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Institutional innovations and social-spatial differences

Elio Trusiani

Brazil is a country undergoing a very rapid urbanization process: suffice it to think that in 1940 it had 1,572 municipalities while in 2003 this figure had become 5,561. In the last decade alone 1,077 new administrations have been established, giving rise in this short time to an important transformation in the country's politico-administrative geography. At present 82% of the Brazilian population live in towns, although there are great inequalities and enormous social-spatial differences. The big urban agglomerations, in fact, reveal very clearly the country's disparity, concentrating extremes of poverty and wealth. Segregation, fragmentation and contrast between 'informal' and 'formal' city areas, between occupations in environmentally fragile areas and areas 'properly' urbanized and provided with adequate services, are the present situation of the main urban areas of Brazil. In spite of the intense urbanization, the increase in the number of municipalities and the decentralization of powers, urban policy in the past has not played a dominant role on the national political agenda, although the central government contributes to a considerable extent to financing housing, environmental recovery and urban transport. A reversal of trend has come about in the last few years, when the 'urban question' started occupying considerable space in the debate both in academic circles and in the bodies responsible for formulating public policies, to the point of becoming one of the major challenges

for the country's development. A challenge taken up by Lula's government which, for this purpose, has established the Ministry of Cities; from São Paulo, a metropolis with more than 18 million inhabitants, to Xapuri, a forest town in the heart of the Amazon region, the government recognizes as an absolute and urgent priority the formulation of a national urban development policy that takes into account the enormous differences that exist in the country. By acting in this way the government has filled an institutional gap and is playing a fundamental role in urban policy and sectoral policies, giving a further impetus to the decentralization of functions to the municipalities, as defined in the Federal Constitution of 1988. A highly important moment for the towns was the approval in 2001 of the City Statute (Law 10,257) which establishes rules of public order and social interest, in order to regulate the use of urban property in favour of the collective good, the security and welfare of citizens and standards of environmental equilibrium. The City Statute defines the rules for national urban policy, outlined and made operative by the Municipal Master Plans, obligatory for all towns with more than 20,000 inhabitants. Precisely these two moments, i.e. the City Statute and the creation of the Ministry of Cities, are important innovations in Brazil's legislative and operative panorama and bring the urban question to the attention of national policies, recognizing it as one of the foremost ones of the new government. The contributions contained in this service propose a reading of the current phase of experimentation and transition of urban areas,

compressed between institutional innovations and very great social-spatial contradictions and differences; in the first part it is precisely the contents, the objectives and the wealth of proposals that are evidenced, while in the second part a case study concerning the town of Curitiba is presented, shedding light on the virtues and defects of a town that for some forty years has been planning its growth according to the rules of ecological and urban sustainability, and whose experience has received international acclaim. Policies to integrate public transport, soil occupancy and the road traffic system are ensuring that the city's growth is controlled and monitored, making it possible for the public authorities to intervene so as to minimize the negative impacts. Safeguarding the territory, economic development and social promotion are the basic elements of the urban policies adopted in Curitiba and, at the same time, they act as the basis for tackling the challenges of sustainable development with perseverance and creativity. Some brief critical notes precisely on this experience bring the service to an end and offer ideas for fresh reflection.

Lula's government and the Ministry of Cities

Raquel Rolnik

The Ministry of Cities was established in 2003, following Lula's election, with the objective of guaranteeing, without any discrimination, the right to the city, to decorous houses, to basic infrastructure, to traffic and mobility under conditions of safety, and to environmental restoration, through a democratic management. The creation of this Ministry represented an innovation in national urban policies as it went beyond the sectoral dimension of housing, restoration and transport policies, taking instead as its aim the integration of these policies and those of soil occupancy; at the same time, the Ministry pursues a national policy of urban development, in step with the large number of State federal agencies, foreseeing the participation of society and aiming at the co-ordination and integration of investments and actions. Deserving of mention among the main conquests of this new Ministry are the organizing, in October 2003, of the National Cities Conference, which represented the final act of a process of participation of municipal, regional and state conferences which involved almost two-thirds of the country's 5,561 municipalities. The objective of this National Cities Conference was to pinpoint the main problems of the urban realities, acting as spokesman for the requirements of the various subjects and actors involved in city management, as well naturally as the inhabitants. More than 1,200 proposed amendments of the basic text of the national urban policy were put on the agenda of the National Conference, in the form of support for the discussions

that had developed within the framework of the municipal and state conferences. The objective was thus reached of forming the City Council for the purpose of defining the principles and guidelines of national urban development policy, and the action priorities of the Ministry of Cities. The basic principles underpin and give priority to the right to the city, to decorous houses as a fundamental right of the human person, to the restoration of the public environment, to public transport, to social integration and to the reduction of inequalities, to the financial and social-environmental sustainability of urban policy, to democratic management and social control (guaranteed through decentralized, democratic management mechanisms achieved through transparency and participation), to the struggle against the discrimination of social and ethnic-racial groups, to the fight against urban segregation, and to the guarantee of social-spatial diversity. The main lines of this policy lie in respecting and backing up local authority, with the participation of society and the integration of all the organs of the federal government responsible for educational, social assistance, health, leisure, security, environmental protection, employment and labour policies. The commitment and defence of social participation in discussing and formulating urban policies is of particular interest, by means of organizing a system of conferences targeted on the definition, execution and constant evaluation of the choices adopted, while fully respecting the autonomy and the specific nature of the various movements and agencies; in substance, an

attempt is being made at collaboration between representative democracy and participatory democracy. Absolutely essential objectives of the Ministry are respecting of urban, regional and cultural differences, the formation of a balanced network of cities, the definition of complex, integrated policies to face up to the deficit of the housing sector (both qualitatively and quantitatively), guaranteeing indiscriminate access to urbanized land, to land regularization, to quality of the environment, to free technical and legal assistance, the promotion of the use of public buildings and expropriation of private buildings that do not have social ends, for residential purposes, of environmental restoration services, of accessibility and of mobility, of quality of transport, and of security for all citizens, making social integration possible. In this sense the main actions being implemented reveal the correction of historical distortions in carrying out federal programmes in the housing sector, fixing the objective of earmarking resources for the low-income population brackets. With regard to environmental renewal, the conditions have been created for establishing a mechanism of co-operative action among the organs interacting in the sector. This action has led to the concentration of all the national renewal policies, which until 2003 were split up into over 80 actions, 24 programmes and eight ministries, into only five programmes unified under the Ministry of Cities. At the same time new democratic planning practices are being supported and implemented, by means of drawing up Master Plans in conformity with the City Statute. A new legal basis is

being drawn up for the land ownership question, aimed at regulating land use and combining it with urbanization works complete with building sites that will involve more than 800,000 families by the end of 2006. As far as urban mobility is concerned, national policy goes beyond the limited sector of vehicular transit, but promotes personal mobility in a safe, integrated and sustainable form. National urban development policy is oriented towards the promotion, organization and upgrading of local level and vast area management mechanisms, towards partnerships for consortium activities at various levels, towards modernizing access to information and making it more democratic, towards the promotion of the national city conference preceded by state, municipal and regional conferences, towards participative democracy as the method of deciding on public policies and on a Participatory Balance Sheet, to promote discussion and resolution of the use of public resources.

The City Statute: new avenues for urban management

Gislene Pereira

The process of reconstructing the democratic order in the country, which began in the Eighties, has been translated, through the demand for popular participation, into the formulation of local urban policies. This context has favoured the birth of a law targeted on the urban question, i.e. Federal Law no. 10,257/01, called the City Statute. This law regulates articles 182 and 183 of the Federal Constitution of 1988 and is organized in five chapters: general guidelines, urban policy instruments, Master Plan, democratic management of the city, and general provisions. The first chapter establishes the objectives of the law and consists in defining provisions aimed at regulating the use of urban property in favour of the collectivity, of security, of the welfare of citizens and of environmental equilibrium. The second chapter lists the instruments to be used to reach the objectives set out, and herein lies the main innovation, as these instruments enable the municipality to control land use more closely, with a view to a fairer distribution of the benefits and the burdens of the urbanization process. Chapter III is dedicated entirely to the Master Plan: this ceases to be a document of an exclusively technical character and takes on the function of the main urban policy instrument. Integrating political, economic, financial, social and territorial factors, the Plan becomes a space of debate on the strategies of intervention in the city, in which the direct participation of citizens, stimulated by the

public powers, becomes obligatory. Chapter IV deals with the democratic administration of the city and calls for direct citizen participation through the use of various instruments and methods, such as public sessions, referendums, and popular initiatives of draft laws. It also foresees the institutionalization of the management of the participatory balance sheet, with public discussions for the annual balance sheet, approved by the municipal chamber. Chapter V deals with general provisions such as the setting up of consortiums to facilitate the acquisition of underused buildings, penalties for not respecting the law, and the obligation for municipalities with more than 20,000 inhabitants in the urban area or which belong to metropolitan regions to approve their respective Master Plans within five years.

Principles and innovations

The City Statute was approved in June 2001 after a long period of gestation (about eleven years). To bring about the social function of the city, the new law establishes that real estate must be subordinate to the collective interest, implying greater control of the occupancy of urban properties traditionally used for speculative purposes. In regulating ownership, the City Statute takes on the character of urban reform capable of positively influencing the elements that generate marginal areas which characterize the city. In requiring the application of controls to the use of urban properties to the advantage of the collective good, this the first law to bring into discussion the exercising individual rights vis-à-vis the needs of society. According to Oliveira (2001): "with this new principle a fresh point

of reference is reached in this sphere of public law, introducing social justice into the use of properties and especially in the use of urban properties. It is the state, in its municipal sphere, that has to indicate the social function of property and of the city, seeking the necessary balance between public and private interest in urban territory". Another innovating principle is the importance of democratic administration, which guarantees the participation of the population in decisions of public interest, including the formulation, execution and procedure of formulating plans, programmes and projects of urban development. The new law ratifies that popular participation is obligatory in the decisions of public administration, so that it is no longer optional. The just distribution of benefits and burdens that derive from the urbanization process is another important principle contained in the City Statute. With this principle, as Oliveira observes (2000) "it is sought to guarantee that all citizens will have access to the services, to urban facilities and to the improvement works brought about by the public authorities, going beyond the present situation characterized by concentration and investments in given areas of the city while other areas only come in for the burdens".

The innovations brought in by the City Statute may be grouped in three areas: regulating urban planning instruments targeted on land use control; providing the opportunity for the land regularization of urban possessions; establishing urban management strategies foreseeing the direct participation of the citizens.

In relation to the first area, the Statute proposes urban

planning instruments which, recognizing the effects of urban regulation in the logic of the real estate market, tend to repress speculation on lands and separate the right of ownership from the right to build defined by a specific urban provision.

The use of these instruments can mean incisive action in structuring the city, guiding expansion towards more consolidated areas from the standpoint of infrastructure, but not densely populated, so as to reduce pressure on the peripheral areas or those that are environmentally fragile. This procedure, moreover, could have an effect of fairly distributing the benefits and burdens of urbanization on the real estate market, overturning the practice of favouring the high-income population dwelling in privileged areas of the city.

Regarding the second area, the Statute proposes mechanisms that facilitate access to ownership or to concession of the land for a large portion of the population living in unauthorized settlements, generally located in the urban peripheries. The third area regards making democratic discussion obligatory in the decision-making phase. Without doubt this innovative obligation will cause new methodologies to be established for city administration, in the sense of broadening the space enjoyed by citizens in the decision-making process. The City Statute ratifies national, regional and state development plans as instruments of urban policy in the metropolitan regions, in the built-up areas and in the microregions, as well as for the planning of municipalities.

Prospects of the new legislation

Although it is clear that the law alone cannot resolve all

urban problems, the Statute opens up possibilities of concrete measures in the field of social exclusion which characterizes Brazilian cities, offering the municipalities a whole range of instruments, apart from a conception of urban planning and management of participatory type which facilitates the operative translation of the constitutional principle pertaining to the social function of urban property. With the City Statute, as Falcoski states (2000) the objective of public policies of planning "to create more dynamic instruments facilitating the actions and decisions of the actors for the purpose of obtaining a balanced urban structure within the principles of justice, equity and social-spatial and environmental quality" is recovered. After waiting for eleven years, a number of questions crop up again inside the municipal administrations, and also elsewhere: why does the Statute reawaken so much interest and cause so many discussions? What are the main impacts deriving from the implementation of the new law? Does it have anything new for urban policy, and if so what?

To answer these questions it is important to remember that the development process of the city in Brazil is marked by social-spatial segregation: the high-income population lives in privileged areas and the less moneyed class lives in the periphery and, generally, under unauthorized conditions. Although many municipal administrations operate with legislative and planning instruments, this model of excluding city still remains. Faced by this situation it is logical to wonder why another law should be needed if a fairly solid legislative basis already exists. Truly speaking the expectation, in

relation to the Statute, is due to the fact that so far the legal structure used for urban planning purposes has not interfered with the question of land ownership, and therefore has had minimum effects. The Statute, instead, as an instrument of urban policy, sets limits to land ownership. The law specifies in detail the conditions for achieving the social function of ownership in accordance with what is laid down by the federal constitution, establishing sanctions for failing to reach the objective. In this way the principle of the social function of ownership takes on an operational legality. This is the novelty of the City Statute: the instruments foreseen, in isolation or all together, must guarantee the achieving of the goal. In this sense the new law goes into the merits of urban questions and does not limit itself to dealing with the consequences thereof, which is what has happened so far. Although drawing up the Master Plan is a common practice, this has not effectively influenced the control of land revenue, the basis of property speculation. For this reason the implementation of the Statute is of great impact, as it becomes possible to influence the rules of the market of urban areas, controlling also the possibilities of speculation. Another great innovation of the Statute, and perhaps the main one as it establishes a new city management practice, is the role attributed to organized civil society. The Statute makes popular participation obligatory, making it a requisite for legitimizing and legalizing the acts of the political power. The non-application of this rule implies sanctions for the public administration, in a perspective hitherto non-existent. The need for society to participate in the

city management process in reality determines the institution of a public, not a state, space for controlling the exercise of public power. Implementing the instruments contained in the Statute must form part of a co-ordinated urban policy, with clear aims and properly defined times, avoiding isolated actions that can guarantee improvements for only small parts of city territory. Cymbalista (2001) summarizes the main results of the application of the City Statute in quite a clear way: "democratization of land sales, densifying the more central, best-served areas, also reducing the tendency to occupy more distant and environmentally more fragile areas, and regularizing the immense unauthorized settlements. From the political standpoint, the popular districts benefit insofar as an adequate and legal urbanization of the poorer settlements begins to be regarded as a right and ceases to be the object of political struggles between councillors and executive authority". In fact, while the effects of some of these results would already be sufficient to generate substantial transformations in Brazilian cities, the results as a whole strengthens the possibility of this new management practice for a more balanced urban development. Starting from the making known and discussion of the City Statute, the population itself can call for its implementation, obtaining a legal basis for insisting that the municipal shall carry out the city's social function. Considering the situation of social exclusion that characterizes Brazilian cities, in a context of privatizing the public services and cutting social costs, a reflection on the essence of the City Statute

becomes an absolutely essential task. It cannot be forgotten that the Statute is only a law, and for this reason may be regarded with scepticism as far as its real incidence is concerned, bearing in mind the contrast between urban reality and body of laws that exist in the town planning and environmental sphere. Such being the situation, the role that the Statute has to exercise, and which differentiates it from other laws, is that of stimulating discussions on urban reform, on the bases and principles of the city's social function. The approval of the City Statute placed in the hands of the municipal administrators a legal structure that can generate a mobilization targeted on social transformation. The administrations may or may not use it.

Curitiba: the challenge of the sustainable city

Maria do Rocio Moraes do Rosario

The Master Plan of Curitiba, approved in 1966, aimed mainly at establishing an urban planning model indicating the passage from a radial form to a linear model, and at the same time at outlining the requisites of an new economic basis for the city. The Instituto de Pesquisa e Planejamento Urbano (IPPUC) was created in 1965, its function being to guide the implementation of the master plan to make it flexible and adequate for the continuous transformations of the local physical, political and economic conditions. In pioneer form and without importing technologies, the plan adopted as its main instrument the integration of public transport and land use and road system policies. The urban space was thus defined through soil occupancy policies that privileged the areas where it was more convenient and pleasurable to live, in accordance with the possibilities of the administration to provide the necessary public services, with particular reference to public transport.

At the beginning of the Seventies the process of carrying out the plan was started with Avenidas estruturais, conceived as a guideline for the linear development of the city, at a tangent to the traditional centre. The concentration of commercial and residential functions that ensued from this, strongly transformed the pattern of the city: almost thirty years later, these thoroughfares form part of the urban landscape and are visible not only at human scale but also in satellite images. The main characteristic of these Eixos Estruturais is called the

'trinary system': a central 'bus lane' with slow side lanes for local traffic and two external one-way 'counter-avenues' (district-centre-district) for rapid continuous vehicular traffic. The immediate consequence for buses using the preferential lane was shorter trip times, apart from lessening the overload of private traffic on the road system, especially in the areas of intense traffic. The adoption of this linear model of development made it possible to carry out a pilot initiative in Brazil, that is it enabled pedestrian circulation to be fostered by closing off the central commercial streets to vehicular traffic. These actions tended above all to emphasize the human scale and to favour the aggregation of citizens. For this purpose, the actions of a physical character were integrated with many other cultural and social actions. In the course of the years, the city has increased its cultural choices through the reusing of historic buildings, the Teatro Paiol and the Centro de Creatividade do Parque São Lourenço, thereby regaining possession of the roots of its culture.

Public transport: engine of development and of social integration

Public transport has been and still is the main driving force of development in Curitiba's growth process. The creation of its integrated transport system started in the Seventies with the conversion of eight conventional lines into two lines (the North and South express lines) located in separate lanes, with priority right-of-way along the entire route. Through the terminals situated along it, in the districts and in the central area, these lines, called linhas alimentadoras, transport the passengers who come from the districts

adjacent to these thoroughfares, in this way creating an integrated transport system. The buses were designed mainly for this purpose, with special visual requisites and colours that differentiate the express lines from the secondary ones. In the course of the years other types of lines were added, such as the linha interbarrios which links the various city districts in a circular route. In the Eighties this system gave rise to the Integrated Transport Network (RIT) which enables users to move from one point of the city to another, using a number of lines (express, secondary and 'interbarrios') and paying a flat rate. The 'single social fare' is a mechanism whereby short trips finance the longer ones, which concern the outlying districts with low-income inhabitants. In 1991 the system gained a fresh impetus with the construction of the Linha Direta, known as 'Ligeirinho' because it makes only a few stops. Boarding and alighting from the bus take place through the Stazione Tubo, the fare being paid in advance. Handicapped persons in particular are helped in boarding and alighting from the bus by a platform situated on the same level as the bus. In 1992 the RIT started using 'biarticulado' type buses, having a greater carrying capacity (270 passengers). With this system a 50% reduction was obtained in energy consumption compared with that normally required for the bus fleet. These initiatives, thanks to the energy saving achieved, earned for the city a recognition from the International Institute for Energy Conservation: to reduce even further the pollution caused by the buses, a new fuel called biodiesel produced from plants has been tried out. The RIT formed by

exchange centres (nodes) and, as stated, by express, secondary, 'interdistrict' and direct lines, is completed by other lines having specific routes: conventional lines which connect up the various districts, nearby municipalities and the centre; the *linha circular centro* which serves the central streets of the city with micro buses reserved for short runs; and the Tourism line whose route takes in the public parks and other tourist sights of the city. Apart from this, transport with special functions is provided for children, there is a special 'educational' line, and there are inter-hospital lines that connect the city's main health centres with each other. Today the RIT transports on average 2.11 million passengers every day and connects the capital with 13 other municipalities of the Curitiba metropolitan region.

Conservation and development: an equation with many-faceted results

The boost of economic development established in the Master Plan started in 1975 through the creation of the Curitiba Industrial City (CIC), in the western part of the municipality, planned to concentrate productive activities in municipal territory. In the CIC, which is a significant example of the whole city, three areas have been set aside in the zoning process, one for work, one for living and one for leisure pursuits; these are all three integrated with the structural axes, thus forming a district well inserted in the urban pattern. But the most evident feature has been the ban on setting up industries that cause pollution, which evidences a strategy of the municipality's development policy that is strongly correlated with the idea of environmental conservation. At the end of the Eighties,

when Curitiba assumed for all the role of ecological city, based on this general awareness, various institutional projects and programmes have been carried out, as these ecological principles were broadly accepted by the population as routine actions. The scattered location of parks in various parts of the city has led at district level to the concept of 'environmentally correct'. Furthermore, the systematic, continuous application of the method of environmental education has strengthened the various operations aimed at protection, conservation and renewal of the environment. Conservation of the environment, at the time a concept still in its beginnings in the national debate, was implanted in the city through actions of flood prevention, preserving the valley bottom lines and the green areas, and extending the drainage network. The areas of conservation have become areas for leisure pursuits, giving rise to the first parks, the old quarries have been transformed into cultural and educational spaces: the Arame Opera, the Parco Tangá and the Universidade Livre do meio Ambiente (Unilivre). The result of these actions, today, can be recognized in a city that is aware and proud of its environmental conquests, a city with one of the highest ratios of green areas per inhabitant in the country, distributed over 29 parks and woods. The thematic parks materialize the ethnic background to the local society, paying homage to the immigrants who contributed with their culture and their customs to the city's identity. At the same time, the various linear parks and the 110 km of cycle paths favour greater familiarity of citizens with their pleasant urban environment.

One of the most important questions regarding urban sustainability is, without the shadow of a doubt, the location of the solid wastes produced in the city, which started to be considered in Curitiba in 1989 with the creation of a differentiated collection programme, called *Waste that isn't waste*. This project covering the whole city is still in force today, and is correlated to essential environmental questions: environmental education, separation of organic and inorganic wastes, and final destination in a technically and hygienically adequate rubbish tip. In parallel with the project described above, the programme *Green Change* was created, an action of intense integration with the community, in which recyclable waste is exchanged with food products in the city outskirts. Groups of environmental educators attribute to a number of families up to three minimum wages, provided they are bound up with the community organization. These families, in routine situations, select the wastes considered to be inorganic and exchange them for fruit and vegetables from small producers in the green belt around the metropolitan region. The material collected is sent for recycling to a factory which selects and makes the best use of the wastes, located about 20 km from Curitiba; they are then sent to social institutions for the products to be sold. The proceeds are donated to social programmes. There are other services complementary to differentiated collection, such as the collection of toxic wastes (batteries of mobile phones, etc., tins of paint) and of hospital wastes. In Curitiba environmental questions are always connected with other

actions aimed at guaranteeing that the project of the maximum development of the city is carried out. For this reason, and for the projects tackled to be effectively implementable, a continuous evaluation process is necessary. As a function of this, a project which started in 1995 to monitor the quality of life in the city, assesses the conditions of life in the various areas of human settlement by means of indicators (environmental, transport, health, housing and security-related), reflecting the main questions linked with city life and urban space. This process, which is based on information obtained empirically and *in loco*, enables the urban planning process to be enhanced and optimized.

Conservation policies for historical and cultural property

The rule of zoning and land use has been a concrete instrument for the urban development of Curitiba. Initially centred on land occupancy and on housing concentration in accordance with the infrastructures foreseen in the Master Plan, these rules have progressively included more specific mechanisms, above all concerned with the conservation of historical and environmental assets and with providing incentives for houses of social interest. Some of these mechanisms, such as the transfer of building potential and of available land, have been in force since the early part of the Eighties and today constitute material under the City Statute. Buildings of cultural value are registered as Units of Interest for Conservation (UIPS). Almost all the 600 buildings were registered between 1979 and 1982, but this figure is periodically

revised, taking into account such analytical criteria as social value, historical value, architectural quality, quality of construction and landscape value. The practical results obtained in the last twenty years are of great value for the explicit contribution they make to the Curitiba scenario. Many constructions, parks and woods, which would certainly have been lost under the pressure of urban growth, are the most evident testimony to the collaboration between public and private sector and, at the same time, to the benefits obtained for the community as a whole.

Three questions to Jaime Lerner

Elio Trusiani

Elio Trusiani: Curitiba 40 years later: what were the conditions that led to the success of the planning process?

Jaime Lerner: The success of the planning process was due, without doubt, to the organization, management and choice of targeted strategies. There have however been some complementary aspects which may be regarded as the secrets of its success. The city adopted an adequate unitary strategy rather than isolated alternative solutions, in other words it took up proposals and solutions targeted on the life of persons. This choice corresponded to a practical vision of how to operate in one's own city and, on the basis thereof, solutions compatible with the life of the inhabitants were created and adapted. Another decisive factor was the type of development prefigured: a planning process that gave shape to a spatial structure that materialized project intentions in real space, which gave all the chance to participate, and which conferred an identity to the city's own culture.

E.T.: You have spoken about solutions targeted on the life of persons: what for example?

J.L.: One of the great measures carried out in Curitiba was thinking of a city based on persons and not on the automobile: I can guarantee that more than forty years ago it was not easy to adopt such a strategy and, above all, it was not a fashionable practice, indeed it was quite the reverse. Thinking that we drive so as to live and not live so as to drive. Moreover, I believe that the great merit was that of

understanding the necessity for an urban policy that would generate transformations immediately and not after decades of waiting. At the root of the great transformation there is the small transformation; it is fundamental to make things happen now and then to perfect and aim the process according to the changes in contemporary reality, following a flexible approach to urban planning according to an equation of co-responsibility.

E.T.: What do you mean by equation of co-responsibility?

J.L.: Financing a city should be thought out on the basis of the responsibility of each one of the actors/agents who define its life. It is necessary to recognize clearly the functions of the governments at the various levels, of the metropolitan organs, of the entrepreneurs, of the inhabitants. This means building an equation of co-responsibility. This optimizes the use of the resources and strengthens efforts. Creating a society with clearly defines responsibilities, in which private investment, used for producing infrastructures and services, is fundamental for attaining the goal and quality. Public transport brings this situation very clearly into focus. When it is wholly payable by the public, normally it does not respond to the express need. It cannot be wholly private because the return/earnings on the investment is very delayed and therefore it is not a factor of attraction for entrepreneurs. Hence, the ideal is for the public power to establish the planning strategy, the infrastructures and the management modalities, leaving the operative and practical aspects to private enterprise, as is the case in Curitiba. The same thing

can happen for many other services that can involve private operators, provided responsibilities are clear and well defined. This is not just a vision of administrative rationality, but rather one of solidarity. For each situation there is a co-responsibility. At times this implies collaboration between the public authority and the private sector, while other times it can contemplate the participation of an entire part of the population; that is what happens when a city proposes a practice that has to be followed by all, as for example the household separation of wastes.

The Metropolitan Region of Curitiba

Cristina de Araujo Lima

The metropolitan region of Curitiba includes 27% of the population of the country and has a turnover of 38.48% of the Federal State revenues (SEFA 1997). The main functions of the state government are concentrated in Curitiba and the main educational, commercial and cultural structures are located there. These features, together with the population's condition of high income and school attendance and the city's role as an industrial centre, confer on the Curitiba Metropolitan Region (RMC) an important place in the content of the whole country. Currently the RMC consists of 26 municipalities, which have developed from the old mining villages and from the colonies of immigrants in the last hundred years. According to the 2000 census the population is 2,726,556: 91.69% of them are resident in urban zones, whether centres having fewer than 5,000 inhabitants or Greater Curitiba with two million inhabitants. Although all 26 municipalities form part of the metropolitan region, among them there are great differences especially regarding their participation in the dynamics that are daily triggered between persons, products and activities. The municipalities in the RMC present differences in terms of amount of population, income levels, school attendance rate, population density, infrastructures, equipment and urban services, and specific public policy actions. In addition, 89% of the territory of the RMC is represented by partly urbanized areas, from the village up to the metropolis (IBGE 1996): in such a scenario, one of the most characterizing

elements is constituted by the different spatial contexts consequent upon different levels of territorial transformation and different trends in the productive sector. The spatial sectors present extreme values: on the one hand, the maximum population concentration and on the other hand, a progressive abandonment/drift away. The fulcrum of this trend is the Municipality of Curitiba, which since 1971 implemented and perfected its Master Plan, based on three main points: prescribing of permitted activities, infrastructural system and collective transport. A reading of the housing density and of the daily commuting flows in the RMC evidences three levels or rings (Moura, Kleinke 1999, 2003; Ipardes 2003). The first level includes the largest number of urban functions and the largest number of daily movements: more than 80% of the flows in the whole metropolitan region. It is formed by the city-pole and by eleven other municipalities (Almirante Tamandaré, Araucária, Campina Grande do Sul, Campo Largo, Campo Magro, Colombo, Fazenda Rio Grande, Pinhais, Piraquara, Quatro Barras and São José dos Pinhais). Of the total daily movements converging on the first metropolitan level, Curitiba absorbs 85.35%, or 144,000 persons who go to their place of work or study using urban services. At present 58% of the population of the RMC is concentrated in Curitiba, i.e. 1,587,315 inhabitants, and the town planning, economic and social-cultural indicators assume better values, attributing to the city the role of reference point for the south of the country, above all as place of business and investment. The second level of population concentration and daily commuter flows

consists of seven municipalities having no physical continuity with the Curitiba built-up area where there is an average level of demand for infrastructures and urban public services, because in this context both sectors of excellence and sectors of poverty are to be found. The municipalities in this second metropolitan level have frequent exchanges with the pole. The third level is formed by seven municipalities having a mainly rural character whose economic dynamics are going through a phase of depression and are hardly connected with the activities present in the other two levels. In some of the municipalities belonging to this level, therefore, a population reduction is recorded.

Migrations and restructuring the productive sector

The settlement concentration around Curitiba reproduces a characteristic of the urban system of the south of the country, structured and consolidated as a network of urban centres. The formation of this urban system is linked with regional employment in the economic sectors, according to the restructuring of the productive sectors that started taking shape in the Seventies. In that decade the traditional agriculture of Paraná underwent transformations due to the adoption of mechanized techniques aimed at the international market, with products such as soya beans and others. After this, the revenue from the primary sector, which in the Seventies corresponded to more than 40% of the total product of Paraná, was passed by the output of the secondary sector, which in 1996 reached 50% of the state's revenue. In the Nineties industries were set

up in the RMC in the consumer goods sector, especially in the engineering sector working for the multinationals (e.g. Audi and Renault) for the assembly of automobiles. This gave rise to various transformations, including the structure of land use and occupancy, the improvement in the value of real estate, apart from affecting the increase in demand for public services and infrastructures, exercising a force of attraction for persons seeking work, especially in the low-income bracket. The specialist pole thus formed in the metropolitan region was started up on the initiative of the state government by means of upgrading infrastructures and resources, such as electrical power, as well as through the introduction of advantageous tax incentives. In this way the urban concentration in Greater Curitiba, formed by 12 municipalities, became even denser, reproducing a network model with a concentration at given points, as occurs also in the neighbouring states of Santa Catarina and Rio Grande do Sul. However, some positive modifications also took place. Among these was the contribution of the RMC to the Gross Domestic Product of the State of Paraná. In 1996 the RMC contributed 39.1% of the GDP and in 2000 41.8% (SEFA, IPARDES 2003). Another positive element is industrial output: while in 1996 industry was 7.8 times less than in the city of São Paulo, the national industrial pole and the largest city in Latin America, in 2000 this proportion was down to 5.3 times (Descamps, 2004). Other positive aspects to be stressed are the growth in jobs, the expansion of the scientific and technological area, are the calendar of cultural events.

Marginal areas: poverty and demand for infrastructures and urban services

Placing the accent on the urban occupation process and on the regional planning procedure, other data have to be analyzed pertaining to the increase in population transferring to the Curitiba pole. In various other parts of the country, but in a decisive way in the state of Paraná, migratory flows are a sign of the phenomenon of the shift of the rural population to the urban centres that occurred during the Seventies. The end of the Eighties witnessed the end of a period of accelerated increase in all the metropolitan regions of Brazil. The RMC was the only one in which, in this period, there was a population growth, both in the Curitiba pole and in the periphery (first level) greater than the Brazilian growth rate of 1.64%. In the national context Curitiba occupies, at the moment, eleventh position in terms of population growth (COMEC 2001). Although there are the lowest rates recorded in the last quarter of last century, the metropolitan poles in the south of Brazil continue to record commuting movements both within the State and between different States, but above all within the same metropolitan region. According to the Brazilian Institute of Geography and Statistics (IBGE 2000) while in 1991 45% of the population of the metropolitan regions of Brazil lived in peripheral municipalities with respect to a pole, in 2000 this population percentage had decreased to 43.7%. Between 1970 and 1980 Curitiba absorbed 66.87% of the population that had chosen the region as its goal for living in. Between 1980 and 1991 this percentage dropped to as

low as 51.41% and in the last decade, Curitiba has absorbed only 40.94% of immigrants and the first level of the RMC received 55.01%. The remainder of the population, remaining in the RMC, is located in areas further away from the pole. The population of the periphery relating to the first metropolitan level has tripled in only 20 years, while in the other levels the population increase has strongly declined. Between 1995 and 2000 of those who arrived in Paraná, almost one-third chose the metropolitan region of Curitiba to live in and, in particular, the metropolitan pole and the first-level municipalities. The distribution of the immigrant population, in differentiated form, shows social and economic inequalities among the immigrants themselves and among the municipalities, regarding for example the cost of purchasing or renting real estate, the imposts and taxes of the Prefecture, foodstuffs and collective transport. In Curitiba, 12.46% of those domiciled there have the head of their family with an income corresponding to the minimum wage, approximately 80 dollars a month: this explains the existence of favelas in the city. Meanwhile this percentage rises to 50%, or even more, in the municipalities further from the pole. In the metropolitan region, other indicators show the precarious nature of the life of a large part of the population residing in the municipalities adjoining Curitiba: the state of precariousness inevitably increases as the distance from the pole increases.

Regional planning

The territorial organization of the RMC is disciplined by the Integrated Development Plan of the Curitiba Metropolitan Region (PDI)

drawn up in 1978 and revised in 2003. This was the first specific plan for the metropolitan region and after its approval, the regional co-ordination organ COMEC, together with the municipal administrations, started on the implementation phase. This intense technical work went on throughout the Eighties and the Nineties with the town planning and legal support of the prefectures, especially for drawing up the municipal master plans, and the revision and preparation of other laws such as that on zoning, the regulations for public works and, above all, questions of territorial organization and mobility. At the same time various policies, programmes and projects were developed which, although sectoral (environment, transport, road system) were integrated at regional level thanks to COMEC's co-ordination in accordance with joint planning rules and principles. In the Nineties, with the denser population in the outskirts of Curitiba, COMEC carried out a number of co-ordinated actions, such as the important programme upgrading and completing the basic infrastructures at metropolitan level Prosam, which made available a large quantity of resources for starting up the execution of basic renewal works, such as the extensive sewage collection and treatment network for the whole region. The operative management of the integrated metropolitan collective transport system, at present constituting the logistics support for locating industries, came into force in 1992. The approval of Law 12,248 of 1998, the 'law on springs', made some innovating proposals possible (Territorial Planning Units) for the areas characterized as environmentally fragile,

such as the eastern Metropolitan spring areas which had been illegally invaded and occupied since 1990.

Safeguarding water resources

Springs for public water supply take priority in the planning and management of Metropolitan space. About 41% of the territory of the municipalities forming the urban built-up area, centred on Curitiba, is located in region of catchment basins that supply the population of Greater Curitiba. These municipalities, undergoing intense urbanization ever since the Seventies, are still today marked by considerable growth processes, threatening the use of these rivers for water supply purposes due to the lack of adequate water control structures. The risk represented by the city's growth becomes crucial when it is observed that, between 1992 and 1997, the percentage of the population illegally settled increased from 5% to 12% and one-third of this population is located in protected spring areas (COMEC 2000). The historical tendency to occupy the eastern areas of the RMC has not undergone any reversal, especially since the boom in occupying the peripheries in the Seventies. With reference to the plot division approved in the eastern areas, it has been observed that between 1949 and 1994, 47% of the plots approved in the metropolitan region were located in the municipalities in the eastern areas which, due to the concentration there of springs supplying 70% of the water demand, ought to have limited the settlement there of a very large part of the population. In the past decades, in spite of the existence of the regional plan, the guidelines

foreseen for protecting the springs have not been applied; this would have meant implementing measures of social scale regarding sectors of the population without an income, to find answers to questions such as housing, the provision of infrastructures and the identification of alternative solutions aimed at generating income opportunities. The gravity of the question is summed up in three aspects: the high growth rate of the population in the areas of the springs, the physical and biological limits of the water resources (capacity to absorb polluting agents), and the characteristics of poverty of the population and of the municipal administrations in relation to the necessity to construct and maintain the basic infrastructures network (Lima 2000). The law on springs, instead, has established an integrated system of management and protection of the springs in the RMC (SIGPROM-RMC) aimed at guaranteeing the essential conditions for the recovery and protection of the springs for public water supply. The law foresees the setting up of a management council for the springs (a collegial organ with advisory and deliberative powers intended to draw up the requisite public policies); the formation of Territorial Planning Units (UTP), formed by sub-basins pertaining to the springs concerning the metropolitan region, so as to facilitate planning, including municipalities with homogeneous characteristics; the drawing up of an environmental protection and territorial reinstatement plan in spring protection areas (PPART); and the establishment of a fund for the environmental safeguarding of the Curitiba

metropolitan region (FPAA-RMC) to pursue the objectives of the integrated spring management and protection system. The formation of these Territorial Planning Units by COMEC and implemented with its co-ordination should be stressed. They are portions of metropolitan territory in the areas of the springs which have received special zoning aimed at rearranging the occupancy and use of the land depending on environmental sustainability.

Ecological potential: exchange of building potential

The UTP foresee an exchange mechanism for the right to build, which permits concentration in given areas by means of exchanging lands. This exchange takes place between the owner and the municipal administration, whereby the latter grants a higher building 'potential' on a site situated in an area where this increase is permitted and regulated. This practice is adopted when the owner's areas are on lands where current zoning does not permit construction because of restrictions linked to the presence of green areas, watercourses and so on. Initially the prefecture determines, in the UTP already approved by state decree, where concentrations are possible that are exchangeable with areas to be safeguarded. This definition is included in the concept of compatible or incompatible destination in the UTP zoning. The zoning considers four groups, classifying the area as follows: The areas of limited occupancy are the areas of safeguarding interest, the objective being to promote the recovery and conservation of natural resources, ensuring that biodiversity is maintained;

the areas of guided occupancy are compromised areas, involved in urban plot-division processes, substantially transition areas between the city and the countryside, subject to settlement pressure and necessitating the intervention of the public authorities in order to minimize the polluting effects on the resources; the areas of consolidated urbanization are the areas in need of urban consolidation, upgrading and recovery of the environmental conditions; Rural areas: areas intended for agro-sylvo-pastoral activities.

This innovation of the ecological potential is in keeping with the proceedings established in the new zoning regulations of Curitiba approved in 2000. The prefecture in fact admits a greater concentration in a number of areas of the municipal territory in which it is possible to apply this solution in exchange for areas to be safeguarded situated within metropolitan territory.

For metropolitan management, there are two important points in this initiative. The first one is the flexibility of the regulations relating to land use and occupancy, based on concrete facts such as occupancy in spring areas, absolutely forbidden in the preceding legislation; and the second one refers to the integration of instruments and actions between different subjects of planning (municipal administration of Curitiba and the metropolitan context). It must be pointed out that the proposal advanced by the UTP has made an economic use of the areas possible; this goes towards meeting the needs of the communities and of the owners insofar as it adds market value to the properties. In the UTP

the transfer of the population of the favelas to UTP areas, in the zone termed 'of consolidated urbanization' is contemplated, provided the basic technological infrastructures are possessed. Hence in the RMC a spring protection policy exists that attaches priority to two protection instruments: the Territorial Planning Units which are set up by the metropolitan management body, COMEC, and approved by state decree. And the Areas of Environmental Protection (APA), regulated by federal legislation. These last ones are the public water supply reservoir areas in which there are harsher restrictions on human activities because of the risk of contaminating the waters. In the RMC there are five APA, all in the spring areas: Irai, Pequeno, Piraquara, Passauna and Verde. The spring protection system (SIGPROM-RMC) foresees procedures for the sustainability and maintenance of the system such as drawing up and implementing monitoring and control plans for the spring protection areas; the training and specialization of local technical teams for the management of land use and occupancy in these areas; participation of civil society by means of direct control of occupancy of spring areas; the introduction of a system of information on the Upper Iguaçu basin; and the participation of private operators in carrying out initiatives compatible with safeguarding the springs.

Brazilian cities between modernization and marginality

Yara Vicentini

The paradigms of the great contemporary urban reforms in progress in the cities of the world do not correspond to the investment and income possibilities of the population of Latin America, where there are incomplete processes of urban management policies or incomplete scenarios of urban projects. The big Brazilian cities need investments in basic infrastructures and in social policies aimed at recovery of the quality of urban life; in particular, reference is made to the impossibility of transferring and adopting the model of European cities and planning, without revising this model allowing for the different reality of Latin America. Nevertheless, the echo of the grand urban operations in the international panorama is making itself heard in Brazil: a whole range of terms are used, such as renewal, revitalization, refunctionalization, rehabilitation, restructuring, urban redevelopment and restoration, just to name the most frequent ones, which are directly connected with the question of enhancement of historic centres and the upgrading of run-down areas and/or areas occupied by low-income population. In this sense mention is made of the Project to upgrade Pelourinho, in the Baroque-Colonial historic centre of Salvador, which makes reference to the Italian methodology of intervention in historic centres, formally connected with Non Governmental Organizations and with reference organizations such as *Progetto Italia* in Rome. But the management process of the Pelourinho

Project, in areas already recuperated, has taken on a different form, with statistics that show the choice of the financial compensation of 95% of the inhabitants and the consequent transfer of the latter, by their own decision, carried out using trucks belonging to the Prefecture, to the *favelas* in the periphery of Salvador. In this way the recovery of the historic centre has been a debatable operation from the social and cultural standpoint. At the same time the discussion of the strategic plan of the city of Salvador as a whole has foreseen privatization measures for public spaces for leisure amenities earmarked as thematic parks in the municipal concession policy for public areas. This is leading to a loss of identity and the ancient city is living in an allegorical form. In the northern and southern peripheries, as in the historic lagoons of Salvador, the policy of basic reclamation together with international NGOs and with the financing of world banks, is weak and not incisive in providing a network of primary infrastructures in the areas that have been flooded for decades, located below sea level. With regard to the city of Curitiba, the scenario is no different: without doubt this is one of the Brazilian cities that have had most recourse to planning actions for the redefinition of the urban space, starting with the Agache proposal (1943) which, according to the modernist conception, designs the city foreseeing monofunctional areas and creating a network of *avenidas* with a radial layout. The urban planning process forms part of the idea of modernization provided by the development models of the period, in which the imperative feature is

industrialization within the context of an agricultural state. The 1965 Urban Development Plan (PDU), drawn up by the town planner Jorge Wilhelm and associated architects, and supported by a local team of Prefecture technicians and university professors, formed the embryo of the IPPUC, whose first chairman was the famous architect Jaime Lerner. Starting in 1970, the urban designs drawn up by this institution were put into practice, from when in 1971 Lerner himself, formerly Prefect of the city, produced the traffic and mass movement system which redefined the urban alignments with its structural axes and traffic corridors. In this period the industrial city of Curitiba was implemented (1973), construction was started on extensive parks in a system of renewal of old, rundown quarry areas and occupation of the free areas of the city liable to flooding. All of this as part of a project to upgrade the urban centre according to modernist principles and rules. The ensemble of the works carried out by the PDU inexorably marked the city, even in subsequent periods. At the end of the Eighties the city's development guidelines were taken up again even though the problem of the marginalization of the low-income population, now resident in outlying municipalities of the metropolitan region, was on the agenda. Curitiba went from one slogan to another: from model city to ecological city in line with the evolution of the disciplinary debate on the city at world level. A series of environmental themes and specific programmes (tube stations, parks and memorials) were then implemented, and exalted to the utmost a consumer culture, the object of intense

propaganda, ultimately including the creation/invention of urban traditions by means of a programmed symbology. On the other hand, the image created had to be kept up, even though that meant inventing traditions, since the old Portuguese colonial nucleus, based on a mining, slave-owning economy, was banished from the collective image and replaced by a European city based on the composition of heterogeneous populations, such as Germans, Italians, Poles, Ukrainians and Russians, which conferred on it a 'white', European identity extraneous to that of the national population. The invasion of the land and the illegality of the plot-divisions and constructions came as a surprise to Curitiba, in 2002, showing that 28% of its population were resident in illegal settlements. The city became the object of inadequate projects to upgrade the *favelas*, inexorably fated to be visually, formally and socially segregated, separated off from the enclosed apartment buildings surrounded by the high walls of the city's privileged class, in the areas of connection with the urbanized zones of the outlying municipalities of the metropolis, so as to prevent the invasion of the 'barbarians'. The contemporary process of programming the city of Rio de Janeiro can be interpreted in the same sense. Starting in the Nineties, this has taken over the new international paradigms of planning, borrowing from the experience of the strategic plan of Barcelona. The strategic plan for Rio de Janeiro and its thematic formulations of the city contain expectations of upsetting the picture of urban disorder and establishing a new matrix of

social power in the city. In this sense it can be stated that the Plan contains a management model that has been capable of providing a methodological interpretation of the Barcelona plan, adjusting it to the city's problems, in such a way as to attribute to the historic *favelas* of Rio the dignity of a district after about a century of repeated attempts to expel their inhabitants, and to construct a social model with the participation of professional associations and representatives of the companies in the form of a consortium of more than 40 enterprises. The *favela-district programme* appears in its new formulation of city planning. The programme came into being in 1993 as one of the elements of the housing policy and in 1994 was organized as a programme included in the city's Strategic Plan. It was the outcome of a financing agreement between the Prefecture and the Inter-American Development Bank, which foresaw various actions such as the urbanization of the favelas and the recovery of illegal nuclei. While in Brazil, throughout the twentieth century, imported models and theories have revealed all their fragility when up against such a complex, characterized situation, manifesting many difficulties of assimilation from both the social and the political points of view, as already argued at length by Arantes (1998), today we are once more facing the same situation although presented in different terms. Faced by the question of the big Latin-American cities and of their consolidated spaces fated for decades to remain marginal, the adoption of new models of urban management, in a new sphere of social relations, causes profound mutations unforeseen in consolidated economic models. Theories

and methodologies, when imported and reinterpreted, produce simulacra, mere semblances, and are impracticable in a context of reformulation of the world economic system that excludes from any upgrading actions those cities that do not constitute a strategic asset. These projects, developed by the municipal administrations and by the state, have constituted attempts at modernization and aggregation of improved areas for the expansion of the city, acquiring them solely for property speculation. This urban transformation has not aimed only at the expulsion of the populations from the flooded areas, but has introduced modern criteria of planning in a form similar to that of other Brazilian and international metropolises; in the Seventies and the Eighties the repertoire of urban planning was bombarded by methodologies and systems of rationalization of urban spaces from which abstract institutional models have emerged, incompatible with the new forms of privatization of space. The fundamental urban questions have to be resumed in relation to the urgent problems of housing policy and of basic infrastructures by means of redevelopment projects able to involve the population, creating job opportunities, and which can be put into practice with simple technologies.

Preserving historic centres in Brazil: ideas and practices

José Pessôa

The preservation movement of historic cities, particularly colonial cities, was born in Brazil in 1933, in order to recognize the baroque architecture as the effect of national identity. Preservation actions have promoted an homogeneous treatment of urban landscape-plat bands in Ouro Preto were thrown down, while houses with different colors in Parati were painted white, not to mention other examples. Searching for stylistic homogenization, preservation actions have produced an image which many Brazilian historic centers still carry today. Faced with the extraordinary growing demand for new constructions in Ouro Preto, in the 60's new rules established architectural language as a kind of "false colonial" style. The concept of historic center was originated in Europe and linked to the idea of a European city since its settlement: a piece of territory, appropriated by men, physically delimited (walls) and consolidated, clearly opposing to the countryside in regard to its landscape and function. The transformation of this concept in the Latin American world could not be easily carried out, due to the difficulty in considering remaining mining settlements and other missionary or crossroad towns as consolidated urban spaces. On the other hand, the lack of distinction between countryside and city in Portuguese American history is a phenomenon not yet widely studied, a fact that has influenced Brazilian historic center delimitation. There were just a few

incomplete and temporary walls, such as the ones in Salvador and Rio de Janeiro, or the recently discovered ones in Recife and São Paulo. When there were clear limits, it was due to site conditions, such as the hills which surround the historic centers in Laguna and São Francisco do Sul. In the late 70's there were some political changes with regard to urban preservation actions, inserting them in a general political concept of tourist development. As a consequence, a larger group of Brazilian cities was included, being characterized by 19th and early 20th century heterogeneous architectural styles, such as the city of Petropolis, close to Rio de Janeiro. In the 90's a large revitalization project of Salvador's historic neighborhood was started, looking forward to transform it into a commercial, cultural and tourist center. The time available for this revitalization program was short and the interpretation of constructive systems was insufficient, nevertheless this intervention become a strong model of real-estate speculation taking place in many historic centers, with equally discussible effects. A singular experience was started in 1990 with Brasilia's city plan preservation act. Modern architecture appeared in this heritage panorama as an extension of a colonial aesthetic identity that projected Brazil into the future. The unadorned simplicity of colonial architecture made of mud walls and wood provided an alibi for nationalizing the international and functionalist architecture in opposition to the dominant academic style. Following its inauguration in 1960, Brasilia's so-called Pilot Plan was occupied in a rather uneven manner,

mostly on the south side of its Residential Axis. After a decade the city was still incomplete. Its planning principles came under a great deal of criticism, which brought Lucio Costa to the following answer in 1974: "As far as I can tell, this urge to prematurely reformulate the proposals of Brasilia's original Pilot Plan come mainly from two sectors that have paradoxically joined forces, even if for opposite reasons. I am referring to developers interested in high-density occupation of the city and their usual appeal for fewer restrictions on heights; then there are architects and urban designers who, considering as 'outdated' the principles shaping the conception of Brasilia and its intrinsic architectural order, also would like to abolish the principle of pre-established building heights, in order to make Brasilia a more whimsical, concentrated, and dynamic city, in the manner of experiences now in vogue around the world-in short, they would like the city to be something other than what it is". Pressure to modify urban criteria was raised during the 80's, which led to a reaction movement of city plan preservation. It was obvious for those interested in conservation that just preserving the group of existing buildings would not be enough to guarantee further development under the original city planning principles. In addition to this, the author of the city himself was very critical about the quality of many buildings. Therefore, it was impossible to consider the preservation of buildings with low quality architecture through traditional city protection rules. The solution was the unusual preservation of an urban plan, in other words, the protection of settling and spatial principles which

characterize each one of the scales composing Brasilia's civitas. There are four original scales proposed by Lucio Costa in Brasilia: monumental, concentrated, bucolic and residential. The "monumental scale" refers to the east-west axis, also called Monumental Axis, where the Federal government buildings and the headquarters of the Executive, Legislative and Judicial powers are located. The Presidential Palace, the Supreme Courthouse and the National Congress are located in the eastern limit, in a square named 'Three Powers' by Lucio Costa. The buildings mentioned above and the adjacent Itamaraty (Ministry of Foreign Affairs) and the Justice Palace located at the end of the Ministries Esplanade, were completely preserved. All these buildings were designed by Oscar Niemeyer and they all form the palatial complex along the city's Monumental Axis. Since the preservation's act main objective is to guarantee the esplanade's monumental perspective, new annexes can be built as long as they don't exceed the height of existing structures of the ministerial buildings. The 'concentrated scale' which governs the city center has, in fact, never worked as such. The centre is divided by two intersecting axes and its various sectors are overly segregated into particular functions such as banks, businesses, shops, hotels, entertainment centers, hospitals, public agencies, radio and TV stations, all strewn across four distinct areas. Connections between the various sectors are difficult. The 'bucolic scale' refers to Brasilia's unique garden-city character. Low-density land occupation was originally proposed for the Pilot Plan:

super-quadrads, for instance, occupy 15 percent of the land and there are huge lawns, deemed non-aedificandi, that cover vast open areas on both axes. A more symbolic character is drawn by the contrast between the region's native savannah-like vegetation (cerrado) and the city's vast and tidy lawns. This was in order to remind residents and visitors of the successful civilizing endeavor of building a new capital, Brasília, as a metaphor for Brazil and the Americas.

The 'residential scale' refers to the *superquadrads* that are arranged along the Residential Axis. The process of occupation of the *superquadrads* was slow and uneven. The initial occupation model adopted for the first South Wing *superquadrads*, as they had been sketched out by Lucio Costa and designed by Oscar Niemeyer, was followed, with minor variations, in most of the *superquadrads*.

Thirty years separate Brasília's foundation from its classification as a historic monument. The conservation model proposed by Italo Campofiorito, who joined Oscar Niemeyer's team during Brasília's construction, is totally unprecedented in the field of cultural heritage. By shifting the object of conservation from actual historical buildings to the criteria that informed their construction, Campofiorito reaffirms the conceptual validity that produced the city in the first place.

New buildings are required to have six floors above a pilotis level that must be free of any partitions except around access and reception areas. Driveways and a twenty-meter-wide green belt around each *superquadra* are to be maintained or created. New functions in the *interquadrads*

can only include certain activities, i.e., educational, athletic, recreational, cultural, and religious facilities.

The innovative manner in which Brasília was legally protected has provoked occasional perplexity among those in charge of the city's conservation. Having been accustomed to the strict conservation of historical centers, the staff of the National Historic and Artistic Heritage Institute (Iphan) find it hard to accept *superquadrads* that depart from the "Lucio Costa stamp" i.e., a set of eleven slab buildings. On the other hand, the garden-city proposal is vulnerable to all facets of Brazilian life and tends to regularly clash with an urban scene of surging violence. There is a consequent pressure to transform *superquadrads* into gated communities.

The conservation of the city's master plan rather than existing buildings is a guaranty that the city will be completed according to the same criteria that guided its early implementation, that is to say, construction is to be carried out as proposed by a Brazilian modernist utopia. As an utopia is characterized by its atemporality, those who drafted Brasília's protection rules were right in their attempt to preserve the memory of an idea, while history takes upon itself to transform the city.

Exercises in statutory and participatory planning: the Prato TCP

Alberto Magnaghi

The drafting of the Territorial (1) Co-ordination Plan (TCP) (2) for the Province of Prato provided the opportunity to experiment in the field the fertile dialogue of ideas proposed by the Italian Territorialist School (3) and the Tuscan model of territorial government. The Italian Territorial School has been working on the concept of local self-sustainable development for over a decade in research and actions on the theme of enhancing the local heritage, participatory democracy, and the 'city of differences'. It has applied this research to urban plans, environmental projects and strategic scenarios. Moreover, the School has also experimented on the theme of establishing the identity of places through their representation (constructing a 'heritage atlas') and the effectiveness of the latter in reorganising the institutional information framework (*Sistema informativo territoriale, Sit*) and the processes of participatory democracy.

The Tuscan model, on the other hand, reflects the special planning culture of the Tuscan Region, which interprets the objective of sustainable development through the enhancement of the multiple identities of its territory. It does so in various ways by promoting the production of wealth through the enhancement of its local heritage resources deposits in the many local systems characterising the region (4). This wealth is not only measured in monetary terms or GDP, but primarily by indicators of well-being, which concern not only labour and income, but also the quality of life, the environment, consumption,

services, collective life, community identity, participation in social life, and so on. The Tuscan Region has also adopted cultural approach which, from the Regional Law 5/95 to a recent new bill for governing the region (5), has encouraged the integration of territorial policies and an increasingly clear-cut distinction between the structural aspects of the Urban Plan (which means treating the essential resources in the region as structural invariants in a "Statute of the territory") and the strategic aspects involved in transforming the territory, pursued by respecting the statutory regulations and the enhancement of essential resources.

As an 'arena' in favour of this experimentation, the Province of Prato (6) was institutionally-speaking in a phase of transition. It was the last Tuscan province to approve the TCP, at the outcome evaluation stage of Law no. 5, and the first to discuss its ongoing plan with the regional offices responsible for drafting the new law. The situation was thus favourable for experimenting new forms of the Plan. I will therefore try to highlight the innovative elements (there are many possible ways of describing the Plan) arising from this convergence and from the experimental background. The innovative features may be summed up in the following aspects.

The TCP as a tool for developing participation and democracy. The Plan has set in motion a process of structured social participation with the aim of constructing a shared strategic scenario for the socio-economic and territorial future of the province. This scenario can be pursued by recomposing negotiations of specific interests into the collective interest centred on local

self-sustainable development, aimed at giving future generations a territorial heritage of a greater value, through the construction of 'territorial value added'. In all stages of the plan process participatory institutions were created: e.g. area conferences for local territorial systems, thematic and sectoral meetings, forums, etc.

The TCP as a tool for strategic planning. In accordance with the regional guidelines mentioned in the introduction, the TCP set about describing a vision of socio-economic change for the medium and long term. This required the support of an information framework of a statutory nature, as the fundamental act for the longterm development of resources. A strategic planning method was thus adopted and given the following form:

- the drafting of an "atlas" to interpret the state of knowledge by selecting and representing the heritage values on which to base the decisions for the change;
- designing a socio-economic and territorial strategic scenario for the medium to long term, based on enhancing the heritage resources described in the atlas, and integrating, with specific reference to territorial aspects, the socio-economic guidelines of the Province's General Development Plan;
- designing a reference territorial scenario focused on the heritage and environmental values, translated into a vision of the future territorial set-up, supported by integrated pilot projects. The vision was represented through graphic data and not in the form of a directly operational or restrictive regulatory tool, but as a communications reference for the Plan with multiple aims: the construction of a

debate involving various institutions; the drafting of strategic guidelines for the functional territorial systems, local territorial systems, and the integrated projects; the orienting of the technical regulations and actions proposed by the TCP; and, lastly, to inform the assessment criteria.

The TCP as a project for the territory. The 'project' for the future set-up of the territory is the reference for action plans. A territorial project, supported by a scenario, is the long-term objective; the Plan with its various aspects (regulations, integrated projects, assessment tools, etc.) is the means for bringing the horizon of the project design temporally closer. Through the TCP's design and strategic character, the aim is to go beyond the limits of seeing the Plan simply as a restrictive tool or the passive co-ordination of ongoing decisions. Rather, it is to be used to construct a strategic reference framework enabling the Province to actively orient sectoral policies and subordinate plans, promoting subsidiarity and synergies.

The information framework: the plan's structural and statutory aspects

In developing the Plan guidelines, an issue was immediately raised: how to recognise the wealth and variety of the resources capable of contributing to the identity of the territory, as tools for designing the future with new sources of lasting wealth and well-being, intrinsic in the integrated enhancement of local resources. To carry out this kind of investigation into identity, the focus had first to be shifted from a functional interpretation (highlighting the internal relations in the east-west metropolitan area) to an interpretation establishing

the special identifying features of settlements in the whole province. From planning the metropolitan area to the 'province system'. The TCP came into being and was completed in a metropolitan context, conditioned in the post-war period by deep changes and numerous projects for governance and planning. In the four stages of 'vast-area planning' summing up these processes (7) an initial major theme concerns the fact that planning shifted from an essentially Florence-centred logic, i.e. obeying a vision of the plain of Prato as an area for decentralising Florence, towards a vision of a polycentric metropolitan area, articulated in relatively independent settlement systems. There continued to be, however, a substantial and exclusive structuring of the plain as the main focus of metropolitan area policies. This model of civilisation contrasted with the long-term historical model, based on a complex system of towns at the entrances to deep valleys and giving onto the agricultural plain (the ancient Pliocene lake). Consequently, the Province of Prato, made its own plain the functional centre for a metropolitan area, based on the textile industry, thus reducing Val di Bisenzio to a number of purely 'functional uses' (decentralised production areas along the river, exploitation of drinking water, and holiday houses) minimising the relationship with Montalbano to necessary links in decentralised production. In this way the hill and mountain systems were treated as a marginal background or decentralised appendices to the industrial areas. Initially, the urbanisation was limited to the edges of the plain which, in the early 1950s, was mainly unbuilt and

clearly showed the perimeters of the historical centres joined up by a few unobtrusive roads. In the second stage, the vast-area planning attempted to rationalise urbanisation which was spreading without taking into account the long-term environmental and settlement rules of the whole plain. The free spaces were thus filled chaotically, very often without respecting the natural predisposition of the territory by establishing suitable activities. In short, the open areas were simply seen as spaces awaiting urbanisation. When this process spread southwards beyond the limit of the motorway to the Prato plain, it paved the way to widespread urban sprawl tending to join up with the urbanised foothill front of Montalbano. In the Structural Schema of the Metropolitan Area (1990), for the first time the environment was considered as a single system, with the aim of integrating urban development and the territorial design of an ecological network. Nonetheless, the planning focus was still on the plain and its powerful east-west axis. Thus the Structural Schema based its own strategic design strictly within the boundaries of the 'Pliocene Lake' and failed to take into account the hill and mountain relations with each local territorial system. In the context of the metropolitan territorial figure, described above in terms of its historical evolution (see the supra-communal planning of the Florence-Prato-Pistoia metropolitan area), the Prato territorial figure sedimented by this functional model is characterised by a centre-periphery type geographical set-up with a large urbanised area (53% of the plain) (8) creating a

continuum in the industrial urban landscape extending along the narrow valley floor of Val di Bisenzio as far as Vernio and the series of ponds of Ombrone, where the Montalbano foothills begin to rise. This settlement model has greatly contributed to the functional and economic growth of the industrial district. But over time it has created some important critical points for the territory:

- the building saturation of the valley floor from Prato to Vernio created through: the gradual joining up of the historical mill system (of considerable building and urban quality for the river) with a *continuum* of mainly prefabricated low-quality industrial building and adjacent residential areas; the blocking of the river front for long stretches for any views or uses with considerable traffic congestion in the state road along the valley floor. The landscape image of the valley has thus been disfigured by the industrial periphery dominating and marginalising the hill landscape up to certain altitude;
- the partial degradation of the hill and mountain system due to many rural towns and buildings being abandoned, spontaneous reforestation and the degradation of cultivated woods (especially chestnut woods), dry terracing, agricultural areas and rural woodland roads;
- the construction of a continuous built-up area to the north and south of the plain, separating the settlement system of the plain from the hill and mountain systems from the ecological, functional and landscape points of view;
- the construction in the plain of a metropolitan peripheral landscape, characterised by: growing urban sprawl; low-quality settlements; de-contextualisation (in terms

of building types and layout) of the urban blocks when industrial buildings are replaced; the joining up of historical villages once part of the polycentric longer-term urban model with little consideration for the urban burden and environmental impact on the territory;

- the degradation of the historical system of canals with the gradual covering over of the system of ponds, and their inclusion in the sewage system; the tendency for urbanisation to spread rapidly to the south, transforming the farm landscape in residual areas awaiting urbanisation; the relatively well-conserved historical hill landscape of Montalbano, but with recent episodes of decontextualised urbanisation and the industrial transformation of farmland to meet the requirements of a growth in the wine industry.

Towards re-equilibrium. These critical territorial and environmental elements reveal how in its various stages metropolitan planning has assumed a mainly functional approach, simply treating the territory as a technical support for new east-west infrastructures at the service of the powerful centres in the plain and their productive systems. Consequently it has failed to take into account, or has only done so too late and ineffectively, the negative effects of settlement development on territorial and environmental quality. Moreover, this kind of planning approach has also failed to take into account the vertical nature of the relations between the valleys giving onto the plain which are based on a substratum of environmental systems, especially hydrogeological and geomorphological systems, and on the long-term settlement processes. These processes had

established complementary relations between the hills, plain and Apennine foothills. The initial theme for the plan was thus a 90-degree rotation of the visual cone previously used to interpret the territory in order to highlight the north-south geography describing the depth of the provincial territory, going beyond the monocultural simplification of the Province of Prato as a median section of the metropolitan area. Stressing this new image, this 'counter-geography', as a general structural invariant and founding element of the new statute of the territory was the first task of the TCP. The new image, centred on the north-south axis, is more appropriate in representing the complexity and depth of the provincial identity, tracing a territorial figure (a "valley section", according to Patrick Geddes' historic image) joining up the inter-provincial nodes of Montepiano di Vernio to the north, and the Barco Reale of Montalbano to the south, through a rich variety of settlement environments, production cultures, and tourist, landscape, environmental and production itineraries. In this new image the city of Prato is repositioned (along the lines of its ancient mercatale) as the centre of gravity and crossroads of two systems: it is thus a node in the metropolitan area and the core of the provincial 'urban region'. This twofold function gives it a central role in promoting higher production quality and a new geographical dimension to dwelling in the territory.

The Heritage Atlas. This geographical re-interpretation has meant that in the information framework there is a greater weight given to the relations between the local territorial systems (the Val di Bisenzio, the plain, and

Montalbano) and their heritage of resources. Thus in the analysis, the weight in terms of the heritage of the two peripheral systems (Val di Bisenzio and Montalbano) re-balances the relations with the central system (the urbanised plain). The resultant complex analytical information framework was summarised in a Heritage Atlas, which selects and represents the elements required deemed to be territorial values from the thematic maps and analytical data making up the information framework, i.e. it represents the potential resources to be used in the future development model. This interpretative stage of building the information framework defines the statute of the territory through its structural invariants. It thus creates a meta-planning stage in the strategic scenario, since it selects and highlights the heritage elements in the representation and makes them concrete.

Here is a summary of the heritage resources included by the TCP as the basis for the scenario:

- Environmental heritage. It has already partly been recognised in the existing protected areas. This heritage is configured as a thoroughgoing 'bioregion' which embraces various elements: the complex hydrographical basins structuring the historical settlements from the production, energy and functional point of views; the mountain and hill systems with considerable biological and landscape diversity; vast woodland areas with beech and chestnut woods; hilltop pastures, fertile hill farmlands, terraced fields producing high-quality crops (mainly vines and olives); an agricultural plain historically irrigated and made fertile by a complex network of canals and channels (with millponds).

This rich and varied set of environmental structures offer the possibility, if the structures are treated as a system, of planning sustainable re-balancing actions for the settlements to reduce the critical points, improve the quality and optimise the use of resources (water, waste, food, and energy cycles, with excursionist and farm tourism, etc.). The map of the environmental heritage represents these resources in summary form.

- Territorial heritage. The territorial heritage has been sedimented through the long history of civilisations from the Etruscan culture (now increasingly important after the archaeological finds in the Gonfienti site on the slopes of Mount Calvana, a city of eight hectares), to the Medieval and Renaissance cultures and the industrial civilisation (rich in historical buildings). A variety of types of settlement environment, morphological types and territorial 'figures' have thus come down to us. They include: the polycentric urban system of Prato and Montemurlo, the system of villages in the agricultural plain; the towns in upper Val di Bisenzio and the large natural environments; the rural settlement and residential system in the mid-valley; the settlement system in the river landscape of the valley floor; the monumental system of the Medici Villas; and the historical farmlands of Montalbano framed by the woodland backbone of the Barco Reale. Special weight in the analysis was given to the landscape values of the settlement environment, by elaborating a method to integrate the various environmental, morpho-typological, urban and identifying factors in 32 landscape units. The role of the landscape in the plan was stressed, also because of the regulatory value that

the TCP will have in the new law for administering the region (9). The map of the territorial heritage summarises these elements, graphically highlighting their specific identifying features. The heritage, if joined up in a system and enhanced, may constitute a new functional image (as regards dwelling, tourist facilities and diversifying production) of the whole province.

- Anthropoc heritage. The anthropic heritage is full of potential on the basis of numerous factors: the co-operative, entrepreneurial and tourist culture of the textile district, innovative spirit, and excellence in agro-food production in the hills; the powerful identity-giving socio-economic and cultural components of the towns in the plain and in the communities of Val di Bisenzio and Montalbano; and the rich associational fabric of social projects. This third section of the atlas highlights the heritage values of the socio-economic milieu in social planning, i.e. the possible endogenous actors in the strategic scenario which, unlike the other two sections, cannot be represented on the map, and require other descriptive techniques and cataloguing. The resultant Synoptic description of social planning resources is made up of three main parts: a description of the milieu in order to define the socio-economic heritage; a summary of ongoing social planning in the territory; files on social projects outlining each project, the resources mobilised, the possible networks of actors required to implement the project, the state of progress and prospects for further development.

These heritage elements in the local *milieu*, if involved in a 'pact for development' can be endogenous driving forces in the project for the

future founded on enhancing the environmental and territorial resources described in the first two chapters of the atlas.

The Draft Plan

The socio-economic and territorial strategic scenario. The second step taken by the TCP was to construct a strategic scenario. In addition to mitigating the environmental and territorial critical points identified in the information framework, the strategic scenario primarily aims at the integrated development of the highlighted environmental, territorial and anthropic resources by recomposing them in a single 'project for the territory' as a model of local self-sustainable development (10).

Future scenarios for the textile district. In putting forward strategic ideas for the TCP's possible role for the development of the textile district, we referred to the scenarios suggested in the Province's General Development Plan (11). The three suggested scenarios reflect the tendency to see a "mature industrial district subject to growing challenges on international markets" and assume that the "plurality of means is an important characteristic of the situation to be interpreted". Here is an outline of the three scenarios:

- the first maintains the leading role of the textile district in the Prato production system, but with greater specialisation in top-quality productions in the fashion world with specific brands and a clear differentiation in products;
- the second suggests "a reduction in the textile industry and strengthening of the complementary industries". In this scenario there is an external decentralisation of textile production, a "concentration

in large lots" of companies refining and packaging the finished product, and the development of planning and marketing activities. A great deal of importance in this case is given to the production of advanced services (research, training, experimentation, etc.) and automation and software;

- the third scenario suggests a "prevalence of the tertiary sector" and "forms of urban development". The third scenario thus presupposes a considerable decline in the textile industry with the survival of some globalized leaders, phenomena of decentralisation from Florence, or the creation in the Prato area of a node in the metropolitan system for commercial, cultural, service and farm-tourist activities. It is thought, however, the situation most likely to emerge (depending on a host factors, many external and therefore not controllable) will contain to varying degrees elements from all three scenarios. From this point of view the change in the Prato manufacturing system will be accompanied in any case by an important growth in the innovative services sector, which in Prato and the rest of Tuscany is already greater than the manufacturing sector in terms of value added. According to the General Development Plan, at present the value added created by the district system is achieved in the three scenarios to varying degrees by the enhancement of the following elements:

- the decontextualisation of support strategies for the textile industry with a focus on ongoing diversification within the sector;
- the development of service activities for people and businesses;
- a focus on production activities associated with crafts and commerce;
- the development of farm

activities and farm holiday facilities to create jobs and for environmental purposes, with the "weak areas of the provincial territory" being treated as "deposits of resources";

- the development of diversification and enhancement policies for the territorial, environmental and landscape heritage and for local society;

- the development of typical products and environmental and wine-food tourism.

The strategic guidelines for production in the territory.

For the textile sector, in addition to the influence of the strictly manufacturing component in Prato as regards the three scenarios outlined, qualitative-type factors will play an increasingly important role. This will be even more pronounced, given the market trends in which the promotion of products and therefore communications exploits the close links between fashion, innovation, culture, and the historical and architectural heritage in what is known as 'Fashion Valley'. This means shifting from marketing actions aimed at enhancing the real-estate value of settlements to actions to promote an integrated image of production and the quality of territorial, environmental and local society values. Moreover, the university, research and services for people and business will play a key role in consequent action plans promoting the urban presence of these activities. The built-in value in products is increasingly associated not only with their innovative content but also the value added derived from environmentally and socially low-impact production processes and the fact of belonging to an area also well known for its quality of living and overall image. The production diversification are other

important factors such as the new synergetic and complementary links between production and territory interpreting in a new way the relations between production and the urban system and rural territory. The central theme of the TCP project is equipping the territory with infrastructures in order to organise new production chains to be integrated in the textile district (first and foremost the agriculture-environment-tourism-culture chain) and a consequent greater complexity in the province's production system. To move in this direction, the TCP elaborates the indications in the General Development Plan identifying sectors for production diversification which can "contribute to developing positive interdependence and encouraging territorial embedding for new economic activities ... in the three geographical areas identified by the TCP". Here we can mention, for example, as regards the economy of the district:

- non-food agriculture, which can be practised in the plain (in the integrated project for the Agricultural Park), capable of supplying textile fibres and oils with a lower environmental impact;
- high-quality craft products integrating the supply of the textile sector with activities and products which, for example, in the furniture chain, can create important market niches and in general can enhance the image of a district where know-how is the fundamental characteristic of the manufacturing tradition;
- the supply of the rural territory with high landscape and environmental values, suitable for business tourism and producing high-quality wine and food;
- the reinvestment of capital from manufacturing activities in initiatives

associated with the promotion of the agriculture-environment-tourism-culture chain, combining manufacturing activities with caring for a part of the territory (this aspect, already relatively widespread in Prato, can contribute to reproducing the re-sources of the territorial heritage and producing public goods). The reference territorial scenario. To the background of these social and economic guidelines, the territorial scenario interprets and implements the objective of improving territorial and environmental quality and diversifying production through linkage to the enhancement of the territorial heritage, as described in the atlas. The scenario highlights the new image-perception of the vast-area planning, foreshadowing the future production set-up and the new relations between the plain, hills and mountains. It encourages the extension of the concept of citizenship to the whole territory, materially making perceptible the environmental, productive, cultural and landscape complexity of the Prato 'urban region'. From this point of view, the scenario describes a new geography, a new territorial figure made up of nodes and networks, new territorial hierarchies, and new vistas and connections. The nodes and networks are seen as 'signifying' the emergence of value and new use modalities integrated into the whole territory. The territorial scenario was designed in two versions: the first more concise scenario was used as a communications tool in the first round of area conferences to reach general agreement on objectives. The second is a specific description of the scenario with the proposed integrated projects,

discussed in the second round of area conferences. The territorial scenario is based on the following strategies:

- enhancing and diversifying the textile district by increasing environmental quality through the identification of industrial areas that can be ecologically equipped (12) and by raising the efficiency of territorial relations, and especially, logistics, the transport of people and goods, and the urban redevelopment for new production and tertiary functions;
- increasing the complexity of the economic system by going from one to three districts (i.e. in addition to the fashion-textile district, a rural district with a tourist and environmental uses in Val di Bisenzio and an agro-food district with cultural-tourist uses in Montalbano), as a possible solution to the crisis in the textile sector and its uncertain future, and thus also enhancing in an integrated way the territorial resources not yet used but identified in the heritage atlas as the potential source of lasting wealth: in this case the resources in the 'open areas' of the province (around 75% of the overall area) and their potential economic uses;
- the enhancement of the environmental heritage and landscape, the historical settlement systems, and material cultural goods for this purpose.

To make this scenario feasible, the provincial territory has been operationally divided into three local territorial systems (LTSS). These systems respond to the strategy of representing the different territorial identities so they can be treated in the Plan (both in urban-planning and legal terms) by highlighting their specific nature and their various roles in the provincial system. This makes it possible to design

multipolar network systems in which the peripheral areas acquire a central functional importance in the provincial system. In the Val di Bisenzio-Monteferrato local territorial system, the general objective is to go beyond the model of dependence (on the decentralised textile industry in the valley floor with consequent depopulation of the mountains and Prato holiday homes in the hill areas) towards a new civilisation based on rural repopulation and environmental and tourist uses. The enhancement of the endogenous resources is pursued for this purpose by promoting synergy between the redevelopment of the typical high-quality forest and farm productions and the environmental landscape quality and vice-versa; it reinforces the use and accessibility of the polycentric settlement system of villages and minor historical towns joining up the valley floor to the hills and mountains. The overall planning guidelines are flanked by the following integrated projects:

- the Val di Bisenzio "sustainable agriculture" integrated project. Through a programmatic agreement signed by the Province, Communal administrations, 19 communities, and Chamber of commerce, this project brings together farm businesses, universities and various associations to promote the productive, environmental, agricultural and tourist development of the rural territory of the mid-valley area (13).
- the Val di Bisenzio River Park. This project plans to give the river system in the valley floor, now degraded, complex roles involved in recovering industrial archaeology, improving roads along the river banks and urban waterfronts, and environmental, landscape and recreational uses (14).

The project integrates hydraulic, urban, agricultural, environmental and infrastructure actions;

- the Montepiano inter-provincial tourist node. This crossroads between the routes from Mugello and the Pistoia and Bolognese slopes of the Apennines and the Val di Bisenzio make it possible to design a complex system for multisectoral actions for various purposes, rural, environmental and excursionist tourism, the marketing of products from the upper valley, cultural services and conference facilities, tourism for young people and recreation facilities.

In the local territorial system of the plain, the Plan designs the urban redevelopment, basing it on enhancing the polycentric historical system of villages, redeveloping the ecologically equipped production areas, reorganising transport and especially the logistics system for production activities, and the inclusion of the open spaces in the integrated project for a farm park and water system. The central issue is a freeze on land consumption and the redevelopment of open spaces to raise the overall environmental quality of the city of Prato. The integrated projects for this transformation are:

- the agricultural park project. Centred around the historical Medici buildings at Tavola, the project aims to encourage the transformation of some marginal areas into multipurpose agricultural areas (with high agricultural, productive, environmental and landscape value added) through: new infrastructures for the water system (the recovery of the millponds and purified water); integrated local farm chains (chains for bread, forage for animal rearing on Mount Calvana, natural textile

fibres, collective market gardens, etc.); the redevelopment of the artificial lakes and wetlands; the recovery of the historic rural buildings; the creation of a green belt and corridors for ecological networks; and paths for recreational uses.

- the Fashion Valley Macrolot 0 integrated project. This project is for the redevelopment of the factory city adjacent to the historical city and aims at introducing new functions into the district (innovative productions, services and marketing) and advanced tertiary activities (research, training, communications and "fashion roads"); the residential plans take into account the multicultural composition of the district and the city.
- the Gonfienti archaeological park integrated project. Archaeological finds are the basis for creating a park as an innovative cultural centre, destined to make Prato a driving force in tourist circuits including the Etruscan archaeological sites of Montalbano, recreational itineraries joining up the heritage of the Mediaeval, Medici, and Modern periods (industrial archaeology).

In the Montalbano local territorial system, the Plan develops the high quality of the historic landscape and promotes widespread tourist facilities (rural tourism and farm holidays) as part of an excellent agro-food district (wine-growing sector) with a high cultural value (conference facilities at the Villa of Artimino, archaeology) and excursion tourism (Barco Reale). The integrated projects interpreting these guidelines are: the widespread tourist accommodation integrated project aimed at improving the accommodation supply by developing the rural and urban building heritage to meet the growing demand for cultural, conference and

farm-holiday tourism; the inter-provincial Medici Barco project aimed at increasing the value of the woodland hill of Montalbano (the roads on the hill are of Etruscan origin) by joining up Vinci, the Empoli area, Val di Bisenzio and Pistoia for ecological, recreational and excursionist purposes with suitable facilities and access.

The territorial projects are further divided into four functional systems treating the relevant themes to link up the three LTSs in the 'province system'. The four systems are:

- the environment functional system defining the ecological functions for each part of the territory (starting from the protected areas) and the relations required to optimise the provincial ecological network, joining up the various parts in the mountain, hill, foothills and plain systems through ecological belts;
- the functional transport system defining the functions for the various infrastructures (roads, motorways, junctions, railways, stations, paths, excursionist itineraries, cycling tracks, etc.) to optimise traffic flows in the large communication systems and equip the local territorial systems with the necessary infrastructures for their development;
- the functional system for the integrated use of the cultural and environmental heritage. The system promotes the territorial relations to integrate the various production and use modalities of the environmental, cultural, historic-archaeological, tourist and agro-food heritage;
- the fashion and textile functional system is an integrated approach to the various production settlements in order to optimise the environmental, settlement and logistic

quality of the district in the context of its production and social evolution.

The Plan process

To pursue these guidelines the Plan is operationally structured as an integrated multisectoral tool. To this end, the Province has set up an interdepartment committee and an intersectoral committee to suggest guidelines and co-ordinate the TCP through the Province's own sectoral actions and plans. Structured participation tools have been created to ensure all stages are socially shared in constructing the information framework, planning and management of the plan. For this purpose area conferences were created for the three local territorial systems, as well as thematic workshops, forums, interviews, and a web-site. They all attracted a wide participation from public and private actors in every stage of the plan, namely:

- the first awareness-raising stage for local actors in the context described by the information framework to reconstruct a socially shared vision of the territory (heritage atlas, statutory features);
- a proposals stage aimed at shaping a different vision of the territory (strategic scenario) as the outcome of interactive planning. In this direction the participating process aimed to involve not only institutional actors (communal administrations, professional associations, Chambers of Commerce, etc) but also social actors under-represented in decisions concerning territorial transformation (non-profit firms, tertiary sector, socially-owned companies, environmental and social associations, citizens' committees, fair trade networks, etc) thus making visible socially produced local projects in

the construction and management of the plan process;

- a specification stage establishing the elements by responding to the demands of local society and the actors in designing and managing integrated projects; the Synoptic description of social planning resources (institutional and others) was useful in implementing this strategic scenario according to its general guidelines and enhancing integrated projects with specific projects as well as implementing co-operation networks between various actors making them feasible.

The integrated projects contribute to building an active planning method and not merely the creation of planning constraints. They practically implement the plan by identifying for each project the actors, funds, institutional actions, agreements and pacts, making it possible to check its feasibility (in economic, institutional, financial and management terms). In this way the TCP sets out to pursue experimentation in accordance with the regional guidelines which increasingly see the involvement of integrated projects at local level as the future of planning forms. Lastly, as part of the process some specific meetings with the individual communal administration were organised and involved the mayors, heads of department, technical offices and communal urban planners.

The benefits from the introduction of this process concern:

- effective sharing of the information framework and future scenarios in mobilising various actors at the stage of managing and implementing the plan;
- the description of feasibility conditions for the technical, economic, social

and institutional aspects of individual projects in the plan and especially the involvement of leading players in the integrated pilot projects, already the subject of a census and part of the participatory process; - the consolidation of the effectiveness and relevance of the regulatory apparatus following the preliminary sharing and checking of the apparatus with the relevant institutions (departments of the Province and Communal administrations); - lastly, strengthening the proactive role of local society and reinforcing its capacity for decision making, self government and reproduction. This strengthening of the role of local society through participatory democracy means that the Province and the communal administrations are required to introduce stable experimental forms and institutions for the participatory process in the subsequent stages of managing and implementing the Plan.

Notes

1. Translator's note: faced with the impossibility of satisfactorily translating the Italian word *territorio*, we have introduced the neologism 'territory' (and 'territorial', etc.). Used not only in the strictly military or geographical sense, *territorio* usually means the local (administrative) area and is a handy term in Italian for various concepts (land, ground, local administrative area, region, humanised landscape, environment, etc.). It takes on a specific meaning, however, in its use by the Italian Territorialist School: the complex local material, cultural, historical and relational world people live in.

2. Approved in December 2003, the Prato TCP was drafted by Alberto Magnaghi

(appointed planner); Michela Brachi, David Fanfani, Anna Marson, Roberto Vezzosi (planning group); Luca Gentili (SIT planner); and the consultants Pier Paolo Binazzi (geology), Città Futura SCRL (agronomy), Andrea De Bernardi (infrastructures), Mauro Giusti (participation), Daniela Poli (territorialisation), Sergio Malcevschi (ecological network).

3. The Territorialist School consists of the co-ordination of various Italian university workshops dedicated to the themes of local self-sustainable development (with MPI, MIUR and CNR research funds). In addition to individual publications, the progress of the research has been documented by a number of collective works that I have edited: *Il territorio dell'abitare*, Angeli, Milan, 1990; *Per una trasformazione ecologica degli insediamenti*, Angeli, Milan, 1992; *Il territorio degli abitanti*, Dunod, Milan, 1988; *Rappresentare i luoghi: metodi e tecniche*, Alinea, Florence, 2001; *La rappresentazione identitaria del territorio: atlanti, codici, figure, paradigmi per il progetto locale*, Alinea, Florence, 2004.

4. The Tuscan Regional Development Plan 2001-2005.

5. Bill for Regional Law no. 346, *Regulations for governing the territory* (May 2004), still before the Regional Council.

6. President: Daniele Mannocci; head of the TCP and protected areas: Nadia Baronti; PA co-ordinator: Daniele Mazzotta.

7. 1951: The Florence inter-communal planning scheme; 1964: The Florence inter-communal plan; 1978: The Florence inter-communal plan; 1990: The structural scheme for the Florence-Prato-Pistoia metropolitan area; 2001: The Prato TCP in the

context of regional policies for the metropolitan area.

8. A comparison of regional figures reveals that the Province of Prato has a greater built land use than the other provinces: 7.4% of total area is urbanised (3.1% for the Province of Florence); 3.6% of land is used for industrial purposes (1% for the Province of Florence); 11% of artificial areas out of the total province (Florence 4.8%; Pistoia 5.8%).

9. In the new bill for the regional law the TCP's value as a Landscape Plan, established by R.L. 5/95, is strengthened by the adoption of the contents of art. 143 on landscape planning (from the *Code for the Heritage and the Landscape Decree* 41/2004), in the statutory part of the plans.

10. On the concept of local self-sustainable development see A. Magnaghi, *Il progetto locale*, Bollati Boringhieri, Turin, 2000.

11. The Province of Prato adopted a General Development Plan (2002) for the socio-economic and institutional prospects of the province, drafted by the Consorzio Universitario Pratese (PIN).

12. These are areas for which indicators and standards are established for environmental, building, urban and landscape aspects.

13. The BIAS project, already implemented while the plan was being drafted, was further developed through the creation of a local development agency and with the launch of an Integrated Local Development Project by the Tuscan Region.

14. The first concrete steps in the project are the recovery at Vernio of the ex Meucci area, the riverfront and a cycling track in the Prato river park.

The city of time and the culture of planning

Sandra Bonfiglioli

Time studies of the inhabited city have produced considerable material over the last ten years. Time oriented policies have spread from the economic, social and community sphere to that of architecture and urban planning. Yesterday 'urban time' constituted an innovative field of study and action. Today the idea itself that the *inhabited city* is a mobile archipelago of *chronotopes with borders that can be redesigned by events* has become common sense. A chronotope is a physical time configuration: constructed historically; inhabited permanently-temporarily by a mix of changing populations; breathes according to open/closed cycles of local functions, both permanent and ephemeral; is used by inhabitants according to phantasmagorical designs of time-tables, calendars and presence cycles; is embedded into new multi-scalar nets of person, goods and information mobility.

Disciplines think over time

Disciplines are working to find the time cause of changes. The hypothesis underlying this research effort is that time (which and in what form?) is the DNA which generates new forms of configuration (transfiguration), rather than clear shapes of objects, which characterise neo-modernity. I have put forward the hypothesis that time consists of an architecture of times available for collective intelligence. These time architectures, some of them planned, others given by nature, are the outcome of the combined action of technologies, of forms of

applied rationality and of scientific and also narrative knowledge.

It is philosophy which takes on the task of rethinking the new organisation of the question *urbs civitas* (inhabited city). Massimo Cacciari brings into play the subjects that allow us to think of *urban time*: the destiny of borders, of staying and going, of nomadism. These are subjects he has dealt with many times, but today's thinking is directed towards understanding the *radical nature* of urban and social transformations and urban transformations in particular because it has been said many times that these new forms of settlement are *other than the city* we seemed to know. And we continue to use the term city only for convenience. Philosophy, together with art, is an old travelling companion of architecture. It knows how to approach the problem of the different forms of inhabiting that have followed one after the other in terms that are understandable to the culture of planning, better than the human sciences have been able to do. It is possible that the newly rediscovered complicity between architecture, art and philosophy lies in the fact that the three disciplines work on the same time horizon which denies the value of what is current almost as if it were a surface that veils the depth of time for present states. These disciplines, at least as far as their theoretical tradition is concerned, inscribe what is current in the construction of the *present*, capable of tracing and renewing like the past what is simply chronologically *before now* and of indicating the *sense* of the future which is both currently possible and conceivable. For many years *art* has addressed itself to the city:

through a *new site specific* phase of *public art*; through a new frontier of interdisciplinary work that calls together artists, architects and others on an equal basis to work on complex urban projects. Just at the time when engineering and human sciences are moving away from their paradigm to approach that of architecture and the culture of planning, architecture is moving towards the disciplines to which it is traditionally allied. As opposed to the *descriptive disciplines* (whose strength lies in having no fear of what is current), since the 1980's, anthropology and geography of the family, urban and community sociology, labour and organisational sociology, time geography and gender studies have conducted pioneering investigations into new uses and individual audits of time and into new collective urban rhythms which depend on flexible working hours modulated in atypical patterns. Numerous research studies have investigated the transformation of the structure of mobility from home-work-home commuter movement to a zigzag over large areas. They have investigated the ties between the causes behind the structure of mobility and the evolution of different metropolitan forms. They have put forward general theses: the *commuter* movement, based on circadian rhythms, is set in relation to the gravitational logic which constructed the first generation of industrial metropolises; zigzag mobility on an archipelago of large scale settlements is set in relation to (is describable by means of) a new metropolitan form which is flexibly structured by calendarised flows of people, goods and information. What role has *Italian*

architecture/planning played in this?

It has seriously taken on the task: of describing and integrating the spatial and time-related reasons for geographical and socio-economic changes; of researching a *method of architectural and urban design* that is sensitive to time and to space; of developing the praxeology and instrumentation complementary to the project. Results can be recognised today, finally out of pure technicality, as giving us an understanding of the city of time and of a time oriented planning culture.

The signature of the research into planning-design lies in the concept of the chronotope. To introduce time into urban planning and architectural design, under the heading of public opening hours which make the collective life of a community settlement possible, involves: taking on responsibility for a monument in the civil history of places, constructed historically in layers of negotiated time norms which persist for a long time, longer than the generations that initiated them; and orienting new generations in *constructed* space and time and opening the possibility for establishing appointments in time and for public life itself.

A new welfare

This host of investigations and projects encouraged new social actors who arrived on the public scene, such as women *caregivers*, adolescents, children and the elderly, to speak up. These actors are at different seasons of life and have different anthropological characteristics. A demand was formulated by this galaxy of new protagonists on the public scene and forwarded to decision makers to transform space

and time and it was not at all obvious in terms of the way it was requested (*governance*), in terms of the underlying time culture (oriented towards one's own life-project in which work exists, but is often not prevalent), in terms of the idea of quality it stated:

- to *co-ordinate* new public opening hours by means of city time policies;
- to *equip society with policies for 'night planning' and 'festivity architecture'*;
- to *design and renew public spaces*, both open and closed, capable of hosting cycles of events even mass events for entertainment and culture, sport and festivity;
- to *develop technologies and co-ordinate timetable databases* to orient the market of advanced information services for mobile populations;
- to *relocate citadels of continuously opening services* along the routes and nodes of multi-scalar movement networks;
- to *integrate transport infrastructures into systems*, and those for pedestrian mobility in particular.

Enterprises and economic operators play a new role. On the one hand they are sensitive to the new terms of welfare with regard to time aspects above all, while on the other hand they have an interest in structuring the new European territory.

This context calls on architectural design and urban planning to consider two important areas of research: the space-time support and organisation of the *new welfare* and new structuring of geographical areas; a new idea of the city of time which is both a *theatre of life* and a *public body* of new populations that inhabit it.

A new time design for welfare in Europe is already on the horizon. The question is not trivial for the prospects of urban planning.

Post-reformist Italian planning has forgotten the period that made the centre-left's support for welfare in the 1960's one of the cornerstones of its identity and action. The new welfare that is being built needs to understand and regulate the space-time aspects of the new social contract which is slowly emerging. New regulation poses the problem of a more complicated game in which the organisation of access to services has many variables.

Can we still believe that Italian urban planning, as a discipline, is responsible for the construction and functional and cultural organisation of space, or better of the space-time of inhabiting not only places but also multi-scalar networks of places? It is not easy to answer. Italian urban planning has recently worked more on the renewal of planning instruments and on public management procedures and less on the *content* of planning and on its *social mission*. It seems, however, to have abandoned the subject of space, which is its tradition.

The hypothesis is clear that it is the space-time approach that brings back into play new content for a new social contract and community organisation. A consideration of time in architecture and planning makes it possible to take into account that relationship which binds *individuals and society*. Public timetables do in fact provide regulations that govern the living times of individuals and these regulations guarantee the opening hours for services, the appointments and the mobility that make social life possible.

Time in planning culture

What is brought into play when we include integration between the dimensions of

space and time in architectural design and urban planning?

A sphere of *recovering and re-adaptive action* on physical structures at the *urban micro-scale*, the scale measured by the practices of bodies in the pedestrian routes taken in their everyday-life, has been identified in urban time policies by inhabitants, residents and temporary guests trying out urban structures. The subjects of design and planning action are important because of the problems of uninhabitability, degeneration and unsafety that they produce, because of the extent to which the discipline disregards problems and because of a shortage of the technical skills required to improve matters. The subjects in question are the renewal of walking areas, ordinary maintenance for public works, protected pedestrian routes for children, the integration of the pedestrian traffic system with other types of vehicle mobility, the ergonomics of pedestrian routes for inhabitants with poor motility. It would be banal to think that this *urban planning with a good heart*, caring for women, children and the elderly is extraneous to the deep seated principles of planning culture. The rights of the body, considered in the flesh at different ages of life, active in the new physical state of urban time and precisely in the process of inhabiting urban time and space each day, are brought into play by all the new social actors on the public scene. The sphere of action of micro urban planning is inscribed in a context of *first aid*, a time scale the discipline prefers not to consider, abandoning it to the technical departments of municipal offices over-loaded with work. Contrary to the idea that complexity lies in huge

multi-partner projects, urban time policies have verified that the more planning and design considers the properties and sensory nature of bodies, the more complex the time dimensions become whether of a social, urban, anthropological, gender, biographical, morphological or historical nature.

It is difficult today to consider a new city. The complexity of physical transformations, the fragmentation of society and interests, the weakness of the system of political representation and the weakness of the discipline leave little room to hope that this enormous task can be tackled. Which task seems improper to many. Rem Koolhaas, a theorist of the *generic city*, thinks of this not as poetics, but as the outcome of a systematic reflection with general theoretical results. The names themselves given to cities at the beginning of the twentieth century, megalopolis, edge city, infinite city, urban galaxy, implicitly declare that no constituted power can put its hand to managing such gigantic size. Dealing with the city in terms of time is different.

The spillovers from urban time policies

Marco Mareggi

The intention here is to outline demand for research on urban time policies relating to the durability of the method of intervention and time and space-time oriented action implemented in practice, but not necessarily in the form of urban time plans as tried out in Italy. There has been much debate both academic and in local administrations over the need to avoid multiplying the forms of urban plans. The effective and valuable elements of these policies must be consolidated. It is a question of explicitly stating the demand for research already outlined by Bruno Dente in 1997 concerning what is put at stake for public policies and for integrated urban design by urban time policies.

Policies for the quality of everyday life

Urban time policies in Italy have constituted a new instrument for managing local public policies since 1990. Alongside and/or integrated with other urban management instruments, they act on the rhythms of life and work of citizens, on social time and the accessibility in space and time of public and collective services and places. Initially asked for, promoted and concretely defined on local government agendas by new social actors, women (Zajczyk 2000), these policies have focused on the quality of urban living at the scale of everyday life as it is lived "minute by minute" (Bonfiglioli 2004). It is not so much a treatment of subjects and issues by experts as a form of listening, action-research and of a collective construction oriented towards co-design and towards processes of

concrete transformation of cities and of ways of using them (Mareggi 2002). From pioneering origins, time policies have today become mandatory for Italian municipalities (Law 53/2000); a field of experimentation in towns and regions in France, Germany and Holland and an issue that is seeing the first light of dawn in a few faculties of architecture and planning in the USA and Brazil. Implementation in the form of a dedicated thematic plan has been experimented in many Italian cities and according to the promoters has constituted a generative matrix capable of carrying a strong ethical and interpretive content for the city of today.

Fields of action

1. A sphere of action that now has a twenty year tradition of time plans continues to exist. It concerns the co-ordination and harmonisation of service timetables with a time oriented logic that focuses principally on study and intervention to modify and adapt the opening hours of activities on the basis of an analysis of the needs of user populations (e.g. in Modena, Catania, Genoa, Rome and Perugia). This subject is experiencing a revival of interest today. On the one hand, priority is being given to projects that help reconciling life and work time, where the explicit objective is to promote and improve the permanence of women on the job market, while on the other hand projects are being developed which address everyday aspects of the good functioning of cities, which work on the creation of systems of actors to harmonise urban logistics, which undertake time problems of citizens (e.g. in Cremona, Milan, Verona, Prato and Rozzano).
2. There has been a

migration of the subject matter in the fields of action since the 1990's towards time oriented policies, with the establishment of relations between the settlement character of places, activities, social practices, life styles and the mobility of the populations that inhabit them. There have been initiatives in commerce, schools, social relations, public spaces, mobility, with a view to urban renewal and social revitalization. These actions have started a new original mix of traditional and innovative instruments, through local governance practices (e.g. at Bolzano, Pesaro, Sesto San Giovanni and Ravenna).

3. Exercises are currently in progress that address the closeness of urban time policies to other instruments for managing communities. The local legislation in Tuscany places time plans alongside other structural planning instruments (e.g. at Empoli and Lucca), while in Pesaro and in Bolzano time policies are being committed to the Strategic Plan of the city. In Lombardy, on the other hand problems relating to services and the redefinition of quality and not just quantity standards have led to joint experimentation between Time Plans and Service Plans (e.g. at Lodi).

Research demands

It is a question of working on some determined research demands:

1. while urban time policies have privileged, in recent years, a continuous migration of subject matter and research into innovation, it is necessary today to *explore and consolidate procedures, methods, instruments, the savoir faire of success and the organisational forms experimented and move towards the standardisation of these, without fear of replicating in order to*

consolidate. Consequently the re-proposal of initiatives under-taken in a municipality years back must not be interpreted as the implementation in a different context of a practice of no interest to academia;

2. the development of instruments to measure results obtained and for whose benefit, is a further area of research to *verify if, and how, time strategies constitute a new factor at stake* for public policies and integrated urban design. It is a research hypothesis drafted by Bruno Dente, which finds a sufficiently broad critical mass of experiences and which, with the multiplication of demands for time oriented projects that arise in a wide variety of sectors, seems to require answers already considered in time policies;
3. finally it is interesting to examine the *geographical scale of the time policies* adopted, once again to understand what type of action is effective for which communities.

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Women's views of the transformation of the city. A research workshop Gisella Bassanini

The idea of forming a workshop dedicated to the relationship between women's cultures, gender differences and the city within the research area on Urban Time Policies and Mobility directed by Sandra Bonfiglioli originated from a few considerations summarised briefly here. The subject of 'women and the city' relates to a variety of subjects, areas of thought and intervention which bring different cultures and sensibilities, responsibilities and roles into play. The orientations that emerged from studies and projects promoted by women have contributed to enrich the field of analysis of the city since the end of the 1980's. These are theories and practices that involve the idea of the city itself, that interrogate urban space that has been transformed and generated by design, that investigate the participation and contribution of women in urban life and the management of it, bring out the dimension of gender relations and instances connected with the practice of differences and promote initiatives designed to guarantee full citizenship rights and to support equal gender opportunities in local development. There is an increasingly more numerous presence of women who put the issue of the 'citizenship of women and the quality of urban life' at the centre of their thinking and action. They do it as public administrators or politicians, as professionals or academics, as individual citizens or in groups. Urban plans and policies have been born over the years, taken root and spread thanks to the support and promotion of women's movements. The case of

urban time policies is emblematic of this and there is a vast literature on this new phenomenon.

The subjects connected with women's cultures are addressed with a variety of methodological approaches by different scientific communities which adopt gender differences as an issue and point of view, thereby moving further the borders and broadening an area which is no longer perceived as a 'question which regards the female world only', but the whole of society.

The viewpoint and the method

A conception of gender as a social practice or as something which is formed in the interaction between individuals has recently made considerable headway. The focus is on gendering processes, which is to say on how gender is constituted, how it redefines and implements continuous forms of negotiation in relations and interaction with other females and males. It is another key to interpretation which looks not only at what men and women are but also at what they say and do.

This theoretical assumption and attitude to the way of observing processes and how they unfold is also that which animated the experience of the Vanda Group at the Polytechnic of Milan of which I formed part. When the Vanda Group started to reflect on the city in the 1990's, on which model of urban civilisation to bring into the world, it didn't imagine a city of women and a city for women, but on the contrary it promoted the idea of a city as a 'city of the two', of the many peoples: a place of hospitality and people relating to each other. We were aware that "thinking of the city with relationships as the starting point makes the difference and directs us to

see the surrounding freedom and to live with dignity in our cities". This is the approach that the workshop, *Women's cultures and urban planning* intends to use and promote: the objective is not to trace a "presumed feminism" but to trace figures, plans, contributions, thoughts and practices in research, in critical literature and in dialogue with different experiences produced on the theme of "women and the city" for the creation of a true "city of the two".

Women's cultures, gender differences and projects for the city

Two examples can be cited to demonstrate the vastness of the subjects and the variety of the constituent elements of which the report "women and the city" and the relative debate is formed: the international conference *Women and the city. Strategies and best practices for the future* (Impresa Cooperazione Donna, Milan, 28th February 2003) and the seminar '*Urbana*', looking at the city through gender and generations (Fondazione Michelucci and Municipality of Fiesole, Fiesole, 7th March 2003).

In these two cases too, however, there was little presence and investigation of the contribution of women to urban planning. There is a need to start research projects and intervention on this subject which calls the disciplines of architecture and urban planning directly into play. This failure is also reported in the document *The City, citizenship and gender. European charter for women in the city researchaction* (1994-95) funded by the Unit for Equal Opportunities of the European Commission DG V: "The gender dimension applied to the city must be admitted as the source of a new shared culture involved in the formulation of a new

philosophy of urban and regional planning... Women are absent or particularly invisible at all decision making levels and above all in the decisions that create and generate cities, dwelling and planning. There is a sort of 'double exclusion' of the majority of women: as users of cities and as producers of urban plans and architectural design... The degree of presence of women is one of the lowest in requests for urban, regional and housing planning... Urban planning is one of the greatest challenges at the dawn of the twenty first century".

The city of the night

Luc Gwiazdzinski

Perpetually in search of emancipation from natural rhythms, little by little man has made urban life artificial. The diffusion of public lighting and the increase of political power have played a fundamental role in making the development of activities and animations possible and in permitting the appearance of a nocturnal public space. The urban night is a 'frontier', "the limit reached by the valuing and advance of colonists who settle in colonies on lands previously empty or little populated" (Brunet 1992). In this sense the frontier is a front where it is not neighbours that are addressed but the unknown.

A territory little explored

General oblivion. While we have known and studied cities for a long time, we often forget its nocturnal dimension. Apart from the pioneering work of Anne Cauquelin (1977), the British research into the night economy at the start of the 1990's (O'Connor 1998) and the recent Italian studies on nocturnal *loisirs* (Bonomi 2000; Castellani 2003), the scientific literature is still timid on this subject. This strange oblivion also applies to policies and planning: the night is either absent from the development prospects and urban management or limited to aspects such as pollution by sound and public lighting

New pressures on the urban night

Intensification of nocturnal activity. Colonisation is accelerating today. Society is revising its day/night rhythms and the city is being transformed. The pressure is increasing because of the individualisation of

behaviour patterns, of urbanisation, of the change to a service economy, of putting the planet on the Internet and of the growth in demand and territorial marketing. Little by little the economy is colonising the night. Industrial enterprises function with continuous rhythms to make plant profitable and in most sectors night-time work is no longer an exception. Service companies are moving towards continuous twenty four hour activity. Finnish nocturnal nurseries are being imitated all over Europe. The media curfew is finished for radio and television.

The trend is towards increasing the regularity, the capacity and the frequency of transport services. Many shops are opening more in the evening. Those with nocturnal opening hours and night sales are enjoying success. The supply of night *loisirs* is developing and the night has become an economic sector in itself. 'Special nights' are multiplying: 'nights of fantastic cinema', 'of electronics', or 'of art'. 'All night' events are a success in Paris, Brussels and Rome and night walks and markets are flowering in the countryside. Biological rhythms also seem to have changed radically. People go to bed at 11.00 p.m. instead of at 9.00 p.m. as they did fifty years ago.

A shrunken heart and uncertain margins. Urban night, defined as the period in which activity is reduced to a minimum, is limited today to the period between 1.30 and 4.30 in the morning. If 95% of the city sleeps after midnight, part remains awake: doctors, nurses, firepersons or policemen of the city guard, employed in transport, industry or in cleaning, bakers, café or restaurant proprietors account for 20% of night workers. For others the night is a time for

parties, for civic commitment, but also for exclusion. On the streets, tramps, the night walkers, prostitutes or insomniacs are the mythical figures of the 'night people'.

Make day on the night

A nocturnal archipelago.

The night front progresses discontinuously in space: central districts reserved for nocturnal *loisirs* have developed in the historical centre of cities; out-lying districts are organising them-selves for competition; round the clock automatic vending machines are being installed everywhere, when the spaces of international flows of people cross and irrigate the metropolises with their 'permanent oases of services' (service areas, station and airport shops) for nocturnal nomads. The image that imposes itself is that of an 'archipelago'. It is neither a regular nor continuous front.

Conflicts that multiply. The pressures are accentuated on the night which clearly outlines the fundamental economic, political and social factors at stake. Residents who live near airports on the margins of agglomerations demonstrate against transport companies whose activities require continuous 24 hour functioning. These conflicts of a very mediatic nature see the city that sleeps pitted against the city that works, a local time of the circadian city and a world economy time, a space for flows (airport) and a space for stocks (residential districts).

Residents in city centres confront noisy consumers in night clubs and discos. Urban violence explodes in outlying areas between 10.00 p.m. and one in the morning at a time when natural social frameworks disappear. Some railway companies have limited night stops for security reasons. Debates in Europe

on opening hours of night clubs and discos, the sale of alcohol and regulating 'free parties' recur frequently.

A frontier yet to be explored.

From studies of some metropolises we have been able to identify movements of conquest and of discontinuity that characterise frontiers and identify the lines of the front. This first approach examines the issue of our geographical concepts of space, of power and territory. The urban night does not correspond to any type of experienced space: neither to the fluid territories in which the inhabitants move as a function of ecological conditions; nor to rooted territories in which man forms close ties with a place and nor yet to territories of industrial spaces marked by functionalisation. We intend to address the night provisionally in terms of spaces as ephemeral experiences.

The night must no longer be perceived as a territory abandoned to representations or to the market, but as a space for planning, a new frontier for scientists, decision makers and citizens. It is a factor at stake for everyone and relates to citizenship, urbanity and the establishment of the right to the city 24 hours round the clock. A more human city can be conceived of, more hospitable and harmonious starting with 'night planning' based on values which take account of the nocturnal. It is possible and necessary to illuminate the night of a new day. Together we can dream of nights that are better than days.

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Festen. A memorandum for the workshop

Architecture of festivity

Maurizio Vogliazzo, Decio Guardigli

We are a saturated society, melancholy, tormented by the future. Now that extreme poverty in the real sense of the term has disappeared, it is imported as a phantom, in an identification with the victims of our doubly guilty culture, to confirm how much the economy that we have invented rests on poverty, real or imaginary, rather than on a symbolic prodigality in a condition which is the exact opposite of what would be needed to celebrate.

We are not poor but impoverished, like the uranium which we let loose in the world.

Celebration: hunger, satiety

In which we get to the heart of things and make a basic comparison. Brazil with its fabulous carnival is also the country of the programme *fome zero* ('zero hunger' in Portuguese). The carnival is carnivorous, it sublimates the preferred diet. At Bahia very little is required to notice and to realise that this is a culture which believes in celebrating and which seems to gain access to something profound, very profound, innate, through celebration, music and the extraordinary rhythm with the pouring of hundreds of thousands or millions of people onto the street. We are barred from it perhaps by the satiety we have acquired, however understandable that might be. It is as if we, thanks to detergents which wash whiter, were only allowed the surface of this furious and necessary party making or as if despite the transport we were relegated to metaphorical, but not completely, skin diving

without scuba tanks, mirroring the tourism of similar occasions. To manage to account for such a carnival without even having to resort to culture, anthropology, or history, to be content with comparing the hunger down there with the stomach upsets that rage here, perhaps that is why in comparison our celebrations can only be recreational, unless a link with something equally archaic, has survived, driven wild, with barefoot runners and people whipping themselves, moving back into folklore, chronologically out of phase.

Finally the question must be asked how the carnival without *Sambodromo* of Bahia, already electrified in its days (1950), will survive economic progress? *A deduction.* The festival, rather than being another use of space is perhaps the effect of the absence of space which would otherwise exist.

Raves

In which one reflects on certain symmetries. As the most discomforting psychoanalysis teaches us, enjoyment is outside the law. The ingredients of a rave: an abandoned terrain on the margins, an often assembled acoustic system and electronic, high volume self produced music; illegal substances sold in the shadows; young participants. A symmetry can be discerned in these ingredients. Everybody is located at the extremes, physically/mentally distant from the reputable centre. The legal and the illegal are reciprocally arranged and appear simultaneously: the centre is necessary and supports, as a planet supports its satellites, the transgressive extra-territoriality. The Bologna *Street Parade* is a large rave which takes place in the city. It attracts

tens of thousands of participants. It is an institution, but it generates phenomena of rejection in an urban environment. It is an extraneous body. The citizens rebel, they complain of damage, uneasiness, dirt, neglect, danger, confusion, noise, insecurity, drugs, death.

Another deduction. Spatially the festival is borderline. If a rudimentary diagram of it were drawn you would see a frontier line at the centre of a grey blurred area. In confirmation of the longsightedness of that same psychoanalysis, you really experience pleasure in this area: you may go into ecstasy.

A cold party

Where it is shown that even the heat of these times is used coldly. Décosterd and Rahm are Swiss (we will see that this is not without consequences) and are the creators of *Chaleur/Dépense* (1998), a minimal installation, but along the lines of the thought of Georges Bataille which the title itself alludes to.

This project involves the emission of heat without any gain for a "dispersion, continuous and without limits". A consumption of simple energy, dissipative and unproductive. Its primary sense cannot help but be physically noticed by visitors together with the heat.

The energy consumed serves no other purpose. It carries no other message. It is added to that of the sun. This 'unproductive', but not insignificant art arrives from Switzerland the bank of the planet, a sort of celibate celebration, cold, with no purpose.

Consideration. In *Chaleur/Dépense* we would find the warmth, if not the climate, of a celebration and also the reasons for it, but nothing to celebrate, in exchange for a slight sense

of aesthetic panic, corresponding to the period we live in.

Grape, doughnut, water melon, wine and Unità festivals: for tourist use

In which a very special spatial nature is recalled and pointed out and meanings placed in festivals are finally discovered. At Viserbella, a district of Rimini, there used to be an avenue of fields in the gridwork of the land between the railway line and the sea, which was later on cultivated with equally impressive hotels and condominiums. Before the use of the toponymy employed in map making, it was called *Campo grande*. The local tourist committee used to periodically organise dance festivals in one of these field, not even 50 metres from the sea, but in a countryside already inevitably desolated. This field was saved by the Master Plan.

In the Summer a stage was constructed with scaffolding for ballroom dancing orchestras and theme festivals were organised periodically. They were a great success with the public, a little old perhaps, but cheerful, vivacious, sincerely enjoying themselves with a contagious enjoyment. Each locality along the kilometres of coastline had its guests and its festivals (but *never* on the same dates). At a certain point, but straight away I think, they found that the couples dancing waltzes, polkas and mazurkas were having trouble on the bare ground and they quickly acted to solve the problem: a slab of concrete. This square concrete construction stood out, grey, artificial and immediately cracked, the result of poor workman-ship and materials, like a modest work of land art. A more familiar observer would have seen this as

confirmation of how much the people of Romagna with their poor and rustic past hate any manifestation of nature that is not controlled. Even in September 2000 I remember the same slab of concrete full of elderly and graceful dancers, which cynical moralising would define as terminal, propelled in pairs onto the dance floor as if they wanted to make their concrete base rise up and take them off to heaven like that, directly, not separately, but altogether, without passing through hospitals, disfigured by illnesses, at the rhythm of the umpteenth mazurka. If you looked carefully you could really grasp the meaning given to each festival, almost like in a Zen story.

The places of mobility, or the design of temporarily inhabited public spaces

Marco Albini

Mobility and time are distinctive traits of the contemporary world and the main motors of change. The urban landscape appears fragmented and discontinuous. Perception of it is simultaneously conditioned by movement and the predominant role played on the geography by the infrastructure network. Private and public functions and architectural spaces are losing their features as consecrated by tradition. The crisis of architecture is related to the broader cultural torment reflected in that loss of the centre which marks what is now an irreversible change in all areas of knowledge: centrality intended as a central point of reference, 'canonisation of unity, of regularity, of stability', passed down through the centuries. Today the loss of the centre not only marks the explosion of time co-ordinates but also the now acknowledged disintegration of spatial co-ordinates. The centre is no longer the highest concentration of presences, commingling of functions or existence of service facilities. It has become the weak pole in the central-peripheral dialectic, replaced by the relationship scale connected with the new chronology of communication flows according to a system of multiple connections which new urban networks establish between portions at varying distances from the original nucleus: time, the main actor on the urban scene, changes the spatial co-ordinates of original centrality and projects them into a 'network with no centre', where it seems that only relative centralities are able to claim recognisable differences.

The new centralities: the infrastructure nodes of the complex city

It is now well known that you can no longer speak of the form of a city as has been handed down to us from 19th Century culture. Architectural design seems to be following this destiny, attracted by forms of 'inhabiting' space which are extremely varied, time-oriented, and which it should be able to control by means of its instruments. The disappearance of open air public spaces is a phenomenon that is difficult to counter. Space for social aggregation has moved from urban squares and 'high streets', now mere commercial strips, to the internal galleries of large supermarkets, to stations and places of multimodal exchange: outdoor space is engulfed in an interior. There are places of accumulation of tensions, forces, activities, flows in the dispersed city that constitute significant design themes but which are abandoned to such a variety of specialized techniques that they are incapable of constituting urban facts. Further examination of the subject concerns *places of arrival* (stations, airports, automobile ports), places designated to simultaneously represent the arrival and departure of larger scales flows. They are of interest in terms of localization, of typology specificities, of structure of spaces and roles, of how they function. Together with *places of transit*, for which they constitute the points of destination, and with *places of interference* for which they introduce relationship capacities, the new *places of arrival* outline the picture of the contemporary system of connections, whose widespread development is altering the preceding urban conditions to a high degree.

Rhythms of use, threshold spaces: time oriented planning

A general look at things allows us to identify the nodes because they are complex structural systems which belong to the very vast notion of threshold spaces. The concept of a threshold becomes a category that is useful in formulating designs.

Working on the basis of a logic of scalar interference, in my opinion, design must recover the complexity of relationships of architectural space, capable of interacting with the context on different scales: on an overall scale according to relationship structures and stable interactions between people; on a sector scale, by relating internal destinations to external destinations that gravitate on the nodal space interfered with; on an architectural scale interacting with social networks that correspond to systems of actors capable of guaranteeing the internal connection to the node itself.

If the public space of a city is a container where systems of relationships between people exist, then an architectural design to transform physical space is an element which makes the manifestation of new relationships and the declaration of what is available possible and this increases the freedom of populations to choose and to use space.

The design does not therefore claim to give a formal unifying logic (a new design of the city) and it would be difficult to simulate the effects and reliability of such a design, but more modestly it is intended as the conclusion of a methodological process centred on reconstructions of interrupted or unexpressed urban relationships.

The form and articulation of

public space must succeed in communicating a declaration of its availability for multiscalar use, a condition of freedom in the choice of routes, of the use of functions, a sensation of safety through the recognisability of places.

It is not the function, variable in time, which stimulates use, but rather the condition of freedom of choice and of movement inside a space of availability.

It seems to us that this is the most appropriate definition of architectural design which gets finally emancipated from functions as a premise and guarantee of the design result, and looks to the definition of relationships and flows to create the maximum availability and flexibility of use. The time oriented method, or *chronotope* analysis, understood as attention to time, tends to identify and represent the structure of inhabited spaces, which is to say the *structure of the rhythms and ways of use* compared with a similar 'physical structure of public space' within which these behaviour patterns occur and to recognise the elements for the potential transformation of space and relationships in the asynchronous and discontinuous character of the two structures. This is to say that architectural design is the rationalisation of the space in which relations are interrupted, through overcoming the 'threshold effect'. The threshold identifies the obstacle or the constraint on passing from one state to another, from one place to another. The term threshold therefore represents the expression of time, of movement and of interpersonal relations.

Events, museums and paths for urban renewal

Alberico B. Belgiojoso

Urban quality and urban design. We work with an idea of urban quality which concerns the whole range of the components of the person-environment relationship, not reduced to a pure visual fact, and in which it is the reality perceived and used by people that constitutes a basis for action and projects. In this context we try to consider the quality of different parts of the city: the life that is lived, the daily journeys, in the outskirts of the city and in its central districts; the physiological and psychological conditions; the urban landscape; the liveability of public spaces, its facilities, parks and the level of maintenance.

Even the more genuinely visible factors consist of elements that cannot be defined in aesthetical terms, but rather in terms of communication, rich in stimuli and messages, of information, meanings, recognisability and 'representation' of activities and users.

Activities and urban quality. The urban reality and its quality consists also, and in some cases predominantly, of the system of uses and activities. The latter intervene in different ways: firstly because it is they that determine the 'functioning' of the city and the life that is lived there; activities also generate visual effects: shop signs, the types of people that frequent an area, the urban design as a function of its use; it is therefore a visual system that consists not only of buildings and spaces, but of the entire reality that moves within it; finally we ourselves perceive the urban environment differently according to the activities we perform. We design a 'system that

lives' and not just the shapes of buildings; spaces and uses are always connected, and we examine how the performance of activities varies over time, at different times of the day and on different days; we study and design a system that functions, that lives, that moves and changes over time as the clock turns, and not just the forms of buildings, the volumes, the shapes of the space and the geometry.

Urban renewal and museum activities

The renewal of museums, exhibition spaces and music circuits, artistic cycles and events are considered by public decision makers as actions which perform a de facto urban renewal. This is also confirmed by our direct experience in the field of the renewal of important Italian museums.

Some projects which have achieved excellent results have become cases to reflect on even if they do not yet constitute case-studies in the sphere of public policies analysis: the Guggenheim Bilbao, Mart Rovereto, the new 'neighbourhood museum' in Vienna, the temporary public art event *Luci d'artista* and *Manifesto* in Turin, the theme museums for children, the great all night event in Rome, the use of unusual exhibition spaces for site specific art.

Urban renewal is understood by the person in the street as an opportunity to improve the position of a city in the international ranks of the urban hierarchy and an opportunity to improve urban marketing conditions. Cultural enterprises attract tourists and are an incentive for local economies. Some research studies predict that cultural tourism will become the heart of European tourism. Italy's historical and artistic heritage is a strong attractor of tourist flows, but initiatives taken by public

decision makers in the field of cultural enterprise and in that of exhibition spaces renewal is inadequate when compared to the wealth of national resources available. Public decision makers are unable to rely on adequate disciplinary expertise and systematic research.

The renewal of museum facilities, services and nomadic services

The populations of cultural tourism can be considered in the context of the new morphology of metropolitan populations. Cultural tourists are present temporarily in a place and access it along routes where services are open at generic times with respect to the time profile of the demand from these populations. The renewal of these routes takes this problem into consideration. However, there is another class of advanced online services which is subject to research. Nomadic services are intended as advanced IT services acquirable on-line by users in a mobility condition.

Representation and innovative models of communication. The hypothesis for research into communication in the museum field consists of an information project based on advanced technologies and on a language capable of innovating communication models. Particular attention is placed on the senses and perception to achieve not just a mere transfer of information but a transformation of the information elements.

The problem and the objectives. Research examines the construction of a discipline of public policies with a space-time approach on the subject of cultural events, in an integrated form with architectural renewal of the exhibition spaces, with architectural and functional renewal of access paths and of museum networks, also concerning opening hours,

with online services for cultural tourism in an e-governance framework. This discipline building is intended as a first step in the direction of a more mature disciplinary context. *The temporal conception of the research subject.* Cultural tourism populations are temporarily present in exhibition places at specific times in the year and the opening hours of services along the routes of tourist flows must be changed in the urban context according to a logic of widened accessibility. We are aiming at online services for mobile users. The construction of exhibition event calendars and service opening hours is an important subject for planning cultural enterprises. The most recent forms of art are constructing a new relationship with built up urban spaces (public art) and with the times when the artworks can be visited. Architecture of exhibitions and time oriented urban planning for major events both deal with the design of a time architectures of uses, of structures and of communication. The scientific objectives are: to bring a selected set of international experiences within the disciplinary field of public policies and that of urban and architectural design of exhibition spaces, of access routes and the relative services; to focus on the concept of urban renewal; to reach deeper, with theoretical insights and significant examples, in the relationship between site specific forms of contemporary art and exhibition space typologies, whether of a museum nature or public spaces that do not specialise in artistic events; to create multiuser sensory spaces capable of collecting together and organising information objects found by the system in response to a user interrogation: to study and use dynamic multi-user

metaphors for access to complex archives; to analyse the concept of museum systems and to study the related communication dynamics.

Art transforms public spaces

Lorenza Perelli

The question of the specificity of public art can be posed as a question of what makes an artwork suitable for a public space. As Mary Jane Jacob, who organised exhibitions which formed a model for public art in the 1990's asks: "is public a quality that depends on the place, on ownership or on access?" (Jacob 1995, p. 55). The question has been relevant since the late 1970's as a question concerning the legitimacy, use and effectiveness of public art, above all in Great Britain and the United States. The United States programme *Art in the Public Place* of the National Endowment for the Arts started in 1967 with the objective of "giving public access to the best art of our time outside museums" (Finkelpearl 2001, p. 22). It is precisely this "official movement of public art oriented towards monuments which lasted unchallenged until the 1970's" (Finkelpearl 2001, p. 22) that is questioned. Given the objective of "giving public access to the best art of our time outside museums", what conclusions can be drawn today if "most of the modern sculptures located in public places met with the public indifference?" (Lowell 1998, p. 17). Indifference or even rejection by the public of many contemporary sculptures located in public places poses the problem of how public art can reconnect with spectators and places. This critical work opened up the possibility of a new model of action. What makes a public art work, a specific work for a public space? Or better what links a work, not to any type of space but specifically to a public space? What are the elements that make a space

public? And how does a work relate to them? The space in which a work is located seems finally to be put into question. Public art today is committed to acting for the transformation of the spaces in which it intervenes, whether they are urban or museum spaces, treating them as site specific working contexts, as (artistic) research on the place. The term *site specific* (Know 2002) comes from artistic research that started with minimal art and land art around the end of the 1970's.

A definition of contextual art was formulated by the critic Rosalind Deutsche.

"Contextual art is a term which initially indicated a work of art which incorporates the exhibition context - the museum, the gallery, the urban space - in the work itself... In order to demonstrate that, for example, the aesthetic perception and the reception of the work is not disconnected from, but contingent on the circumstances in which the work is seen, the artist creates works specifically designed for the place and physically inseparable from it. In this manner site specific art demonstrates that art does not have an independent meaning that remains intact when the circumstances of space or time change. The meaning of art is formed in relation to its framing conditions and, as a consequence, it changes with the spaces that it occupies and with the position of the people who observe it" (Deutsche 1998, p. 237).

One initial character of site specific art is that the space is not chosen intentionally by citizens to enjoy that work there, but is simply accessible to all and passed through without looking. The artist at times acts by bringing critical elements, intervenes by means of the work on that distracted

perception to focus it instead on other contents, with a communication technique that might at times be very aggressive. This is the case of Maurizio Cattelan for Milan. 350 pages of press reviews documented the liveliness of the rumpus his work caused because of the protests of citizens, offended by the presence (in public, that is) of three mannequins of children, hanging by their necks with their eyes open under the oldest tree in the city, in piazza XXIV Maggio and removed by a citizen after just 48 hours. This work places us at the centre of site specific questions also as the capacity of a work to act critically towards the ways in which we inhabit places.

What then are the places that artists name as public in the sense of public art?

Artistic research in the late 1990's places the public factor in the public (user). It is a fundamental shift for artistic research, which sees works as 'not commissioned', but originating on the place in co-operation with the public. This artistic approach underlines how it is by triggering public participation that the work acts consistently with the specificity of the public space. It is a theme on which art reflected in the 1990's, interpreted also as a process in which the artist decentralises the creative location towards others. The Oreste group is an example of this. It is a collective nickname used by each participant of a project which has worked on inter-subjective forms of communication, broadening them with the practice of reticular connection, as a work which not only amplifies the legitimate space of art in broadening its action, but also that of persons with which it constructs a patrimony of shared knowledge. The practice of art acts here by creating a social space by

means of a common order of participants in a collective project. If you observe these practices, the significant dichotomy is no longer between public space and exhibition space but in that gap between artists and non artists which Oreste tries to close. When these practices are represented inside traditional exhibition spaces, as in the case of the Oreste dinners or meetings held in the spaces of the Venice Biennial, they transform the exhibition spaces themselves which are confused with other ordinary meeting places.

The work of Cattelan and the Oreste experiences transform the public places in which they intervene in two different ways. Oreste does it by transforming exhibition spaces into ordinary places; Cattelan does it by acting on the circumstances of the formation of public opinion. The work holds together the environmental circumstances in which it appears. It is the aspect of 'co-habitation' that the critic Nicolaus Bourriaud has called the "relational" capacity of art, between place, circumstances and persons that takes on objective form in a work while it lasts.

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Les Halles. A time architecture workshop

Gian Piero Calza

Why Les Halles? What was the 'belly' and today would like to be the heart of Paris has hidden, as it were, the vital streams that animated it in the depths of that 'big hole', leaving only a few wrinkles on the stitches on the surface. And this is the point: can an urban place, part of a complete body, a syllable of an entire word continue its existence hidden from sight without any visible sign appearing in the light of day? Because a city is precisely that: the flow of life made visible by architecture. If this is missing there is no city. And if there is no city there is no architecture. Here then we have a possible answer to the first question: the city of Paris has realised that there is a scar in its body that has not fully healed. The vital streams inside have not been interrupted but the surface tissues are torn and the city no longer recognises itself in that place. The problem seems clear then: to intervene in a part of the city where something has been lost or where something has not been fully completed.

One initial time dimension: the history

Why the history? When one speaks of urban time it is not the history that is referred to but the present of a city: its functioning and its use by those who live in it. However, aren't the ways in which it is used and the functioning of a city in the present to a certain extent conditioned by, and I would like to say have their origin in the spatial organisation within which these uses and functions occur? There doesn't seem to be any doubt to me over the reciprocal interrelations between spatial and time factors in the living of urban

life: it is sufficient to consider the different ways in which everyday activities are performed in a city centre or in a diffuse conurbation. These different ways of inhabiting a place are connected with the history itself of an inhabited space, with the formation and transformation of the organisation of a settlement by those who live in it. Inverting the arrow of time is meaningful for the research that was conducted on Halles, it sets the problem of its present and investigates it through its origins. This is not an option of a descriptive nature: it is instead a question of re-constructing something which is given but which is not known in terms of the process that constructed it; it is a question of interpreting the present in the different moments that constitute it; it is a question of conceptually reconnecting the times and Brownian movement of everyday life in the web of the persistent spaces and extremely long time spans of the city. Things like words are involved in this operation of re-constructing the present. What meaning is attributed to the term forum in the urban history of Paris? This can only be understood by looking at the maps that show the topographical history of the city. They show us a first forum at the cross roads of two lines (pre-existing Celtic trails) marking the foundation of the Roman settlement Lutetia on the left bank of the Seine; a second forum the Port de Gréve (which became a square) on the right bank of the river, a new centre of city life for the entire High Middle Ages; a third forum at Champeaux, the urban edge of the ville that developed after 1000 AD on the right bank, where the main roads of the north-western urban quadrant converge: beyond the cardinal axes of St. Denis

and St. Honore, the spokes of Coquillière, Montmartre and Montorgueil-Poissonnière, the latter being the main routes of communication towards the new destinations of commercial traffic, the Channel and Flanders. It was this third urban judicial site that was to host the first Les Halles, where they would remain until they were ultimately transformed into the new forum. The recurrence of the term indicates the permanence of an eminent urban function at different times and in different places: the function of centrality, of cross roads, of convergence, of radiating outwards, the mercantile and trade function, the economic and civil function, the symbolic and identity function, the function of mobility and meeting. They are all functions that mean urban times and spaces contracted or dilated according to the occasion, but always confirmed: the contracted time of the space of proximity and of neighbourhood; the dilated time of the vast dimension, of distant destinations. The latter are performed in the present, in the historical city of the present, in the same spaces as in the city of the past; they are in fact determined by them. It is the strength of Les Halles' past that determines its location and the urban space of the current Forum des Halles. It is the centuries old streets that converge there that have made the present day urban and extra urban metro lines converge on the same hub; it is the accumulation of mountains of goods on that point over the centuries that has resulted in the formation of one of the largest shopping centres in the city; it is the centuries of people, present and resident, swarming at those cross roads that created the *salle d'échange*; it is the centuries of people and goods

entering Paris over that initial threshold that has conserved its function as the gate of the city. It is therefore the permanence of particular functions which makes an urban space a place: functions that therefore have the effect of giving an identity to the spaces that house them; the more the architecture tries and succeeds in resolving the effect into tangible forms, the more recognisable it is. If today Les Halles are again subject to question, it is not because of the function they perform and which urban history has assigned to them, but because of the forms that don't identify them: forms which do not complete the history.

A second time dimension: urban

Why urban? This term still has meaning if it refers to the terms that culture has conferred on the most completely resolved inhabited space: the city. It is not therefore intended, as Choay suggests, as a domain of non places. This new spatiality, "which frees us from local ties", is to be set in relation to the new time, "which frees us from duration to install us in the instantaneous. The organic time of re-evocation/remembering, of interrogation, of waiting, of journeys and of deviation is rejected".

This sort of reference to space and time together affects the inhabited city with regard to what is most precious to it: "the organisation of the constructed framework based on solidifying constructed elements together and also solidifying the same elements with their natural and cultural context". It is this point that we share with Choay. Drawing the conclusions, to reconsider Les Halles for what is incomplete in them today may mean an effort to

restore measure to new paradigms of space and time, by rooting them in an inhabited and consolidated urban dimension.

The Baltard design of the new Les Halles complies with this supra-historical urban model. The composite structure of the ancient Champeaux forum with its different spaces is cancelled for ever: the site of the covered market, which stretched from the end of St. Eustache to the Rue de la Ferronnerie; the carreau which acted as a public square, flanked by the street which descended toward the Innocents in a broad curve; the wall of the Saints Innocents, an ancient cemetery, which supplemented the religious functions of St. Eustache.

The relationship between the main road network (that of regional as well as urban importance) and the location of public and commercial facilities was determining for the siting of the first Les Halles. "These Les Halles find themselves in a lucky position; they are at the centre of the capital, right where the four most important streets in Paris end, those, that is, which cross the whole city".

It was this circumstance, unchanging over the years, which kept the central Les Halles alive for centuries. Today its function has changed, not its location. At the end of their existence, the same urban planning circumstance will give rise to the present day forum, but projected underground.

When the Council of the City of Paris, having abandoned all preceding programmes, decided in 1968 to proceed to the renewal of the Les Halles area, two main objectives were set: to create a station for the Réseau Express Régional (RER regional network) to connect this network to the city centre and to create a large underground forum, to avoid further functional

overcrowding on the surface. Ten years later both the RER station, Châtelet-Les-Halles, and the shopping precinct, the new Forum, were inaugurated. Once again the conditions were created in the heart of the city which in the previous stages of urban development had produced that mix of functions and those convergences of traffic and transport routes which each time had been given the name 'forum'.

What is new today? It is that these conditions, all of them, have been created underground, in a certain way therefore, free from the influence of urban surface structures. How must we interpret this circumstance?

As an absolutely exceptional fact which de facto and symbolically recreates the original conditions of every urban foundation: the crossing in one place of routes that start from the four cardinal directions and the meeting in that point of the most important functions of associative life. It seems almost the confirmation of an urban destiny for Paris which allowed the city to rediscover a central fulcrum, a constant point of reference as the urban structure evolves towards an indistinct and cloudy geography.

Time aspects in the design of Les Halles in Paris

Alain Guez

The new government of the city of Paris decided at the beginning of its period in office (2000) to turn the Les Halles district into the centre of the city. The RATP, the Paris transport operator and manager of the interchange node Châtelet-Les Halles, started some preliminary studies (2001) on this sector of the French capital. It consequently commissioned the *Urban Time and Mobility Planning Research Area* of the Politecnico di Milan to study time aspects of the district and its process of transformation. In this context this article extends the thinking of the research team by looking at the time regimes of the urban and architectural design currently being defined today. The Council of the City of Paris decided in December 2002 to start a study of Les Halles employing a definition study planning procedure. This procedure allows the design process to be conducted by using several design teams (four teams in this case: AJN, Jean Nouvel; MVRDV, Winy Maas; Oma, Rem Koolhaas; Seura, David Mangin) in two planning stages; an initial 'open' or 'collective' stage to draw up a programme and a second 'closed' or 'individual' stage for the project team to make planning and architectural proposals. A complex time architecture emerged for the Les Halles project from an analysis of the process definition and design documents. Piloting of the design is developing as the team goes along, thanks to the procedure chosen. A huge debate animated the Parisian scene after the designers presented their proposals (June 2004). The City of Paris had announced from the very

beginning that it wished to construct the project using a democratic process of dialogue with the actors involved and with citizens. The proposals acted, very probably far beyond the City's expectations, as catalysts for public debate, opening up the public space of the design beyond the confines of the formal consultation piloted by the City and involving citizens in the future design of this area.

This process aspect is very closely connected with the time architecture of the project and is an integral part of the demands put to the designers. The hypothesis formulated here is that the City of Paris, probably without being fully aware of it, brought up the issue of time as an urban planning and architecture matter. The set of proposals is today developing in the direction of a mutual redefinition of the contents of the demands and the proposals. The City had actually asked for solutions to the functional problems of the area, but the problem was put only partially, according to the interpretation of some of the designers. Urban planning and architectural design act here not only as a solution, but also as the implementation of the problem expressed. In this context the demands made on the designers appear in a new form and in time complexities which some had anticipated and others today are trying to demonstrate, by changing the shape of their proposals presented today as 'flexible' and 'strategic', rather than as formal and complete. The designers have added to the questions put initially by the client and the actors. We will focus on the time aspects that appear central to the designs and the process as a whole. The transformation of the Les Halles district is a project

with a strong symbolic content because the successive transformations of the area have fuelled debate on the city, not just locally but also at international level.

The desire of the current City government to act on this strategic place has taken on particular importance because the Les Halles project poses questions for contemporary modernity. In effect, the urban planning issues of Les Halles have helped transform the public's awareness of its heritage in France in particular. According to the historian François Hartog, the 1970's Les Halles project was set at a turning point in the evolution of the relationship between urban planning and time in France. The architectural design proposals seem to have a short memory. They make no reference to the geographical origins of this gateway to Paris; they rather propose interpretations of history in relation to both the ambitious 1970's project and the trauma caused by the construction site and by the famous "Les Halles hole". There is a historical vision at work in the designs which reactivates the memory of the construction site for the Parisian designers (Nouvel and Mangin) and the memory of the modern design at the origin of the transformation in the 1970's for the Dutch designers (Koolhaas and Maas). It is therefore a question of recovering, revealing, extending or inventing depending on the designer. The concept of in-between times may be useful for interpreting the time regime of a project. Jean Nouvel proposes "putting the construction site on the scene" by organising cultural and artistic events, taking the life of the construction site as an integral part of the project. For the Maas team, which takes the extension of

the 1970's project as its starting point, the proposal of a horizontal window which illuminates the underground floors figures in the discourse as a "pedestal" waiting for a "design to come" and which would express its uncertainty over the present. What is more, following an idea expressed in the first stage of the design, the proposal of the Maas team was conceived to be able to house a central High Speed Train station in Paris. While Koolhaas's proposal does not have a fixed time horizon, its project is presented as a complex open time architecture, more of a planning instrument than a finished proposal. The proposals as a whole express this motivation seen in the visual representation which suggests a strong but not a final image, because the construction details are not given. Acknowledgement of the multi-rhythm use of the area appear in the Nouvel proposal which outlines a 'night place', interpreting a characteristic of the 24 hour round the clock area as it was in the old Les Halles that disappeared.

City centres and peripheries in Pier Paolo Pasolini and Paolo Volponi

Mario Sechi

In an old number of a company publication from the early fifties, *Esso-Rivista*, which published writers and technicians, scientists and artists, playing its part in a renewed industrial culture addressing the significant problems of post-war reconstruction, I came across an interesting article by the painter Renzo Vespignani entitled *Periferia industriale* (Nov.-Dec. 1951) in which the theme of the new metropolitan peripheries was dealt with in a seductive and positive way.

Vespignani's thesis is that large non-industrial cities, Rome in the first place, originate their modern vitality by setting in motion the creative force of machines on the margins of the territory, rather than suffocating them within factories. Cranes and concrete mixers, amongst the warehouses and tram depositories, the gasometers and freight depots, loom before the eyes of the painter as powerful agents of innovation, ready to dig and work the landscape, thus transforming the life and imagination of its inhabitants.

We are still a long way from the alarm provoked by the building speculation which would accompany all the phases of the economic boom, and I would like first to allude to Calvino's excellent book *La speculazione edilizia* (1958) on the destruction of the Ligurian coast caused by the spread of the new mass bourgeoisie's holiday homes. At the beginning of the post-war revival, in the optimistic and industrious climate created by the Olivetti Community

Movement, amongst those involved directly in industry, urban planners and sociologists, the idea reflowered of a potentially harmonic relationship between technology, production and progress. Enormous scope for the progress of the entire system was attributed to the new frontiers of research and planning (think of the peaceful use of nuclear energy, invoked and pursued as an alternative to the nightmare of atomic weapons). A value was even assigned to the impetuous growth of the construction belts surrounding the old city centres.

The name of Vespignani (the painter) will now be flanked by the far more famous name of Pier Paolo Pasolini (poet, writer and then director) in order to delve deeper into the contribution made by artists, of word and image, in deciphering the new sceneries of modern Italy. In his fifties Roman novels (from *Ragazzi di vita*, 1955, to *Una vita violata*, 1959), Pasolini, it is well known, depicted the painful open conflict between the bourgeois heart of the city and the sub-proletarian shanty towns of the suburbs. The latter was a world cast aside, teeming with explosive tensions, which development proved incapable of keeping under control. In this half novel, half reportage, the outskirts of the city emerge at once devastated and devoid of form, a grouping together of shanty towns, new blocks of council flats, old warehouses and workshops, shabby half-worked lots and strips of cultivation. One is dealing with an open frontier, mirror image of the profound angst attendant on uncontrolled change, which assumes anarchic and violent traits.

And it is precisely the *pischelli*, orphaned adolescents by definition,

without a future, who populate Pasolini's Roman period (including his cinema from Accattone to *Mamma Roma*). They are the most authentic interpreters of the arduous transition that the Italian cities were undergoing in physiognomy and identity during the decades of the economic miracle. An ulterior problem regarding Rome was that, inevitably and objectively, it reflected the overall, controversial identity of the nation itself, the innumerable rifts, between north and south, bourgeoisie and common people, culture and massification, in short the anthropological reality of the entire peninsula. The *ragazzi di vita* (an untranslatable, compact Italian phrase, which means both rent-boys and life embracing youth) are not then an expression of marginal or residual reality deriving from some picturesque nineteenth century 'fourth estate'. They were a new, pathological excrescence of modernity. In their destiny of exasperation (today we would term it deviance) and death, the ghetto of life turns in on itself suffocatingly, without development.

As far as Pasolini is concerned, I wish to focus on a single text, nothing to do with the novels or scripts, but rather with an extremely incisive poem, *Il pianto della scavatrice*, collected in *Le ceneri di Gramsci*, which won the Viareggio literary prize in 1957. To the best of my knowledge, the poem is the only one whose theme is the reality of a building site, one of the thousand upon thousand that were altering the face of our cities, disfiguring and making new, for better or worse, façades and streets, roads or residences, real and mental, of the common people. The scene of the building site appears before the eyes of the poet on his way home, following his normal

route, after a long walk through the popular and bourgeois quarters (Trastevere, Gianicolo, Villa Pamphili). As always, what directs the steps of the flaneur is the driving need for a dynamic awareness of spaces and of the masses which inhabit them (one is reminded of Umberto Saba and his carnal relationship with early twentieth century Trieste). Memories and visions overlap, resuscitating past voyages by car or bus from the suburbs, where he had his first extremely modest homes (the Hebrew ghetto, Ponte Mammolo, and Rebibbia), to the city centre, or taking in the wider perimeter of the city instead (Monteverde, Primavalle). The disorder, the strident contrast of the city's myriad faces, and the populations by which they are formed, are englobed in the mental image of an act of creative destruction, a stirring-up of the strata of tufa, mud and earth, from which there punctually emerges a new form of living and inhabitation. One should bear in mind the concept proposed by Leopardi, nature's assiduous effort to reproduce itself ad infinitum, indifferent to the pains of her children. Yet this concept must be transferred to human, not natural, activity, which in the modern age is a dream of reason and beauty, albeit also of the subtraction of life and imposition of models, standards and univocal norms of behaviour and taste.

Thus, heard as the roar of an animal, the lament of the excavator bucket, surrounded by stone cutters, becomes a pathetic, angst-filled invocation to shared pain, standing as it does at the centre of a space destined to become a courtyard, a white and aseptic enclosure for the communal life of the bourgeoisie: "*Piange ciò che ha / fine e ricomincia. Ciò*

*che era / area erbosa,
aperto spiazzo, / e si fa /
cortile, bianco come cera, /
chiuso in un decoro ch'è
spento dolore. / Piange ciò
che muta, anche / per farsi
migliore. La luce / del futuro
non cessa un solo istante /
di ferirci: è qui, che brucia /
in ogni nostro atto
quotidiano, / angoscia anche
nella fiducia / che ci dà vita".*

The poet's unerring awareness regards the mutation of human destiny that every new brick, every new building, block or condominium will bring with it. Hence the machine that pulverizes the ground and builds, the energy that drives it, acting against the background of social and cultural history in uncertain and painful evolution, assume the value of an enigmatic allegory. The experimental realism of Pasolini's poem, as the drawings and paintings of Vespignani (where in the latter nature indeed opens itself to the paraphernalia of industry and building with surprising generosity), sets off a chain of vastly significant questions; we will have to wait a long time for adequate answers from sociologists, architects, city planners, and environmental operators. What will be the long-term effect of this mutation of scenery, places, modes, and relationships with living space, that invests 'Italy of the Miracle' from head to toe? What will be the result of this new disturbing and disorientating transplantation of communities and individuals, uprooted and cast beyond the horizon of their cultures? The main character of *Una vita violenta*, Tommaso, like the mother prostitute and her adolescent son in Mamma Roma, once entered into the logic of adaptation to bourgeois respectability and order, and once doused their hopes for happiness in the petit-bourgeois dream of a flat in a condominium (the white

building of the INA flats), seem completely deprived of their turbid but authentic humanity. They become physically and mentally 'dislocated', derealized, in a word. The negative prophecy that the author projects onto his characters, perennially contaminated by a neurotic anxiety for normality, is a prophecy which may in part have a rational counterpoise in Enlightenment faith, but is nevertheless there, figuring as an incumbent prelude to a succession of verifications and definitions to follow. In any case, if poetry and the novel, cinema and painting, venture a problematic reading of the changes in the city, where these accelerate and intensify, this happens because the setting designated imposes such an effort. Every existential and social experience occurs within a given space. There is a rigid nexus of interdependency between mind and body, such that even the adventures of the consciousness have a material correlative, a *res extensa* that anchors them irrevocably.

The French nouveau roman, Pop Art, the sixties Italian cinema of Antonioni and Ferreri, the prose and poetry of the Neo avant-garde, all have in common this suffocating, 'close-up' sense of spatiality, intended as disorder, an accumulation of materials and objects, the extreme artificialization of the gestures of living. The closed-in environment of the apartment is a land-scape without openings to the sky and hence physically and millimetrically measured. Obviously not all the literature produced in subsequent decades surrenders, so to speak, to such a fatal narrowing of focus. An intellectual of vivacious and robust technical and humanistic culture such as Paolo Volponi proved himself

capable, with great originality, of deepening the lesson of Pasolini. The movements Volponi made during his career trace an important circumference of differing territories and fuel his strenuous, all-embracing theorization of the processes of change and innovation: from his homeland Urbino to Rome, then at Ivrea and Turin, from an extremely civilized and pensive central Italian province to the cosmopolitan centres of power, from laboratories of research and technology, eventually to the seat of command of a major car industry. The allure of the factory, to which the main character of the first novel, *Memoriale* (1959), a worker, lies subject, during the nightshift particularly, when it appears "*lucente ... come un pezzo di stella caduta ... con i suoi vetri e metalli, con le grandi arcate azzurre e tutte le machine in fila*", this and his trusting dedication to his machines and their fragile force, needful of the hands and brains of man, are the origin of a dream of transformation and liberation through science: the daring Utopia that the author from the Marches region was to pursue ardently for decades, motivating and re-motivating his profession as a man of letters and industry. The impact of new development on the entire environmental and cultural scene of the country gave rise in him to a series of far reaching questions. What is the quality, or rather the content of the knowledge and beauty incorporated in the new production lines? And the quality of the consumption itself? In the evolution of the market, what spaces exist for the development of research and innovation? What zones of freedom open up for work planning, and for the minds and material and emotional needs of the citizen consumer? Volponi's

profound conviction is that an effect of civil and cultural progress can be achieved through a virtuous chain reaction, from design to fabrication to the use of ever new machines in a constant state of evolution. He also sees, indirectly, a spread of knowledge and ability, both technical and creative and intellectual, capable of liberating human potential on the individual and community level. In other words, pragmatic education to the values of science, for Volponi translates itself into an extraordinary impulse towards liberation from fear, subjection, inertia and the drive to death (we are in the post-nuclear age) which overshadows the contemporary world. In his career as a novelist, Volponi stretches the arc of Utopia to the utmost, linking the abstract rigour of the above considerations to the psychology of irregular characters, anarchic and rebellious provincials, such as, one should not forget, were many heroes of Renaissance science, born in the depths of the Italian countryside, from Telesio to Bruno to Campanella. Against the brooding superstructure of religious superstition and academic culture, these threads of thought explode like missiles of solitary hope. Going beyond the disconsolate urban sociology of Pasolini, the author-manager's intention is, by narrating the adventure of thought, to scrutinize the trajectory of change, not only to understand its force, but also to direct it towards a fully human outcome. From the eighties, the parabola of a new cycle of economic and productive life, which seemed to set off a process deconstructing the renewed post-war industrial system, appeared quite disastrous to him, insofar as it dismantled the alliance between production and culture, between the

one and the other of the 'two cultures'. The consequence was a dangerous lowering of the cultural and civil life of the nation. Volponi's legacy, as man and author, is to be found in the pages of a ruthlessly prophetic essay-novel, *Le mosche del capitale*, which came out in 1989, just after his definitive rupture with Fiat.

There is little point in following here the tortuous development of this analytic, confessional text, complete with j'accuse and a grotesque allegory of the new power of speculative holding companies, aimed at the somewhat uncivil grasslands of the markets of globalization. It would be interesting rather to see how the diagnosis of the new contradictions of development, originating this time not outside (in politics and society), but inside the head of the industrial system, goes in search of confirmation in the scenery of the city, bringing to light a species of wasting disease in urban growth, which seems to have reached a point of genuine implosion. The city is Turin, and its history, written in the stones of the full and empty spaces of its populated quarters and wasteland, is one of order sought and lost. To the decline of the factory, its loss of influence on the strategy of the entrepreneurial groups, to its contagious ugliness, which renders ugly the factory girls, ugly the products brought out without quality control and ugly the collective life of the working environment, to all this corresponds the decline and, ineluctably, the death of the modern city. Reduced to a shapeless pudding, it crams together in strata and blocks human conglomerations which once were social classes and ranks, but now are disgregated and atomized. Here is a cross section, a radial core boring, which

follows a 'street-map', from the old town to the new peripheries: first, upper class dwellings, in the lee of the old city, then squares of ordinary houses inhabited by the petit-bourgeoisie and working classes, destined to an inexorable declassing with their little shops and basements bursting with the semi-clandestine sub-proletariat; next, blocks of flats with a touch of pretension, well equipped with, and protected by "cancelli inferriate ... ringhiere colonne respingenti", with supermarkets annexed; then again, "un nuovissimo residence" adapted to the habitative pulverization of the innumerable metropolitan monads, individuals intermingled without distinction of status or respectability, a labour force in a fluid state, modern and flexible, in both its function and its social behaviour. But the resplendent modernity of the residence is already disfigured by the signs of a dreadful fire which has destroyed two floors, yielding up three corpses lying there without a name. Immediately afterwards, the working class tenements, these too organized into strata: first the Calabrians from the boom years, then the Sardinians and Sicilians who arrived too late and were rejected by major industry, then Venetians, Lombards and immigrants from the Marches, who inserted themselves a few at a time into the small-scale industries disseminated *intra moenia*: then, the indigenous again, closed in the rancour of the besieged, and finally the 'low houses' were, as if in a casbah, live a formless mass of people without a precise identity: seasonal workers, jacks of all trades, prostitutes, the emarginated, and professional criminals. In brief, one is faced by an urban organism perennially

incapable of healing the lacerations that the purely quantitative growth of space built-upon and the massification of new waves of immigration have produced. It is as if that painful but vital wound, inflicted to the ancient image of the city by Pasolini's excavator, has suppurred. The city, born to unite, to mingle the destinies and lives of people in accordance with the exigencies of work and civil cohabitation, now exhales, in the words of Volponi, a stench of death, mixed with earsplitting noise and rancorous solitude. It is entirely pointless that the restoration of prestigious buildings, entrusted to the patronage of the banks and holding companies, should preserve the monumental beauty of single structures in the city's old town, left into the bargain unused, as if in a show case. The end of an expansive and progressive cycle of industrial culture has deprived the growth of the cities of the indispensable alimentation of planning and ideas. The angst of the author can awake, at different times, images of disorder and degradation, voracious consumption and contamination of spaces, or, on the contrary, a fictive idea of order operating within the psychology and lifestyle of the new homologized masses. Pasolini, in the ambitious fresco of his unfinished, posthumous *Petrolio* (1992), attempts a series of sketches, a species of still life with figures, of the condition of the 'new peripheries': "*Le prime case erano posate su quella pianura senza forma: erano enormi, bianche, geometriche, le pareti battute dal sole ... erano accecanti, e la serie infinita e tutta uguale dei balconi le screziavano di piccole, secche, misere ombre identiche; le pareti in ombra erano nere e lisce: dei*

giganteschi rettangoli. Le forme di questi grandi casamenti, disposti in gruppi asimmetrici ma regolari, intorno a cortili circondati da muri, erano forme gemelle. Ripetizioni di una stessa forma, ma che del resto si ripeteva anche, analoga, negli altri gruppi vicini. Come costellazioni, questi gruppi di abitazioni, si spingevano dal deserto desolato verso costellazioni più fitte. Ma il silenzio non era meno fondo che nel deserto. Negli enormi cortili di materiale povero, cemento spruzzato per parere marmo, mattoni che parevano finti, il vuoto era assoluto. In qualcuno soltanto due o tre donne stavano raccolte, profilandosi oscure contro le pareti metalliche, con in mano sacchetti di plastica bianca, semitrasparente. C'erano anche dei bambini, lontani, silenziosi, per lo più oltre i cortili, tra i muretti di cinta e i fossati secchi e colmi di rifiuti oltre i quali si stendeva il deserto". Certainly, literary testimony accentuates the stridency of contrasts, prospects in a univocal way the tendency of an epoch, which is nevertheless one of painful passage. That which remains are the cries of alarm, the ethical drive to reflect and decide, for the future, and for that which lies within ourselves.

The reformist governance of the territory. The need for a project

Pierluigi Properzi

In various sectors and for different reasons the lack is periodically emphasized of a reformist project, but also the need to ponder on its nature, with reference to the central importance it assumes in constructing a progressive alliance. But then it comes about that this centrality corresponds to a necessarily faded vision of reformism, comprehending as it does the various traditions and the divergent objectives that 'have to coexist' in this progressive alliance; while conversely it determines also its excessive characterization in the rhetorical dimension of traditions (it is the limit of bipolar policies); and it tends to become fossilized in stereotypes and thus not to put into a new project its essential nature which is, and remains, that of improving the conditions of the society to which it refers. This converging requirement on the part of the reformist project of being and at the same time of not being tends to block its actual dialectic conditions, of participation and of control which substantiate local democracies; a process that may obviously be read also in specular terms, in the sense that only formal democracies do not practise reformist policies. A point of view 'inside' reformism but strongly characterizing it is that of planning, of 'territorial governance'; this is 'inside' in two senses: as part of a broader reformist project, but also as an ontological factor of a reformist dimension, there is no plan that does not make the reformist question central and, even in its various connotations (minimum project, maximum project), planning does not appear to

be able to exist unless it is placed in a reformist logic; outside of that there is only constraint and narration, which are not a plan.

The doubts of a town planner-reformist

Federico Oliva in his "solitary way" as a reformist (1) wonders (rhetorically) about the existence of the theory and the practice of a truly reformist town planner. It is worthwhile dwelling a moment on this 'truly'. The doubt stems, according to Oliva, not so much from the continuing disciplinary uncertainty between innovation and tradition, as from the 'crisis' of reformist plans in the face of a stressful procedural and conservative 'reconfirmation' thereof produced by the twofold attack: maximalist on the one hand and deregulatory on the other, which foreshadow a defeat of the reformist line in the left. In substance this doubt invests the capacity of reformist town planning to be incisive in the present institutional political set-up. One can agree with this argument, which is supported by Oliva on the basis of the most recent events both from the legislative (national and regional) standpoint and from that of plan-environment relations, even though to me it seems too unbalanced on the 'political' side of the question and influenced by the in some ways paradoxical events that have accompanied the Veltroni phase of the plan of Rome. But I am less in agreement about some of the 'technical' causes that Oliva puts, in order, at the basis of the crisis: the relative incomprehensibility of the '95 proposal (splitting up of the plan and equalization), the constant 'privatistic' interpretation of ordinary and constitutional law relating to the constraints, affection towards the centralist and

'garantist' (over-protective) habits of the past (retaining instruments and practices that are clearly contradictory with each other and with innovative ones), and regarding the fact that reformist town planners are in a minority position even inside INU.

It is not so much these specific causes that fail to convince me: they are in fact 'part of the disciplinary world and the juridical tradition that has accompanied the history of town planning, and some of them are a bit too pessimistic, as rather that the relation between reformism and plan outlined by Federico Oliva, but without arguing it, to me does not seem sufficiently clear.

It is in fact true that making reformist plans (but not only them) has become increasingly more difficult and laborious (Oliva calls them extremely hard and ineffective labours) and that the fragility of that reformist model is revealed also in the Tuscan-Emilian Vulgate (2), which does not want to abandon 'protective' centralism and takes pleasure in 'newism', but this means tackling from a different standpoint the substantial nature of Reformism and not limiting oneself to observing, as Oliva does with intellectual honesty, that also the experiences (which he, too, regards as 'non reformist') of Milan and Bologna (3) are instead 'not trivial indepth studies', which attempt to construct 'theoretical justifications' of substantially innovative planning processes.

Probably the very concept of reformist plan over and above its 'real and instrumental divisions' will have to be taken up again. We cannot be pleased only with the separation (possibly ratified by a national law) between structural and operational, nor with the

sanctification of equalizing and compensatory practices. From Oliva's doubt, the utility of the plan (4) re-emerges, with all its contradictions, with respect to which it is necessary to reconsider the sense that a reformist approach can assume in an ever more evanescent dimension of the state.

The absence of the state as an institution, in its most recent characterizations (welfare) but also its basic ones (money, sword, balance and feluka) or to put it more clearly, its fragmentation into other budding institutions, necessarily involves reformism and the interpretation that has given of planning. The uncertainty of the development model (Europe's is weak and bureaucratic, Italy's introverted and slave to freebooting finance) does not permit the construction of a reformist perspective with features of homogeneity and sharing. Against this there is no reformism without development, as there is no surplus to be redistributed unless one understands by reformism a sterile exercise of legislative engineering.

The problem is then that of understanding whether a reformist governance of the territory is possible, that is, whether forms of reformist planning as such exist, and whether they can 'produce' reformist effects. In this sense some questions arise that are connected with the actual 'utility-necessity' of reformist planning in a critical dimension of the state and a stagnant one in development. Is a plan still needed, and if so, what plan?

Federico Oliva in substance considers that the assertion of a reformist town planning coincides with the assertion of the Structural Plan as a cohesive idiom, both of the various subjects and of the

various territorial and urban policies, and more generally as the shared 'visioning' of a development project whose management and implementation become the real reformist perspective. This conceptual system can be shared, but it in any case again brings up the limit to be referred to a 'urban' dimension, in which the new forms of income and the new market rules are not often resolved and where the themes-problems of ecological and functional networks and those of development are not always exhausted.

Also the other questions posed (implementation of the public part, residual plan absorption) cannot be resolved by merely upgrading the tool-kit (overcoming zoning, overcoming standards, integration of transformation-mobility) and by the parallel reconfiguration of the state and regional legislative system.

Oliva's is a reformist proposal, but strongly oriented towards a reformism of the means (plan-institutions) and less heedful of the ends. Today I consider it essential for reformist town planning to pay attention to the ways of carrying out the development project and its contents, and while sharing the centrality of the objectives of certainty and feasibility of construction by the public part of the city, I consider however that it is necessary to study thoroughly the themes relating to what is today intended by city and territory in a reformist urban planning, and what the ways are to appraise the coherence and compatibility of the plan choices.

In fact, the problems connected with the role of the 'new knowledge' in the concerning processes are not addressed. The partial and segmented readings made of the processes by

the various institutional interpreters are definitely insufficient, just as the procedures on which the assessment is based are insufficient (planning conferences). Probably a reformist model cannot be (pre) defined and perhaps it 'should not be' predefined; it breaks down in fact in the various situations into a plural and particular dimension, often coinciding with partial forms of rationality. The problem is then that of interpreting these partial rationalities and making them converge in the 'construction' of the plan understood as development project; and these conditions, external to the toolkit, impose a reflection on new even spatial forms of income, new rules of the real estate markets, new forms of citizenship, new social alliances, new forms of guarantee. All new things, but also little studied.

A number of unresolved questions

The traditional model of interpretation, based on the plan as the 'engine' of building-real estate cycles, seems by now outdated, the (apparent) decrease in demand and the structural crisis of the building sector (fragmented and family structure of the company - mechanism of tenders) have caused fractures in the building cycle; investors are still attracted by a property market drugged by the uncertainties of the financial market and in particular by the tertiary sector, which in spite of its inferior profitability, presents a growing demand (5). But this is not matched by any corresponding new organization of the building sector which remains far removed from the European target and which, unable to gain a foothold in the system of major works, is trying to obtain shock-absorbers (objective law for

cities) for an economic phase that will foreseeably be long and uncertain but above all without strategies; the new city-builder is not the small and medium-size company. Against this the processes of ethnic concentration and the formation of new pockets of hardship in the big cities (the rental market and borrowing so as to buy), the appearance on the urban scene of the international trust funds (6), interested however in operations of long-term development, and the selling-up of public property (7), cause appropriations and segmentations in urban spaces which tend to elude any control, especially that of the master plan. In the territory, the decisionist and centralistic logic of the Objective Law (8) has interrupted a laborious and fertile process of recomposition (started through the Vast Area plans and the best PRUSST), of the fractures which infrastructural works, viewed as exquisitely and overly technical solutions, have made, and make, in the meshes of settlements and in those of ecology and landscape. The Territorial Project and the Landscape Project (9) in this efficientistic interpretation remain mere academic exercises. Infrastructures have to be made, but 'how to make them' remains the discriminating factor between colonialist modernization and a modern country. Furthermore Vast Area planning itself shows its limits, both with respect to the capacity to intercept the real development processes and to integrate them in Territorial restoration (10), and with respect to the capacity to form Coherence Frameworks, accepting an often specialist residual dimension or one of mere formalization of separate safeguards (11).

To these themes I would add a by now irrecoverable gap between Centre and North with respect to the South of the country, a gap bound to worsen with the progressive application of the amended art. 119 of the Constitution, a question one of whose central nodes is precisely the absence of planning.

These are some of the current problems that neither the proposed reform under discussion in the 8th Commission, nor the regional laws, fully address, in the sense of combining plan and development. These are thus complex questions and largely 'new' with respect to the *Programme-Document* proposed by the INU in '95. Then there was at all events a 'reformist' policy project, in which INU's proposal filled a space which some saw, perhaps with a bit too much enlightenment, as part of an orderly, progressive scenario, and others as one of the possible intersections with other reform projects whose results could not all be taken as assured (12). We know that precisely this part of the Centre-Left's reform programme ended up neither as a piece of the jigsaw, nor as a virtuous intersection.

Against this, *Documento '95* has in any case triggered other, newer avenues of reform in the local authorities. New regional laws that have made people speak of an 'INU model', less prescriptive and more strategic Vast Area plans, widespread experimentation by the Municipalities, which have interpreted the separation between structural and operative in different ways, and have patched up the fractures between plan and project, between public and private, in the new modalities of 'concertation' and 'equalization' (13). But this 'little reform' of the facts, which is certainly a result of

reformist policies, risks being overwhelmed, as Oliva rightly fears, by a 'restoration' of the conservatives of the right or of the left unless it finds some sort of stabilization in the national legislative system. Recently it has been stressed in several quarters that behind the Lupi DDL, being debated in the House, there is not a 'reformist' conception of territorial governance, but that it is characterized rather as an imperfect evolution of the town-planning law of 1942, another 'span' of the 'Bridge' law, than as a 'new' law for territorial governance. The terms are in fact not clear in the Lupi DDL in which the major themes of providing territorial infrastructures link up with urban ones; the relations are not clear between the 'European' themes: environment-sustainable development-cohesion, and 'territorial governance'; and lastly the link between separate 'safeguards' (landscape-the waters-environment) and local governments is not clear. Instead an equalizing model is well outlined, although to function it needs dynamic property markets which are not homogeneously distributed through-out the country. These are problems that have for long been dragging on within an unfinished institutional reform and which, for at least two reasons, are again put forward with the coming into force of the Urbani Code (1st May 2004) and with that of Community Directive 42/01 VAS (30 June 2004). Substantial questions that influence the relations between government agencies ('concertation' versus separate safeguards) and the nature of the instruments (planning versus evaluation) and which produce direct effects on territorial governance, more

than can be done by the new law itself, whose iter already today appears heavily conditioned by these 'separate' legislations that have cropped up. Quite apart from the outcome of the legislative activities, the picture will in any case be very different from the present one, also in relation to a number of basic trends having a reduced regulative and 'building' dimension, in part absorbed by the Bassanini provisions and by the above regional DIA, and a bigger dimension of the 'construction modalities' of the 'strategies' of development within the planning Conferences, through the definition of frameworks of coherence and the verification of their compatibility with respect to strong systems of shared knowledge (14). These trends, which have moreover already had more or less virtuous results, in the various contexts and in the different interpretations given them in regional legislations, come up however against substantial limits precisely in the absence of a national outline law, which limits cannot be resolved by a mere reference to national interest. The crux of the matter is the ambiguity that is characterizing, in this transition phase, the plan model, its weak coherence with the development processes, its scant capacity to produce added value. An 'unbalanced' scenario, with weak guarantees and agreements, on the one hand, and frameworks that are overly generic, on the other. With respect to these processes of redefining the planning model, in the legislative systems that are in progress one can in fact recognize elements of noteworthy and substantial convergence (statement of principles already forming part of administrative

practice, separation of programme contents from regulative ones), but against this a number of questions, although important, remain still hardly defined: singleness-unitariness of territorial governance (planning sectors and subjects); the nature of minimum services (latitude of urban rigour) but above all there is a lack of clarity as to the 'town planning' regime produced by planning. All of which does not make it possible for the plan to assume a role in the construction of the various development processes. Local companies prefer to try more direct forms, to construct less deterministic and less structured routes, the twofold nature of the plan (regulative-predictive) tends to evaporate into light forms, which above all are hardly interactive with any real development processes. Very briefly, it is not clear in what way the public part of the city and of the territory 'defined' in the plans interacts with the development processes and at the same time with the rights/duties of citizens, it is not clear how to construct the new system of guarantees for its implementation-management (with what resources and with what contractual commitments). Between general principles (obviously generic) and operative practices (adaptive and minimal) there is an indefinite, undefined space to which the plan, the plan of the public city, should give a form and contents, should give concrete form to the principles. It is then the minimum services (rights of citizenship: accessibility-safety and security-dwelling levels, etc.) that are not defined, the practices of consensuality (public hearings-agreements-contracts) based on systems of shared knowledge and on

coherent frameworks and scenarios, that have to emerge from a phase of fertile albeit scattered and threatened experimentation that has characterized these years.

Town planning and reformism

With respect to this incomplete list of themes not resolved what can an agenda of reformist planners be?

Reformism is defined more clearly with respect to the context in which it is placed than by its own characteristics, not being able in fact to refer to an ideological system of its own, to a perspective and utopian, or affirmed and prevailing idea of the world, but it must nonetheless derive from these, indeed precisely from their conflicting nature and their reciprocal negations, its own accidental dimension but also its own substantial contents.

Reformism then becomes a process of verification-falsification of models of society and can be characterized by its more utopian or more substantial contents, in relation also to the various political contexts and to the existence of the (democratic) conditions for exercising this role of verification and of advancement.

In this sense Reformism once more coincides with the concept of 'progress' proper to the Modern, but it also suffers from the contradictions that are associated with it. From another point of view Reformism may be defined in relation to a dialectic between the maximalist perspective (which remains that of the reform of the capitalist system, to the point of its negation) and the liberist perspective, which takes advantage from the weakness of the institutions (15).

The question then arises,

and more and more often in the last few years, as to what 'real' reformism is, or who its authentic interpreters are (historically and/or substantially). The question, apart from its implicit rhetorical value: reformism as over-coming the viscous features of the systems in being (reformism of the institutions), as redistribution of goods and opportunities through reasonable and shared means (reformism of ends), is posed for two other reasons: one purely tactical, which is that of distinguishing a good reformism opposed to one that is not so good, in the banal game of role-playing opened by the bipolar system, and the other, in part symmetrical to this, which characterizes a centrist or 'terzist' attempt to dodge the schematism implicit in bipolarism, that addresses the difficulties of an interpretation of the current themes of reformism without the ideological cover of historically opposed traditions. Hence a 'false' coincidence between 'terzism' and reformism, which there-by risks, in (again) hitting its objectives, toning down its political identity and reducing the effectiveness of its actions. It is thus necessary to construct a project that will go beyond a 'terzist' dimension but also the substantially 'garantist' one linked to tradition that adapts the plan to the institution. If in fact one contents oneself with cultivating the tradition of just a 'garantist' role of progressive reformism, anchored on the one hand to the dimension of the Authorities and of the Services Charter, and on the other hand to the rites of participation, without assuming the responsibility of a project, this means reproposing the old scheme in which capital makes the

development project and reformism acts as a brake, limits, guarantees a social redistribution of the effects of development. This, which has been the 'historical' role of garantist and redistributive Reformism, is certainly still an important role, which cannot be renounced, but subordinate and often functional to the 'capitalistic' project when such exists. Capital knows in fact how to convert rules and constraints into economic 'motors'; it builds its own most substantial advantages on the unforeseen results of the good intentions and of the extracted interdictive rules of the reformists of the institutions. Capitalism and reformism, but also reformism and maximalism, have nourished the antitheses through which a large part of the history of the short century was declined. The very story of planning, itself short, has been shaped by the different interpretations that national societies have given to these dualisms; but the pivot around which this history has turned has at all events always been the state, as the absolute institution, as the functional counterweight to the weaknesses of capitalisms, but the cradle also of the degenerations of totalitarianisms. It is the state, the central institution, that in this logic has guaranteed to reformism its existential and operative dimension. This schematization has involved also those dealing with the territory. The territory and its governance become in fact a central junction of reformist policies. Policies that can no longer pivot on welfare, in which the territory has often been only a marginal element, split up in the standards of needs, which have been wellnigh the absolute objective of reformist urban planning

policies, an objective however partly a failure and a modest vindication (in combination with expropriation) vis-à-vis the return of position. The necessity then occurs of studying what territory today constitutes the dimension to which the new reformist policies can refer. This study can be developed according to the three traditional lines that have characterized the disciplinary reflections: territory-institutions, territory-plan; territory-development. In a wholly particular history, in Italy these three models of interpretation have substantially coincided in a single institutional and planned development process. Producing improper forms of plans, specular to the institutions and often in support thereof, forms that have interpreted a strongly centralistic development model and on a moderately redistributive basis. Entry into Europe shattered this model with its negative features (bureaucratic centralism, inflation, assistentialism, etc.) but also with its immune self-defences (elasticity, adaptability, localism of districts, etc.). Today a feeble, hardly competitive economy split up into a myriad of individual enterprises, finds itself 'protected' by a European stability, but without markets and weighed down by the more 'conservative' parts of its welfare and by the public debt accumulated to form them. So it seems that a redefinition of reformist policies for the territory must start from a rereading of the relations between institution, plan and development and in particular from the last named. The first question is thus the new conception of development, which is no longer 'given' but stems from the correct resolution in

projects of the questions 'well posed' by the reformist plan, a surplus value consisting of livability, accessibility, security, which, to put it in extremely brief form, is a real value added to that development model, and which will make the real difference in the scenarios of global competitiveness. Precisely to make this system function it is necessary to leave aside conceptions according to which the public function of planning is the equivalent of generalized expropriation, not having been able to invent anything better in hundred years, and which have covered with rhetorical and often de-responsibilizing plans institutions incapable of safeguarding landscape and territory and of producing development. It is public evidence of the choices, of the evaluations, of the relation between private projects and projects of the urban armature that should be guaranteed by the administrations through the plan. This 'new'? utility is the appreciation of the new public goods produced by carrying out the plan, the recomposition in it of the various minimum, and today ever more separate if not conflictual, interests proposed by citizen users that have to be the contents and the practices of the new reformist plan. A reformism capable therefore of drawing up projects in a dimension of multilevel governance and no longer castled in defence of a general (institutional) project stemming from a single, preconstituted rationality. It might seem dangerous, and passively subordinate to the market logic, to abandon the security of a single, predefined rationality (rule number one) and the 'precedence' of the public over the private, for the uncertain dimension of partial rationalities and of negotiating with the private

sector, but it is against the capacity to project in society and with local societies that the very nature of reformism will be measured.

It is clear that in a society in which no-one can reasonably think of reducing the conquests of the social state by pulling in its rights, it is easier to tackle a false battle about Article 18 (or to put it better, to follow in a false clash a slyboots capitalism intent on window dressing) than to address problems locally different of the break-up and often the extinction of the various development models and trying to concretize new citizens' rights that are not predefined and not theoretical but object-related, substantially different from place to place, hard to recognize and hard to negotiate.

But with respect to all this there is not yet any disciplinary convergence, and even less any political convergence, and in this I agree with Oliva.

Let us then try to construct this convergence around the plans (the planning and management activities) which interpret this new conception of development, and are not limited to 'modernizing' standards, and around their results let us try to confer a full sense to the word Reformism which is not 'sick' as S. Coferati recently stated, nor 'inflated' 16, but which should simply but laboriously be more practised and less exhibited. A second question is the nature of the plan today, a question already addressed before, but which it is advisable to resume, starting from its clearest opposite: the conservative plan.

In what way is a reformist plan different from a conservative plan?

If by conservative plan we mean adhering to traditional forms, by reformist plan we could mean an innovation of forms and then a large part

of the experiences of these years can be included therein, when many forms of 'falsification' of the traditional system of the plan produced by disciplinary research have taken shape and substance, but we know that often it has been a mere question of nominalistic pseudo-reformism which can be said to have accompanied the history of the Master Development Plan from the very beginning (17), in a story of individualistic protagonism and of political 'gattopardism' (the belief that the status quo can best be preserved by superficial reforms).

These are the ephemeral 'forms' (plan of projects, soil project, standard cards, etc.) which in these years have been applied to the traditional plan without addressing the key questions of the lack of resources for construction of the public part of the plan and of the corresponding difficulty in orienting the remains of the urban economy based on private resources and on the rusty land mechanisms towards substantial, pragmatic, progressive new objectives. But if by conservative we understand a more substantial conception, which involves the maintaining of the social systems and those political ones that support them and in particular today, in the post-capitalist world ever less globalizing and ever more imperialistic, a conception that justifies, when it does not actually pursue, development processes based on the continuation of social injustices and imbalances, then reformism, the reformist plan, has to address these problems and cannot limit itself to a reformism of the institutions and of the forms that correspond to them.

It is the local societies that have to resolve, in their

limited dimension, consisting of real confrontations, between real forces, the imbalances and the new demands of citizenship that are made.

In this sense the 'reforms of the institutions' carried out by the Centre-Left government have turned out to be very weak: while on the one hand they have constructed a new and timid equipotent institutional architecture, on the other they have cancelled out the 'garantist' system of hierarchical control but without introducing a new system on a neocontractual basis, to curb the demands of a mounting, aggressive and not very liberal utilitarianism, which manages to get along between the construction of 'new monopolies' and the fragmentation at individual level of the enterprise (18).

It has ingenuously been thought that it was the institutions, no longer hierarchically ordered that are responsible for governance and that government, no longer in fashion, should be entrusted to the responsibility of private parties (certifications, DIA) in a banal albeit mistaken 'translation' of the two terms. The Plan, the reformist plan, has to link these problems together again and has to furnish possible solutions, but above all it must also undertake to recognize or to construct the conditions of 'substantial democracy' for the debate, for the assessment and for the choices relating to concrete development projects.

The most complex problem faced by today's reformist town planner is therefore that of constructing planning processes that are aware not only of the imperfection of the plan model based only on balanced demand/supply (of sites and services) and of the accompanying equity, this also imperfect, (the

traditional plan), but above all aware of the real need to overcome these limits, which is not too unbalanced, either with respect to an ecologist and neocentrist rigidity (structural invariants) or towards an efficiency-oriented deregulation that then manifests itself as the most negative element for the construction of real development projects.

Precisely from an understanding and resolution of the 'limits' can come the main connotation of the new reformist plan: that of recomposing fragments of negativeness and imperfection in scenario of positiveness, where and when this is possible, and with partial, progressive balances but strongly project-oriented; an incremental approach that loses nothing of what has been acquired, but reprojects it into the future. It is the metaphor of the mountain climber, both in its finalistic component (the peak) and in the strategic and adaptive one (the foothold, the grip, the choice of the way up or down) or if you prefer that of the surfer: both demanding, very demanding, activities. But if the nature of planning in relation to the construction of new development processes (not models) has changed, the subjects also change, and their relations change the role of the institutions in the Plan process.

In this perspective, the role of the institutions changes and in the long run their very nature changes, but it is the actors who change above all around the forms and the contents of the Plan: the institutions retreat on the legislative-regulatory front, but in what remains of the norm they have to assume total responsibility (of its public evidence and of its implementation). The various and often conflicting development projects are required to interpret a

'public' rationality, proposed by the plan, but 'receivable' by private operators, who thereby assume a new civic and substantial responsibility. In this logic the organizer/regulator of reformist policies is no longer the state, and to many this is a problem, but paradoxically it is not the institutions, either, in a broader sense, nor is it the regions or the cities, but it can be the various local societies that characterize the ones and the others in a balanced mix of governance understood in the terms with which it is proposed by C. Donolo (19) and of multilevel government in the interpretation that the new Title V of the Constitution today permits. Governance 'accompanied governing' understood as a "process for which the local government and its apical expressions stand surety for are the guarantor in the final instance with regard to rules and standards, 'but' not coinciding everywhere with local government activities". Government as real cooperation between the various actors who for their respective competences interact in the government of the territory according to shared systems of knowledge and rules of use and of intervention. Within the framework of governance thus understood the local societies construct development projects by activating concerting mechanisms among the various stakeholders and forming consensus between also, and I would add above all, not involving in ambiguous authoritative and/or concessive forms the subjects for whom a government function is reserved, which has to be expressed always in terms of public evidence. The contamination moreover greatly in fashion of fragments of governance within moments of

government tends, in a logic of novelties, to confuse roles, phases and responsibilities which precisely due to their differentiation can be particularly useful in the Italian case in constructing new development processes and around these new forms of plan and also, probably, new institutions. Projecting development, without starting necessarily from the institutions, applying governance knowing that also constructing new institutions on the new development projects, can be a prospect of the progressist reformist plan in addition to being 'garantist' and conservative. It therefore means accepting also a project dimension of reformism, abandoning or rather contaminating with it that of safeguarding and of the sole 'rules - first'. A progressist reformist approach must necessarily learn to address the themes of the development project, no longer 'limiting itself' to guaranteeing equity, participation and sharing; it cannot be merely anchored to the defence of rights. It is Reformism's job to 'correct' the risky project making typical of the new global capitalism, G. Ruffolo's 'turbocapitalism', caring more about the financial game than the consolidation of production, but even more it is up to Reformism to 'work' within the various development projects of the local societies, to propose coherence frameworks, to verify their compatibility, anticipating in this new institutions and constructing cohesion (sharing) and not being satisfied merely with providing the various development projects with often abstract rules and constraints, which produce results that are the opposite of those intended, nor, against this, with conferring a false institutional value on them with only deregulatory agreements.

In this sense there is a further question, a more disciplinary and less political one, centred around a separation necessary for the actual dialectic perfection of the plan processes, but 'denied' in the stubborn search for a unity, by now merely academic, between the world of networks and nodes, that which Clementi (20) calls netscape and selfscape, the world of frameworks and of scenarios (Territorial projects), and that of the 'land', of the soil viewed in the terms in which Mazza (21) reminds us of our disciplinary origin, but also our utility as town planners. Behind this duality there is not only the road of Berkian ambivalence, frequently called upon to resolve in positive but often opportunistic terms a divarication that is ideological rather than disciplinary, but there is the possibility of rereading the binary scheme, by now widespread, although little practised in its original complementarity: structural (but basically made up of networks and nodes) and operative (largely made up of soil). This conceptual separation which today takes the form of a dangerous rupture between structural, light in strategies and heavy in descriptions, and operative, literal land translations of the structural, scantily projectual and very 'public', surpassed on the 'right' by such instruments as Complex Programmes, which are more efficient but often having little effect as they are scarcely verified. In this way the utility of a 'separation at home' tends to peter out (22), although when it was proposed it was thought that it could correspond to the need to recast, mainly in the municipal dimension, the plan times (long-short) and the effectuality of the constraints (ablative conformative in the short

term, recognitive and as a safeguard when timeless), while safeguarding its at least apparent unitary and consequential nature. Behind that proposal there was still a unitary and rational vision of the plan and of the world which today no longer seems all that much shared. Current interpretations witness a tendency to adopt structural plans and a difficulty in managing operative plans (Tuscany: 158 structural, 7 or 8 operative); and thus also the slogan: 'the mayor's plan = operative plan' goes by the board, the mayors preferring the rhetoric of the structural, light in commitments and narrative, descriptive, recompositive of identities, and reconstructive of ecological networks, 'beautiful and impossible'. Reformist town planning, of the true, laborious type, linked to the construction of real development projects and not just to procedural guarantees or to residual land dimensions, is again left high and dry. So it is worthwhile reflecting on the sense of the other possible 'separation', perhaps even more radical and profound, but practised elsewhere and viewed as a fracture of that disciplinary unity that corresponded indeed to the justifying roots of a totalizing rationality assumed as the sole disciplinary paradigm. This is a 'separation', for some time however already proposed by some regional laws (23) and implicit in some evaluative practices; a necessary separation, in being based on a dialectic and revealing interaction between the cognitive systems, to be made 'stable' and shared, and the plan schemes constructed around urban and territorial meshes, which have to be assessed with respect to a necessarily 'other' shared knowledge, not self-referential, nor implicitly

justificative. It is a working hypothesis that calls for experimentations, but which starts from a number of problems that structural/operative separation has encountered, and from others that a lexical coincidence between structural scheme-structural invariant has unfortunately proposed, linking together in a falsely environmentalist embrace (again self-justificative) knowledge that cannot be negotiated and development project, compromising the former and often preventing development. In this 'new' possible, dialectic separation between basic knowledge (the regulatory dimension) and planning schemes (the foreseeing dimension), the 'stable' part of the latter which can be limited even to only the Urban Mesh (as a town-planning type of interpretation of the three-year programmes as per Law 109/94) vies in terms of coherence with other schemes and interacting frameworks, and in terms of compatibility with a 'Charter' that is likewise stable and shared, viewed as a place of interaction of institutional knowledge, local identity type knowledge and project, intentional knowledge. This separation that takes concrete form in a separation of the means (the maps of knowledge) from the ends (the development projects, the layouts corresponding to these) but also in a separation of the dimension of the techniques (of planning) from that of the analyses and lastly of the knowledge of decision from the action of the operator, is very appropriate for the proposed alternation of the majority bipolar system which prefigures a necessary stability-sharing of certain values, in this case those of the territory-landscape-environment, with respect to the diversity-

conflictuality of development projects, justifying both of them. Planning thus does not evaporate into rhetorical forms, but takes concrete form in certain orders and layouts (coherent and compatible) on which the development projects of the local societies are based, but above all it interacts with the solid, traditional dimension of the town planning of the soil and of the earth both through sharing a basic knowledge and through a 'way of working' that can assume partial, adaptive, planning forms, made up of land register, of property rights, of equalization and perhaps also of expropriation which is not an improper weapon if used as an instrument interacting with others and not as a collectivist threat. To be very succinct, and going beyond its contingent opposition to maximalism or its inadequacy to act as counterweight to a 'turbo-capitalism', reformism may be interpreted as a capacity on the part of local societies to regard innovations as fresh opportunities of development within a framework of cohesion and sustainability.

Notes

1. *Urbanistica* no. 123, p. 93. Oliva proposes a reform scenario open on three fronts: Legislative framework, instruments and model for implementing the plan. In reality it is a single reform process based mainly on the municipal plan and on the difficulty of managing it.

2. Law 5/95 of Tuscany and Law 20/2000 of Emilia and Romagna, although in different terms, fully represent an uncertain reformist model, open to innovation but against this rigidly anchored to procedural rules and to authoritative relations.

3. L. Mazza at Milan but also U. Baldini and G. Crocioni at Bologna have proposed innovative roads of the

traditional reformist model (Structure plan and equalization) introducing 'light' guideline documents and criteria of assessment in the case of Milan and a 'strong' system of urban logistics on the basis of explorative public tenders at Bologna. I do not however consider that the differences, although considerable, between the experiences of Milan and Rome can justify a simple identification of two opposed models.

4. G. Crocioni, *Piano Utile*, Gangemi, Rome, 1997.

5. After the boom of 2001-2004 in new private constructions, the most recent analyses of the building market (CRESME) record a negative economic trend also for 2005.

6. The presence in the real estate market of new operators such as investment trusts is producing two effects: a 'qualification' of the companies that are required to operate on very rigid specifications and for a long-term quality, and a 'disinvestment' of central sections owned by banks and/or insurance companies which become the main holders of the new 'closed' constructions of the Funds.

7. On the selling-off of public property, foreseen as 62,500 building units against the issue of 6.5 billion euro, see: G. Paterniti, A. Fodde, *Lo stivale di carta*, Editori riuniti, Rome, 2004, and on artistic property: S. Settis, *Italia S.p.A. l'assalto al patrimonio culturale*, Einaudi, Turin, 2002.

8. The 'Objective Law', passed to resolve in decision-making terms the procedural difficulties connected with carrying out major infrastructural works, has on the one hand been burdened with about a hundred 'minor' works, and on the other hand tends, through the figure of the general contractor, towards a neomonopolistic dimension.

9. The 2nd Conference on the Territory (Caserta 12-13-14 June 2003), marks on the one hand the end of the season of complex programmes, and on the other an attempt to mitigate the intrusiveness of the big infrastructural works (TNT corridors) with a reference to the themes of the territory and of landscape (see A. Clementi in *Lo sviluppo sostenibile del territorio nella prospettiva europea*, Ministero infrastrutture e trasporti-INU edizioni, Rome,

June 2004, p. 240).

10. P. Properzi (ed.), *Rapporto dal territorio 2003*, INU edizioni, Rome, pp. 103 et seq.

11. Op cit., p. 82.

12. See P. Properzi, "La riforma urbanistica", in P. Urbani (ed.), *La disciplina urbanistica in Italia*, p. 143.

13. On the evolution of regional legislative systems and in particular on the contents of innovative planning deriving from the assumption of new principles, also in the absence of a reform of State law, see: P. Properzi (ed.), *Rapporto dal territorio 2003*, cit., p. 14

14. Verifications (assessments) of coherence and of compatibility follow the passage from authoritative and hierarchical modalities (verifications of conformity) to processes of interaction between equal subjects on the basis of principles of subsidiarity and loyal collaboration. In this logic the Conferences (first of services, then of planning) and the Agreements constitute the junctions of a substantial reform that concerns also the form of the instruments. It is in fact 'structural' idioms that permit coherence and the institutionalization of knowledge (Maps, State of the Places and Information Frameworks) to be assessed, enabling compatibility to be assessed. See in particular Regional Law 23/99 of Basilicata which first introduced the two terms.

15. See R. Terzi, "Riformismo", con l'obiettivo della socialità organizzata, in *Tempo Reale*, p. 19. "Reformism is not the minimization of the objective but is the concrete practical policy that gives reality and materiality to the project of social transformation".

16. See R. Terzi, op. cit., p. 18, with a probable reference to S. Cofferati. A quick but interesting rereading of reformism with reference to Utopianism, Populism and revolution but also to Communitarianism.

17. See P. Properzi, "Il piano non è più regolatore", *Urbanistica Informazioni* no. 186, p. 3.

18. While a proliferation of individual enterprises is taking place it is clear that the government is in difficulty in achieving competitive dimensions in the European scenario where financial,

banking and company agglomerations at a level decidedly greater than the national structures have to be contended with. The 'Objective Law' itself can be viewed as an attempt to overcome these difficulties.

19. C. Donolo, "Notizie sul governo di Babilonia: sui territori urbanizzati e sulla loro governabilità", *Urbanistica Informazioni* no. 195, p. 89.

20. A. Clementi, "Mutamenti del territorio e innovazioni negli strumenti urbanistici", *VIII Conferenza SIU*, Florence, 29-30 January 2004.

21. L. Mazza, "Funzioni e sistemi di pianificazione degli usi del suolo", *Urbanistica* no. 106, 1996, p. 104.

22. The question of the 'separation' was brought up in the 19th INU Congress (Bologna, 1995) and was stated more clearly in the subsequent documents of the Institute's Board, but in any case always in problematic terms and open to a number of 'formal' solutions, although clear on two questions: conformation of town-planning regimes (constraints -'buildability') only at the moment of implementing the plan, and the prevalence of equalization in regulating urban transformations. The Tuscan law had in parallel given a very specific interpretation thereof which, in its novelty and official form, absorbed other possible interpretations: Structural plan (art. 24), Town planning regulation (art. 28), Integrated action programme (art. 29), the role of knowledge (Statute of Places) being toned down into a structural component, whence the coincidence, full of implications and not just linguistic ones, with the 'structural invariants' that cannot be negotiated. Remaining open in any case are the problems of the nature and cogency of the constraints (concerning town planning, temporal, indemnifiable, morphological, atemporal, not indemnifiable) and hence of the cogency of the instruments that impose them but also of their strategic nature and negotiability. Hence also the false question, often never asked and of little weight, of the strategic versus the structural and of their propaedeutic nature. The recent revision of Tuscan Regional Law no. 5 does not resolve these modal points.

23. Regional Law. 23/99 of

Basilicata introduces as the main basis for planning activity the 'Map' (regional soil map, CRS, art. 10). Derived on the one hand from the intuitions already present in other contemporary laws (Tuscany: Statute of Places; Liguria: Basic Knowledge; Emilia-Romagna: Factual Frameworks, etc.) and on the other from the growing weight that structured forms of structural assessment were taking on in Community practice (VIA, V.INC, VAS). The Map of Basilicata however assumes a central institutional position, both because of its co-operative procedures of formation (improvement) acceptance, and because of its autonomy (separation) with respect to planning processes, both ordinary and complex, making it a wholly original document. It must unfortunately be observed that the Region, although it approved the law without any votes to the contrary and with considerable enthusiasm, has been guilty of noteworthy material delays and only today has drawn up three prototypes of the Map, and does not yet possess a basic technical map for its elaboration.

The Prospect Theory and the prediction of traveler behaviour

Giovanni Circella

During recent years there has been an evolution of the instruments used in transport planning, related to the necessity of the development of efficient instruments for transport demand prediction, in order to provide a wellargued basis for transport planning and infrastructure projects. In this field, it is particularly important to develop powerful tools for the understanding of human behaviour, which can provide correct information about the choice behaviour of transport system users, which creates the demand for transport services among the population. In this work, we propose the use of a behavioral model for the prediction of transportation demand, based on the axioms of Prospect Theory. This approach seems particularly useful in the prediction of human choice behaviour when choice options are affected by variability. The proposed methodology has been developed on the basis of traditional behavioral models used in transportation demand prediction, with which it shares the main structure, although it presents a new approach to the understanding of human behaviour in daily choice processes, according to modern psychological studies on economic behaviour. Behavioral models used in transport planning so far have mainly been based on the hypothesis of rational behaviour of the human being, who tries to maximize his personal utility (as a homo oeconomicus), thus choosing the option that gives him the greatest benefits with minimal costs. The best-known behavioral

theories are based on this hypothesis, such as the Expected Utility Theory (Von Neumann, Morgenstern 1944), whose greatest quality is the simplicity with which it associates to each option, in a probabilistic approach, a utility value given by:

$$EU = \sum_i p_i u(x_i)$$

which is a function of the utilities $u(x_i)$ and the probabilities p_i of the possible results x_i of the option. In transport planning, the Random Utility Theory is also widespread. It asserts that the utility U_{ji} associated by the user i to the option j is a random variable given by the sum of a System Utility V_{ji} , a linear function of the attribute values, and of a random error term e_{ji} :

$$U_{ji} = V_{ji} + e_{ji}.$$

The probability distribution associated to the random term of utility defines the different behavioral models belonging to the group of the Random Utility Models. For these models, the probability of choosing an option j is equal to the probability that the perceived utility of the option j is higher than those of all the other options belonging to the choice set. Models of this type have been very useful in transport planning since they could provide quite robust information about choice processes involved in the use of transport systems. On the other hand, the rising complexity of modern transport systems and the importance of the topic of a correct transport demand prediction, usually the first step in a long process of planning which involves expensive infrastructures which have a great impact on the landscape, make it necessary to improve the prediction instruments, in order to support planners in the best way. The

development of more powerful tools is also related to the nature of the attributes treated, which are not easy to define in a deterministic way and often present a large variability. For many transport problems, particularly in urban areas, the characteristics of the alternatives are highly varied and uncertain, due to many causes which can not always be perfectly recognized, such as traffic congestion, road accidents or weather conditions (Bonsall 2003). Consequently, it is extremely important to develop instruments that can interpret the way in which such uncertainty affects traveler behaviour. Several objections have been moved in the past to traditional behavioural theories. For instance, the Allais Paradox (1953) shows an inversion of preferences predicted by the Expected Utility Theory, connected to the certainty effect: decision-makers seem to prefer the alternatives that present certain effects in comparison with alternatives whose effects are only probable. Some other ways in which behavioral theories are violated have been highlighted (Kahneman, Tversky, 1979); the way in which the alternatives are framed affects the choice process according to the framing effect, showing risk-seeking or risk-averse behaviour depending on the situation (Tversky, Kahneman 1981). Starting from these considerations, Kahneman and Tversky (1979) proposed a new behavioral theory, the Prospect Theory, as an instrument for predicting human behaviour in situations involving risk or uncertainty. The main element of this theory is the hypothesis that the choice is made by the decision-makers valuing each alternative in terms of loss

or gain, analysing the change that the alternative brings to the status quo. The evaluation of an alternative depends on a decision weight function, which weights probability values simulating the human perception of such probabilities. The value function, concave in the region of gains and convex in the region of losses, is deeper in the domain of losses: $|v(-x)| > v(x)$, thus assuming a graph of typical S-form. The argument of the function, the result x , is the change perceived by travelers. This is valued in terms of difference from a reference point. There have been many applications of the theory, also in the implemented version called Cumulative Prospect Theory (Tversky, Kahneman 1992): confirmations of the predictions of the theory have been found in the analysis of decision-makers' behaviour in different economic and financial fields (Camerer 1998), confirming the way in which decision-makers face alternatives involving some risks (Harbaugh et al. 2002). Fewer experiences are reported regarding applications of the theory to non-economic contexts: people behaviour in risky contexts has been investigated in medicine and, only recently, in association with transport accidents (De Blaeij, van Vuuren 2001). Even more recent are the applications to choice behaviour prediction in transport planning, with the realization of Prospect Theory analysis on the way in which travelers deal with the uncertainty about travel times (Avineri, Prashker 2002), and of comparisons between choice predictions given by a Random Utility Models and those resulting from the application of CPT models (Avineri 2003; Avineri, Prashker 2003).

In this work, we propose a model based on the axioms of the Cumulative Prospect Theory, which is designed for the prediction of the choices by public transport system users, with the aim of giving a realistic representation of the choice processes in condition of high variability. The proposed methodology represents the first application of Prospect Theory to those contexts in which decisions are made after analyzing more than one attribute of the alternatives. This represents a new theme in Prospect Theory research, implicating the development of a careful calibration phase. The context chosen for this application recreates a typical choice situation for transport systems users in many large cities: the choice between two different bus lines, based on the analysis of the expected travel times of the lines. The results of the application of the model are compared with choices directly expressed by the users in a experimental survey, and with the probabilities of choice given by a Logit Model hereafter referred to as RUT Model.

The CPT Model

The CPT Model has been based on the structure of a Logit-Random Utility Model, in which the utilities of the alternatives are framed with a Cumulative Prospect Theory approach (Tversky, Kahneman 1992). The alternatives are described with the use of probabilistic prospects, reporting all the possible values of the attributes in association with their probabilities. At first, a reference point, which represents the local conditions in which the user take the decision, was defined. Then, for each alternative of the choice set we can calculate a Cumulative Weighted Value, with the expression:

$$CWV = V(f+) + V(f-)$$

where $V(f+)$ represents the value associated with gains, which represent positive changes for the user, while $V(f-)$ is the value associated by the model with losses. The previous functions, $V(f+)$ and $V(f-)$, may be written in relation to the results of the probabilistic prospects, in the form:

$$V(f+) = \sum_{i=1}^n p_i v(x_i), \\ V(f-) = - \sum_{i=1}^m p_i v(x_i),$$

where x_i are the results of the prospect for $i = 1, \dots, n$. The value function, which follows the described properties, is represented by:

$$V(x) = x^\alpha \text{ if } x \geq 0, \\ V(x) = -\lambda |x|^\beta \text{ if } x < 0.$$

The function is deeper in the domain of losses, as an effect of the parameter $\lambda > 1$, showing a loss-averse behaviour on the part of travelers. The decreasing marginal utility is given by the parameters $\alpha, \beta < 1$. Decision weights are defined by the expressions:

$$\pi_n^+ = w^+(p_n), \\ \pi_m^- = w^-(p_m), \\ \pi_i^+ = w^+(p_i + \dots + p_n) - w^+(p_{i+1} + \dots + p_n) \\ 0 \leq \pi_i^+ \leq \pi_{i-1}^+, \\ \pi_i^- = w^-(p_m + \dots + p_i) - w^-(p_m + \dots + p_{i-1}) \\ 1 - \pi_m^- \leq \pi_i^- \leq 1.$$

Where w^+ and w^- are strictly increasing functions, defined in the probability values $[0, 1]$, and limited in $[0, 1]$, which satisfy:

$$w^+(0) = w^-(0) = 0, \\ w^+(1) = w^-(1) = 1.$$

The weighting functions, referring to positive or negative results w^+ and w^- are defined as follows:

$$w^+(p) = pg / [pg + (1-p)g]^{1/g}, \\ w^-(p) = pd / [pd + (1-p)d]^{1/d}.$$

Weighting functions are not

probabilities: thus the sum of complementary events is not necessarily equal to 1, usually being smaller than 1, as evidence of the certainty effect: the difference to the unity represents the added value given by decision-makers to a reliable risk-less event.

The values of the parameter $\alpha, \beta, \lambda, g, d$ suggested by Tversky and Kahneman (1992) are 0.88; 0.88; 2.25; 0.61 and 0.69. These values were used in this work. Both waiting functions tend to over-estimate the events which have a low probability of happening. This phenomenon of overestimation of low probability events has been confirmed in many experimental studies, in marketing, financial and economic fields (Edwards 1996). Non-linear weighting functions, in addition to the S-shaped value function, are responsible for risk-seeking behavior showed by decision-makers in some situations, and risk-averse in others.

The system utility of the alternatives can be expressed in relation to CWVs of the alternatives attributes, as linear combinations in the b-coefficients:

$$V1 = ba \text{ CWV1a} + bb \text{ CWV1b}, \\ V2 = ba \text{ CWV2a} + bb \text{ CWV2b},$$

while probabilities of choosing the alternatives are:

$$p1 = 1 / \{1 + e[(V2-V1) / q]\} \\ p2 = 1 - p1$$

The coefficients ba and bb referring to waiting time and time spent on board, were determined in the phase of calibration of the model.

The choice context

The described CPT model was applied to a choice context in which public transport system users have a chance to choose between two different bus

lines for a city trip. The different location of bus stops forces the users to make a preventive choice of bus line, based on the comparison of waiting times and times on board for both lines. All the other attributes of the alternatives, such as travel costs, comfort, or the pedestrian distance to reach the bus stops are assumed to be equivalent for both alternatives, so irrelevant in this choice process. The context was selected for the importance of analysing the effect of the attributes variability on choices in public transport systems, which usually involve great variability in their characteristics, especially in bus services, as an effect of sharing the route with private vehicles. This variability represents one of the main reasons for travelers' disaffection with the use of public transport services. Thus, the development of a model that could predict people's reaction to uncertainty regarding travel times may be very useful. It can assist planners to estimate the users' reaction, in terms of transport demand, to actions and policies that reduce travel times and their variability, conferring priority on public transport. The choice context was geographically set in the city of Bari.

The results of the survey

The choice context was proposed to a group of 60 potential travelers in a stated preferences survey, in which the participants had to choose one of the two proposed alternatives. The participants in the experimental survey were recruited from among the student population of the Polytechnic of Bari; participation in the experiment was voluntary; no payment was made the participants. The calibration methodology is based on the maximum

likelihood method. To apply this methodology, a database of experimental observations is needed. This could be done with a Rp (revealed preferences) or Sp (stated preferences) survey. The Sp survey, used in this work, allows us to control the experiment, planning the scenarios, which form the full factorial plan. In the experiment, the scenarios were created using a Partial Factorial Plan, assuming two possible levels for the attributes, waiting time and time spent on the bus, and imaging two different dispersion levels as a further attribute of the alternative. The number of possible scenarios was limited to 25=32 using a defining relation that reduced the dimension of the full factorial plan, without decreasing the quality of collected information. The scenarios were divided into groups to limit to nine the number of scenarios proposed to each participant; there being 60 participants in the survey, total collected preferences in the experiment were 540. All the sheets distributed to the participants were filled in, without leaving any empty spaces.

Choice predictions

To apply the CPT Model to this specific context, reference points were fixed. A time of 10 minutes was set as the reference point for waiting time, while 25 minutes was that for time spent on the bus, according to the ordinary conditions (Tversky, Kahneman 1992) locally found in the city. The application of the model gives the Cumulative Weighted Values for each attribute of the alternatives: CWV1a = -2.41, CWV1b = -1.94, CWV2a = -1.11, CWV2b = -0.99. The calibration procedure is based on the Maximum Likelihood Method. Computing phase was assisted by the use of

commercial software. The whole 240 experimental observations data-base was split into two parts: 75% was used as an acquisition database for the software, while the remaining 25% of observations were used to validate the model. The calibration yields coefficient values of $ba = +0.3101$ and $bb = +0.1426$. Applying the CPT Model to the experimental context, choice probabilities are $P1 = 36.9\%$ and $P2 = 63.1\%$. In the RUT Model application, system utility assumes the expression:

$$V_j = baTaj + bbTbj$$

depending on the averages of the two attributes. The coefficients b for this model have been determined with a methodology analogous to that of the CPT Model, using a database of the same dimension (240 experimental observations), split into 75% for calibration and 25% for validation. The application of the described methodology finds $ba = -0.4295$ and $bb = -0.3336$.

Applying the RUT Model to the choice context, choice probabilities are $P1 = 64.4\%$ and $P2 = 35.6\%$. The experimental survey among the 60 participants, showed that the majority of the potential users expressed a preference for Line 2, with a percentage rate of 58.3%; the remaining 41.7% considered Line 1 better. According to more than the half of the survey participants, CPT Model assigned a bigger value of choice probability to the alternative which presents less variability in the definition of its attributes.

The reference point

Differently from what has been seen in classical theories, in Prospect Theory alternatives are judged in terms of gain or losses as a variation from a reference

point (Edwards 1996), sharing this property with other modern behavioral approaches (Munro, Sugden 2003). The determination of the most adequate reference point represents a crucial operation. This should be done simultaneously with the experimental survey. The relationships between reference point value and CPT predictions are not easily found. The definition of the reference point directly affects the evaluation of the alternatives in terms of gains or losses. Decision-makers show risk-aversion when the choice is taken under positive external conditions, while more risk-seeking behavior is shown under negative external conditions (Neilson 2002). As a result, a shift of the reference point leads to consequences which are not easily predictable, owing to the non-linear functions of utility that are involved (Schmidt 2003; Avineri, Prashker 2003). A sensibility analysis was conducted on the CPT Model, with the aim of investigating changes in the model predictions varying the reference point used to determine the CWVs. A large variability in the probabilities associated with the alternatives was found, sometimes causing phenomena of inversion of the preference for some values of the reference point. Choice probabilities depending on the different reference points used for the two attributes are shown in the graphs. In a three-dimensional diagram model predictions are drawn depending on the possible values of time used as a reference point for the two attributes, giving evidence to the values of the reference point for which choice probability of Line 1 is higher than 50%.

Conclusions

The proposed CPT Model represents a new type of

behavioral model used for transport user choice prediction. The development of this methodology does not entail a rejection of the rational behavior conception; rather, it should be judged as an integration of it, based on the Cumulative Prospect Theory, in agreement with modern studies of cognitive psychology, that accept the results of economic theories as a quite good, even if incomplete and not very realistic, approximation of real behaviour, highlighting the importance of certain other aspects which guide individual choices (Guala, Motterlini 2003). The main originality of this work is in the implementation of a choice model, based on CPT, in which choice prediction is obtained from the analysis of two attributes for each alternative, while all previous experiments were based on the evaluation of only one attribute to formulate a monoparametric utility for each choice option. The development of a methodology that allows us to predict choice behaviour as dependent on the variability of more than one attribute of the alternatives, starts new processes in understanding complex behaviour, in those situations that involve conditions of great variability, risk or uncertainty. The application to the proposed context has enabled us to focus on the effects of attributes variability on choices made by the transport system users, finding correspondences between CPT Model predictions and the real behaviour stated by users in the survey. Decision-makers are seen to prefer reliable alternatives, even if accompanied by higher averages of the alternatives attributes: this is the well-known certainty effect explained by Kahneman and Tversky's Prospect Theory. For this reason, the majority of users

say they prefer the alternative that comports higher travel times but that is rather regular and reliable, and not affected by risks. The sensitivity analysis confirms the great importance of choosing the most appropriate reference point. This operation makes the model strictly related to local settings, guaranteeing a good simulation of real human behaviour (Zhang et al. 2004). The results dependence on local conditions may be useful to judge the effects of the realization of new transport infrastructures on local communities. The reference point may be used in the analysis of the answer that such interventions have on specific social-economical components of the population. For instance, we might set different reference points for waiting times depending on users' age, or different reference points for transportation costs depending on family income. Future developments of this work will analyse high variability scenarios in relation to the choice processes involved in applied contexts of transport planning.

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