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WHAT A TOURIST CAN SEE, OR AN ENVIRONMENTAL-AESTHETIC EVALUATION OF A GREEN AREA IN SZEGED, HUNGARY

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Abstract: Nowadays it is an evident feature in our fast-developing big cities, that there need to be steps taken to improve the inhabitants' well-being and their state of physical and mental health. Improved health can also be achieved by extending the proportion of well-cared-for green areas in city centres, or, by rehabilitating particular buildings, streets, or entire urban areas. These developments have an obviously beneficial psychological effect on people. The establishment of such 'liveable cities' is profitable not just for the local residents, but from the point of view of tourism as well. Tourists are likely to spend more of their free time in an urban area, which is free from the visible signs of social and political conflicts, free from the recognizable symptoms of environmental deterioration or technical decline. Most tourists prefer a "safe" urban environment that is not only "safe" in the sense of law enforcement, but devoid of visual conflicts. This is the reason why our research team have attempted to evaluate the environmental state of our city by determining a so-called Visual Liveability Index (VLI). In this process all those elements were evaluated by points which may have an impact on the aesthetic value of the settlement. We took into account both the elements that has positive impact to the appearance of the settlement, and those phenomenas that degrade the cityscape. Our aim was to keep the scoring system simple while also including numerical values for each observed visual conflict according to their significance. Then, after summarizing the given points, the next step was when the streets, squares and certain districts, finally the entire city us to be qualified with the help of the VLI index. Thus makes the results comparable with the same data of other similar settlements, or provides opportunity to determine the direction of development of the cityscape by examining the same settlement in two different date. This method is a relatively easy-to-use tool for local actors of settlement development and tourism to identify the conflict-causing elements of the cityscape which have an undesirable impact on the use of space by residents and tourists. It simply and visually points out those visual elements whose remediation can improve the competitiveness of the settlement. By applying it to larger urban areas it can be able to outline those urban areas where intervention is needed due to unfavorable processes.

Keywords: tourism, urban development, urban landscape, aesthetics evaluation, visual conflict

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INTRODUCTION

All human activities, including the spheres of work and leisure time, take place in one or another type of environment. This is why the state of that particulat environment is of special significance for us. Human activities have a definite impact on the environment, but, the same environment also influences the wellbeing and health of humans. Our mental and physical state may then significantly determine our activities and creativity. The city view plays an outstandingly important role in tourism; from the perspective of consumers the most important step in the process is when tourists choose a particular destination. Generally it is the architectural monuments, the built environment itself, which represent the most attractive landscape-shaping factors for tourists (Szalai & Szilágyi, 2007; Barcza et al., 2017). On the other hand, cityscapes, burdened with visual conflicts, are a major repellent for tourists (Karancsi et al., 2013). From another aspect, it is also important to add, that the interest shown on the part of tourists may underline the need for renovating valuable, but formerly neglected buildings, and also for the necessity of preserving some old structures (UNESCO, 1976).

When investigating city views the size and state of green areas is of outstanding significance. Parks and green areas played an important role in ancient cities as well (Virtudes, 2016). Examples include the Hanging Gardens of Semiramis in ancient Babylon, or, the Gardens of Maecenas in ancient Rome. In the Middle Ages urban green areas were still associated with the life of society's nobility and elite. In the first half of the 20th century, the age of fast industrial development, the significance of green areas and their integration in urban lifestyle was recognized again. By the early 20th century it had become common that the boulevards and avenues of big cities were lined with trees, and also, that certain city structures

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had to have parks, gardens, or shelter forest belts to separate them from one another. Urban designers of that age also attempted to synchronize some green areas with the built environment. As a result, suburbs came into being. Early examples included the garden cities of Letchworth and Hampstead near London. As a result of the strengthening of mass tourism the green areas in the centre of big cities have been more and more frequently visited by tourists, thus parks have become an integral part of the image of any wellknown urban tourist destination, such as the Luxembourg Gardens in Paris, the Hyde Park in London, or, the Central Park in New York City. Tourism, or, more correctly, tourism industry is usually interpreted by some authors (Pusztai, 2016; Boorstin, 1962) as a medium, capable of introducing a local product to tourists-consumers, playing the role of a mediator. In this respect tourism industry shows similarities with the media: first, it would pre-select the product to be sold, then, the product – already introduced to those who are interested – would be interpreted for potential buyers. Finally, especially in the age of mass tourism, the product itself would be transformed and improved. In the opinion of some researchers the product would eventually and practically become falsified. In case no product improvement can be detected, or, the product itself is not authentic, tourists would eventually be disappointed and express their disillusionment accordingly. The negativity of these personal accounts are very hard to compensate for.

From the point of view of the development of tourism it is of utmost importance to monitor the environmental changes of tourist destinations, and, if necessary, to stop, or slow down those processes, which may lead to the occurrence of visual conflicts, or may have a negative effect on people (Budai, 2004). Contentednesss with the environment is one of the most decisive factors of the quality of life. Research into the area of urban rehabilitation has proven that, since the changing of the political system in Hungary, the needs and expectations of people regarding their living conditions and living environment have basically increased (Bajmóczy et al., 2012). Despite this feature, as the distance grows between people's private sphere (homes, flats or private houses) and their wider living environment, the inhabitants are increasingly dissatisfied, because they have only limited opportunities to express their opinions concerning the way how the living environment is built or rebuilt (Egedy, 2007; 2009). The local governments, as well as investors, all hoping for an increase in tourism, spend a considerable amount of money on renewing public areas locally and making them more attractive (Boros, 2017). Several cities, having been hit hard by a declining industry, have already successfully reconstructed several of their public areas (Nagy, 2015). The main driving force of these activities was the desire to meet the needs and demands of travel industry, a phenomenon also called 'the economy of desire' (Pusztai, 2016). The impact of tourism on the hosts is that usually it is the tourists' interests that can make the locals become aware of the uniqueness and value of their own built environment. As a result, in the eyes of the residents, their own place may become more precious and prestigious (Garland, 1984). Additional reason for the development of traditional city spaces for tourism purposes could be that contemporary urban architecture failed to attract the attention of potential residents and tourists. Instead of fulfilling the expectations of local communities who want to strengthen their identity and tourists looking for experiences, the "mass-produced" contemporary city only repeats the templates of globalized architecture (Betancourt, 2023).

In Hungary, the main driving force of the reconstruction of city centres is investment in cultural tourism. In the period of the changing of the political system major renovation works were initiated and carried out by local governments. A good example of this initiative is the reconstruction of the Kárász Street (the main street) in Szeged. After Hungary joined the European Union this trend changed and became more complex: in the various phases of this work there were multiple players who cooperated, with the aim of diversifying the economy and improving the quality of life of city dwellers. The recurring elements of these works included the improvement of the physical state the place was in, as well as the intention of offering easy access to the improved environment (Lőrincz, 2007).

Cultural tourism and the rebuilding of public areas are in synergy with one another, thus the development in one area is to contribute to the improvent of the other one. The actually consumed 'product', an event, or a program can only be effective if there is a proper background to it. The setting itself is necessarily part of the attraction.

Later both the cities and the governments preferred those changes which had the portential of attracting large number of tourists to the place. Hungary intended to renew our green areas with the aim of attracting large number of tourists. Examples include the Gardens in the Buda Castle (government initiated), the Városliget in Budapest (government), Normafa in the Buda Hills (local government of Budapest), the Avas lookout tower (Miskolc, local government), Nagyerdei Park (Debrecen local government). These initiatives reached Szeged, too, and the local government first renewed the Park in Újszeged and the area of the City Zoo. Later the local government was responsible for large-scale projects aimed to renew places, which were less frequently visited by tourists: examples include the areas of Vértó, Holt (Dead) Maros and Zápor lakes. One of the main characteristic features of these latter projects was to link the local green and blue infrastructures, and, also to increase the number of tourists and visitors with improved accessiblity. Another common feature of these projects was that they were all aimed to renew the surroundings of significant objects, parts of the country's cultural tourism.

Recognizing it's importance, the researchers of this trend have recently investigated the topic in detail. Some researchers investigate how certain elements determining the perceived properties (atmosphere) of the place affect the person who "consumes" the space (Butsykina, 2024; Eronen, 2023; Vihanninjoki, 2022). The examination of the aesthetic significance (or lack thereof) of green public spaces and their accessories receives considerable attention (Kothencz et al., 2017; Zhang et al., 2024). Researchers attached great importance to the different seating areas in the parks (Grabiec et al., 2022; Liang & Wu, 2024; Abdurrahman, 2024), or changes in the cityscape caused by tourism (Nogués-Pedregal, 2018). Several disciplines focus on one or another aspect of the landscape (environment), investigate and analyze their interrelatedness, but, the visual appearance of the cityscape and the built-in elements have not yet been thoroughly investigated by researchers in Hungary. Our research group (Environmental Aesthetics and Climate Adaptation Research Group in University of Szeged, Faculty of Education) have been conducting research since 2016 in the field of evaluating and typifying settlement and landscape

elements, and assessing and evaluating the factors that cause their change. Our goal is to objectify (quantify) aesthetic values, develop a method for visual mapping, and develop an effective method for settlement leaders, tourism entrepreneurs, and investors that assists in the strategic planning processes (Karancsi et al., 2020; Karancsi et al., 2022; Hornyák et al., 2022; Hornyák et al., 2023). The cityscape is constantly facing challenges in terms of urbanization, technical or environmental impacts. Due to competition between settlements, it is important to constantly monitor changes in our environment and, if necessary, slow down or stop processes that have a negative impact on citizens and tourists. Due to the current inefficiencies of assessment, protection and legal regulation, the view and image of a settlement are one of the most rapidly declining resources.

METHODS

The most important aim of our research in the area of environmental aesthetics is to elaborate a system of criteria which may be suitable for the evaluation of any street view from an aesthetic perspective. It is the buildings and their immediate surroundings (squares, parking areas etc.) that represent the basic factors of any street view. The first task in the process of evaluation is to quantify the looks of buildings and their surroundings, and then, with the help of a simple arithmetic average, it becomes possible to calculate the overall environmental-aesthetic value of a given object or area. From a geographical point of view data collection takes place at micro-level, taking into acount the individual buildings and the calculable sections of streets. The next step is to determine the average figures in relation to the individual groups of buildings, streets, and parts of the cities. All these factors represent a higher level in the process. Finally, when determining the average of various districts within a given city, it becomes possible to identify the aesthetic quality of the entire settlement with a concrete number. This process contributes to the scientific exploration of formerly unknown structural features of the given settlement.

Actually, this method is used to evaluate the view of the given environment. The figure, we get as a result at the end of the evaluation process, comprises several aspects, including the visual value of the given street, district, or settlement. This is why this figure may be called an 'Urban Aesthetic Index'. But, as it has already been outlined, the way we see our environment also determines our relationship to it. In case we have a 'positive' evaluation of our environment, it is perceived as a more 'liveable place'. This is the reason why our team prefer the term Visual Liveability Index (VLI) in research whose focused on Szeged in Hungary (Karancsi et al., 2020; Hornyák et al., 2022; Hornyák et al., 2023). When determining the number of points given for the individual aspects of the environment, we aimed to minimalize the distorting effect of subjectivism. This is why three value selectors were used in our qualifying system. This method seems to have enabled us to determine objectively the individual elements of urban aesthetics in relation to a given area, since number '1' is the lowest point assigned to a building of poor appearance, while number '3' represents the highest value that can be assigned to the various individual aspects of evaluation. Number '2' represents a transition concerning the quality the actual scene represents, underlining minor aesthetic problems. Perfect aesthetic appearance was awarded with 3 points (Table 1, Figure 1).

Figure 1. The determination of core values on the basis of the physical condition of buildings (from left to right): very bad (1 point); average, with some clearly visible aesthetic problems (2 points); a renovated building in perfect condition (3 points) (Source: Authors, 2017)

Table 1. The aesthetic qualification of core- and supplementary values for studies in urban aesthetics (Source: Edited by Karancsi et al., 2017: 307)

Default	**condition of buildings**		1	Building in bad condition (scanty plastering, broken or missing windows, scanty roof)
			2	Building in average condition, minor, but visible degradation (minor cracks on the walls, lack of paint, etc.)
			3	New or renovated building in perfect or in good condition.
	organic streetscape adaptation to the street		1	A building that does not fit in with the streetscape due to its style or design
			2	Building/s with the same roof height, similar facade layout or color matching to the streetscape
			3	Buildings of a similar style, coherent streetscape.
Additional	**touristic significance**		1	A building with an (art)historical character
			2	A building of historic characteristic and/or townscape significance
			3	Monument, or building of (inter)national importance (emblematic buildings)
	street furniture, decoration		1	Bench, planter or street sculpture in good condition.
			2	A catering unit with a smaller terrace (max. 15 people) that fits in with its surroundings (unified streetscape).
			3	A catering unit that fits into the uniform streetscape, has a larger capacity (min. 16 people), and a terrace decorated with plants
	plants	on the street	1	Flowers planted in a balcony box
			2	Young (planted in a box), well-kept woody vegetation
			3	Older, well-kept, woody vegetation (with lawn area)
		visible from the street	1	Young and/or less visible, well-kept vegetation from public areas.
			2	Older and/or well-kept vegetation that is clearly visible from public areas.

A similar method can be used to identify the visual value of vegetation in a certain area. Plants that contribute to the attractivity of a place may be assigned higher points. On the other hand, the ones with a damaging effect on city view, or, the presence of unhealthy, dead, or 'manipulated' trees or alleys are assigned only low points (Figure 2). Based on the general idea detailed above, trees and/or other plants, contributing to the attractivity of a place are awarded 3 points, while those ones which are problematic from one point or another, or, bushy and shrubby vegetations, the visually less attractive places are given 2 points. Places with dead or unhealthy vegetation, or, with plants and trees which do not become the place are assigned 1 point. (There might be cases when a dead tree in well-cared-for surroundings may represent a kind of aesthetic value. On the other hand, this tree does not play any other role in its environment, what is more, in case of storm the wind may uproot it. So, the dead tree poses danger for the environment (Figure 2).

In case it is not only the vegetation that is sick or dead, but the place itself shows signs of neglect, it is evaluated as visual conflict and 0 point is assigned, or point(s) may be deducted.

Figure 2. The determination of core values on the basis of the vegetation state (from left to right): very good (3 points); average, with some visible aesthetic problems (2 points); in very bad condition, or, destroyed (dead) vegetation (1 point) (Source: Authors, 2017)

Concerning the role vegetation plays in the evaluation process, it is important to consider the role plants play in townscape. If a tree, or a plant is in the vicinity of some emblematic building, or, can be found in public areas, frequented by tourists or by the locals themselves, and it is an organic part of the view, then its evaluation plays a more significant role in the overall evaluation of the area (Table 2). In the course of our earlier studies it was primarily the concept of homogeneity of buildings that was primarily considered (Karancsi et al., 2017, 2020). Due to definition problems in defining our benchmark, this task proved to be difficult. Consequently, in our view, the homogeneity of architectural style has to be considered as benchmark in street view evaluations. Those buildings are at the core of these studies, which were built in identical or similar architectural style(s), and which represent the majority in the given street.

Table 2. The aesthetic qualification of core- and supplementary values in city view investigations (Source: Edited by Authors, 2024)

Default	**Condition of plants**	1	Plant(s) in very poor condition (wild, severely mutilated or diseased).
		2	Plant(s) in medium condition, with a minor, visible aesthetic problem (dead branches or noticeable mutilation)
		3	Aesthetic plant/s in good condition
Additional	**Impact on cityscape**	1	Important plant (for the cityscape)

If the buildings considered represent a kind of architectural unity, they are awarded 3 points. In case only some of the characteristic features match (e.g. the colour, or the height of the roof, or some stylistic features), they represent only a partial match. These buildings are awarded 2 points. Finally, in case there is a huge contrast between the individual building and the ones nearby (general street view), only 1 point is given (Table 1, Figure 3).

Figure 3. The identification of core values on the basis of the homogeneity of buildings (from left to right). Lombard Building (modern headquater of financial services company, built in 2005 between traditional buildings in Béla Somogyi Street, Szeged, Hungary): on the basis of its style, or construction does not match the general street view -1 point.; Modern condominium (built mid 20th century between traditional buildings in Oskola Street, Szeged, Hungary): partially matched building (in colour or size) - 2 points.; Traditional buildings (in Kis-Tisza Street in Szeged, Hungary): matching buildings of similar style - 3 points (Source: Authors, 2017)

Actually, the buildings which were given the lowest scores (1 point) in as many as two categories (condition and homogeneity), may represent visual conflicts as well. But, since in our group of evaluation tables there is one, which focuses on visual conflicts by assigning negative numbers as points, this category is being disregarded for the time being.

In case the buildings in one row represented homogeneity in their architectural styles and construction features, then they were not evaluated one by one, but they were assigned one – common – score. As far as the final result of our overall evaluation is concerned, this method did not have any significance on the end result. In addition to the points given to evaluate the formerly detailed core values, there were two cases when supplementary points were given to the individual buildings. Three supplementary points could be given to each individual building if it had a special significance in tourism.

One supplementary point was given to buildings of special significance in art history, two supplementary points to locally protected buildings, or, to listed buildings. Three points could be given in case the building was a national historic building, or, if it had a specific international significance (emblematic building) (Table 1, Figure 4). Although there is no direct relationship between the touristic significance and the aesthetic value of a building, during renovations the listed status of a building is doubtlessly an advantage. Consequently, a closer relationship can be detected between the better condition and the listed status of a building. The final outcome of our research would be a visual map of Szeged, which is to colour-code and display all the streets of the city. Practically, the main beneficiaries of this map would the tourists, who, in addition to having access to the list and the whereabouts of the most spectacular sights of Szeged, with the help of this map would also be enabled to see and visit the most homogeneous-looking local streets. But, it is also possible to disregard the map and concentrate only on the analysis of the visual characteristics of Szeged's streets. The view of a street may be enhanced by benches, flower pots and public statues, as well as by the temporarily operating terraces of catering establishments, features, which can create a special Mediterranean atmosphere during the summer tourist season (Table 1, Figure 5).

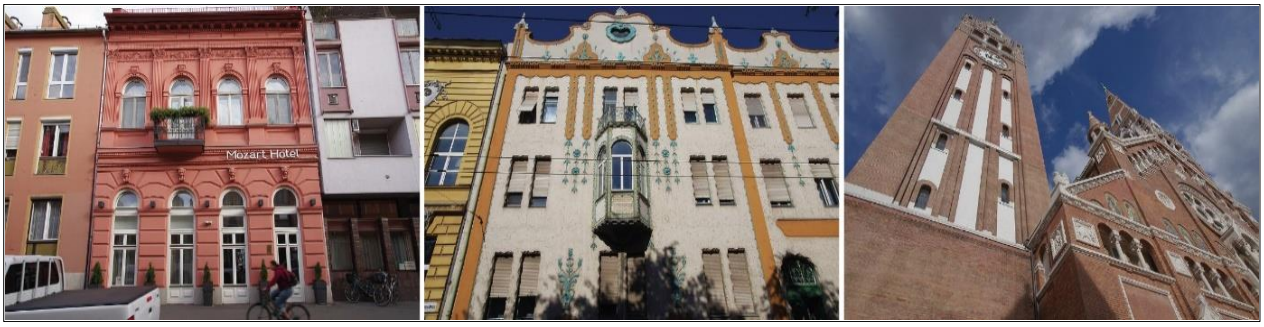

Figure 4. Supplementary points given for touristic values (from left to right) Old inn building of the Oskola Street (Szeged, Hungary) with significance in art history - 1 point; Deutsch Palace, historic building, listed building of local significance (Szeged, Hungary) - 2 points; Votive Church, listed building of national of international significance, emblematic building (Szeged, Hungary) - 3 points

Figure 5. Street furniture, flower pots and street decoration may enhance the aesthetic view a street can offer. Good examples in Kárász Street in Szeged (Source: Authors, 2017)

Figure 6. Supplementary points given for the presence of healthy green plants (from left to right). Oskola street 5 in Szeged, Hungary: plants on the facade of a building, on the balcony and in front of a building (1 point); Old inn building (Oskola Street 16. in Szeged, Hungary) with flowers and young trees in pots (2 points); Tramline 2 in Széchenyi Square (Szeged, Hungary): well-cared-for lawn with older trees and/or flowers (3 points)

Healthy plants are of special value of significance; when evaluating the city view, they represent added value. This is why their presence is worth of a maximum of 3 points. No point is given at all if there are no green plants in the given area, 1 point is given if their presence is restricted to mere decoration and they are only on balconies of houses. 2 points are awarded if there are woody plants, too, including thujas in flower pots at the entrance of houses. 3 points are given if there are well-cared-for lawns and/or older trees in the neighbourhood of the given building (Figure 6). When evaluating green areas it is important to make a distinction between the plants which are actually parts of a public area, and those, which can only be seen from the given public area. (It may be a point of significance when evaluating suburban areas) (Table 1).

Figure 7. Examples of visual conflicts in Szeged (form left to right): a – sick plants, b – graffiti, c- litter, dust, stink, d – damaged sidewalk, e – catenaries, f – advertising (Source: Authors, 2017)

In this evaluation system the basic values a building might earn is a maximum of 3+3=6 points, while as far as the supplementary categories are concerned, a maximum of 3+3+3+2=11, which means a total of 17 points. But our team intended to consider visual conflicts as well, the presence of which might lessen the aesthetic value of the given area. Those visual conflicts, which could be documented were enlisted and then a certain number of points was deducted from the above detailed total. One point was deducted for minor conflicts and two for more serious conflicts. The list of potential visual conflicts used in our evaluation system is as follows: neglected green areas; graffiti; broken bench, dirt, litter, broken – dangerous – sidewalk pavement; aerial wires, advertisements, advertising boards; noise, dust, fumes from intense traffic (Table 3, Figure 7).

Table 3. The qualification of visual conflicts (Source: Karancsi et al., 2017: 311)

Visual conflicts Additional	**Sick plants**	-1	Minor visual conflict
		-2	Severe visual conflict
	Graffiti	-1	Minor visual conflict
		-2	Severe visual conflict
	Damaged street furniture	-1	Minor visual conflict
		-2	Severe visual conflict
	Litter, dust	-1	Minor visual conflict
		-2	Severe visual conflict
	Damaged sidewalk	-1	Minor visual conflict
		-2	Severe visual conflict
	Advertising	-1	Minor visual conflict
		-2	Severe visual conflict
	Vires and catenaires	-1	Minor visual conflict
		-2	Severe visual conflict
	Traffic noise	-1	Minor visual conflict
		-2	Severe visual conflict
	Stink	-1	Minor visual conflict
		-2	Severe visual conflict

It is important to note that we were and still are aware of the fact that some of the visual conflicts are of temporary nature: dirt or litter seen one day in the given street, might be gone for the next day. Graffiti, or advertisements take longer, several weeks to disappear. It might take months to repair a sidewalk pavement. At the same time there are some temporary conflicts, including noise, air- or dust pollution in the peak hours, or, some unpleasant smell which may affect liveability in a negative way, but, which very rarely disappear on their own. For example the unpleasant smell is often linked to the presence of garbage, to uncleaned, dirty streets, or to excess traffic, which, in most cases is the major cause for noise, dust,

or air pollution. All these factors have an influence on city view as well. This is why it is of utmost importance for all parties concerned, to underline the hidden dangers which might destroy city view and liveability.

The final number of points the individual buildings were given in our evaluation consists of the sum of scores given for the basic and also for the supplementary values. Then the points given for occasional visual conflicts were deducted from the former result (-1 or -2 points). In addition to the members of the research team, the evaluation was also carried out with university students from different disciplines. This relatively simple evaluation system helped us to achieve that during the evaluation process no major differences were to be found concerning the points given by the individual evaluators. The differences were practically negligible, meaning, that subjectivity played only a negligible role.

We divided into 'visual units' those non-traditional streetscapes, which are partially bordered by green spaces, closed by roads and houses. These visually coherent units are located in roughly the same area that a person can observe from one place. On the other hand, these units are separated by 'boundaries', meaning, that their interdependence is weaker, or, at places, there is a kind of barrier, physically separating them. In most cases the boundaries separating the visual units with buildings are (but not always) streets. In larger parks there are fewer concrete boundaries, so in these areas it was the functions of the chosen area that served as basis for our research. We have subdivided for example our sample area into five visual units. Each unit was evaluated twice: first the features of the area itself, then the characteristics of their spatial boundaries.

Sample area

The sample area of research targeted at is situated in the city centre of Szeged, stretching along the Tisza River. The area itself was formed during the Great Flood of 1879, at a place where the Castle of Szeged used to stand (Figure 8). In this area the location of the network of streets and the architectural style of the new buildings were determined by a governmental committee. According to the committee's decision representative buildings, typical in big cities were to be built to replace the ruins of the Castle. This urbanized style was further emphasized by the size of the buildings, too, all of which were larger than the ones in the city's main square. Another feature was the alternation of public and private buildings and the establishment of a public park, actually a promenade. Due to these features, the area, called Stefánia was to become the most elegant residential and office quarter of Szeged. The most emphatic building of its street view is the building of the National Theatre. By its size it stands out of the group of other buildings. In this area another dominant building can be mentioned, the building of the Hungária Vigadó, which is the last one in this section of street.

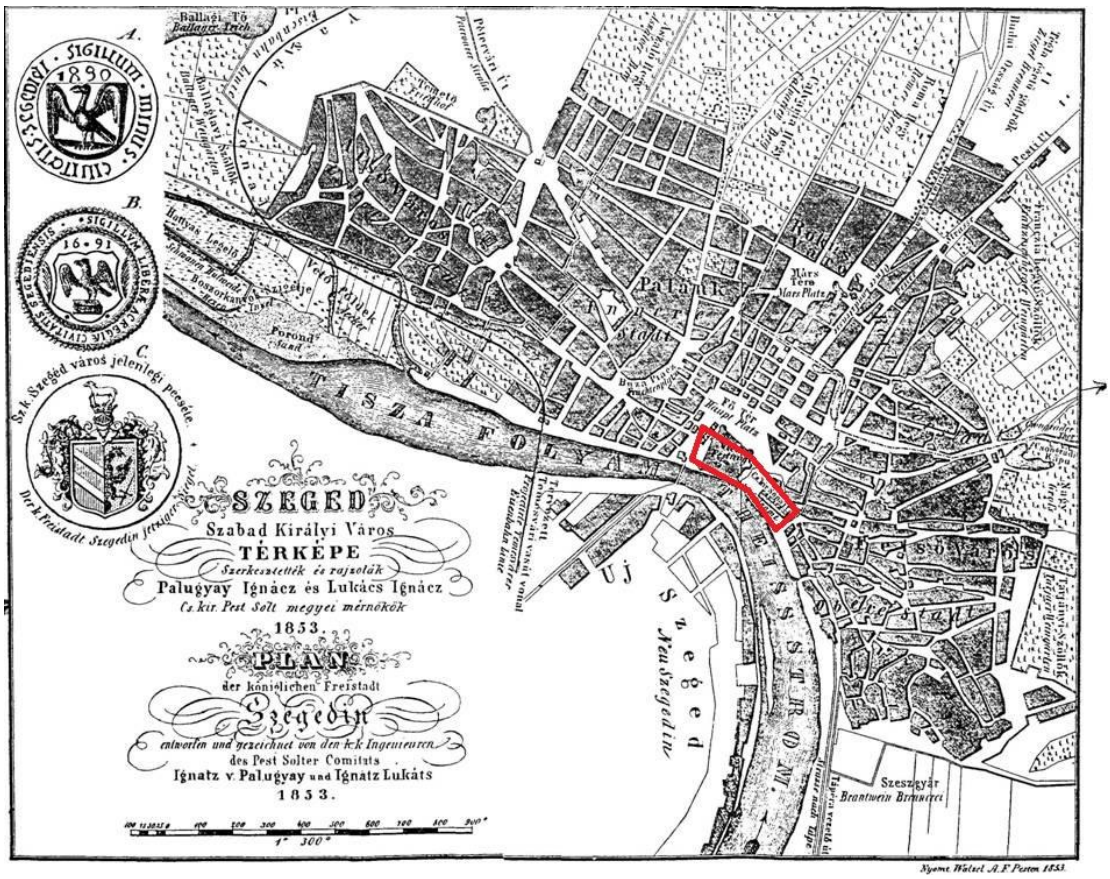

Figure 8. A west-facing map of Szeged, a free royal town. The sample area is marked with colour red (Source: Palugyay – Lukács 1853)

The neighbouring Oskola Street, which is located in the vicinity of our current sample area, has already been investigated by our research team (Karancsi et al., 2017; Hornyák et al., 2023). Actually the area of Stefánia has been selected for research and analysis. because it had already been studied, prior to its reconstruction, too. A rich collection of photographs and documents are at our disposal from that period, all of which represent valuable resources for this new research.

The majority of the buildings in the surveyed area were built after the Great Flood of Szeged of 1879, a period, when the entire city was rebuilt. Almost each building was one or another type of protected building by the time our survey began. The only exception can be found at one end of the area, it is the so-called Égő Arany (Burning Gold) House, and a smaller adjacent building, both of which were built in the 1960s. The majority of sculptures, which are in the park, are also nationally or locally protected works of art. The trees and plants of Várkert, Mórapark and Roosevelt Square are also locally protected.

The area we surveyed can be found in the vicinity of the main tourist attractions of the city, although it is not part of Szeged's main sights. Roosevelt Square can be found at its southern end, while on the north it is bordering on one of Szeged's boulevards, a street, which marks the end of the inner city. Kárász Street, Szeged's main pedestrian and shopping street is at a distance of 220 meters, while the other favourite area for walks, the promenade along the river represents the riverside borderline of Várkert, part of our sample area. Near this area there are places of utmost importance for cultural tourism, too, including the Ferenc Móra Museum and the formerly mentioned National Theatre.

The Open Air Theatrical Festival, organized in Dóm Square, a nearby place, as well as the annual Bridge Fair, other programmes organized in Széchenyi Square and the Fish Soup Festival of the embankment area are all cultural events, which have a seasonal influence on the traffic of our sample area as well. The distance from the southern end of Várkert to the emblematic Dóm (Votive Church) is 300 meters. According to a survey, conducted in 2018, the formerly mentioned section of the area called Stefánia was the busiest bicycle path in Hungary (Szabó, 2021).

It can be explained by the facts that the area is the heart of the inner city, and, also that several faculties of the university are nearby. When our first survey was conducted in connection with this area in 2017, there was high traffic in this area (Karancsi et al., 2017). Office workers as well as employees of several university institutions, located in our sample area, used their cars to get to their destination. Entry and the parking of passenger cars was then tolerated to some extent. This fact has led to the worsening condition of the green areas as well.

The reconstruction of the area had several stages and several investors were included in these works. The large scale reconstructions of the 1990s came to an end by the 2010s. Later, the local governments preferred smaller-scale investments and, instead, gave more opportunities to the representatives of individual businesses. The reconstruction of Kárász Street, the pedestrian street of Szeged involved the reconstruction of the interior part of the buildings and the settlement of ownership issues as well. During the two decades between 2000 and 2020 the local government led the reconstruction of several items in the Várkert area with an aim of reducing car traffic.

On the other hand, the changes did not focus on the Várkert area exclusively; on the long run the local government aimed to introduce the concept of a car-free inner city area. It was the regional water directorate that had the promenade between Várkert and the Tisza River reconstructed in the year 2015. In 2020 the Museum gardens were renewed, while in 2021 the pavements of the entire Stefánia area were reconstructed. The 'main street' of Stefánia makes it possible for car traffic to avoid the city's main square. Cars using the inner city bridge can turn into this street. Reconstruction works took place using the so-called wall-to-wall method, widespread in Hungary, but during these works those measurements were not taken which would significantly have reduced motorized traffic. The area of Stefánia has to cope with the trolleybuses of two suburban services, too, consequently, the reduction of traffic would have been counterproductive by reducing the significance of public transport. This is why, when rethinking the issue of transport in the area of Stefánia, a less disturbing and less polluting kind of transport, bicycle traffic was prioritized. The former bicycle path on one side of the road was made into a directional bicycle path located on both sides of the street. Earlier it was possible to park in the street, but, in 2021 the city – although they lost part of their revenue – banned parking on the interior side of Stefánia. In the outer areas it is still possible to park, but the number of places has been reduced.

Rethinking the green and the blue areas

The surveyed area is definitely a green area, although, the whole area cannot be called a park. The green surfaces were involved in the reconstruction works as well. During the past few decades the attitude of the population to reconstruction works has changed, too. Citizens increasingly say no to the idea of bringing about stone-covered large areas or they reject the concept of reconstruction when it is aimed at reducing the size of green areas. A similar change of attitude can be seen concerning the issue of blue surfaces. In Szeged it was a kind of historical tradition to liquidate water surfaces from the inner areas of the city. This process is now simply not possible, and, it is not expedient either. In the time of the reconstruction works the concept was that the green and blue surfaces were not to be eliminated from the area, but, instead, they were to be linked using their synergies, they had to be integrated in city life and made accessible to residents and also to tourists. It is important to note that it is not only the visible blue surfaces that were concentrated on, but there was also the will to use rain water locally. For example, walking surfaces were made from water pervious material.

Access to both types of surfaces has improved significantly. For example, several new walking paths were established in the Várkert area, so, passing through became much easier. New sitting and training benches, drinking fountains and playground equipment was made accessible in numbers exceeding their former numbers. It is obvious that the green areas serve free time activities, but, in addition, they serve as background to enjoyable and useful pastime. It is not only the opportunity to have access to green and blue areas physically, but by creating the possibility to spend time in these areas with multiple actvities, the length of time spent outdoors increased. Consequently, the area has become attractive for members of various social groups (Figure 9). A mobile defense system was established to replace the former river wall made from reinforced concrete, so, the river itself was made more visible for people. Although the Tisza River and the park are still separated by a metal rail, but it is a see-through arrangement; the river can be seen, perceived and heard. From the point of view of cityscape it is an important change, that the edge of the basin of the fountain in Ferenc Móra Square was

removed, so it is possible now to 'walk through' the fountain. Thus a direct, physical relationship exists between visitors and water. In addition, other decorative fountains have been designed and placed in the park.

Figure 9. Benches designed for visitors with various needs (form left to right): Green area of the Stefánia, Playground and park of Roosevelt Square, Szeged, Hungary (Source: Authors, 2017)

When writing this paper some planning is in the making to 'humanize' the area of the embankment, stretching between the inner city and the Tisza River. According to these preliminary plans in the not-so-distant future parking would be banned (further 80 places), and, later, through traffic would be eliminated. The area of the embankment would be used for cultural events and leisure time activities. This change would mean the extension of the size of green areas, and the previously mentioned area, the Várkert would stretch as far as the Tisza River.

RESULTS

The reconstruction of buildings and the renewal of the green areas followed the same logic. When dealing with the representative objects, typical of the given area, the most important aim was to preserve their primary function, the city view, but a kind of visual improvement was also targeted at. During these processes no work was done which could have radically changed the function of the object, or, the loss of its traditional characteristic features. The reconstruction work aimed to protect the visible valuable features of the buildings and also intended to present them in a sustainable way.

An object, an integral part of the area could only be changed, if the new object was capable of taking over the function of the former one without any limitation. Those objects, which were not typical of the area, or, which have lost their function, or, which were mismatched, had to disappear. This way the area was deprived of many visual conflicts and could easily be seen through. As a result of reconstruction, it is worth paying attention to the spatial order of the inner city area in Szeged. According to our former survey the points given to Ferenc Móra Park, a representative area of the city, were higher than the scores of other reconstructed and renewed areas. The improvement of cityscape is a general feature, but it is not an uninterrupted and even development. The representative areas of the city scored higher in the period of our former survey, but interestingly, their advantage was lessened due to the new investments.

It can be seen clearly that within the Várkert area the most significant investments took place where formerly the conditions had been better. The largest amounts of money were very likely to have been spent on the playground, located in Visual unit No. 1, and on the fountain complex of Visual unit No. 2 (Figure 9, Figure 10). Those parts of the green areas, which were less frequented the improvement was not due to new investments, but to the elimination of former visual conflicts. The value of investments was not evenly distributed in the area, but investors concentrated on the most representative places. In spite of this feature the most spectacular improvements can be found in the formerly neglected areas. Although the visual value of the most representative areas (Visual unit No. 1 and 2) has improved, too, but the most significant improvement is typical of the less representative places (Visual units No. 3, 4 and 5).

Observations concerning the green areas:

During the past few years the sick trees were cut down. All those woody plants have gone which were identified as visual conflicts of significance during our survey of 2017.

- All those trees were removed, too, independently of their size, which grew wildly and did not belong to the park.
- Those visual elements were abolished which would have needed uninterrupted care.
- During park maintenance works it is not an aim any longer to have an 'English style' lawn. The lawn surface is watered only in more representative areas, at other places they seek to let rain water infiltrate.

The evaluation of the space walls and the public areas in front of them

The area of the park was divided into 5 visual units (Figure 10). Within the green areas the ramp of the Belvárosi bridge and the building of the Ferenc Móra Museum, with its vertical positioning in relation to the longitudinal axis of the park, are obvious dividing lines. The further, internal division of the park into units cannot be done so easily. In this case buildings of importance and the internal functional characteristics of the park were considered. These units have more or less identical functions. Visual unit No. 1 is the most significant playground in Szeged. Visual unit No. 2, a

representative public area, serves as a foreground to a building, which is wellknown nationally. Visual unit No. 3 represents the immediate surroundings in the vicinity of the remains of the Szeged Castle. It is mainly a pedestrian zone. Visual unit No. 4 is primarily frequented by the younger generations and it is a scene for their play and sports activities.

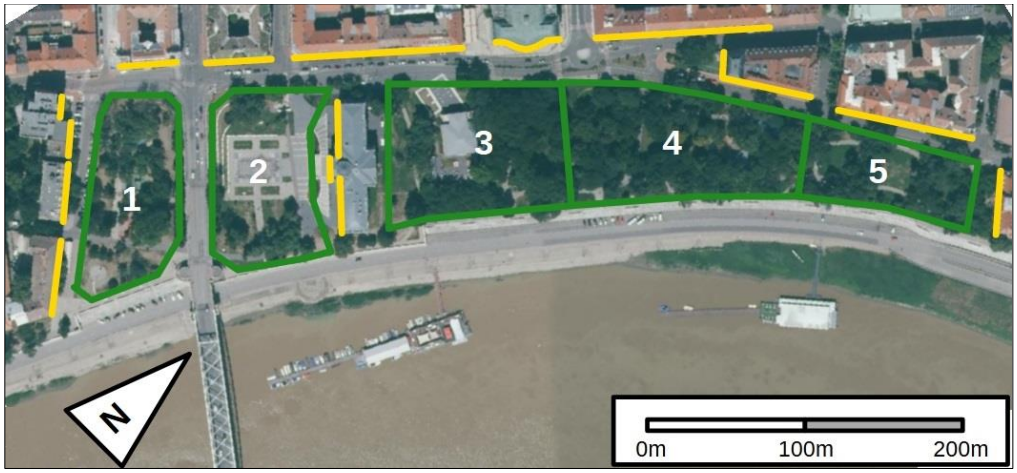

Figure 10. The surveyed area and its visual units (Source: Edited by S.J. Hornyák from MEPAR 2024)

Visual unit No. 5 is the foreground to Szeged's Trade School, and as such, it practically serves as a meeting point for secondary school teenagers. The results of the survey for each visual unit at two dates (2017 and 2023) are presented in tabular form below. With modified criteria compared to the original datasheet, we have evaluated the built environment and the park environment associated with the visual unit in separate tables. First, we evaluated the buildings that border the visual units' square walls, as in our previous study (Tables 4, 5, 6, 7, 8).

Table 4. The qualification of visual conflicts of the building of Visual unit No.1 (Source: Authors, 2023; 2024)

								
Number	1.		2.		3.		4.	
Name of structure	**Roosevelt Square 14.**		**Roosevelt Square 10-11.**		**Roosevelt Square 8-9.**		**Roosevelt Square 7. „Burning Gold"**	
	2017	2023	2017	2023	2017	2023	2017	2023
Condition	2	2	2	2	2	2	2	2
Coherence	3	3	1	1	1	1	1	1
touristic importance	**1**	**1**	-	-	-	-	**1**	**1**
street furniture	-	**1**	-	-	-	-	-	-
plants	-	**1**	**1**	**1**	**1**	**1**	**1**	**1**
neglected or sick vegetation	-	-	-	-	-	-	-	-
grafitti	-	-	-	-	-	-	-	-
littering, dust	-	-	-	-	-	-	-	-
damaged sidewalk	-1	-	-1	-1	-1	-1	-1	-1
cover, disturbing objects	-	-	-	-	-	-	-	-
traffic and noise	-	0	-1	-1	-1	-1	-	-
stink	-	-	-	-	-	-	-	-
aggregated value	5	8	2	2	2	2	4	4

Table 5. The qualification of visual conflicts of the building of Visual unit No.2 (Source: Authors, 2023; 2024)

			
Number	5.	6.	7.
Name of structure	**Roosevelt Square 6. Péter Tóth House**	**Roosevelt Square 5. Milkó Palace**	**Roosevelt Square 1-3. Ferenc Móra Museum**

	2017	2023	2017	2023	2017	2023
Condition	1	3	2	3	2	3
Coherence	3	3	3	3	3	3
touristic importance	**2**	**2**	**2**	**2**	**3**	**3**
street furniture	-	-	-	-	-	-
plants	-	**1**	-	**1**	**3**	**3**
neglected or sick vegetation	-	-	-	-	-1	-
grafitti	-1	-	-	-	-1	-
littering, dust	-1	-	-1	-	-1	-
damaged sidewalk	-1	-	-1	-	-1	-1
cover, disturbing objects	-	-	-	-	-	-
traffic and noise	-1	-1	-1	-1	-1	-1
stink	-	-	-	-	-	-
aggregated value	2	**8**	4	8	6	**10**

Table 6. The qualification of visual conflicts of the building of Visual unit No.3 (Source: Authors, 2023; 2024)

										
Number	8.		9.		10.		11.		12.	
Name of structure	**Stefánia 1. Burger House**		**Stefánia 2. Politzer House**		**Stefánia 3. Abafi House**		**Stefánia 4. Rósa House**		**Stefánia 5. National Theater**	
	2017	2023	2017	2023	2017	2023	2017	2023	2017	2023
Condition	2	3	2	3	2	2	2	2	3	3
Coherence	3	3	3	3	3	3	3	3	3	3
touristic importance	1	1	1	1	1	1	1	1	3	3
street furniture	-	-	-	-	-	-	-	-	1	1
plants	-	1	-	1	-	1	-	1	2	2
neglected or sick vegetation	-1	-	-1	-	-1	-	-	-	-1	-
grafitti	-	-	-	-	-	-1	-	-	-	-
littering, dust	-	-	-	-	-	-	-	-	-1	-
damaged sidewalk	-1	-	-1	-	-1	-	-1	-	-	-
cover, disturbing objects	-	-	-	-	-	-	-	-	-1	-
traffic and noise	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
stink	-	-	-	-	-	-	-	-	-	-
aggregated value	3	7	3	7	3	5	4	6	8	**11**

Table 7. The qualification of visual conflicts of the building of Visual unit No.4 (Source: Authors, 2023; 2024)

								
Number	13.		14.		15.		16.	
Name of structure	**Dózsa Street 1. Pfann House**		**Dózsa Street 2. Hungarian Radio Building**		**Dózsa Street 3. Deutsch Palace**		**Stefánia 8. „Hungária”**	
	2017	2023	2017	2023	2017	2023	2017	2023
Condition	2	2	2	3	2	2	2	2
Coherence	3	3	3	3	3	3	3	3
touristic importance	**1**	**1**	**1**	**1**	**2**	**2**	**2**	**2**
street furniture	-	-	-	-	-	-	-	**1**
plants	-	**1**	-	-	-	-	**1**	**1**
neglected or sick vegetation	-	-1	-	-	-	-	-	-
grafitti	-	-	-	-	-	-	-	-
littering, dust	-	-	-	-	-	-	-	-
damaged sidewalk	-1	-	-1	-	-1	-1	-1	-
cover, disturbing objects	-	-	-	-	-	-	-	-
traffic and noise	-1	-1	-1	-1	-1	-1	-	-
stink	-	-	-	-	-	-	-	-
aggregated value	4	5	4	6	5	5	7	9

Table 8. The qualification of visual conflicts of the building of Visual unit No.5 (Source: Authors, 2024)

								
Number	17.		18.		19.		20.	
Name of structure	**Stefánia 9.**		**Stefánia 10. Vajda Palace**		**Stefánia 11.**		**Stefánia 13. Commerce School**	
	2017	2023	2017	2023	2017	2023	2017	2023
Condition	2	2	3	3	2	1	2	2
Coherence	3	3	3	3	3	3	3	3
touristic importance	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
street furniture	-	-	-	-	-	-	-	**1**
plants	**1**	**1**	-	-	**1**	**1**	**2**	**2**
neglected or sick vegetation	-	-	-	-	-	-	-	-
grafitti	-	-	-	-	-1	-1	-	-
littering, dust	-	-	-	-	-	-	-1	-
damaged sidewalk	-1	-	-1	-	-1	-	-1	-
cover, disturbing objects	-	-	-	-	-	-	-1	-
traffic and noise	-	-	-	-	-	-	-	-
stink	-	-	-	-	-	-	-	-
aggregated value	6	7	6	7	5	5	5	9

The results show where renovation and conservation work has been done in the last 7 years. The most striking change can be seen on Péter Tóth House, number 5 in visual unit 2, which was in a very poor state of repair due to decades of decay, and finally, Vántus István Music Secondary School of the Gál Ferenc University will have completely renewed it in 2023. In addition to a complete renovation of the building, the surroundings were also renewed, improving the building's score by 6 points compared to the 2017 evaluation. This renewal was also very important because it is the first building seen by the people coming to Szeged from the main road 43 via Újszeged and the Belvárosi bridge and the first impression is always very important. The National Theatre, the city's most prominent building in the visual unit No. 3, received the most points (11), with 3 points more than in 2017, mainly due to the improvement of its surroundings.

In second place, with 10 points, was the Móra Ferenc Museum, one of Szeged's emblematic buildings, which is part of visual unit No. 2 and is known nationwide. Although it has also undergone renovation and the removal of visual conflicts in its surroundings, it managed to improve "another" 4 points compared to 2017.

The evaluation of park areas

The second part of the study we assessed the condition of the parks (Table 9). When renewing the green areas the sick and wildly grown trees were cut down and new ones were planted to replace them. The plants, causing problems disappeared and their disappearance resulted in a feeling of absence, and, at the same time, it opened new possibilities. (The line of linden trees, which were cut down at the bridgehead was missed by many people, but, at the same time, now the gigantic, formerly hidden facade of the museum building is clearly visible for passers-by.

One of the sick sycamore trees in front of the Sefánia was cut down, too, and this fact also could have enhanced the view of the building hidden behind it, but, unfortunately, the facade of that building is in a very poor shape.)

Table 9. Evaluation of park areas (Source: Authors, 2024)

										
Name of area	Roosevelt Square		Móra Square		Várkert 1		Várkert 2		Várkert 3	
Number of park areas	1		2		3		4		5	
	2017	2023	2017	2023	2017	2023	2017	2023	2017	2023
Plants	2	3	2	3	2	3	2	3	2	3
Street furniture	1	2	1	2	-	-	1	2	1	2
Path's surface	1	2	1	2	1	2	1	2	1	2
disturbing objects	-	-	-	-	-1	-	-1		-1	-
Litter	-	-	-	-	-	-	-	-	-	-
Grafitti	-1	-	-	-	-	-	-1	-	-1	-
Dust, noise	-1	-1	-2	-1	-	-	-	-	-1	-
sick plants	-1	-	-1	-	-1	-	-	-	-	-
aggregated value	1	6	1	6	1	5	2	7	1	7

Although the absence of trees can be felt in these places, but the young trees, which were planted to replace the sick ones and which will grow, after a time will be able to hide the 'scar'. It needs to be mentioned that the bushes and shrubs were almost fully eradicated. Due to the absence of bushes and shrubs the entire area of the park became transparent. This feature means a kind of duality in the area of the Várkert (Table 9).

On the one hand people can see tree giants, recalling natural forests, but, on the other hand, the area does not remind observers of natural forests. It makes the impression of an old, sterilized plantation of trees. This impression cannot be changed by the fact either that the park management abandoned the former futile attempts to have regularly mown lawn.

Another advantage of the area is the elimination of the former large-size flower beds, which needed regular intensive care. The new visuals, the see-through park itself compensate for the absence of old-style flowerbeds.

The results also show that the renewal of vegetation played an important role in all visual units, as well as the strengthening of the recreational function of the park through the use of renovated (newly installed) furniture and other equipment. In each of the 5 visual units studied, the renovations have eliminated the most visual conflicts, which is also reflected in the 2023 scores. It can be seen clearly that, as a result of reconstruction some of the individual problems were not solved. Although parking was made more difficult in the area and it may have resulted in fewer vehicles, but this fact was not clearly identifiable when looking at the total figures. The problem, caused by the motorized traffic of individuals is stubborn and its solution in the centrally located areas, including the Várkert area, is difficult. During our fieldwork the most disturbing feature of Visual units 1 and 2 was the noise caused by traffic. In order to solve this problem the local government does not have the proper financial and political power and the way we see it, the problem will be solved only in the future, as a result of changes in transport policy and technological progress.

Investments into the Várkert area were seemingly disproportionate. In the areas with the largest investments improvement was of lesser extent, than in areas with more modest investments. In our opinion this is a contradiction, but only at first impression, since similar phenomena can be onbserved in different walks of life. Preparing a sportsman for Olympic championship requires a lot of investments, too, on the part of the given country. In case the same amount of money would be spent on mass sport or the improvement of sports facilities for everyday citizens, then the result would be a generally fitter, healthier nation. On the other hand, this latter result is much less spectacular. It can be supposed, too, that larger green areas could have been improved and made more accessible if the same amount of money had not been spent on the spectacular items of the reconstruction work in the Várkert area. It should also be noted that a more spectacular result can be achieved by rehabilitating more easily accessible areas in poor condition, by eliminating the visual conflicts there.

Table 10. The Visual Livealibity Index (VLI) of the visual units, 2017 and 2023 (Source: Authors, 2024)

Visual unit No.1							
	buildings				park	aggregated value	**VÉI**
2017	5	2	2	4	1	14	**2.8**
2023	8	2	2	4	6	22	**4.4**

Visual unit No.2						
	buildings			park	aggregated value	**VÉI**
2017	2	4	6	1	13	**3.2**
2023	8	8	10	6	32	**8**

Visual unit No.3								
	buildings					park	aggregated value	**VÉI**
2017	3	3	3	4	8	1	22	**3.6**
2023	7	7	5	6	11	5	41	**6.8**

Visual unit No.4							
	buildings				park	aggregated value	**VÉI**
2017	4	4	5	7	2	22	**4.4**
2023	5	6	5	9	7	32	**6.4**

Visual unit No.5							
	buildings				park	aggregated value	**VÉI**
2017	6	6	5	5	1	23	**4.6**
2023	7	7	5	9	7	35	**7**

We looked at the Visual Livealibity Index (VLI) of each visual unit, which is the arithmetic mean of the values of the buildings that border the units and the parks that make up the largest part of the units (Figure 10, Table 10).

By calculating the VLI, all but the first visual unit scored higher (the 2023 assessment) than our previous assessment on Oskola Street (VLI 5.5) (Karancsi et al., 2017), in which the renewal of the park units played a significant role.

Thus, the visual appearance of one of the city's representative streets is understandably inferior to the visual units lined with renovated parks and palaces. In other words, it can be seen that well-maintained green spaces play a very important role in the perception of visual amenity.

Summary

The improvement of the attractivity of green areas is closely related to their touristic significance. Although, our surveyed areas in the park improved to the same extent according to their scores, but when comparing them, two of the

green areas (No. 1 and 2) had significant differences concerning their degraded condition. These two areas represent places, which are frequented by tourists, and significant problems occurred due to increased traffic, dust and noise pollution. Plants of these areas mostly died as a result of these conditions.

The lesson to be learnt from the second survey and evaluation is that the method is also suitable for following the changes in city view. It was especially true when considering the reconstruction of our sample area, a project, which was 'more than a mere reconstruction, but less than urban rehabilitation'.

As far as the evaluation method is concerned, it can be seen that the scores have to be carefully dealt with. They have to be considered together with their explanations if we want to get a realistic picture of the genuine visual value of the given place. By changing the significance of the individual items or the parking rules, or the presence or inclusion of some visual elements (advertising boards or lifting the ban on parking) may be suitable for changing the overall picture of the street view, what is more, in certain cases it might hide the negative effect of changes (Karancsi et al., 2013).

It is important to add, too, that in addition to the previously described evaluation of the visual elements in street view, in order to grant the complexity of research, it is essential to conduct a survey among local residents as well, with the aim of having their qualification of the state of their own environment. In case of developments aimed at improving local tourism it is also important to investigate those sights and elements which serve the comfort and interest of tourists. This research could be a questionnaire-based survey, and in case of local residents, its results would largely depend on those visual elements, which serve liveability. Our current research was not intended to investigate this latter point of view.

The quantification provided by the method, the narrow scale, allows us to minimise subjectivity, but we cannot claim to exclude it completely. The method is simple, can be used to identify micro-spaces, visual units, to detect visual conflicts, and is also suitable for tracing the changes. On the basis of our research it can be stated that in the area of urban development it is worth investing into improving some less frequently visited, and from the point of view of tourism, less emblematic places. Although these areas do not attract a lot of tourists, but they may contribute to the improvement of the urban landscape in general and, importantly, not much investment is needed to achieve good results.

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