Different groups and functions are enabled to coexist in the same structure, although they appear within different dynamic and evolutionary flows of complexity.
- The second component applies to the construction of a system of technical structures and rules, that should correspond to new contents of „complexity" in plans and their implementation, with special emphasis on co-ordination of service programmes on the spatial level.
- The third implies the necessary establishment of an information system as an indispensable element in decision making and management of the plan: the relation between the structure of the plan and the information system is crucial in the utility and finalisation of such an instrument. Building an information system on the criteria of efficiency influences clarity in decision making between the political and technical-expert spheres.

A special point in the planning process is the two-way dialog between administrators and the population: *comparison, publication and presentation of the plan at different levels of its design and is the focal point and instrument for preparation, adoption and implementation*

7. Conclusion

Despite all knowledge on urbanism, architecture and spatial planning we will always ask ourselves: „How should I draw such a *new plan*, with what *tools* and what are the *criteria*, that must be respected?"

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Illustrations

***Figure 1**: W. Christaller – space based on the rational theory of „centrality" and hierarchy of settlements or fractal dust as a planning grid, used in the competition for the Parc de la Villette (B. Tschumi, 1992). In the project Tschumi dispersed the programme into particular fragments and later positioned them in the regular grid. He added softly designed curves and lines to the structure.*
J. Gleick: „... the model is more complicated and simultaneously a more faithful depiction of reality or much simpler for easier understanding. Only the most naïve scientist thinks, that only the model completely following reality is the perfect model. Such a model would have the same fallacies as a city map, that would be very large and detailed as the city itself, depicting every park, every street, every building, tree, every pot-hole in the asphalt, every person and every map. If such a map would be possible, its details would deny its purpose, to generalise and abstract."

***Figure 2**: Euralille – information society, urbanism of transport technology or architecture of fragments of „big names"? (Espace Croise: Euralille – The Making of a New City Centre; Birkhäuser, 1995)*

***Figure 3**: Impractical preservation of division of the former structure: first three pictures (areas of old houses, reformation of basic property, possible new configuration that pays respect to former morphology), according to Le Corbusier, point out, that a final hypothesis doesn't allow respect for basic guidelines of modern ways of life („the road remains a corridor, facades open up into noise and dust, the orientation of rooms remains the same, green surfaces are limited in function" ...). From here stems the necessity of enforcing radical changes: a new dwelling and building „model", that radically intervenes in the existing structure.*

***Figure 4**: Berlin – Reichstag, project as an exception?*

***Figure 5**:*
a) Barcelona – scheme, presentation of basic strokes in city construction
b) The old port and Barceloneta – importance of redesigning edge conditions by adding new contents (pedestrian path by the sea);
c) Olympic village – as an urban project it is attached to the street structure and city network, morphological continuation of structure.

***Figure 6**: New structure or only a different graphic presentation with the same content*
a) Actar arquitectura: Mixed residential mechanism (Gousa M.: Housing, New Alternatives, New Systems)
b) Volpe G.: From the street to the house; Rim (Europan 4)

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Mojca ŠAŠEK DIVJAK

Guiding Urban Development on the Municipal Level

1. Intoduction

Political changes in central European countries have caused social and economic changes, that affect urban spaces. In Slovenia the new development conditions of transition and the typical contemporary changes towards globalisation, market economy and information technology demand changed attitudes to further urbanisation. Market principles, greater private initiative in spatial development and urban competitiveness are processes, that are already included and respected in planning systems and urban development policies of developed European states. Slovenia is adapting to such conditions slowely, moreover, certain actors that perform important urban management functions in the European Union haven't been established. These include variuos development funds and agencies for performing specific development programmes and public projects, such as clearing and renewal of urban centres, public housing, restructuring dilapidated industrial sites etc. These agencies can act as initiators of development in critical areas and by utilising economic and organisational acts stimulate realisation of projects.

Urban development policies have to be harmonised with national policies, however Slovenia hasn't as yet prepared an adequate national policy of development, nor defined the role and function of the urban system within the framework of the national development strategy. In the period of tighter European integration decisions on long-term environmental

and spatial policies concerning sustainable development are of key importance and are tied to directing development in cities. At present spatial planning in Slovenia is carried out on the national and municipal level, while the intermmediate, regional level is still undefined, although it is the basic territorial (planning) entity. In the regional framework social, economic, cultural and environmental elements should connect. Regional planning is especially important for cities where planning cannot be dealt with in the narrow context because of multi-faceted ties with their pertaining hinterland, the space for achieving ecological-economic equilibrium in the sesne of sustainability. The national plan should on the other hand, determine general directions for development, system solutions, spatial determinants and environmental standards; the essential obligations concerning execution and achievments should be transferred to regional and local plans, if necessary even lower levels.

The danish approach to town planning is shown as an example of a state with a long planning tradition, whose experience can be operational as a starting point for slovenian town planning.

2. The Danish Approach to Town Planning – The Copenhagen Town Plan

2.1 The Danish Planning System

Danish planning is organised according to hierarchical controle, whereby plans on the lower tier mustn't be in contradiction with plans on the higher tier. If changes occur on the higher tier, necessary changes have to be made on the lower tier as well. Plans are divided into national planning instruments and regional, municipal and local plans. Municipalities are responsible for municipal and local planning, regions for regional planning while the minister of environment influences the whole planning process with regulations, national planning directives and information for the public. Particular departments can intervene on local and regional planning decisions with veto's. The Ministry of environment supports pilot projects which could present the affirmation of planning goals in practice.

The main goals in urban development are:
- Danish cities should strenghten their position in Europe;
- The Oresund region should become the leading Nordic urban region;
- Cities should effectively and in an environment-friendly manner connect into international traffic flows;
- Open spaces and cities have to maintain their uniqueness, they have to be clean and beautiful and interesting as touristic destinations.

The starting points behind the strategy are based on the idea, that environmental protection and economic growth can grow mutually, thus adding to improved quality of the living environment and stimulating economic growth and employment.

Municipalities have the central role in spatial planning. The principle is, that local matters should be solved locally. Municipal plans respect national and regional plans and enable the preparation of local plans (Hartoft-Nielsen, P., 1995)

2.2 The 1989 Regional Plan

The historic „Finger plan" from 1947 still influences planning of Copenhagen, although the scale, area and metropolitan planning as such have changed considerably in the post-war period. The city has however under its influence developed into a star shaped form with five spokes – fingers. These are the routes of rail and road public transport. They are interconnected with several semicircular transport corridors. In the vicinity of traffic nodes and railway stations new local centres developed, relieving the old town centre. The decentralised regional principal was emphasised. Only the most important central functions were maintained in the old centre, while the other central functions were dispersed in the local centres. They succeeded in conserving green wedges between the urban spokes. Even the heights weren't changed significantly, the whole city image is unique and harmonic.

Since 1990 planning has been shifted from the common metropolitan region to the five new local communities, that have to co-operate on joint goals. The deal was, that they operate according to the 1989 Regional plan. The immediate area of the city (some 465.000 inhabitants) began working on the local plan or Sustainable plan for Copenhagen, 1993, that defines main structural directives (housing, employment, recreation, transport, energy, water supply, environmental protection etc.) while strongly pursuing intertwinement of urban functions. District planning has emerged as a new planning tier. In this plan conservation (preservation, protection of the urban fabric as well as landscape), urban renewal and new development are equally important elements in the urban strategy.

Urban renewal doesn't mean complete demolishing of low standard buildings, but their modernisation, while landscape renewal implies maintenance rather than design. We could label the principle as „multifaceted urban recycling project". Such well balanced municipal policy maintains the identity of the city, without changing it into a museum. The medieval town, the central old town core, still has a strong presence. Not in three dimensions however, since most of the medieval buildings have been demolished, but in two dimensions, in the street pattern and plot divisions into small parts with narrow facades, narrow streets and remaining city walls within the green areas.

Most of the squares and streets in this old part have been closed for motor vehicles. They redesigned them with new paving and street furniture for pedestrians. Thus vitality was returned to the open spaces, enlightening and presenting real democratic spirit: high quality open spaces accessible to all citizens.

The city is constantly improving its infrastructure. Public transport and cycling are specially stressed in traffic improvements. Private cars have been largely removed from the immediate centre, thus it is on the level of some 20 years before. In historic parts car traffic is very limited and parking has been decreased to the minimum.

The town heating infrastructure will by year 200 cover more than 90 % of all needs for heating in the city. It is tied to garbage incinerators were hot water is the side effect. Air pollution from incinerators has been minimised. Corresponding to care for natural resources (water, air, soil), as much care is given to the human environment and social balance.

There was a lot of debate about the revitalisation of the city, lying on an important junction between Northern and Southern, as well as Eastern and Western states. An agreement was reached between Sweden and Denmark about connecting the cities of Malmo and Copenhagen with a bridge for railway and motor vehicle traffic (1991). Thus a new international region is emerging, giving Copenhagen greater importance in the European scale. Following such vision, a new area was proposed West of the airport complex called Orestad (5 km long and 0,5 km wide) intended for central activities (retail, offices), connected to expected growth of transport activities, although even in this area mixed use is the principle.

Guidelines were prepared for regional planning of sites with specified urban activities:

- Retail and business activities
  According to estimates in the regional plan, adequate space was proposed for industrial and social activities in the local plans and inadequate space for business and retail activities. New retail and office space should be placed according to the principle of ties to public transport stations within the framework of the „finger plan". Real possibilities for development will be estimated in conjunction with further local planning. Greater densities are proposed in the neighbourhood of these stations, where adequate space should be found for employment, easily accessable from the whole metropolitan area. The regional plan also stresses the zone of West Amager (South of the Bella Centre) as an area with main activities for international and national needs.
- Activities of national importance
  These activities are located in the immediate neighbourhood of public transport stations – traffic nodes
- Sites for culture, sports, higher education, concert and conference halls
  Suitable sites are next to traffic nodes or in the city centre (city area).
- Development centre Amager
  Connecting to the highway and aeroport and prolonged acroos the sea to Sweden (fourlane highway and two line railway), the proposal changes the traffic structure in the city and gives new development potential to Amager. In Orestad local, national and international interests meet. The goal is to extend public transport and to provide a commercial basis for Copenhagen in the long-term strategy of city development corresponding to competitiveness of European cities.
- The port, land owned by the railway, ministry of defence, green edges, nature reserves

2.3 The Copenhagen Town Plan – 1993

The city plan from 1993 emphasises sustainable goals in city development, therefore it was named the „sustainable plan". It is composed of four parts.

2.3.1 The first part of the town plan includes two chapters:

– on changed planning circumstances,
– on the four basic planning themes

The first chapter on changed planning conditions deals with the position of Denmark and the Copenhagen metropolitan region in Europe without boundaries. The special conditions creating the danish metropolitan „K-region". From this international and national viewpoint several plans and laws are described, directly influencing the plan for the municiplaity. Amongst the most important is the 1989 regional plan.
Mestne občine Kopenhagen. Med pomembnejšimi je Regionalni plan iz leta 1989.

The second chapter includes the following themes:
– „areas next to public transport stations", densities and emphasis on access by public transport
– „the city by the sea", municipal ports, Amager
– „the green city", nature reserves, urban parks and urban spaces,
– „3rd and 4th dimension" (urban skyline – heights and historical features)

New planning possibilities have to be utilised in the wider perspective, described in the planning themes. The 1989 regional plan provides the concept „next to public transport stations" as the central planning concept. In the presentation of planning themes the need for subtlness and diferentiated application for specific conditions in particular local sites is emphasised.

These two chapters provide part of the review of main structures in the municipal plan.

2.3.2 Basic structure and guidelines

The second part of the plan contains 7 chapters about the main goals in municipal development, as well as subsidiary goals and guidelines protecting special interest sectors, coordinated by the municipal plan. The plan from 1993 predicts the modernisation of guidelines according to real circumstances, real development and in view of changed circumstances, as well as priorities of planning themes. The basic structure of s complemented with a set of defined urban development strategies.

The municipal guidelines concerning traffic (mainly goals and essential elements) were prepared according to the 1991 traffic plan for Copenhagen.

2.3.3 The structure of urban subcentres and their planning

The third part contains two chapters:
– on particular parts and the whole city,
– on planning in particular city areas.

The first chapter on particular parts of the city specifies 15 municipal sub-centres (the themes being: population, housing, possible employment, green areas). The chapter describes important functional characteristics of particular parts and pertaining planning problems, as well as relations to the whole city. Strategies for further development are outlined. It is the level between general basic structures and project oriented local planning.

2.3.4 The local planning framework

The last part of the municipal plan contains 2 chapters about local planning:
– general measures,
– special measures in particular parts.

The chapter on general measures describes categories of land use and building regulation, that are the foundation for particular areas in the plan. Corresponding to the plan from 1989, the new plan also utilises eight main planning categories of land use:
- housing and activities compatible with residential areas,
- housing and services (administration, education, shopping, catering, tourism, small scale enterprises etc.),
- mixed use areas (light industry, workshops, retail, warehouses etc.),
- production areas (production units, workshops, retail, warehouses, transport etc.),
- housing and activities tied to residential areas,
- harbour activities,
- economic infrastructure (traffic, energy, communal infrastructure etc.)
- public institutions, schools, social institutions, as well as recreation, sports and leisure.

Each category has a specific description of spatial norms (density, FSI, built up area), possible land use, possible demands on spatial organisation and design determinants, number of floors, parking spaces, environmental demands (standrads and norms concerning pollution from particular activities).

In the last part general measures are replaced with special measures for particular areas with respect to local specifics. Particular roads are determined as central streets (with public programmes on the gorund floor).

3. Basic guidelines and optimal spatial organisation on the regiional and municipal level

3.1 Regional level

Ecological and environmental spatial balance between the city and countryside is important, in contrast to the industrial city containing expansive division of functions. Ties to the hinterland are important for the city, enabling survival and simultaneously providing the countryside with its (administrative, economic, cultural, education etc.) core.

In the sense of providing optimal spatial organisation on the regional level the most important principles are: comprehensive traffic management on the regional level connecting all modes of transport and with tendency for diminishing use of cars;
- management and expansion of, above all, public transport with organised transport exchanges before central urban areas from cars and interurban buses to municipal public transport;
- traffic management with parallel maintenance of open and green urban spaces;
- mutually connecting regional, structural, urban growth with the development of public transport (railway, buses, trams);
- enforcing decentralised densening of settlement with the development of new centres;
- distributing these centres along regional transport routes and traffic nodes, thus densening and functionally complementing dispersed settlement, a consequence of suburbanisation processes;
- promoting mixed use areas (housing and corresponding spatial public uses, shopping and services);
- preservation of particular central activities in the immediate centre and dispersing other central activities into other regional urban sub-centres;
- promoting a regional urban scheme that preserves green areas, penetrating as deeply as possible into the urban structure;
- preservation of peripheral rural areas, the green belt;
- protection of the natural environment: air, potable water resources, as well as flora, fauna and especially natural biothopes.

3.2 Municipal level

Urban development has to evolve in the sense of **decentralised integrated urban structure**. Relatively autonomous urban parts „places" or sub-centres have to be created, their cores being until recently marginal or completely new structures, that could develop into autonomous centres. The model emphasises the need for connection and public participation concerning important decisions on space and community.

In the decentralised integral urban structure **organic nets** are designed that utilise spatial use within built-up areas in an intertwined, flexible, i.e. organic order. Intermingling of urban function according to the decentralised integral pattern presents a pattern contrary to the former order, that divided the city according to functional sub-division. Particular urban parts, such as the City, residential areas, industrial areas etc., shouldn't be seen as mono-functional areas, they are only predominant functions in particular areas. In these areas mixed use should also be promoted if we wish to direct development to a **higher stability of the system** and **functional mix.**

The elaborate basis of the urban ecosystem implies necessary comprehensive urban planning with integration of all relevant planning authorities and agencies. In general, practical urban planning should follow strategies responsive to needs and not only to drawn out urban development. The present planning practice often maintains the pattern of „functional sub-division". Such visions of cities, divided into functions of dwelling, traffic, leisure and work, are a rudiment of visions formulated in the Athens Charter (1933), at that time avantgarde, but today mostly surpassed.

On the municipal level in the sense of **optimal spatial organisation**, it is necessary to:
- achieve structural changes in the city, subdivide it into independent units with pertaining centres;
- pay equal respect to historical heritage urban tissue, renewal and modernisation of existing urban areas, as well as new development (complete urban communities), areas of equal importance;
- enforce renewal as a „recycling project", instead of demolishing old parts of the city;
- give renewal and transformation of urban surfaces priority over development on green sites, expansion of the city outwards has to be subsidiary to quality improvements of existing urban structures;
- promote mixed use;
- emphasise urban identity, *genius loci*, particularities;
- above all develop public transport, pedestrian surfaces and bicycle routes;

- expand central pedestrian areas and enforce quality in design of public open spaces: squares, streets, courtyards;
- pay respect to the pedestrian scale of the city (not cars), diversity, vitality and openness;
- extend different infrastructure: transport, heating, natural gas pipelines, sewage, water treatment plants etc.;
- preserve, renew and expand green surfaces (parks, river banks, recreation areas ...).

4. Conclusion

Directing urbanisation processes is tightly knit with social and economic development policies. It demands joint approaches of environmental dimensions with economic and other policies in decision making on all levels of activity. The sustainable approach in urban development is especially important, after all, all activities involved in settlement processes cause the greatest spatial changes and environmental burdening.

Although the political and economic ransformation of Slovenia has been going on for several years, a comprehensive development strategy corrresponding to the new circumstances, with respect to goals of sustainable development, still hasn't been prepared. Local development strategies will have to coincide with global strategies on the national level, that are being prepared (strategy of economic development, national spatial policy and the new spatial plan).

Urban planning is tied to the environment, infrastructure, housing, real-estate and other policies. The condition for coordinated operation of the planning system and spatial management is connecting particular sectorial policies and mutual solution of emerging conflicts.

As was emphasised in the presented plan of Copenhagen, the urban plan cannot solve all planning problems in a city. It does however represent a proposed order, that often simultaneously crumbles because of unexpected spatial acts. Problems are often solved only after they appear. Therefore an urban plan, has to be suitably adaptable and flexible, thus enabling necessary ammendments. Nevertheless, it still has o provide a municipality with strong guidelines and allow its citizens to achieve opportunities offered by the time they live in, to enjoy new living qualities. Possibilities for preserving old parts of the city can increase if necessary space for renewal or urban growth are provided. We have two planning chances: we can give priority to protection, conservation and maintanance of conditions and structures from the past with minimal renewal or we can allow radical transformation with new structures, that can also lead to the destruction of the qualitative urban substance. The best result is achieved, if we can find a sysnthesis or balance between the two extremes.

Urban planning should direct rather than restrict and proscribe changes in urban development, it should apply development concepts, programmes, structural plans. Changes shoudn't be planned in narrowminded teams of various experts (planners, urbanists, architects, landscape architects, surveyors, geographers etc.), but with public participation. The procedure should be transparent and planning goals clearly stated, thus allowing public particpation even in early decision making phases. Cooperation and mediation between different users, the public and private sector, local authority amd potential investors, as well as other actors, such as professional groups, nongovernmental organisations, economic and development companies, is a must.

Dr. Mojca Šašek Divjak, architect, Urban planning institute

Illustrations

Figure 1: *The basic scheme of the 1989 Regional plan of the Copenhagen metropolitan regiion (Finger plan) contains urban areas (grey), the traffic structure and structure of centres (central old town core and centres on transport nodes). Source: Copenhagen M. (1993)*

Figure 2: *Scheme of central activity surfaces with the new supplemental area Orestad. Source: Copenhagen M. (1993)*

Figure 3: *Structure of central activities in the town plan. Vir: Copenhagen M. (1993)*

Figure 4: *Network of cycling routes. Source: Copenhagen M. (1993)*

Figure 5: *Town subcentres – the town core: urban pattern. Source: Copenhagen M. (1993)*

Figure 6: *Town subcentres – the town core: qualities and problems. Source: Copenhagen M. (1993)*

Figure 7: *Town subcentres – the town core: long-term development potential. Source: Copenhagen M. (1993)*

Figure 8: *Town subcentres – the town core: areas of planned renewal in the planning period. Source: Copenhagen M. (1993)*

Figure 9: *Land use plan and activities in the central town area. Source: Copenhagen M. (1993)*

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Vladimir DROZG

Certain Dilemmas in the Preparation of a Master Plan – The Maribor Experience

1. Introduction

Although the contents of the master plan are proscribed in a by-law [1], a series of dilemmas and questions arise on the method of approaching and executing such a complex and elaborate task. The Law doesn't answer numerous questions so the experience of those who managed to trudge their way through such a labyrinth could be useful. In this article we wish to enlighten some dilemmas that emerge in such a project and strengthen ideas on principles with the experience of the master plan for Maribor.