Framing the tourist spatial identity of a city as a tourist product

Melita Rozman Cafuta

Abstract

Purpose – *The purpose of this paper is to develop a methodology for shaping the tourist spatial identity of the city and to take advantage of it to discover alternative urban outdoor spaces. As the number of indoor visitors has been limited due to the COVID-19 pandemic, open urban areas such as streets, squares and parks have become more important tourist locations.*

Design/methodology/approach – *The assessment methodology consists of two basic steps. In the first step, the authors look for places or points that are carriers of spatial identity. For this purpose, the method of mental mapping is used. In the second step, statistical methods are used to evaluate the spatial suitability for the most common tourist activities. To obtain a holistic picture, a temporal component is included.*

Findings – *The application of the methodology is presented in the form of a case study. The obtained research results provide an insight into the spatial situation of the city of Maribor (Slovenia, Europe). Tourist spatial identity of a city depends on time. Based on the value of spatial sensitivity indicator and the suitability of activities, it is possible to adapt the tourist offer to the temporal component.*

Originality/value – *To the best of the authors' knowledge, this is an original perspective on the spatial identity of tourists. The presented approach could be integrated as a good practice in any other city worldwide. It supports the identification of suitable outdoor tourist places that are memorable, cosy, multifunctional and can be recommended by city guides (mobile or printed books). Every city has many hidden gems that tourists have yet to discover.*

Keywords *Urban tourism, Evaluation methodology, Image of the city, Mental mapping, Spatial identity*

Paper type *Research paper*

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1. Introduction

Worldwide, many cities have suitable and necessary conditions for the development of urban tourism. According to UNWTO, urban tourism is "a type of tourism activity which takes place in an urban space with its inherent attributes characterized by non-agricultural based economy such as administration, manufacturing, trade and services and by being nodal points of transport. Urban/city destinations offer a broad and heterogeneous range of cultural, architectural, technological, social and natural experiences and products for leisure and business" (UNWTO.org, 2022). Urban tourism is "a complex phenomenon that is strongly involved in the local, regional and national environment" (Rangus, Brumen, & Potočnik Topler, 2017, p. 167). More and more people can afford to travel and also take advantage of the opportunities to do so. Nowadays, urban tourism is increasing rapidly, as people visit foreign cities for many different reasons as long- or short-term tourists (Ashworth & Page, 2011).

Visits to museums, galleries and religious and archaeological sites are common parts of tourist routines in urban destinations. However, field studies have shown that tourists want to maximise the time they spend wandering around urban spaces by using all of their senses while they are "on the move" (Larsen, 2001; Shoval & Isaacson, 2007). They appreciate glimpses of everyday life and discovering various scenic values, and they are

interested in the cultural and architectural elements of historic neighbourhoods. Certain public open spaces seem to embody the cities in which they are located, helping to make these cities vibrant places that are attractive to urban tourism. Such places reflect the vitality of the city by incorporating the culture and people who live in it. Tourists' time perspective and city image are significantly and positively related to their travel motivation (Chi & Phuong, 2022). The architectural values of the city are the tangible assets that the city has, whereas the cultural and natural values are the intangible assets that can be captured from places that shape tourist perception (Abdul Rahman, Halim & Zakariya, 2018).

The spatial identity of a city, as one of the factors that determine the image of a destination, is an extremely important factor in its perception by both residents and non-residents (tourists or potential tourists). Spatial heritage is a resource recognized by people that actually creates a link between identity and spatial perception. With proper presentation and promotion, spatial identity could be one of the most important intangible resources that has a very high potential for developing unique tourism products.

A starting point of this paper is the recognition that the spatial identity of the city is not constant. Spatial perception depends on factors such as psychological, sociological and aesthetic-functional factors. All of these factors are equally important and interrelated. Each user group has its own spatial identity of the city, depending on the gender, age, time, experience and culture of the individual. In the case of tourists, we may call it the tourists' spatial identity of a city. Tourists react and act in accordance with it.

Sometimes the tourists' spatial identity of a city is also influenced by external factors. The recent COVID-19 pandemic has greatly affected the perception and use of urban space. Hamidi, Sabouri, & Ewing, (2020) point out that the presence of high-density population in cities is associated with more face-to-face interactions and convert cities as a potential hotspot for the rapid spread of the COVID-19 pandemic. In normal circumstances, tourists in cities move between sights, monuments, museums or cultural events and places of shopping, dining and interaction with other people (Kádár, 2014). As soon as the number of indoor visitors has been limited, open areas of the city such as streets, squares, parks and the greenbelt have become more important. Indoor spaces have become less important because of the visit restrictions. Compared with previous years, the percentage of local guests has increased. Outdoor spaces have become more important – and this is already affecting the tourists' spatial identity of a city. Hall, Scott, and Gössling, (2020) emphasise that disease outbreaks and pandemics have clearly played a role in promoting social and economic change and that the COVID-19 outbreak could lead to a reorientation of tourism in certain destinations. On this basis, the COVID-19 pandemic represents an opportunity to take transformative action for more resilient and sustainable tourist cities (Sharifi & Khavarian-Garmsir, 2020).

In today's modern tourism industry, there is a need to adapt any change effectively. It is not enough to just use the intuitive approach. Therefore, the focus of this paper is to present an organized and systematic spatial assessment that can help to create adaptable spatial concept based on tourists' spatial identity of the city while ensuring the well-being of tourists. Attracting tourists and keeping them in some location for longer time is the highest priority.

We assumed that certain places that trigger positive emotions among residents will have the same positive effect on tourists. Although the public's preferences regarding the environment are shaped by many different factors such as age, gender and social and economic status, there are also some common preferences regarding urban open space, especially among people with similar cultural backgrounds and environmental viewpoints (Rozman Cafuta & Brumen, 2020). All these characteristics can be attributed to local tourists. The study of Vaz de Freitas, Sousa, Ramazanova, & Albuquerque, (2022) reveals that visitors specially value aesthetic quality and pedestrian mobility.

Today's standard repertoire of tourist location may not meet modern standards. Therefore, it is important to look for new places to keep the tourist offer attractive and adaptable. Places with a high value of environmental perception should be identified. What is seen and what is remembered? After a certain time, tourists do not perceive every architectural and environmental detail. But they perceive well-being as a combination of environment, people and service at the visited place.

In this article, we will show how to create the most complete picture of the city, which is indirectly related to the knowledge of spatial identity. In this context, the following is crucial:

- to develop a methodology for shaping the tourist spatial identity of the city; and
- to demonstrate the optimal use of this concept to make alternative urban outdoor spaces as interesting as possible.

2. The tourists spatial identity of a city

In general, the environment should provide a good personal feeling. To ensure satisfied tourists, the environmental conditions and spatial utilisation should be appropriate. To establish interaction between the urban environment and its users (tourists), it is necessary to understand how they perceive their environment. Spatial conditions are not only a material reality, but also mental structures. Spatial identity is always subjective because it depends on individual response. It is a reflection of what users see and feel (Rozman Cafuta & Sitar, 2017). Users play an important role here. It is essential to know how they perceive the city. Their perceptions of the environment reflect their spatial priorities and spatial utilisation. Considering these facts, we can conclude that tourist spatial identity of a city consists of the following factors:

- the tourist spatial sensitivity and
- the spatial suitability for tourist activities.

2.1 The tourist spatial sensitivity

Spatial sensitivity means recognising, collecting and arranging received information. Through this process, it is possible to become aware of our relative spatial position in relation to existing boundaries. According to Canter (1977), the concept of space is based on individual cognitive experience and is determined by the composite conceptual system. We obtain information about a place through "what behaviour is associated with, or is anticipated to be housed in it, what physical parameters of the settings are, and the description, or conceptions, which people hold of their behaviour in that physical environment" (Canter, 1977, p. 159). A place is set with a specific physical location, symbolic meanings, and activities that take place in it. It is people's cognitive experience of the material world and provides a concrete visual metaphor.

Some points in the city are particularly important to users. In previous studies by the author (Rozman Cafuta & Brumen, 2020), they are referred to as Pillars of Spatial Sensitivity (PSS points). PSS points are in the domain of users. They often have specific characteristics that distinguish them from their surroundings, such as good visibility, good accessibility, integration into the transportation network, high frequency of use, high quality of spatial design, integration into tourist routes, higher real estate and rental values. If the PSS points are not internalised, the spatial purpose will not be achieved. Therefore, it is necessary to identify the points that make the city distinctive.

2.2 Spatial suitability for tourist activities

Urban spaces are democratic when they are accessible to all groups and allow freedom of action, temporary appropriation and control. They are responsive when they meet the needs of diverse users, and they are meaningful when they provide comfort, relaxation, activity and exploration (Goličnik, 2006). As shown in Figure 1; Gehl (2001, pp. 11–14) presented a probabilistic approach to understanding how the quality of the physical environment influences behaviour. He argued that it is possible through the physical environment to influence how many people use open spaces, how long individual activities last and what types of activities can develop. Activities are divided into three categories: "necessary activities" (obligatory, users have no choice), "optional activities" (voluntary activities, at the request of users) and "social activities" (spontaneous, when spatial conditions are favourable).

Tourists perceive their physical environment as a set of features that makes something possible. Successful public spaces facilitate positive social interactions and are well frequented (large dot). If they are unattractive to users or they do not feel safe there, it may be due to poor structuring that does not provide enough interesting opportunities (small dot). The unsatisfactory situation leads to conflicts between different groups of users, which in turn leads to an even lower number of visitors.

The most popular outdoor activities performed by tourists in almost all cities are walking (Küpers & Wee, 2018; Dihingia, Gjerde, & Vale, 2022), stopping for a short time (to take pictures), sitting and resting, cycling (Hannam, Butler, Witte, & Zuev, 2021), driving a skiro, inline skating or roller skating, window shopping, etc. The more optional and social activities that occur simultaneously in a place, the more successful and conspicuous that place is. The level of spatial identity of such a place is very high.

3. Research methodology

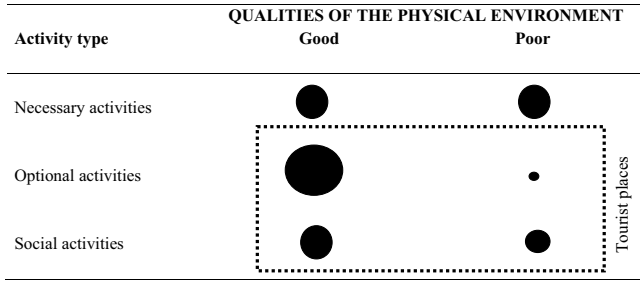
In presented research, a methodology to design adaptable spatial concept based on tourist spatial identity of the city contains two basic steps:

1. *Step 1*: Determination of PSS points
2. *Step 2*: Environmental evaluation of the tourist activities implementation

3.1 Pillars of spatial sensitivity points determination

To determine the PSS points, we upgraded the already known method of mental mapping. In previous practices (Evans, 1980; Liben, Patterson, & Newcombe, 1981; Lynch, 1960),

Figure 1 Graphic representation of the relationship between activities and quality of environment



Source: adopted from Gehl (2001, p. 13)

users (usually residents) draw a map of their city or other study area from memory. In this way, the researcher can get a sense of which parts of the city are more essential or imaginable. Early studies have shown that our perception of space can be articulated, evaluated and categorized (Golledge, 1978; Lynch, 1960; Downs & Stea, 1973). Mental mapping has continued to evolve over the years. Today, it has great theoretical and practical potential for understanding human environmental exchange. It encompasses a subjective perception of the environment and provides insight into a person's spatial sensitivity.

Nowadays, mental mapping refers to a practise mostly done by urban theorists. Mental maps can reveal the interaction between an individual and his or her environment and are used to compare, analyse, represent and survey mental models. They provide many interpretations of people's spatial perceptions (Eden, 2004) and give respondents the opportunity to express themselves freely (Lee, Hitchcock, & Lei, 2017). They have long been used as a tool to represent an individual's or a group of people's perceptions, such as perceptions of the location of a residential area (Golledge & Stimson, 1997). City dwellers draw a map from their memory of the city or a particular place. In this way, the theorist can get a sense of which parts of the city or area are more essential or can be better imagined.

Similar to residents, tourists quickly develop cognitive images that are influenced by experiences and time spent in the area (Walmsley & Jenkins, 1992; Farsari, Butler, & Szivas, 2011). A similar use of the mental map could also be used to identify specific points of interest that are sufficiently perceived and have enough potential to be considered as tourists locations. The results of previous studies conducted by the author prove that places with high perceptual values are usually the gathering points for tourists (Rozman Cafuta & Brumen, 2020). Thus, mental mapping is a useful method to find out how visitors perceive tourist destinations. Like any method, this method has its advantages and disadvantages.

The experiment is based on a memorized drawing of the city map and the elements it contains. However, studies of this type have been little explored in the tourism field (Younghee Lee, Hitchcock, & Wengsi, 2018). Respondents were asked to imagine the city and put down the map of it. They had limited time to complete the drawing. Obtained drawings were analysed according to the included or excluded elements. The elements were identified and categorized by the researchers. Occurrence frequency was criterion of importance. Most noticed locations can be treated as PSS points. The prerequisite for such a method of mental map analysis is that the researcher is very familiar with the city and has a knowledge of spatial planning and plans, otherwise the analysis of the graphical results will not be credible.

3.2 Environmental evaluation of the tourist activities implementation

One of the most common activities among tourists is walking, providing visitors with a range of different experiences of the places they visit (Dihingia *et al.*, 2022). But built and natural environments inside cities also create opportunities for other activities. However, they can vary, depending on the time of the year, weather, and, most importantly, the motivations of the individual. Furthermore, the motivations and behaviours of tourists can differ from those of local residents.

To get around this problem, we divided the second step into two parts. Firstly, the behaviour observation method was used to get a list of possible activities that occur. Behaviour mapping is a research tools that captures *in situ* behaviour, recording both observed behaviours and their specific environmental location. This method was developed to recognize the reciprocal nature of human behaviour and the environment, aiming to objectively record the actual use of a space, while also denoting how the environment is supporting or influencing that use (Ng, 2016). Next, the potentials of the locations to carry

out individual activities were assessed using a five-level evaluation scale ranging from very inappropriate to very appropriate.

4. Case study of Maribor city

The city of Maribor was chosen as the research site. Maribor is the second largest city in Slovenia, the regional centre of the Styria region, and an important administrative, cultural, educational and university centre. In 2012, Maribor was the European Capital of Culture. The European Capital of Culture is a title awarded by the European Union to one or more cities for the duration of one year, according to a predetermined procedure. The city that holds this title carries out a series of important cultural events. Maribor shares this title with the Portuguese city of Guimarães. Maribor has entered an elite list of "top tourist destinations" in the world.

Today, Maribor is still important Slovenian tourist destination with historical mediaeval value. The city preserves the awareness of its exceptional natural and geographical position. It is situated between the slopes of Piramida and Kalvarija hills in the north and Pekrska gorca and Pohorje in the south. Here, the Drava river leaves behind its alpine character and becomes calmer as it enters the flat Pannonian plain. The Drava as a dividing line in the city has become an important centre of the urban ambience. This ambient make Maribor increasingly recognisable in the wider region, which is otherwise dominated by larger cities such as Ljubljana, Graz and Zagreb. The city centre on the left bank of the river consists of a series of squares in the old heart of the historic centre, churches, monuments and historic facades. The right bank of the river is mainly residential and industrial. The city has an extensive green hinterland dedicated to recreation.

According to the statistical data of the Institute of Tourism Maribor (TIC Maribor, 2022), the number of visitors in 2021 increased by 25%. Fifty-two percent of them were foreign guests (Germans, Serbs, Poles, Italians, Austrians) and 48% were local guests. The number of overnight stays in 2021 also increased by 32% compared with 2020, and the average length of stay in the city was 2.5 days. Considering that the most visited months were July, August and October, we can assume that open spaces are crucial for shaping the tourist offer to make the city as interesting as possible.

To demonstrate the applicability of the methodology, an experiment was conducted with a sample of 200 respondents, 100 men and 100 women, aged between 18 and 34 years. All participants were students at the University of Maribor in Slovenia with permanent residence outside the city. Students as a focus population may not share the common interpretation of tourists, nor they are locals. Their status may be equated with that of returning visitors or returning non-residents (because they have their permanent residence outside the city), but they use researched locations just as tourists do (for pleasure and interest).

The experiment consisted of two parts. The same respondents were included in both parts of the experiment. The first part focused on the determination of PSS locations. Respondents were asked to imagine the city and put down the city map on an A4 sheet. We considered that we have two periods that are drastically different and significantly affect environmental sensing and consequently the image of the city. These periods are day and night. Therefore, we dealt with these two periods separately. The same subject was asked to make two drawings, one for the city by day and one for the city by night. They were given 10 min to complete each drawing (20 min total). It is important that both pictures are drawn by the same people. This is the only way to demonstrate that spatial sensitivity is not constant but it varies depending on circumstances such as different time sequences. Some examples of mental maps of Maribor city during the daytime and nighttime may be seen in Appendix.

All drawings obtained were analysed according to the elements included or excluded. Several elements were identified, categorised and counted. Frequency of occurrence was a

criterion of importance. For the purpose of presented research, 10 locations with a higher occurrence frequency were chosen. All exposed locations are already part of tourist standard repertoire, nearly in every tourist guide and part of sightseeing routes. The focus of the research here was their verification whether they really are tourist spatial identity carrier? Do they justify their reputation? The exposed locations were LOC-1: Gosposka Street, LOC-2: Poštna Street, LOC-3: Kneza Koclja Street, LOC-4: Old City, LOC-5: L. Štukelj Square, LOC-6: Castle Square, LOC-7: Main Square, LOC-8: Liberty Square, LOC-9: Anton Martin Slomšek Square and LOC-10: City Park Maribor.

In the second part of the experiment, we investigated the suitability of selected places for activities performed by tourists. The list of activities was determined based on the researcher's previous observations in the field and included walking, stopping briefly (to take a photo), sitting (on a bench, on the lawn, on the stairs), bicycling, in-line skating and rollerblading. All the locations from LOC-1 to LOC-10 have sufficient spatial conditions to perform these activities, which are already there more or less frequently. Respondents completed the questionnaire to rate the suitability of a place for performing individual activities. They used a five-level evaluation scale ranging from very unsuitable to very suitable.

5. Study results

The locations listed in Figure 1 are varying in frequency, but they all have in common that they are part of tourist standard repertoire. They all have specific spatial characteristics that distinguish them from their surroundings. They are characterized by central location in the city, good accessibility, without physical barriers for any user group, higher real estate and rental values, etc. All these spatial qualities are necessary for tourist locations. The only thing in which they differ is the intensity of use. Thus, the question is whether they have a high quality of spatial arrangement that allows a variety of uses. The results confirm the existence of two Periods (day and night) that differ in spatial perception and use. The results are presented in Tables 1 and 2.

Table 1 showcases that although all exposed locations from LOC-1 to LOC-10 are located in the city centre and seem to be equivalent tourist destinations, the results show the differences between them. Two locations (LOC-3 and LOC-8) have extremely low spatial sensitivity value in both periods. Such a result calls into question their status as tourist location. The logical consequence would be to replace these places with others or to undertake a comprehensive architectural redesign at the city level. Other places do not stand out so much and are comparable with each other. They all have in common that their spatial sensitivity value is high enough to be treated as a tourist location.

But just noticed frequency is not enough. To obtain a holistic picture of alternative urban open spaces, the research was extended by assessing the suitability of the environment for certain activities. In the present research, the respondents reflected on activities they could imagine to perform in selected locations. The potential of the location to host individual activities was assessed both during the day and at night using a five-level evaluation scale, ranging from very unsuitable to very suitable. The activities were walking, stopping briefly (to take a photo), sitting (on a bench on the grass on the stairs), bicycling, rollerblading and roller skating. The results are shown in Figures 2 and 3.

Figures 2 and 3 show that of all the activities, walking seems to be the most popular activity, performed almost everywhere, regardless of the time component such as day and night. Walking could be considered a primary or necessary activity and as such would occur regardless of spatial appropriateness. Other activities are less frequently performed and locations are less well adapted to them. Walking as the only activity somewhere is not sufficient. Spaces are attractive for tourists if they are multifunctional. Therefore, it is necessary to create an environment where necessary and optional or social activities such

Table 1 Frequencies, percentages and the results of χ^2– test for the occurrence of elements on mental maps for daytime and nighttime city

PSS acronym	*PSS location*	*f(day) f(%)*	*f(nigh) f(%)*	χ^2	*p*
LOC-1	Gosposka Street	24 12.0	14 7.0	20.585	0.000
LOC-2	Poštna Street	25 12.5	17 8.5	4.858	0.000
LOC-3	Knez Kocelj Street	3 1.5	0 0.0	not relevant	not relevant
LOC-4	Old Town	58 29.0	42 21	14.115	0.000
LOC-5	L. Štukelj Square	41 20.5	52 26.0	24.281	0.000
LOC-6	Castle Square	26 13.0	19 9.5	21.926	0.000
LOC-7	Main Square	84 42.0	84 42.0	29.528	0.000
LOC-8	Freedom Square	8 4.0	7 3.5	0.302	0.582
LOC-9	A.M. Slomšek Square	85 42.5	73 36.5	35.223	0.000
LOC-10	Maribor City Park	58 29.0	17 8.5	15.607	0.000

Notes: *f* – frequencies, *f* % – percentages, χ^2– test for the occurrence of individual elements, *p* – significance

as stopping, sitting, cycling and skating are combined. However, such places require adapted architectural environment, infrastructure and service.

Urban open space is not always equal multifunctional. Therefore, it makes sense to adapt the tourist offer to the spatial potential perceived by the users. As spatial perception is subjective, there can be large differences in tourist well-being even in seemingly similar environments. For example, LOC-5 (Leon Štukelj Square) is on an average the best-rated place during the day and at night in almost all categories as seen in Figures 2 and 3.

Table 2 showcases that for most activities, there are differences in space use between day and night. The differences in average values are mostly positive. This means that the average values for daytime are higher than for nighttime. These results indicate that the environmental potential of the city at night has not yet been discovered. Lighting the city to create a tourist attraction is already an accepted practice elsewhere (Giordano, 2018), but in Maribor this aspect is still unrecognized.

But there are also some exceptions like LOC-3 (Kneza Koclja Street) for the activity stopping briefly. We note a statistically insignificant difference here ($\overline{x}$= −0.020, t = 0.233 in 2p = 0.816). The negative average difference is also found for the activity sitting. For LOC-1 (Gosposka Street), this difference is −0.135 and for LOC-3 (Kneza Koclja Street) is −0.045. In both cases, it is a statistically insignificant difference. 2p is 0.088 in the first case and 0.636 in the second case. In all other cases, we have a higher average value for all activities for the day than for the night. A statistically insignificant difference is observed in the following cases: LOC-1 (Gosposka Street), LOC-3 (Kneza Koclja Street) and LOC-5 (Leon Štukelj Square), where the values are 2p = 0.070, 2p = 0.553 and 2p = 0.666, respectively, for the activity walking, LOC-5 (Leon Štukelj Square) has a value 2p = 0.258 for the activity stopping briefly, LOC-1 (Gosposka Street) has a value of 2p = 0.088 for the activity Sitting, 0.443 for the activity Cycling and 0.582 for the activity Rollerblading and Roller Skating. If we summarize the results, it is obvious that both tourists' spatial sensitivity and aptitude for spatial activities depend on time.

Table 2 Descriptive measurements of the activities suitability indicator, the results of the t-test and the correlation for the dependent sample pair day-night

	Day		Night		Difference			
Location	$\overline{x}$	σ	$\overline{x}$	σ	$\overline{x}$	*t*	*2p*	*r*
Walking								
LOC-1	3.75	0.987	3.60	0.957	0.150	1.823	0.070	0.284
LOC-2	3.68	0.902	2.98	1.103	0.695	8.432	0.000	0.337
LOC-3	3.74	0.978	3.74	0.898	0.045	0.594	0.553	0.350
LOC-4	3.75	0.489	3.49	1.061	1.265	16.59	0.000	0.119
LOC-5	4.40	0.789	4.37	0.725	0.025	0.433	0.666	0.420
LOC-6	4.38	0.754	3.79	0.838	0.595	9.379	0.000	0.369
LOC-7	4.26	0.802	3.75	0.861	0.505	7.965	0.000	0.420
LOC-8	4.21	0.822	2.64	1.043	1.570	19.096	0.000	0.240
LOC-9	4.54	0.640	3.75	0.849	0.785	12.469	0.000	0.327
LOC-10	4.86	0.430	3.85	0.993	1.010	13.173	0.000	0.006
Stopping briefly (to take a photo)								
LOC-1	3.54	0.981	3.01	1.098	0.530	5.454	0.000	0.130
LOC-2	3.73	0.996	3.01	1.224	0.720	7.741	0.000	0.311
LOC-3	2.99	1.084	3.01	1.094	–0.020	–0.233	0.816	0.377
LOC-4	4.44	0.768	3.00	1.163	1.445	15.378	0.000	0.098
LOC-5	4.19	0.874	4.11	0.843	0.075	1.135	0.258	0.408
LOC-6	4.37	0.791	3.55	0.955	0.825	11.125	0.000	0.290
LOC-7	4.11	0.878	3.40	0.971	0.715	9.600	0.000	0.355
LOC-8	3.85	1.001	2.29	1.040	1.560	16.946	0.000	0.187
LOC-9	4.30	0.814	3.48	1.017	0.825	11.388	0.000	0.391
LOC-10	4.63	0.690	3.54	1.102	1.085	12.224	0.000	0.076
Sitting (on a bench, on the grass, on the stairs)								
LOC-1	1.86	0.984	1.99	0.913	–0.135	–1.712	0.088	0.311
LOC-2	4.17	1.023	3.05	1.401	1.125	11.059	0.000	0.328
LOC-3	2.32	1.123	2.36	1.125	–0.045	–0.474	0.636	0.287
LOC-4	4.57	0.720	2.80	1.311	1.765	18.356	0.000	0.206
LOC-5	4.21	0.889	3.91	1.008	0.300	3.770	0.000	0.302
LOC-6	4.49	0.796	3.31	1.086	1.175	13.605	0.000	0.186
LOC-7	3.98	0.997	3.02	1.123	0.965	10.368	0.000	0.234
LOC-8	3.29	1.172	1.92	0.945	1.375	15.126	0.000	0.277
LOC-9	4.40	0.783	3.31	1.153	1.095	13.621	0.000	0.360
LOC-10	4.67	0.658	3.37	1.289	1.300	13.201	0.000	0.091
Cycling								
LOC-1	2.46	1.022	2.40	1.027	0.065	0.769	0.443	0.319
LOC-2	2.37	0.968	1.96	0.926	0.415	5.429	0.000	0.349
LOC-3	3.32	1.092	2.83	1.141	0.490	5.499	0.000	0.363
LOC-4	3.89	1.041	2.46	1.120	1.430	15.098	0.000	0.233
LOC-5	3.24	1.140	2.93	1.213	0.310	3.875	0.000	0.539
LOC-6	2.96	1.100	2.59	1.081	0.365	4.160	0.000	0.352
LOC-7	2.98	1.152	2.50	1.080	0.480	6.371	0.000	0.546
LOC-8	2.93	1.096	2.05	1.043	0.885	11.159	0.000	0.451
LOC-9	2.94	1.155	2.43	1.082	0.515	6.447	0.000	0.491
LOC-10	3.85	1.164	2.46	1.181	1.390	15.183	0.000	0.390
Rollerblading and roller skating								
LOC-1	1.92	0.950	1.88	0.885	0.040	0.551	0.582	0.376
LOC-2	2.09	0.920	1.66	0.859	0.430	6.240	0.000	0.401
LOC-3	2.57	1.214	2.28	1.170	0.285	3.195	0.002	0.440
LOC-4	3.62	1.184	2.15	1.149	1.475	15.555	0.000	0.340
LOC-5	3.13	1.200	2.70	1.252	0.430	5.330	0.000	0.568
LOC-6	2.51	1.165	2.14	1.069	0.370	4.360	0.000	0.425
LOC-7	2.40	1.177	2.05	1.062	0.350	4.475	0.000	0.516
LOC-8	2.55	1.168	1.74	0.938	0.810	9.857	0.000	0.408
LOC-9	2.55	1.147	2.03	1.107	0.515	6.689	0.000	0.499
LOC-10	3.64	1.288	2.17	1.189	1.470	15.168	0.000	0.390

Notes: $\overline{x}$: arithmetic mean; σ: standard deviation; *t*: value difference arithmetic test; 2p: bidirectional level of statistical significance; *r*: Pearson product–moment correlation coefficient

6. Conclusions

Goeldner and Ritchie (2006) describe urban tourism as a complex phenomenon that is very difficult to describe adequately. Each place is primarily characterized by its natural environment, its architecture and its people. New ways must be sought to keep or make all urban areas attractive. Nowadays, tourists want to enjoy the environment with all their senses and appreciate having a glimpse of everyday life. Tourist places should be

Figure 2 Suitability of locations from LOC-1 to LOC-10 for individual activities during the daytime

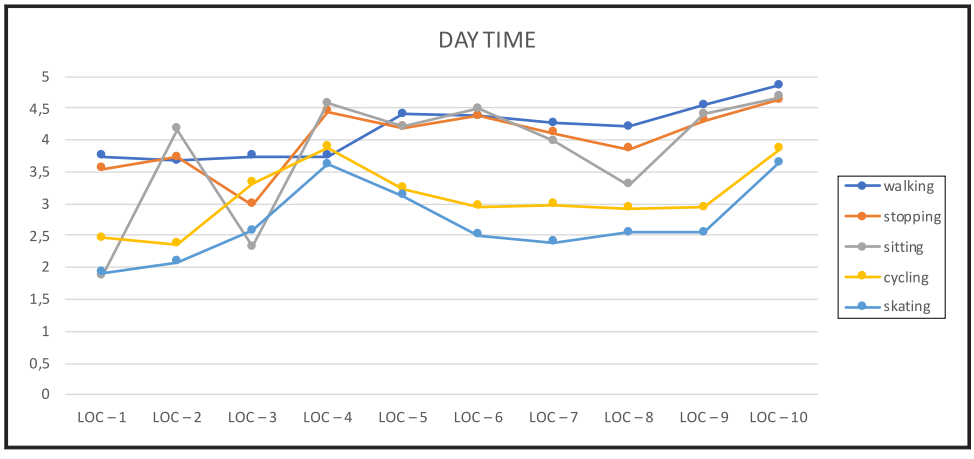
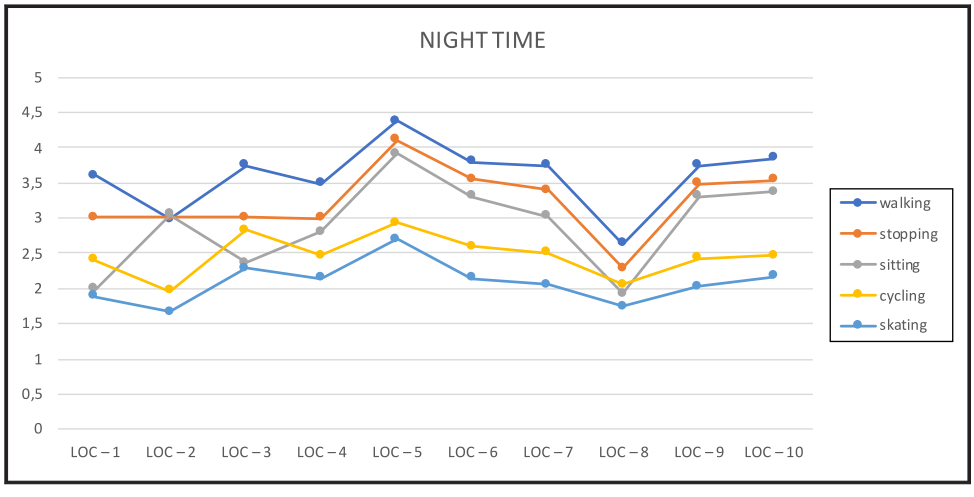


Figure 3 Suitability of locations from LOC-1 to LOC-10 for individual activities during the nighttime



attractive, cosy, safe and at the same time relaxing for tourists. According to Farkic, Isailović, and Taylor, (2021), the tourism industry has called into question a need for more responsible social practices and more mindful use of natural environments.

Nowadays, modern management companies and organizations need to incorporate psychological approaches into their work. It is a great challenge to satisfy tourists, because social expectations are high and sometimes completely unexpected situations like COVID-19 that influence the flow of tourists. How can we look for opportunities in such unusual circumstances when we are forced to use open space? How to define potential public places suitable for development and promotion as tourist sites? This article presents a scientifically based methodology to integrate the tourist spatial identity to discover the benefits of existing and potential tourist sites. As cities are subject to spatial development and social change, the intuitive approach and maintaining the status quo is no longer sufficient. Such a shift to a scientific approach has practical value that could be integrated globally as good practice towards better representation of city characteristics. It supports the identification of suitable outdoor tourist sites that are memorable, cosy and multifunctional and can be recommended by

city guides (mobile or printed books), integrated into walking routes or promoted as multifunctional tourist sites.

The methodology consists of two steps. The first step is to determine the PSS locations. Mental mapping method is used for that purpose. PSS locations have a high value of spatial sensitivity. They are carriers of spatial identity and remain in the memory of tourists for a long time. The frequency of occurrence is an important criterion. The value of spatial sensitivity is not always the same. The higher the value, the more important the place is and the more suitable it is as a tourist location. Based on the value of spatial sensitivity, it is possible to design the tourist offer according to three possible scenarios:

1. The site has a high spatial sensitivity value. The frequency of occurrence is high regardless of the time interval. The place should be included in the tourist offer.
2. The place has a low spatial sensitivity value. The frequency of perception is low regardless of the time interval. The place should be removed from the tourist offer or completely redesigned architecturally and functionally.
3. The place has a variable value of spatial sensitivity. The frequency of perception is low or high depending on the time interval. The place should be included in the tourist offer only in a certain part of the day, week or year.

To demonstrate the applicability of the approach, the article presents a case study of the city of Maribor (Slovenia). Maribor was the European Capital of Culture in 2012, making it a recognized tourist destination. Ten standard tourist sites in the city centre were analysed. Two locations (LOC-3 and LOC-8) have an extremely low value for spatial sensitivity in both periods. Thus, they fall into the second group. Such a result questions their status as tourist places. If the study were to be expanded, new locations with the potential to contribute to the representation of the city's characteristics would also be discovered.

Similarly, we are free to adjust the focus of the research. If the research focus was to change, the choice of focus population would be different. A wide range of research possibilities opens up for us here, such as discovering the potential of the space for the younger/older generation and long-term/short-term tourists. This is all part of the future research work.

The second step of the methodology is aimed in the selection of appropriate tourist activities to be carried out on site. One of the most common tourist activities is walking, which allows visitors to experience the places they visit in different ways. These experiences can vary depending on the season, the weather and, most importantly, the motivations of the individual. But walking is not the only possible activity that should be promoted. Therefore, much more attention should be paid to understand the ways in which the built and natural environments create opportunities for people to spend their time. However, tourists' motivations and behaviours may differ from place to place. The suitability of activities indicator gives us information about the potential of the space. We can identify relevant activities that are already condemned and worth developing, or we can identify the potential of the space for new activities to be established.

To obtain a holistic picture of the city of Maribor, the survey was extended by assessing the suitability of the environment for certain activities, such as walking, stopping briefly (to take a photo), sitting (on a bench on the grass on the stairs), bicycling, rollerblading and roller skating. The potential of each place for individual activities was evaluated through the questionnaire. Spaces are attractive for tourists if they are multifunctional. Therefore, it is necessary to create an environment where necessary and optional or social activities can be combined. However, such places require an adapted architectural environment, infrastructure and service. This was also evident in the case of the city of Maribor, where it was not possible to find a place with high ratings for several activities at the same time.

Among other things, the research results make it clear that the temporal component significantly influences the spatial perception and consequently the image of the city. The

tourist spatial identity of the city depends on time and changes as soon as the spatial conditions change, for example, day and night. In 9 out of 10 cases, the value of spatial sensitivity was different between day and night. Moreover, in all cases of the activities and places assessed, the degree of appropriateness was different. We can conclude that it is necessary to adapt the tourist offer to the temporal component. Lighting as a tourist attraction is still an unrecognized aspect in Maribor.

The research results obtained:

- an original view of tourist spatial identity;
- the introduction of a scientific approach; and
- the use of the already known method of mental mapping for a new purpose (to identify the spatial sensitivity value of a place) are original scientific contributions presented in this paper.

The proposed scientific approach can be easily adopted by urban tourism practitioners. There are no known limitations as long as the practitioners are familiar with the city under consideration, otherwise the analysis of the graphical results will not be credible. In general, this could be a possible method to find places that satisfy tourists mentally and physically and remain in their memory for a long time. In all cities, we have the same problem that there are some places that are considered important local tourist destinations but are underutilised as tourist locations.

On the other hand, the methodology allows us to do more than just analyse the existing situation. With its help, we can also discover alternative outdoor urban areas that can be developed to attract short-term tourists and local tourists as a new focus population. Of course, other areas such as service quality should also be considered. For future research, it is recommended to expand the number of places and activities to get the most complete picture of the city. It is also possible to expand the study on a regional or state level by increasing the number of studied cities. Regardless of the size of the area we are dealing with, the goal is always the same, which is to explore the best possible tourist offer.

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Appendix

Figure A1 Mental map of Maribor city (Slovenia, Europe); first during the daytime and second during the nighttime (Output of respondent 1)

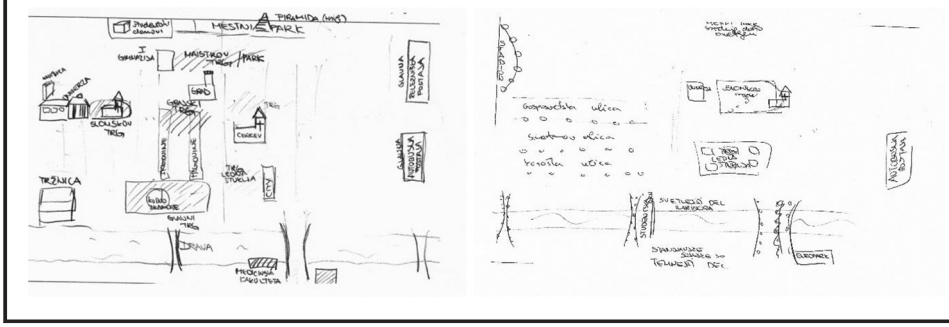


Figure A2 Mental map of Maribor city (Slovenia, Europe); first during the daytime and second during the nighttime (Output of respondent 2)

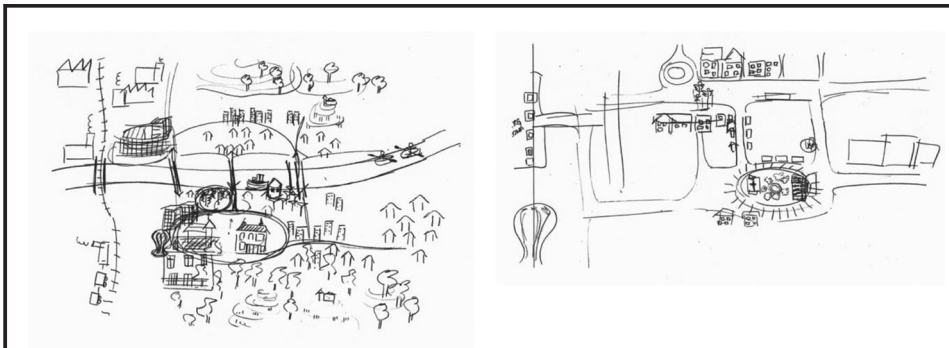
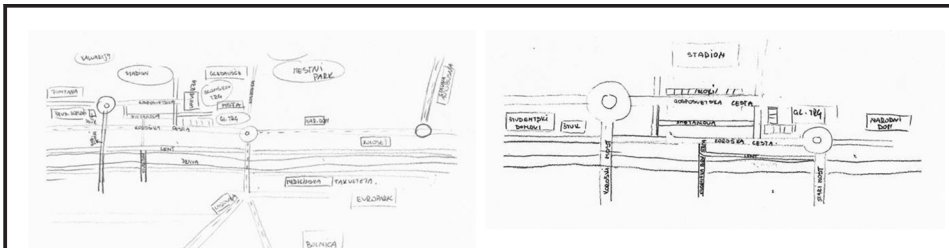


Figure A3 Mental map of Maribor city (Slovenia, Europe); first during the daytime and second during the nighttime (Output of respondent 3)



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