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## Plans, the housing question and modernization of the country

*Pierluigi Properzi*

Town planners have abandoned the outdated 'separateness' of public measures in the sphere of social housing, fully aware of the need to integrate, not only 'functions', but also cultures, economies, fragments of society and relative lifestyles. But this seems a rather over-optimistic view of the 'housing problem'. In reality, our society is far less 'integratable' than one is prepared to admit. Nor does the State seem able to deal with the 'housing problem' economically, merely inventing a generalized increase in building volumes.

One wonders whether the only way to tackle this highly complex problem is to (re-)make plans. But which plans and with what resources? One line of action could perhaps be based on the experiences of the last few years. Above all on the positive results - but also on the mistakes - that have accompanied the first innovative experiences in this field. In particular the complex programmes of the past 'Dicoter' season and the services plans in the Lombard vernacular. Both of these typologies of instruments have been opposed, in one way or another, to the orthodox concept of the Master plan. But what concerns us is how these innovative instruments have interacted with the classical 'reformist' approach, referred in the same years to INU's proposal for Bologna (1995): articulating the three contents of the traditional plan (structural, operative and regulatory) and introducing equalization/compensation. In the course of time a convergence has developed between the two

approaches which, recognizing urban and territorial frameworks as the hinge element of public policies, has outlined on the one hand the 'structural' dimension, and on the other hand that of the urban (and territorial) project. The problem is in particular, the relation between modality of market policy (not dirigiste) and the unforeseeable diversions thereof, not always virtuous. In Italy there has been no such thing as a housing policy for more than twenty years, but instead the palliative of improbable restoration plans, and then of complex programmes, always vainly seeking integration, and of functional mixes. Today equally improbable 'new cities' are being proposed, without giving adequate thought to where, and above all to how, to build them: with what resources and what operators? It is not a question of plans, but of public policies, whose progressive segmentation can conversely be glimpsed. The housing question is connected, moreover, also with the ever pending question of the 'modernization of the country'. Attempts in this direction, albeit never concluded, have always coincided, in fact, with forms of centralism and of making quick decisions characterized by stability and by various forms of planning (the dirigiste nature of the plan), while the relative instability of the institutions makes progress in this direction more difficult, urging governments to resort to sporadic measures, even just for 'the sake of appearances'. There are two questions on which to reflect: how to bring about a dimension of stabilization that will guarantee the modernization processes, and how to construct the conditions of coherency and compatibility that have to accompany its actuation. Certainly a country does not

become modernized with incoherent measures incompatible with the territory, the landscape and the environment. And it cannot be said that plans are slow and complicated, whereas spot measures would be effective, because in that way measures are endorsed that are often at odds with each other, feeble, incoherent, at times harmful, and worst of all, not always agreed by the populations.

Stability has never been a guiding concept of town planning: urban (municipal) plans contain in general various modalities of transformation, opposed to safeguarding.

It is observed, regarding the (presumed) centrality of transformation in processes of development and, consequently, of planning, that it removes the territory from forecasts of developing its 'weaker' parts, and, vice versa, that it needs to attract economic processes based not so much on promises (or pipedreams) of transformation, as on a prudent 'stabilization' or rearrangement of what already exists.

In this sense, it is interesting to reflect on the relationship between the stabilization of uses and mechanisms of development, and also on the processes of demolition/substitution/upgrading, aimed always at the innovative features of the techniques of intervention.

## Atlases and landscapes

*Attilia Peano*

Atlases, originally systematic collections of bound and catalogued maps representing the image of the known world for the 16th century middle classes engaged in trade and commerce in distant lands, were highly successful for at least two centuries during which they were constantly reproduced in order to incorporate ever broader knowledge of new countries. The Ortelio (1574) and Mercatore (1595), considered to be excellent examples of the 16th century, are characterised by a common hierarchical interpretation of the world in which Europe reigned supreme over all the other countries. Subsequent atlases, printed and re-printed in the 17th century by European publishers to cater to growing demand from traders and entrepreneurs, in particular by the Dutch and above all Blaeu who increased the number of plates, publishing an atlas in 11 volumes, are of great importance. In the following centuries, atlases were specialised according to geographical area and topic; in Italy, the first national Atlas was published by the Touring club italiano in 1940; atlases gradually became less monumental with dynamic and also critical descriptions of the country represented. Contemporary atlas production is characterised by a wide variety of different types including road, tourist, physical, economic atlases. Each atlas, inserted in a specific cultural context and with its own specific purpose, type and form, relates a 'story' and reflects a vision of the world, regardless of claims and declarations of preciseness and scientific approach. Landscape Atlases represent a field of observation and knowledge

that started to attract attention at the beginning of this century when the first theories on the valorisation of territorial resources as a key to development were mooted, having abandoned the concept of constraints as an exclusive instrument of protection. Inclusion of the landscape in territorial policies was declared a major priority in the 1999. Development scheme of community space which indicated that European countries should adopt 'creative management' landscapes, considered as local and regional identity and as an image of history and of the interaction between man and nature. This consideration was also reflected in 2000 in the European landscape convention in which they were assigned a political role, expressing the need to consider the landscapes of the entire territory and to address these with policies and protection, management and planning measures based on recognition and evaluation, involving the stakeholders and populations concerned. The landscape atlas is, therefore, a theme-based atlas that addresses a recently rediscovered and valorised topic, still characterised however by noteworthy specific aspects and ambiguity. The landscape is, in fact, an image more of processes than objects; it is dynamic and holistic insofar as it expresses the complementary nature and relationship between various aspects relating to ecology, history, town planning, local economy, usually considered separately in territorial analyses. It is also particularly difficult to gauge the population's perception of these aspects, as required by the European convention in order to draft shared preservation and transformation projects. The Atlas project configured for

Piedmont, to meet the need for aperture towards new knowledge and interpretations, to chart the dynamic nature of the processes, to take into account change and the expectations aroused by existing programmes and projects, to permit use as a reference point for inter-institutional and social dialogue and confrontation also for the purpose of planning, has been organised as a hypertext, conceived therefore in a reticular, dynamic and interactive form, with information nodes consisting of texts and images derived from many disciplinary approaches and referred both to regional and local scale, as a constantly-evolving product with the possibility of continuous update. Specific attention has been dedicated to experimentation in order to chart social perception, adopting various methods and different scales.

## Methodological proposals for the management and promotion of Piedmont landscapes

Attilia Peano,  
Claudia Cassatella

The inter-university department of territorial studies (Polytechnic and University of Turin), with the contribution of the Crt foundation and the collaboration of Piedmont regional council, has produced an *Atlas for the management and promotion of Piedmont landscapes*, coordinated with and complementary to the *Atlas of historical landscapes in Piedmont* produced by the Casa città department at the Turin Polytechnic. Together, they represent an 'atlas of change' under-lining the historical processes, repositories of the past, current dynamics, critical points of transformation and change scenarios linked to planning and innovation. The purpose of the two sister atlases is to achieve methodological and technological innovation regarding the way in which the landscape is read and interpreted, in the light of the recent indications of the European landscape convention and the *Italian code of cultural heritage and landscape*.

The Atlas has been designed as a kind of portal, which organises varied, fluid content in order to provide an instrument for orientation that can be updated on an ongoing basis. It is divided into two main parts:

- part I, "The Region" (Piedmont); this section describes the geographical landscape, the history of the region, the content of sectorial studies on land and landscape planning, and the places and issues relating to the landscape of Piedmont which form part of the collective imagination.
- part II, "Characteristic landscape areas"; this divides the region according to the most significant

landscape areas which are then described in detail. Each environment is illustrated in two ways. The first is a collection of different representations: maps, photographs, pictures and images familiar to the general public (very famous landscapes, etc.). The second consists of the interpretative frameworks produced by the experts: these include environmental, socio-economic and scenic contexts, and the history of population development in the region. An illustrated document then provides a brief evaluation, which adopts the interpretative categories used in landscape policies: type of landscape, significance, values (relating to geomorphology, natural history, population development, geomorphological, naturalistic, agricultural and scenic issues), status, dynamics and pressures, and critical areas. A section, detailing the current dynamics and changes envisaged by plans and projects, enables a comparison of future scenarios.

The networked structure and inclusion of hypertext enables a great deal of content to be stored, and browsed according to need. The idea behind the Atlas is that it will encourage public decision-making with regard to the landscape, as it allows links and comparisons between interpretations and proposals from various sources. Unlike other landscape atlases, it is not a planning instrument (it does not include rules and is not institutional), but it is an instrument for the planning process. The knowledge is geared towards action, while leaving the decision-making process open.

In order to do this, the information must be comprehensible to various groups of people, and the

public point of view must also be considered. The research group carried out several tests in order to understand how the social perception of the landscape can be analysed, and be taken into account for policymaking purposes. The proposed aim of the landscape atlas is not to provide a univocal description of the landscape, but to compare the many images of the "interested parties and population concerned". It takes into account the social perception of a landscape, as required by the European convention, and can be a useful tool in planning processes, by clarifying the viewpoints and values at stake, separating the information-gathering and evaluation stages of the decision-making process.

## Social perception of the landscape and the Atlases

Claudia Cassatella

'Landscape means an area, as perceived by people'. Inclusion of this assertion in the European landscape convention has made social perception a *sine qua non* in landscape planning. It seems to demonstrate that the political significance of the landscape lies in the perceptive (or sensitive) dimension, which distinguishes it conceptually from land. It permits, in fact, consideration of both the sectorial values attributed by the experts and those ascribed by 'common feelings' stemming from memory and tradition, use, including production, enjoyment, and aesthetic appreciation. Social perception of landscapes is a very broad field of enquiry requiring appropriate methods, still in the experimental stage, with which to indicate those who should be consulted and how (it is not always clear what is to be sought from their involvement: ingenuous or window-dressing operations are by no means rare), as well as the way in which expert and non-expert knowledge should be put together in the drafting of policies. Surveys of this kind are faced with problems concerning their level and moment (identification, evaluation, choice of strategies), and especially the groups of subjects. The regional scale now de rigueur in landscape planning is particularly problematical. Determination of the landscapes that confer its identity on a region presupposes the existence of a feeling of belonging to and identification with a territorial ambit, which is relatively new in Italy. Yet this feeling of belonging and identity is not the only reference value for a landscape. Suffice it to think of its aesthetic value, often

perceived and defended by "outsiders", even against the local population. Consideration of the landscapes regarded as 'World heritage sites' will show the need for case-by-case definition of the field of attention, including the identification of groups representing different points of view, both within and without the area in question. The *Atlante dei paesaggi piemontesi* (Diter 2007), addresses the question of the social perception of landscapes through the experimentation of several enquiry methods on different scales. Numerous enquiries have been compared on the local scale: the scenic-perceptive setting (expert analysis), the landscape represented in guides, the landscape 'pushed' by tourist bureaux and local authorities, the presence of landscapes on Internet sites (for a potentially planetary public), and a 'landscape preferences game' played by five populations. Each enquiry has its own specific nature and its own limits, which means that it is best to have several approaches on hand. Comparison is the easiest if the contents are referred by interpretation to a set of preselected landscape values. To promote the usability of the enquiries in landscape planning, reference is made to the values cited by the *Cultural heritage code* (morphological, naturalistic, historical, cultural, aesthetic), with the addition of the socioeconomic or use value, and the negative value. Examination of representations, especially those in tourist guides and other publications, has the advantage of being also applicable on a large scale in cases where the undertaking of direct surveys is rendered more complicated by the amplitude and selection of the sample. For the

Piedmont as a whole, two groups of pictures have been chosen to represent the viewpoints of insiders and outsiders. That of the local community is illustrated by the representations produced by the *Regional tourist board* for its communication and land promotion operations, that of the national community by those of Piedmont in the guides and books of the Italian Touring club, which has distinguished itself in promotion of knowledge of the Italian cultural and landscape heritage since its foundation at the end of 19th century. Both sources, of course, mainly offer stereotype landscapes. Even so, interesting observations arise from the comparison of the two groups.



## The Atlas as a metaphor for the history of territory and landscape

Mauro Volpiano

Interpretation of the landscape today must necessarily include a passage through the relationship between tradition and innovation, between the need to handle change and awareness of an area's historical sedimentation. Experiments are international in nearly every culture, even prior to the legislative context. Cognitive analyses as the introduction to projects and planning take account of the historical matrix of landscapes, sometimes finely divided into disciplinary intersections as in the case of the french *Atlas des Paysages*, at other times with more properly historical and territorial analyses as in the case of the method perfected in the 1990s by English Heritage aimed at the coverage of the whole of the country by means of *Historical landscape characterisation* (Hlc). In other national contexts, a strong cataloguing and documentation tradition expresses not so much cultural interpretation of landscapes as their collection within an inventory through the elaboration of procedures for the recognition and cataloguing of significant portions of a country's lands, such as the methods devised by the National park service with the guidelines furnished by the Historic american landscape society, or the general cataloguing of the portuguese heritage, consultable on Sipa, the integrated webgis portal established by the *Direcção geral dos edifícios e monumentos nacionais*. With their search for systematic coverage and in the intersection of their languages, these experiments evoke the

tradition of the atlases, which have always been the multimedia tool par excellence in the continual cross talk between maps and their accompanying descriptive texts. Atlases, therefore, understood both as a metaphor of a way of working and as operative instruments, now nearly all multimedial, are of assistance for the configuration of a process of shared understanding and high scientific specialisation. The *Atlante dei paesaggi storici piemontesi* has been generated in this context. It is the outcome of an endeavour to bring together and set out to innovate Turin's traditional work in the field of historical land use studies dating back to at least the early 1960s. The Atlante provides a panorama of the main historical and cultural characters of the Piedmontese landscape divided into periods with indications of the circumstances that have moulded the area since Roman times. The basic choice was to interpret the processes that have shaped the region and formed its present landscape as opposed to a reading founded on the material permanence of its components. As examples of this intent to interpret the landscape via the critical lens of what has generated change rather than its material outcome, one can point to the erection of castles as opposed to castles themselves, not the great production behemoths, but the gradual establishment of new industrial standards from those of the *Ancien régime* to those of today. The landscape is thus portrayed as a system of systems, the stratified result of both the relationships over time between territorial processes, some clearly legible, others immanent, and also, albeit subordinately, their corresponding material

outcomes (buildings, infrastructures, agrarian layouts). This has led to the identification, for the entire region, of a relatively restricted number of historical processes and territorial settings to which to ascribe a stratified account of the morphogenesis of the Piedmontese landscape. The data have been plotted with a Gis software. What are the advantages, both for planning and other purposes, of a survey of this kind? Firstly, discernment of the essential features of the landscape not as fixed components crystallised in a moving scenario, but as members of a changing context. Next, selection of only those historically significant processes with an influence on the current landscape, and hence the selection of the properties and systems that are truly significant. Insofar as selection is linked to processes and not to formal or aesthetically oriented reasons, it also promotes recognition of morphologically distinct properties, and thus opens the way to the putting forward of measures for the integrated realisation of their full worth by means of material signs that could seem not immediately assignable to homogeneous categories.

## The European context

*Angioletta Voghera*

Experimentation in Europe of practices for understanding the landscapes directed to their planning and management has been the main spin-off from the European landscape convention (2000), during which stress was laid on the need to identify and evaluate landscapes to render them an integral part of the 'collective memory'. The result has been an innovation of the traditional forms of landscape understanding, a process influenced by interaction between the international indications and individual historical-cultural roots for land organisation, and development and protection of the landscape (Voghera 2006). Countries with a germanic-anglo-saxon cultural root (such as the Netherlands, Germany and United Kingdom), characterised by a tradition of drawing the best benefit from the landscape integrated in land use policies, share common notions of landscapes and their protection, whereas dated notions of landscape are typical of the Mediterranean countries (such as France, Spain and Italy), and it is here that the first innovations are taking shape.

Experiments of Atlases in the understanding of the landscapes develop an objective description of the landscapes to disseminate identity, elaborating multidisciplinary readings, and a subjective interpretation founded on social perception of the landscapes.

Interesting for the evaluation methodology, as a process of understanding the landscapes for action aimed at the construction of policies and plans shared by the social actors, are the German, the Slovenian, the Dutch and the English

Atlases.

The wide range of methods devised by individual countries for identifying, interpreting and/or evaluating landscapes can be compared in terms of their: scale of analysis and representation; criteria for the identification of landscapes; types of values represented; participation; operativeness.

Landscape interpretation experiments have been conducted on a national scale (in Britain, Spain and Slovenia), on a regional scale (in France), and on a local scale (in Denmark) (Coe 2006).

A common feature is the interdisciplinary nature of the analyses, which converges in the identification of units or ambits that embrace landscapes with similar physical geographical, historical, environmental or socioeconomic characteristics. Experiments in Spain, Denmark and the Netherlands are identifying characterising systems that constitute large ambits arranged around a landscape matrix.

All too often, however, disciplinary analyses constitute sectorial interpretation that is rarely recomposed for public discussion through a synthetic and structural interpretation. The types of values represented (as monuments, documents, use, symbolic, environmental) are influenced by a nation's traditional protection and management of its territories. The most common category is historical, accompanied by recognition of symbolic value and, since the 1990s; the ecological-environmental and use value.

Atlases are primarily directed to understanding. They have little operativeness and refer to tools for the assessment of values and orientation for intervention. A common

feature of countries with a Germanic-Anglo-Saxon culture is the elaboration of evaluation methods as a process of collective learning to render explicit values and selection criteria useful for planning.

Participation is a critical aspect. Atlases are an 'expert representation' of landscapes for use in raising the consciousness of the population (as in Germany, United Kingdom, and elsewhere) as an actor of the form of the landscape and involved in its maintenance and management.

Different as they may be in their operativeness, Atlases are the main tool for the communication of values, spreading awareness throughout the population, and creating a framework of reference for policies and actions.

## Experiences on the landscape catalogues for Catalonia

Jordi Bellmunt, Maria Goula

Massive interest on landscape in the Mediterranean emerged with the renewal of the discourse on public space; with time it has been oriented towards less explored design fields and resulted more exposed to natural processes. The present text deals with the work developed by the Centre of research and landscape design, Barcelona, related with the elaboration of the first landscape catalogues in Catalonia.

The elaboration of the landscape catalogues begun on 2005 on a political initiative from *Generalitat de Catalunya* and coordinated by *Observatori de paisatge de Catalunya*, the latter was founded with the main objective of registering experiences and spreading knowledge on landscape, putting into practice the concepts proposed by the European landscape convention.

It is important to underline that the experience has a double purpose: on one hand, to register in an exhaustive and non eclectic way Catalonia's contemporary landscapes, exposing the results to the citizenship in direct contact with local administrations; on the other hand, to generate new cartographies which will define the instruments for description and evaluation of those landscapes at the scale of regional planning. Moreover, they set the legal frame for the establishment of quality objectives as a guarantee of preservation and improvement.

Focusing the identity of those landscapes meant identifying complexity, fragility and opportunity situations. However, the most innovative aim was to interpret and recognize

project opportunities within ordinary landscapes which are far away from being singular, sublime or sublimated.

The fundamental directives of this work have been the exploration of locations' abstract form through the definition of permanent horizons and minimum visual units, and the careful study of visual image based on ecological active structures as well as natural and vigorous agricultural patterns. The descriptive base for those landscapes has finally been the unit as perceptive and physiographic basis; however the final structure of this work introduces a new element that of the ecological frontier, the latter are considered areas which have highly valued as dynamic landscapes.

Finally, the cartography on quality objectives for each landscape unit offers an instrumental value since it is not just focusing on the valuable landscapes but it is inclusive mixing project opportunities of deteriorated landscapes with structural and quality landscape situations.



**Tuscany landscapes Atlas and spatial planning***Gabriele Paolinelli,  
Antonella Valentini*

In 2004 Tuscany Region promoted, inside its new territorial plan, the formulation of an Atlas of landscapes characters. The beginning of the study was coincident with the issuing of the *Codice dei beni culturali e del paesaggio*, but the Italian technician-legal scenery is now completely modified, two reviews of Codice and the confirmation of European landscape convention, with important effects on landscape planning.

Atlas is a recognition of landscape characters over all the Tuscany territory, independent of sites under protection. Landscape characters of territory are seen without any aesthetic filter. This formulation correspond to thoughts landscape as central reference for protection and transformation policies.

Atlas aims to promote the perception of landscapes values even for ordinary territories that are without any protection guarantee. Really, from quality of everyday areas depends the effectiveness of protection of landscape goods recognized as being of outstanding beauty.

Atlas assumes the conception of landscape as couched by the European convention. Neither natural nor cultural aspects are privileged, hoping to create a reasoned archive on structural characters of Tuscan landscape where the division between excellent landscapes to protect and ordinary landscapes to consume doesn't exist.

In the Atlas as 'structural character' are intended qualities, but also critical states, significant at regional level to describe Tuscan landscapes. The difference between 'identifying structural characters' and

'ordinary structural characters' aims to propose a reference for discussion and popularization, helpful to social perception that the European convention fixes as constituent component of landscape. For 'identifying structural characters' are intended characters that connote in an exclusive way the landscape of a particular historic-geographical ambit; 'ordinary structural characters' are instead relevant characters but spread in different ambits. The choice to use photography to represent structural characters is linked to the will to describe landscape and start participation processes to share the noticed values at the same time.

Tuscan territory has been divided into thirty-eight ambits to which are referred the files of Atlas composed by three sections. For each ambit the first section reproduces the arrangement and the synthesis of structural landscape characters through text, photography and cartography means (the second one is limited, we just said that more interest is put on photography as more direct instrument to communicate with people, therefore a possible developing of Atlas could be the cartographical representation of identified characters). The second and third sections are dedicated to represent (by photos) identifying and ordinary structural landscape characters.

The technician and legal context in which now Tuscan Atlas is inscribed is complex. European landscape convention underlines the importance to integrate landscape into different planning instruments; landscape is the reference to define policies of landscape quality to protect, restore, create and enhance territories. Besides this, social perception is not for convention an aesthetic

consideration, but it means to give a cultural sense to landscapes.

European landscape convention became a law in Italy in January 2006, but the position expressed by Italian jurisprudence is different. Italian code on landscape goods is addressed to those parts of landscape to protect and no reference is done to social perception. Therefore, related to the significance of Atlas of landscape characters, is needed to understand the role of landscape planning between protection and transformation policies.

## The Ptcp of Naples: the land and its fertile resources

Marichela Sepe

The process of drawing up a plan for territorial provincial coordination is primarily a process of deep knowledge of the territory and its inhabitants, of confrontation with the institutional and social actors, construction of strategic visions in continuous balance between regulations, expectations of enhancement and development, and economic and environmental sustainability. The question becomes very complex if these operations will relate to an area such as the Province of Naples where a variety of textures, urban fabrics, landscapes and identities are overlapped. An area of intense contradictions, but dense of fertile resources.

The Plan for territorial coordination of the Province (Ptcp) of Naples has been developed by coordinating of a complex set of actions. These involved not only an articulated response to the different goals introduced by the new regional law of area government and the adaptation to the regulation of the Regional territorial plan (Ptr) and the regional law 13/08 but also the implementation of a series of activities which have supported and enriched the process of drawing up the plan. The complex process of knowledge of the provincial area has been transformed into structure, from which gave rise to the Plan's regulations. The following priority objectives of the Plan, focused on natural heritage, housing, production, education and mobility derives directly from the territory.

*To spread landscape enhancement throughout the province.* The outstanding diversity and beauty of the natural

heritage of this area is considered by the plan both a valuable resource to be used by its population and a resource of great attraction to support traditional forms of tourism and again a resource which can enable new activity. The plan in accordance with the European landscape convention and the regional guide lines to adapt it to the existing landscape plan, provides for the development of a renewed policy to promote cultural and natural heritage which makes up the landscape.

*To interweave up the human settlements with a network of natural corridors.* To this end, the plan provides for the establishment of ecological corridors which will play the function of preserving biodiversity and at the same time creating environments where the quality of life is better. These corridors will also ensure a suitable presence of open spaces which will be accessible to each resident.

*To achieve a balance of the population in the area with a sustainable housing supply.* The plan aims to meet the demand for accommodation by allocating sustainable housing and in a supra-provincial perspective. In this regard, the protection and enhancement of the environment and the increasing of housing capacity in terms of quality and quantity must strike the right balance.

*To ensure that the policy of cohesion addresses those areas of social marginalization and exclusion* which are also characterized by urban-building damage. The housing conditions of the provincial area are often a reflection of the differences in existing economic and social disparities. With the aim of bridging this gap, the plan provides for the development of urban and building renewal policies integrated with social ones

in degraded areas.

*To ensure the production.* It is carried out in harmony with the landscape and environment and promote the employment growth. The plan intends to treat with particular attention the relationship between physical space and production adding to ex post impact evaluation, the ex ante provision of suitable sites and the anticipation of compatible activities. Employment growth, especially for new generations, should be implemented by paying attention to the enhancement of local resources, the attraction of external investments, and the development of innovation.

All in a context of environmental sustainability. Another objective of the plan is to recover the brownfield sites, concentrate business activity and improve the work environment. In this context the Plan seeks to recover brownfield areas and unused spaces and avoid the dispersion of plants constructed without proper planning. The plan provides for a distribution of facilities and services for local inhabitants according to a provincial policy of services localization which make them less dependent on the main town.

Improvement in education, training and research with employment potential in production is conceived through the construction of hierarchical decentralized structures integrated with the production areas which will provide for the knowledge transfer in order to achieve product and process innovation. Finally, it aims to invigorate the system of internal communications and external relations particularly with the major neighbouring metropolitan areas. The plan aims to improve the supra-communal transport system in following both the

forecast construction of the regional metro and the relocation of networks nodes, to achieve polycentrism and territorial balance.

The objectives outlined by the plan have led to the identification of four strategic axes, strictly linked to the peculiarities of the province and its dynamics: enhancement and restoration of the urban system; conservation and enhancement of the environmental heritage; development, reorganization and improvement of mobility, strengthening of the local areal system. From the guidelines of this strategic framework a choice derives that is probably the strongest of the plan, namely, the urban 'densification' which is provided for underutilized areas, with specific regulations. The plan also provides a wide attention to: policies for home; fertility of soils; areas of special historical, cultural and landscape interest defined under the identified local environments settlements; the enhancement of identity and quality of landscape. Finally the integrated system of networks links the constructive grid of the plan. These topics will be illustrated in detail in the specific contents.

The statement of the goals has led both to a strategic framework and to project ideas localized in specific parts of the province. In this regards, the plan has identified specific development measures localized in twelve programme areas. The programme areas have been intertwined with the idea of the urban design projects developed in the occasion of *Overview 2006*, realized by the foundation *Annali dell'architettura e delle città*, and the respective feasibility studies. The projects was designed in suitable areas, drawn from the programme areas. These allowed the

feasibility of urban transformations directly arising from the Plan to be initially verified. The other activities which have supported the process of drawing up the plan include: the *Museo diffuso* (<http://sit.provincia.napoli.it/home.asp>, *Progetto Mivis* and *Progetto Orca*.

**Presentation***Riccardo Di Palma*

For several months the Province of Naples has been adjusting its territorial plan to the regulation of the regional law for landscape conservation and the Regional territorial plan (Ptr), in order to implement it as soon as possible and allow the province to have a uniform and definitive framework, useful for land protection and development. Our work follows the path of dialogue and synergy with other institutions, first of all the Campania Region, with which we are collaborating to give as much protection as possible to the provincial area, whilst promoting development, identifying potential areas for business and infrastructure, incentivising urban decongestion, yet conserving landscape heritage and rural activities of value.

With the Ptcp, the Province of Naples has a powerful tool for area management: first because it can analyse the strengths and weaknesses of the different parts of our complex territory; then it can provide an overall framework which enables the provincial administration to make suitable choices for balanced area development. The Ptcp is designed for a complex environmental system in which the Province, as a supra-communal institution with its broader vision, takes on board the demands coming from different quarters in terms of urban morphology, culture and needs. The real value of the Ptcp is measured in its ability to play a coordinating role, to be a synthesis for the guidelines of communal planning tools which, albeit autonomous and calibrated on specific opportunities, have to be consistent with the provincial plan. Hence the necessity to share the plan, based on

dialogue and confrontation: the Ptcp that the provincial administration presents to the *Comuni* and in general to operators in the area is therefore a sound starting point ready to be enriched by observations and suggestions which give the plan the effectiveness which only a real communion of intents can lend to any administrative action.

This communion of intents is essential to achieve the objectives that the Province has set itself with the Ptcp. The objectives are inspired by an intelligent stewardship of the land, able to conserve it without excessive constraints. Such stewardship means environmental restoration and enhancement which is translated into economic benefits and improvements in the quality of life for all the inhabitants of the province.

In order for the landscape value of the Ptcp to be recognized, the Province is set to enter into an agreement with the Region and the Ministry of cultural heritage, according to the extensive inventory of cultural and landscape heritage. This will simplify procedures for landscape authorization. And a similar agreement will be finally concluded with the Asi consortia (Industrial development area) to recognize the value of planning industrial areas. Faced with the risks and problems of the province, it is thus increasingly clear that we need a change in direction in area management, to prioritize environmental conservation and restoration creating 'active' policies that, as the European landscape convention recommends, require broad concerted cooperation, sharing of strategies and responsibility and openness to dialogue and confrontation.

## Dilemmas and obstacles in the management of objectives

Francesco Domenico Moccia

The diversity of provincial plans is due to the diversity of provinces. One such difference is at the metropolitan level, which yields a set of problems peculiar to urban planning. These problems are grafted onto an economic and functional reality of which we have descriptions from several perspectives and which remain topical, but defy territorial innovation. Regardless of what it may be called, the metropolitan question in the literature shows a continuity of scientific development rotating around the stability of a concept, although it is expressed in several nuances. And when, in the European context, the metropolitan issue becomes the subject of centrally based assessments to establish relations and regional balances, it inevitably ends up being the subject of national policies for those governments which are shrewder at perpetuating their role as leader among the other EU members.

The identifications of objectives of a territorial plan should take into account various factors including social needs, demand for spaces for different activities, and quantity and quality of future development. This is influenced by the system of values, politics and ecological awareness. Such objectives should also be substantiated by investigations and projections so that accurate diagnoses of problems which the plan will tackle are made and appropriate solutions are determined. This whole procedure is clearly both onerous and time-consuming when applied to every detail of the plan, albeit recognised as a

technically correct method of working. For reasons of simplification, the objectives are not applied equally across all regions. Formulating objectives in a strategic approach is subject to two further conditions which have to be taken into account. The first contextualizes them into realistic options both in terms of real resources which can be mobilized and opportunities expected from the wider system of relationships within which the province of Naples is positioned. The second relates to the capacity and ability of players actually or presumably involved in the collective action of change. These conditions affect the whole physical nature of the project: it has to be carefully designed so that construction may take place in an area whose adversities cannot be underestimated. These conditions may also be faced in terms of possible development, too easily translated into slogans, which are communicated effectively as well as being misleading. Naples, a Mediterranean platform, needs a logistical project which reflects its key role along north-south and east-west European corridors. At the same time it must be properly positioned in relation to the ports of the northern Tyrrhenian and Adriatic, and with the hub of the Po valley which has the same system of inter-relationships. In current conditions, the territorial plan performs a pure regulatory function and runs the risk of purely regulating and appraising the municipal plan. Indeed, the territorial plan has already been marginalized by the major policies of regional investment, planned through the Regional territorial plan (Ptr) and Strategic regional plan (Psr). The Ptcp complies with these plans but cannot make any addition or specification, at least with

respect to the active land use policies.

The challenge is here to strike the right balance between legislation and regulations, exploring the possibility of legislation which steers possible actions, until certain thresholds are reached. This leads us to reflect on the whole role of coordination and for the purposes of the plan. One could start by discussing the intent of the legislator regarding the absence of social and political union in a community to which the public decision is addressed, and the use of a variety of subjects who converge in an institution which is plural in itself. We are dealing with a rigid evaluation of the scientific knowledge concerning the metropolitan context, which is embedded in the law itself, although ineffective in practice. The end result is the drawing up of projects which are similar in scale and interest, even if they seem to have to be shared with the municipal community. There can be no other premise for a consistent implementation of polycentrism, even if this is the expression of initiatives from below. There must be added the policy of decentralization of rare functions, the containment of tertiary development of consolidated centres, central investments concentrated in public works and public-private projects and the development of a new and old centrality.

Searching in planner's subconscious, we find aspirations, which have the role of guidance in the variety of the topics which we have so far treated, corresponding to the most radical and overall assessment of the situation and to the challenge which it poses for the tasks in hand. Although the literature is increasingly devoted to deal to methods, techniques and process, showing ever

more respect for independent decisions making by social and political actors, the inevitable substantive argument sooner or later ends up being the subject of public debate, perhaps never in the explicit manner of a codified idea of town and territory, of principles and formers. But when positions are compared also on marginal and specific aspects, on sectoral solutions and techniques, a reference is felt to a concept often unexpressed in order not to compromise a dialogue between parties intent on coming closer to shared projects albeit starting from distant positions. But the prejudice power of the guideline had to be verified or detached from the starting positions, boosted to become point of convergence. This is a ground that seemed to be feasible on the basis of ecological context from which to begin in order to imagine a new metropolis. In this approach sustainability is exceeded. We have already lamented the ineffectiveness of the evaluation which does not intervene during the planning process in order to select choices and guide objectives, but simply has mitigatory and compensatory measures. It is a question of freeing the environment out from sectoral policy and devising a broad package of environmental measures and moving the concept that the various requirements should lie within the unitary framework of the 'ecological city'. When such a model has been set up, the comparison with the existing city will seem inevitable because in this comparison it will have a role of pushing for change and generating projects.



## A heritage to defend and exploit

*Roberto Gambino*

The double image of Vesuvius symbolizes the paradox of the Neapolitan area: a place of 'outstanding universal values' (well represented by the Vesuvian 'monument' and by the World heritage sites Unesco) and at the same time of extreme social, urban and environmental ravage, risks and threats for hundred of thousands people. In this context, the only route seems to be the revaluation of the heritage, placing environmental requalification and landscape enhancement at the center of every territorial development. It implies a very hard 'civil project' in a context marked by the violence of social degradation, the roughness of the conflicts and the crisis of the institutional networks. The continuing aggravation of the 'environmental question', in fact, jointly highlights:

- the unceasing scaling-up of many environmental problems, such as those linked to global change, increasingly difficult to regulate at the local level;
- the increasing interference of environmental problems with economic and social ones, such as those related to poverty, insecurity, access to the primary resources, information and culture.

In light of these processes, the environmental and landscape question reflects the reaction to the increasing unsustainability of current models of development and the search for new relationships between man and the land. At the center of the new prospects is the European landscape convention (2000), which proposes some important innovations: the broader significance attributed to the landscape as a vital component of people's surroundings and a

foundation of their identity, and the enlargement of the scope of protection to the whole territory, including the ordinary and degraded landscapes. Even if only partially transposed in laws, policies and practices a new paradigm is taking shape for public intervention in heritage. It shifts attention from the 'islands of excellence' to the widespread landscape heritage, as a part of the 'territorial capital'. It requires more awareness about places, values, processes, interests and subjects. Of course, more knowledge can make use of the enormous developments in information technology. But there is a dual need: to respond to the increasing complexity of the landscape and environmental problem with the diversification of specialized scientific contributions; to produce holistic and integrated visions and interpretations, able to guide intervention strategies and public regulation.

More scientific attention is due to spaces and resources that are often underestimated, like natural and rural spaces. Given the gravity of deterioration and the impending threats, the Plan cannot avoid seeking to 'salvage the salvageable': to put impassable limits on the dispersion of settlements and infrastructure in rural space, consumption of agricultural soils, attack on the coastal strip and so on. But the plan cannot complete its missions in the protection of the individual resources, because the target is not them but the territory, where conflicts, sufferings and local expectations and designs take place.

That is the task of the 'structural provisions' of the Plan. They are based on holistic interpretations and interdisciplinary acknowledgments, to highlight the key factors of the territorial structuring processes, the long-lasting

elements and relations that can be considered as 'invariants' for any transformation process. It implies a critical interpretation, a 'new idea' of the Neapolitan territory, based on nature and history and, at the same time, opening new visions on the future.

So, the structural interpretation is well distinct from the strategic guidelines, with which the plan addresses a vast audience of the parties and stakeholders involved in the transformation processes, inviting them to share ideas and proposals for plans of action, goals and motivations for interinstitutional cooperative planning and participatory processes.

Conservative requests and innovative visions can be better compared in each of the landscape areas, or 'landscape units', identified on the basis of historical and natural characters, determining the 'landscape quality goals' to be achieved in each of them.

Recognition of local diversity may not be separated from a consideration of their connections, for at least two reasons: the fact that urbanization and generally the enlargement of the 'urban footprint' have resulted in a devastating process of ecological and landscape fragmentation; and the fact that the reorganization of the metropolitan structure depends on the possibility of repairing the network of mobility, transport and functional interaction. In this perspective, the ecological network takes on much more complex functions than those strictly biological: it tries to answer the demand for landscape enjoyment, aesthetic quality, recreation and cultural enrichment. In this sense, the ecological network fits with the dense interweaving of historical, archaeological and cultural routes and

relations that have shaped the Neapolitan territory over the centuries. The strategies of the plan pursue the achievement of a real 'environmental infrastructure', designed to ensure conditions of development, environmentally and culturally sustainable, for the whole territory.

## The landscape in the plan

*Paolo Castelnovi*

In the plan landscape plays a crucial role: it constitutes the matrix for recognizing the structural aspects of territory, both those affecting it as a whole and those concerning its own, separately considered, parts.

Through a synthetic landscape analysis, it is possible to develop a structural framework which shows the fundamental interrelations between the 'basic elements' of territory and other factors which might present a more-than-local relevance. This structural framework serves as a tool for verifying the potentials, the sustainability and possible negative impacts of the strategic proposals regarding infrastructures and development-sustaining policies.

To this end, long-term factors and relationships have been selected to be protected from use in an unrehearsed fashion, or in a way which might cause irreversible changes, derived from short-sighted actions.

The structural factors have been divided into three categories. The 'primary factors' (the geomorphologic and natural structure of the ecosystem, exceptional and strong in the area of Naples); the 'secondary factors' (the stratified traces of human settlements, from the archaeological sites, of exceptional value, to the urban and rural areas, which still influence the new urban development); the 'tertiary factors' (derived from collective images and perceptions, and which result into the identity landscapes and in their aesthetic evaluation, of great cultural force too). Hence, in order to define the strategies of the plan, and taking these extraordinary resources into account, it has been

fundamental to highlight the criticalities and the territory-deterioration processes which threaten the whole above mentioned three-tiered structural factors sequence. In particular:

- the 'stifling' of the historical structure of the rural territory, threatened and harmed by the chaotic urban development and by the impact of infrastructures;
- the concentration of residential settlements along the coastline, that, apart from being very dangerous from a seismic and volcanic point of view, cuts also the ecological and cultural connections existing between land and sea.

Structural 'long' networks are in the worse condition, the following in particular:

- the ecological connections, due to the strong discontinuities in the vegetation and in the hydrographical net, and because of the blocking of the last corridors which connected naturalistic areas between Naples volcanic districts (Campiflegrei) and the Vesuvius;
- the landscape connections, with relation to the loss of local identity, particularly in the metropolitan suburbs and in the scattered settlements situated along the coastline;
- the functional and infrastructural connections, because of a deficient vehicular and rail system.

The structural complexity of the Naples area is related to the coexistence of very different local contexts. Landscape can be viewed as the identification moment between a given local community and its surrounding territory. Landscape is the active factor of social construction of the strategic project. Starting from this interpretation of landscape, as in the intent of the European landscape convention, at a local scale some areas have been identified, distinguishing two different levels:

- the Local settlement areas

(Lsas), based on homogeneous internal landscape characteristics.

The Lsas usually encompass three municipalities: this is the fine thread for distinguishing specific aspects in a vertical, top-bottom approach, in order to implement, literally, 'on the ground' the wide-area policies, both at a regional and at a national level. Hence, 22 Lsas have been set, some of them with broad overlap areas.

Furthermore, two Integrated settlement areas (Isas) (the Costal one and the Vesuvius one) encompass some of these Lsas, as far as issues involving strategic and unifying choices are concerned;

- the Identity landscape areas (Ilas, totalling 83, compared to 91 municipalities), subdivisions of Lsas, according to the dimension of subjective self-acknowledgement by local communities. In this context the shibboleth is the bell-tower, the city square of the medieval Good government archetype. The Ilas in the Plan project are the more basic tools for territory enhancing and regulating policies, especially where such policies require participation of communities and of local authorities.

At the second level, the specific factors of the Plan have been defined in a more detailed way. Areas or landscape elements to be safeguarded pursuant to the provisions of the Code have been selected. Moreover, at this level it has been possible to recognize the existing connections between landscape elements which, taken as a whole, constitute the ever changing and evolving local identity heritage, which should be taken into account when the drafting of local-level urban instruments is concerned.

## Naples Ptcp directions

*Alessandro Dal Piaz*

Provincial councils in Italy practice diffusely territorial planning only after the 142/90 law, with different experimental forms by different regional laws and technical, cultural and political local trends. In Campania the first complete regional law on planning is in force only from 2004 (a delay of 30 years) and contains several ambiguities. For example, confusion of structural and strategic contents expose to risk of feeble severity in values recognition to protect. Another equivocalness concerns town planning (Puc): in item 3, Puc consists of long time and short time distinct directions, in item 18 Puc gets indistinct directions; thus, to carry out Puc shell be very difficult, also because of urbanistic bonds forfeiture after 5 years. In 2007, at last, regional government issued law's fulfilment regulations which doesn't remove doubts, but impose several strange indicators which are totally inconsistent with urban and territorial planning. Naples Ptcp was drawn up in spite of these difficulties. It propose three basic choices: environment protection and rehabilitation as development policy; urban polycentric reorganization as settlement rehabilitation issue; intermodal and sustainable mobility as environmental and efficient policy. Naples Ptcp intends also to give directions (removing 16/04 regional law basic ambiguities) to town planning, which can specify and interpret provincial strategic choices. Naples Ptcp really distinguishes environment and landscape active protection and risk prevention and mitigation rules, which are compulsive, from strategic choices: Naples Ptcp directions are regulations, directly and

universally compulsive, or instructions, which bind town planning, or trends, which town plans may specify and complete some freely. So municipal councils may program in large autonomy, because Naples Ptcp conceives territorial governance as transcalar policy by subsidiarity principle.

Naples Ptcp confirms that Puc must distinguish long time and short time directions. Among former, fundamentally, Puc must distinguish preservation zones and transformable areas and give directions to ancient settlements, agrarian landscape and cultural, archaeological and ethnographic heritage sustainable exploitation. Among short time directions, which must be revised each 5 years, Puc must dimension ten-year settlement needs and regulate equalization procedures by compulsory immovable owners unions. Naples Ptcp directions decide too that: three-year programs select areas to urbanize and build; always owners and building contractors must pay primary urbanization and give public equipments grounds free; public equipments standard increases with reference to city users or tourists and in equalization procedures it increase of 10 ground m2 each 25 m2 of house utilizable surface or each 10 m2 office utilizable surface or each 50 m2 industry covering surface. Naples Ptcp in conclusion tries to be a turning-point of territorial management in a very problematic metropolitan area.

## Settlements system

*Immacolata Apreda*

Urban polycentric reorganization's aim involves attention to settlement forms and environmental sustainability. Therefore, settlement morphologic and functional characters were preliminarily studied; and then urban and metropolitan central roles balanced evaluation and increase aims were composed with those of urbanized areas landscape and ecological restoration and morphologic reorganization. Settlement types studying allowed to distinguish settlement forms, roles and relations inside large urbanized areas which take up most of Provincia's territory. Recent incomplete and partially settled buildings were particularly analysed, because most heavy problems insist on them, which have therefore reorganization and development policies priority. Urbanized areas forms, roles and ranks analysis led to articulate urban and environmental reorganization needs and to some building increase or urban performance improvement chances. So trends to municipal plans direct them toward integrated aims of functional and landscape settlement restoration and central roles evaluation and increase. Naples Ptcp moreover distinguish, inside from 1936 urbanized areas, specialized buildings and three others settlement types: 'prevalently consolidated urban settlements', 'urban consolidation and environmental restoration areas', 'urban increase and environmental restoration areas'. Naples Ptcp leads present settlement system toward polycentric urban nets and better morphologic, landscape and

environmental characters; its directions therefore express articulate trends, which concern: urban and metropolitan central roles promotion and its composition with morphologic and environmental reorganization actions; historical heritage preservation, restoration and sustainable exploitation; building expansion control; morphologic and functional reorganization of unsettled recent buildings; environmental quantitative and qualitative indicators.

## The assessment of territorial contexts and the landscape analysis

*Stefania Caiazzo*

In keeping with the principles of the European convention and the Code of the cultural and landscape heritage, the meaning of landscape as a complex heritage of identity resources, as adopted by the Province territorial plan (Ptcp) of Naples, has inevitably presented the idea that landscape adopts a central reference and cross-connection role between the various research contributions and different disciplinary perspectives.

The concept of landscape, both as a structured and complex result of all the interactions between installed communities, and the places and activities that occurred during the historical process of the area's construction, and also an identity heritage of populations that have a clear perception of it, has stimulated an innovative setting for research, in terms of both content and interdisciplinary connections.

Research on landscape has therefore assumed a key role as a tool for exploration and selection: since the goal is not to recognise the integrity and relevance level of the landscape values in order to define a hierarchy of restrictions, but rather to fully understand the different landscape settings, recognise their specific characters, resources, criticality, and potential, even as they are perceived and considered by installed communities; the research will act as an instrument of recognition and selection of landscape values to guide the implementation of the most appropriate strategies for 'landscape preservation, management and/or planning'.

Faced with a complex and strongly differentiated

territory in terms of landscape quality, such as the province of Naples in the Ptcp, the research is geared towards in-depth understanding of the different spatial dynamics and observing and interpreting the different way in which, throughout the historical land planning process, local resources have been variously intertwined and combined to configure areas, at different scales, with very different identity values.

In this sense, what has taken on particular importance is the structural interpretation of the area, through which on the basis of interdisciplinary assessments have been selected the characteristics with particular stability and tenure, for which fundamental roles in environmental processes and unifying concepts from a landscape point of view have been recognised. Within the structural framework, characterising factors are also recognised as further elements and relations that, while not relevant on a provincial level, are critical to fully understanding the complexity and historical natural heritage and landscape of the Neapolitan province.

The recognition of characterising and structural factors has also been essential for outlining the local settlement environments (Ail) which, in accordance with the Regional articulation of landscapes scheme provided by the Regional spatial plan, proposes the division of the province into 22 partitions, in many cases partially overlapping, and in others established by contexts involving other Campania provinces. Each local settlement environment is in turn formed by certain identity landscape areas that, in line with the European convention, correspond to the portion of land that the

settled community will acknowledge.



## Agricultural landscapes in the Naples province: a heritage to be protected

Massimo Fagnano

The Naples province has the highest population density in Europe (>2.600 inhabitant km<sup>2</sup>), therefore the equilibrium between urbanized areas and rural and natural ones is particularly fragile.

### *Valuable agricultural areas.*

Agriculture in the Naples province has very ancient roots: a lot of cultivars were here selected (67 for apricot, 21 for peach, 14 for cherry, 11 for plums, 6 for lemon, 5 for chestnuts, 3 for apples, 2 for hazelnuts and 1 for walnuts).

### *Typical agricultural landscapes.*

- Centuriazione: still there are the traces of Roman filed design (centuriazione), bordered by tree rows;
- vite maritata: grape 'married' to poplar was so typical that a special symbol was used in the Igm maps;
- citrus in Sorrento coast: a landscape reported in the European landscape convention;
- terraces: ancient and efficient system to reduce soil erosion, used for grape, orchards, olive;
- intercropping: in Naples province it is spread the use of 3 crops in one year (tomato in summer, cauliflower in winter and early potato in spring) or of 3 crops in the same field: high harvest (walnuts or cherry, together with short trees (orange or grape) and vegetables: cabbages or lettuces);
- orchards: peaches and apples in Phlegrean area (named mala orcula by the roman hystorian Plinio senior); apricots in the Vesuvius area (since from 4th century); hazelnuts in the Nola country (since from 3rd century).

*Agro-ecosystems biodiversity.* In the figure the levels of biodiversity in the Naples province are reported: very low:

greenhouses; low: vegetable, maize; medium: wheat, orchards, high: olive, citrus, grape, complex cropping systems; very high: chestnut tree, pastures, natural systems. The residual agricultural and natural areas of Naples province must be protected because they are functional to urbanization but also a testimony of the very precious heritage that we received by the population that in the last centuries made agricultural landscapes that are unique worldwide.

## A soil science to urban landscape planning: the case study of Naples and its surroundings

Antonio Carbone, Michela Iamarino, Fabio Terribile

The recent trends in territorial planning for safeguarding, management and arrangement of both landscape<sup>1</sup> and environment, emphasise that the basis of any planning choice is the analysis of all environmental features, but most importantly their interrelationships and the designation of the landscape value to be preserved, restored and/or re-evaluated. These relationships must also refer to the necessary balance between the physical-biological and the historical, cultural, aesthetical values of the landscape.

This approach must then give special emphasis to the environmental 'soil' component, considered both as 'natural parameter structuring the landscape' and 'the physical media' where the interrelationships and the exchanges between several environmental components and human activities take place<sup>2</sup>. Soil derived maps must consider soil both as an 'environmental good' to be preserved because of its intrinsic value and also as 'environmental component' to be included in the strategic evaluation assessment (Sea). This rationale obliges the soil scientist indeed to develop new multitasking soil information also addressed to the other disciplines experts.

Following such criterium the pedological investigation conducted for Ptcp of Naples was effected not only as 'a research of pedological singularities' (widely spread in the Neapolitan territory) but, above all, recognizing in the soil a 'constitutional component in the provincial

territory' and, as such, a structural factor.

This investigation enabled the production of few types of spatial information embodying the needed multitasking approach for analysing the interaction between human activities and natural processes: a map of the potential soil fertility in which it has been estimated some of the main factors affecting soil ability to produce biomass (i.e. organic matter, soil depth, andic properties); a map of the risk assessment concerning soil degradation combining two types of information: the potential vulnerability of soils to degradation processes (chemical, physical and biological); the estimation of the 'soil' as natural good evaluating the productivity function of soils, the ability of soils in regulating natural cycles and finally, the soil function as natural resource; a map of the fragmentation of the rural and open field territory representing a first robust attempt to evaluate, using a rigorous quantitative approach, the massive (and unsustainable) anthropic pressure typical of the landscape of Naples. These factors, along with the other natural and anthropic territory features, define a more general scenery of the 'environmental and landscaping terrain quality' of Naples's territory; starting from it, it is necessary to detect the quality objects to be reached with the commitment and the responsibility of the entire community.

### Notes

1. In the meaning given to the term from the European convention of landscape (Cep 20/10/2000).

2. Strategic environmental assessment, directive 2001/42/Ce, European parliament and council (27/6/01).

## Cultural heritage, landscape and metropolitan system: is planning possible?

Maria Mautone,  
Maria Ronza

When applied to metropolitan planning, landscape represents a cultural turning point in territorial homologation; the scarce recognition given to environmental and cultural matrices has slowly steered strategic planning decisions towards a situation in which landscape dimensions and significance have fallen into obscurity. The connection between a geographic vision of the landscape and the stratigraphic method of matrix archaeology ensures enhanced objectivity in analyzing territorial armature which, in turn, triggers planning processes even in situations where an area's patrimonial significance appears to be compromised and secreted. The localisation of cultural heritage sites, descriptions of their significance and interpreting the relations and vocation of resources: these are the inevitable phases of geographic analysis which view planning as a concrete perspective for the requalification of urban metropolitan systems. In order to ensure that landscape and patrimony be considered as reference parameters in the Ptcp planning process, the metropolitan system was divided upon the basis of prevailing, well-established territorial factors utilising a methodology which distinguishes between the various areas of geographical sciences. This process consequently led to the identification of geological, hydrographical, vegetation, settlement, infrastructural, cultivation and industrial 'territorial matrices' which, during the initial phase of the study, proved to be suitable in synthesizing the complex

dynamics of morphogenesis in the Naples area. Subsequently, this process allowed for systematization of the georeferenced data. The natural and cultural elements, compartmentalized in the matrices, previously identified and sectioned according to temporal intervals, provided the basis for defining landscape spheres and, in turn, made it possible to identify landscape units, or rather, the various contexts of limited territorial extensions which, like tesserae of a mosaic, cover all aspects and determine overall characterisation yet differentiate owing to the limited number of variables. Thanks to the range of digitized components, the description level was enhanced by highly detailed cartographic elaborations so that allocation could be evaluated in terms of the progress of the identifying framework and the degree of structuring and persistence in the Naples metropolitan area. Based upon these theoretical-methodological assumptions, it is essential that the Naples Ptcp have access to maps of the historical structuring of the territory. Processed in Gis format, the cartographic and aerophotogrammetric sources allow researchers to trace territorial imprinting, thereby eliminating any superstructures attributable initially to agglomeration processes and subsequently to deconcentration processes. This research leads to the gathering of numeric cartography and the digitalization of existing cartography into a relational-type, vectorial geodatabase: the use of data which is diversified in terms of objectives, level of detail and reference periods would thereby generate various levels of information. Promoted within the Ict, the innovation of software for the

geographic investigation of sites has projected the concepts of cultural heritage and landscape into the planning processes for territorial systems such as that of the Naples area where the quality of life substantiates the collective demand for territorial management.

## Sustainable mobility for Naples' metropolitan area

Vincenzo Russo

The current town-planning order of Naples' province, mainly focusing on the centrality of capital and a few other municipalities, involves that thousands of people must travel dozens of kilometres to reach their work or study place or simply to make purchases. In this scenario, not sustainable for environmental costs and economic consequences, could have two strategies for long-term differences between them. The first with the consolidation of an infrastructural system capable of connecting to the best places very distant from each other, thus emphasizing the specialization of some areas, residential (Giugliano, Quarto, etc.) or with a high concentration of services and functions (centre of Naples). This choice would lead to a further increase in displacement and an anchor stronger order influenced by Naples. Alternative to this hypothesis is instead the construction of a strategy in which transport systems endorsed planning assumptions for the reduction of trips through the containment of the scattering of residences, the strengthening of local systems, etc. Compared with two possible options, the great commitment of the Campania Region to enhance and streamline the rail network will be instrumental in redesigning the metropolitan area polycentric if, in parallel, will also consolidate the marginal urban systems served by an efficient network of local integrated transport, engaged on metro regional railway capable, thus, to sustain the attractive power of the country capital. The new centralities' system proposed by the Ptcp of

Naples goes to this direction because it aims to achieve a proper balance and smooth integration between different territorial functions, allowing to detect a mobility pattern that can affect the demand for transport instead of to it, proposals that hangs in the regional design, configured as 'segments' of crocheted principal, and to ensure effective and balanced connection between networks, optimizing, at the local scale, the benefits of the regional network. This design is pursued with the proposal of intermodal nodes, exchange parking, the strengthening of some railway routes, reuse of railway with tram solutions, new tram systems, an extensive cycle tracks net and connection hectometres systems (inland sea-coastal town). This is implemented through the circumflegrea, the rail lines Quarto-Villa Literno and Torre Annunciata-Cancello, the new north tram system of Naples, lines of the existing rail network or project, for their off centre, may contribute to activation of new reporting systems or strengthening some marginal lines today. With the aim of making concrete strategy of the plan, the proposals have been made to respond with cost and time 'reasonable and sustainable' to the mobility needs of a large number of users, leaving out solutions too costly or time of execution very long.

## Statistical analysis in support of territorial planning

Angela Maria Digrandi

The Ptcp of the Province of Naples is a plan based on official data; for this reason, it has more opportunity to open a real debate in consultation rooms and adapt itself to the changing regulatory framework. This is especially true for the Province of Naples which is characterized by a peculiar complexity that has made the challenge of building effective statistical indicators more difficult but at the same time more attractive.

In summary, three major groups of indicators and analysis on available statistics can be configured:

- the economic data were used for the detection of the Sts (territorial systems development) and subsequent test of consistency of them with the aspects of the landscape. Particular attention was paid to data on the movement of commuters to measure the ability of some municipalities to attract workforce and create strong interrelationships with neighboring territories;
- the structural data, both for people and businesses, were used for the analysis of the transport networks and for settlements planning in urban areas by intensifying the redistribution of urban functions in a general objective of polycentrism;
- data about quality of buildings and their use, overlapped with socioeconomic data of the population, are used for the detection of social homogeneous areas with the highlight of the discomfort's areas which are particularly relevant in operating policies of development and improvement of the overall security of citizens and businesses.

The use of official statistics

is also a tool of implementing the strategic environmental assessment process assumed as a transparency and accountability recruitment in the comparison between measures of state, pressure and result. The use of multidimensional indicators, such as operative synthesis for strategic choices, allows to compare the various solutions. The use of indicators by statistical and geographical analysis, finalized to the identification of homogeneous areas of planning, has made possible a better characterization of the territory and has been an element of counterfactual test of hypotheses advanced by sectoral specialists. These tools enable the identification of the presence of latent variables (often complex and with intangible characteristics), influencing visible events for which it is easier to measure the quantitative characteristics. Therefore the social disadvantage can be measured by a composite indicator devised from a set of indicators measuring the economic conditions of families, the strength of education and culture, the dissemination of services and their accessibility, the structural characteristics of economic reference system, and the proximity of the workplace.

In this way it is possible to create areas of weakness with specific characteristics which include: buildings in poor conditions with low graduated population; women who apparently choose to be engaged in exclusive role of housewife; inadequate frequency of preschool; excessive mobility for workers outside the town of residence; the disorderly admixture of places to live and to work.



**Gis for spatial  
co-ordination planning**  
*Mariarosaria Albano, Clea  
Martone, Michele Russo,  
Valeria Vanella*

According to new Regional planning law n. 16/04, Province of Naples has drawn up the spatial plan as a tool for programming and planning future activities for the governance of the territory.

The Province with this plan aims to reach its main goal: environmental sustainability, right and proper natural resources utilization, historical and cultural heritage preservation and development.

The planning team has made up a data base for the knowledge of the territory using geographic data from provincial Sit and the skills proper of Gis (geographic information system).

Different kind of data have been converted into vector data (shape file) using as reference the cartography in scale 1:5.000 elaborated by the Province, updated to 2004: such scale allowed to reach high definition and elaboration level of data originated from several planning and managing territorial sectors.

In co-operation with authorities for territorial planning and provincial Sit department, the planning staff got and reedited all data, both in digital and paper format initially.

The staff also created some kind of information by themselves that were not available at moment and homogenized the whole amount of dataset.

Geographic information taken on have been tested out, during the analysis step, through geometric correction of typical errors such as open polygons, polygon overlay or not contiguous features, duplicate points and so on. Automatic correction has ever been followed by manual correction.

The following step concerns

the planning and it is based on this framework taking into account strategies and objectives of the plan and is completely processed in Gis: the activity consists in specifying different classes of areas each one corresponding to specific regulation; moreover a reference system to connect analysis data with planning has been processed.

Tools and operations typical of Gis have been used to facilitate the comparability and feedback process of planning taking into account in the meantime capabilities and risks of such a complex territory as the Province of Naples.

Ptcp, at publication and take in observation step at moment, will be a web-gis system, modern tool for the governance of the territory: the local planning authorities will have easy and fast access to a wide number of resources of geographic data useful for their activities, using the official portal of the province ([www.provincia.napoli.it](http://www.provincia.napoli.it)) Data will also be available, at different accessibility level, for all the people interested in the planning process.

## Knowledge and action in the 'structural' interpretation and representation of territory

Enrico Gualini

From a planning theory perspective, the new Territorial Plan of the Province of Naples offers material for reflection not only in virtue of its significant substantive choices, but also of an epistemological subtext focussed on the knowledge-action nexus in planning. Along this reflection, some key issues of contemporary planning theory might arise: the role of categories of the interpretation of territory as principles of structuration of relevant knowledge; the link between cognitive and normative functions these categories perform in defining 'structural' determinant of territory; the link established between these functions in formulating strategies and action orientations; and the question of how this can frame institutional action rationales in a subsidiarity-based and multilevel environment. Moving from the competencies defined by regional Law 16/04, the provincial plan identifies one of its key functions in the definition of 'structural dispositions' of the provincial territory. This notion, common to recent Italian disciplinary debate and practice, is seen here as a combination of two distinct cognitive operations: as 'structural interpretation', intended as the identification of territorial 'invariants' which define the conditions for transformations, and as 'strategic framing', intended as the formulation of visions and ideas of action and transformation. Accordingly, it is recognized that the 'structural dimension' bears more than a mere function of empirical recognition, but also a normative function. As it is said, the structural

interpretation of provincial territory, by virtue of this double mission, which is both cognitive and strategic, becomes capable of bringing forward "a new idea of the territory amenable of establishing the 'firm points' for any discourse on transformation and of nurturing at the same time new visions of the future" (Ptcp della Provincia di Napoli, Relazione, rev. 01/9/2008, Introduzione, p. 5).

In this respect, the formal distinction of the 'structural' and of the 'strategic' function in the elaboration of the plan, as underlined in the plan, may be justifiable in view of differences in formal implications and of the range of actors to be respectively involved. While they formally seen as 'two distinct and complementary moments' (p. 6) in territorial governance, however, it is also significant to remark that structural framing and strategic framing are constitutively connected in cognitive terms.

This may highlight the importance of categories for the interpretation of territory, like the understanding of 'landscape' advanced in the plan, but also the struggle for identifying appropriate definitions of territorial articulations, like specific socio-economic contexts, in the Italian 'territorialist' tradition of geographical studies and socio-economic territorial analysis. It is apparent that such categories bear the meaning of epistemic constructs in which interpretive and strategic frames are co-constituted. Similarly, it would offer significant material for reflection to focus on the significance representations of territory may bear in a context of multilevel relationships in which relationships among levels of territorial planning and governance are increasingly less hierarchical and nested and increasingly defined by subsidiarity-based

interconnectedness, thus also posing the challenge of the adoption of frames of reference that are capable of conveying meaning and to inform action across scales. In such a perspective, categories of territorial interpretation constitute much more than the simply the 'knowledge-base' for evidence-based policies: they become a stake in the production of planning choices.

## Four countries, six experiences, for a single issue: limiting urbanisation

Paolo Pileri

The best known national research on land consumption in Italy is *It.Urb '80*, which goes back nearly 30 years. Despite this, some of its conclusions are still applicable today: the consumption is more accentuated where the non-residential functions are greater and where the use of urbanised areas is more scarce (which is fairly frequent). But, that experience of research is also remembered for the many difficulties in collating and comparing the data. After all, it was a research conducted without geographic IT systems and with few means of computing. Unfortunately, after almost 30 years, we are frankly forced to say that what we are mainly left with from that research is the intuition that land consumption is a central issue for planning, but not the progressive transfer of that intuition into the subsequent and successive strategies. And after 30 years, the struggle to find and process data on consumption is almost the same. Could it perhaps be that limiting urbanisation is no longer a problem? Land consumption is no longer relevant? What is the attitude of other European countries to land consumption? The recent report, urban sprawl clarifies that the problem exists, is ignored and requires urgent measures for dealing with it (EEA, 2006a). With the aim of understanding whether, how and for how long other countries have been facing these issues, here are offered seven papers on the policies for limiting urbanisation. The two concepts common

to all the contributions, as in the EEA report of 2006 are: 1) considering land consumption as the transformation of a non-urbanised land cover into an urban one and 2) land is a finite, threatened resource, precious to the environment and to the landscape.

### *Knowledge about land consumption has disintegrated and needs rebuilding*

The availability of data on land consumption is probably the most incontrovertible starting points emerging from the papers. But in Italy there is no national figures on land consumption, because there is no national database on land usage despite the high number of territorial IT systems. The only data available are those from the project Corine Land Cover (CLC), 1990 and 2000, on the ISPRA site ([www.apat.gov.it](http://www.apat.gov.it)). According to the CLC data (see table on p. 82), between 1990 and 2000 in Italy some 83,630 hectares were urbanised (about 23 hectares per day) and 152,612 hectares of agricultural land was transformed (about 42 hectares per day). But it's quite underestimated. From research published recently (Pileri 2008), between 1999 and 2004 in Lombardy, 24,742 hectares of non-urban areas were urbanised (amounting to 13.5 hectares a day). Compared to Germany which consumes 4.7 m<sup>2</sup>/inhabitant per year (from Siedentop data), Lombardy consumes at a faster rate: 5.45 m<sup>2</sup>/inhabitant per year. Even ISTAT confirmed that almost 2 millions of hectares of agriculture surfaces disappeared from 1990 to 2000 (ISTAT 2007). CLC figure has some limitations: the spatial resolution is based on a minimum unit of 25 hectares, surveying changes in 5 hectares over periods of time (EEA

2006b). It is necessary to go beyond Corine, towards a database of higher resolution. In any case, by now Corine is a database that is outdated for supporting today's planning decisions.

The lack of a unified and national geographic database is a serious failing for the county's planning system, a surprising gap that must be filled as early as possible by being equipped to provide municipalities with the tools for their sustainable planning. Guidelines should be provided together with national and inter-regional coordination to avoid confusion and patchy application (Hart and van der Krabber).

Another risk, connected to the lack of databases, is that the intention of putting policies in place for restricting land consumption is hampered. This would be a serious mistake under these circumstances in which municipalities are reworking their plans. Also the Strategic environmental assessment (EC Directive 2001/42, implemented in Italy by Legislative decree no. 152 of 3 april 2006) loses effective capacity in the decision-making and monitoring processes.

*The subject of land consumption is firmly on the agendas of public policies* Restricting urban sprawl has been very firmly on the agendas of public policies in Germany, UK, Switzerland and the Netherlands for a long time, and not just as 'grand ideas' but actually being put into practice. And this practice has now accrued into experience. The intended slowing down of urbanisation has not always been attained, but certainly these days in those countries a period of reviewing of the initial policies has begun, while here in Italy the problem remains little more than stated.

In Italy, containing urban

sprawl is, perhaps, perceived more as a fringe matter, for specialists, and not seen as central and of interest to the general population, of interest also for public policies and for citizens. Probably the chain of social and environmental effects following on from land consumption, as demonstrated by the Plurel research, is not grasped. The debate on land consumption in this country is in danger, unfortunately, of merely becoming ideological. Those who broach the subject may even find themselves accused of 'boycotting' economic development and certainly not be seen as someone who is trying apply a new rationale to such land usage, offering other keys for interpretation and new ways of development (Latouche 2007). Some passages in the accounts by Scholl, Schekte and Nillson show, on the other hand, that an alternative way of thinking is possible and that the affirmation "economic development = building development" can be partially denied. This equation should be corrected, and the corrections should be made known. Unchecked urbanisation, even more so if done in a haphazard way, brings with it costs and debts to the municipality, as well as having effects and impacts on the environment and on health, as has been shown by research even in Italy (Camagni 2002).

### *The necessary combining of the environment and land consumption issue*

In these months of international crisis, Jeremy Rifkin's revolutionary continual proposal is striking. In short, for Rifkin, the solution to the world's crisis cannot just come from economics and finance, but the points of attack on the problem must change: the economic crisis is closely linked to that of the energy crisis and global warming.

Innovative solutions will arrive by broadening the outlook to other disciplines and giving preference to a cooperative approach. The paradigm could also apply to land consumption. As emerges in all the papers, land consumption is included in the environmental issue and is not a subject exclusively relating to planning. Perhaps it is wrong to expect that just from urban planners will arrive the solutions to the problem. Land use and economic interests often short circuit each other. Reaffirming that the question of land use also involves the environment issue, with the respective objectives of strategic interest (biodiversity, capturing CO<sub>2</sub>, etc.), could open the way to new strategies, increase social awareness of the issue and perhaps rebalance the disparity of power between opponents. The quiet voices of biodiversity must be able to stand up to comparison with the clamour of property development gains, both of which have an interest in the land. Other countries are offering us the strategic key to the environmental interest to overcome urban sprawl, closing circuits that had remained open for too long. Consuming land means consuming nature. Germany's position is emblematic: ten years ago it amended its building code to reinforce the role of nature in planning: "Give back to nature what is taken from it". This has led to the introducing of ecological compensation, even though, as Siedentop says, this on its own is not sufficient and has not always worked as well as expected. But also these tools are needed for breaking that urban planning routine which often heralds land consumption. Also in the Netherlands, the law on nature protection acts as a brake on urban sprawl.

Adjustments and innovations are needed in our legal instruments. The lesson coming to us is clear: the regulations for protecting nature should have a priority influence and directly make urban expansions responsible.

#### *The return of the 'central' decision maker?*

In the 4 countries considered, the decision on the use of the land has been progressively left to local governments. Can a local agency acts in relation to challenges and issues that only partly concern it? Germany, the Netherlands, Switzerland and the UK maintain a balance between responsibility and freedom of local initiative and the need for regulating at a centralised level. At least three questions arise:

- Land consumption is an issue of national interest given the environmental and social consequences it implies;
- Local governments cannot deal alone with the challenge of limiting urbanisation: they are very dependent on the revenues from urbanisation and they cannot be expected to conceive such strong strategies;
- Progressive local autonomy also in tax and budget matters has often produced an 'estate agency' effect and the municipalities have specialised in attracting new businesses and new inhabitants, meaning new revenues. This deal ought to be modified from national policies.

The Netherlands, Germany, Switzerland and the UK, in different ways, have partially returned the matter of urban limitation to central government: "The local governments can, at most, be given responsibility for implementing strategies for countering urban sprawl, but not for conceiving them" (E. van der Krabben).

#### *Limits to not overstep?*

Some countries have chosen to set a nationwide quantity limit for land consumption (e.g. the policy of 30 hectares/day in Germany, or minimum densities in England), while realising that this on its own is not enough. Others have tried imposing geographic limits on urban expansion and not quantity limits (the Netherlands), while others again have set strict non-building conditions (Germany, for the agricultural areas), and others have placed limits for the use of derelict areas (England). Without doubt, the question of limits should be reviewed and updated, but should not be excluded out of hand, and learning processes among the various carriers of interest are needed. The direction of imposing limits is difficult, but still feasible and often useful for giving a first form of guidance to local governments.

#### *Greenfield versus brownfield. Caring for open spaces and favouring used areas*

In all the cases proposed here, the re-usage of derelict and underused urban areas is a must. This has not been sufficient for avoiding the transformation of greenfields. The devices for reducing the margin of convenience for property developers is still not efficient, and they prefer to transform free areas rather than previously used areas. Germany, the Netherlands, Switzerland and the UK show us how it is necessary to act on two fronts of the problem: each policy for redeveloping previously used areas becomes weak if, at the same time, the possibilities to urbanise greenfields remain active and advantageous.



## Towards sustainable land use in Germany: reviewing the German experience with anti-sprawl policies and tools

Stefan Siedentop

During the 1990's, the continuous land consumption for urban purposes received growing attention in the German urban and environmental planning debate. In 2002, the federal government adopted its first sustainability strategy titled 'Perspectives for Germany' (Bundesregierung 2002). One of the strategy's goals is to reduce the rate of conversion of non-urban to urban land uses from 130 hectares in 2000 to 30 hectares per day in 2020. This so called '30-hectares goal'.

In spite of numerous policy initiatives on the federal and state level, land consumption for urban purposes remains high. As in other developed countries, land use change in Germany can be characterized as a transition of a compact urban form to a more and more dispersed urban land use pattern with moderate or even low urban densities (urban sprawl). Researchers claim that this process increases automobile travel rates, and causes efficiency losses of urban services such as public transport or sewer systems (Schiller/Siedentop 2005). Furthermore, urban sprawl is seen as one crucial contributor to landscape.

There is general agreement on the key drivers of further land consumption

- the increase in households accompanied with further land demand for housing;
- preferences of households for sub-urban or rural living environments;
- the growing use of the private car, supported by relatively low transportation costs and public subsidies for the suburban

transportation infrastructure;

- new forms of industrial and service production.

Traditional drivers like population and job growth or motorization are losing their explanatory power. The advanced demographic and economical transition - associated with deindustrialization and population decline - leaves many cities with large amounts of underutilised or vacant industrial and residential land. One could assume that Urban shrinkage should discourage urban growth because fewer residents require fewer housing units, less urbanised land and less infrastructure. However, in Germany three major factors work against this logic:

- the ongoing demographic trend towards smaller households, counterbalancing the negative effect of population decline on housing demand;
- the fiscal competition between communities to attract new inhabitants and companies, fuelled by tax regulations and public subsidies for the provision of newly urbanised land for housing as well as for industrial and commercial land uses;
- 'planning routines' of local land use planners that favour greenfield development over brownfield projects, where brownfield development is perceived as more complicated and riskful, and a strong preference for low density housing especially in suburban and rural regions with low land prices.

Even in regions with a significantly negative population balance, the process of land conversion to urban uses doesn't come to rest (Figure 2; see Siedentop/Fina 2008). There is a broad consensus among political stakeholder that an effective anti-sprawl policy covers three general goals, namely:

- the quantitative reduction of land consumption for

urban purposes;

- the management of land use pattern in order to preserve an infrastructure-efficient urban form and to protect the open countryside from scatter or leapfrog developments;
- the avoidance, mitigation or compensation of ecological damages caused by urbanization.

However, the debate on how to achieve these goals remains controversial. Many experts argue that a more restrictive 'top-down' regulation of local land use policies is needed. Others claim that the constitutionally protected right of municipalities to decide on their own where and to what extent land is to be made available for building has to be acknowledged.

### Germany's 'anti-sprawl armoury'

The national government has very limited power to regulate land use and urban development. Spatial planning itself is exercised by state governments and regional planning authorities (regional planning) as well as by municipalities (local land use planning). Therefore, a considerable variety of planning philosophies and operational performance can be observed among the 16 German states.

From an 'anti-sprawl' perspective, the most important planning policy instruments on the level of states and municipalities are the following (see tab. p. 88):

- Comprehensive development plans on the state and regional level set binding provisions for municipalities and sector planning authorities. The latter refers to the protection of ecologically sensitive areas and the location of new development in central places and near mass transportation. Furthermore, some state and/or regional development plans comprise quantitative caps

as maximum values for land conversion from non-urban to urban uses;

- Comprehensive development plans on the municipality level with integrated landscape plans aim to protect environmentally sensitive areas from urban development;
- The Federal nature protection act spells out the obligation of municipalities and sector planning authorities to avoid, mitigate and compensate ecological damages as a result of building and land use change. Based on the experience that negative effects may still persist after mitigation, the law has adopted a compensation principle, envisaged as counterbalancing the impacts of land use change (to urban uses) on natural assets and landscapes.

### Discussion

Germany has been relatively successful in preserving rural landscapes from uncontrolled building activities. Due to the strict prohibition of building in the open countryside ('Außenbereich'), the problem of scatter developments outside urbanized areas is significantly lower than in many other European countries. A second success story is a comparatively effective protection of environmentally sensitive areas from further urban development. However, it is obvious that instruments of negative planning ('where not to build') are much more effective than 'positive planning' ('where to build', 'how much to build'). The state governments clearly failed in reducing the overall land consumption. Today there is a broad consensus amongst planning experts that the '30-hectares goals' cannot be reached without a massive reform of urban land use practices. Some scholars suggest the implementation of economic instruments in order to implement economic



incentives against further sprawl. Proposals range from land use tax regulations with different rates according to ecological damages (Bizer 2000) to tradable development rights between municipalities with a fixed amount of total development for a state or region (Köck et al., 2008). Other scholars prefer 'soft policies' that attempt social learning of stakeholders without legally binding restrictions (e.g. information strategies, voluntary commitments). Arguments in this direction point to the fact of massive opposition of local policy makers against any form of top-down regulation. Up to now only one point seems to be undisputed - the German debate on effective strategies and instruments towards sustainable land use is an ongoing one.

## Urban containment strategies in the Netherlands

Erwin van der Krabben

From the beginning of the nineteenth century, urban containment has always received a lot of attention in Dutch spatial planning debates. As one of the most densely populated countries worldwide, characterized by periods of a fast growing population and strong economic growth, well-thought strategies are indispensable. Since the built-up area still makes up only around 10% of the total surface, it can be argued that urban containment policies have been rather successful. However, in all parts of the country many examples can be found as well of undesired urban sprawl. The core urban containment issues in the present Dutch planning debate concern the preservation of the Randstad Green Heart, discussions with respect to the implementation of growth boundaries, the balance between greenfield and brownfield development (regarding residential and industrial developments) and problems with respect to landscape cluttering. It is argued that the need to redevelop existing urban areas will define the decisions with respect to urban containment. A strict urban containment strategy, aiming to preserve the 'remaining' open space and even to extend it where possible, must go hand in hand with strategies to facilitate the redevelopment of existing urban areas. Strategies to prevent urban sprawl can only be successful when urban redevelopment is attractive to the property development industry. Since greenfield development is 'by definition' cheaper and easier to implement than brownfield development - property developers (and local governments) tend to

find ways to develop at the fringes of existing urban areas. To increase the attractiveness of brownfield redevelopment, spatial planning must create the right conditions. Those conditions include the introduction of planning tools to deal with fragmented ownership situations and financial tools that are necessary to improve the profitability of brownfield redevelopment.

### General urban containment principles

The Dictionary of Geography defines 'urban containment' as 'the policy of limiting sprawl by restricting out-of-town development' (Mayhew 1997). The strategies for containment of sprawl are various in their details, but similar in their essence (Millward 2006). Figure on this page, illustrates a variety of strategic options for urban containment, ranging from most restrictive (A) to least (E). Options A and B concern strong bounding strategies. In variant A, only the central city is allowed to expand; in variant B satellite towns may also develop. In both cases, there is strict development control outside the envelopes, of the greenbelt type (Millward 2006: p. 474). Options C and D show, respectively, moderate and weak bounding strategies. The size of the urban envelope is increased, while the development boundary is less strict. In option D, most of the countryside is available for large-lot developments, with only a few key areas (e.g. regional parks) preserved from development (Millward 2006: p. 475). Finally, option E is the do-nothing option: there is no development boundary and urban containment is absent. In principle, three different strategies with respect to urban containment can be distinguished: the implementation of urban

growth boundaries, the implementation of urban service areas and zoning regulations

### Urban containment principles in the Netherlands

The urban containment principles can not easily be positioned in the overview of strategic options for urban containment (this page), because of the dynamic character of the Dutch planning regime in the past 60 years (after WWII). In the 1950s, urban containment policies were directed to the implementation of green belts for the large Randstad cities (Type A strategy): it was decided that 'the diameter of cities must not exceed 8 km [...]. If existing cities approached this size then new towns would have to be built' (Zonneveld 2007, p. 662). Moreover the Randstad Green Heart concept was introduced. Instead of a green belt surrounding the city, here it was decided to preserve a large open area in between the Randstad cities (Amsterdam, Utrecht, Rotterdam and The Hague) Urban containment strategies in the 1970s are an example of Type B (strong bounding, city with satellites): 'At the start of the 1970s the Dutch government finally decided to establish new towns (...). This became officially known as concentrated deconcentration with the emphasis on concentration (ibid: p. 665). In the 1980s national urban containment policy was again renewed and can now be characterized as a Type C strategy (moderate bounding). Then, urban containment policy in the 1990s returned again to the Type A strategy (strong bounding, compact city). Additionally, large areas were designated, mainly on the edge of existing urban areas for residential developments (the so-called Vinex locations). Since the

1990s, the larger part of all residential development has taken place on these locations.

Finally, in the first decade of the present century, national urban containment policy has followed a rather confusing path. First, the national government decided to implement very strict urban growth boundaries, surrounding all cities (MinVrom 2001). However, after the Dutch Cabinet at that time suddenly resigned in 2002, the new Cabinet soon eased those restrictions (MinVrom 2004). The present government structure is characterized by a strong decentralisation tendency. The national government decided to leave it to the twelve provinces to implement regional urban containment strategies. The result is confusing for many. Very recently, after the installment of again a new Cabinet with a different political color in 2007, it seems that the national government aims somehow to take control again of urban containment policy, by introducing new initiatives to prevent urban sprawl. Although arbitrarily, it seems that at present the main topics on the national political urban containment agenda concern: (1) the preservation of the Randstad Green Heart; (2) problems with landscape cluttering along motorways, mainly due to the strong growth of greenfield industrial estate developments; and (3) the aim to shift spatial development from greenfield to brownfield (at least 40% of all new developments should take place in the existing urban area). In the next sections, these issues will be discussed in more detail.

### Urban sprawl in the Netherlands: facts and figures

The effects of the constant

shifts in national urban containment strategies are clearly visible in the patterns of urban sprawl in the Netherlands: current urban sprawl is in fact the result of a mixture of strict urban growth boundary principles and periods of less-strict policies.

The Netherlands is the most densely populated country in Europe. Together with Belgium is the Netherlands, on top, regarding the space that is in use for residential and economic functions (around 10% of the total surface).

The Netherlands belongs at the same time to the countries with the highest amount of space in use for agriculture (around 65% of the total surface).

The fact that the Netherlands is the most densely populated country of the EU does not necessarily result into densely built areas. International differences with respect to the use of space per inhabitant are mainly the result of differences in planning regimes. The average m<sup>2</sup> of built area in use per inhabitant - is lowest in Spain, Portugal and Greece (100-150 m<sup>2</sup> per inhabitant) and highest in Belgium, Lithuania and Hungary (500-550 m<sup>2</sup> per inhabitant). The built environment in the Netherlands (163 m<sup>2</sup> per inhabitant) is, relatively compressed.

The area in use for industrial and residential functions has increased substantially in this period (respectively 12.9% and 8.0%), compared to the area in use for other functions.

The space in use per inhabitant varies enormously by region (fig. p. 93) in cities like. The Hague, inhabitants have an average of less than 200 m<sup>2</sup> space to their disposal, while in some other, smaller municipalities inhabitant have an average of more than 30,000 m<sup>2</sup> space to their disposal.

The Dutch average in 2000 was 2,100 m<sup>2</sup> per inhabitant; a reduction of 300 m<sup>2</sup> since 1980.

The preservation of the Randstad Holland Green Heart has been one of the most significant topics of urban containment policies. Though building construction in the Green Heart has been restricted since the 1950s, the original Green Heart area has by no means been preserved. Both the boundaries of the Green Heart have been shifted inwards and developments have taken place along the main infrastructure in the Green Heart. Between 1958 (the start from the Green Heart policy) and 2000 the Green Heart total area has been reduced with 25%. The built-up area in the Randstad Green Heart in 2000 was more than four times larger than in 1958. The development of the built-up area was, until the mid-1990s, took place at an even greater pace than in other parts of the country. Open space in the Green Heart is today a relative concept as it is very fragmented, despite continuous attempts to protect the open spaces (fig. p. 92). One of the developments that must be held guilty for this fragmentation process is the development of industrial estates. (fig. p. 92). The increase of industrial estates in the Green Heart between 1996 and 2002 has been substantially lower than in other parts of the Randstad and in the Netherlands as a whole. Finally, figure p. 93 shows the greenfield residential developments (the so-called Vinex locations) between 1995 and 2020 in and close to the Green Heart. Each of the locations in figure p. 93 will, after completion, consist of 5,000 to sometimes even 25,000 new houses (mainly single family). Recently, problems with landscape cluttering along

motorways have started to dominate. The surface that is in use for economic functions has increased in the Netherlands between 1993 and 2000 with 15%, while it has been 40 to 60% along the motorways (fig. on this page). The problems with respect to landscape cluttering are, finally, confirmed by an overview of all development plans, mainly for economic functions. It is expected that the implementation of these development plans will further increase the problems with landscape cluttering, despite recent initiatives to reduce this. Though in the past twenty years total population growth in the Netherlands has been relatively low, urban sprawl has continued to take place. This is mainly due to residential, economic and infrastructure development. The strong demand for new housing on greenfield locations has been particularly fuelled by the continuous reduction of average household size and the Dutch tradition to build mainly single family housing. Strong national economic growth figures, particularly in the 1990s, must be held responsible for the increase of the surface of land that is in use for economic functions. This development has been supported by local government industrial land policies. Local governments in the Netherlands compete each other to attract new companies by incessantly developing new industrial estates. The consequence of this policy is that in many regions industrial land is available in abundance on greenfield locations, resulting in low industrial land prices. In this situation, companies can relatively easily move from existing industrial estates to new industrial estates at the urban fringe. Finally, the strong increase of (car) mobility must also be held responsible for urban sprawl.

### *Conditions for a successful urban containment strategy?*

Moreover in the Netherlands, changes in political color of the national government seem to have played an important role as well, particularly in the last decade. This paper argues that in the next decades a new driving force must be added, namely the need to improve and redevelop existing urban areas. Future building construction will increasingly concern the replacement of existing properties that do not meet anymore with the demands of households and companies. This strategy is, from a spatial planning point of view, clearly the most desirable strategy. However, it is probably also the most difficult way to proceed, mainly because of two reasons: (1) brownfield redevelopment is, from a financial perspective, less attractive to the property development industry than greenfield redevelopment; and (2) brownfield redevelopment is often much more complicated to achieve, because of the fragmented land and property ownership fragmentation.

### *Starting points*

A number of (general) starting points can be defined that are relevant to urban containment strategies:

- 1) Many studies have shown that strict urban growth boundaries lead to increasing land and property prices (see for an overview: Dawkins and Nelson 2002). To prevent unacceptable increases of, for instance, house prices, urban containment strategies must aim to make sufficient amounts of land available within the growth boundaries.
- 2) Strict urban growth boundaries will reduce the possibilities to build on green field locations and, at the same time, will put more pressure on the

(re)development of the existing urban areas (depending on the amount of development land that is still available between the urban fringe and the growth boundary).

3) Urban containment will always involve a certain tension between the collective interest and the interest of individuals. Policy makers should take account of this tension.

4) When urban containment policies allow increased greenfield development, outside the existing urban area, this will probably add to the 'ageing' of property in existing urban areas.

Relatively cheap development opportunities on greenfield locations will attract households and economic activities that used to be located in the existing urban area. Consequently, the demand for the second-handed properties in existing urban areas quite often diminishes.

5) Urban containment strategies by the national, regional or local government is able to define the boundaries to urban development, but do not implement it.

6). Urban containment policy can only be successful when it guarantees the active involvement of the property development industry in the way that fits with the policy objectives.

*Conditions for a successful urban containment strategy*  
Taking the above starting points into consideration, now the conditions for a successful urban containment strategy outlined:

1) National urban containment policy is often strongly influenced by politics. For a successful policy, it is probably more useful to have a more stable, depoliticized strategy that is able to survive changes in political preferences.

2) One way to achieve this

is to involve a certain level of flexibility in urban containment strategies.

Instead of implementing strict urban growth boundaries, alternative strategies can be considered as well. More moderate bounding (Type C, figure p. 90), combined with certain minimum percentages of the area that must be left 'open', may offer for example more flexibility to the property development industry to implement new plans.

3) For a successful urban containment strategy, the right government level must be chosen to define this strategy. Usually, this is a choice between national or provincial/regional government level, depending on, among other things, national planning traditions, the scale on which spatial developments take place and country size. Local governments can be made responsible for the implementation of this strategy, but usually not for defining the strategy (because urban containment usually takes place on a regional level).

4) Urban containment strategies to prevent urban sprawl must go hand-in-hand with strate.

## From an economical use of land to land use management strategies, tasks and challenges in Switzerland

Bernd Scholl

Since the city walls were demolished over 150 years ago, the history of European spatial development has been characterised by the increase in land given over to settlements. It is therefore no surprise that the beginnings of modern spatial planning coincided with the emergence of conflicts and negative consequences of the uncoordinated development of settlement areas and the infrastructure associated with urban expansion. In many countries, including Switzerland, legislation reflects a strong concern for the controlled development of settlement areas. In the past, such regulation was largely limited to the organisation of the increase in settlement areas in the context of conflicts of interest. The usual way of dealing with such spatial planning tasks and conflicts was typically to draw on (more) land resources. This rate of development simply cannot continue, a conclusion also shared by Swiss experts, as no community or polity has unlimited land resources at its disposal. For Switzerland, therefore, restriction of the settlement area is also a strategic aim of the first order. In a small country with very limited land resources, just under 30% of the total land surface area of 41 000 km<sup>2</sup> is suitable for settlement - an economical approach to this non-renewable resource is of central importance. Nevertheless, one square metre per second is claimed for settlement (8.6 hectares per day). This figure corresponds more or less to the current German consumption of 106 hectares per day. Statistics show that in Switzerland in

the mid-nineties approximately 400 m<sup>2</sup> of settlement land were used per person, whereas at the end of the 1980s, the figure stood at just under 380 m<sup>2</sup>. And, as in many other countries, the overall increase in settled areas was no longer directly related to population growth, but mainly driven by higher per capita consumption. The Swiss residential gross floor space of over 50 m<sup>2</sup> per inhabitant tops the European ranking. The issue of restricting settlement areas is therefore not a question of if, but of how, which means that the postulate of an economical approach to land use must be implemented in the form of comprehensive land use management. Of course, this challenging task needs to be evaluated in the light of future requirements in addition to the present strategy for spatial development. In 2006, the Federal office for spatial development commissioned a group of international experts to report on the state of spatial planning and development in Switzerland. The report, published in 2007, states that Switzerland, "after a half-century of growth is facing a change of substantial significance: The population is barely growing, in many places, it is stagnating or declining - and aging intensively as well. The economy is changing and has long been moving from an industrial society to a knowledge and research-based society. Agriculture is also changing. The climate change is producing some significant impacts. Sprawl, along with its consequences, is neither economically nor ecologically sensible and narrows the possibilities for action of coming generations. The uneven spatial distribution resulting from the slight increases, stagnation or decline of the population and the

increasing percentage of elderly people has led to a shift in demand. The settlements are essentially already built. Growth is so insignificant that cities can hardly be changed structurally anymore. Demands on space are changing. Hence, most of the development must be realised through the transformation of existing areas. This will lead to challenging tasks if we want to further develop our cities and regions". It will be important to maintain the manageable size and individual appearance of the agglomerations. Bringing the agglomerations into line through overdevelopment threatens the diversity of a manageable area, which is an important value, and through this an important location advantage of the country would get lost in international competition.

### *Strategic re-development before new development and the Swiss City Network*

In Switzerland, the main spatial strategy is to work towards gaining general acceptance for the precedence of re-development over new development. In combination with the Swiss City Network, considerable reserves for settlement have been made available in regions already well served by a highly efficient public transport system. The linking-up of these areas to the comparatively small and medium-sized towns of Switzerland, creates competitive function areas, which are in turn extremely well connected by frequent, high-capacity public transport services. This double strategy of local-oriented settlement development and integration aims to avoid excessive concentration in a few large centres as well as the depopulation of peripheral regions, which would have significant negative consequences and erode

the federal structure of the state.

In the 1990s, the larger cities (Zurich, Bern, Basel and Geneva, to name a few) have been in the process of successfully implementing the strategy outlined above by using their local spatial reserves. At the same time, the public transport system is also being expanded. But uneven spatial distribution with low average population densities would run counter to the efficient and economic operation of this system.

These efforts will not be enough, however, to gain nationwide acceptance of the strategy of re-development. Success will depend on bringing on board the vast majority of smaller and medium-sized municipalities and gaining their commitment, for in all probability it is on this level that large reserves for re-development are to be found. Admittedly, there is some concern about the four to five hundred thousand existing buildings that are situated outside a building zone.

### *Regional land use management. The Space+Initiative*

In Switzerland at this time there are around 220.000 hectares designated as building zones and 6.8 million people (93% of the population) live within these zoned areas. According to information from the Federal office for spatial development, 27% or 60,000 hectares of the total have not yet been used. Of these reserves, about half are ready for building. In addition, it is assumed that conversions in the built-up areas will open up considerable reserves. In order to be able to ascertain the actual reserves available for potential re-development, as a prerequisite for regional management, the Canton of Basel Land participated in a special cooperative plan on



regional land use management from 2006 to 2008. This plan was initiated by Eth. All 86 communities in the Canton of Basel land and well over 400 in Germany took part in the survey. A total of about 4.450 areas covering about 51.000 hectares were surveyed. Of this total, 750 hectares are in the 86 communities of the Canton of Basel land.

The results will be published at the end of 2008. Certain tendencies for the Canton of Basel land are already foreseeable. Comparing the Space+ survey to the legally required spatial information, shows that about double the number of potential areas could be determined. It must be noted that the legally required spatial information does not include under-used, incorrectly used, or re-usable areas. The evaluation shows, in addition, that a major portion of the increased potential revealed by the Space+survey comes from the easily accessible public transport sites.

To generalise the results from the Canton of Basel land, the following first conclusions are presented:

- 1) There is much more surface area potential for re-development in Switzerland than has been assumed until now. Re-development should be focussed on the easily accessible sites made available from the public transport sector.
- 2) Communities need to develop re-development strategies and these must take all the potential areas for re-development and their connection to public transport into consideration.
- 3) Communities must work out the balance of land use as an essential foundation for a re-development strategy and the subsequent zoning plan revisions.
- 4) Whenever possible and meaningful, cooperative action across the community, cantonal and federal levels should be

promoted.

5) A 'balance sheet' on land use (similar to that used in public financing) should be made available to the governments on the community, cantonal and federal levels on a regular basis. This should make land use easily apparent. Naturally, in cases of uncertainty, all short-, middle- and long-term offers and demands must be compared.

The experience with the survey in Baden-Württemberg and Basel land allows the calculation of the following estimate, considering only the reserves in the area: from 10 m<sup>2</sup> up to 20 m<sup>2</sup> per person. This corresponds to 7.5 million residents to ca. 7.500 to 15.000 ha reserves in sites made available from the public transport sector. This makes it possible to consider the idea that the potential for re-development through social and economic change can grow even further. That alone makes the forward projection gained from this overview significant to promote and improve the (re)development of existing urban areas. Moreover, additional financial tools are necessary to improve the profitability of brownfield (re)development. With respect to the latter, both national subsidies and fiscal interventions can be considered.



## Land use and consumption in England: how is land use controlled and monitored? How has land use changed?

Keiron Hart

The formalised development of the Town and Country planning system in England was driven in the late 18th and early 19th century by public health needs. This was becoming more critical following a population explosion, and the social shift to living in towns and cities. These issues were so acute that Government intervention was required. The initial planning system did not develop from a vision of land consumption control.

A variety of Planning acts created by Central government have developed to provide us with the system England has in place today. This will continue to reflect the needs and requirements of an evolving population. England has a system of official Planning policy statements (Pps) and Planning policy guidance (Ppg), as well as best practice documents. These provide a framework for Local planning authorities (Lpa) in determining issues of balance and priority on land use matters, all of which is delivered under the national Town and Country planning legislation. At a local level each Lpa must produce Development plans, which detail proposed land uses.

### Land use today

In England there is a clear strategy to recycle previously used land wherever possible. Demand for housing and the associated infrastructure constitute the main pressure for the development of land in rural areas. Within existing urban areas it is the need for housing that also drives the recycling of land that has previously been used.

Central government guidance on the recycling of land (Pps 3: Housing - Dclg, 2006) states that by 2008 60% of all housing needs should be met by using previously developed land, or the conversion of existing buildings.

In 2005 73% of new residential dwellings of all types were built on previously developed land. Only 3% of this figure was the conversion of existing buildings (Dclg). To maximise the efficiency of land use Pps3 seeks to guide the density of residential dwellings per hectare (ha): a figure of 36 per ha could be achieved. In 2006 the actual average number of dwellings per ha being developed stood at 41 (Dclg 2007).

During the period 1996-1998 approximately 8,000 ha of land changed from previously developed, to developed. Approximately 2,700 ha went from developed to undeveloped (mainly from mineral works being returned to 'undeveloped' land). In 2002 an estimated 66,000 ha of previously developed land was available for re-development, 29,000 ha of which were both suitable and potentially available for housing with an estimated capacity of 880,000 new dwellings.

Housing is not the only pressure on land use in England.

England has an established system for data collection which is delivered both nationally, and locally, by different organisations. The Department for Environment, Food and Rural Affairs (Defra) delivers the collation and coordination of much of this work. However, this Government agency works closely with the Department for communities and local government (Dclg) and other government agencies. In the spring of 2006 the most recent version of the Land use and Land cover

classification was published. This sought to harmonise existing classifications to facilitate. This system ensures that multiple organisations adhere to similar principles when collating data.

Accurate land use data is vital to provide the basis for sustainable development. Central government have been sponsoring this data collection since the early 1970's. It is widely accepted that this information is incomplete.

A National land use database (Nlud) has been established. The objectives are:

- to establish a national system for naming and defining groups of land use and land cover features;
- to provide a nationally consistent basis for identifying, recording and reporting land use cover;
- to serve as a standard classification.

In summary this system splits England into 13 divisions which contain a total of 51 classes (not shown).

### Conclusions

Pressures on land use within England are acute. A well developed system of delivery for guiding policies, statements and law from Central government is effectively delivered at a local level. Accurate data on land use is fundamental to the process of long term strategic planning.

Standardising the data sets facilitates multiple organisations to feed information to a central data base.

Housing places one of the strongest pressures on the consumption of land. A clear strategy of recycling previously developed land has been established. This is supported with Central government policy, which seeks to achieve prescribed minimum densities to ensure efficient land use when new dwellings are built.

The value of accurate data

collection and clear enforcement and delivery of national policies delivers a regionally consistent development pattern that can be effectively monitored. This monitoring, combined with an awareness of all the other issues, facilitates the management of land consumption in England.

## Assessment of sustainable land use in Germany: the project Fin.30

Sophie Schetke, Theo Kötter, Benedikt Frielinghaus, Dietmar Weigt

During the last years, urban expansion and the development of settlement areas have been the driving forces of an enormous consumption of land, the usage of natural resources and the loss of ecosystem services in Germany. In the wake of continuous land consumption the German government has elaborated a quantitative benchmark fostering reduced land consumption towards 30 ha/d in 2020 from 114ha/d today (Deutscher Nachhaltigkeitsrat 2004). To realise this enormous step politicians as well as urban planners are demanded to focus on inbound and concentrated settlement development characterised by re-densification of built-up areas and land recycling of brownfields (Kötter and Weigt 2006). Against this background the paper presents a multidimensional approach of the research project Fin.30 to realise reduced land consumption and to assess the manifold impacts of continuous urban sprawl on sustainable settlement development. Fin.30 is a research project of the University of Bonn (Department of urban planning and real estate management) funded by the German ministry of education (Bmbf) under the roof of its research initiative Refina (Research for reduced land consumption).

*Decision making for reduced land consumption*  
The contribution of the research project Fin.30 to the named lack of planning-oriented tools and methods to reduced land-consumption is twofold. In addition to negative ecological and social

impacts of ongoing urban sprawl increasing economical deficits in lots of German communes coping with follow-up costs such as costs of maintenance and financing of new infrastructure can be stated. Picking up the two tasks of current land use planning - sustainable and economical reasonable development - Fin.30 focuses on two major elements. The first module of the project Fin.30 is the conception of a Mca-scheme covering the three dimensions of sustainability. It aims at analysis, decision-making and monitoring of land use in coping with sustainable spatial development (see also Kötter et al. 2008, submitted). The scheme of Fin.30 is applied at the scale of preliminary, strategic land use planning on municipal level. The assessment strictly focuses on new residential land displayed in municipal land use plans of three case study areas. Figure on this page a short insight into the hierarchical construction of the Mca beginning with categories highlighting the scientific focus of the operationalisation of the three dimensions being subdivided into criteria. The last step is formed by quantifiable indicators for the three dimensions which are explained in the following paragraphs. In terms of ecological impacts, such as the impact on recreational function, biotope quality, the loss of valuable farmland or the persistence of protected areas by additional housing, the centre of assessment covers aspects such as resource protection and natural risks potentials which have to be taken into account during the planning process (see German federal building code, environmental impact assessment act, Federal nature conservation act). Driving forces for planning-oriented indicators are the

assessment of Ecosystem functions (see Constanza et al., 1997; *Millennium ecosystem assessment* 2005; Schetke et al., 2008, submitted) being affected by additional settlement areas, the use of natural resources such (e.g. valuable soil, biotope-networks) and the natural risk potentials affecting the suitability of a site for settlement purposes (e.g. groundwater, flood-risk).

The assessment in terms of social suitability of new residential land focuses on the technical and nature-oriented quality of living surroundings and human well-being. Availability and accessibility of adequate recreational facilities as well as social and technical infrastructure (Schetke and Haase 2008) are of central interest.

A second focus is put on the attractiveness of a site in terms of climatic conditions and noise exposure and the perception of an area in terms of image.

For economic purposes the main questions concerning long-term economic effects and improvement of representation of new house settlement areas are of prime importance. Beside the compilation of project-orientated development costs mainly long-term follow-up costs are calculated in respect of applying the assessment-scheme on the level of the land use plan and in times of curty communal budgets. The aim of the economic assessment is not to calculate the absolute financial effects but a compilation of site-related and decision-relevant monetary effects. Beside the outlined Mca, the second module of Fin.30 is the conception of an allocation fund as a tool to execute financial balance between spatial development in inner and outer urban areas. The fund should be established on the local governmental level and its deposit will be

allocated by marketable and lucrative area developments, if necessary by official appropriation. Consequently the fund will be applied neutrally, which means without straining the budget of the commune. The charged financial resource of the lucrative outskirt areas may be used to improve the efficiency of the areas in deficit in the interior zone by eliminating the economic constraints, e.g. brownfields, increased planning costs or marketing problems. Currently the implementation of funds like this is aligned with many unanswered juristic issues yet.

*New perspectives and task for a realisation of reduced land consumption*  
Current planning processes in Germany and political goals to reduce land consumption such as the 30-ha-goals of the German council for sustainability teach us that there is still a long way to go. Unilateral quantitative planning targets aiming at an arbitrarily fixed figure of 30-hectares blur the sight for protection of natural resources and qualitative on-site assessment. Until now few practical proposals have been made to put the 30-ha-goals into practical planning. But significant spatial steering effects remain doubtful. The conceptualization of tradable certificates of land is still under political discussion and promotes increasing land consumption of large, wealthy communes which are capable to buy certificates from smaller, poorer ones. Also fiscal instruments focusing on gradual tax charge according to localization of new residential areas within a city (inner versus outer parts) are under discussion but difficult to communicate. The last amendment of the German federal building code promoting an abolishment of

environmental impact assessment of construction in inner areas by reducing environmental impact assessment, land recycling can be seen as a step backward regarding ecological purposes and less effective to steer urban development significantly. The project Fin.30 shows that a planning-oriented Mca for on-site assessment incorporating the concepts of ecosystem functions, human well-being of living surroundings and cost-oriented settlement development can be an effective tool to implement reduced land consumption within strategic spatial planning. In addition to that a great demand for political and legal steering instruments is evident.

## Interpretational figures and methods for knowledge and evaluation of land consumption: the transition matrix

Paolo Pileri, Marta Maggi

This article will deal exclusively with the methodological system applied to the subject of 'land use/land cover'. For a while we shall avoid referring to the concept of land consumption, preferring to talk about its transformation or change. Changes in land use/land cover can be shown by means of a graph (Eea 2006): the triangle of transformations (see on p. 111, above). At the top of the triangle there are the fundamental land uses/land covers (urban, agricultural, natural) while the sides represent their transformations. On p. 111, above, makes it possible to conceptualise the various possibilities for transforming the land from one to another, identifying certain fundamental properties that can be applied for interpreting the process. These are:

1. Type of transformation
  - a. Equivalent: a land use/cover is changed to another within the same category of origin.
  - b. Non equivalent: a land use/cover is changed to another from a different category than that of its origin.
2. Duration of the transformation
  - a. Permanent: land cover A is transformed to land cover B and can no longer be reversed (or it is highly unlikely);
  - b. Transitory: land cover A is transformed to land cover B and can be returned to land cover A (or it is very possible).
3. Outcome of the change
  - a. Artificial: the changed cover results in a loss or a major modification of the properties and the natural and environmental relationships that existed or

potentially existed before;

- b. Semi-natural: the change results in a modification that renews cyclically, but not a loss, of the properties and the natural and environmental relationships that existed or potentially existed before;
- c. Natural: the change results in a regaining or restoring of the properties and the natural and environmental relationships compatible and appropriate for the site and the context. Alongside the properties of the change it is possible to also consider the role which the type of cover of the land occupied or being occupied can acquire in the process of transformation:
  - a. Dominant: in this case, a land cover A is frequently what replaces other types of cover, but is rarely replaced by others;
  - b. Recessive: a land cover A is frequently overtaken by a certain class of cover, but rarely occupies and changes covers of other classes.

An example of equivalent change is urban regeneration where a new urban coverage replaces and renews a previous urban coverage. In this case, the duration of the transformation is permanent because the new coverage is intended to last 'forever', or at least more than two or three generations. Turning agricultural land to natural cover can, after a certain time, be reversed, and this is why such transformations are classified as transitional. Instead land consumption can mainly be considered as a non-equivalent, permanent and artificial transformation. The schematic conceptualisation presented is linked to the methodology of the transition matrix, used in various studies in literature and also at an institutional level by subjects such as the European environmental agency ([www.eea.int.eu](http://www.eea.int.eu)) for identifying, monitoring and

quantifying the transformations of use and coverage of land.

### Transition matrix

If the data on land cover between two points in time are available, it is possible to find out the total of the surface areas transformed, the types of cover introduced to the land and the types that have been changed. The method for producing this collection of information is known as the calculation of the transitions and is based on the compiling of a matrix called the transition matrix (see fig. p 111, below).

The matrix is based on flows, in other words, on the transformation that a certain cover available at time  $t_0$  undergoes in a specific time period  $\Delta t = (t_1 - t_0)$ . The input flow, shown on the lines, is represented by the covers at time  $t_0$ ; the exit flow, on the column, is represented by the cover at the final time  $t_1$ . In the matrix cells is shown the amount of the surface area (hectares or  $m^2$ ) transformed. In the cells of the main diagonal is shown the value of the surface area of a certain category of land use which has remained unchanged in the time period  $\Delta t$ .

The matrix method therefore makes it possible to immediately obtain the absolute value (in hectares or  $m^2$ ) of the areas transformed by a cover (a) at time  $t_0$  to a cover (b) at time  $t_1$ . For example, the value which is shown in the cell formed by crossing the line 'Nature 1999' with the column 'Urban 2004' is to be interpreted as the total of the surface area which, in 1999, had a natural cover and which was transformed in 2004 into urban cover. The transition matrix therefore makes it possible to organise the data so that they produce certain interpretations for evaluating the environmental effects as well as the planning strategies. Some

transformations have a different environmental impact from others.

### The initial data for input to the transition matrix

For compiling the transition matrix it is necessary to have at least two geographic databases (raster or vector), one for each time threshold established.

These data or theme sets must be superimposed by a Gis intersection operation in order to achieve a further theme set representing the areas that have remained unchanged and those, instead, which have undergone changes. If vector theme sets intersect, polygons are obtained and, in the case of raster theme sets there will be obtained again just pixels. Each polygon or pixel resulting from the intersection will be characterised by a pair of attributes: 'original land cover' and 'final land cover', which assign it to just one cell of the transition matrix. Each cell of the matrix will therefore contain the sum of area values of the polygons or pixels with the same pair of attributes.

### The evaluation indicators

The evaluation of the transitions can be represented by many indicators. Below are shown some that are able to measure:

- the state of the cover at a certain moment;
  - the rapidity of the transformation;
  - the variation rates;
  - the per capita size;
  - the incidence of the transformations compared to the stock of original land cover. This fundamental indicator can only be calculated with the transition matrix method.
- To the indicators are added the direct measurements taken from data such as the surface areas transformed between two time thresholds  $t_0$  and  $t_1$ .

### *Composition indicators*

In addition to the direct measurements (the surface areas), this category also includes the coefficients of cover i.e. the ratios of surface areas with a certain cover 'i' to the total surface area of the territorial unit taken as reference (a fictitious geometrical area or an administrative area such as a municipality). This means being able to calculate:

- urbanisation coefficient:  $S_{urb}/Stot$ ;
- rural coefficient or agricultural cover:  $S_{agr}/Stot$ ;
- naturalness coefficient or natural cover:  $S_{nat}/Stot$ ;
- woodland coefficient or wooded cover:  $S_b/Stot$ .

The coefficients can also be obtained considering as the denominator the total surface areas net of the water areas (not modifiable) or, except for the urbanisation coefficient, also excluding the urbanised areas because no longer reversible and which can therefore no longer be turned to agricultural or natural use/cover.

### *Rapidity indicators*

This category includes the rates of change of the cover type i.e. the ratios of the variations in the cover 'i' in the time interval  $(t_1 - t_0)$  to the total of the cover 'i' at the initial time  $t_0$ . These indicators provide an interpretation of the rapidity with which certain types of cover increase or decrease.

### *Rates of variation*

This group of indicators is given by the result between the changes in cover 'i' in the time interval  $(t_1 - t_0)$  and the time measure of the same interval  $(t_1 - t_0)$ . In this case, the transformation values obtained are by days, per year, per two years, etc. This group of indicators provides a measure of the speed of transformation, making it possible to guess how long it might take for the transformation processes to alter the existing landscape

structures.

### *Per capita indicators*

One of the options possible for normalising the territorial magnitudes is the one that involves weighting the magnitude in relation to the number of resident inhabitants. Generally, when the value of the urbanised areas per inhabitant is high, this means that the urban spread is greater. Also the rapidity indicators can be efficiently expressed by normalising their numerical value with the number of inhabitants. In the same way, the simple figure of the surface area transformed between two time thresholds  $t_0$  and  $t_1$  can be related to the number of inhabitants.

### *Incidence indicators*

This group of indicators is probably the most interesting and is the one that can be calculated only if the transition matrix has been completed. The percentage indicators measure the transformation of a certain cover 'i' at the expense of a starting coverage 'j', compared to the stock of cover 'j' initially existing. For instance, the urbanised cover accomplished in the time interval  $\Delta t = (t_1 - t_0)$ , only regarding the part that has occupied previous agricultural use/covers, is compared to the initial stock of agricultural cover ( $t_0$ ). In this way, there is directly compared the transformation with respect to the resource that it, itself, has transformed and it is made possible to 'weight' the responsibility of the 'transforming' coverage. This is a method that shows the responsibility of the driving forces as well as the effect of the transformation on the land resource. These indicators are usually measured as a percentage.

- Rate of urban transformations on agricultural land compared to the initial agricultural stock:  $(URB\Delta t)su_{agr}/AGR$

$t_0$  [%]

- Rate of urban transformations on natural land compared to the initial natural stock:

$(URB\Delta t)su_{nat}/NAT\ t_0$  [%]

- Rate of agricultural transformations on natural land compared to the initial natural stock:  $(AGR\Delta t)$

$su_{nat}/NAT\ t_0$  [%]

- Rate of natural transformations on agricultural land compared to the initial agricultural stock:  $(NAT\Delta t)su_{agr}/AGR\ t_0$  [%] - [...]

In theory, these indicators can also be calculated for the urban areas turned to agriculture uses for example but, in practice, will have zero or next to zero values.

### *Application of the method: transformations in Lombardy between 1999 and 2004*

The methodology of the transition matrix has been applied to the Lombardy territory. The starting figure available consists of two land use/cover maps, in raster format, relating to the years 1999 and 2004, with a spatial resolution of 30x30m, produced on the basis of a key which includes 19 classes of land use/cover, processed by the Arpa Lombardia Remote sensing laboratory based on Landsat-Tm (Thematic mapper) satellite images. Extrapolating data made it possible to compile the transition matrix of table 1, on p. 112, which was only organised on 11 classes of land coverage (Pileri 2008). In table 2, on p. 113, there are shown the surface areas changed and the percentage indicators calculated based on a series of transition matrices organised to reveal the transformations between 1999 and 2004 in the two areas surrounding Milan and Brescia.



## Zoning, zooning

Rosario Pavia

The term zoning is derived from the Greek word *zone* which refers to a belt, a strip or a fence. The etymological roots of the term reveal its deeper meaning: to delimit, to define a perimeter, to mark a boundary. Urban planning, notwithstanding the developments of this discipline, cannot seem to do without this original function, so passionately recalled by Ildefonso Cerdà, the first modern planner, when he wrote his *General theory of urbanisation*, in 1867. In this text he investigated the name to be given to the discipline that would define the theoretical and operative system of town planning. Cerdà derived the term urbanisation more or less directly from *urbs*, the physical city, and *urbum*, the handle of the plough. In fact, it was this tool, the plough, that the Etruscans and Romans used to found their cities by defining their boundaries.

Acts of delimitation, circumscribing, the setting out borders and zoning remain the focus of urban planning, notwithstanding the critical opposition and requests to overcome zoning. Setting out borders means representing them on a two-dimensional surface, on a map of spatial organisation, representing a functional division and proof of possession. The division of land, the recognition of property rights and the protection of one's personal property are the technical aspects at the base of the practice of zoning. This was true in antiquity, and we need only recall the Roman division of the *ager publicus* and the measurement of the *forma regionis*. The division of land, based on a square grid (the *centuria* measuring approximately 710 m per side), maintained the

authority of a founding and sacred act.

By studying the initial phases of zoning we can easily understand the symbolic power of this act of division and measurement. The intersection of two orthogonal axes, the *cardus* and the *decumanus*, a centre and crossing defined the starting point for the construction of space and its representation.

The orthogonal intersection as the founding principle of Western space was fully recognized by Le Corbusier, who saw it as the measure of all things. However, this symbolic and founding dimension has been lost over time; zoning is now little more than a banal technique, an instrument for regulating the uses and programmes of urban and built space. It is a tool that is useful for classifying land and real estate values and the different categories of the city. Even at present, a large city such as Bogotá divides land based on the earnings of its residents. Zoning has now lost much of its spatial value, becoming, on the contrary, a formidable instrument of political power and the regulation of revenues. If we look closely at the situation in Italy zoning has been reinforced by a national urban planning law, assuming a greater level of articulation and more defined operative environments (law n.1444/68 introduced the so-called homogeneous zones). Only recently, with the emanation of new regional laws that institute the articulation of the plan in structural and operative terms, together with the application of equalizing procedures, it would appear that a possible cultural and operative transformation of zoning is beginning to define itself.

Within this context, zoning does not disappear, but is transformed. Equalisation, while on the one hand

defining a sort of relative isotropy of the ground plane, on the other promotes the continuous use of perimeterization. In fact, there are zones inside and outside inhabited areas, a complex classification of internal zones, zones that 'give up' quotas of buildable area to other zones that 'receive' them. Within these latter, the allowable volumes must then be located in particular compartments, or concentrated in defined implementation projects. Equalisation, by equally attributing each property with an identical building index (acquired rights and the potential of forecast construction), appears to eliminate any possible disparity of treatment at the theoretical and operative level. Urban zoning may thus free itself of the restriction of revenue, of its power and ability to condition. Zoning can thus return to being the design and planning of the development of the city. This scenario is capable of promoting a new urban quality, a new method of planning that, while regulating the development of the city, does not renounce the interpretation of its identity, the value of its processes of construction and the spatial quality of its transformations. Zoning does not disappear, but is articulated in other terms: in municipal structural plans it must be given a more flexible role, defined to handle environmental, landscape and archaeological invariants, acting more as a guideline and tool of orientation for the location of strategic centralities, large public and infrastructural works and functional and programmatic sectors. True prescriptive zoning is rendered precise in the operative plan, in new articulations focused on implementation. Sector-based and mono-functional zoning

disappeared some time ago, negated by the very complexity of the city. Zoning can allow for mixité and hybridisation, and many plans place a significant amount of attention on the typological and morphological aspects of urban fabrics. In many cases zoning has assumed a layered representation: uses, typologies of intervention, the use of the ground plane and the treatment of open spaces. The structural plan may be capable of indicating marginal areas, filters between different zones, between different regimes of land ownership, between the space of infrastructure and urban space, open or built as the case may be. Limits and perimeterization may be interpreted and rendered flexible through design. The line of separation between the historical city of Naples and the state-owned port area has become a filtering line, the space of a complex project that mediates and interprets the passage from one zone to another in the city. We must return to investigating the cultural, spatial and social meaning of the act of perimeterization. Zoning cannot be transformed into a banal exercise, into a form of zooning, populated by a plurality of new plans and new programmes that, each in its own way, lead to a reorganisation of the zones already incorporated in the territory. We need only briefly mention the acronyms of these plans to understand how urban planning is wasting its resources on the search for a progressively more imaginative formulation. In only a few short years we have been witness to the development of a multitude of plans, whose sense and effectiveness often escape us. A renewed legislative and operative approach have brought us: Prusst, Pit,



Put, Pum, Drag, Putt, Piu, Stu, Pru ... I could continue with this list, but the impression that emerges is that we are moving towards an ever greater separation between the tools of urban planning and the complexity of urban transformations.

The names of these new plans lead us to imagine a parallel and imaginary reality, similar to an urban zoo filled with animals as fantastic as they are useless.

Urban planning must return to reflecting on its structural roots and the founding acts related to the functional, social and symbolic organisation of the territory. Territoriality is the result of an inevitable act of separation and exclusion, as much at the geographical scale as at the scale of local interventions and urban planning. Power, in its institutionalised forms, is expressed through the definition of borders.

The territory is an interweaving of visible and invisible networks, nets and borders. It defines zones of settlement and clandestine zones of inhabitation, located on the margins and devoid of borders, inserted in interstitial spaces or invasively overlapping other zones.

Contemporary space is progressively more dominated by mobility, logistics, nodes and infrastructural networks, and by material and immaterial networks. The underground is crossed and marked by a vast quantity of conduits, cavities and voids.

The territory is widely urbanised, the city spreads everywhere and seems to overtake any form of boundary. In reality, the infinite city conserves its limits, its borders, its demarcations and its walls.

Zoning must be inserted within this mesh. As a result it cannot be reduced to a banal technique, or a reductive practice of simplification. Instead, it must reacquire a sense of

responsibility, using the boundary to rediscover the purpose of the sign.

## Reform of territorial governance and the new urban order

*Michele Talia*

After having been through a very lengthy crisis, research in the sector in our country has chalked up some important successes above all in relation to vast area policies, urban renewal and, more in general, the rationalizing of relations between long-term forecasts and choices of implementation, to the extent that the objective of renewing the planning system, which had been defined more than 65 years ago by town-planning legislation, finally seems within reach. In this perspective the approval of a reform of territorial governance has now become an objective that cannot be set aside; even so, the risk exists that the laborious process of drawing up a new law may obscure our perception of a number of particularly urgent questions, as registered by territorial formations and by the environment. It seems in fact that the rift between our awareness of the problems it is necessary to address, and the recipes that technical culture is able to elaborate, has further worsened, also because attention to the form of the plans has had the effect of concealing the radical changes that have meanwhile become manifest in housing structures and in urban communities. The sweeping and complex transformations that have been a feature of the last two decades have indeed made a deep impression on the organization of the territory. The link that had been established between population increase, economic growth and urbanization processes has deteriorated, inaugurating a prolonged phase of

disorderly settlement in which the strategies guiding land occupancy seem bound to take on the role of independent variables. In the course of this period a very extensive area (estimated by Eurostat to be equal to 2,800,000 hectares only in the last decade of last century) has been taken away from agriculture and earmarked for urban uses, giving rise to a settlement geography in which the existing city is in many cases merely one reference among the many to the choices made by the operators in the building sector (public administrations, contractors, property developers, families). The apparent lack of rationality in the recent settlement pattern is the joint result of the eclipse of large-scale industry and of the continuation of the process that caused employment in agriculture to drop from 8.6 million persons in 1950 to a little over one million in 2003, and the ensuing slackening of the constraints of proximity between accommodation functions and places of work has induced a more and more accentuated dispersion of the resident population. Through the effect of these dynamics, the companies that manage public transport are going through a crisis that seems irreversible, and which consequently accentuates having recourse to individual solutions to the problem of mobility. Changes at this scale cannot however be confined to just one sector, as they are the reflection and at the same time the cause of the change that is taking place in the social and economic structure of the country. In an age dominated by uncertainty and individualism, social and working relations become 'atomized', with the consequence of causing an immediate short-circuit between the affirmation of

new urban forms and the organization of productive activities and leisure functions.

As opposed to the rigidity of old forms, in the relationship between working time and free time, in the modulation of movements, in family structure and in settlement habits, and in lifestyles, contemporary society tends to be structured under the banner of instability (or liquidity, as Zygmunt Bauman would say). Through the effect of urban sprawl and of the attenuation of the location factors determined by post-modern society, significant changes appear in the configuration of settlement systems. Suffice it to think of the presence of mobile boundaries in the functioning of local systems of work, borne out by the very considerable increase recorded by commuting between 1991 and 2001 (+10.9%), and then between 2001 and 2007 (+35.8%), with an overall population of students and workers who make systematic journeys outside of the municipality of residence of more than 13 million, 70% of whom use private cars. But think also of the little importance attached to municipal boundaries in the functioning of the housing market (considering both purchases and rentals), which translates into a progressive increase in the number of families prepared to move away from their provincial capital in order to satisfy their housing requirements. That the geography of the country is changing at a very fast rate is demonstrated by the very dimension of the local work systems, whose average size went up from 315.5 sq.km in 1981 to 384.3 sq.km in 1991, and then to 439.2 sq.km in 2001. Behind this expansion of the areas within which day-by-day mobility takes place is concealed a complex modification of the systems of relation which is

occurring with an accentuated fragmentation. Furthermore, the circumstance that many of these systems cross the administrative limits of provinces and regions (167 and 49, respectively) shows that the impetus towards territorial hyperextension and the prevalence of forms of hypermobility are distinctive features not only of metropolitan contexts, but in a large part of contemporary territorial formations. Moreover, opposed to this long-term trend certain anomalies are not lacking, and are punctually registered by the heterogeneous ways of behaving manifested by the various contexts. Both in the territories of scattered settlement such as Veneto or Marche, and in the concentrated settlements of northern Puglia, the most recent urban transformations shed light on a trend towards suburbanization which by now it seems might threaten even the urban fabrics hitherto only marginally affected by the transformation of the cities. This is a 'behaviour' of economic operators not motivated by variations in cost of construction, which is instead substantially homogeneous throughout national territory, but which depends on the different incidence of urbanization costs and the cost of building areas, and which therefore assigns a preeminent role to the collectors of land revenues. In the face of this exceptional source of income, town-planning rules visibly find it difficult to impose a rational use of resources which urban sprawl tends instead to dissipate, and the attempt to direct property investments towards a building product that is more accessible to low-income demand and to better quality often turns out to be ineffective. It is likewise evident that the

limits that have emerged in addressing the effective dimension of the country's major emergencies (urban congestion, pollution, energy dependence, the housing problem, safeguarding the landscape) cannot be put down only to the still incomplete nature of the reform plan. Even more than the accrued delay in approving a new law on territorial governance, a negative influence seems to stem not only from the prolonged (and so far useless) wait for the latter, but also the failure to reflect on the contents of the reform plan which appeared too weak, or even lacking. Among the latter the following ought to be mentioned:

- a well-nigh exclusive attention to the themes of local planning;
- the incapacity to achieve an effective regulation of the land regime;
- the extremely feeble nature of the references to vast area problems;
- the absence of any significant references to the role of the metropolitan city;
- the continuing and worrying conflict between the contents to be assigned, respectively, to the structural dimension and to the strategic vision of the plan;
- the tendency to underestimate the role of urban policies in territorial governance.

Until such time as a restricted pool of experts, academics and, obviously, Mps, makes up its mind to give a fresh boost to the innovation of the discipline, it is very probable that the subjects and the actors of planning will go on with that urban-planning bricolage that has been a feature of the last decade, in which the by now very large array of instruments forming part of the planner's tool kit will have been contaminated in sometimes definitely creative forms, but which at other times have appeared all too uninhibited and

incoherent. In view of the well-known complexity of the subject, the risk again looming up is that this way will be interpreted as a 'short-cut' able to favour decision-making processes that are quicker and less subject to procedural constraints not only in drawing up certain basic choices, but in all the most significant 'passages' of the planning process. In Italy with its 8,100 municipalities the limit constituted by the municipal boundary to the carrying out of coordinated policies of territorial governance still appears insuperable, contrary to what is happening in the rest of Europe, where already in the mid-Nineties the administrative geography showed 32.7% fewer municipal administrations than before the reform which, starting in 1956, had favoured operations of institutional centralization. Proceeding by stages in tackling the effects of this 'crumbling away' of the settlement and governance systems that we have already analyzed, the most important problem to be resolved is the congenital weakness of vast-area policies, towards which it seems best to direct specific measures of a financial, legislative and procedural character able to foster the consolidation of the Municipal Unions. Clearly these trends presuppose important technical-administrative innovations, above all in relation to the reference to the strategic dimension of territorial governance. An evolution of this type should not lead to the introduction of a new specialist level of intervention, but should be limited to constituting a sort of value added of planning. If we continue along this road it will be possible to assign to a more up-to-date concept of our discipline the task of establishing a closer dialogue between government and governance, succeeding at

least in part in offsetting the negative consequences that have been produced in recent years by the absence of a law on territorial governance.

## By the way, what urbanism really is?

*Clovis Ultramari*

By discussing urbanism and urban planning, it outlines similarities and differences between these concepts and the fact that they are most of the times indistinctly used. The article is organized according to two main hypotheses. Firstly, a conceptual distinction between them according to the distance urbanism takes from art and architecture (the closer they are the further urbanism is from urban planning). Secondly, an understanding of city problems and so urban planning and urbanism's priorities according to time. This article started with the certainty that urbanism would be strongly linked to physical intervention, altering or building cities with proposals and works of sanitation, transportation, public and private spaces. In some moments of the discussion, this author was led to accept that there were other meanings for urbanism, going in directions that seem to be closer to the concept of urban planning. Urbanism still carries an antagonism between a pretentious belief that societal changes may be generated by the design of the urban settlement and a belief that these changes result from dialectics in the very same society. Along this article, author tends to accept the idea that the set of characteristics that constitute the concept of urbanism is fond of keeping the first utopian approach; urban planning would keep the second one. Urban planning is most of the time presented as the act of planning (master plans and land use laws, for example) and urbanism as the act of intervening physically, building, enlarging an area to be occupied, recycling or revitalizing. In the case of

urban planning, the required professional has many abilities; in the case of the urbanism, the professional valued is the architect, supported by engineering professionals. Criticism to this approach is discussed in the article, too. Urbanism was created out of a problem: of a space with facts and transformations felt as negative, unknown and happening at an equally unknown speed. It explains the pessimistic inheritance urbanism carries sometimes expressed by the search of solutions outside the city itself. But such pessimism does not really persist for ever; quite the contrary, it is frequently substituted by optimism, presumption and renewed pessimism. The misogyny that characterizes urbanism originates in the way its object, the city, sees itself. If seen this way, the object of urbanism sometimes believes itself capable of solution, sometimes sees itself as the very main problem of the world, sometimes as the most adequate space for the development of history. It is, though, evident that urbanism currently presents itself as a science concerned with a phenomenon complex in its essence and understanding, and whose consequences are not restricted to, and thus cannot be solved, solely in its concrete characteristics. Urbanism, or the science of the city, advances from a scientific marginal position and even from a limited understanding of its object to an aggregator of different fields of knowledge. In this enlargement of responsibilities, the concept until then used by urbanism in its stricto sensu proved not sufficient any more. The concept was forced to enlarge itself, not to be limited to actions with immediate results but to be conscious of the more complex domain. In this transformation towards

totality it may need to be renamed. Urban planning would be a more appropriate concept for these new demands. Urbanism appeared as a science capable of writing critiques on and proposing solutions to urban spaces, but also making clear a concern with the city in terms of built space to be created, corrected, or redone. Classifying, naming and conceptualizing things are risky tasks. Either it is necessary to reinforce the need to differentiate urban planning from urbanism or simply indicate the existence of two kinds of urbanism. In both cases the leitmotif of the differentiation is the priority given to physical intervention versus the priority given to a previous and more comprehensive approach to the urban object by means of plans. In both cases, connectivity with architecture and art is at stake. From this persistence of original characteristics two concerns arise in terms of urbanism's pretensions. The first is a belief in societal changes triggered by the architect's drawing board. The second concern is about the risk of urbanism, by enlarging the bases of its knowledge and by considering social and economical factors in its proposals, to believe itself capable to alter society. Such concerns may suggest the persistence of a prophetic mission in urbanism. By adopting the first axiom, we can understand the characterization of urbanism by Choay (1965) as 'heavy with ambiguity'. A science defined by the belief of being able to solve urban problems through its technique and by a pretension to propose an ideal city. While urbanism remains less multidisciplinary and historically concerned with the design that the city may assume, urban planning is

concerned with the conflicts that this use and occupation mandatorily generate. While the former survives in its objectives and responsibilities in a more mono-disciplinary way, the latter shelters innumerable other sciences and interests. The difference between one and the other does not mean that the urbanism may exist without a planning, without counting on a prior moment in which one plans and a moment in which one executes what has been planned. Actually, it does not seem plausible to imagine an urban work, an intervention project, without planning it. But it also seems plausible that one does not plan something that one does not believe can really happen. So far, one can detect three ways of differentiating urbanism from urban planning. The first is to consider the latter as an enlarged concept, dealing with research, sectorial plans, land use control, and the provision of basic services and infrastructures (education, health, public safety, water, sewer, paving, transportation). The second is to consider urban planning as a science responsible for tasks that take place before those concerned to urbanism (research, establishment of prognosis, understanding communities desires, consideration of societal discrepancies and, finally, definition of the city one wants). The third, and opposite to the two first ones, is to take urbanism as the enlarged science, as the one that takes under its responsibilities all process, from planning to intervention. As an incongruent science, urbanism allows itself either to adopt or to refuse its original premises. Maybe it deserves to be renamed for urban planning. Despite the fact that urbanism confirmed itself as a science scared of the new

society over which it operates, suffers from incongruence when limiting its tools to simply alter the concrete, the city but not the urban. The failure of innumerable urbanistic attempts justifies a criticism that forced a more comprehensive approach, transforming urbanism into urban planning. But, we know, urbanism repeats itself in metamorphosis. Current adoption of mega architectural projects to alter cities may justify Koolhaas' assertion (1995): 'Now we are left with a world without urbanism, only architecture, ever more architecture'. If, throughout history, the so called urbanism or urban planning have different ways of implementing their ideas, the correct conceptualization of the terms discussed here would only be possible if conceived from a historical perspective. 'Currently, the practical activity of the urbanist has some characteristics it did not have in the past ... the responsibilities of the urbanist were unexpectedly enlarged' (Secchi 2005). Article's conclusion is that either the concept is ample and pretentious or the practice is reductionist.