A review of several vacant, under-utilised places in the city of

Picture 2: *Ljubljana, which could be seen as overseen potentials, (Source: Spatial analysis for the project Green system of the city, Spatial development concept, Urban planning institute, Ljubljana 2001)*

Picture 3: *Expansive green area between the primary school Ledine and residential estate Ledine in Nova Gorica is an under-utilised place in the city with potential for improving the quality of life of neighbourhood residents and the school itself. Photo: I. Šuklje Erjavec*

Picture 4: *A similar example is the green area between the residential estate Draveljska gmajna and the primary school Dravlje in Ljubljana. Photo: I. Šuklje Erjavec*

Picture 5: *A typical example of a fenced open school attached to a school - primary school Trnovo in Ljubljana. Photo: I. Šuklje Erjavec*

Picture 6: *Green surfaces between the senior citizens home Tabor, boarding school and hotel in Ljubljana that is despite the lack of suitable open spaces in the wider area, completely useless. Photo: I. Šuklje Erjavec*

Picture 7: *A pleasant and well-equipped open space attached to the kindergarten in Nova Gorica. Photo: A. Erjavec*

Picture 8: *Park adjacent to the senior citizens home in Šiška, Ljubljana, can also be used by residents of the nearby estate and is a rare example of sensible cohabitation in the city. Despite careful maintenance it lacks certain contents, (e.g. children's playground), to achieve full vitality Photo: A. Erjavec*

Picture 9: *Park in front of the Gruber Palace in Ljubljana is a park only by name. In reality it is a completely barren grass surface without design or content. Recently it is trying to present itself as an open-air gallery for sculptures, but the place lacks distinction and usable design. Photo: I. Šuklje Erjavec*

Picture 10: *The design of the small Paley Park near the Fifth Avenue in New York proves that even very small places can be made into attractive and effective parks. (Source: Ogrin, D. (1993) Vrtna umetnost sveta, Pudon, EWE, Ljubljana, pp. 382)*

Picture 11: *Suitable design could change large parking lots in shopping malls and business zones into interesting, ecologically friendly places, much more attractive than they are today. Photo: M. Slaček*

Picture 12: *The industrial zone Rudnik in Ljubljana is a typical example of an industrial zone with relatively expansive, but completely unused green surfaces. Photo: M. Slaček*

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Davorin GAZVODA:

The role and significance of green spaces in recent Slovenian residential estates

1. The problem of high quality in residential environments

Urbanisation is gradually causing the demise of small green and open spaces in Ljubljana, relieving the city of possibilities for creating public parks. Simultaneously conditions for the survival of animal and plant species in the city are deteriorating, as are the general ecological conditions (Concept of spatial development, 2001: 15). The statement stands for Ljubljana although it could be valid in any Slovenian town. Public parks are indeed emphasised even though they are only a part of the complex urban space. Public city parks are the least contentious since they are clearly defined and as such protected by explicit urban ordinances. Besides parks there are many other green surfaces, e.g. sports and recreation parks, thematic gardens, even greenery on infrastructure - planted street greenery etc., that have a particular role and significance in the complex urban structure. Despite being subject to various pressures public parks nevertheless remain preserved and clearly distinct.

More complicated are the conditions for those types of »green remnants« whose ownership or primary function are hard to determine, therefore they are in constant danger of being lost. Unfortunately green surfaces in residential estates are also amongst such places. There are many reasons for such development, the basic one being change of ownership and thus conditioned property management, which should nevertheless also include preservation and maintenance of green surfaces in residential estates. There are too many multi-apartment buildings, whose owners still haven't registered their properties in the »land register« (property owners), while the functional area of the building still hasn't been determined or sub-divided. The consequence is, that there is nobody to be held responsible for preserving or maintaining green surfaces in older residential estates, the property managers refrain from these costs, since it is difficult to charge them to property owners (or renters). The results are deterioration of greenery, illegal parking and usurpation of open spaces or as social scientists would say, »atavistic« battle for space (Kos 1996: 14-17).

In new estates the conditions are slightly better, because owners of apartments also pay for all the facilities of the estate including available common open space - residential greenery. The question is, to what extents are green surfaces actually included in residential estates (physical - qauntitative) and how are they designed (programme - quality criteria). Unfortunately domestic planning is limited to housing construction and seldom to planning public spaces, greenery, parking spaces and communal infrastructure (Drozg, 1999:19). What are the practical implications will be enlightened upon in the article, also with comparison of several new residential estates and especially between new design and high quality old estates, built some thirty years ago.

2. System solutions for urban green spaces

Green surfaces adjacent to residential buildings are parts of the complex urban open space. Subdivision varies, according to type of property and method of use (private - public space), structure (open, built - green space). Categorisation of open and especially green areas is irrelevant, but the recent introduction of the instrument termed »green system« applied by various planning documents for the management of green areas is nevertheless extremely important (Marušič 1999: 38).

Thus the emphasis given in the spatial development concept of Ljubljana to the green system and the protection of urban and suburban green spaces is not surprising. Green areas with special consideration given to recreation surfaces have been an important component of all planning documents for several decades. All of the important documents contained various categories of open space including green areas. Their categorisation varied, but it did contain all extant and planned green surfaces, whatever their detailed sub-division. Even proposals for establishing the municipal green system are older than a decade (Ogrin et al. 1994). In the case of Ljubljana and the context of its concept it has become one of the most important components of the future spatial plan, even in view of its acceptance by experts and political departments of the municipality.

From the aspect of preserving high quality remnants of the natural and cultural landscape around cities this is definitely the right approach, especially concerning those elements of the concept that propose regimes for their protection and regimes for their management, as well as the hinterland of urban green surfaces. At this point the green system has to be understood as a task, since it points out the disharmony and poor quality of physical planning in which interests of individual sectors and even investors prevail. The stated conditions are common even outside Slovenia. In other words, an independent or even comprehensive project of the city's green system isn't necessary in those cities where green surfaces are already integral parts of well planned urban spaces. This means that in compact urban centres there are substantial public city parks, that the offer of »classical city parks« is supplemented with specific green surfaces with different content or programme (sports-recreation surfaces, thematic parks and gardens), and above all, that residential estates have adequate amounts of well designed and managed green surfaces for day-to-day life.

In the latter context the concept of the green system in the spatial development concept of Ljubljana is deficient. The concept defines five spatial categories: parks, park vistas, graveyards, representative projects and structuring elements and spaces with exceptional ecological value (Concept ... 2001: 63-64). However green surfaces that are parts of the living environment or residential neighbourhoods and should be one of the basic categories are not included. After all they provide the simplest quality of living environments.[1] Demands for green surfaces in housing estates cannot be found even in the chapter dealing with housing. Reference to Agenda 21 and Habitat with demands for e.g. access to recreation surfaces, preservation of views and vistas etc (Concept ...2001:43) is not enough. Since the valid urban planning norms lack specifications on size, distribution and structure of green surfaces pertaining to an estate's size, residential green surfaces should be proscribed and larger zones spatially positioned in the new residential neighbourhoods by the future plan. In view of the mentioned and publicly available »concept« not being a legally binding planning document, it is not too late. Detailed planning documents, which will follow in the legally proscribed procedure, will nevertheless have to grant residential green surfaces their special role, especially because they are being neglected in new neighbourhoods, as will be shown in this article.

3. Green spaces in residential estates

How are new estates being planned lately? The first observation is that new residential estates, with capacities comparable to the existing estates, such as Fužine, Hrušica or the older estates in Ljubljana with prefix BS[2] are not being built anymore. Smaller estates are however being built on available land, owned or managed by investors, who are under prevailing market conditions on the property market and high prices of homes, increasing their profits by increasing densities on their property. The condition is aligned to the level of development of post-socialist society, that is paying it's break in capitalist development with lost values and an unorganised market, both of which were maintained in more developed traditional capitalist countries in the West. The interest of private capital is clear. The problem lies in the lack of adequate mechanisms with which the state could effectively direct urbanisation, even though the appropriate laws are fairly strict.

Spatial planning conditions have, in comparison to more concrete development (building) plans, introduced into planning practice excessively lax demands for quality, while normati- vely planned open spaces in residential estates have been replaced with specified coefficients (floor space index - FSI) which is a very adaptable (elastic) figure. Relying solely on FSI cannot replace creative respect for landscape features of a site or project such a built pattern that could effectively include all the green surfaces in a residential estate.

Examples of new residential estates in Ljubljana with exaggerated FSI and deficient planning of green surfaces, which could improve the living quality, are plentiful. One of them is the Mostec estate (by the Koseze pond). The open space of the estate doesn't contain larger unified open spaces with playgrounds, pocket gardens and other thematic gardens that could be used by all the estate's residents, especially those living in the upper floors of the buildings. Individual private fenced gardens on the ground floor in no way add to a more pleasant image of the estate. There are im- posing picket fences by the grass surface enclosing private gardens, which are however much too small for any serious use. The most important fact is that such exclusion of private gardens in a multi-apartment estate disables identification of other residents (living in the upper floors) with the whole space. An open space that the residents could see as their own, in reality doesn't exist. All the buildings have only two sides: the front fagade with the entrances and access paths and the »garden« fagade, whose high picket fences appear mainly as disturbing unnecessary elements. The solution and the presented problem isn't only inadequate urban design, but the specified (demanded, commissioned) type of estate, which specified the use of the ground floor and the disposition of uses throughout the

area. In this example we saw direct marketing of common surfaces sold as private gardens, while the whole estate was left devoid of common green surfaces.

Even integration of the area surrounding the pond wasn't carried out efficiently. Perpendicular connections (paths) were built, but cannot be spatially definitely determined. The same applies to physical opening of the neighbourhood towards the water surface with clefts between the buildings. Shifting the buildings caused visual massing of buildings along the waterfront, thus physically and especially visually blocking it completely. The estate was prevented from being refined with the neighbouring water surface.

Even worse problems with green spaces emerge in estates with basement parking. Separating car traffic from pedestrian flows is essentially welcome, but a new issue arises, how to effectively plan open spaces on the garage roof? Generally there is not enough space, while the technical problem is the thickness of the soil substrate on the roof, which is also a specific condition for planting. At the end of the day, trees cannot be planted nor can larger park arrangements be created within the estate.

However technical conditions for constructing green surfaces on garage roofs are not the only problem. A more difficult and almost insolvable problem is positioning adequate programmes on the ground floor of multi-floor buildings, after all these programmes defines the character of open spaces in the estate (the space adjacent to the building). If private gardens are the solution, the space is separated, enclosed, lost for the estate.

Private gardens are by definition *private,* meaning separated from the public space. In more neutral and democratic methods of designing open space, common programmes are more suitable for ground floors, programmes that open outwards (physical translation of activities outwards) and remain available for the use of all residents, as well as visitors. Common programmes can be common rooms for residents, such as entrance hallways, bicycle depots, storage rooms for children's prams, supplementary spaces (service rooms).

The space in front of the ground floor with such a programme is usually designed as the entrance party to the building. Often they are paved surfaces with added greenery, bicycle sheds, benches and other street furniture. The space belongs to the building, emphasising its entrance, but with neutral image preventing conflicts such as, who uses the space and for what purposes.

Design of the open area in front of shops (cafes, services etc.) is more specific, since it applies to a particular shop as such, but because of its public character cannot be completely separated from the common space. Often these spaces are designed as access paths and the space is full of various elements of street furniture or park (garden) elements, such as: lampposts, bollards, benches, garbage containers, but also playground equipment, water motifs etc. With these elements the space is given a public - common character. It can nevertheless be partially enclosed and with the access enabling surveillance (but not segregation!). What is important is that such a space mustn't appear introverted and repulsive, after all the residents of the estate have to identify with it and accept it as their common, public surface.

4. Circumstances conditioning green spaces in residential estates and a comparison with planning practice thirty years ago

The goal of the article is therefore to point out negative trends in Slovenian housing during the last fifteen years, i.e. the division of green surfaces in residential areas for private gardens and the remaining leftovers. Such development is causing the loss of available common green surfaces, which are a precondition for high quality living environments in multi-apartment blocks. Although the article focuses on urban design aspects and results of the (completed) design process, it undeniably proves, that above all investors and inadequate planning policies are responsible for the present state.

Green surfaces are part of the wider offer of an estate, whose basic structural characteristics are determined by the applied financing method or the ratio between invested (spent) resources and returns. The present role of the architect is subordinate to capital interests. Cheap construction and substantial profits deny ideal layouts for estates in which residential greenery could have an important role both in size and significance. Demands by investors, changes during construction because of cost reduction and simplification, raising densities etc., all affect the final structure of estates, although in Slovenia (and especially Ljubljana) high quality residential estates were built in the recent past (Bežan 1984: 8,9). Despite certain problems at that time the social circumstances (planning system, public investment, less pronounced market mechanisms) enabled high quality urban design and architectural solutions.

Amongst numerous expert meetings and conferences held in Ljubljana, one needs special mention. In 1970 a conference titled Greenery in the urban environment, was held. In the compendium numerous examples of planned greenery from various European cities are presented, proving the special role planning of green surfaces had, not only in socialist, but also in developed European countries (Greenery in the urban environment, 1970). For more than a decade following the conference, practicing Slovenian architects gave special attention to issues of quality of residential culture - the estate as an entity and the complex relation between buildings and remaining space: gardens, common greenery, recreation surfaces etc. (Ivanšek 1984: 31-32). In other cases they stressed the importance of planning (design) of the primary environment, besides the home decisively affecting the quality of life, which is divided into interior space, external space (underlined by D.G.) and transitory space (Jernejec 1984: 39). In practice the follow-up were well-designed estates, with which the new ones, described at the beginning of this article, can hardly compare when speaking about quality of the living environment.

5. The destiny of green spaces in residential estates

When asked about the importance of urban greenery, people living in Ljubljana always support preservation of existing green surfaces and demand more, well-designed new ones. In a survey conducted in Ljubljana several years ago about the importance of green surfaces, residential greenery was ranked most important, forests were second and

large city parks third (Simoneti 1997: 145). The emphasis on residential greenery is not surprising. After all it lies adjacent to ones home. Forests are part of the still preserved nature, seen by the urban population as the anti-thesis of built-up environments while urban parks complement residential greenery and expand possibilities for using urban green surfaces. The desire for more, new urban greenery is also very clear. When asked about suitable measures for establishing new urban green surfaces respondents stated that poorly managed areas on the city's edge were most likely, unused and degraded areas in the city were next, while most stated that they would accept a higher price of homes if well-designed green areas would be available in their immediate neighbourhood (Simoneti 1997: 155). Although these results have to be interpreted carefully, the preparedness to accept higher costs is surprising, although the stated condition was, that they have to be made available in the immediate vicinity of homes. Whether the promises in commercial slogans and advertisements for new estates, all stressing nature and quality of the living environment are really delivered, is still an open issue, which should be researched with a new survey in the near future. Actually such a survey should have been conducted a long time ago by investors themselves as a market research, to obtain undeniable desires of potential buyers of these new homes. In view of the chaotic market conditions, whereby it is possible to sell almost any kind of home, such a survey will probably have to be waited for.

Improving conditions on the property market cannot be complete. In circumstances where apartments with similar quality or standard and construction will be comparatively equally cheap, buyers will decide to purchase those apartments, which will be offered in better quality living environments, whereby the site itself will not be the only criterion, but also the quality of the whole estate's design with emphasis on green surfaces.

Even if the most optimistic scenario concerning the property market develops, it will not be able to regulate all those subsystems of urban development whose provision cannot be ensured on the commercial basis (Poženel 1996: 10), one of which is urban greenery. Therefore it will be necessary to revitalise the segment of physical planning policy that effectively controls the quality of urban space including greenery. The national government and municipalities will have to mediate interests of owners, builders and entrepreneurs (Ravbar 1999: 21) and formulate necessary taxation and financial instruments for achieving development visions under market economy conditions and private property of building land (Dekleva 1999: 4). The least problem will be to implement possible new system proposals for future housing construction with well-designed landscape and urban design projects. We can only hope that it will not be too late for the rare preserved urban greenery.

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Notes:

In an older research carried out by Ogrin and associates (1994), which was also the basis for the most recent version of the green system presented in the »Concept«, out of the twelve categories used in the concept of the green system in **Ljubljana, greenery in housing estates was an independent category and listed as fourth.**

[1] **The implied residential estates were BS 3 (on Vojkova Street), BS 6 (in Šiška), BS 7 (Ruski car), but also all the other residential neighbourhoods marked as »residential« in older planning documents.**

Graphic material:

Picture 1: *Mostec - triangular remnants of greenery between picket fences only emphasise the contrast between private »gardens« and other open spaces in the estate where a clear-design concept cannot be identified.*

Picture 2: *Mostec - the built path between the buildings does lead to the main road by the pond, however from the estate's structure one cannot discern that behind the buildings lies one of the largest water bodies in Ljubljana, despite still being largely unkempt.*

Picture 3: *In the Nove Poljane estate parking is provided for residents in the basement and access roads in the estate. The remaining open spaces are paved (garage roofs!) or exempt as private gardens from the estate, albeit smaller than in Mostec.*

Picture 4: *Green surfaces in the Bežigrajski dvor estate envelope all the available surfaces between the buildings. Although the buildings stand on the roof of the garage, disallowing the planting of large trees, compact tree groups or lines, the central green surface is in relation to the size of the surrounding buildings expansive and apparently connecting. Cafes and shops on the ground floor of the office block open towards it. The area in front of them and the residential blocks (the roof of the garage!) is mostly paved.*

Picture 5: *The BS 3 residential estate in Ljubljana (urban design: Mitja Jernejec, project 1969, development plan 1973, construction 1975 (source: AB 1984: 5)). The concept of the estate includes numerous green surfaces between the buildings, longitudinal and perpendicular green surfaces are parts of the system of »trim paths« with provided resting areas. The offer of greenery in the neighbourhood is supplemented with playgrounds next to the school and kindergarten.*

Picture 6: *When the estate was being built, the valid normative on parking spaces was one space per flat; today grossly exceeded and reaching on average almost two cars per flat. The consequence is aggression of cars into the inner areas, completely chaotic parking endangering pedestrian passages, as well as the planned »trim paths« in the neighbourhood.*

Picture 7: *The residential complex ŠS - **6** in Šiška, Ljubljana (urban design: LUZ **1964 - 68,** Janez Vovk, Aleš Šarec) managed to protect the inner courtyards from cars. The estate's programme and especially design approach, which is based on the use of ridges and hills as physical structures and obstacles between common spaces and private apartments, even today represents one of the best examples of residential greenery in Slovenia.*

Picture 8: *Design of residential green surfaces from the sixties was successfully continued in the residential estate MS 12/2 in Nove Jarše, Ljubljana (urban design: Stanko Štor, project 1978, 1980, construction 1981). In the layout of the courtyards children's playgrounds and sports grounds are clearly visible, as well as the green surfaces adjacent to the school and kindergarten (source: AB 1984: 15).*

Picture 9: *Twenty years later the green surfaces in the MS 12/2 estate still serve their purpose. The upper picture shows one of the playgrounds in front of an apartment block, the lower shows the kindergarten's area. The outcome of proscribed minimal playing surfaces for children was in this case a large park - playground next to the relatively small kindergarten building. During the day these areas are used by children from the kindergarten and by older children from the estate in the afternoons, but also children from the new residential buildings built recently on the outer edge of the playground.*

Picture 10: *The structure of the estate BS - 7 Ruski car (urban design: Vladimir Mušič, Marjan Bežan, Nives Starc, competition 1966, plans 1968, construction 1970 onwards) can be compared to that of Nove Poljane. The central area between the apartment blocks is the roof of the basement garage; it is mostly paved, with greenery provided by trees growing from ventilation openings and grass surfaces. However the need for a green living environment is provided for in one of the largest parks in Ljubljana's neighbourhoods, which could easily be classified as a public city park. Such a park in prevailing market conditions cannot be built without municipal intervention (and financing).*

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Maja SIMONETI Darja MATJAŠEC

The landscape of the Sava riverbanks

Opportunities for the development of protected areas

1. Introduction

For various reasons the riverbanks of the Sava River in Ljubljana have remained marginal. The present lack of programme is therefore a large development challenge. Nevertheless issues about advantages and threats concerning development of still protected areas do emerge. The idea presented in this article seeks answers in the concept of the wider area, which should become the measure for evaluating the suitability of particular projects. The proposal calls for a planning approach and amongst other argues for protection as an effective development strategy. The presented concept is strongly marked by relations between the city, river and hinterland and the relations between areas with protected landscape qualities and programme development areas.

The riverbanks are connected with a circular recreation path enabling experiences of the river and riverbanks, as well as connecting various programmes. The distribution of programmes follows balanced distribution of programme cores positioned along the path; on the city's side of the river (the right bank) programmes for daily recreation of the inhabitants is proposed, while on the opposite bank further away from the city, larger interventions and projects are proposed, suitable for large numbers of users from the wider hinterland. In the concept areas of protected nature and landscape characteristics are defined as programme areas with equal bearing as other development areas. The proposal addresses strategic questions concerning physical development and provides guidelines and directions for future planning.

2. Ljubljana also a city by the river Sava[1]

Ljubljana is a city lying on two rivers, Ljubljanica and Sava. The banks of the Sava are incomparably less connected with the city's development than those of the Ljublanica River. Floods, protection of water resources and energy potentials has all diminished the attractiveness of the Sava riverbanks for urban development. The space where it meets the Ljubljana Valley has stayed preserved as an expansive natural hinterland of the city, similar to the Barje (marshes) in the South.

The vivid attraction and expanse of the riverbank space is becoming increasingly interesting for development initiatives. Use of the space is presently limited, both physically and socially and in view of programmes. Only few places on the riverbanks are accessible and can be used, the river water isn't suitable for swimming. The space as such is the