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Private space open to the public as an addition to the urban public space network

One of the most important priorities of (sustainable) urban planning is to ensure the quality of life and a healthy living environment. Both are primarily regulated as part of the public space network – that is, in city parks, squares, streets, forests, river banks and so on. In addition to public space, which is public in terms of ownership and use, private space open to the public in cities is becoming increasingly important. This is privately owned space in public use that comprises private structures and their external areas such as green areas, paved courtyards, atriums, arcades, squares and streets at shopping centres and movie theatres. The network of private space open to the public (PSOP) in cities is being created spontaneously and in line with the (economic) interests of its owners. The findings presented in this article show that PSOP could complement and enrich the city's public space network to a larger extent than it currently does, which

would enable it to have a greater influence on ensuring people's quality of life and health. The first precondition for this is a well-organized ownership and physical structure of the public space network that is linked to PSOPs. By analogy with Slovenian hiking trails, which already form an extensive network of PSOP outside the cities, the planned development of a network of PSOP is suggested for cities. The first step can be completely concrete: defining these spaces as a special spatial category that can be introduced to local urban planning practice – that is, to land subdivision plans, which are part of spatial plans. The next logical step would be the gradual enforcement of this through regulations.

Key words: public space, private space open to the public, public use, quality of life, healthy living environment

1 Introduction

In planning activities and development in space today it is essential to take into account the principles of sustainable development as the basic developmental paradigm of the present and future. This involves “development that takes into account the present needs without threatening the opportunity of future generations to satisfy their needs” (Bruntland, 1987: 51). As specified in the Habitat Agenda, the fundamental document of the Second United Nations Conference on Human Settlements, the principles of sustainable (spatial) development also emphasize solidarity and more careful human management of the environment, both natural and living. The basic goal is to preserve and establish a quality, healthy and safe living environment (Šarec, 1996; Yau, 2010). This also ensures the long-term quality of people’s lives, health and safety as well as the conditions for developing a healthy community. The demand for ensuring a healthy and safe living environment especially applies to cities, which are home to more than half of the world population, including more than half of the Slovenian population (Razpotnik, 2011). The problems cities face are connected with the population increase (especially in Asia and South America), as well as urban depopulation and people’s migration to the countryside (in developed countries). An increased share of degraded urban space, increased pollution and excessive use of natural resources have been typical since the 1970s (Šarec, 1996). Peter Nijkamp and Adriaan Perrels (1994) believe that the world is gradually urbanizing. The share of urban population is increasing, along with the environmental problems in contemporary cities. According to Richard Rogers (1999), people living in cities are exposed to many pressures such as an unhealthy living environment and inadequate living and working conditions. Many professionals from various fields have established that an unhealthy and stressful life is more of a rule than an exception. The author believes that at the same time the social changes resulting from extended leisure time (the 80-hour week of a European worker in the nineteenth century has now been halved to an average of 40 work hours per week) are providing new lifestyle opportunities and shaping new needs for urban users (e.g., residents, visitors and out-of-area workers).

In response to the negative trends in the spatial development of cities and the deterioration of quality of life, on World Health Day in April 2010 the World Health Organization highlighted the need to pay special attention to protecting the health of people living in urban centres. With its “1,000 Cities, 1,000 Lives” campaign it urged city authorities to adopt measures that promote people’s health; these include setting up and providing healthy urban public spaces by reducing motorized traffic and adapting streets for pedestrians and cyclists (Vertot, 2010). As a fundamental right of residents, a healthy living

environment is globally laid down in the United Nations declarations (Šarec, 1996). In Europe, residents’ right to a healthy living environment is set out in documents (Council of Europe Conference of Ministers Responsible for Regional Planning, 2000), and in Slovenia this is regulated by the Slovenian constitution: “Everyone has the right in accordance with the law to a healthy living environment. The state shall promote a healthy living environment. To this end, the conditions and manner in which economic and other activities are pursued shall be established by law” (*Ustava Republike Slovenije*, Ur. l. RS, no. 33/1991: 1378).

The study of the importance of public spaces and private spaces open to the public (PSOPs) was confirmed by the findings above, which substantiate the priority of ensuring a quality living environment. Measures for increasing the quality of the living environment are largely implemented as part of the public space network or space open to the public. The purpose of this article is to enhance the understanding of the role that urban PSOP plays in this regard and to draw attention to the fact that its potentials have not been sufficiently exploited. In Slovenia this category of urban space that is private in terms of ownership and open to public use has not been suitably defined and is not regulated systematically. Nonetheless, it is assumed that in Slovenian cities PSOP can be provided for as part of applicable legislation, based on expert recommendations and by promoting best practice. This will be demonstrated by the findings of a study on project practice, in which PSOP (or private spaces that can be placed within this category) are realized or planned. This article first discusses the importance of public space and the potentials of planning PSOP. This is followed by an analysis of project practice, presentation of the findings of the analysis and, finally, a conclusion.

2 Research framework

2.1 Public space: Accessible and open to everyone

Public space (PS) is regulated within the ownership frameworks of the public sector (i.e., the state and the local communities). The scope of PS in cities is limited to publically owned land (see Table 1). PS comprises urban space in which public urban life takes place. It is the most important part of the city, which is (or should be) freely accessible to city users. This type of PS enables socializing, movement, play, recreation and creativity (Goličnik, 2008). It is a place where various events and community or social activities take place and where people can exercise their freedom of expression. It comprises traffic areas and other shared public areas such as squares, paved courtyards, parks, green areas, city forests, riverbanks and the coast. They also include public urban structures such as markets, libraries, museums, theatres and gyms. Taking into

account special limitations regarding public accessibility, they also comprise preschools and schools, hospitals, health centres and courts. In short, they include the entire range of publicly owned and used traffic and social infrastructure. According to Miha Dešman (2008: 1), PS is “a space or area accessible to all regardless of race, gender, social status and age. You do not need to pay an entrance fee to get in, nor are those that enter it subjected to any kind of segregation. Conceptually, public space is a place where our public life takes place (is realized) as well as any form of urbanism. It is the basic ‘material’ of the city and the community, and as such a condition for the social and community aspect of living.” PS is the common good of all city users, open to and shared by all (Robbins, 2008). “Public space is the most exposed feature of every city and culture. The ability of any individual period and the dimension of every civilization is also measured by the public spaces it creates and maintains. Therefore both in ancient Greece and the Roman Empire as well as in the present era of technologically advanced civilizations, public space was and has remained an equally important category” (Gligorijević, 2004: 2). David Adjay (2006) believes that the development of potential networks of contacts, connections and activities should be made possible in addition to the network of formal PS. “Public spaces are democratic when they are accessible to all groups and enable both freedom of operation and temporary appropriation and control” (Golčnik, 2006: 9.) PS is a place of exchange, a place where you feel free and equal (Fernandez & Arpa, 2008).

In line with the Construction Act (Sln. *Zakon o graditvi objektov*, Ur. l. RS, no. 102/2004), construction in the public domain comprises land intended for general use. Construction in the public domain of national importance includes the network of public economic infrastructure of national importance and the public areas next to it; construction in the public domain of local importance includes the network of public economic infrastructure of local importance and the public areas next to it. This also includes structures or parts of structures that are intended to be used by all under the same conditions, such as roads, streets, squares, arcades and other public traffic areas of local importance, markets, playgrounds, parking areas, cemeteries, parks, green areas and sports or recreational grounds. According to law, a public area is an area that is intended to be used by all under the same conditions, such as public roads, streets, squares, markets, playgrounds, parking areas, cemeteries, parks, green areas, recreational and other areas. As Ilka Čerpes (2007) reports, PS is the main building block and the most important space in the city, in which we realize our urban public life and fulfil the shared needs of city users. Urban PS is where we provide the conditions for healthy living, shaping a shared life, public expression, creativity, play and recreation. Therefore it is important that the city’s PS be sufficiently large, organized and maintained as well as easily

accessible and attractive, with a wide variety of activities.

However, many cases from practice show that in Slovenia PS is often disorderly, poorly maintained, inaccessible to the public, blocked or closed. One of the important reasons for this is the fact that the open space network is poorly regulated in terms of ownership and that public land is poorly managed.^[1] This is the result of the previous diversity of “social property” under communism; PS is defined as public domain, as the property of the municipality or the state, as a shared pasture (common land) and so on. According to Tomaž Černe (2009), during the “social property era” changes in ownership data were not recorded on an ongoing basis and therefore many changes in ownership were not recorded. Černe also reports that “in many cases the data entered in the land and property register do not reflect the actual and legal condition of the real estate” (Černe, 2009: 38). In addition, this is also the result of denationalization (Šturm, 1996). The change from communism to democratic capitalism after 1991 also resulted in the enhanced importance of private ownership, while the relationship to public ownership remained unregulated. The denationalization of property caused some private areas that were in public use to become private and in private use, and thus inaccessible to the public. Many public-domain parcels do not match the actual state of affairs, their ownership status is not sorted out and so on (Mušič, 2005; Černe, 2009).

Public urban space is often not suitably defined; in addition, it is also useful to emphasize its limitedness. Material or physical PS (Nikšič, 2006) is limited to public domain parcels or publicly owned land. Due to the limited scope of PS to approximately 20% of urban space (see endnote three to this article) and limited public funds, one cannot expect the share of the entire space open to the public (i.e., PS + PSOP) to increase at the cost of PS.^[2] Good opportunities for this are provided by PSOP. The scope of PSOP in cities is not limited because it can be arranged anywhere on private land, with reference to PS. In the minds of city users, PSOPs are linked to the PS network. Therefore they provide a valuable potential for extending the cities’ space open to the public – that is, its scope, accessibility, interconnection, quality, variety of activities, infrastructure and safety.

2.2 Private space open to the public: accessible to users in line with the owner’s interests and restrictions

A PSOP is PrS in public use. It is regulated within the ownership and financial frameworks of the private sector (see Table 1). PSOPs are private urban spaces open to users. They differ from PSs by being privately owned, but it is in their owner’s interest that they be used by the public. PSOPs are developed

Table 1: The most important terms and abbreviations used and their characteristics

Abbreviation	Meaning	Ownership	Use
PS	Public space	Public	Public
PSOP	Private space open to the public	Private	Public
PS + PSOP	Entire space accessible to the public	Public and private	Public
PrS	Private space	Private	Private

in connection with activities intended for the public such as shops, movie theatres, and service and business structures and areas (Robbins, 2008). PSOPs comprise private structures and their external surfaces such as green areas, platforms, atriums, squares and streets at shopping centres, movie theatres and business structures, galleries, passages through private structures and so on. PSOPs provide the potential to enrich the urban PS and increase the quality of urban living (Kayden, 2000). As in PSs, these PrSs are also where urban public life takes place – of course, under certain restrictions set by their owners or managers. PSOPs are thus arranged in private urban areas in line with the owner's interests. However, according to Jerold Kayden (2000), the city administration can actively regulate and promote the organization of a PSOP network, which will be illustrated by a best-practice example from New York.

2.3 Private space open to the public as a potential

In Slovenia, PSOPs are completely non-established as a category, in both practice and legislation. In handling PSOPs, which usually accompany for-profit private programmes, it is important that developers (i.e., owners or managers) have clear and measurable benefits. An example of this is numerous shopping centres and gas stations that allocate the majority of the PS open to the public to shops, whereas they dedicate considerably less space and attention to green areas, parks, playgrounds and sitting areas. However, only through this PSOPs would they enrich the PS network, which can also be seen from certain examples outside Slovenia. An extensive and well-organized Slovenian PSOP network outside the cities is already in place: a variegated system of mountain trails. Free public access to predominantly private land in the mountains and hills is provided and marked, as well as laid down in the Mountain Trails Act (Sln. *Zakon o planinskih poteh*, Ur. l. RS, no. 61/2007). Mountain trails run across private land and therefore fall in the category of PSOPs. Pursuant to this act, mountain trails are public. Their users have the right and obligation to use them responsibly, the landowners must allow them to be used and the caretakers (i.e., the Alpine association) have the right and obligation to maintain and mark them.

Manhattan was selected as a reference best-practice example of regulating PSOPs; this was where PSOPs began to be regulated

first. Exceptional results were achieved in just a few decades through a high-quality zoning resolution and the continuous efforts of the city administration. When comparing this to the situation in Slovenia, it is especially encouraging to know that the approach used in New York was a success within the context of the most typical capitalism, in which private property is one of the most important values. In New York, PSOP was named "privately owned public space." Kayden (2000) reports that in New York PSOPs have been provided and regulated for decades; specifically, since 1961, when the zoning resolution was amended. The city administration's goal was to create more open space at the street level by providing more space open to the public that is of better quality and has better infrastructure. This was especially important in densely built-up Manhattan, where street space is scant and the high-rises were growing increasingly higher. The PSOPs there include private squares in front of the entrances to business premises, passageways across private courtyards, access points to the subway system, interior squares at shopping centres and restaurants and so on. According to Kayden (2000), by developing the PSOP network the city is significantly increasing the entire space accessible to the public (PS + PSOP). In order to achieve this, the city formed incentives and bonuses attractive to developers. In exchange for being involved with privately owned PSs, the zoning resolution provides special bonuses to developers such as additional floors or greater building density (Németh, 2009). With its zoning resolution and its quality execution, the New York City Department of City Planning provided new diverse PSOPs to the city over a period of a few decades (Schmidta et al., 2011). It is also important that it supervises whether PSOPs are arranged and open in line with the building permit provisions. To this end, it developed an extensive online database of all privately owned PSs. The database included information on PSOPs and at the same time the users are invited to report on the conditions in the field (New York City Department of City Planning, 2007). This facilitated private investment in PSOPs and control over them; in addition, since 1961 the zoning regulation has been continually added to based on experience with its implementation.

The best-practice example of regulating PSOPs from New York is successful because the city administration continues to actively promote PSOP and because, due to numerous amendments, the zoning regulation is constantly adapted to concrete social and development conditions. In this regard, it should be

noted that this approach is discussed as an example, bearing in mind that this is a U.S. model adapted to the social conditions in the U.S. and therefore is not directly applicable to Europe. Conditions in Europe are different in many ways, starting with the rich cultural heritage of European cities with a high-quality construction of their historical cores. This exceptional spatial quality does not allow the criteria to be made uniform as was possible in Manhattan through a relatively simple but effective zoning resolution. In Europe and in Slovenia, conditions for arranging PS and PSOP must be adapted to concrete situations and specific spatial quality and special features; at the same time, the principle of promoting PSOPs could be similar.

The best-practice example from New York has been copied by some other cities in the U.S. and elsewhere. San Francisco adopted a downtown plan in 1985, which promotes the establishment of PSOP. In Chicago a special Open Space Section seeks to increase the share of publicly accessible open space. Its 1998 city plan showed that Chicago had an insufficient amount of open space per resident and it thus did not meet the national standards. Therefore the city is introducing incentive measures and arranging new PSs and new privately owned land for public use (Chicago Open Space Section, 2011). In San Francisco and Seattle PSOPs have been named “privately owned public open spaces” or *POPOS* (Hou, 2010; Jacobs, 2010). Arranging PSOPs is also promoted in other cities, such as Hong Kong (cf. Luk, 2009).

3 Pilot study of the project practice

3.1 Purpose and method of research

The various ways to introduce PSOPs into Slovenian urban-planning practice and gradually into regulations as well were verified through a project practice pilot study. This study was prepared in order to obtain data on the condition of PSs and the circumstances or potentials to arrange PSOPs. It was conducted on seven examples of implementing municipal documents: building and planning schemes and detailed municipal zoning plans. The study analyzed the following:

- Percentage of area covered by PS and PSOP: in addition to descriptive data, the goal was also to obtain numerical data on the shares of areas covered by PS and PSOP in order to use them to determine the recommended percentages of PS and PSOP. In Slovenia PSOP is not defined as a separate spatial category, and so those private areas of the projects analyzed were included among (potential) PSOPs that are open or partially open to the public; for example, shops, bars, business and tourism facilities and their outdoor areas, forested and other green urban areas, as well as areas in apartment buildings that are not fenced off and are open to the public;
- Percentage of area of PrS: the provision of PS and PSOP

and the PS:PSOP area ratio were analyzed in relation to PrS;

- Project preparation procedures: procedures for preparing projects were also observed with regard to project practice examples. The following was compared: the course of preparing and establishing the project, partner participation, project success and whether they have already been carried out or are still being carried out. A further question was to what extent and under what conditions the current circumstances and applicable regulations make it possible to implement high-quality solutions. The results of comparing how individual projects were prepared and the problems arising during this process are an important indicator of the status quo, while pointing to possible solutions.

The criteria used to assess the quality of solutions that provide good quality of living included criteria that ensure a sufficient quantity of well-equipped and accessible PS and PSOP:

- Appropriate percentage of PS and PSOP: appropriate or recommended ratios were determined based on the established condition or potential of project practice examples;
- Good accessibility of PS and PSOP: the condition for PSs was that they had to be accessible and open to the public 24 hours a day; for PSOPs the condition was at least 12 hours a day, which is standard store hours on a workday;
- SP and PSOP infrastructure (toilets and urban infrastructure to make them user-friendly);
- Variety of activities in PS and PSOP (mixed zoned land use).

Digital project data were used to analyze the area ratios and calculate accurate percentages of PSs, PSOPs and PrSs, which are shown in Figure 1 and Table 2. The area percentages of PS and PrS were compared before and after the project was carried out. In the next step, net values were also determined while measuring the PS, PSOP and PrS areas. The net PS and PSOP areas included spaces intended for pedestrians and cyclists, hanging out and recreation, children’s play and so on. The net areas thus comprise the SP and PSOP areas minus roads, parking areas, and delivery and access areas.

3.2 Case study

The Podbreznik development in Novo Mesto was selected to present the project practice analysis and assessment. The building plan for this development was adopted in 2002 (cf. *Zazidalni načrt Podbreznik, Novo mesto*, Ur. l. RS, no. 74/2002). Podbreznik is an outlying development next to the forested suburban area, near a stadium with a velodrome and next to

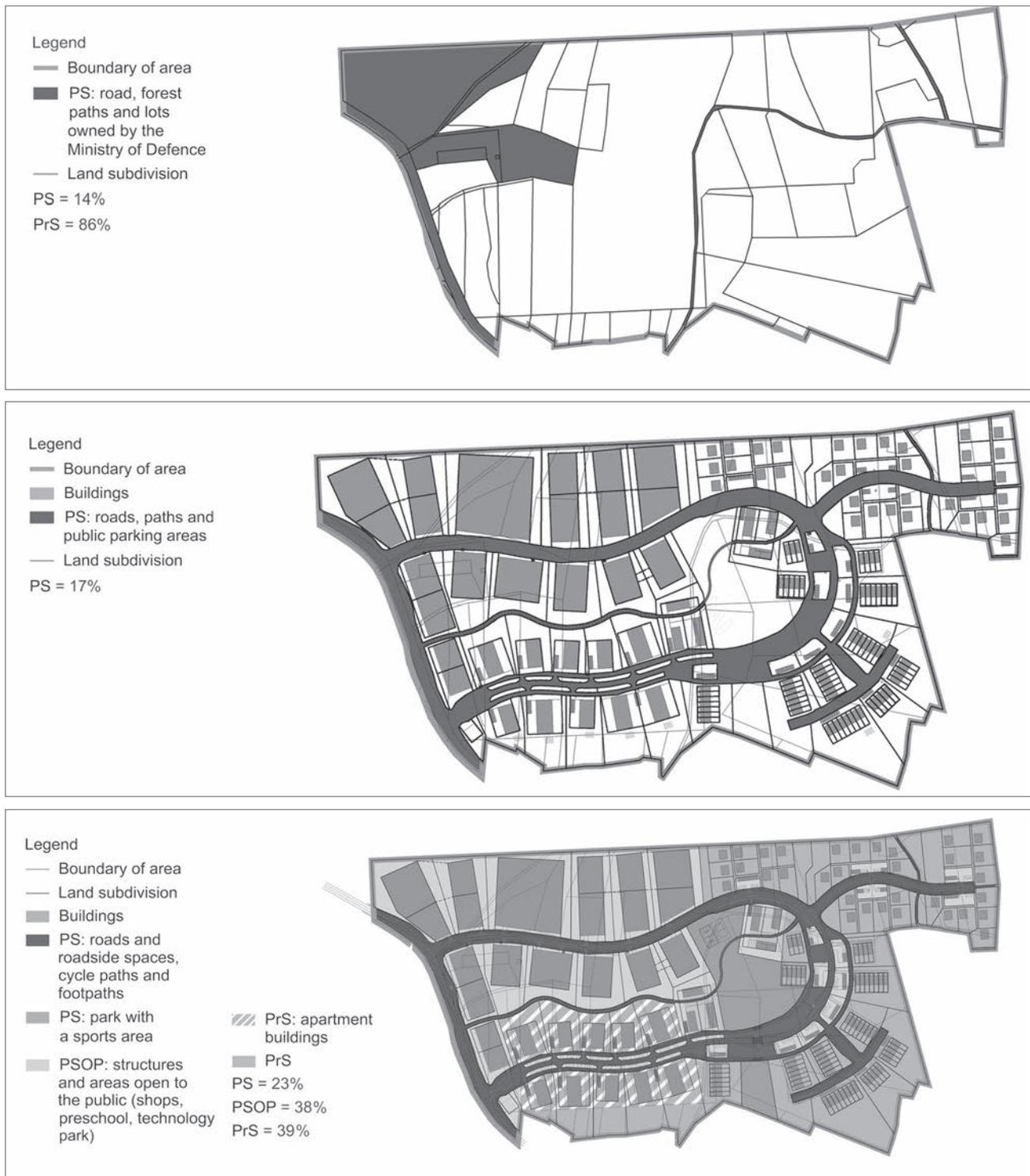


Figure 1: Subdivision of public and private areas at the location studied a) before the preparation of the building plan; b) after the building plan entered into force; c) after the building plan entered into force, with simulated PSOP areas (notes: PS = public space, PSOP = private space open to the public, PrS = private space).

the motorway planned as part of the Slovenian third development axis. Its total area is 23.6 ha, of which 15 ha is residential and 8.6 ha belongs to the technology park. The project is still underway; a residential neighbourhood with apartment buildings and terraced and detached houses for approximately 1,200 residents has been under construction here since 2003.

Public facilities such as a preschool and retirement home as well as private facilities open to the public such as shopping and business activities and a technology park are also planned in this neighbourhood. In addition to the preschool, all of these facilities will be funded through private investment. The neighbourhood's PS comprises roads, pavements, cycle paths,

footpaths and a park with a sports area and a playground. The items listed are private investments and partly investments in public-private partnership.

Before the project was carried out, the area studied included a degraded area of abandoned military warehouses and woods. As shown in Figure 1a, the PS areas included public forest roads and state-owned lots (specifically, owned by the Ministry of Defence). PS covered approximately 14% of the area. Figure 1b shows the planned construction after the building plan entered into force. In addition to the provisions of the ordinance, the construction layout of the plan formed the basis for the graphic presentation of PS and PSOP areas. Direct data for this are provided by the subdivision map of the valid building plan. Apartment buildings, a technology park, shops, business facilities, and terraced and detached houses are planned (and partly already build) in the area studied. Public space also includes public roads and roadside spaces with areas reserved for pedestrians and cyclists, and parking areas; these cover approximately 17% of the area (see Figure 1b). Compared to Figure 1b, a planned public park is added to Figure 1c. This shows the PS area of roads and roadside spaces, which make up the vital space for ensuring the area's accessibility, especially the area covered by the public park. The total PS covers 23% of the area. In addition, a graphic simulation was prepared, in which part of the private areas were categorized under PSOP. PSOP also included areas in buildings open to the public such as shops, business facilities, the preschool and the technology park.

3.3 Case study evaluation

In the area studied, PSs are provided in the form of roads and roadside space (i.e., cycle paths, pavements and green areas), footpaths and a public park with a sports area. PSOPs are provided in and next to structures open to the public (i.e., shops, salesrooms and business premises in the technology park such as the entrepreneurial incubator). All of these are PrSs in public use. PSOP is not shown on the building plan's subdivision map and it is also not treated as a separate spatial category; however, the ordinance and provisions on the activities to be carried out in the structures lay down the areas designated for public activities (activities open to the public). In line with the

applicable rules, the building plan's subdivision map divided the area covered by the building plan only into private and public space. Therefore, the study categorized publicly open private areas under PSOP.

After the PS, PSOP and PrS areas were accurately drawn out and calculated (see Figure 1c), PS covers 23% of the area studied in the form of roads, paths, public parking areas, a park and green areas. The 23% corresponds to the urban average in Novo Mesto, where PS covers approximately 22% of the urban area.^[3] The percentage of PS areas defined in the project (i.e., 23%) is almost twice as large as it was before the project implementation. As shown in Figure 1a, at that time the percentage of PS in the partly second-growth forested area amounted to 14%. The 14% of PS provided important public potential, which made the negotiations with the majority project developer easier. At the same time, half of the PS was unmaintained: an abandoned military site that was not open to the public. Because this PS was not suitably defined and arranged, the public could not use it. Figures 1a and 1b show a large percentage of areas that can be defined as PSOP (i.e., 38%). PSOP included shops, salesrooms and similar activities dedicated to the public as well as business premises in the technology park such as the entrepreneurial incubator and offices. The share of PS and PSOP net areas is 0.5, which means that an average of 50% of the PS and PSOP areas include traffic and access areas. The percentage of PSOP in the area studied (following the simulation of building plan's provisions) is thus approximately 1.6-times higher than the percentage of PS. If both percentages are added up, it can be seen that more than half of the area will be open to the public (PS + PSOP = 61%; see Figure 1 and Table 2).

Information on how the project took into account the quality criteria that refer to the quality of living is presented below; these include percentages of PS and PSOP and their accessibility, infrastructure and activities offered. The building plan ensures adequate percentages of PS and PSOP areas for the area studied: 17% of PS areas include public paths, roads and roadside space, and 6% cover the public park with a sports area. There is a total of 23% of PS areas, which is one percentage point more than the urban average of Novo Mesto. In addition, the PSOP percentage is also relatively high; it amounts to 38%

Table 2: Results of the calculation of PS, PSOP and PrS areas and their net values in the area studied

Space type	Net	Ratio
PS = 23%	net PS = 11%	PS:net PS = 1:0.5
PSOP = 38%	net PSOP = 19%	PSOP:net PSOP = 1:0.5
PrS = 39%	PrS = 39%	PS:PSOP = 1:1.6
Total = 100%	Total = 69%	net PS:net PSOP = 1:1.7

Notes: PS = public space, PSOP = private space open to the public, PrS = private space

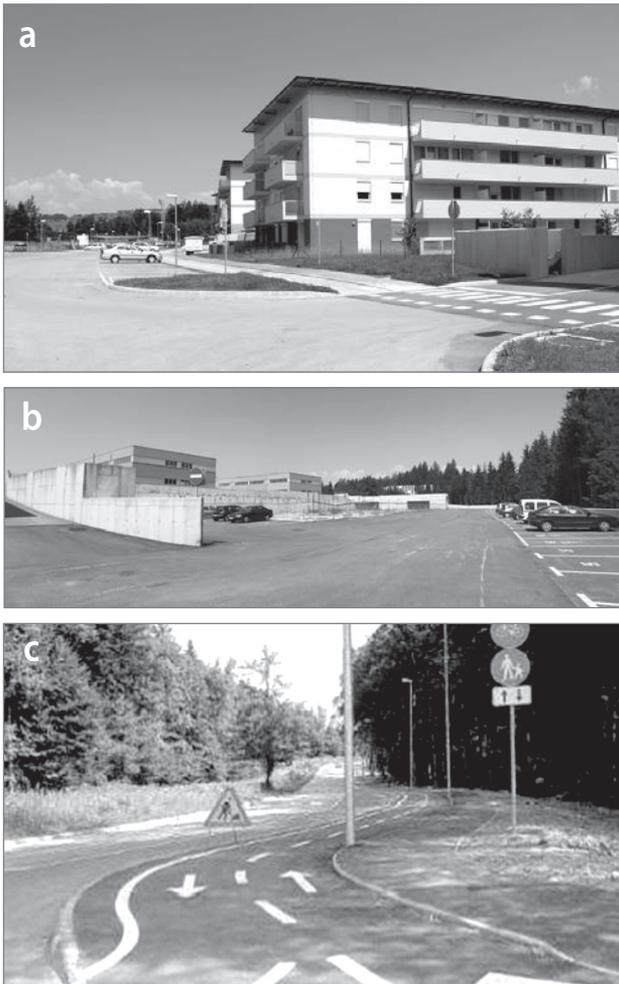


Figure 2: A photo of the area studied under construction: (a) apartment buildings; (b) the technology park; (c) the access road coming to the suburban location from downtown includes a cycle path, a pavement and lights (photo: Liljana Jankovič Grobelšek).

and is 1.6-times larger than the PS percentage. The suitable percentages of PS and PSOP resulted from the high-quality entry selected at the invited urban planning and architectural competition, which envisaged a neighbourhood in the woods that would be as open as possible; this resulted in relatively high percentages of PS and PSOP. The PS and PSOP percentages can be compared to the average of all projects (see Table 3), which shows that the solutions in the area studied are good in terms of the PS percentage, which is higher than the average and approximately average in terms of the PSOP and PrS percentages (see Table 3). In the process of preparing the building plan, thanks to the support provided by the City of Novo Mesto, a cooperative developer and close supervision of the local community, it was possible to retain the basic idea of the competition: the concept of a neighbourhood in the woods. The building plan specifies good accessibility of the PS and PSOP in the area. The PSs are accessible and open to the public 24 hours a day, and PSOPs (shops, sales rooms and so on) at least 12 hours a day on average. PS and PSOP infrastructure includes public toilets in the park and the sports

and urban infrastructure (benches, wastebaskets, lights and so on). The plan also provides for a wide variety of activities in PSs and PSOPs because this involves an area with a diverse land use (see Figure 2).

3.4 Discussion

The results of the study of the project practice confirmed that the areas with mixed land use (which is also typical of the area studied) include larger percentages of PS and PSOP than in residential or industrial areas, where these percentages were as little as half the size. According to Jane Jacobs (1961, 2009), mixed land use ensures diversity, safety, public contacts and also brings economic benefits. According to Elizabeth Burton and Lynne Mitchell (2006), mixed land use provides better service accessibility to residents and our study also confirmed that due to mixed activities it also provides higher percentages of PS and PSOP. This is also confirmed by Kayden (2000), who established that the most successful PSOPs in New York include internal and external squares on the ground floors of business-residential towers or office towers in mixed-use city blocks. After the PS, PSOP and PrS areas were accurately drawn out and calculated for all project practice cases, the estimated average percentage of PS was approximately 18% and the average percentage of potential PSOP was approximately 40% (see Table 3). On average the percentages are adequate; in addition, the mixed-use areas showed good results in terms of PS and PSOP accessibility, infrastructure and activities. Thus on average, the criteria used to assess the quality of solutions that enable good quality of living were favourable.

These results showed that high-quality solutions that enable good quality of living and especially adequate PS and PSOP percentages can already be provided now, in the current conditions using the applicable legislation. At the same time, the study also showed that this is not that easy to accomplish in practice. It is true that the regulations enable adequate PS and PSOP percentages, but they do not lay them down or stimulate them. Thus it was established that the ratios between the PS, PSOP and PrS areas in individual projects (in addition to intended use) largely depended on concrete on-site ownership conditions, land use and location within the city, the organization of PS, the success of project preparation and so on. The project practice study monitored the manner of project preparation, which yielded such solutions. It was established that the scope of PS and especially the scope of PSOP largely depended on the success of negotiations in the project preparation process, public demands and so on. In the majority of cases, the good outcome resulted from demanding negotiations between the municipal administration and planners on the one hand and developers and the public on the other. The provision of PSOP is not established in Slo-

Table 3: Results of calculating the PS, PSOP and PrS areas and their net values; average of seven cases analyzed from the project practice

Space type	Net	Ratio
PS = 18.2%	Net PS = 7.8%	PS:net PS = 1:0.4
PSOP = 39.8%	Net PSOP = 27.3%	PSOP:net PSOP = 1:0.7
PrS = 42%	PrS = 42%	PS:PSOP = 1:2.2
Total = 100%	Total = 77.1%	net PS:net PSOP = 1:3.5

Note: PS = public space, PSOP = private space open to the public, PrS = private space

venient urban-planning practice and also not defined by laws that govern project preparation (i.e., municipal zoning plans, MZP; detailed municipal zoning plans, DMZP; and national zoning plans, NZP). Therefore, the provision of PSOP is often subject to various local conditions, various negotiating skills of the municipality, the state and planners, and various public demands.

Based on the finding that the provision of PSOP is not established in Slovenian urban-planning practice, a proposal was presented at the end of the study to arrange PS and PSOP in a planned and uniform way. To this end, urban-planning guidelines for arranging PS and PSOP were prepared; they define the recommended PS and PSOP percentages, their accessibility, infrastructure and activities as well as incentives and benefits that make it easier to implement the guidelines. The guidelines were complemented by diagrams showing possible urban-planning solutions in typical circumstances with a recognized potential for arranging PSs and PSOPs. For example, the expansion and arrangement of PS and PSOP was proposed along public roads, watercourse and coasts, in degraded areas, neighbourhood centres and closed urban spaces or blocks. Based on the findings that the provision of PSOP is not defined in laws that govern the preparation of MZP, DMZP and NZP, gradual measures were proposed at the end of the study. For example, PSOP should be clearly defined as a special spatial category (Kayden, 2000; Shafer, 2009), which is not the same as PS and PSOP. PSOP should become a mandatory component of the land subdivision plan when preparing MZP, DMZP and NZP, so that all areas in these plans are divided into PS, PSOP and PrS areas.

In substantiating the necessity and prudence of planned arrangement of PSOP, one can use the provisions of the Spatial Order of Slovenia (Sln. *Prostorski red Slovenije*, Ur. l. RS, no. 122/2004: 14706), which provides the basic framework for uniform arrangement of space in Slovenia. With regard to settlement planning, they stipulate that, in order to provide the conditions for a healthy life, socializing and recreation, “appropriate distribution, functional and structural diversity and quality design of green areas and other open public spaces must be ensured, while taking into account the size of the settlement area and its importance in wider space.” In addition, the spatial order stipulates that spaces in front of public structures

should be designed as PSs with enhanced identity and spaces in front of large shopping centres as open PSs of urban and regional importance, in which recreational, entertainment and cultural activities can be organized. These provisions also provide – even though the spatial order does not address PS and PSOP separately – that special attention should be dedicated to designing PSOPs in the form of open spaces of urban and regional importance.

An extensive Slovenian PSOP network has already been mentioned above: the mountain trail system. This proves that PSOP can be arranged with high quality in the current conditions and that at the same time it must be legally regulated; the latter is shown by the Mountain Trails Act (Sln. *Zakon o planinskih poteh*, Ur. l. RS, no. 61/2007), which regulates the status of mountain hiking trails. In addition, there is no lack of encouraging best-practice examples from abroad such as the arrangement of PSOP in New York (see Kayden, 2000; Foderaro, 2011), San Francisco and some other American and Asian cities (see New York City Department of City Planning, 2007; Luk, 2009; Hou, 2010; Jacobs, 2010; Chicago Open Space Section, 2011). Based on the data available, European cities and researchers do not deal with the provision of PSOPs the American way, which is both pragmatic and effective. A number of European researchers study PSOP, but many of them simply categorize it under PS because its use is public. According to Ute Angelika Lehrer (2007), PS is divided into physical, social and symbolic space. Physical PS is the most obvious among these and is defined by public ownership. Social PS is created through activities and symbolic PS creates people’s activity and their collective memory (spaces of memories and imagination). In line with such a division, PS comprises all the space in public use. Ali Madanipour (2003) draws attention to shaping boundaries between PS and PrS. He believes that shaping a boundary between the public and private as a combination of a clear permeable division presents a special challenge to arranging and building cities. However, only those divisions between the public and private make sense in which both spheres prosper and develop. Jan Gehl (2006) primarily emphasizes activities in PS and divides them into necessary (e.g., going to school or work), optional (taking a walk, sitting in a park) and social (meeting people, conversations; Gehl & Matan, 2009). It should be added here that PSOP is where primarily optional and social activities take place.

4 Conclusion

The main motivation for studying PS and PSOP was the fact that the quantity and quality of PS are limited by ownership conditions and the public sector's financial frameworks. It was also established that the cadastral and ownership status of publicly owned land is often not regulated. Because of this, many public areas are disorganized and poorly maintained. A further motivation for studying and seeking solutions was the fact that PSOPs are characterized by private ownership, private investment and new, private ideas. Because PSOP is not defined as a separate spatial category in Slovenia and because it is not promoted by best practice or regulations, it does not yield such good results as can be seen from the reference best-practice examples from abroad (New York, San Francisco, Hong Kong and so on).

The pilot study of the project practice confirmed that PSOP can already be provided now as part of current legislation, based on expert recommendations and best-practice promotion. The project practice example and the average results of the seven project practice cases show relatively favourable percentages of PS and PSOP areas. The cases analyzed have already achieved good results with regard to arranging PS and PSOP in terms of their percentage, accessibility, infrastructure and activities offered. However, this required a great deal of effort and negotiation and resulted from specific conditions in city administration and in the field, which is why it is urgent to introduce PSOP into urban-planning practice as well as to gradually introduce it into regulations.

Based on the study findings, several things are important for unifying and improving the bases for arranging PS and PSOP:

- PSOPs are linked to the PS network and therefore it is important that the ownership and physical arrangement of the PS network be appropriately regulated;
- PSOP is not an established category in Slovenia, but at the same time it represents a great development potential for adding to the PS network in terms of quantity and quality. PSOP should first be recognized as a potential and then established in the Slovenian urban-planning practice and gradually also in regulations. Urban-planning guidelines may be useful for uniform regulation of PS and PSOP, as principles of regulating PS and PSOP in specific typical circumstances;
- Comprehensive regulation of PS and PSOP networks will enable a better provision of quality living and health to people. Increased and better arranged urban space accessible to the public (PS + PSOP) will also provide better conditions for socializing, creativity, recreation and play.

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Notes

^[1] The municipalities began to draw attention to the issue of the unregulated ownership condition of public areas in independent Slovenia because they had (and still have) problems managing public roads and other infrastructure (water supply system and cemeteries), the management of which was planned to be taken over by utility services (Office of the Slovenian Government for Local Government and Regional Policy, 2008). The Slovenian Ministry of the Environment, Spatial Planning and Energy responded by preparing expert explanations and recommendations for solving issues connected with village water supply and cemeteries and surveying allotments for municipal roads. It advised the municipalities to transfer private property to public property (and suggested methods for carrying this out), but nonetheless this has not yet been accomplished due to demanding arrangements and procedures.

^[2] Depending on a city's settlement pattern and many other factors, the scope of physical PS in cities varies from approximately 15% to approximately 22% of the total urban area. According to Andrej Pogačnik (1999), the recommended ratios for Slovenia would be 16 to 17% of green and sports-recreational areas and 8 to 10% of central areas (out of a total of all urban areas). Between these, as well as land used for roads, railways and so on, one can find PS or public areas of various categories and ownership.

^[3] The estimate of all publicly owned urban areas (for two cases) shows that approximately 22% of urban areas in Novo Mesto are publicly owned; the percentage in Črnomelj is approximately 18%. They include all public areas owned by the municipality, local community, the Farmland Fund or various ministries (e.g., the Ministry of Defence and the Ministry of Education and Sport). The percentage of public areas in Novo Mesto is considerably larger than in Črnomelj because in Novo Mesto many areas are owned by the Ministry of Defence (the barracks with a firing range and training areas) and the Farmland Fund. Črnomelj also used to have barracks, but the area was much smaller. The percentage of public areas depends on several factors, such as how the city obtained and regulated its public areas in the past.

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