

# **Las transformaciones urbanas: impacto sobre el tiempo y el horario.**

(Le trasformazioni urbane: impatto sul tempo e l'orario)

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## **Abstract**

Time and space get separated in modern urban planning

1-. The origin of the time oriented planning.

1.1- The structural causes .

1.2- New social actors.

2-. Two fields of action-research.

2.1- Urban time policies

2.2- Architecture of mobility spaces.

3- The time as construction material of the city.

## **Time and space get separated in modern urban planning**

Time and space of inhabiting get separated in modern urban planning-.

European researches - born to support the development of urban time policies started by new social actors, centrally women - showed the need for recomposing the institutions of urban space and public timetables regulation. (Bonfiglioli, Boulin, Mueckenberger 2008; Boulin, Mückenberger 1999; Belloni, Bimbi 1997; Godard 1997,). Public timetables are both working hours and opening hours of general interest services.

The quality of citizen's life depends on harmonic co-regulation of spatial and temporal aspects of town functional organisation. Briefly, it depends on harmonic relation between spatial and temporal planning. We can call time-oriented planning the spacetime interpretation and description of transforming urban phenomenology and the public policies integrating the times and the spaces of living systems located in the anthropized habitat. Modern urban planning offered to the citizens of the new capitals and central cities the research of places design aware of the new social rites, of the new needs of large scale mobility, of the reconciliation of culture and nature. The transforming city problems have been solved on the side of space.

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Three theses are advanced, to be investigated by further research.

a) In the 19<sup>o</sup> century,, the birth of modern urban planning happened in a context of compartmenting of urbanistic and working times spheres . Modern planning was born for the construction of industrial modern city in the face of a new *homo faber*; for the regulation of urban space uses. It renounced to understand what was happening in the field of working time and personal citizens time's regulation by new institutions of social dialogue.

b) This is to be considered a culturally simplifying and rationally reductionist operation.

c) The third thesis maintains that the modern planning is not the simply reification of social processes. The culture of urban design is largely independent of the social processes, while the architectural pro-ject give to the social/economic transformation a shape and a representation.

The notion of time that modern urban planning elaborated, and partly inherited from previous ages, was sophisticated but partial and certainly did not enlighten what pertains to the most intimate human condition of inhabiting: the non-separability of the use of public space and personal time's use. The causes are biological and anthropological reasons. The human body lives in a four-dimensional timespace of living actions:.. where it moves, meets others and performs collective actions.

For the planning discipline, abandoning temporal regulation signified the rejection of the anthropologic root making reference to the inhabitant, so necessary in order to observe and understand him in the complex relations individual/society. And to understand the role of the construction individual/society which specifically receives its "shaped" from the structuring of urban space and of social time as the space-time "of us all".

This disciplinary culture undergoes now the radical criticism of women. These social actors instituted themselves by reconstructing their subjectivity: by recomposing and retracing their own tracks in history; by freeing their symbolic values (Diotima 1987; 1990; Bassanini 2008; Terragno 1998; Tourain 2006; Balbo 1991 ). And by valorizing the ancestral references of their experience: the primacy of bodily experience, the relation with others, the daily scale of living "minute by minute", the ability to "keep together" the times of care, the working hours, the "times for myself".

Modern urban planning is apt to cope with structural and economic issues more then with inhabiting issues. And does not know how to refer to its inhabitants in *corpore vivo* and to

the questions being asked by numerous new social actors, all characterized by a look at problems from the point of view of daily life practices (Sennett, 1998; Cell 1992)), by the rationale of the body acting and using the city, by a new value given to the use of time for no economical reasons but for life projects.

## **1- The origin of the time oriented planning**

### **1.1 The structural causes .**

Scholars agree that the contemporary transformation of human settlements and the idea of city itself co-evolve with: 1) the processes of economic globalization; 2) the post-industrial economy of services ; 3) the new processes of social structuration which, at least in strong regions, are called the knowledge society; 4) a new temporal form of IT technologies, acting in real time and producing new spatial and temporal settings in organizations.

Therefore, the present urban transformation, rich of qualitative innovations with respect to the previous phase, starts during the 70s, when the socio-economic order of taylorist and fordist industrialism declines in Europe and in Usa. We can name this phase of urban transformation as *contemporary*. It has been accompanied by a long academic and public debate which has produced a revision of the instruments and a new paradigm of planning (Friedmann,. Wolff 1982; Friedmann 1987; Healey 1997,2007; Palermo 2001, 2004; Planning Theory Review).

What problem has urban research and international regional/urban planning focused on, in Europe, since the 70s?

A- the *globalization of the city* as a form of settlement, generating a new urban hierarchy at the global scale;

B- paradoxically, the *decline of the city and/or of its civilization* in regions of the world which have been ancient urban civilizations: Europe for instance (Choay 1994);

C- the *periurban spatial dispersion* of low density settlements, which generates an increasing wheeled mobility of people and goods and opens non-sustainable problems made even harder by the temporal dispersion towards the night hours of the demand for rail transport;

D- the *reform of planning instruments*, moving from a regulation of land uses to a process-like practice of interaction and negotiation between social actors;

E- the *rising of new social subjects*, especially women, entering the arena of public decision with unusual interests on city issues and with an original idea of city;

F- *new inhabiting practices* of in-between times: sequences of the use of time and mobility rhythms which foster the renewal of public space design, of temporary dwellings, of the architecture of the stations, which are the places of temporary inhabiting;

G- *time-oriented planning*, emerging among the numerous new issues of planning, such as environment and sustainable development.

#### *The characters of the contemporary city. Mondialization of the city and gigantism*

In economically emerging regions and in the third world, urbanism builds megalopolises of millions of inhabitants (Hall and Pfeiffer 2000; Hall 1999, 1996). Habitat, 1996, presented a prospective statistics on the 28 greatest cities of the world, for economic importance, geography and growth. The axis of growth is moving to Asia: in 2015, 35 out of the 61 greatest cities will be there; 12 in Latin America and Africa (see tab.1). Inurbation and the megalopic scale of settlement, having characterised industrial countries all along the 20<sup>th</sup> century, become a global phenomenon, indifferent to local socio-economic characters. The deep connection between *urbs* and *civitas* having characterised the European civilization is broken, and so is the connection between the institutional and physical form of inhabiting that in the ancient cities all over the world characterised the city as an anthropic habitat. The physical city becomes a skin without the face of urban civilization.

The world is signed by a new urban hierarchy of global cities, in the framework of economic globalization processes (Sassen 1991).

#### *The characters of the contemporary city. From agglomeration to diffusion*

In the years 70s of the 20th century, a new diffusive and centrifugal logic rules the processes of settlement. In European regions, the contemporary urban transformation is characterised by the diffusion of settlements and populations in periurban low density areas. "The dilatation, the dilution of the city according to segregated and dispersed settlement models with a high consumption of soil is a generalized and pervasive phenomenon in Europe: a phenomenon that interested even countries with a consolidated and robust tradition of planning and public action for the containment of urbanization processes" (Camagni, Gibelli, Rigamonti, 2002, p.19-20) .

In France, the “periurban” counts 12 million inhabitants – a fifth of total population – and represents the most dynamic settlement process (Camagni et alii, op cit).

*Great Britain.* “The 1981-91 decade showed a process of territorial decentralization and diffusion characterised by a fair demographic decrease of urban centres (especially in urban and metropolitan districts and in major cities), accompanied by *rururbanization* phenomena especially in *accessible and mixed* rural areas within and without the London region; a strong demographic growth of the new towns and of the areas of tourism and retirement; a conspicuous demographic increase in *remote rural areas*” (Camagni et alii op. cit).

*Germany.* “ The forecasts for soil consumption in urban areas for the 1991-2010 period are: 370.000ha of suburban territory, equal to 51 ha per day, which, according to a “moving dune” model, will urbanize territories more and more distant from the metropolitan core...The reasons underlying the processes of settlement diffusion concern, also in the German case, the new styles of life, the new localization strategies of economic and commercial activities, the increasing tendency to the specialization and fragmentation of metropolitan territories, and characterise the urban development not only of the old but also of the new Länder” ( Camagni et alii op cit)

The new diffusive logic reverses the centripetal and agglomerative building logic having characterised the growth of the European and American cities since the historical phase of 19<sup>th</sup> century industrialism.

Briefly, the settlement phenomena starting in Europe from the 70s point out that the most relevant data concerning the present phase of urban transformation is the gigantism of settlements dispersed on large scale territories.

*The characters of the contemporary city. From the agglomerated city to the urban system*

The new concepts of contemporary urban settlement, elaborated since the years 70s, give a name to configurations that possess no built mass nor borders, nor an own circumscribable sovereignty.

City networks, urban systems, 3<sup>rd</sup> generation metropolises, are concepts denominating an extensive configuration of settlements, which is not regulated by an institutional and public sovereignty but by economic and social exchanges – whose the interactive and not hierarchical nature is underlined – between urban poles. The design of relations becomes even more meaningful than the city itself. Gabriel Dupuy says (Dupuy 1995) “the

pertinent space is no more the continuous space of the classic geographic model, but a complex topology of discontinuous spaces, separated, of connections forming totally new space-time combinations".

*The characters of the contemporary city. Redistricting.*

The new geography of settlements and of exchanges in the framework of economic globalization induces a spectrum of European local policies, articulated in its juridical scales and forms, having the objective of creating new districts for the government of the territory, of a variable geometry and even temporary: pay in France; redesign of urban administrative zones; agglomeration communities; metropolitan areas; multiregional territories; new European territory at the continental scale connected by the new European infrastructural project; continental areas of free exchanges.

*The characters of the contemporary city. Temporary inhabitants in the places of urban networks.*

The flexible working hours and zigzagging mobility for daily life practices have relevant effects on the space-time morphologies of using urban system.

One of these effects has been studied by G. Martinotti, who described a new social morphology of resident and non-resident inhabitants. (Martinotti 1993).

Martinotti says: "Also in the Italian urban system, since the end of the 70s, the signs of an inversion of a century-old tendency in the dynamics of urbanization have become visible. The aggregate of the municipalities with more than 100.000 inhabitants ceased to acquire population, after more than a century of uninterrupted growth." (Martinotti, op cit, pg. 92)

Martinotti puts forth a thesis on the new social morphology related to a new metropolitan development: "more precisely, i suggest to conceptualize urban development, and its emerging social morphology, as the progressive differentiation of four main populations, gravitating around the metropolises. It is a point of view which is indirectly linked to the modelling of the use of space-time resources, as defined by the school of Haegerstrand and Pred, and by Giddens" (Martinotti pg 138; Haegerstrand 1975; Pred 1977 ; Giddens 1984).

It is an issue of shifting the attention of urban dynamics from the populations inhabiting the city to the populations using it. The cleavage between the daytime population working in

the city and the night time population inhabiting it, has been meaningful until when the day/night urban system was formed by the circadian cycle of the commuting movement of workers from the periurban areas to the industrial urban nucleus. "The first generation metropolis is strongly characterised by the phenomenon of commuting ... and by its great infrastructures: railways, freeways, tunnels and bridges, where the most urban investments have been poured in the central part of this century." (Martinotti, op cit, pg 144).

If commuting was the strategic phenomenon of the construction of the first generation metropolis, the second generation is characterised by the use of spare time. "Individuals and families move not only to get to work and back home, but for their recreation" (ib.).

Briefly, Martinotti classifies thus the new social morphology: city users, businessmen, commuters, residents. The last three are well known. The real innovation is brought by city users "the new temporary population of metropolitan consumers makes an intensive, and at times barbarian, use of the city and its public spaces." (ib.)

*The characters of the contemporary city. New statutes of space and time.*

Why did the "spill over" urban growth get broken?

If we leave the line of reasoning that starts from the observation of settlement phenomena, and we observe instead the revolution of the statutes of time and space regulating human interaction and organizations performed by IT technology, it is easier to understand, if not the causes, the radical character of structural transformation (Bonfiglioli 1990; Asher 1997, Castels 2001). It is a matter of observing the statutes of space and time regulating human interaction and organizations, among which are cities and places.

A legitimate thesis can be maintained, that the revolution of the statutes of the telematic real time is bringing a revolution in the statutes of urban space .

Technological knowledge knows how to design new forms of time. Or rather, it knows how to operate, by means of new technologies, in order to make available to social intelligence forms of time which belong to nature but are not immediately usable. Mechanical technologies, having been at the basis of industrial revolution and of its development, generated the linear "smooth" time, continuous and nearly uniform, that was used in the organizational techniques of the assembly line and of the tayloristic organization of work. A monument of the regulation of human work according to programmed times, coordinated by a rigid discipline of gestures.

IT technologies of the years 70s generate a new form of time, the so called real time. Since these are technologies of light, signals travel at lightspeed (the natural limit speed of 300.000 km/sec). The speed of the signals allows human interaction (speech and image) at extraordinary distances, seemingly in real time. New telegenic spatiality, reticular and multiscalar, does not substitute but rather entangle the anthropologic space "around my body", generated by human senses in the interaction with proximity space.

The real time generated by a telegenic instrument complicates anthropological spatiality with a new reticular spatiality, indifferent to distance which puts in relation that centre "there and then" with a network of places and local times.

Reflection usually speaks on "end of place". On the contrary, body with its proximity space not only does not disappear at all, but becomes even more aware of the double simultaneous perception of the here-and-now and of the elsewhere.

It is the *elsewhere* of the network of places and of the network of hours, complicating the "here and now" of my body, asking to become a spatial and temporal statute of a new temporal architecture/urbanism. Real time operates a qualitative change in the organization rules of individual life, of intermediate organizations and of territorial organizations.

### *The characters of the contemporary city. The city of the time*

The increasing mobility of people and goods, accompanying globalization processes, is building economic stakeholders, who support the temporal focalization of urban transformation. The physical city has the face of time:

A – Historical centres are less and less residential places, and more and more places for the temporary inhabiting of city users.;

B – Cities of art, like Venice, are inhabited by transient populations which are temporary present according to cultural and entertainment cycles;

C – University citadels, such as Urbino, are inhabited to a large extent by non resident population;

D – Touristic cities are "double cities". Rimini is a double city, whose "summer" part, open four months a year, is larger in volume than the city of residents;

E – Citadels of touristic settlements, set in valuable natural and historical places, are temporarily inhabited.



## 1.2- New social actors

The legitimation of time oriented policies comes from structural changes which are dense of spatial and temporal issues and of new social actors:

A – New personal uses of time, fostered by flexible working hours, new temporal (the night, short vacations, holidays) and spatial frontiers (periurban low-density settlements, temporarily inhabited turistic settlements);

B – Daily mobility of people in the urbanized archipelago, tracing new network agglomerations of uncertain borders, and bringing in the urban nodes new temporary inhabitants;

C – Firms and great global agencies are new social actors in the government of the territory;

D– Economy of services and globalization processes are regulated by chaotic systems of schedules, unable of self-regulation according to the demand of the market.

These structural changes produce

A– Conflicts among different temporal interests: for example for parents, between parental care duties and market driven work;

B – Dissonance between the temporal profile of the demand of services and the functional organization of the territory, still regulated by tayloristic industrialism: for example between the closing time of underground public transport and the extension of night life of young people.

C – Uncertainty towards the future: for example because of the more and more temporary nature of work.

D- Tension in the configuration of stakeholders, because of new actors entering the arena of public decision, such as women.

Urban time policies are called to action because of the urgency to manage conflicts and temporal dissonances brought in by the changes. And also because of traditional planning, being unable to cope with temporal problems.

The time's conflicts did not play a decisive role in the first step of urban time policies. Their birth in Italy was due to a demand for the quality of time, expressed by women "in a condition of double presence for working and care needs" (Balbo, op cit), and also

organized in trade unions. Still remain two points of view in time-oriented action: the one aiming at the rationalization of public schedules with respect to the temporal profile of demand; and the one having as reference framework the new values on the use of individual time.

A critical approach – which is generating conspicuous international researches – has been constructed by the thought and political practice of women when, in the mid 80's, they expressed radical questions about the *ways* and *aims* of public regulation of the “space and time of the city”, upon which depend:

- a) the quality of the use of individual time of citizens, for private and social objectives;
- b) the quality of the use of space, depending on the urban and accessibility structure of the city and the territories.

The notion of urban design brought in the arena of the social construction of the plan by feminist culture, and more in general by women as new social actors, is rather inspired to the concept of quality as expressed by Sen and Nussbaum (Sen 1985; Nussbaum, Sen 1993) than to a perspective of rationalization of the existent. It is linked to the idea and practice of freedom, which is a key theme of international feminist culture (Bassanini op. cit.).

## **1 Urban time policies**

In the mid 80's in Italy and immediately after in Europe – thanks to international exchanges and action-researches financed by the European Commission, by national research institutes and by local bodies – a movement of women active both in working life and in parental care gives origin to policies on “urban time” for the quality of life (Mareggi 2000, 2002). In Italy, a serie of national and regional laws gives at the mayor the power to get to urban time policies.

Five strategic themes of policy are defined : 1) timespace accessibility to services and urban places; 2) sustainable mobility of people and goods ; 3) modernization of public administration; 4) architectural renewal of public spaces.

Human disciplines produced in the last decades some good schools of research on time. The English school directed by Gershuny, working on *time budget analysis*, is a reference to many national and European researches (Gershuny, 2000).

The school of *time geographers*, founded by Haegerstrand in the 60's at the Lund University (Haegerstrand 1975), and diffused in anglosaxon countries, deals with describing with space-time concepts the general characters of the use of time and space in different urban contexts: small villages, big cities, peripheries (Carlstein, Parkes, Thrift 1967; Parkes, Thrift 1980).

In the 80's *time-oriented urban planning* is founded at Politecnico di Milano, with an inaugural seminar entitled "Time in space".

These new research programmes move along different paths, but they all share the objective of recomposing, today by means of an interdisciplinary work, the spatial and temporal dimensions of inhabiting.

The search for adequate concepts gave way to long reflections: the concept of city as a system of *chronotopes*, that is places characterised for their temporalities of use and co-present population; *public hours*, regulating the temporal side of urban organization, and formed by working hours and opening hours of public interest services. The concepts of urban rhythms, urban times, historical construction, morphology of inhabitants, territorial articulation of public timetables with respect to the morphology of working hours, are likewise investigated.

Policy experiences shift in a short time, and so do the regional and national laws in Italy, from a timetable view of the project action, to a more general temporal view. Thus we discover that the space-time unit cannot be reduced to an analytical model separating spatial and temporal aspects of urban and phenomena, when the inhabitant and citizen is put at the centre of planning. And the planner places himself *in the shade of the citizen*, embodied in his/her age (citizenship right also for the youngest, still speechless), in the act of practicing daily life in its private and social issues. And the inhabitant "proves" the adequacy, the equity, the quality of urban and architectural structures, sensed from the microscale of bodies in their daily practices, up to the scale of large spatial infrastructures and collective behaviours in the urban system.

Following this line of research and experimentation we reached a renovation of the discipline: time-oriented urban planning, capable of understanding the problems moving

through the scale of the inhabiting practices and the bodies, up to the scale of the urban system where the city of the flows can be sensed.

The general urban plan of the city of Bergamo in Italy ([www.comune.bergamo.it](http://www.comune.bergamo.it)), currently under elaboration, is integrating, on the basis of the new regional laws on the matter-subject of urban planning, three different plans: the plan of urban times, the plan of the services of general interest and the plan of the urban transformation areas. In this experimentation, women have been influent in legitimating the approach to quality of life as a mainly temporal probleme. Other cities start to conceive the Plan of Services of general interest as the opportunity for redesigning the functioning of the city and the accessibility to services and places.

### **3 – Time oriented plans and projects for the City of Bergamo.**

#### *3.1 The context*

The city of Bergamo is located in the North of the Region of Lombardy. It is the oldest industrialised area of Italy. Today the Region of Lombardy produces approximately 21% of Italian GDP and (the Province of) Bergamo produces 2%.

Bergamo is located between the City of Milan and Brescia in a settlement galaxy of sub-regional scale which lies at the heart of the Lombard and Italian economy. The settlements of habitations, services and enterprises in this sub-regional area have undergone profound changes since the 1970s which are of the same nature as those which are occurring in the whole of Europe and, according to our thesis, are characterising the contemporary city.

The urban nuclei recorded a negative rate of urban *growth* between 1991 and 2001 (last two national population censuses), as measured by the decrease in the resident populations (in 1991 Milan had 1,369,231 registered residents and in 2001 there were 1,256,211 with a decrease of approximately 8%; in 1991 Bergamo had 114.936 registered residents and in 2001 there were 113,143 with a decrease of 1,6%. In the same period Brescia recorded a decrease of 3,5%), and a positive rate of the *transformation* of urban built land measured by the rate of occupation of habitations and an increase in property values (the average increase in Milan between 2001 and 2007 was 47%).

The general features of the transformation of the contemporary city, can be traced to a few aspects, which we will analyse for the case of Bergamo by using the materials

produced for the plans: 1 – the decline of the spatial configuration of the metropolitan area, centred in a city clearly confined in its urban space and on which commuter flows gravitate with circadian rhythms, in favour of a *city of settlements* of the urban system; 2 – the increase in the presence of non resident and temporary populations in the sites of the urban system which conflict with resident inhabitants for the use of services and goods; 3 – the growth of absolute mobility in the whole urban system of the origin-destination type (O/D) and of the zigzag type (Z/Z) with the prevalent use of private automobiles; 4 – the colonisation of the night for the entertainment of young people; 5 – the growth of the services economy.

The maps have been taken and reprocessed to a small extent from those produced between 2006 to 2008 for the time plan, the services plan and the governance plan for the City of Bergamo.

It can immediately be seen that the maps range from the European scale, to the large scale of the urban system, to the urban and to the neighbourhood scale. The figures are of the space-time type in all three scales.

### 3.2. *New geography*

The most drastic effects of the qualitative change in the physical city and in the *inhabited city* are caused by the more regional rather than the urban transformations.

The transformation of the geographical areas in the urban Bergamo system is the result of general structural causes, such as the development of ICT infrastructures in the organisation of individual activities and of work in enterprises.

In the case of the construction of the Bergamo urban system, in addition to the ICT innovation there is also the accessibility to the large geographical scale afforded by the Orio al Serio airport located near the city, specialising in low cost transport (see map). This nearby airport is flanked by others in the vicinity: Linate, close to Milan, Malpensa, and the airports of Verona, Venice, Bologna and soon Brescia. The diffusion of small regional airports forms part of an innovative Lombard strategy. Thousands of people come to Bergamo and Milan and to the network of factory outlets to “go shopping” when sales are on and in other shopping seasons (Christmas, etc.). Mass populations are transferred during short vacation periods and when events are held.

The Orio al Serio airport has broadened the built areas of the Bergamo urban system. It has also redrawn the problem of the Porta Sud (South Gate) of Bergamo, a longstanding problem for the urban development of Bergamo bound by the barrier of the railway and its station. The Porta Sud, which should complete the configuration of the route between

the ancient city and the twentieth century Sentierone (see map No. ), is now the problem of a new Porta Sud-Orio al Serio area, a district of accessibility and shopping to which the highest rate of temporary populations gravitate, who come from all spatial scales: the urban scale of outgoing commuters, the metropolitan scale of the children from the school near the station; the scale of Russian and Ukrainian city users. The district of temporary inhabitants is an entirely new chronotope because of the problems it raises: mixing of populations, modernisation of accessibility services, urban design, the identity of the new place, security in public places, accessibility of general services, conflicts between stakeholders.

Bergamo is embedded in an envelope of new trans-European high speed transport networks (see map No. ...): corridor No. 5 which crosses Europe from Lisbon to Kiev; the Adriatic corridor which connects the Mediterranean with the regions of Eastern Europe and crosses corridor No. 5 at Verona; the corridor of the two seas, Rotterdam-Genoa; the Mediterranean corridor which connects Hamburg with Palermo. Nothing is really new. These corridors are grafted onto the networks of the ancient roads of the Roman empire along which the first urbanisation of the sub-continental area that was to become Europe took place.

And today they are the incentive for old and new settlements for the citizens of the European Union.

### 3.3 *The city users*

The map drawn on the scale of the urban area of Bergamo and the first peripheral belt shows the chronotopes in which the presence of temporary populations is significant and the pulse of the inhabited place is reflected in the calendar of the presences of its population. The map shows three types of chronotopes (see map No. ):

1. the productive areas in the peripheral belt open and close and generate a full-empty rhythm. The production areas experience the daily working rhythm of the enterprises, which is further overlain by the 4+4 rhythm. A population of workers lives there temporarily and mobility is of the type origin-destination;
2. the two areas in the centre of the city, the ancient city on the spur which overlooks the northern Italian plain and the Sentierone where the civic services are located (the court, the city hall etc.), are both inhabited by temporary populations. Activities which attract temporary populations are concentrated in the upper ancient city on a seasonal, academic, weekend and night time basis: the university, the cultural, artistic and environmental heritage, night time, holiday and seasonal entertainment services. It is also

inhabited by the second dwellings of people from Milan and other high mobility populations who have replaced the bourgeoisie of the city which moved out to new high class settlements on the plain in the 1970s. The ancient city is a chronotope of temporary seasonal and night time inhabitants. Today there is a competition in progress between citizens who would like to return to live in the ancient city and temporary residents with their second dwellings. It is a problem typical of Italian cities.

The area of the Sentierone is a diurnal chronotope. The resident population is abandoning the area which is becoming even more of a service industry area with diurnal activities and services.

3. The Porta Sud which closes the North-South axis of the city is an area of mixed settlement not yet resolved, a multi-modal access gateway to the ancient city centre. We have already spoken of it.

#### 3.4 *The projects*

The structure of the belt of production areas which open intermittently was known to the authorities of the City of Bergamo. The chronotope maps of the Sentierone and the city centre showed the public decision-makers and the urban planners a reality that had been perceived, but never described.

This new awareness of urban configurations led to the identification of specific problems and projects, grouped together in the Area Governance Plan (AGP), in the Services Plan (SP) and in the Time Plan of the city of Bergamo (TP).

We have mentioned two here briefly and I will cite the chronographic instrumentation specially constructed for these projects:

1- The *Plan for the recovery of Via Quarenghi*, where the urban chronotope analysis forms part of an urban plan.

2- The City Centre project "*Let's meet up on the Sentierone. The nice day and the festival*", which from a pilot project of the TP became a strategic transformation area of the AGP.

The chronographic maps drawn as part of these projects made it possible to depict and interpret these areas as parts of an "inhabited city" located in an urban system according to variables which constitute the descriptive model of the chronotope<sup>1</sup>. These maps, drawn in co-operation with the Territorial IT Systems Office of the City Administration, were

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<sup>1</sup>(Municipality of Pesaro, 1999, *Urbanistica Quaderni*, No. 18).

used as support instruments for participatory planning and for policy and planning decision making.

#### *Plan to recover via Quarenghi*

This is a strategic project for the city because it involves a street that is located in the centre of the city, but which has problem nodes and appears run-down and unsafe, very similar to peripheral areas of the city. Via Quarenghi presents today as a "backward" area, as the chronotope maps show, but it can fill a strategic urban role as a "hinge" between the ancient city centre (Bordo di San Leonardo) and the development area of the metropolitan city.

The Recovery Plan groups together a set of co-ordinated actions, instruments and rules, designed to restore a renewed identity to the place, considering all the components of the urban system, with the main accent on the quality of life of the inhabitants (resident and temporary) and on improving the urban quality and liveability of the neighbourhood, its attractiveness and its sense of belonging.

One strong point of the project is its design through participatory planning. The specific aims of the project are the redevelopment of the rundown parts, the recovery of the efficiency of the buildings and the urban fabric, an increase in the quality of the environment and the public spaces and an increase in the perception of safety.

#### *"Let's meet up on the Sentierone. The nice day and the festival"*

The focus of the project, constructed in partnership with local institutions and with cultural associations and local shopkeepers is the public space and its quality. The following were drawn up for the project: 1- a "Map of the problems", which incorporated and added to the elements which emerged from the forum with local stakeholders; 2. the "Chronotopes map", which highlighted the space-time barriers which the programmed intervention was designed to overcome. It was programmed, financed and implemented by the city administration in the Spring of 2007.

It is a project that forms part of the implementation of the AGP with the main priority of redeveloping the centre of the city, improving urban quality and the spatial and time accessibility of places, services and events, based on the different ages of its resident and temporary inhabitants and on the different use timetables and calendars and the different scales. These objectives were taken on board the AGP and the area of the project became a strategic part of the plan. This project therefore constitutes a major workshop for experimenting the relationship between the TP and the SP.



The project involves the construction of an instrument to allow the public administration to co-ordinate the use of public space to resolve conflicts: the “Calendar of the use of public space”<sup>2</sup>.

The management of space-time information on the use of public space and the capacity to use summary statistics to produce quality indicators plays a primary role for the City of Bergamo in implementing the Urban Time Plan and the Services Plan.

### *Services Plan*

The services plan of the city identifies objectives and strategies for each of the ten *strategic areas* identified by the plan document, which then interprets them in terms of actions and policies with a multi-scale focus on the place. Two reference scales were chosen:

- the local scale, where the action is taken to improve the quality of public space, the accessibility to the functions present in the area (last 100 m.), the liveability of the area for those who live in it even temporarily. On this scale the logic of the project acts on the location and space-time accessibility of the new neighbourhood services on the reinforcement – co-ordinated use and advertisement of existing services.

- on an urban scale where action is taken on the accessibility of the area strategically to strengthen the strategic role of the area with respect to the city and the surrounding area. On this scale the logic of the project acts on the location or the reinforcement of services that are broader than local which attract temporary populations and on multi-modal accessibility and on services that complement it.

Furthermore, the SP recognises the strategic role which each area plays in the city, which is open to the urban system, and it identifies innovative services which improve the area and help to redefine it and to strengthen its role.

The plan is designed to ensure that residents are able to use the services of their neighbourhood, with special attention paid to disadvantaged service users who live there (the elderly, mothers with young children, etc.). This is done by creating pedestrian and cycle paths that are safe and properly equipped and by creating neighbourhood provision of services. The design of the network of cycle and pedestrian paths on an urban

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<sup>2</sup> The calendar for the use of public space is a system that serves a number of functions: 1- a *knowledge* instrument which consists in practice of technical tools for chronographic mapping and the construction of space-time databases of events; 2- a model for the *management* of public spaces and their use, which formalises the rules of use and concepts of urban quality suggested by stakeholder tables; 3- a *planning* method, which produces a context and established use sensitive checklist for the formulation and assessment of alternatives.

and larger scale provides "soft" mobility connections between peripheral neighbourhoods and the city centre and between different neighbourhoods, by passing infrastructural barriers safely. The creation of interchange parking facilities and the strengthening of the rail services gives easier access to the city using transport that is an alternative to the automobile, which reinforces the decision to give priority to slow mobility.

The Services Plan was conceived of as a dynamic instrument in which the map of the supply of services is updated annually. It ensures that the current state and the degree of implementation of the project is monitored with implementation being a function of the transformation of the city and of the emergence of new needs.

The *Plan to recover via Quarenghi* and the *Urban Time Plan*, with its pilot projects, were inserted in the *Services Plan* as instruments to implement the actions and policies set out in the Strategic Areas.

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