

Agglomerations were specifically defined for the National programme for gathering and treating wastewater, but in a very short time after the public presentation received wide acclaim and verification. Moreover, practitioners gave many suggestions and ideas, whose contents could be added and complement data on agglomerations. Thus the same agglomerations can be used for analysis, planning and optimisation of water supply systems, analysis of communal waste collection, civil defence tasks (e.g. landslides), as well as other needs where priorities are set in view of population numbers and settlement concentration in particular areas.

Furthermore, all »departmental needs« directly influence physical development and planning on the local, regional and national level. The presented agglomerations can be of benefit or used as basic data for modelling various development projects that combine physical data on settlement position and density, while simultaneously tying into other data, such as available potable water, roads network, commuting, monitoring and analysis of emissions and imissions, planning dedicated spaces (for evacuation, land-fills) for contingencies etc.

Further research will be directed to ensuring adequate procedures for maintaining the agglomeration's basic data structure. Furthermore, precision will be increased (in view of extant and future land use) and links to other databases managed, especially those directly stemming from or linking to settlement areas. Local communities can directly use the research results and gathered data when planning physical development and quality improvements to their living environments. Local communities can already access data on agglomerations on the MEPE web pages, which will, as the project contractor, also enable access to data needed for planning of various contents and by various subjects.

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#### Notes

- [1] Water Framework Directive
- [2] Urban Waste Water Treatment Directive, p. 40.
- [3] Ordinance on disposal and treatment of urban waste and atmospheric water, Official bulletin, No. 105/2002.
- [4] Law on environmental protection, Official bulletin No. 32/93.
- [5] Council Directive 96/61/EC, p. 26.
- [6] Ordinance on taxation for environmental burdening, Official bulletin No. 41/95, 44/95, 8/96, 124/2000, 49/2001.
- [7] Ordinance on disposal ..., Official bulletin No. 105/2002
- [8] Banovec P, Gosar L., Steinman F. (2002–2004).
- [9] Ordinance on disposal ..., Official bulletin No. 105/2002

#### Illustrations

**Figure 1:** Agglomerations are defined by 1 ha cells (by reduction and aggregation)

**Figure 2:** Increase in share of included population within the agglomerations when increasingly more increasingly less populated settled agglomerations are included (the section on the ordinate is given by the largest agglomeration, Ljubljana).

**Figure 3:** Image of three types of defined agglomerations, distinguished by different densities, with the applied grid of the existing sewage system (in a given time frame).

**Figure 4:** Schematic chart of the cyclical progress of work and participating subjects. The core (spatial and descriptive agglomeration data) is thus gradually completed and brought up to date.

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## Renewal of the Slovene housing stock in view of European spatial networks

### 1. Idea of sustainability

During the period of its conscious use, the idea of sustainable development has been losing its original explanatory charge. Much too often it is becoming a motto of disciplinary discourse, while its comprehensive note or multi-dimensionality (Scott, 1998), is falling to oblivion. Even in the sense of the concept *global-local*, whose understanding is often polarised or contradictory. Recollection of the chosen, e.g. global scale, cannot discard the local and vice versa. For instance, responsiveness to local conditions can become a global (Abel, 1997: 125, Hočevar, 2002), while local space does show numerous adapted fruits of cultural exchange. Redistribution of development trends in time demands its own condition, yet dynamic, but striving towards balance. The latter can be directed in three ways:

- a) Striving for uniformity of elements and connections (that often refrain from adapting to local circumstances),
- b) Attempts at equitable understanding of difference and variety;
- c) Balancing both.

European spatial policy makers are keeping themselves busy with the first alternative, while independent regional (even our Slovene one) are tackling the second approach. Europe of course responds, with e.g. structural funds. The Slovene response stays on the regional level, but is nevertheless open, at least when it comes to development balancing on various sub-regional and local levels.

What is therefore the nature of long-term social-spatial tendencies, which should be respected? What does the perspective of European integration and, in general, »globalisation« trends for renewal of the extant housing stock and landscape-settlement structure? How can probable development tendencies be balanced, with respect for cultural and social dimensions of sustainable development?

## 2. Social spatial linkages and particularity

Under conditions of *de-territorialisation* and expansion of *europesised social relations*, the logic of structural operation and reproduction of spatial systems is fundamentally changing. The basic characteristic of long-term processes of European spatial transformation will undoubtedly be the increase of various types of regional-social-spatial organisation. New forms of integration (linking) are emerging, as well as differentiation (specificity) within the European spatial system. We can expect dominance of the integrative centripetal principle to diminish, while the principles of corridor (or transitive) integration and especially poly-centricity, to come forward (figure 1).

A consequence of this process will be diminished exclusive definition and responsibility of particular national state institutions (especially departments of environment and/or planning). Two reasons justify such thinking:

1. Regions and cities are no longer and necessarily comprehensive functional-administrative and territorially limited social-spatial entities; the condition can be defined as *process of overlapping units* (see figure 2).<sup>[1]</sup>

2. Regions and cities can no longer be necessarily clearly structurally ranked on vertical social-spatial levels (e.g. as sub-national levels subordinate to the national level); the condition can be defined as *hierarchical flattening of levels*.

The first aspect affects the level of increase of direct functional accessibility to wider (supra-national) environments and connectivity to various other units on various social-spatial levels. The second aspect affects increased autonomy of cities and regions and diminishment of *a priori* relations (subordination), especially to territorially higher (national) hierarchical levels. Another issue is of course, whether actors of local or regional development (agencies, institutions) understand these trends, and furthermore, whether they are capable of gradual implementation.

But the defined logic of transformation of territorial organisation explains a more general (long-term) *intensity* of connecting and autonomy processes, rather than *qualitative* and *development changes* caused by such differing intensities. Besides »qualifications« of actors, they are mostly caused by development or non-development of infrastructure systems, as well as tele-communication and information technologies, both in a particular region and the wider supra-national environment, to which the region and its actors connect. Eskelinen and Snickars, researchers of European urban-regional network trends, therefore raise the qualified issue, where will these centres of well-connected networks be in the future (1995:3). They have established that the merging European urban-regional system is increasingly typified by evolutionary polycentric spatial structure, which indicates the changed course of development flows in European space. This doesn't mean that new »peripheral islands« are not possible on all levels of territorial organisation, which aren't an objective, but so-called »guilt effect« of poor provision of access by responsible actors.

In this sense, ideas of the stated authors are rather indicative, whereby they argument the process from the classical settlement-economic aspect:

*»In peripheral and rural regions the settlement system is traditionally based on the principles of centrality and hinter-*

*land. Material resources are brought from the rural areas, processed in local centres and then exported. This model is however losing its intellectual as well as economic basis. Centres in sparsely populated peripheries can act as nodes of global economy. Therefore being peripheral doesn't imply links to continuous space and principles of central and hinterland patterns. According to their users needs, links can be met with any destination. In this case, all that has to be ensured, created, managed and maintained is the nodal position.«* (Eskelinen in Snickars 1995:13)

In view of future, of course long-term, settlement tendencies in the European Union, which should be respected when planning residences and housing stocks, we encounter three important circumstances:

- Gravitational regional and urban development flows (in the sense »centre-periphery-mainstream«) will not be the dominant type;
- European regional division and ensuing peripheries (i.e. »peripheral islands«) can emerge in larger quantities in geographical cores, but centres will also appear on former geographical peripheries;
- More than about relatively stabile conditions of centrality and periphery, in the long-term time frame it makes more sense to speak about dynamic localised centrality or periphery in circulation of European regional and urban flows.

The described trends, with specific manifestations, can therefore be applied to all levels of social-spatial organisation: sub-local intra-urban, between- and cross-urban, intra-national, regional and supra-national levels within the European Union. One can conclude that with suitable strategies for planning infrastructure, subsidies for preserving settlements and the housing stock and with adequate access to EU structural funds, even Slovene peripheral areas can be »prepared« to follow the flow. Here we think about new types of periphery in cities (historical centres), but also traditional geographical peripheral areas in Slovenia (e.g. Bela Krajina, parts of Pomurje, other »southern« frontiers).

## 3. Between local and global

The Law on promoting harmonised regional development (Uradni list RS 83/2003) amongst the stipulated measures for determining areas with special development problems states: income, level of unemployment, share of rural population, border position, but also decrease of population. The latter is a consequence of previous events; changes in population size in municipalities between the census years (1991 and 2002) point out shifts in relations between more significant centres and their hinterlands. The largest increase can be seen in the hinterland of large cities and along the main highway corridors (figure 3). The representation could be misleading for development forecasts: the changed openness of the border can significantly change the importance of an area, which was until recently not at all interesting (e.g. Goričko). If we include temporary residents, the image would change even more.

From the social-spatial aspect, results of the research project Renewal of the housing stock in Slovenia, point out that according to all demographic and social criteria, except for a partial deviation in larger urban regions, the Slovene population (in the EU context) is extremely residentially immo-

ble. The condition is a consequence of geographical, historical, cultural and even political factors. The key factors are: relative geographical minuteness, ownership structure of property with more than 80 % privately owned and less than 20 % rented homes, employment rigidity, dependence and sentimentality for original local environment – »autarchic« relation, unequal regional development, increasing peripheralisation of certain areas, legally unsolved property relations, inter-generational sedentarity (especially children that remain with their parents, and residential unadaptedness of the elderly).

Residential mobility will necessarily but gradually change, whatever the present values of the Slovene inhabitants concerning permanent residence (Martinotti, 1993, Le Gales, 2002). The following factors will perpetrate the change:

- a) Global integration trends, joining EU,
- b) The need for employment flexibility, economic diversification,
- c) Strengthening alternative lifestyles,
- d) Improved physical accessibility (effects of the highway system),
- e) Modern tele-communication technologies,
- e) Faster emancipation of the young,
- f) Increased share of elderly population,
- g) Temporary and permanent immigration of foreigners.

The goal-oriented development-research project Rehabilitation of the housing stock in Slovenia (Zupančič et al., 2003), checks possibilities for stimulating housing rehabilitation, with respect for the scope of renewal, capabilities of builders and subsidies for renewal. According to the last census (2002) we have to take into consideration that 22 % of all housing capacities were built until 1945, that 3 % of the entire housing stock is also questionable, i.e. all post-war multi-apartment buildings, and if we presume that 27 % of all surfaces were built after 1981, meaning that probably they don't need serious renewal, the fact stands that 70 % of all housing was never renewed and that the complexity of the remainder cannot be gathered from the available census data, is alarming.

Construction-technical analyses of renewal needs of the extant housing stock point out that repairs/strengthening of load-bearing structures are very probably needed for approximately 5.000.000 m<sup>2</sup> (8,6 %) of all homes and renewal of non-load-bearing structures for approximately 34.000.000 m<sup>2</sup> (58,4 %) of all homes, since they are older than thirty years.

Slovene settlement policy should be directed towards the development of metropolitan culture and formation of an expansive conurbation along the axes Koper (Nova Gorica), Postojna, Ljubljana, Celje, Maribor, Murska Sobota and Jesenice, Kranj, Ljubljana, Novo mesto, Brežice, with nodal points in areas of international culture and economic initiatives, which are important points for preserving local identity and culture. (P. Gabrijelčič et al., 2003:15)

Review of current European documents, dealing with road and railroad networks, shows that the main material-communication development corridor recognised in Slovenia, was respected only as a railroad link and not as a road (figure 4).

In the goal-oriented development-research project Development of inter-modal nodes on the V. and X. E-corridors run-

ning through Slovenia and their integration into regional space (Gabrijelčič et al., 2003), done on the basis of analyses of European development axes, amongst other pointed possibilities for positioning Slovene transport-logistics terminals (figures 6 and 7).

Positioning homes along the E-corridors is, from the global aspect, beneficial, but a distant interchange or access point, as well as insufficient road capacity, can be detrimental on the local level. From the perspective of rehabilitation of the extant housing stock in Slovenia, balancing various levels of spatial change, information technology as a substitute for accessibility (working from home), cannot be an excuse for irresponsible deterioration: material infrastructure and the housing stock demand material interventions.

Simultaneously, Slovenia's natural variety, exceptionally varied in European terms, demands significant care. An example is the Alpine space. How does Europe see it? The shown example of course cannot be generalised, but it is surely illustrative.

In the still refreshing first number of the magazine, issued by the Faculty of architecture at the Technical university in Graz, dealing with tourism and landscape, Regina Barth-Groessler and Theo Deutinger argued for a thesis about Europe as a city and the Alps as its central park (figure 7). Casual review of the conceptual representation shows North-western Slovenia as part of the mentioned park, with its central part somewhat leaning towards the built-up North Italian basin's »proud (magnificent) neighbourhood« and coastal part, which is the park proper continuing towards an anonymous European hinterland. The authors depict the Alpine space's culture as capable of transforming trends into tradition while continuously preserving its virginal image. Their qualitative and quantitative indicators prove the need for establishing the first all-European zone and in conclusion demand:

- Voting rights for all temporary residents of the park;
- Permitted use of all European building codes in the entire park;
- Markings of cities, menus, safety signposts in all European languages;
- Marketing the park as a product;
- Visual definition of the park's limits, which would raise GDP in areas around the park, increase their population and simultaneously improve the region's position.

We can wonder, how e.g. Irish laws and recommendations, adapted to their pertaining space, could be applied in the Alps or even in Slovenia. Are the stated demands leading to further compilation of European architectural-design compendiums of locally un-adapted fruits of cultural exchange? Are the stated demands establishing a European Disneyland? What are the implications for rehabilitation of more or less sensitive historical places, which are largely formed by housing stocks, built in appropriate scale, as anonymous parts of settlements or the whole settlements themselves that are also clearly distinct and emerge from tradition? How can degraded areas represent sustainable, vital hinterlands of new development foci, if the latter rather than respecting the condition move elsewhere, where conditions are more favourable? How will spatial policy balance sustainable conditions on all scales of physical dimensions, not only national or regional?

#### 4. Understanding renewal as a process (cultural survival) oriented towards vital transformation of the present physical condition

Conventional approaches distinctly separate approaches for new construction and rehabilitation: such polarity is clear even in contemporary building and planning laws. Essentially it is the same process, but its approaches are different: levels and methods of respect for spatial circumstances, natural and cultural – as footprints of recollection and actions by society in space. The physical circumstance differs from place to place and demands more or less careful dealing. In the perspective of changes in spatial meaning, even conventional distinction into (urban) centres and (rural) peripheries becomes senseless: nevertheless, urban hinterlands of new nature park cores still demand a high level of sensitivity when dealing with development. Similarly, planning distinction into urban and landscape problems areas, loses its charge: in the reality of settlement-landscape intertwining, spatial integrity differs only in levels of cultivation.

Understanding the housing stock, with integrity of buildings and space that define it, enables recognition of expansive irrational settlement growths, while neglecting possibilities for rehabilitation. Simplified rehabilitation procedures lacking cultural-spatial sensitivity, which could redirect such trends, even without financial stimulation, lead to the environment's destruction. Financial stimulation can only foster the tendency.

What will therefore happen to Slovene historical settlement structures, which is, despite irrational growth of post-war dispersed settlements (33 % of all Slovene homes are in detached houses built after 1945), still presenting a recognisable image? Well-thought out and sensitive placement of transport-logistics terminals in the E-corridors, is an essential condition, but apparently not a sufficient one: besides material linkage, visual and social spatial connectedness also has to be followed, right down to the local level.

The housing stock, which is part of protected settlement areas in Slovenia [2] represents heritage that is statutorily protected by law. However systems for its integral protection and development aligned to recognised modern societal needs is still not functional in practise. In Slovenia we still don't have adequately developed systems links between spatial management policy, national programme of housing construction, which of course includes rehabilitation of extant structures, and the system of heritage protection. The field of directional mechanisms, which should affect rehabilitation and regulation of the housing stock, is in fact the weakest link of the whole system of housing construction, but also heritage protection. The research Rehabilitation of the housing stock in Slovenia (Zupančič et al., 2003) points out the need for establishing a harmonised system of financial, governmental-administrative and intervention measures, and furthermore, parallel management of obligatory relations between players in rehabilitation.

From the urban design point of view, questionable buildings are not only those that in the construction-technical sense don't meet basic demands for safety and comfort, but also (based on data from the Statistical office) a third of the housing stock, represented by irrationally placed buildings, lacking social-spatial focus and connections.

After considering the stated factors, the conclusion is that a very flexible approach is needed to models of formal or informal simulation for executing rehabilitation of the housing stock. 1) Formal, i.e. institutional models are the responsibility of national bodies on all territorial-administrative levels. The most important considerations are social and legal protection of (sub)rental relations and interventions on the property market with cheaper offer of housing units. 2) Informal stimulation includes allowing and stimulating various forms of »help for self-help«, as well as legal provisions that don't hinder but support various types of legal gradual self-building, self-renewal and ensure flexible combinations of institutional and private rehabilitation practices.

The economic aspect of checking possibilities for rehabilitation of the housing stock in Slovenia [3] strongly points out the issue of different financial capabilities of potential actors. The reserve fund tries to solve problems of »free-meals«, but isn't sufficient as a stimulator of rehabilitation. Different levels of financial (in)capability demand different mechanisms. The array of instruments available in Slovenia for stimulating rehabilitation can be compared to those in more developed European countries, but there the problem of dilapidation and obsolescence of the housing stock is less pronounced because of continuous and relatively comprehensive housing policies. More emphasis is given to instruments, which are used to help less affluent owners thus alleviating rehabilitation works. Therefore, even in Slovenia, more effort should be put in instruments that lower total costs of rehabilitation for the payee, rather than tax deductions. More emphasis should be put in instruments that ensure owners resources, so that they can even attempt rehabilitation (e.g. subsidies). The Housing fund of the Republic of Slovenia will gradually transform, whereby a significant void will appear in possibilities for accessing loans with smaller interest rates for rehabilitation. Because of its long savings cycle the National housing savings scheme won't be able to compensate fully. The fund's role should largely be taken over by municipalities, which could provide subsidised loans for rehabilitation. Analysis of foreign experiences shows that provision of resources for such loans or subsidies is done by cooperating states and local communities, acting as co-investors. Besides subsidised loans increase in scope of rehabilitation will be facilitated by increased competitiveness of the banking system and introduction of suitable mortgage financing. Thus, more funds will be made available for actual rehabilitation, and less for paying interests or high costs of housing loans approval.

Economic considerations very clearly point out possibilities for stimulating housing rehabilitation. The question is, how to recognise and accept areas that on the local and sub-regional level represent »bottlenecks« of rehabilitation capabilities. Spatial policies for redirecting actors capable of rehabilitation into search for resources for complementing extant settlement structures (Law on physical planning), instead of irrational new construction, can be supported only by economic stimulation, as well as severe fines for lawbreakers. Should the role of local negotiation be taken over by regions?

Renewal of the housing stock in the settlement-landscape scale should become the priority task of spatial policy, multidisciplinary theory and practise. An areas scale of comprehensiveness and level of vulnerability should determine the magnitude of rehabilitation actions and the level of change, seen from physical-spatial renewal, as well as the

relation between old and new. Rehabilitation should be individualised and focused on combined public and private investments. Advantage should be given to buildings with a larger share of rented apartments, thus stimulating increased mobility. Publicly supported rehabilitation should limit excessive differences in social stratification beforehand and ensure variety and adaptability of living standard, but also rehabilitation of the »non-housing« stock for housing purposes. Principles and conditions of social and employee renting should change. Planned economic stimulation and education actions should promote more rational use of the extant housing stock and »help for self-help«. Circumstances conditioning semi-legal or illegal renewal or building have to be prevented, renew strict conditions for renewal and introduce tougher measures for managing multi-apartment buildings. The fundamental condition for efficiency of any measure dealing with renewal of the housing stock is simultaneously the condition for the system's efficiency in general, i.e. changes of the system on all levels that manifest the state of Law. Possibly a law on balanced local development could be considered parallel to the Law on stimulating balanced regional development. Strategic national goals concerning renewal of the housing stock could be realised as elements of active housing policy. Such policy could redirect irrational expansion of built-up areas and prevent disrespect for local development conditions that stem from challenges of protection and rational, but creative, gradual additions to the extant housing stock, also implying the cultural environment and settled Slovene landscape in general. The level of contribution to the described shift depends on gradual, but harmonised implementation of measures in all relevant perspectives.

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#### Notes

- [1] Classical discussions and empirical research on conurbations, agglomerations, urban regions etc. were (and to a certain extent still are) radically changing into research of demographical-functional de-concentration based on revised concepts of Cristaller's or Losch's theories on the centrality of locations (source 1933, 1954). This inert territorial tradition is purported by the majority of authors researching contemporary super-national agglomeration trends (e.g. Hall, 1988; Hall, Pfeiffer, 2000). Conclusions, which confront functional urban de-concentration with new selective centralities, in the meaning of reflexive spatial practices, are essential for our discussion on unit overlapping (e.g. Källtorp et al., 1997).
- [2] According to Ljubo Lah in the subproject CRP Renewal of the housing stock.
- [3] Andreja Cirman contributed economic reflections within the framework of the same project.

#### Illustrations:

**Figure 1:** Three principles of social-spatial integration (Source: adopted after Batten, 1995)

**Figure 2:** Transition to horizontal network and the overlapping of social-spatial organisation (Source: adopted after Antikaisen, 1997)

**Figure 3:** Modifications in the number of inhabitants in Slovenia reflect rearrangement of proportions of developmental currents in space (SURs)

**Figure 4:** European material-communications road and railway connections: until the year 2015 (Planco, 2003)

**Figure 5:** Traffic-logistic terminals and European developmental axes (P. Gabrijelčič et al, 2003: 48)

**Figure 6:** The concept of the position of traffic-logistic terminals (P. Gabrijelčič et al, 2003: 52)

**Figure 7:** The Alps as a central European national park (R. Barth-Groessler, T. Deutinger, 2004: 134)

For literature and sources turn to page 49.