industries)
- 9. Urban equipment (specific uses)
- 10. Urban interstice
- 11. Recreational and tourist (public and semi-public)
- 12. Associate industries and services (they can be periurban or rural)

Periurban places

- 13. Urban edge with urban lots
- 14. Urban edge with rural lots
- 15. Productive intensive (horticulture, cranberries, endives)
- 16. Productive with medium and high territorial impact
- 17. District isolated in periurban scope
- 18. Equipment in periurban scope
- 19. Periurban valued by route (Routes 29 and 41: buffer of 200 ms to each side)
- 20. Periurban valued by legal qualification of the ground
- 21. Degraded places: rubbish dump and diggings
- 22. Weak periurban

Rural Places

23. Rural places and railway stations

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- 24. Colony the *Bosque Escantado* (Enchanted Salty-Forest)
- 25. Cattle-agricultural in great operations and of so large half
- 26. Cattle-agricultural in small and average operations
- 27. Intensive, preferably milk man cattle dealer
- 28. Intensive cattle dealer: haras and cabins
- 29. Medium intensive cattle dealer of and high impact: feedlot
- 30. Extensive cattle dealer in great operations and of so large half, with farming aptitude average
- 31. Extensive cattle dealer in small and average operations, with aptitude farming average
- 32. Extensive cattle dealer with important environmental restriction
- 33. Rural sites of landscape-cultural value: local roads afforested and helmets of stays
- 34. Valorised by routes (Routes 3, 29 and 41: buffer of 500 ms to each side)
- 35. Bird-raising operations
- 36. Forestal exploitations

2.9. Development of programs and instruments

The new born Net lays on in the programs developments and necessary instruments so as the public institutions and the citizenship could have free access to work sarroundings simple and fun.

For that purpose a new place in the internet has been created which address is:

http://siout.frlp.utn.edu.ar/siout_map/cartografia.phtml

- The totality of the used software are of free an open code. In the map server an interface was created in order to modify and handle the data entrance and information layers management.
- The server used is called Apache.
- For the modules map script php was employed; for the geoespacial services Postgre with the extension Postgis; y Smarty Template Engine for the templates html.

2.10. Institutionalization of the Network

The 10 of October of 2007, the UTN National Technological University and the Zanetta Foundation, through their Centre of Urban Projects, have signed the agreement that gives to origin to the RET Network for the Understanding of the Territory.

AT present the RET is in an instance of formation of to partnership in which the UTN participates and this Foundation, that to after to have entered into engages in a dialogue and to have decided principles and objectives the RET with to other institutions and organisms, formal invitations to public institutions of government have attended,

universities and organisms of scientific research to add itself like adherent members. Institutional It is understood that it collaborates with and academic fortification, through the mutual cooperation between the sectors that ploughs added; also, it promotes the development of an institutional culture of democratisation and diffusion of the information, related to the analysis, the ordering and the management of the territory, transmitting territorial information, in order to construct knowledge and to promote an increasing process of understanding of the territory.

The benefits with which the members of the RET have are:

- a) free access to the Internet with map visor and territorial information at a real scale of the Buenos Aires Province;
- b) availability of the information corresponding to the legal uses of the ground of the totality of the municipalities of the Province of Buenos Aires;
- c) data bases of texts of effective municipal ordinances of territorial ordering with provincial convalidation;
- d) thematic finder of the territorial norm;
- e) options of text unloading and planes of this norm;
- f) city-planning cards by zones of the legal uses of the ground of all the municipalities;
- g) cartography bases standardized contributed by the Direction of Territorial Cadastre of the Province of Buenos Aires;
- h) thematic cartography related to the territorial ordering briefing city-planning ranks of subdivision of the ground, parameters, intensities of occupation and other aspects;
- i) basic and applied territorial investigations of real territories: real uses of the ground by rural parcel and apple of the 40 metropolitan municipalities;
- j) maps of detail of real territories: real uses of the ground by rural parcel and apple of 40 metropolitan municipalities;
- k) basic and applied territorial investigations of thought territories: places or landlords of territorial occupation;
- l) maps of detail of thought territories: places or landlords of occupation and territorial appropriation of 40 metropolitan municipalities.

3. CONCLUSION: INTELLIGENCE AND TERRITORIAL UNDERSTANDING

The territorial intelligence and territorial understanding are two main concepts with poor epistemoligic tradition and strong theoretical weight. One of the reasons for this situation would be conditioned with the conceptual nature and practical approach of both concepts. In terms of intelligence and territorial understanding, the theoretical development from the academic-scientific world on one hand and the outstanding diversity and richness of usage from the politico-institutional sphere, on the other hand, have been contributing to shape in the last decades two ways with bonds that today it is necessary to go deep into.

CAENTI constitutes a favourable scenery to the theoretical empirical coordination in this sense, due to the significant number of concrete experiences that the net gathers. The on going projects in France, Spain, Italy, Rumania, Belgium, Hungary, Great Britain, Taiwan, Argentina and other countries are a rich quarry from where it can go deep into the dialogue among the public institutions, the social organizations and the university.

It is not a matter of giving territorial information, neither to reach the territorial knowledge, both are necessary but not enough if to achieve a territorial understanding and intelligence is the aim. In this situation we ask ourselves when is there territorial information in a project?

When are there territorial information and territorial knowledge? When are there information, knowledge and understanding and territorial intelligence? In case one of these four situation is present: In whom has it got a place? In public white collars, in academics, in social referents, or in citizens?

In intelligence and the territorial understanding they converge, expertises and knowledge of the scientist-academic world, the political-institutional world and the actors directly involved, starting up a series of instances that, in principle, respond to the following logic of collective construction: 1-information of the territory, 2-knowledge of the territory, 3-brings back to consciousness of the territory, 4-territorial understanding and 5-territorial intelligence. The concretion of these instances allows to as much extend and to improve the possibilities in the diverse ways that can be indicated the management, the study and the interpretation, of the territory, as of the actions, practises, processes, programs and plans that in each territory are carried out.

Nevertheless, no project in march within the framework of programs of intelligence or territorial understanding will be territorial in a 100%. Study or of intervention will be inherent questions in order where, still doing without territories, territorialities and spatialities, he will be opportune to know his logics operation of another nature: social, cultural, symbolic, political, environmental, economic, legal or others. Despite not being territorial visions, it will contribute to enrich brings back to consciousness territorial tending to obtain the understanding and/or territorial intelligence.

The profit of understanding or territorial intelligence is a gradual and progressive exercise that is pronounced according to different rates in referents, professionals, referring and citizen, depending it on the appropriation of the project on the part of each, as well as of the degree of it brings back to territorial consciousness that wakes up in each one. Recognising in each actor different temporalities in the appropriation and the territorial consciousness, after transiting this winding way, it will be possible to expect an understanding and a territorial intelligence common to civil employees and citizens, extending the diffusion and democratisation possibilities of the information, but mainly to increase the territorial consciousness.

Intelligence and the territorial understanding suppose the beginning of oriented processes to obtain brings back to consciousness territorial in micro and macro scales, in districts, in cities and regions, in programs, very different plans and policies. Being concepts of great

theoretical weight, spatialities *-espacialidades-* and territorialities they give to theoretical and practical sense to intelligence and the territorial understanding.

It brings back to consciousness territorial, it bases of the understanding and territorial intelligence is obtained in the measurement that the actors of each project incorporate some inherent concepts to our daily practises, although not sufficiently known from the theory. We talked about the euclides and topologic spaces, to the absolute spatialities, relative spatialities and relational spatialities, as well as to urban, periurban or rural territorialities, and to other applications of the concept territoriality. One has been being to articulate concepts developed for centuries (Euclides, Newton, Einstein, Leibniz, Heisenberg) with territorial and space applications related to concrete social practises. The development of each of these concepts, as well as its application in concrete projects is investigation object at the moment, anticipating its exhibition in encounter CAENTI to be realised in Besancon, France, in October 2008.

In the case of the RET Buenos Aires, Argentina, the real, legal and thought knowledge on our territories and places will be able to have major development in the measurement that, doing a work in network, we make one possible *communicatio*, a putting in common of our territories and real, legal and thought places from the scientific community and the referents who work in the subject, in all the other actors which they incorporate, evaluate, give meaning and reformulate their territory according to particular experiences, knowledge and intentions, and whose main preoccupations are other that ours.

REFERENCES

BACHELARD, Gastón (1984, 1ª ed:1935) La formación del espíritu científico. México, Siglo XXI.

BOURDIEU, Pierre et al (1996) El oficio del sociólogo. México, Siglo XXI.

BOZZANO, Horacio (2000; 2ª ed:2004) Territorios reales, territorios pensados, territorios posibles. Aportes para una Teoría Territorial del Ambiente. Buenos Aires, Espacio.

BOZZANO, H. (2003) Territorio, híbridos de base dialéctica. Reflexiones sobre el objeto de la Geografía. In Reflexiones Geográficas Nº 10. Río Cuarto, Universidad Nacional de Río Cuarto.

BOZZANO, H. (2005) Territorio y Gestión. Conocimiento, realidad y transformación: un círculo virtuoso. Merlo, San Luis, VII Encuentro Internacional Humboldt.

BOZZANO, H. (2006a) Procesos, lugares y sujetos, una tríada social crítica. I Parte: Aportes a la investigación científica en Ciencias Sociales. Objeto de la geografía? Objeto de quiénes?. In III Jornadas Geográficas de Docencia e Investigación. Santa Rosa, Universidad Nacional de La Pampa.

BOZZANO, H. (2006b) Acotando la investigación. Objetos de estudio y objetos de intervención. Reflexiones y aplicaciones. Colón, Entre Ríos, VIII Encuentro Internacional Humboldt.

BOZZANO, H. (2006 c) Territorio y lugar. Conocimiento, realidad y trabajo concreto. In Revista Electrónica Lugar Innov@, nº 1, La Plata, UNLP.

BOZZANO, H. and Sergio RESA (2007) Criterios para definir y mapear lugares o patrones de ocupación y apropiación territorial, La Plata, UNLP-CONICET (unpublished).

CASTELLS, Manuel (2001) La política de Internet. Redes informáticas, sociedad civil y estado. In La Galaxia Internet. Chapter 5. Barcelona, Areté.

CONICET-UNLP (2005) Propuesta de Usos y Lugares de la Argentina. Proyecto de Investigación Expte 500-73340/03. Direction H. Bozzano. La Plata (unpublished).

CORAGGIO, José Luis (1987) Territorios en transición. Crítica a la planificación regional en América Latina. Quito, Ciudad.

DE IPOLA, Emilio et al (2004) El eterno retorno. Acción y sistema en la teoría social contemporánea. Buenos Aires, Biblos.

GEOGRAFIA UNLP (2005) Mapa Educativo Nacional. Memoria Final. Convenio Diniece MECyT-FHCE, UNLP 79/04. Academia coordinator H. Bozzano. La Plata (inédito).

GÉS, Marcel (2003) La cultura telemática y el territorio. Barcelona, Interarts, Observatorio Cultural del Consejo de Europa.

KAROL, Jorge (2003) Actores sociales y gestión de la ciudad. La Plata, Cátedra Planeamiento Urbano, FADU. UNLP (unpublished).

MADOERY, Oscar (2002) La crisis de un orden social ¿Por qué Argentina no se desarrolla? in desarrollo y región ¿hacia dónde vamos? Instituto de Desarrollo Regional, Rosario.

SANTOS, Milton (1995) Metamorfosis del espacio habitado. Barcelona, Oikos-Tau.

SANTOS, Milton (1996, 2ª ed:2000) La naturaleza del espacio. Técnica y tiempo. Razón y Emoción. Barcelona, Ariel.

SANTOS, Milton (2000) Por uma outra globalização, do pensamento único a consciencia universal. Rio de Janeiro, Record.

SANTOS, Milton (2002) Testamento intelectual. San Pablo, Unesp

SARKER, Partha Pratim (2005) Gobernanza en red y gobernanza electrónica. En: http://vecam.org/article.php3?id article=526&nemo=edm.

SAUTU, Ruth, et al (2004) Manual de metodología. Clacso Libros, Buenos Aires.

SAVATER, Fernando, (2003) El valor de elegir. Buenos Aires, Planeta-Ariel.

SCHUSTER, Félix (2002) Explicación y Predicción. La validez del conocimiento en las ciencias sociales. Buenos Aires, Consejo Latinoamericano de Ciencias Sociales.

SERRES, Michel (1995) Atlas. Madrid, Cátedra.

TERCEIRO, J. B. y MATIAS, G. (2001) Causas de la sociedad de la información. En: Digitalismo. El nuevo horizonte sociocultural. Chapter 1. Madrid, Taurus Digital, Alianza Editorial.

TREJO DELARBRE, Raúl (2001) Vivir en la Sociedad de la Información. Orden global y dimensiones locales en el universo digital. In Revista Iberoamericana de Ciencia, Tecnología, Sociedad e Innovación Nº 1, Madrid, OEI Organización de Estados Iberoamericanos.

TREJO DELARBRE, Raúl (1996) La nueva alfombra mágica. Usos y mitos de Internet, la red de redes. Madrid, Fundesco.

UNLP-CONICET (2006) Atlas Metropolitano Buenos Aires. Territorio y Gestión: SIG, TICs, Ordenamiento Territorial y Desarrollo Endógeno. Research report H.Bozzano et al.) Expte 500 – 73340/03, La Plata, FHCE, UNLP (266 pág,unpublished).