

The Role of Temporary Use of Public Space in Sustainable Development

A Case Study

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Abstract

The aim of this research paper is to explore the sustainable approach towards the management of public spaces. The paper is divided into seven sections. In the beginning, a discussion of why management of public spaces is generally an important subject is described by means of a literature review.

The second part of the paper focuses on the value of public space, providing an overview of the benefits of, and roles played by, properly defined and planned public spaces.

The third part of the paper presents a detailed discussion of the process of what is seen to be an innovative approach to the management of public spaces. Significant objectives are identified, in accordance with the new process of public space management, its impact, and synergies.

In the fourth part, the research methodology is discussed. This section outlines the two approaches taken towards a case study of temporary use of public space in Slovakia and a survey exploring the success of the temporary approach.

Finally, the outcome of the case study and results of the survey are outlined, highlighting interesting potential best practices regarding the temporary use of public spaces.

The results of the case study suggest that the planning of public spaces plays a significant role in the cities; consequently, the creation of public spaces must be considered as one of the most important aspects when analysing strategies towards sustainable urban development.

Keywords

urban development, sustainability, spatial planning, public spaces, temporary planning

1 Introduction

Uncontrolled rapid urbanisation causes disorderly arrangements of settlement patterns with dangerously low amounts of public space. Many cities in developed countries are also experiencing a dramatic reduction in public spaces due to expansive construction development. Public spaces are perceived as holistic natural entry points to the cities. Due to its multi-functional and multi-disciplinary nature, public space offers a holistic view on the city, including social inclusion, governance and management, urban economy, safety, and more intensive adaptation of the city to climate change.

Public spaces are essentially "urban advantages", influencing the overall impression of the city, helping to increase its general prosperity, and thus also promote tourism. Investing

in creation and restoration of public spaces can be a catalyst for urban renewal and attracting private investment.

There are many ways to access the city and its public spaces, and conditions vary from city to city. For every city, it is essential that its local government recognises the importance of public spaces and the need for new approaches in their creation and maintenance and adapts the city to current situations with a respect for the needs of its future residents. As Gažová (2011) points out, in the current period of global societal and climate change, the impact of public spaces on the landscape is significantly reflected in all areas of the urban life, and therefore, it is necessary to apply an environmental approach as a basis and starting point for all processes in urban spatial planning.

The role of public spaces in sustainable urban development is crucial (Toth and Espiau, 2008). Sustainability in public space planning can be understood as the management and development of public spaces that satisfies user requirements while reflecting current global challenges and adapting public space to climate change.

2 The value of public spaces

There is no doubt about the benefits of public spaces. The social benefits include health, leisure opportunities, social cohesion, aesthetic and psychological benefits; meanwhile, the economic benefits encompass enhanced attractiveness and prosperity of the city, as well as rising real estate and land prices; finally, they also bring environmental benefits related to ecosystem services and policy benefits associated with leadership and urban management. As concluded by Scopelliti (2015) free, open spaces in cities afford a variety of opportunities for their inhabitants and visitors.

The benefits of public spaces for cities and its users are listed by much research and many case studies from all around the world, demonstrated by quantitative and qualitative measurements by researchers such as Armour et al. (2014); Deilmann et al. (2015); Högyeová et al. (2019) or Kuttler et al. (2012). The following paragraphs will now synthesise the information about the benefits of public spaces from the most relevant theoretical literature research papers and studies.

Most cities have several unused degraded areas; however, many of these areas remain unused and continue to degrade. Such places represent an opportunity for the cities to expand their green infrastructure, with either a temporary or a permanent character.

For example, a temporary community garden on the site of a former landfill that attracted local criminals reduced crime up to 30% during its realisation in summer. The reduction in the number of crimes also caused a reduction of the population's fear, a factor which subsequently increased the usage of the streets during the night, which in turn increased social surveillance. The community garden has also brought other benefits, such as greater interaction between different ethnic groups within the community (Woolley et al., 2014).

As discussed by Ulrich (1984) and Wolf (1998), urban greenery and quality public space provide several benefits, such as reduction of stress, mental strain, and beneficial effect on the mental health of the population. The beneficial effect of greenery is confirmed by the growing

body of research from scholars all around the world. According to Agócsová and Högyeová (2020), and Willis and Osman (2005), greenery in cities does not only have decorative functions, but also play an important role in creating human comfort, improving climatic conditions, cooling and regulating the microclimate, and ensuring the exchange of oxygen. A significant increase in built-up areas and a decrease in the number of green areas leads to higher temperatures in cities than in the surrounding country - known as the heat island's effect. Vegetation helps to reduce this imbalance and brings many important benefits for urban areas. In London, Deilmann and colleagues measured a 4–11 °C temperature decrease in the buildings with green walls (Deilmann et al., 2015). Natural and artificial water element also reduce the temperature in inhabited areas, as the water surface is generally cooler than ambient air. Measurements carried out in Oberhausen by Kuttler et al. (2012) showed that water and forest areas help to mitigate not only the heat stress but also the periods of extreme cold.

It is important to note that not only the creation but also the maintenance of public spaces play an important role in sustainable urban development. Neglected maintenance may cause new social and spatial problems, such as raising criminality or overall aesthetic or hygiene problems, even in well-lit areas. Therefore, it is necessary for the management of public spaces to clearly determine who, how and in what time intervals will take care of the greenery in public spaces. Public spaces management should also carry out inspections, monitoring and evaluation of the state of these areas. Temporary greening of unused public spaces also represents an opportunity to improve soil quality.

Environmental planning plays an important role in sustainable urban development. Consequently, new and more effective approaches need to be considered.

Public spaces in any form create an opportunity for social interaction and thus represent the largest investment to increase social capital (Tilt et al., 2007).

Regeneration or planning of public spaces and greenery in urban structures can provide psychological, social (Tilt et al., 2007) or aesthetic benefits (Finka, 2008), and at the same time brings real resources to urban environments (Armour et al., 2014; Deilmann et al., 2015). Quality of public spaces can have a significant impact on the economic condition of cities and should therefore be an integral part of any successful regeneration strategy. As cities compete to attract investment, quality public spaces are becoming an important business and marketing tool. In city

centres, a pleasant, lively, and well-maintained environment can help increase the number of the visitors (Barton and Pineo, 2009). According to Lawlor et al. (2018) many case studies have shown that well-planned interventions and quality public spaces can increase people's interest, attract inhabitants to the site and, consequently, increase sales by 30% or more.

Public space planning plays an important role in development of modern, inhabitable cities and must be considered as one of the most important aspects in sustainable urban development.

3 Current public space requirements

Determination of public space requirements may represent a challenge for cities; thus, the topic of public spaces requirements is relatively attractive and is discussed by many authors (e.g. Carmona et al., 2010; Carmona, 2019, Kozlova and Kozlov, 2018; Praliya and Garg, 2019; Woolley et al., 2014).

When cities decide to conduct new urban development plans and strategies, planners should consider planning a network of accessible, interconnected public spaces that meet the common goals of the community. It is necessary to plan accessible, functional, and interconnected public spaces, based on the circumstances and needs of the territory and its location in the urban fabric.

It is also necessary to balance public space and thus prevent possible conflict situations, whether between generations (e.g. skaters and the elderly), car, pedestrian and bicycle traffic.

Pedestrians should have the highest priority when planning streets and public spaces. The challenge of traffic dominance is a persistent problem that continues to degrade many public spaces. A harmonious balance of spaces designated to car, bicycle and pedestrian traffic is essential. However, when planning the public spaces, there should be larger emphasis on the needs and requirements of pedestrians, as other modes of individual transportation dominated the urban planning through 20th century and brought many safety- and health-related problems. Yet pedestrians or the public cannot be viewed as a homogeneous group with same requirements and same usage of the public space. Public space planning should therefore be sufficiently informed about the citizens living in the designated areas, as there are specific needs for specific groups of citizens. Failing to address the specific needs of each group may lead to conflict between the citizens and may cause further decline of the public space.

As Carmona (2019) states, the success of public spaces will depend on their formation, adaptation, and transformation over time. In the short term this means spaces that can be adapted to different activities at different intervals (for lunch for workers or children), throughout the week (markets vs. calm and quiet) or throughout the year (concerts in summer and ice skating in winter). In the long run, this means successfully adapting to current real-time space requirements, continuous use of public space and consequent increase in social control.

Public spaces in the cities must be flexible and meet the needs and requirements of current and future populations. Public spaces can have several functions; thus, they could be planned and redesigned multiple times. Flexible public spaces are also more efficient and cost-effective for highly urbanised cities. This paper is mainly focused on the flexibility and adaptability of public spaces.

4 An innovative approach towards the management of public spaces

The starting point for this paper is based on the logic of the architecture of the Smart City concept (Finka, 2017). This concept seeks to modify and transform urban planning into a sectoral branch of the city's activities, for example creating and managing public spaces.

The concept of a new approach to the creation and management of public spaces contains both socio-economic and environmental aspects in accordance with the three pillars of sustainability, defined in the concept of Smart City. The concept of creating public spaces considers the ability of individual groups of the population to contribute to a higher quality of life of the population (participation) and emphasises the application of the environmental principle as a basic starting point in urban spatial planning. As Kiss (2014) points out, in the concept of sustainability public participation is considered as a tool to accord society and the environment. Public participation plays an important role by contributing to processes of conflict resolution or prevention, integrate different opinions, new perceptions which convey new information, knowledge, and values.

The concept of public spaces creation plans spaces whose main goal is to contribute to the quality of life of residents, the quality of the environment for entrepreneurs and the satisfaction of visitors. It emphasises the promotion of socio-environmental aspects in public space planning. The key role is played by the city's self-government, which coordinates and frames the space for self-government initiatives and individual stakeholders. It is essential

to reconsider the approach to the quality of the city and its public spaces with an emphasis on adaptability, flexibility, proactive planning, sustainability, and green infrastructure.

The process of creating public spaces must be understood as a never-ending process. The role of spatial planner need not be seen as that of a creator, but rather as that of a mediator who directs the management of public spaces and ensures discussions and participation of large body of stakeholders. The current understanding and approach to public space creation and planning appears to be insufficient (insufficient management and maintenance, insufficient flexibility of public spaces, etc.), public spaces must be timeless and flexible, able to constantly change and adapt to new requirements. The process of their creation must not end with the design proposal and their realisation. Each public space is unique, and it is necessary to approach its needs separately, using other methods.

In general, the following list of individual steps of the process of public spaces creation may be useful to ensure a satisfactory outcome (Fig. 1):

- **Preparation** includes mapping of public spaces, stakeholders, possibilities of use, limits and pitfalls of use or individual requirements for public space.
- **Planning** the use of public space with the involvement of the public, expertise, entrepreneurs, investors, and other stakeholders.
- **Implementation** of individual interventions and participatory in public space.
- **Setting the mode** of the use of public space is an important part of the proper functioning of public space.
- **Maintenance** is an essential key aspect to the success of a public space. It is necessary to ensure the maintenance and cleaning of public space and greenery in public spaces in order to increase security, as well as the impact of public space and its positive benefits.
- **Monitoring and evaluation** – it is important constantly to monitor, evaluate, redesign and adapt the public space to current requirements.



Fig. 1 The logic of the innovative process of creating public spaces (source: made by M. Högyeová in 2020)

It is necessary to specify rules for the development and renewal of public spaces in advance, not waiting for the chaos caused by the uncoordinated approach of individual partial investment plans and interventions to arise in the territory.

To ensure the public spaces meet the needs and requirements of cities residents and visitors, a proactive approach to urban design is required.

4.1 Concept of layers

Sustainability in public space planning can be understood as the management and development of public spaces that satisfies user requirements while reflecting current global challenges and adapting public space to climate change.

To obtain the desired qualities of public space such as flexibility, adaptability, while at the same time achieving effective development of public spaces in accordance with the three pillars of sustainability in such a way that public spaces remain attractive in the long run, when planning public spaces, one must observe the following layers:

- applying the environmental approach as a basis and starting point for all the processes in urban and spatial planning;
- adopting a proactive, participation-based approach towards bottom-up planning and design;
- applying smart solutions in public spaces, usage of technologies to solve specific challenges (intelligent crime prevention, intelligent fire protection, controlling system, open data, data collection, etc.);
- application of temporary interventions and activities in public spaces.

The concept of a new perspectives in the process of creating public spaces can be also understood as a relationship between temporary planning and permanent planning of public spaces in the context of the time horizon of events, users, participants and stakeholders, and financial resources.

4.2 Temporary planning of public spaces

The concept, on the one hand, proposes to plan and implement long-term complex changes in public spaces and, on the other hand, to implement changes immediately by experimenting and temporarily planning interventions in the public spaces.

Temporary planning is immediate and fast, provisional, and flexible involving low-cost interventions, a tactic whose aim is to improve a part of the urban environment.

Such interventions are characterised by realistic community goals, which may, for example, feature a deliberate and gradual approach to stimulating change, ideas offered by local communities, short-term commitment and realistic expectations, low risk, usage of social capital among citizens, and organisational capacity involving public/private institutions, non-profit/non-governmental organisations and their constituents (Lydon et al., 2012).

Temporary projects, when viewed as a strategy for long-term change, take place while longer-term projects are planned. Their advantage is that one may immediately create and test the project with the direct participation of community. The main motive for temporary planning may be the lack of available funds for permanent, respectively long-term improvement of public space, unsettled ownership relations, hidden problems, lack of interest on the part of the owner, urban limits, or a pandemic (as it is in current situation), when culture is declining, etc. This approach allows local actors to try out new concepts before making significant political and financial commitments. To prevent situations arising where temporary planning becomes permanent, it is necessary to clearly specify the timeframe for temporary planning and the subsequent development plan in advance.

Dimensions of temporary public space planning can be categorised as follows:

- Dimension 1: Temporary planning can be treated as a test tool and a catalyst for change, to help to determine the future development of abandoned, unused, poorly managed public spaces and activate life in these empty areas. Temporary interventions can revitalise and attract users to the inactive public space. Moreover, this tool can lead to the transformation of former industrial urban areas. Temporary interventions take place during a transitional period in search of the future suitable use of the former industrial area or unused, abandoned public space. Temporary interventions can help to ensure a smooth transition between the planning and development of this area during the transitional period, pending the decision of its new future function. Temporary planning is followed by ongoing planning and development of an area with a clearly defined function. It can serve as a research space for various functions, designs or zoning (Fig. 2).
- Dimension 2: Temporary planning may also be treated as a complementary tool to permanent planning, involving time-limited interventions to

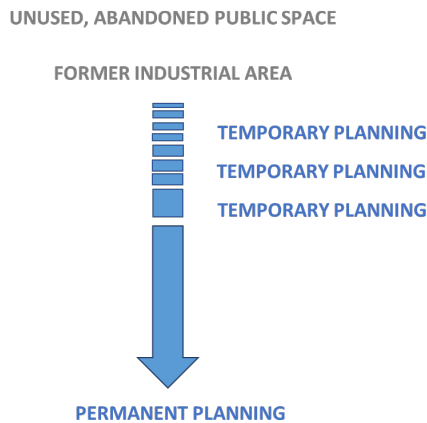


Fig. 2 Temporary planning – dimension 1 (source: made by M. Högyeová in 2021)

revitalise public spaces. The effective use of this tool is represented by activities such as short-term events, concerts, exhibitions, markets, or other temporary activities contributing to the permanent revitalisation of public space (Fig. 3).

The impact of temporal urban interventions can be well demonstrated on the example of activities made by the public organisation "We are the city" in the capital of Slovakia, Bratislava. The organisation, founded by the current mayor of Bratislava Matúš Vallo, has been focusing its attention on temporary interventions in public spaces in order to raise awareness of existing problems, or preparing places for permanent solutions. The first visible project was BA_LIK in 2008, when the organisation created a flexible temporal pavilion used for presentations, public gathering, displaying occurring projects and initiatives. This project activated the public life in the streets of Old Town in Bratislava for more over a year. Based on these experiences, the organisation made an open call for architects, planners, and the public, to submit their own ideas and projects for the city. This initiative resulted in the first book Urban Interventions in Bratislava (Vallo and

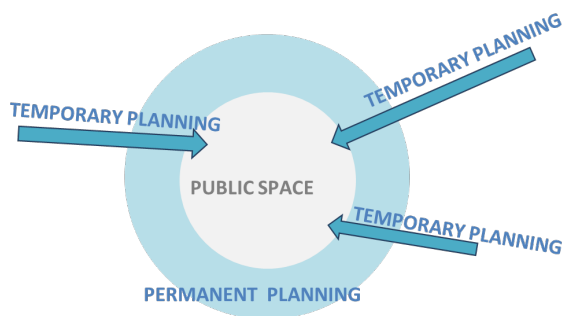


Fig. 3 Temporary planning – dimension 2 (source: made by M. Högyeová in 2021)

Sadovský, 2008), and the idea quickly spread to the neighbouring cities and countries, who have conducted similar projects. Altogether, this resulted in more than 13 cities participating, and more than 800 submitted projects. As one of the editors and project coordinators, we had a first-hand experience with the last call in Bratislava in 2015, which resulted in 95 new concepts and a book "95 ideas how to make Bratislava better" (Vallo and Sadovský, 2015). This project settled in the consciousness of the general public awareness and allowed the citizens to contribute to the public life in their area. A similar approach has been noticeable during the Vallo's term as mayor, as nearly all larger public space renovations have been accompanied by temporary actions and events designed to raise awareness about the occurrences in the city, as well as inviting public to take part in the discussions about the future appearance of the city and active urban life in affected areas.

4.3 Benefits of the temporary planning

4.3.1 Political and communal

The temporary use of public spaces offers a relatively inexpensive, easy-to-implement and dynamic way of urban development, which represent benefits for political and municipal planning. It is also relatively easy to interrupt, change or move a temporary project if it does not bring expected results and re-evaluate it. It is an opportunity to gain planning skills and information about the local community. It represents an opportunity for the development of settlements even during times of economic stagnation. For politicians, such temporary interventions can also represent personal gain, community support, and possible re-election. Temporary planning, thus, can be described as beneficial for both the community and the political environment.

4.3.2 Influence on the image of the city

Temporary planning can help to initiate the renewal of a site, bringing about a vibrant, creative, and innovative urban environment. Temporary usage of the space brings with it new activities, and creates opportunities for the development of new, sustainable urban structures and cultures, which may in turn lead to an improvement in the perception of the city and to an improvement in the attractiveness of the place/city.

Social benefits

As already mentioned, temporary urban space offers a cultural and social potential, establishing new contact with everyday life in the local community. A precaution can strengthen communities and stimulate user-centred

initiatives. As discussed by Szilávik et al. (2016), one of the key aspects, as determined as the operating conditions of sustainable development in the long term, is investment in the production of social capital.

Economic benefits

Temporary planning makes use of affordable projects, which represents an opportunity for the development of settlements even during the period of economic stagnation. Temporary planning can also stimulate local business economies in the area.

Environmental benefits

It is possible to integrate the elements of green infrastructure, such as temporary community gardens, temporary greening of unused space (also with mobile urban furniture), etc. At this level, the temporary planning offers environmental benefits and can provide the environmental values of green public spaces.

4.4 Objectives of creating new public spaces

Objectives pursued by the new process of creating public spaces can be summarised as follows:

- collecting feedback from the general public, active citizens and business entities;
- active cooperation with the inhabitants and stakeholders;
- indication of unused, neglected public spaces;
- transfer of know-how from stakeholders and other projects;
- application of the environmental principle;
- co-creation of sustainable solutions using the green infrastructure methods;
- the ability to recognise key challenges and propose particular measures to solve them;
- the possibility of experimentation involving temporary use of public spaces;
- temporary use of unused public spaces, which represents an opportunity for green infrastructure or the promotion of culture, and not only during the current pandemic period, when culture is in decline;
- a platform for implementing and measuring the impact and success of pilot and demonstration projects;
- indication of possible changes and specific sectoral measures.

4.5 Synergies and impact

The following synergies and their impact are important in creating flexible attractive public spaces:

- planning framework for adaptable, flexible public spaces in line with the sustainability pillars;
- as a systemic measure it has an impact on the adaptability and quality of public spaces;
- increasing the visibility of the public space agenda for residents and key stakeholders;
- more effective cooperation between key stakeholders;
- participation of key actors and active citizens in the process of public space creation;
- innovation capacity through pilot and demonstration projects.

5 Methodology

5.1 Research

The concept of an innovative approach to the process of creating public spaces was verified on a case study centring on Umbrella street in Nové Mesto nad Váhom (NMNV). Verification of the theoretical concept in the model area was processed in parallel with the theoretical part and thus the outputs obtained in the model area were incorporated into the proposed theoretical concept of the process of creating public spaces. The practical part consists of a case study of a temporary intervention in public space as an application of the statements of the theoretical concept.

The methodology was based on a survey, and an additional case study was chosen to enable the researcher to analyse and confirm the beneficial effect of temporary planned public place as an innovative approach in public spaces planning.

The approach attempted to:

- explore the value of the public spaces;
- raise awareness about the importance of temporary public space planning in addition to sustainable public space planning;
- identify and propose an innovative approach towards public space planning;
- suggest what approaches can be refined in the future management and development of public spaces.

5.2 Questionnaire survey

Following a literature review, a questionnaire survey was undertaken in Nové Mesto nad Váhom in Slovakia, in order to obtain answers to the following questions:

- How did the temporary project affect the influence on the image of the city?
- To what extent may the temporary projects support the exterior public culture during the period of the coronavirus crisis?

- To achieve the answer these questions were formulated questions 4-5-6 (see below).
- Did the project attracts the inhabitants and from what distance were people travelling to visit it? Did they visit the city intentionally because of the Umbrella street project?
- To achieve the answer these questions were formulated questions 1-2-3 (see below).
- What economic impact do the temporary projects have on nearby businesses?
- The answer to this question was provided by Villa Regia Café based on their sales.

This phase of the research also sought to uncover innovative practice that might point towards a more effective approach to planning public spaces in the future.

Data collection was accomplished through a questionnaire survey. QR code with link to the project information page and a survey was installed in the studied area. A total of 301 completed questionnaires were received. Questionnaire participants were asked to answer the following six questions:

1. Where are you from?
2. If you do not live in NMNV, did you come to NMNV for a purpose to visit the "Umbrella street" project? If you live in NMNV, please skip this question.
3. If you live in NMNV, did you come to the square for the purpose to visit the "Umbrella street" project? If you do not live in NMNV, please skip this question.
4. How did you find out about the "Umbrella street" project?
5. Do you like the project "Umbrella street"?
6. Would you welcome more projects for the temporary use of public space in your city?

The simple and quick questions were formulated intentionally so that the questionnaire would not take too much time and discourage the respondents.

6 A case study: Umbrella Street in Nové Mesto nad Váhom, Slovakia

Nové Mesto nad Váhom (NMNV) is a town in western Slovakia with a population of 20,000. The Umbrella street project was created as a project for the temporary use of public space in order to improve the perception of the area by residents, visitors, and to promote individual culture in the exterior during the coronavirus crisis. Based on a survey of the terrain, a park with trees and modified permanent grassland near the Villa Regia café was selected

as a suitable space. Selected public space is an urban form of green public space, which is open, accessible, with regular maintenance, designed for leisure and social activities. The space is located at the boundary of the city centre and serves as the entrance area to the "Námestie Slobody" square. The case study area is open and thanks to its lucrative location, it is well seen from and accessible from all entrance points (Fig. 4). The land is privately owned by two private owners; nevertheless, the space is opened and accessible for the general public. The project took place over a period of one month, in September 2020.

To maximise the use of available elements in square, we chose a rope-type construction. The construction of the steel ropes itself was fastened longitudinally and transversely to the lamps and trees and was supplemented with an iron construction profile for safety reasons (Fig. 5).

As there are no similar projects in NMNV, the Umbrella street project has been perceived with excitement by visitors from the very beginning. Visitors came to the site to take photos and share them further via social media networks (Fig. 6). The total number of visitors is unknown. Data collection was performed via the survey, that was accessible by scanning the QR code that was presented in the area.

The questionnaire survey was completed by 301 visitors, and participants were asked to answer six questions. The aim of the questionnaire was to gather information about how the temporary project affects the city, the extent to which it attracts people and from what afar, the benefits the temporary project brings to the overall impression of the city, the extent to which it can support the individual culture in the exterior in this period of the coronavirus crisis, and whether it increases sales to nearby services.

Based on the questionnaire survey, the results showed that most people came from the area within 30 km and more than half of the visitors' motivation for coming was the

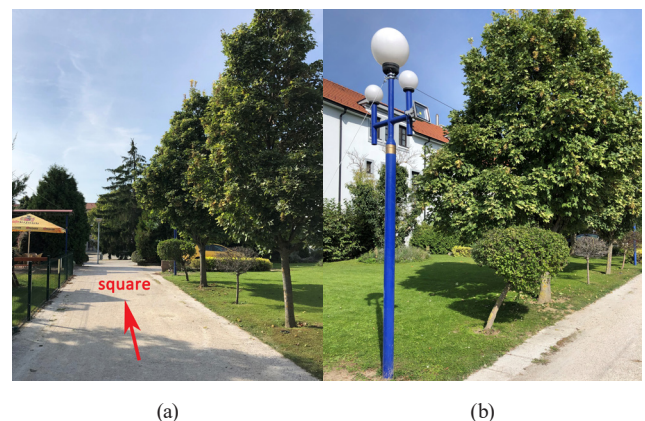
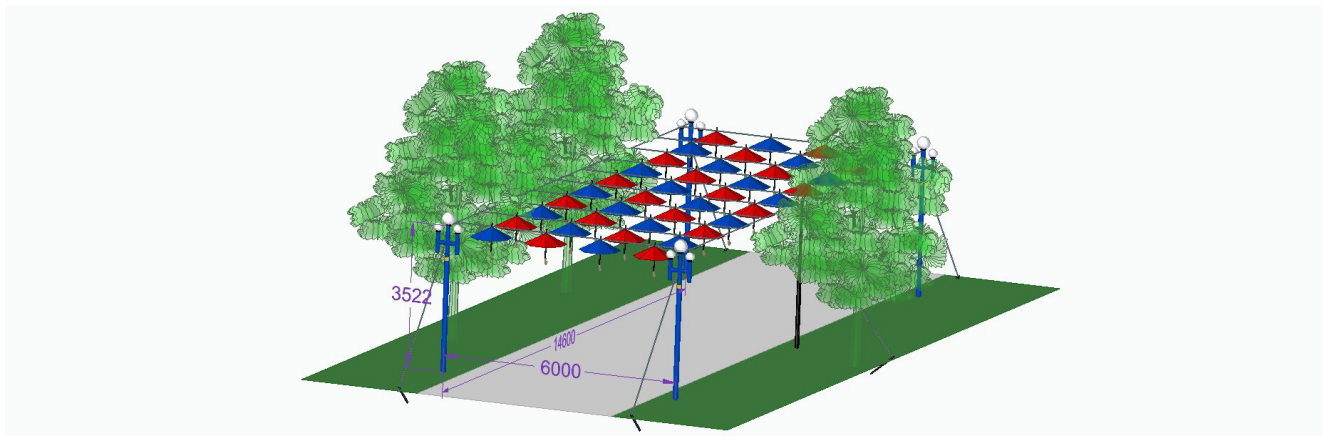
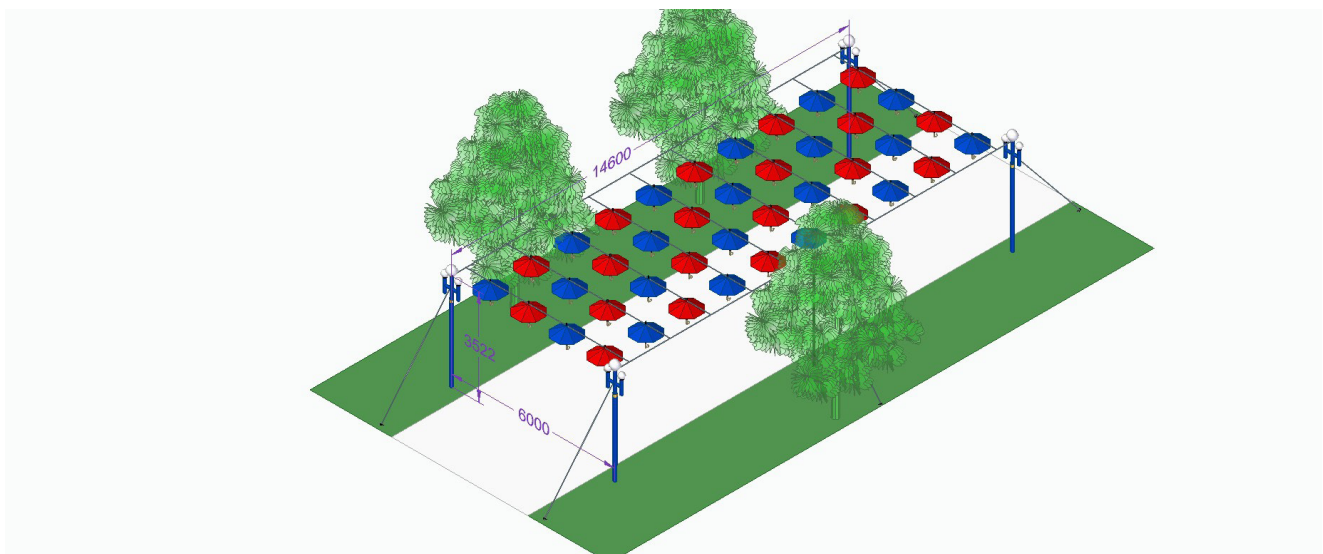


Fig. 4 Project location, (a) view 1, (b) view 2 (source: made by M. Högyeová in 2020)



(a)



(b)

Fig. 5 Umbrella street construction (units: millimeters), (a) view 1, (b) view 2 (source: made by M. Högyeová in 2020)



(a)

(b)

Fig. 6 Umbrella street photo documentation, (a) view 1, (b) view 2 (source: made by M. Högyeová in 2020)

Zvolen (140 km), Senec (80 km), Trnava (50 km), Banská Bystrica (160 km), Gelnica (320 km), Strání Květná - Czech Republic (28 km), Myjava (35 km), Orava (160 km), Trebišov (386 km), Dolný Kubín (150 km), which we attribute to the power of (free) advertising on social networks.

Based on photos shared by the participants and visitors of the projects via social media, up to 65% of visitors learned about the project from such platforms. 99% of respondents liked the Umbrella street project and 98.7% of respondents would accept more projects for the temporary use of public space in their city (Table 1).

The project was purposefully visited by 60.2% of visitors not coming from NMNV, which can again be attributed to the power of advertising of shared posts on social networks, and almost 50.7% of respondents coming directly from NMNV were visiting the public place purposefully due to the project.

Umbrella street project. A few visitors also came from more distant surrounding (Fig. 7) such as Giraltovec (390 km),

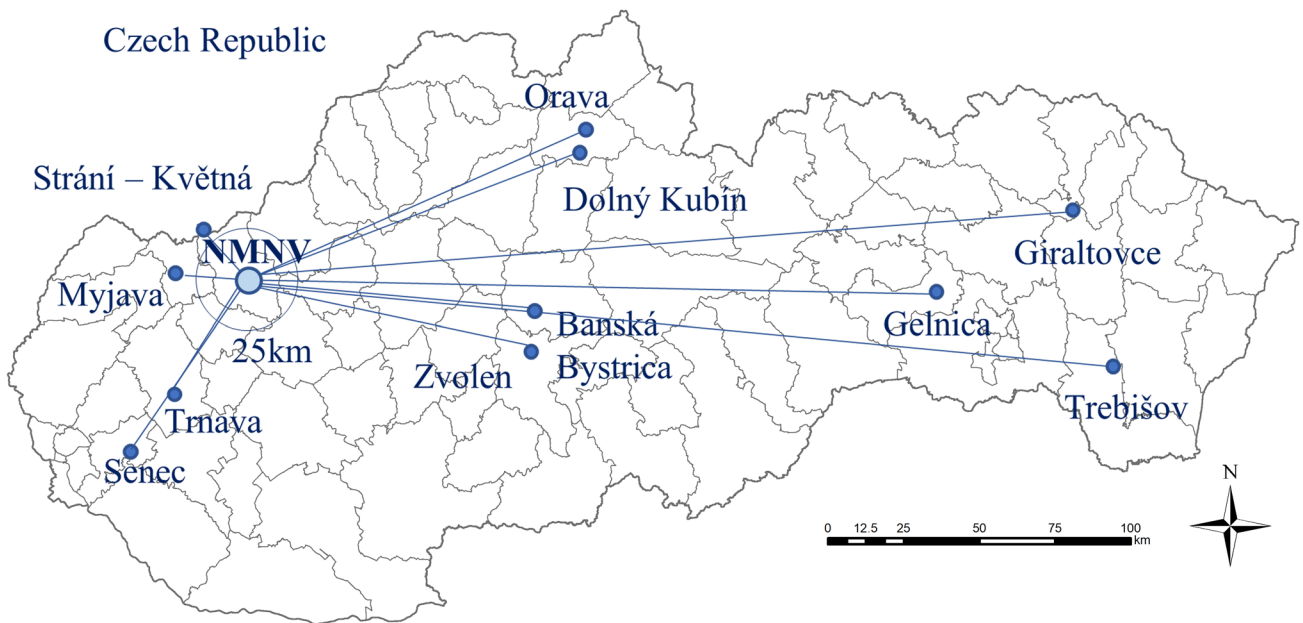


Fig. 7 The range of the project Umbrella street (source: made by M. Högyeová in 2020)

Table 1 The questionnaire survey data (source: made by M. Högyeová in 2020)

Questions	Options	Answers in %
1	The City NMnV	63.7
	Region NMnV	29
	Region Trenčín	2
	Region Piešťany	2
	Another (Giraltovec, Zvolen, Senec, Trnava, Banská Bystrica, Gelnica, Strání Květná, Myjava, Orava, Trebišov, Dolný Kubín)	3.3
2	Yes / Yes, as well	60.2
	No	39.8
3	Yes / Yes, as well	50.9
	I was walking around and I was fascinated by the project	38.8
	No	7.9
	Other (I usually visit a nearby cafe, I work at NMnV, ...)	2.4
4	Friends/neighbours/family	17
	Social Networks (Instagram, Facebook)	65
	I was walking around and I was fascinated by the project	18
5	Yes	99
	No / I don't care	1
6	Yes	98.7
	No / I don't care	1.3

6.1 Economic impact on Villa Regia cafe

According to data provided from the nearby café Villa Regia, sales in September 2020 increased by 11% compared to August 2020, which we consider to be an excellent result, given that the summer holidays were over, the coronavirus pandemic persisted and only café terraces were accessible to visitors. Comparing sales from September 2020 to September 2019 is irrelevant due to the pandemic.

6.2 Influence on the image of the city and support of the exterior public culture during the period of the coronavirus crisis

At the end of the questionnaire survey, visitors had the opportunity to comment and express their opinions about the project. This part of the questionnaire survey was voluntary. The intention was to obtain information on how the temporary project affects the image of the city. From the obtained answers, it is clear that visitors consider the project to be a pleasant revival, a creative way to revitalise the city's public spaces and would accept more such projects. Also, visitors enjoyed the exterior form of culture during the pandemic crisis when only outdoor activities were allowed.

The case study verified the theoretical concept and power of temporary planning in public spaces as an important part of permanent planning. Based on the data obtained from the questionnaire survey, the theory of the concept of the importance of temporary planning during permanent planning of public spaces was confirmed.

7 Conclusion

The paper contributes to the discussion of an innovative approach in the creation of public spaces. The paper seeks to find appropriate solution to the problems and challenges which the cities and their public spaces are currently facing. The purpose of the paper is not to find the best solution, but to contribute to systemic change, outline a strategy and a basic framework and formulate the principles of an innovative perspective, the concept of the process of creating public spaces in terms of spatial planning.

The most successful projects are well planned, holistic and people-centred.

The paper emphasises following conclusions:

- The need for an innovative approach in the creation of public spaces and finding solutions to the dynamic diversity of urban space.
- If public spaces are planned to meet the needs and requirements of city residents, a proactive approach to public space planning is required.
- The process of creating public spaces must not end with the handover of the project for use; public spaces must be timeless and flexible, constantly changing, adapting and responding to individual user requirements.
- Unused neglected public spaces present opportunities for cities, but appropriate management is needed.

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- In land use and spatial planning, it is essential to apply the environmental approach as a basis and starting point for all processes.
- Planners should strive to preserve and increase the interconnection of natural elements in cities, connect parks, water units and other important elements of greenery with residential areas, and temporarily green unused public spaces in cities in order to adapt to climate change.
- Public space planning has an important role in cities and must be acknowledged as one of the most important aspects to be taken into account when analysing sustainable urban development.
- Increasing green space in cities, revitalisation and intervention in public spaces should be among the important key components of urban policies.
- Public spaces are not mandatorily requested, but they remain a necessary element for cities.

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