

the natural environment from dispersed settlement. These areas are provided in all the larger settlements.

6.3 New development

Despite the tendency to preserve green sites, new development on such sites will be necessary. Especially the industrial areas, service oriented areas and areas for organised housing development. The latter will become important in the near future, since there are at present no real mechanisms for rational development and housing schemes are limited in quantity. The mentioned actions have to be publicly directed projects because the areas are substantial and shouldn't be left to present speculative „market“ oriented or spontaneous initiatives. Before hand, public interest has to be ascertained and/or public/private partnerships established.

6.4 Preserving existing built surfaces

The existing built structures will be maintained. Changes in activities and moving certain programmes to other sites can imply loss of quality for some areas, therefore the scope of proposed changes must be aligned with preservation of local as well as regional importance of the town. Activities on new sites don't mean a necessary loss for present sites. On the contrary, the system of the settlement will be complemented with presently missing or inadequately developed programmes.

6.5 Strengthening the present identity and quest for novelties

Maintaining the town form is possible also with new placement and new development. If the historical town is recognised as a value under a strict heritage protection regime, areas for new activities that the town needs for development, have to be provided elsewhere. We strongly stress, that all the built-up structure of the municipality has to be understood as an undividable entity, although particular parts are physically separated or split by agricultural and other areas. Ties can be achieved by densening the built structure, creating new connections and sensible allocation of activities.

7. Conclusion

The territory of the Municipality of Slovenj Gradec and functionally connected settlements was dealt with uniquely - not separated into central settlement and countryside. This approach and the inclusion of most development factors and interest groups can also add to sustainable development from the economic, social, cultural and spatial aspect; however (and by all means) only if it is coupled with monitoring and evaluation of results and timely response to changes in the internal and external environment and harmonising local development with environmental potentials and limitations. Here all the motives are hidden.

Slovenj Gradec following changes to the letnik 10, št. master plan for the settlements Slovenj 2/99 Gradec, Šmartno pri Slovenj Gradcu, Pameče, Podgorje, Troblje, Tomaška in Turiška was Ivan Stanič, co-authors Edi Koraca, Arhdeko d.o.o., Slovenj Gradec, and mag. Mitja Pavliha; authors of specific chapters were: Marija Majda Dekleva, Aleksander Jakoš and mag. Vladimir Stefanovič (Urban planning institute) and Branko Gradišnik, Mika Medved, Samo Vončina in Karel Zagorc (Institute for forestry). Final cartographic material was executed by Boštjan Cotic. The co-ordinator for the local authority was Jože Fras.

- ³ Aleksander Jakoš, univ. dipl. geogr.: The population, employment and households, 1997.
- ⁴ Marija Majda Dekleva, univ. dipl. geogr.: Tourism as a component of amendments to the spatial components of the municipal long-term plan for Slovenj Gradec, 1997.
- ⁵ Mag. Vladimir Stefanovič, univ. dipl. oec.: The municipal development strategy and master plan
- ⁶ Mag. Mitja Pavliha, univ. dipl. inž. arh.: Slovenj gradeč: The countryside - dispersed settlement.
- ⁷ Branko Gradišnik, univ. dipl. inž. gozd., Mika Medved, univ. dipl. inž. gozd., Samo Vončina, inž. gozd., Karl Zagorc, univ. dipl. inž. gozd.: The spatial plan of Slovenj Gradec - forests, Institute for forestry, Regional unit Slovenj Gradec
- ⁹ Ivan Stanič: Urban design and planning guidelines for selecting the railway route through the municipality of Slovenj Gradec

Illustrations

Figure 1: Development guidelines for the settlement system

Figure 2: The central urbanised area

Figure 3: Connections to the natural hinterland

Figure 4: Physical development emphasis

For literature and sources see page 40

Uroš LOBNIK

The Master Plan for Maribor

The project, Master plan for Maribor was started in 1995 and is today in the phase of proposal. In 1996 the analytical phase was carried out, in 1997 the expert guidelines, in 1998 the first draft for public debate and hearing and in 1999 expert reviews were prepared. Preparation of supplements and amendments to the spatial plan somewhat stopped the completion of the document, so the proposal is expected towards the end of 1999. Preparation of the document, from the analysis till the first draft, was under expert scrutiny and direction from the project council.¹

1. Analysis

The analytical phase of the master plan was directed into recognition and definition of key spatial issues with guidelines for their solution. Sectorial „expert“ analysis, opinions and proposals were collected into eighteen thematic volumes: Town and region, Demographic characteristics,

¹ The municipal development plan for the mandate 1995-1998 - proposal, Municipality of Slovenj Gradec, april 1995.

Suburbs, Analysis of physical structures, Quality of residential areas, Quality spaces, Degraded and vacant spaces, Areas of central activities, Public spaces, Access corridors, The town edge, The green system, Evaluation of biotopes in urban areas, Traffic, Stationary traffic in the town centre, Communal and energy infrastructure and communication network, Visual perception of the town, Selection of building sites for urban use, Spatial planning units. The last, 19th volume - Summary of analytical findings - was carried out as a synthesis of sectorial findings. In the analytical phase more than 1000 pages of text were written and more than 200 maps drawn.

Most of the problems from the analytical phase were formulated expertly and not methodologically. Before beginning the production of expert guidelines we needed a decision on priorities and methods of solving problems, however cooperation with local authorities didn't provide adequate or expected answers. We, the authors of the master plan, placed on the priority list, the need for creating a development strategy for certain key findings, such as: the prevailing trend of sub-urbanisation of the neighbouring areas, unsatisfactory, often even critical infrastructure facilities of the town, the fact the town doesn't have a devised functional traffic network, questions on normative definition of documents and the actuality of valid planning documents (plan, management regimes).

2. Expert Guidelines

During the preparation of expert guidelines with cartographic material we tried to formulate key findings that were absolutely clear and position them within the basic directives for the towns' future spatial development. We wanted to present these new directives, so that they would be clear and useful for professionals and the local authorities, as well as the lay public. Therefore we presented the master plan within the framework of the idea, that adopted and connected the common goals into a manageable entity! Conceptual standpoints are presented as the primary part of the strategy of global spatial endeavours. Beforehand we had to resolve a dilemma, whether to „forget“ about the town under the prevailing trends of sub-urbanisation, stimulate growth of the suburbs and develop the urban conglomerate into a directed chaotic suburbia, thus with expert standpoints approaching the theoretical guidelines of metropolitan urban forms of western cities or to decide upon diminishing the territorial limits of the town, dividing the town from its suburbs and orienting growth inwards, thus beginning a process of preventing uncontrollable irrational spatial development in the greatly threatened structure of the natural urban environment. The territory of the valid master plan from the seventies alongside the central settlement includes nine more neighbouring settlements. Suburban settlements have because of sub-urbanisation processes in the past rapidly lost part of their independent functions (Kamnica, Pekre, Razvanje, Sp. and Zg. Hoče, Bohova, Rogoza, Miklavž, Zrkovci, Dogoše), while planning documentation still considers them as clean residential areas. Development of the suburban uncontrollable fatty tissue is extremely stimulated by lack of adequate building sites in the immediate vicinity of the town centre, the consequence being uncontrollable increase of spatial problems, despite many positive changes. Today there are so many, that nobody dares to speak about priorities!

After the new municipalities were formed we were under pressure not only from the old town authorities, but from the new ones as well. In the context of global spatial management we clearly defined the suburban and urban segments, also because we wanted to gain time to provide necessary conditions for dealing with both the segments. The defined goals of spatial development of a certain urban form are indirectly influenced by the development of the whole urban structure where it is positioned, dividing the town into the town proper and suburbia enables clearer solving of spatial development issues. By diminishing the limits of the town to the edge of the distinct urban surface we differentiated the solving of spatial development of all those suburban settlements, that are not physically connected with the compactly built up area of the town. The division generates a new moment in spatial policy - suburban settlements were defined as separate units within the urban region (that should adopt separate master plans in the future) and enable solutions to spatial problems in phases.

After completing the expert guidelines in 1997, we prepared expert guidelines for the suburbs the following year as well, containing seven thematic volumes: Survey information on the state of settlements and their needs, Functions, Networks and influential areas of central settlements, traffic networks, communal and energy infrastructure and communication network, urban activities in the suburbs, suburban green areas.

3. The First draft

The general direction of urban development in the new millennium is placed in the context of spatial intervention, that enable the town to introvert, redefine the perceptual edge of the built structure in green areas and their surroundings (because of extensive development especially towards the East, South and West, Maribor has in places bridged its natural boundaries, mainly on the right banks of the river Drava) and structure the development needs of suburban areas in the context of the urban region.²

4. The Concept - Four Towns in One

After four decades of clearing the core on the left bank and intensive growth towards the South, mainly on the right bank, the town has at its disposal large areas devoid of urban functions, extensively used land, many badly urbanised degraded areas because of spatial, economic or social reasons (some 400 hectares of vacant and extensively utilised areas and grey zones). Therefore, the consequential policy of new age urban development can only be directed into limiting extensive growth of the town, as well as building and filling in the built-up tissue and clearing of grey zones and degraded areas. In view of the policy we can predict that spatial development of the town in the future will be defined by structural economic changes (diminishment of the

II. sector and growth of service oriented activities) and many other development factors, such as: substantial growth of spatial mobility of the inhabitants, vicinity of the regional highway junction, social differentiation, growth of social wealth and corresponding demands for a maintained living environment, ecologisation, protection of cultural heritage and above all, that future urban development will be direct-

ed, more than before, into strengthening of the urban region, in conjunction with achieved development level and contemporary trends of regional development. The starting points of the spatial concept rely on the mentioned findings and in the structural sense correspond with the notion, that in Maribor there are historically and morphologically speaking, four distinct spatial units - „towns“ on the left bank Rotovž-Melje-Košaki and Tabor-Studenci-Nova vas-Radvanje, Tezno and Pobrežje-Brezje on the right bank. The introverted development concept is thus oriented into diminishing structural contradictions between the North (left bank) and South (right bank) towns with the concept of connecting the four towns into one town, with clear definition of development potentials for each of them.

Functional division of surfaces evolves from the global spatial division and concept of four towns in one, however further suggestions of detailed land use bring forward the principle of poly-structural urban areas. The global urban system or the concept of four towns in one follows the present form of particular urban uses in the town and also dictates them: East of the railway production activities prevail while residential areas, education and central activities prevail towards the West. The traffic system follows such a concept of urban development, with routing of primary and secondary roads, that have to be envisioned as the backbones of public programmes, the cycling paths, railway network, network of air corridors, network of traffic on the river Drava, public transport system, stationary traffic, pedestrian flows and flows of goods. The communal system, energy infrastructure and communication networks are adapted to this system. The existing infrastructure will have to be improved and the lacking infrastructure will have to be built, while strategies for long-term supply of drinking water and energy, disposal of sewage and garbage, and development of the communication network will have to be devised.

Structural changes pertain to the strengthening of particular urban parts, not only with spatial, but also and above all functional complementing of particular areas, that is presented by distribution of employment, designing areas with central activities and establishing local identities. For Maribor this means more intensive growth of Tezno, Tabor, Pobrežje and Studenci were new areas with central activities and supply centres will have to be established. Increasing the level of urbanity of particular parts of the town is based on the definition of the most important green areas in the town. A green belt was proposed and the formation of »green wedges“ between the four towns, that should penetrate deeply into the compact town structure.

4.1 Development of Particular Activities in the Town

a) Central activities

Until recently spatial development preferred the left bank of the river Drava, the concept of four towns in one assures equal development of all separate parts. Emphasis is on developing the network of central activities and public spaces mainly on the right bank. In this way the distinct concentration of central activities on the left bank of the river will be surpassed.

b) Production activities

In the early nineties, the traditionally industrial town was engulfed by a process of tertiarisation and restructuring

of industrial activities. From the spatial aspect production activities are and will remain joined into industrial zones with rational use of space. Industrial zones with specific location advantages are established (suitability for demanding industrial sites, vicinity of communal and energy infrastructure, availability of technological water, vicinity of the traffic infrastructure), that are protected before changes in use, because there are no adequate compensation surfaces or areas with equal production potential in the town.

Most production activities are situated near the railway. Following the expected restructuring and development of spatially more flexible industries, the sites near the highway junction and airport will become more important. Industrial areas along the railway, especially towards the West part of the town core on the right bank are therefore losing their comparative advantage. In this area restructuring and removal of activities to other sites is proposed, mainly the Tezno production basin, vast potentials for future development after the completion of the highway will be available in the Eastern part (between the planned highway and hydroelectric canal of the river Drava).

c) Residential areas

The detached housing type is most common in Maribor, in certain places extending right to the wider town centre. The general direction of building the town inwards will stop the trend of spatially irrational development of detached housing, which will be replaced by various types of well organised housing development schemes and building of homes will be redirected into existing built-up areas. The former functional zoning, that caused the areas of mono-functional uses will be replaced by planned poly-functional or mixed use areas. New housing areas are planned under four principles: renewal of the dilapidated housing fund, restructuring degraded areas and grey zones, filling in vacant areas within residential and mixed use areas and on expansion into the suburbs.

New residential areas are distributed according to possibilities for extending public transport routes and vicinity of higher level supply centres, above all in direct conjunction with the completion of the primary road network. Detached housing appears only in smaller enclosed areas that complement or fill in nearby neighbourhoods.

Larger areas for new residential sites are in Studenci, Pobrežje and Brezje, while areas intended for filling in are in Maribor - South, Pobrežje and Brezje.

d) The green system

The distribution of green surfaces follows their design, ecological, social and recreational value, so that all types of green surfaces are represented in parts of the town. Maribors' unique landscape setting and the towns' spatial concept conditioned the decision on creating the so called green town belt. The green belt will establish the functional and designed edge of the town. Besides its design value, the green belt also defines the transitory area between the town and the countryside and preserves the most valuable biotopes. The system of the green belt is complemented with green wedges (fingers), penetrating into the existing and proposed urban tissue. Natural and built dominants are integrated in the green belt. Distribution of natural dominants and preservation

and completion of built dominants at the town edge - representing external markers and simultaneously development generators for the development of recreational surfaces (Betnava castle, Radvanje castle, Pekrska gorca, Maribor island, Račje castle, Vila Rustica) - are also arguments of design control of town growth.

One of the goals in distribution of green surfaces is also the preservation of areas for potential development. The town is surrounded by high quality agricultural land that can remain in their primary function if proposed development is enforced, since urban development will be redirected to other areas, a large number of smaller areas in the town and the restructuring of urban tissue. Growth of the town into preserved green areas, which also represent the towns' spatial development potential, is proposed only after all or most of the inner urban surfaces are occupied and when the infrastructure network will be completed in their immediate neighbourhood.

4.2 Spatial planning units

When preparing a master plan, the question of division between the vision and actual development document or its normative part, is always present. The territory covered with the plan was, because of its complexity and need for control, divided into smaller units - spatial planning units, that represent morphologically and functionally complete areas, in which particular design principals are enforced. Our estimate is that the town will grow with increased dynamism, especially in larger scope of smaller increments, so we believe, that much more accuracy and consistency with goals of spatial management will have to be applied, than before. We met this demand with a proposal for more accurate urbanistic parameters, that should direct the phase of preparing further planning documents within particular spatial planning units. Each of these spatial planning units contains further guidelines for: prevailing land use (expressed in shares), morphological characteristics of the built-up area, urbanistic guidelines, type of further planning document (spatial execution acts), infrastructure networks and environmental issues. The area covered with the master plan is divided into nine district units (Rotovž, Melje, Košaki, Drava, Studenci, Tabor, Radvanje, Tezno, Pobrežje in Brezje) and these are further divided into 97 spatial planning units. The idea or conceptual framework for these units was included in the planning document, thus ensuring that the global vision on introverting the town wouldn't remain on the level of vision, but also proceed into modernised normative acts enabling continuity in urban planning of the town. Spatial planning units allow fragmentary additions, meaning that they can adapt, to a certain level, to day to day. The proposed tolerance was 30 %.

5. Dilemmas

The goal of the master plan is to devise guidelines and norms for spatial development of the towns' urban structure. The master plan draws out the global concept, while achievement of goals is always coupled with numerous dilemmas and challenges, stemming from the nature of planning as such. Preparation of a comprehensive master plan demands several years of involvement of a large team, as well as organised support by those, directly involved with urban spatial management.

A master plan is a document ensuring an urban structure continuity, viability and rationality of proposed spatial development. During the preparation of such a document we must never forget, that quality and longevity of the document are influenced by the state of planning legislature and organisation of agencies, involved with spatial planning. Because of the quantity of work needed for a document, such as a master plan, the present conditions positioning Slovenian urbanism are almost unbearable. The constants in urban planning practice can be described by two terms - **overdefinition** and **hesitation** by professionals and planning authorities.

If these conditions are not given adequate attention, work on the document becomes professionally self-sufficient and we can quite easily begin solving dilemmas in a master plan with „by-pass“ solutions, that bring (over) numerous, mutually excluding, fragmentary and pragmatic results. Thus it is useful to:

- Undertake an in-depth review of existing (valid) planning documents in the analytical phase. Local authorities have to be involved in this phase, right from the start, thus bridging the gap between theory and practice, gain time, quality and possibilities for innovation.
- Take into account the presence of numerous areas where intense ex-planning is going on and that unfortunately they cannot accept larger conceptual changes to spatial planning. Ex-planning is a phenomenon of broken and unfinished continuity in spatial planning. It is the promised land for those proposals of amendments to the spatial plan, that planning agencies couldn't resolve to benefit the applicants, because they were contradictory to valid laws.

Preparation of a master plan is always shadowed by parallel planning: post-planning (legalisation of realised and current amendments to the spatial plan with the master plan), that doesn't need or want publicity - after all, it contains so many compromises, that they are mutually contradictory; action planning (methodologies and planning strategies, conditioned by the new document); actual planning (e.g. urban design and architectural workshops, that can connect all types of planning and facilitate public participation).

We have to be aware of all three types of planning and include them in the document preparation process.

Uroš Lobnik, architect, Maribor

Notes:

1 The First draft of the master plan for Maribor was carried out by:

Commissioned by: Mestna občina Maribor, Heroja Staneta 1, 2000 MARIBOR

Executed by: ZUM - urbanizem, načrtovanje, projektiranje. Grajska ulica 7, 2000 MARIBOR

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- ² The first draft contains four volumes: Land use, Networks, Regimes of management, Spatial planning units. The cartographic material contains 16 thematic maps. Each map contains one main map (scale 1:12500) and three sub-maps (scale 1:30000), supplementing the main map. The first draft thus contains 64 maps, that enable comprehensive overview.

List of main maps (sub-maps are in brackets):

1. Regional town (functions of regional importance, networks);
2. Land use (new residential areas, new areas for central activities, institutions, education and health care, new areas for production activities);
3. Central areas (distribution of commercial and non-commercial activities, new central areas and mixed use areas, distribution of public open spaces and hierarchy of central activities and semi-public spaces);
4. Areas for production activities (Suitability (flexibility) of production areas, areas of restructuring, vision of development of production areas);
5. Residential areas (new residential areas, clean and mixed residential areas, settlement density);
6. The green system (design elements of the green system, parks and sports surfaces, generators of the green system);
7. Traffic network (traffic network (intercity and local) functioning as access routes between Maribor and its suburbs, parking and areas of traffic calming, cycling paths);
8. Water supply - development of the waterworks system (protection belts, areas of high and low pressure in the network, Drava, rivers and flood planes);
9. Sewage and processing refuse water (proposed collectors, primary collectors, protection belts);
- 10.1 Energy - development of the natural gas and hot water network (situation of the long distance heating system TOM, situation of the natural gas network with buildings using natural gas for heating, situation of buildings heated from boilers according to heating fuel);
- 10.2 Energy - proposal for energy supply in the town - long distance and individual heating (development of the TOM network, development of the natural gas network, areas of extension of long distance heating);
11. Electrical energy network (The electricity network, areas fed by particular transformer stations, including the electrical system of Maribor into the national electricity supply system);
12. Communication network (tc-network and tc-corridors, post offices, radius of acceptable accessibility and limits of postal areas, radio and TV network);
13. Town form (structural model, design elements of the natural system, dimensions);
14. Regimes of management and phases (concept of global distribution of spatial planning units, prevailing land use in spatial planning units, areas of complex development and renewal);

15. Building sites (size and relations for different types of land, land use on undeveloped building sites and land for public economic infrastructure);
16. Spatial planning units (Rotovž, Melje, Košaki, Drava, Tabor, Studenci, Radvanje, Tezno, Pobrežje, Brezje).

Illustrations:

Figure 1: Abstract image of the four towns

Figure 2: Four town parts - quality of urban space drops counter clockwise

Figure 3: The town as a fractal - work and trading in the East, Government and residences in the West - transfer from the left to the right bank

Figure 4: The traffic network - the inadequate network of existing primary town roads (black), will be complemented by new ones (grey), so that they connect all four town parts in both directions. The railway terminal, highway and aero- port (intermodal node) are in the South, the highway in the East, river traffic will be established on the river Drava.

Figure 5: Central activities will develop along the main access roads and near the town entrances. Transfer of central activities to the right bank, centralises the contact zone on the right bank connecting all four town parts into one.

Figure 6: New residential zones will be established on cleared and renewal areas, thus restructuring central areas, presently occupied by production and warehousing activities and by complementing existing residential areas, thus forming a major part of the built edges in all the town parts

Figure 7: Production activities are moving from the town centre, only a small part of the Melje industrial zone will be maintained, to the South and West edges. Each of the four town parts will gain a manufacturing zone, along the highway services and warehousing activities are proposed

Figure 8: Green areas - the four town parts in the green vessel, its edge defined by the green ring, green wedges (fingers) connect the town centre with the green belt and hinterland

Figure 9: Division of the East part of Maribor

Jasna KRALJ PAVLOVEC

Edo Mihevc - Urban planner, architect and designer

Evaluation of postwar urbanism of the Slovenian coast

„The decisions guiding the professional path of Mihevc were always complexly balanced and directed into a long-term perspective. He was guided by understanding the needs of social development. The search for technological innovations and humanistic ethics was reflected in his implementations of all kinds through a convincing personal artistic note. As a result of the author's consistency and his irreproach-