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Environment, territory, and landscape

Attilia Peano

Environment, territory, and landscape are fields of study, skills and action with relative autonomy, but strongly related. In these areas are addressed the major international strategies that will guide territorial policy in the third millennium: conservation of biodiversity, for the life of the planet, and strongly linked to health and economy; protection of landscape as ecological resource, cultural, social and economic; and sustainable development as a guiding principle of most appropriate relationship between the human activities and the global environment.

In our country the hydro-geological risk management was always considered a sector theme of territorial planning with weak results on effectiveness of precautionary actions and ex-ante land use policies. This situation is increasingly in the frequent episodes of instability that have interested, in recent years, large portions of the country with serious consequences for the urbanized area. The planning of the river basin is of particular importance to implement the greater integration between land use planning and hydro-geological resources management. In this perspective, the Po river basin Authority has promoted an innovative planning approach. The new plan 'Po Valley Special Project' has introduced new integrated and strategic goals.

The following papers of the multidisciplinary researchers group discuss this new strategic vision, with particular focus on the implementation of Strategic Environmental Assessment (SEA) to the planning of the Po river basin. The SEA methodology, developed and tested during the multidisciplinary research project coordinated for the Po river basin Authority in 2008, has been designed with the aim of strengthening the implementation of river basin planning at local level.

According with the evaluation methodology experimented, the Po river basin planning should move towards an innovative spatial planning process. This should be inclusive and oriented to implement shared plans and projects regarding necessary works to mitigate risk, and actions aimed at conservation and the environmental restoration included in the framework of sustainable development.

A sustainable future for the Po river basin.

The Po river valley Strategic Project

Francesco Puma, Tommaso Simonelli

Foreword

Valorisation and risk reduction in a defined territory can be reached only through an integrated policy in sectors related to landslide- and flood- risks mitigation, water resources protection and environment protection. Moving from this vision, the Po river basin Authority promoted the 'Po river valley Strategic Project' to overcome sectorial intervention approaches, and to strengthen the vision at basin scale.

The project started with the Agreement protocol to enhance and protect the territory of and to promote population safety in the Po Valley signed in Mantova on may 27th 2005 by the Po river basin Authority and the 13 riverine provinces. The 'Po river valley Strategic Project' (hereinafter called Project) involves different institutional levels, sharing the same principles and goals. Project strategic goals are described below.

Main objectives of the Project

To enforce existing basin plans and European directives concerning the matter (EU Birds Directive, Habitat Directive, Water Framework Directive and Floods Directive), the project has set the following main objectives:

- to enhance hydraulic safety conditions and recover 'room for the river' in the plain territories;
- to promote the conservation of ecological integrity of the territory alongside the Po river and the conservation of water resources;
- to increase the natural and cultural heritage value of the fluvial territories, improving accessibility for local population and for sustainable tourism;
- to strengthen the overall Po river governance system and increase the level of knowledge and participation in order to improve interventions programming and realization ability, under the banner of sustainability.

For what concerns the first objective, the Flood and Landslide risk mitigation plan for the Po river basin (Piano per l'Assetto Idrogeologico – PAI) represents the main planning tool to individuate preventing and mitigating actions regarding hydrogeological risks (answering to the EU Floods Directive).

The actual risk mitigation structural system (especially embankments along the Po and major rivers), though, even if coherent with the general PAI prescriptions, shows some local criticalities.

Furthermore some evolutionary trends, man-induced, let the territory become more vulnerable to hydrogeological risks. The increasing river channels artificialization and inert-quarrying activities are indeed causing, in some reaches of the Po river, a channel deepening up to 2 meters, that produces general damages to naviga-

tion and withdrawal works, and to bridges structures. To solve these criticalities the Project aims at:

- solving local problems concerning the embankment system;
- re-balancing the sediment-yield transport;
- deepening the knowledge necessary to manage residual flooding-risk, according to the EU Floods Directive approach, through residual risk mapping and population correct information.

The second objective deals with actions finalized at the strengthening and size-increasing of the ecological network and at a better integrated management of water resources, including environmental uses.

Along the Po river many CISs and SPZs have actually been individuated, belonging to the European Natura 2000 Network.

On these aspects the Strategic Special Project aims at promoting the completion and coordination of management plans of Natura 2000 areas, maintaining the vision of the whole river system.

The third objective focuses on the natural and cultural heritage potential value of the fluvial territories, and brings actions forth to improve territorial attractiveness and sustainable economic activities and tourism.

The fourth objective crosses all the other three, and deals with the strengthening of the governance system. Jurisdictions fragmentation between different institutional levels and complexity of communication between different actors, involve the necessity to develop cooperative models to reach effective results.

Project progress update

Considering the principles and objectives characterizing the project, the Interministerial Committee for economic programming (Comitato Interministeriale per la Programmazione Economica: CIPE) has assigned the project 180 millions Euro, using resources from the Fund for Depressed Areas, with the Resolution n. 166 dated 21st december 2007, which implements the National Strategic Framework for the period 2007-2013.

CIPE approved the project on the 2nd April 2008.

With the resolution dated 6th march 2009, CIPE allocated the funds, formerly assigned to national strategic projects, to a new Fund established at the Prime Minister's Office. At the time being, institutions involved in the project are setting the base to start the preliminary implementation phase.

Assessment of Special Strategic Project by the Analytic Network Process

Patrizia Lombardi

Planning and management of water and river basins usually deals with multiple and conflicting issues which are concerned with territorial, economic, environmental, social components. The list of issues mentioned by the EU Directive on Strategic Environmental Assessment (SEA) includes, alongside 'traditional' issues such biodiversity, flora and fauna, population, health, water, soil, landscape, aspects related to mobility, energy efficiency, climatic change which are more closely linked to human activities and their impacts on the eco-system. These issues are often interrelated and dependencies can be recognized among the aspects involved. More specifically, in river basin district planning and management, the selection of environmental objectives is influenced by the complex reciprocal interactions between the river basin district conditions and the human (social, economic and cultural) activities.

Traditionally, the evaluation of water planning and management issues is conducted by adopting conventional impact assessment techniques and multi-criteria analysis which are based on bi-dimensional (matrices) and hierarchical schemes. These do not allow an inter-related and holistic assessment of all the components, including those within the same cluster which may lead to rank reversal result findings.

The evaluation approach for the alternative environmental strategic objectives carried out in this case study, on the contrary, has been based on an innovative methodology, the Analytic Network Process (ANP), which makes possible interactions and feedback among decision elements. The ANP is the first mathematical approach that makes possible to systematically deal with all kinds of dependencies and feedback among elements. It requires the identification of a network of clusters and nodes, as well as pair-wise comparison to establish relations within the network elements.

The model consisted in four clusters: the environmental categories cluster, including Water resources; Soil; Flora, fauna, biodiversity; Landscape, environmental and cultural assets, rural spaces; Hydro-geological risk; and the three clusters of Actions described in the SSP. This model has allowed a more realistic representation and weights estimation of the complex reciprocal interactions between the water district conditions and the human (social, economic and cultural) activities. Therefore, it has been able to better reflect the spirit and recommendations included in the recent norms and regulations related to SEA.

After identifying the nodes of the problem, the relationships of influence in the network were structured. The application was conducted inside a focus group, composed by the supervisors of the Special Strategic 'Po River' Project (SSP) and the members of the work

group in charge for the evaluation of the project, at the Po River Basin Authority in Parma on may 21, 2008.

The results obtained have shown a strengthened integration of the strategic environmental issues within the management of sustainable regional development policies, pinpointing the need for a deeper valorisation of landscape and cultural heritage. These findings reflect the recent River Po Basin Authority strategy to institute an integrated and coordinated policy action in the field, providing an additional aid toward the achievement of integrated policies for the long-term sustainability and resilience of the Po District.

The planning of river basins in Europe. Aims and central issues

Angela Colucci

European policies: integrations versus project

The two directives Europeea Water Framework Directive (WFD - 2000/60/EC) and Directive on Strategic Environmental Assessment (SEA - 2001/22/EC) are two important points of reference in theme of landscape and environmental policies.

The two Directives share several peculiarities:

- they insist on the possibility of creating large scale effects on the environment and on the quality of European territories;
- they lead to administrative and inter-disciplinary cross-sector effects (activation of institutional dialogue);
- they suggest an inevitable and necessary dialogue/communication between traditionally 'strong' disciplines. The SEA Directive, introducing the strategic environmental assessment of plans and programs, provides integration between disciplines traditionally associated with physical, natural and environmental aspects with disciplines of planning, social-economic management towards sustainability goals.

Similarly, the WFD introduces an integrated approach to water resources management, in protecting and improving quality-quantity of the resource, in the management of water services, in the improvement of ecological systems and in the hydrogeological integrated risk management.

Knowledge platforms

An instrument for the implementation of the WFD is the construction of knowledge platforms that aim at the integration of models, methods and technical information-specification.

There can be found institutional platforms, research-oriented platform that focus on a multidisciplinary approach to the construction of methods and patterns and platforms aiming at sharing practice and experience.

The first kind includes institutional platforms as Water Information System for Europe, which collects data on river basins and all data related to the WFD.

There are also numerous examples of research platforms, many of which were developed as follow-up of research projects or experiments, such as inter-European Harmonica, SPI-water or NeWater. An example of a consolidated platform is FLOOD-site, a common interface and information system which refers to cognitive relationships, experiences and information documents developed by a complex network of organizations on the issue of prevention and mitigation of flood risks.

Another kind of portals are those supported by professional organizations and individuals / organizations and oriented to share good practice (such as the institutional site of the European Water Association - EWA).

Programs, plans and design

In recent years the issue of planning and design of the territories along the rivers has become strategically important. Four major types of intervention can be pointed out:

- a. experiences linked to the implementation of the WFD: plans and programs at basin level;
- b. integrated river basin management projects that insist on the quality of territories through river basin management;
- c. integrated projects of territorial and urban development that insist on spatial planning and integrated strategic goals, through the application of principles of sustainable management of river basins;
- d. design proposals (flood design) that aim at developing a different approach to architectural design of the river front, through mutual integration between architectural/urban design and a renewed relationship with the River.

Experiences of implementation of the WFD

Since the '90s the authorities of the major river basins in Europe have re-oriented the programs and measures for land-river management by integrating sustainable development goals and improving overall quality planning.

The contents of river basin management plan required by the WFD (see BOX WFD) perfectly fits to large European international basins in Europe (like Rhine, Danube, Elbe ...). Among these, i.e. the Rhine and the Danube District Authorities have already published their draft management plan.

Projects of integrated river basin management

Since 1994 the European Commission had dedicated funds to international cooperation projects on the theme 'Fight against flooding and drought' (INTERREG IIC) and to the issues of integrated management of water resources and river basins.

The project Cyclic Floodplain Rejuvenation (IRMA-SPONGE) provides coordinated interventions throughout the Rhine basin aimed at improving ecosystem and landscape quality, insisting on the degraded traits through the displacement of banks. This project also sustained the realization of the project Ruimte voor de Rivier along the courses of the Rhine, Wall, Maas and IJssel rivers from the city of Millingen to the city of Rotterdam. The park contains different environments and activities with educational tours.

Similarly other river parks were settled as a result of programs and/or water management initiatives: the Polder Altenheim Park, the Pamina Rheinpark and the Ruhrtal Park.

Combined spatial and urban development

There are many examples of urban regeneration that take inspiration from the redefinition and enhancement of the relationship between the city and the river. Examples include the Basel Strategic Plan Impulsprojekt Rhine. This plan, acting on the quality of river places and

spaces, drives towards the redevelopment and revitalization of the city. There are also some cases of smaller cities and projects that have adopted a similar strategy of innovation and revitalization: an example is offered by Ladenburg, Germany.

The redefinition of the relationship between land and river is also present in regional plans. For example, the region of Nord-Rhine Westphalia has developed a regional strategic plan that identifies the river Rhine as the element of identity of the whole region. The project includes different axes of intervention, all interconnected and aiming at the reconstruction of a new and different relationship with the River.

Design proposals (Flood design)

The issue of integration between architectural design/urban design and environmental (management of flood risks) has led to develop innovative and interesting design hybridization. This trend is witnessed by the architectural competition sponsored by the Royal Institute of British Architects on the 'design flood' which called for the development projects of residential settlements with low vulnerability.

Several urban renewal projects combine hydrogeologic protection objectives, environmental quality with the construction of buildings and urban neighbourhoods.

Sea, beyond the procedure for a Po river basin valorisation project

Grazia Brunetta

The European Directive on assessment of the environmental impact of plans and programmes (SEA) introduces the strategic dimension of evaluation as a process to be carried out in parallel with drafting of the plan in order to gradually implement the construction of environmental sustainability scenarios.

In recent years, against a backdrop characterised, amongst others, by considerable delay in transposing the related European Directive in Italy, current experimentation have revealed a lack of integration between evaluation and the planning process.

The problem of integration between evaluation and planning is not a new issue and is intrinsically tied to the original idea of planning. With regard to this point, it is worth recalling Abdul Khakee's well-known article, written in 1998, which defines evaluation and planning as 'inseparable concepts', stressing their close integration and retracing historic interrelations and forms of reciprocity between planning theory and evaluation approaches in planning systems. Design of the evaluation process is not a 'neutral' action, indifferent to the planning context in which it is inserted but, from this point of view, may play a significant role in redesigning the capacity and institutional role of the territorial governance (Alexander, 2005).

Strategic Environment Assessment acquires valued added if, in turn, it is interpreted as a possible (certainly not the only) integration strategy able to mainstream environmental issues in plans or programmes in an attempt to enhance the level of acceptability of decisions and to reinforce the effectiveness of territorial governance actions (Brunetta, 2008). The article proposes this interpretative perspective, illustrating the institutional and technical conditions that may facilitate this process of integration. The opportunity to discuss how to address this theoretical question in practice was provided by the proposed evaluation methodology designed for the Po River Basin Authority. This article describes the underlying principles of the design of the SEA methodology of the Po River Valley Strategic Project (PSS) in order to highlight the methods and goals of integrating strategic assessment in river basin planning.

The SEA methodology in planning of the River Po Basin Plan

Two basic conditions were assumed as the main tenets for the design of the SEA methodology.

The first concerns the type of object to be evaluated: not a single plan or programme of the Po River Basin Authority (Adb) but the river basin planning, that is the comprehensive view launched by the plans and programmes (within the competence of the Po River basin Authority) that impact basin territorial, environmental and landsca-

pe resources.

The Po River basin plan is a transcalar, multi-sector planning process, launched following approval of the 'basin plan' (2003) and currently being revised towards a strategic approach perspective. The SEA methodology applied to river basin planning has been configured in such a way as to facilitate the planning process in the territories of the basin (from the river to local area). The second concerns the need to manage the governance process in the territories of the Po. This implies the need to manage land use conflicts, adopting processes able to increase cohesion between stakeholders and levels of governance, a sine qua non to achieve a satisfactory level of effectiveness of basin planning.

The main ethos of the evaluation approach adopted for Po river basin planning is that it is carried out in parallel with such on-going decisional process, with the aim of contributing to construction of a reference framework (consisting of selection and priority criteria) for the prior definition of shared intervention options and goals.

Structure and results of the evaluation process

According to the institutional conditions outlined above, an opportunity to experiment application of a strategic process of the environmental assessment 'inside' the construction of the Po river basin planning process arose in 2007 when Po River basin Authority technicians started to draw up the Preliminary draft of the River Po Valley strategic project (PSS) (Interministerial Committee for Economic Programming resolution of 21/12/2007), approved in May 2008. The PSS is configured as a strategic plan that proposes a new vision of the Po river basin, based on achievement of qualifying objectives concerning four areas of action: (i) improvement of hydraulic safety, increase in the lamination capacity of the river banks and morphological reconstruction of the flood plain; (ii) conservation of the ecological integrity of the river banks and water resources of the River Po; (iii) the system of fruition and cultural and tourist facilities; (iv) the system of governance and of immaterial networks for knowledge, training and participation.

The structure of the SEA process is defined according to areas of action and key issues of the PSS: (i) water resources, (ii) soil, (iii) biodiversity, (iv) landscape and environmental assets, (v) hydro-geological risk. These five key issues become the environmental categories clusters of the SEA process. Structuring of the process takes into account the strong interrelations between the environmental categories clusters/decision-making and organizes the information according to two levels of analysis and evaluation. The first level, of bi-dimensional type, concerns identification of the relationships between the areas of action clusters (and related actions within each area) and the five environmental categories clusters. This level of analysis highlights only the hierarchical relationships inside each area of action and those within the same cluster and does not take into account the multiple, complex relationships that exist,

reciprocally and generally, between the various areas of action and environmental categories clusters. The second level of analysis permits the structuring of the evaluation problem according to a multi-dimensional logic. It has been decided to adopt the multi-criteria technique of the Analytic Network Process (ANP) which makes it possible to move from a bi-dimensional to a multi-dimensional type of analysis and evaluation, able to highlight the complex linkages between the areas of action of the PSS. The ANP was tested during two workshops with Po River Basin Authority technicians, inserting this in the process of preparation of the PSS as a basis for prioritising the areas of action and issues.

The framework delineated by the evaluation process configures a complex project, now in course, sustained by a system of governance based on scientific knowledge, technical training and social participation. Therefore, the process of Po River Basin planning, started with the aid of the SEA methodology, outlines a planning action perspective to be completely implemented and undeniably difficult to apply in view of its complexity, but which certainly promises virtuous results in terms of quality and effectiveness.

Participation in Sea: a complicated question

Patrizia Saroglia

The Directive 2001/42/EC is being introduced by the European Union requiring national, regional and local authorities in Member States to carry out strategic environmental assessment on certain plans and programmes that they promote.

This considers the Strategic environmental assessment (Sea) key tool for integrating environmental considerations into policies, programs and plans and considers the participatory process a basic element for that decision-making instrument.

In practice, however, there is constant difficulty in applying the participatory approach to the Sea instrument. The problem is that the Sea as a process of character 'strategic' presents a vague under investigation object (because revolves around issues/ actions and matters in general), while the participation only makes sense if it can define precise stakes.

How to escape from this impasse then, bearing in mind the directions of the directive without reducing on the one hand, the sea a mere bureaucratic, and the other without falling into the rhetoric of participation?

To define 'involved' a process of Sea, then it is necessary that the object of evaluation is as limited as possible. The questions referred to the environmental assessment should address problematic issues clearly and territorially defined, few in number and at the same time understandable and relevant to the actors involved. But making the specific object of the Sea is not always possible. So when it is not possible, so to avoid falling into the rhetoric of participation, we must give up trying to define and conduct a Sea undertaking. This is not to diminish the value of Sea, but to scale down expectations. The strength of Sea lies in its being a technocratic element fallen in the decision making process. Accepting this minimalist vision, Sea has the opportunity to overcome assessments of nature by technique alone.

Taking this path however, means that on the one hand, it stays away from the bureaucratic logic of performance, but on the other, it resizes 'dogmatic' type expectations able to exhaust any uncertainty about the right thing to do. The Sea aspiration should then be declined to the field of constructing information needed to define the 'perception of risk' associated with the implementation of the interventions needing to be assessed. Where perception is the fundamental common element, notwithstanding the unavoidable differences in perspective, everyone subject to interventions will have to live with.

A territory and landscape project

Attilia Peano

According to the Community directive, Strategic environmental assessment (Sea) is intended not only to guarantee a suitable level of environmental protection but also to contribute to integrating environmental considerations into the preparation of plans and programmes in order to promote sustainable development.

The case examined would appear to comply fully with such objectives as it has accompanied the policy-making process throughout the Po basin management policy-making and also encompasses various environmental concerns. In fact, during the works, the Sea methodology, launched with reference to the P.A.I., was applied to the Po River Valley Strategic Project (PSS), characterised by a strongly integrated territorial perspective that embraces not only conservation of water resource quantity and quality but also protection of the river banks, improvement of the safety of local populations, strengthening of the ecological network, improved fruition of environmental and historic-cultural resources and river tourism. A highly innovative vision that overarches the traditional sectorial approach, promoting coordinated, synergic action of different policies in accordance with Community Directive guidelines regarding water, protection of the land, biodiversity, and with the European Landscape Convention.

Its strength lies in integration

The four areas of action of the project - enhancement of hydraulic safety conditions, conservation of the ecological integrity of the territory alongside the River Po and of water resources, system of fruition and cultural and tourist facilities and governance - configure an inseparable system of relationships between actions, objects and stakeholders linked to the territory and landscape. The policies promoted by the Po River Basin Authority encompass not only sector planning actions but also uses and activities of the territory, involving territorial institutions, park authorities, other sector representatives and, in particular, the local populations who become actors and must know, discuss, dialogue and share a complex project whose success is closely tied to joint participation in decisions and application of these. The PSS is a major national project that embraces the entire plain of the Po, four regions and all the riverine provinces, close on 500 Municipalities; the river corridor represents the natural backbone of Northern Italy, a major, also economic resource for inhabitants and agriculture, a landscape that can become a major factor of attraction able to stimulate new sustainable rural, craft, commercial and recreational tourism activities.

The landscape as cohesive factor of the project

In the technical experimentation carried out, the Sea me-

thodology returned a ranking, according to the evaluation criteria, that places major weight on the 'valorising the river area's natural and cultural heritage' node that embraces policies for safety of the land, water management, conservation of biodiversity, land use, fruition and valorisation of resources.

The final ranking of the environmental category clusters stressed the priority of the 'landscape, environment and cultural heritage and rural spaces' cluster, inserting the PSS as an integrated landscape policy within the framework of the European Landscape Convention. The evaluation method reveals the in-depth innovation introduced by the PSS compared with traditional sector type river basin policies, which have often proved to be of limited effectiveness as based exclusively on sector-level actions and environmental and territorial constraints. Recouping of landscape policies in order to develop actions addressing environmental conservation and re-qualification, safety of the populations and activities, suitable valorisation of fruition in order to promote balanced, sustainable development of the territory represents the new frontier proposed by international guidelines.

Landscape and territory in the future

The landscape embodies values that have emerged in contemporary society and which involve collective and transgenerational interests, establishing new rights and new duties, tied to on-going in-depth changes: transit to the post-industrial era, economic and social globalisation, the advent of the digital era, the role of communication and image. Which prospects may unfold for landscape planning? What role can it play in redefining the relationship between planning and society? The landscape involves questions of ecology, of structured permanences, of perception but also addresses, preponderately, questions of territorial governance such as land use and safety, management of water, consumption of territory, depopulation, infrastructure sprawl, the conditions of rural areas, the rapport between city-nature-agriculture, the local economy. Questions and policies that involve the contemporary social project and which impose the need for innovative technical, administrative, regulatory, planning instruments able to accompany transformation processes rather than being imposed, open to dialogue, to confrontation, incentivisation. Landscape and territory are, therefore, inextricably linked in order to construct a prospect of 'sustainable' progress of society. A path fraught with difficulties as it implies overcoming the fragmentation and sectorial nature of laws, rules, financing, organization of the public administration at all levels, also encouraging private operators to take a vision of the future impacted by the effects, also economic, of improved management of the territory and landscape.

Planning and large urban projects. Stockholm 1990-2025

Dunia Mittner

Hammarby Sjöstadt, Norra Djurgårdenstaden and Årstafältet are the most important operations of urban transformation undertaken in Stockholm during the last decades.

This text aims at introducing these projects and leaving them on a background constituted by the city's general planning documents of the second half of the Twentieth Century, emphasizing the elements of continuity and change.

The project for Hammarby Sjöstadt ('the city around lake Hammarby') starts in 1990 following Stockholm's candidature for the 2004 Olympic Games and will be finished in 2012.

Concerning Norra Djurgårdenstaden Stockholm Royal Seaport ('The city of Norra Djurgården') the preliminary operations connected to land reclamation start in 2000 and the complete realization is foreseen in 2025. The project that is located later in time is Nya Årstafältet ('The new Årsta Field'); in 2008 a competition for the area's reorganization in a new district around a park is started and the realization should happen between 2012 and 2030.

The three operations are placed within the recent capital city's Plan adopted in February 2010, the Översiktsplan 2010 (ÖP 2010, Stockholm City Plan 2010), which proposes four strategies of urban transformation.

The first strategy consists on the expansion of the compact city beyond its historical borders, trying to create a continuity with the first outer ring, and it concerns about ten wide areas, mostly underused or not interested anymore by industrial, harbour and railway functions, to be assigned to mixed uses, residential, offices and leisure activities.

The second strategy foreseen by the 2010 Plan consists on the development of some nodes outside the compact city, five of them located South and four North. It gives a specific attention to the densification of the external urban poles in order to reach a balanced development of the entire metropolitan Region, with the aim to increase the offer of services, culture and jobs and to expand and upgrade public transportation.

The improvement of infrastructures, of cycle and pedestrian transportations, the construction of new areas close to parks and public spaces, in order to promote the connection among the different parts of the city, constitute the third strategy advanced by the 2010 Plan.

The picture of the main interventions is completed by the projects working around the subject of the creation of high quality public spaces and of spaces adjusted to technical functions in order to realize a lively and intense urban environment.

The construction of a long period's background through Stockholm's Plans

Hammarby Sjöstadt's district appears as an exemplary application of the Översiktsplan's 1999 (ÖP 1999) ideas, aimed at re-drawing the extensive city through operations directly related to the central city, located exclusively on urbanized lands, abandoned or under-used, the so called 'brown-fields'.

The ÖP 1999 places the main interventions of urban re-drawing around twelve big areas located on a ring around the centre or near it. The idea is to realize new city's parts equipped with internal complexity and characterized by mixed functions, residential, offices and leisure, in order to take advantage of already made infrastructural investments and to bring to a higher performance the fixed capital in such a way constituted.

The previous Plan, the first document extended to the entire Municipality drawn after the Plan by Markelius of 1952, is represented by ÖP 1999, the first Comprehensive Plan of the Capital's history, according to the directives of the National Building and Planning Act from 1988, imposing to all Municipalities to provide themselves with a Plan to be periodically updated. It's a programmatic document, which aims particularly at regulating the system of waters and the use of land through different directives for the central areas and the suburban districts. Concerning the Nineteenth Century city the restoration of the residential buildings and of the areas to which a historical value is recognized, such as the Röda Bergen district and the Central Business District (CBD) with the five blades of the Plan by Markelius, raised to symbol of the Functional City and of the Social-Democratic Welfare is foreseen.

The Plan faces also the problem of the further development of the external lands urbanized between the Fifties and the Sixties. It divides the sub-urban expansions considering the period of construction, by building a detailed map of the development's phases of the city. Five phases are identified, each corresponding to a type of suburban development, for each of which rules of intervention are defined: the garden-cities from the Twenties with single or private semi-detached houses, the districts from the Thirties, the ones built between the Thirties and the Fifties with the 'thin houses type', the satellite cities built between 1950 and 1965, at the end the districts built between 1965 and 1975.

The establisher action of the Plan by Markelius

The main directives of attention towards the central areas on one side, and towards suburban expansions on the other, characterizing the decades between the Fifties and the Seventies are established by the most well-known document of the Town Planning history of the Capital, the Generalplan för Stockholm by Sven Markelius from 1952. It defines the city's structure of today through the construction of a net of satellite cities around the 'mother' city and the configuration within it of a city as 'pulsating heart' of the whole body, with offices

and commercial functions.

The main target, now reached, consists on the gradual substitution of the monocentric system of the Capital city with a polycentric system, through a policy of decentralization of working and residential activities at a regional scale. The fundamental elements of the Plan is represented by the underground's net, constituting the main infrastructure of the Region: the satellite cities are located along it following a role defining in forty-five minutes the maximum travelling time between 'satellites' and 'pole'.

The directives given by the Plan by Markelius address the growth of the Capital through the construction of three generations of satellite-cities (corresponding to the Fifties, Sixties and Seventies), different among them in relation to the design principles. Concerning the settlements built during the Seventies (Norra Järvafältet Development Area) they seem to privilege the use of high densities and the research of new rules for urban additions, as in the case of Kista, conceived as a regional pole for services specialized in the electronic sector.

The suburban expansions from the Sixties (Södra Järvafältet Development Area) organize districts abandoning the use of neighborhood units characterizing the Plan from 1952 and the first generation's towns, in favour of streets drawing a regular network.

A first aspect characterizing the districts from the Fifties is represented by the arrangement of the residential's space in order to organize the urban space through well defined and of limited dimensions units.

In its overall order, the space built by first the generation's towns appears almost as a 'typological handbook' with the purpose to favour the variety of building types and volumes, secondly located in relation to topography. The streets' layout is mainly curvy, following the garden city's tradition.

The importance of the political and managerial continuity

The importance given to public transportation and to the diversity of its offer characterizes the urban planning history of the Capital,

starting from the drawing of the underground's net foreseen by the 1952 Plan.

The attention given to open space represents the second long period element of continuity of the Scandinavian and Swedish tradition. The Plan by Markelius draws the underground's net and the new planned suburbs starting from the protection of the wooded areas and of the existing natural open spaces; the relation between built environment and topography is very strong and a particular attention is given to the spatial distribution of the recreational equipments.

A common aspect among the Plans is the overall conception of the green areas, which is thought as a system constituted by urban parks, small green areas within the compact city, natural elements dividing the parts of the 'archipelago city', natural tanks outside the city's centre.

The location of the main urban projects identifies some

moments of lack of continuity among the Plans. The attention to central areas and to suburban expansions given by the 1952 and 1990 Plans is substituted by the accent on the areas on the edges of the central city given by ÖP 1999. ÖP 2010 seems to confirm this strategy, adding a new attention towards the extended outskirts. Starting from the observation of the projects of Hammarby Sjöstad, Norra Djurgårdenstaden and Årstafältet a new phase in the Capital's planning history seems to emerge. The fundamental elements of the project change: in the first two cases these are still the building block, the construction along the perimeter and its variations, in the most recent example the research seems to text new typologies and densities, able to work as connections with the city's centre.

One more different element is related to the actors of the transformations and the methods of their realizations. In the case of the first two projects they seem to belong to the Swedish tradition, demanding to the Public the architectural control of the entire operation, through the General Plan and the criticism of the detailed projects. In the case of Årstafältet, the Municipality draws up the program in advance and the general goals of the transformation and demands the general project as well to external architects selected through a competition, while keeping the power to take part again in the project in a second moment.