



| DOCONF / 2023 |

| **FACING POST / SOCIALIST** |

| **URBAN HERITAGE** |

| PROCEEDINGS |

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# FACING POST-SOCIALIST URBAN HERITAGE

## PROCEEDINGS

DOCONF2023 / conference

5-6-7<sup>th</sup> October 2023, Budapest, Hungary

<http://doconf.architect.bme.hu/>

Proceedings of the 5<sup>th</sup> international doctoral–postdoctoral conference organized by the Department of Urban Planning and Design, Faculty of Architecture, Budapest University of Technology and Economics (BME) and the Foundation for Urban Design, Budapest.

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**DOCONF/2023**

**FACING POST/SOCIALIST**

**URBAN HERITAGE**

**date /**

5 opening & 6-7 October 2023, Budapest, Hungary

**venue /**

Oct 5 & 6 / BME, 1111 Budapest, Műegyetem rkp. 3. / 2nd. floor room 10

Oct 7 / KÉK, 1111 Budapest, Bartók Béla út 10-12.

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**Department of Urban Planning and Design**

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**38 lectures presented in consecutive thematic sessions about /**

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**38 lectures presented by /**

doctoral students, candidates, or post-doctoral researchers who are architects, landscape architects, planners, etc., arriving from different doctoral schools of 13 countries (Belgium, Bulgaria, Czech Republic, France, Germany, Hungary, Lithuania, North Macedonia, Poland, Romania, Serbia, Spain, Ukraine)

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## FOREWORD

The bi-annual DOCONF series provides a comparative overview of current doctoral research in architecture, urban design, urban planning, and landscape architecture focusing on the urban challenges related to the inherited environment of post-socialist cities in Central and Eastern Europe (CEE) and post-Soviet Asia.

DOCONF2023 proposed five thematic sessions: leiscapes, industrial sites, mass housing neighbourhoods, public spaces, and heritage. Each session was prepared, proofread, and moderated by members of the scientific board, who are university teachers, and in most cases also doctoral supervisors either at the BME Department of Urban Planning and Design, Budapest, at a university in another post-socialist city (Belgrade, Bratislava, Bucharest, Cluj, Prague, Sofia) or in a Western country (France, Germany, Italy, Netherland, Scotland, Switzerland).

The organizers, the BME Department of Urban Planning and Design and the Foundation for Urban Design wish to promote international cooperation facilitating academic network building for scholars active in these specific fields of research through meeting in person to teach and learn from each other. Nevertheless, DOCONF2023 featured successive sessions consisting of presentations and discussions among scholars. This year the selected 36 speakers - doctoral students, candidates, and post-doctoral researchers (holding a doctorate degree for less than 5 years at the time of the conference) - study at various doctoral schools of thirteen European countries and make their research on post-socialist urban issues. We believe that the DOCONF conference series is an important step towards learning about each other's research fields, comparing research methods, giving presentations, and writing academic papers published in this open access, double proofread e-Proceedings.

As DOCONF's Founder and Chair, I would like to thank you all for being active in this shared experience, working on (preparing or proofreading) papers, and presenting and participating in the discussions in Budapest on October 5th, 6th and 7th, 2023. In addition, I would like to say a big thanks to my colleagues, especially Anikó BOSÁNSZKI, Dr Bálint KÁDÁR PhD, Dr Árpád SZABÓ DLA, Dr Domonkos WETTSTEIN PhD, and students at the BME Department of Urban Planning and Design for their contribution to the success of the 5th DOCONF.

I hope that we continue the DOCONF series in Budapest, this exceptional international doctoral meeting, and we contribute to the learning and teaching activity of the future generation scholars focusing on the challenges of the post-socialist urban heritage.

<http://doconf.architect.bme.hu/>  
See you in 2025!

Budapest, 07<sup>th</sup> October 2023

Dr. Melinda BENKŐ habil. Ph.D.  
Founder and Chair of DOCONF series







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## PROGRAMME & CONTENTS

**5<sup>th</sup> OCT 2023 / THURSDAY**venue: BME, 1111 Budapest, Műegyetem rkp. 3. / 2<sup>nd</sup>. floor room 10

17:00pm – 18.00pm BME guided walk

18:00pm – 21.00pm OPENING

Prof. János LEVENDOVSKY DSc / Vice-Rector for Science and Innovation,  
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Sciences

**6<sup>th</sup> OCT 2023 / FRIDAY**venue: BME, 1111 Budapest, Műegyetem rkp. 3. / 2<sup>nd</sup>. floor room 10

9:00am – 11:00am LEISURESCAPES

Chairs:

Dr. Domonkos WETTSTEIN PhD / BME, Budapest, Hu

Dr. Dániel KISS PhD / Zürich, Ch

Dr. Federica VISCONTI PhD / Naples, I

Ágnes BERTYÁK / BME, Budapest, Hu p090  
co-author: Dr. Kornélia KISSFAZEKAS PhD / Hu-BME  
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Elena ANDONOVA / Madrid E p030  
co-author: Prof. María Cristina GARCÍA GONZÁLEZ PhD  
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Alexandra Ioana RADU / Bucharest, Ro p306  
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Károly ZUBEK / BME, Budapest, Hu p432  
*Late modern architectural heritage of Balatonalmádi in the online space*

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Chairs:

Dr. Árpád SZABÓ DLA / BME, Budapest, Hu

Dr. Willemijn Wilms FLOET PhD / Delft, NI

Prof. Angelica STAN PhD / Bucharest, Ro

Dóra SZUSZIK / BME, Budapest, Hu p376  
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Ana Ileana ABOS / Cluj, Ro p018  
*The transformation of the city centre image after 1948: A case study of Toplița and Tg. Mureș*

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Chairs:

Dr. Melinda BENKŐ habil. PhD / BME, Budapest, Hu

Prof. Miles GLENDINNING PhD / Edinburg, Sco

Dr. David TICHY habil PhD / Prague, Cz

Bence BENE / BME, Budapest, Hu p078  
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Olesya CHAGOVETS / Kharkiv, Ukr p116  
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**7<sup>th</sup> OCT 2023 / SATURDAY**

Venue: KÉK, 1111 Budapest, Bartók Béla út 10-12.

**9:00am – 11:00am PUBLIC SPACES**

Chairs:

Prof. Endre VÁNYOLÓS DLA / Cluj, Ro  
 Dr. Melinda BENKŐ habil PhD / BME, Budapest, Hu  
 Prof. Aleksandra DJUKIĆ PhD / Belgrade, Srb

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Chairs:

Dr. Bálint KÁDÁR PhD / BME, Budapest, Hu

Prof. Richard KLEIN PhD HDR / Lille, F

Dr. Veneta ZLATINA-PAVLOVA PhD / Sofia, Bg

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Heritage*





## FULL PAPERS

# The Transformation of the City Centre Image After 1948: A Case Study of Toplița and Tg. Mureș

Ana Ileana ABOS

PhD student  
Technical University Cluj-Napoca  
Faculty of Architecture and Urban Planning

## ABSTRACT

*Romanian cities were altered or rebuilt to reflect communist ideology after becoming communist in 1948. City structures have been redesigned. They were to become industrial cities, according to Communist authorities. Even now, these changes affect. The historical centres of Toplița and Târgu Mureșului are the subjects of the current study, which looks at changes after communism. Toplița became a city in 1952. Between 1977 and 1984, communists demolished the local historical centre. Apartment buildings have replaced many previously standing buildings in this area. In this region, the forced industrialization and transformation of a village into a city illustrate communist ideology in Romania. Târgu Mureș's historical centre could not undergo drastic changes before the 1970s. The 18th-century Franciscan monastery was destroyed in 1971. Only the bell tower survived. The national theatre, residences, and commercial buildings were built there. As a result, a new city centre was created. The two cities' historic centres show how the urban architectural landscape changed during the communist era. They also depict the difficulties they faced after 1990. After 1990, these cities sought to redefine their role in society.*

## KEYWORDS

*Târgu Mureș, Toplița, communism, architecture, Mureș Valley*



## 1. Introduction

The present study illustrates two aspects of the influence of communism on architecture in Romania. We chose the two cities because each one exemplifies an aspect of communist policy in Romania regarding architecture. The first town, Toplița, (*Maroshévíz*, in Hungarian), today in Harghita County, comes to exemplify the transformation of a village into a city under forced industrialization. The second one, Târgu Mureș, (*Marosvásárhely* in Hungarian) today in Mureș County presents the situation encountered in towns with a long urban tradition. Through the transformations brought about, essential elements of the cultural landscape have been modified and sometimes even lost. There have been changes in the cultural landscape of these localities because of the transformations that have taken place in their historical centres. Because there were few historic buildings left in the city of Toplița, the city was subjected to various changes. Most of the historic buildings in Târgu Mureș are still standing today.

There are studies and books about the impact of communism on architecture, especially after the year 2000. Ana Maria Zahariade, signs one of the written works entitled „Architecture in Communist Projects. Romania 1944-1989”. The book includes five essays written between 2002 and 2007 that try to decipher the meaning of how architecture evolved during communism. The architect Ion Mircea Enescu signs the work "Architect under Communism," in which he reveals the working postures of an architect during the communist period. Irina Tulbure writes about architecture from the first stage of communism in Romania in the work "Architecture and Urbanism in Romania 1944–1960." The author presents how architects adapted their works, respecting the measures imposed by communism. "Architecture" magazine most faithfully illustrates the political intrusion in the way of building and reporting on heritage during the communist period. Between 1960 and 1979, the articles illustrated the measures taken by the communist authorities. A justification was sought for forced industrialization and the transformation of villages into urban settlements. But at the same time, efforts were being made to save the valuable core of the city. The architects advocated for the preservation of the specifics of historical centres. One of the architects of that time, Grigore Ionescu, drew attention in 1966 to the enhancement of the old architectural ensembles in the cities (Ionescu, G.1966). A few years later, the same architect wrote about the importance of preserving architectural ensembles and historically constituted urban centers (Ionescu, G.1972). In 1970, the Union of Romanian Architects sent a letter to Nicolae Ceaușescu, the president of Romania, in which he emphasised the importance of architects in the design of future architectural ensembles in Romania. A year later, the architect A. Defaur wrote about the danger of increasing industrialization on the environment (Defaur, A.1971). In 1972, the architect H. Stahl presented in numbers the evolution of the transformation of villages into cities. Thus, in 1956, there were 171 cities in Romania. 10 years later, their number increased to 183, and in 1972, to 283 (Stahl, H.1972) This fact illustrates the impact of forced industrialization. Thus, entire neighbourhoods of blocks of flats and apartments are built in the cities. Another article from 1977 mentioned that 120 urban centres were to be boosted in development to reach the level at which they could be declared cities. A prediction was made that by 1990, the average percentage of urban population growth would be 118.2%.

Starting in 1981, the first issue of each magazine opened with fragments of Nicolae Ceaușescu's political speeches. It was the period when the cult of personality took off, a fact reflected in the architecture of the cities. They wanted to erase every

trace of the past; in its place, they wanted to impose a "new society". In our study, we started with two questions:

1. How much has been preserved in the historical centres?
2. When did the destruction of the historical centres begin?

We found the answer to the two questions in the study of historical maps and in the investigation of the two historical centres of the cities that are in the Mureş Valley. Another important part of the research was the bibliographic study. In the "Arhitectura" magazine, the city of Târgu Mureş benefited from articles about the transformations that occurred in the historic centre, but nothing was written about the transformations in the centre of Topliţa.

## 2. Mureş Valley

Transylvania's Mureş Valley is one of the most picturesque areas. A diverse cultural environment characterises this region. The same-named river passes through it. Natural relief is enhanced by mountains, hills, plateaus, and plains (See Figure 1). It is in Romania's western and central regions. Due to its distinctive landscapes, it is considered a meeting place between man and nature. Some localities in the valley still maintain long-standing traditions relating to their ethnographic locales, cuisine, and culture.

Urban development was natural until 1945. Townships experienced urban development changes after 1950 due to industrialization. Communism wanted to create "modern spaces" that reflected the communist ideology. In the first part of the action plan for city systematisation, historical buildings were recommended to be saved. The first stage of their systematisation took place in the historical centres of the localities. Architecture in the second half of the 20th century experienced three distinct evolutionary stages. These stages mirror political measures. The first stage began immediately after communism was established in 1948. The architects were forced to create according to instructions from Moscow. Soviet architecture was a strong influence, representing the model to be followed. The second stage was that of the 1960s, when, from an ideological point of view, a slight relaxation was felt. Architects designed buildings with freedom of expression. This is reflected in the buildings' facades. The third stage began after 1971. Politically, the cult of personality was imposed. It was the stage of megalomaniac construction when significant components of the cultural landscape were destroyed. Communism wanted to create urban centres in cities that mirrored "society's development at its highest heights."



Figure 1. Mureş valley landscape (Source: personal photos)

The present study examines architectural transformations in two cities' centres. Through communism's alterations, essential elements of architecture have been modified and sometimes lost. Topliţa (Maroshévíz, in Hungarian), in Harghita County and Târgu Mureş (Marosvásárhely in Hungarian) in Mureş County, are two localities that reflect these stages of communist architecture from the second half of the 20th century. There have been changes in the cultural landscape of these localities because of past centre transformations. Because Topliţa had few historic buildings, the city underwent various changes. Most of Târgu Mureş's historic buildings still stand.

### 3. The historical context in Târgu Mureş and Topliţa

Both localities are in Transylvania on the banks of the Mureş River and were documented in the Middle Ages. Topliţa remained rural until the 20th century. Târgu Mureş became a city in the 15th century.

#### 3.1. Târgu- Mureş



Figure 2. Târgu Mureş. The centre of the town in the XX century. (Source: <https://maps.arcanum.com>.)

Târgu Mureş is mentioned in a document in 1332 as *Novum Forum Siculorum* (Popa T., 1932). During the 14th and 16th centuries, the town became an urban centre. On April 29, 1616, Prince Gabriel Bethlen granted privileges to this city, becoming a "royal free city". Its name was changed to *Marosvásárhely* (Pintér, Z. 2019). In the 17th century, it already had 22 guilds, which increased in the following centuries (Nagy Z., 2015). In the 16th and 17th centuries, the city served as the venue for the Transylvanian Diet (Hossu O, 1981). In the 19th century, the town became a major cultural centre in Transylvania. Chancellor Samuel Teleki establishes the first public library in Transylvania. Additionally, the town also had a printing house. The city also became a significant judicial centre during this time. The *Tabula Regia Judiciara*, which served as Transylvania's highest court until the end of the 19th century, was moved to the city (Zágoni, B. 2013). At the beginning of the 20th century, the town was a significant cultural centre in Transylvania. The downtown historic city's architectural landscape combines several architectural styles: Gothic, Baroque and Secession.

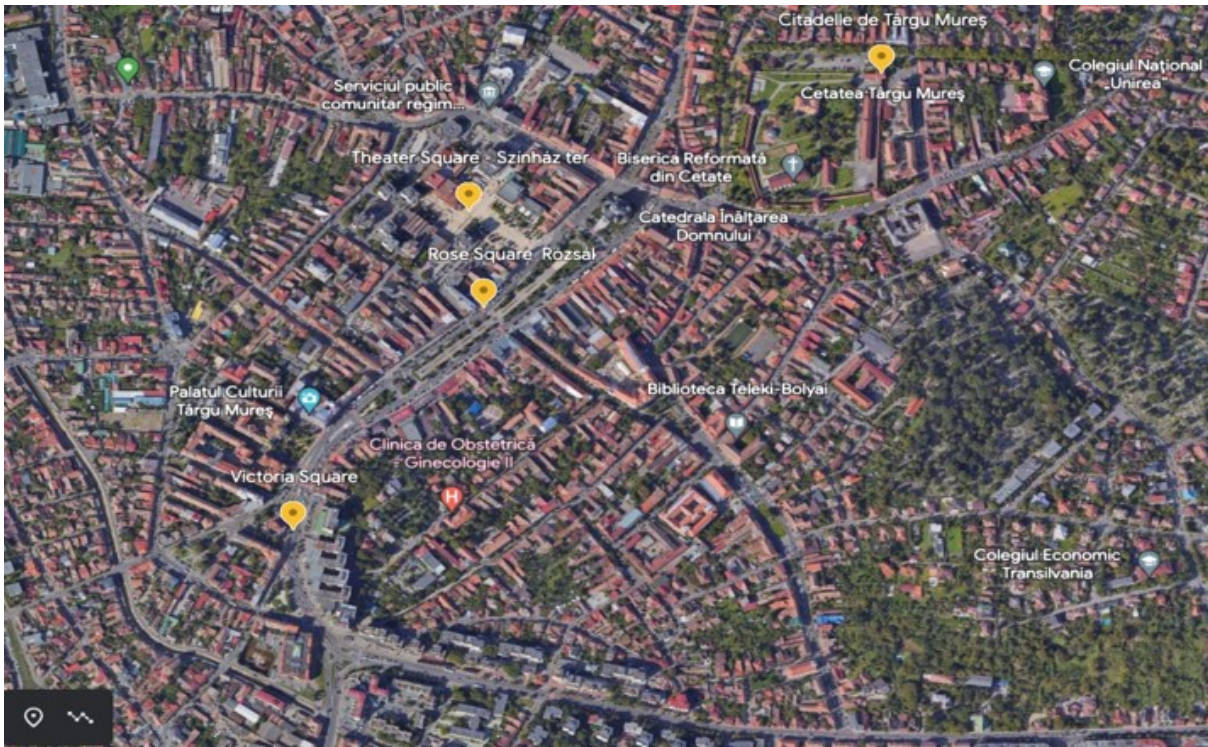


Figure 3. Târgu Mureş in the XIX century (Source: Google Earth)



## 3.2. Toplița



Figure 4. Toplița in the XIX century. (Source : <https://maps.arcanum.com/>)

Before 1228, the area belonged to Simon Bán. After that, the Bánffy family received ownership and held onto their sizable estates until 1945. Kozma Petrievi established the settlement in 1567 on land belonging to Pál Bánffy and gave the location the name Taplócza (Czirják, K,2012). The Urmánczyi family settled in Toplița after 1836 (Bicsok, Z., Orbán, Z. 2011). The family members constructed and acquired several buildings over time. The "Urmánczy Row" in the settlement's centre was the most significant of them. Urmánczys purchased a thermal bath from the Lázár family around 1870 (Csatlos Blaga, M. C., 2009). The Urmánczy Baths and the family houses in Toplița's centre were connected by a cosy park with walkways. Jeromos Urmánczy used the funds obtained from the expropriation of railway lands to build Urmánczy Castle between 1903 and 1906.

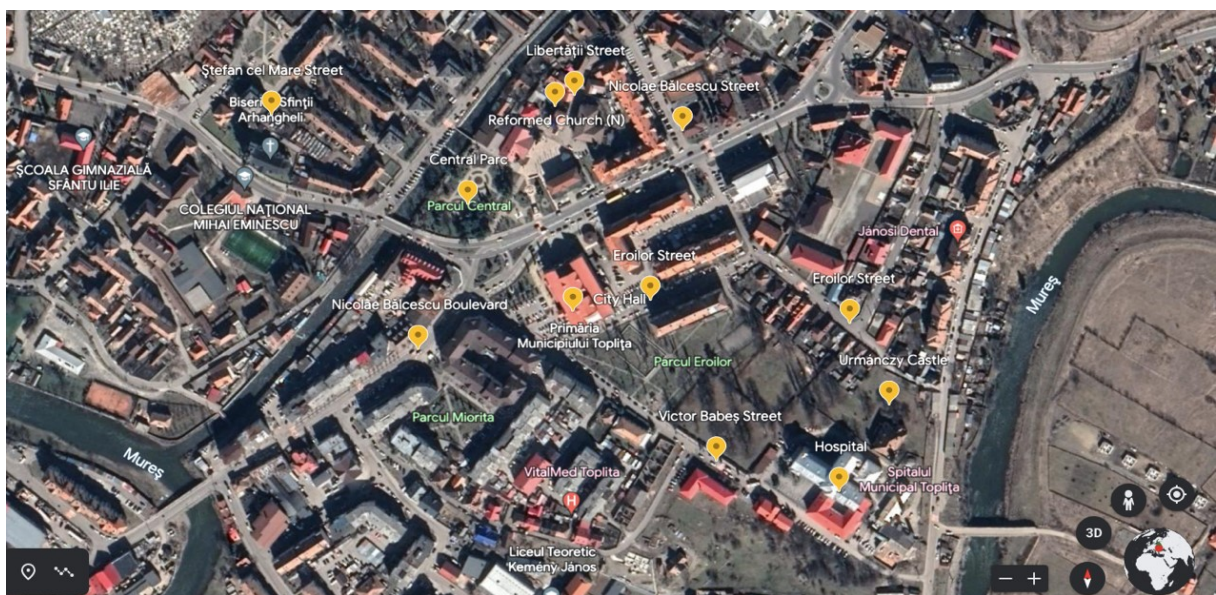


Figure 5. Toplița, in the XX century. (Source: Google Earth)

## 4. The historical centres of Târgu Mureş and Toplita

### 4.1. The historical centre of Târgu Mureş during the communist period

#### 4.1.1. 1958-1962

Târgu Mureş's historical centre includes two squares, Piața Trandafirilor (Rose Square) and Piața Victoriei (Victorian Square) (Figure 2). Initially, the historic centre was formed from Piața Trandafirilor, from where it naturally evolved as the city grew, expanding to Piața Victoriei. After 1949, the city centre offered few places for Communist Party architecture to make its presence felt. However, several buildings without architectural value were demolished. Blocks were erected instead of these structures.


The restructuring works in the central area, especially Roses Square, were carried out without a unitary project design (Varnay, A., 1966). In the first stage, buildings near the Palace of Culture were demolished. Here, at no. 27–29, a block called the Horea Block was built. The architect was Emil Truță (Man I. E., 2011). He designed a block with a ground floor and four floors that included 36 apartments. Commercial spaces were planned on the ground floor. This was where Gulliver's Galleries operated.



Figure 6. Târgu-Mureş, the centre of the town in the XX century. (Source: personal archive, personal conception). 1,2,3,5,7, Piața Trandafirilor, 4. Piața Victoriei, 8,9,10,11 Piața 6. Târgu Mureş on Google Earth.

#### 4.1.1.1. Piața Trandafirilor- Roses Square

On the opposite side of the Horea block, approximately opposite it, three blocks were erected. The first, located at No. 34-35, had a cinema on the ground floor (Arta Cinema) with 800 seats. The architect of this block was Mircea Damian (Man I. E., 2011). The block had three levels above the cinema and housed 32 apartments. After 2000, the ground floor was profoundly modified. At No. 36-38, architect Lucian Popescu designed a block on four levels that brought together 32 apartments (Man I.



E., 2011). Commercial spaces were on the ground floor. Attached to this block, at no. 39-41, Dée Francisc built a three-story building. The block has 32 apartments. Commercial spaces were intended for the ground floor. In this space, there was a grocery store called "Extra". On the same side of No. 33, the architect Lucian Popescu designed a block of four buildings. The complex includes 72 apartments on five levels. The ground floor was intended for commercial premises. (Man I. E., 2011).

Located at No. 46-47, the old Hotel Transilvania, built in the 19th century, was demolished in 1959. It was in an advanced state of decay. A hotel with the same name is built there. The hotel had five levels. At the beginning of the 1980s, the facade was modified. At number 50, an old building is demolished, and a National Bank branch is erected in its place. At the front, there was a storied building with a ground floor and two levels, and at the back, there was only a ground floor. Construction was completed between 1961 and 1962 (Man I. E., 2011). With this construction, the first stage of the historical centre's transformation ends.

#### **4.1.1.2. Piața Victoriei- Victoria Square**

Two blocks are being constructed in Piața Victoria. At No. 11-13) after the old buildings are demolished, a 5-level block is constructed, ground floor plus four floors (Man I. E., 2011). The 1960-built block included 32 apartments. At No. 30, a three-level block is being built between two historic buildings. Architect Sofia Popescu designed a block with a ground floor, a mezzanine and three levels. (Man I. E., 2011). The ground floor and the mezzanine communicate through a free internal staircase curve. The ground floor space has windows throughout the rooms.

#### **4.1.2. 1968-1978**

##### **4.1.2.1. Piața Victoriei- Victoria Square**

In 1973, the Grand Hotel was inaugurated in Victoria Square at nr. 26-36 (Man I. E., 2011). Lucian Popescu designed this building. The documentation for the acquisition of the land needed to build the hotel was completed in 1967-1968. The hotel building is located near some historical buildings. The location of the building required the demolition of old buildings. Blocks were built next to this hotel. The architects were Puskás Alexandru in collaboration with Bartha Carol and Puskás Emöke. Here, a set of eight blocks with 12 levels each was designed. On the first two levels, there were commercial spaces. The entire complex has 188 apartments. The "Telephone Palace" or "Posta Mare" building was erected near the blocks. The architect was Mircea Damian, and the construction was built between 1969-1970 (Man I. E., 2011). It is an imposing building that unfolds over eight levels.

##### **4.1.2.2. Piața Teatrului-Theater Square**

The theatre square is one of the newest squares in the city. As a result of extensive arrangement and systematization in Rose Square, it was established. In 1970, the work began (Săvescu, C., 1970). To create this square, the Franciscan church and monastery were demolished. Only the bell tower and the tomb gallery under the church have been preserved. A presidential decree was issued for the expropriation of these lands. In this square, a theatre, a hotel, commercial galleries, and residential blocks were planned to be built. It should be mentioned that at the local level, the demolition of the Franciscan church was initially rejected, which is precisely

why a presidential decree was issued. An architecture competition for the National Theater building was launched. This competition was won by architect Constantin Săvescu, from Bucharest. He collaborated with the architects Vladimir Savu, Mihaela Savu and Aurel Știrbei. Their work was awarded in 1973 by the Union of Architects (Man I. E., 2011). In the centre of the square, the theatre building was built on one side and commercial galleries were placed on the other side of the theatre: "Luxor" and "Luxor Junior". These buildings had 10-story blocks nearby. The ground floor of these buildings was intended for commercial use. The entire complex included 256 apartments. The "Continental" hotel was built on the right side of the theatre. It was raised in 1979 to 11 levels (Man I. E., 2011).

**4.2. The historical centre of Toplița during the communist period**


This locality, at the end of the 19th century and in the first half of the 20th century, evolved from a village to a locality where urban characteristics could be seen, especially in its centre. We can't talk about a city yet.

Between 1977 and 1984, the historic centre was demolished (Czirják, K., 2012). The layout of the streets was also altered. Another one was born to the south of the historic centre. Blocks were arranged along main streets, including Nicolae Bălcescu, Victor Babeș, and Stefan Cel Mare, which are still in use today. A city hotel was constructed in 1983. In 1979, Nicolae Bălcescu Street was constructed. Victor Babeș Street was built in the three years between 1980 and 1983. They were constructed in 1982 beside Eroilor Street. On Sportivilor Street, a building was constructed next to the castle. Although the town hall was started in 1982, it wasn't finished until 1989. Between 2008 and 2009, it was in use. The structure was intended to be a theatre in the beginning.



Figure 7. Toplița, the new centre in the XX century. (Source: personal archive, personal conception). 1-2. Ștefan cel Mare Street, 3-4. Nicolae Bălcescu Street, 5. The old centre of Toplița, photos on Urmânczy Castle wall, 6-7. The old Toplița centre in 2023, 8. Nicolae Bălcescu Boulevard, 9. Centre of Toplița in 2023, 10. An image of the court of Urmânczy Castel in 2023. 11. Block in Victor Babeș Street, 12. Toplița on Google Earth.

The historic centre started to be destroyed with the building of the factory and the blocks along Stefan Cel Mare Street. As a result, 53 structures in the old centre and "Urmânczy Row" were demolished. As a result, 53 structures in the old centre and "Urmânczy Row" were demolished.



Libertății Street, which starts from the Reformed Church, still preserves the houses, but very few retain their original appearance. Near the church, there was a pharmacy called the Dezső pharmacy. It was demolished in 1950.

## 5. Conclusions

Communism meant drastic changes for both localities. This change was reflected in the centres of both cities for the simple reason that communism wanted to eliminate everything before 1948. The old centre of Toplița disappeared, and together with the constructions, the Urmánczy family memory also disappeared from the collective mind. It is only the castle that reminds us of this family today. Toplița's books, even after 1989, mention Urmánczy rarely. This is only in connection with the school's establishment. It is about Romanian books. In Toplița, not only was the community's past torn down, but also a part of history was erased. In the old centre, only the Reform Church was preserved as it was built. The streets not targeted for the development centre were not demolished. After communism collapsed, accommodation and adaptation followed. The buildings continued to suffer, but this time due to indifference and neglect. It was the facades that recorded these situations. The newly constructed town hall opened in 2008. In the 2000s, the centre's appearance changed. The two parks were redeveloped, and this contributed to the city's cultural landscape change. The thermal rehabilitation of some blocks also contributed to changing the centre's architectural landscape. The transformation of some blocks into commercial spaces has created an unsightly appearance in the city centre. However, the city is searching for its destiny, and beauty is part of it.

Târgu Mureș's historic centre has lost fewer buildings than Toplița. Even if some of these structures have undergone transformations or degradation, they are still well preserved. There has always been a concern about the preservation of these monuments, even if their colour has suffered at times. The hardest loss in the city centre was the Franciscan church and monastery in Theater Square. From an architectural point of view, the theatre building was a well-thought-out project for the period in which it was built, and the architects sought and found aesthetic solutions to produce as much harm as possible. The key thing is that these solutions considered the surrounding historical buildings and sought to save everything that could be saved. This was under dictatorship conditions and the institutions in Bucharest decided what was happening in Târgu Mureș. The Theater Market has experienced a degradation process in recent years, and solutions to stop this degradation are still unknown. The theatre market needs quick intervention to stop this degradation process. In Piața Trandafirilor, the architects considered projects through which constructions could be constructed. Constructions such as these would consider the area in which they were placed and not appear discordant. In Piața Trandafirilor, integration into the area's architectural landscape was sought. This was partially possible in Piața Victoriei up to the Grand Hotel. Everything built after 1977 created grandeur. There is still a strong impression of the blocks built on the right side of the hotel and the Telephone Palace in Piața Victoriei. Building these blocks in a cascade system was an ingenious solution to residential architecture. The blocks in Piața Teatrului were not valuable to the cultural landscape. We believe that if communism had not collapsed in 1989, a large part of the monument buildings in the historic centre of the city would have been demolished. Today, the city implicitly values these monuments and their history.

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# Sur les pavés, la plage! Self-Management Shaped Leisure, Post-Socialism Denounced It: A Case Study of SRC Treska

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## ABSTRACT

*This paper examines to what degree the transition from a socialist to a neoliberal capitalist system influenced the city's management of urban space. Socialist ideals emphasized the collective provision of public goods and equitable resource distribution, with green areas and recreational spaces reflecting a vision of communal ownership and participation. However, the post-socialist system led to the commodification and privatization of urban space with the collective ethos of socialist urban planning giving way to a lack of moral certainty and apparent authority, resulting in a chaotic pattern of development. This study delves into the interplay between shifting ideologies, urban development, and the erosion of community-oriented planning using the Sports Recreational Centre (SRC) Treska as a case study. The study employs case study methodology, drawing from primary and secondary sources, on-site observations, and documentary analysis. The study reveals the negative consequences of neglecting community-oriented principles, and the loss of public participation in shaping the built environment. This study highlights urban planning's entwinement with socio-political and economic shifts. The transformation of SRC Treska signifies the erosion of collective efforts and the commodification of public areas. Urban planning's interplay with wider transformations underscores the need for inclusive, community-driven development.*

## KEYWORDS

*community-oriented planning principles, recreational spaces, workers' self-management, commodification of urban space*



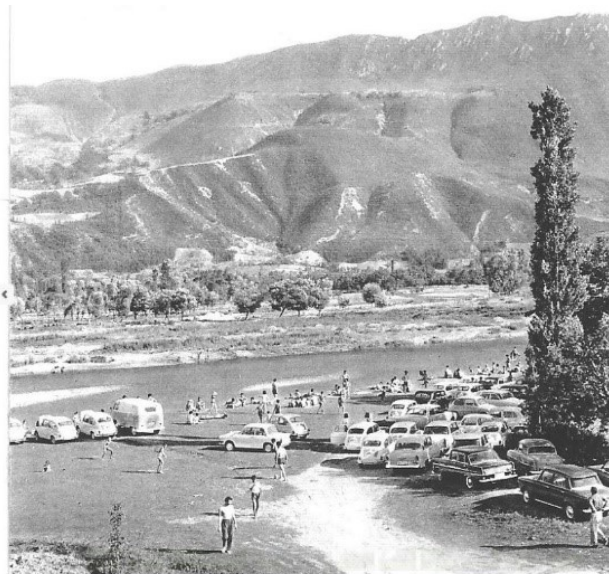


Figure 1. Leisure time at river Treska (Source: marh.mk)

## 1. Introduction

Urban planning practices are intricately linked to the socio-political and economic contexts in which cities operate. Skopje, the capital of North Macedonia, experienced a significant shift in its urban development in the '90s following the transition from a socialist system under the Socialist Federal Republic of Yugoslavia to a neoliberal capitalist system. This transition brought on changes in the socio-economic structure and governance systems and profoundly impacted the perception, generation and management of urban space.

This study delves into the complex interplay between shifting ideologies, urban development, and the erosion of community-oriented planning principles. The objective is to examine how the transition affected community-oriented planning principles and public spaces within the city. By analyzing the shifts in planning ideologies and their impact on public spaces, the study aims to shed light on the challenges, consequences, and lessons learned from this transformation. By employing a single case study as a methodological approach this research aims to achieve a deeper understanding of the intricate dynamics involved. In addition to the scientific literature, the sources of the research are provided by the examination of primary and secondary sources regarding the case study in question, and on-site observations, supplemented by documentary analysis of historical and current urban plans. The selected case study is the Sports Recreational Centre (SRC) Treska, a former focal point for leisure under SFR Yugoslavia, now a marred artefact fading from collective memory.

## 2. Shifting Ideologies and the Erosion of Community-Oriented Principles

During the post-World War II period, Yugoslavia's urban development and that of Skopje adhered to the principles of socialist modernization, characterized by rapid urbanization, industrialization, and functional zoning. The societal ideals of the time emphasized the collective provision of public goods and the equitable distribution of resources (Blagojević & Perić, 2021; Živaka, Marjanović, & Ivanišević, 2021). Green areas and recreational spaces were considered essential components of the urban

fabric, catering to the well-being and social needs of the residents. These spaces reflected the socialist vision of communal ownership and collective participation in urban planning.

In comparison to the countries of Central and Eastern Europe, SFR Yugoslavia showcased distinct political and economic characteristics. These dynamics set the groundwork for understanding the subsequent shifts in planning and development. Following the split from the USSR in 1948, Yugoslavia adopted a unique form of socialist organization called workers' self-management (Ardalan, 1980; Flaherty, 2003). Despite retaining the fundamental traits of a socialist country, Yugoslavia introduced certain innovations, such as stronger ties with Western capitalist nations, a combination of planned and market-oriented elements in the economy, and increased territorial decentralization (Margold, 1967). As a result, the country experienced overall socio-economic progress, a higher standard of living for its citizens and a lower level of under-urbanization (Vujovic & Petrovic, 2007). Workers' self-management had a profound influence on the spatial landscape of Yugoslav cities (Simmie, 1989). It played a significant role in key sectors of the socialist state such as leisure and recreation, which aimed to improve the quality of life of the emerging Yugoslav working class (Hannes Grandits & Taylor, 2010).

The citizens actively participated in the construction and development of leisure recreational areas through self-contribution and youth labour brigades (Mithans, 2022; Baković, 2015). These brigades, consisting of young volunteers, actively engaged in physical labour and construction tasks under the guidance of experienced workers and professionals. They contributed their time and effort during summer breaks or as part of organized youth work camps. This practice extended beyond recreational areas to other aspects of urban development, including housing construction, infrastructure projects, and cultural facilities. It is worth noting that while these practices promoted citizen engagement and collective action, they were also influenced by the state's top-down planning and decision-making processes.

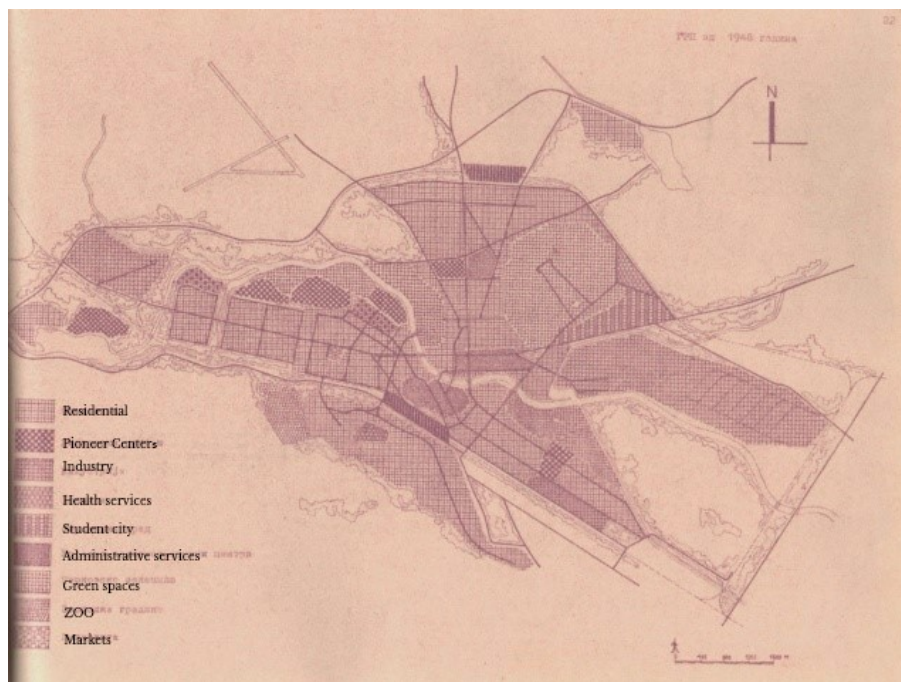
In the post-socialist city, the adoption of market-oriented policies, privatization of state-owned assets, and the emphasis on attracting foreign investment brought forth new dynamics in urban planning and space production (Vives Miró, 2011). With the dissolution of Yugoslavia and the subsequent transition to a neoliberal capitalist system, the urban context of Skopje underwent significant transformations (Bouzarovski, 2011; Mariotti & Hess, 2021; Stefanovska & Kozelj, 2012). These shifts represented a pivotal moment that redefined urban planning paradigms and had far-reaching implications for the management of public spaces. The collective ethos of socialist urban planning gave way to a lack of moral certainty and apparent authority, resulting in a chaotic development pattern (Stanilov, 2007). The focus shifted from the provision of public goods for the collective benefit to the commodification and privatization of urban space. This shift had implications for public spaces, including green and recreational areas, which became subject to market-driven decisions and private interests (Kronenberg et al., 2020; Badiu et al., 2019). Additionally, burdened by processes of privatization and denationalization, coupled with a diminished sense of community and declining interest in communal activities, these spaces are becoming obsolete.

### 3. From Socialist Vision to Post-Socialist Realities

#### 3.1. Green Spaces in Skopje's Urban Development

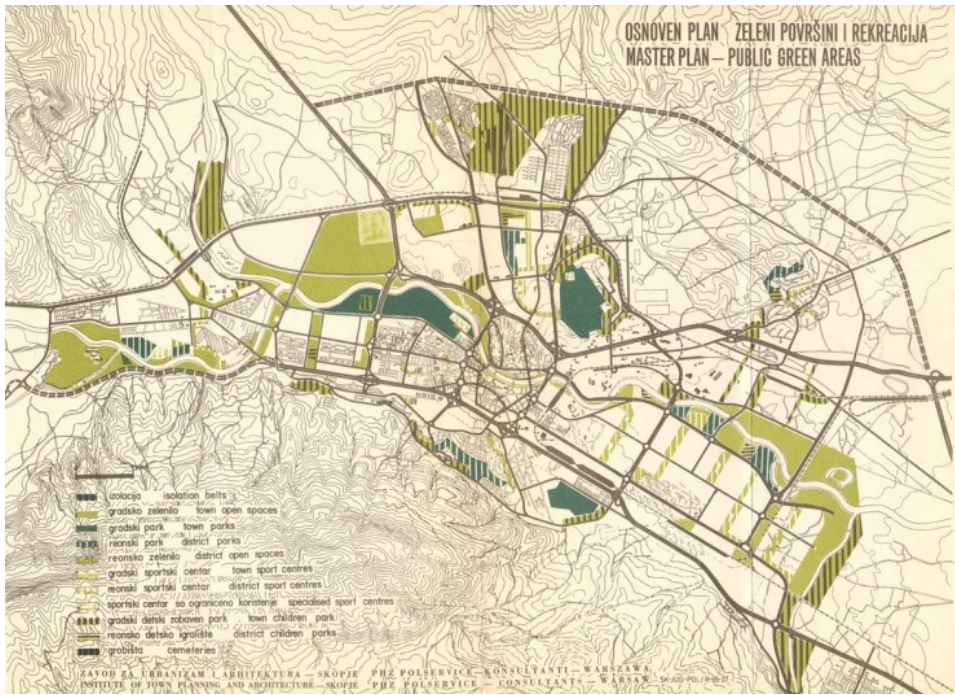
With the emergence of the urban planning practice in Skopje, the planning of green areas and recreational uses gained traction effectively establishing the green infrastructure of the city. Following World War II, Skopje's development was influenced by the principles of CIAM and the concept of the modern city. The distancing from Soviet ties initiated a new discourse in Yugoslav culture and architecture with rapid urbanization, cityscape transformation, industrialization and city zoning, with the principles of the functionalist city model as well as the International Style becoming the brand of socialist modernization.

The general urban plan of 1948 by Ludjek Kubesh set the course for the city's extensive expansion. The plan makes clear distinctions and systematization of the city zones and proposes future development based on topographical conditions following in the eastern, western, and northern directions. On the southside, the hillside of the Vodno mountain was marked as a major recreational zone, as was the zone around the river Vardar going through the city. Major recreational zones are proposed on the former outskirts of the city such as the park at the Gazi Baba hill to the northeast, the recreational belt zone Saraj-Matka, the hillside of the mountain Skopska Crna Gora to the north etc.

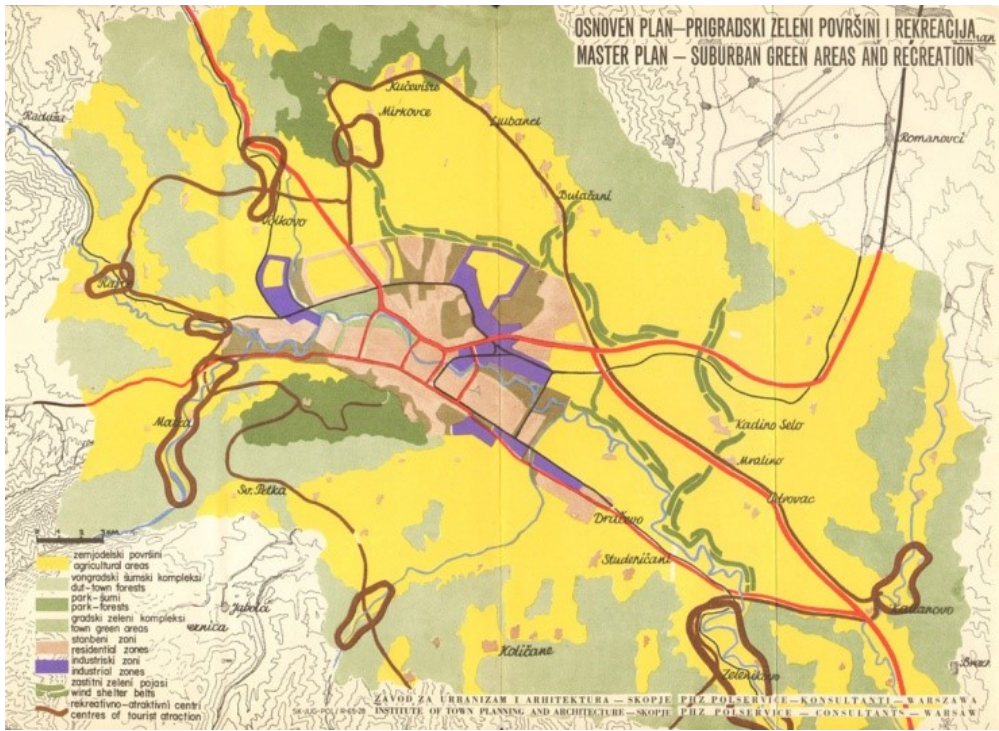


*General urban plan of Skopje, 1948. Saraj is marked as a pioneers' center- recreation and entertainment for children. Edited by the Author. (Source: Pota & Bogoevic Kumbaradzi)*

The catastrophic earthquake in 1963 disrupted Skopje's development and presented unexpected challenges and opportunities for its urban growth. This led to the formulation of the 1965 plan for Skopje and its periphery, a post-earthquake spatial planning effort led by the United Nations, dubbing Skopje the "city of solidarity" (Senior, 1970). However, Kubesh's original vision was not entirely abandoned, and the 1965 plan was devised upon the existing zones designated for housing, industry, recreation, and major transportation routes.



Basic Urban Plan of Skopje, 1965 - Green areas by basic structural units. SRC Saraj is marked as city greenery/town open spaces (Source: BUP, 1965. Book 15)

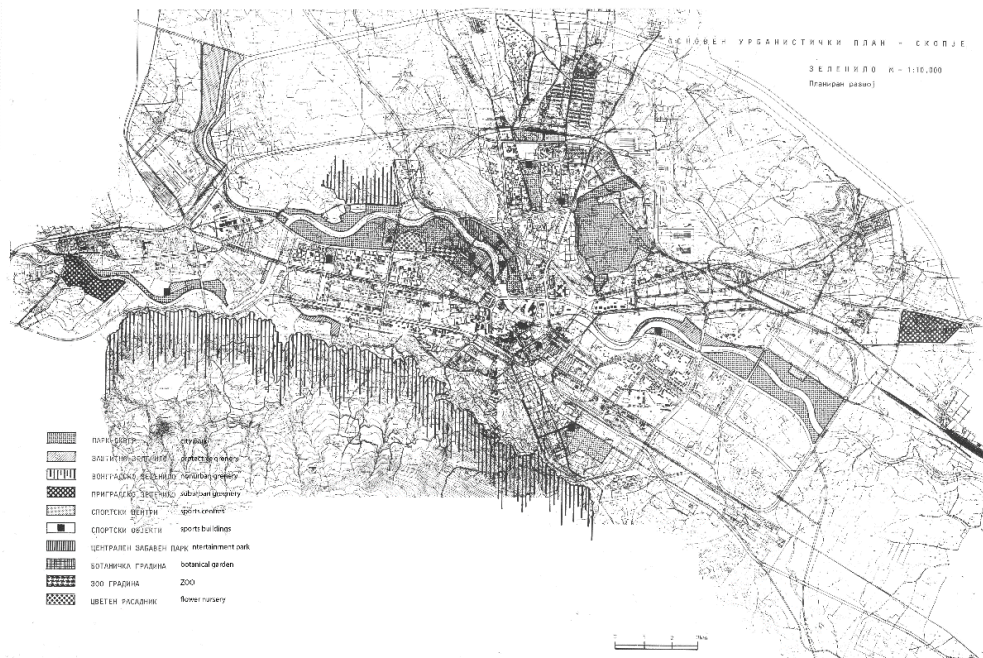


Plan for suburban green areas and recreation, 1965. The Saraj- Matka region is marked as a centre of tourist attraction to the southwest of the city (Source: BUP, 1965. Book 15)

In terms of green and recreational zones, the plan established a system of classification and regulations for these zones. With this system green corridors and connected green areas are proposed at the city level. Several large tourist and recreational centres are planned on the outskirts of the city, including Saraj- Matka.



The main concept behind the Basic Urban Plan of 1985 in terms of green and recreational areas was the making of a singular vegetation system within the city-region scope. The configuration and structure of the Skopje Valley provided favourable conditions for meeting these requirements. According to the plan, the large green oases at the outskirts, the slopes of the surrounding mountains, the rivers' belts and the existing large park areas of the city were to be organized in a system of three city zones. The first zone includes the forest complexes, areas under vegetation and barren lands, agrarian landscapes and protective greenery in addition to the large industrial complexes in the region. The second zone consists of the areas of suburban forested areas, i.e. suburban protective greenery. The third zone is composed of the existing city communal greenery, i.e. the large city parks, the residential-block greenery, the Saraj-Matka recreational centre, the linear greenery along the main roads and the system of tree rows. The plan proposed green belts that connect all three zones in a single circular vegetation system.

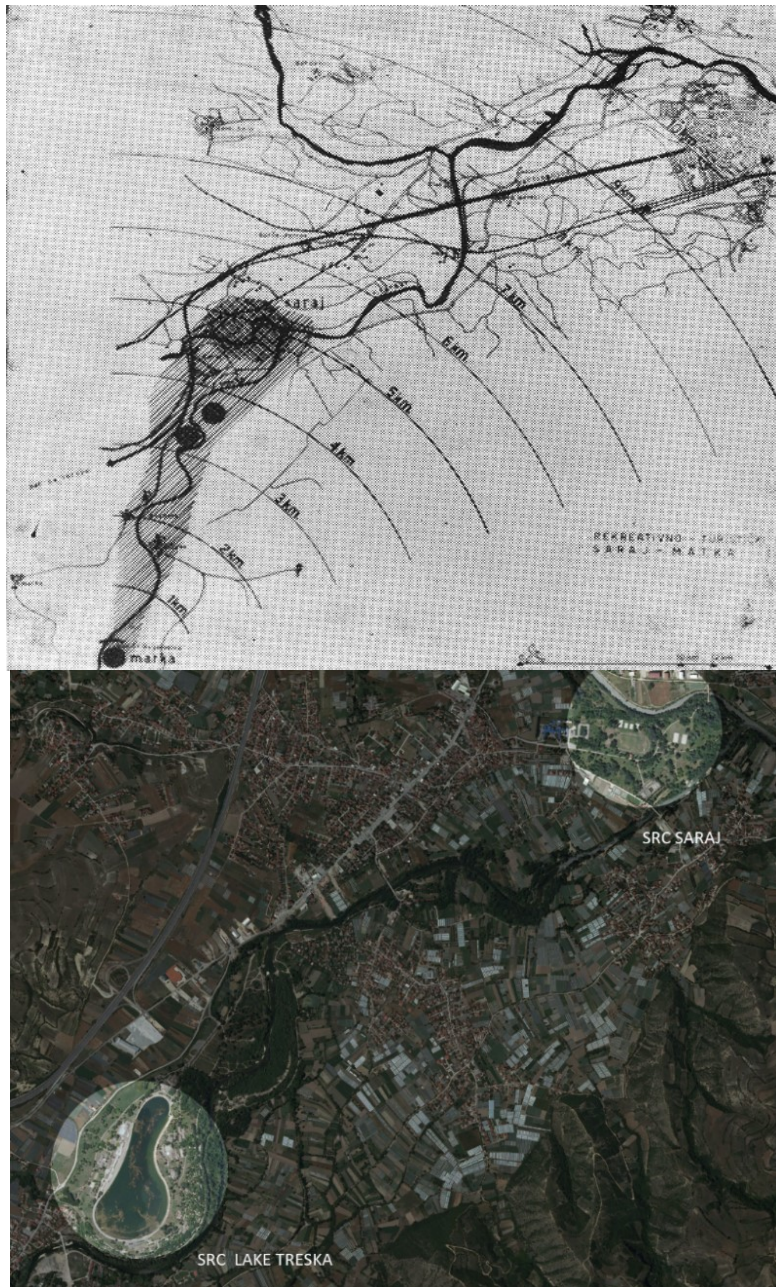


*Basic Urban Plan of Skopje 1985 - Greenery. SRC Saraj is marked as a suburban green area. Edited by the Author (Source: BUP 1985 Book 7. ZUAS, Skopje.)*

The General Urban Plans (2002, 2012) that were drafted after the transition to a neoliberal system of governance follow the ideas for the green and recreational zones to a certain degree. However, a dramatic reduction in the green and recreational areas is noted.

### **3.2. The Evolution of Saraj-Matka and Treska: From Recreation to Transformation**

After WW II, the Saraj-Matka region along the Treska River has been designated for various programs, including sports and recreational activities, children's and youth centres, a city beach, an auto camp, and park areas. The region featured sports fields of different kinds, an excursion segment, utilized as a children's resort and recreation centre, and the Matka Canyon intended for kayaking with accompanying catering facilities. These programs, aligned along the river's course, have collectively formed an attractive recreational zone for the residents of Skopje.

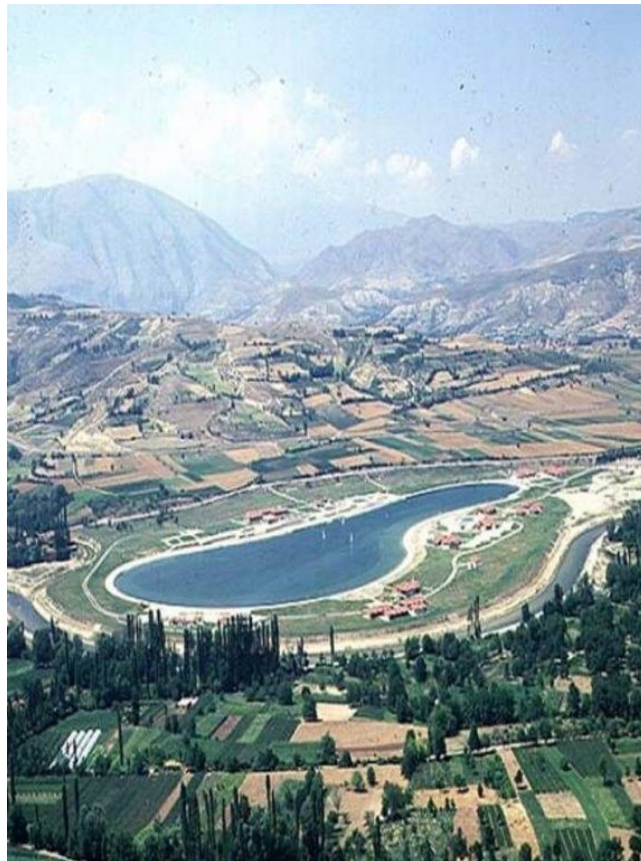


*Saraj-Matka recreational belt. (Source: Skopje plans and realization, 1963. P.77-78; Google Maps edited by the Author)*

SRC Saraj is situated within one of the ten municipalities that constitute the city of Skopje. It holds historical significance as one of the oldest picnic spots in the city, covering an area of 240,000 m<sup>2</sup>. The Center was established in 1948 as part of a larger sports and recreation region envisioned in Kubesh's plan, which included swimming pools, football fields, grandstands, and promenades. In 1955, with the revision of the plan, more recreational facilities were added. The post-earthquake planning further designated Saraj-Matka as a key tourist attraction zone. The ultimate goal was to connect the Saraj-Matka region to the Vodno mountain, creating a unified green system by incorporating green corridors along the city's riverbeds as proposed in the plan of 1985. In 1978, the construction of the artificial lake Treska and its tourist-recreational centre was completed. The lake and centre were made possible through self-financing by citizens donating a percentage of their salary for five years, a decision made by a citizens' referendum.



The project started with the positioning of Lake Treska to the southwest of the city less than 15 km from the city centre. The artificial lake is a concrete pool filled with water from the river, surrounded by a concrete beach. It covers an area of 13 hectares and can accommodate up to 10,000 bathers. The lake is equipped with a purification system that includes sedimentation tanks, an artificial reservoir, and a purification station. The centre features sports and recreational facilities surrounding the lake, such as playgrounds, swimming pools, beaches, parks, promenades, buffets, and kiosks. Additionally, the program includes a camping area with space for trailers and tents, accommodating up to 500 users. All of these facilities are interconnected by walking paths and surrounded by lush greenery.



*Lake Treska after its construction in 1978. (Source: marh.mk)*

However, the initial success story of participatory urban planning was short-lived. The trajectory of change reflects a complex interplay of multifaceted contextual shifts that extend far beyond the realm of urban planning practices delving into property structures, legal frameworks, real estate markets etc.

The urban sprawl, loss of agricultural lands, and inadequate infrastructure for waste disposal had a significant negative impact on Treska's surroundings. Just 20 years after the complex was opened, the lake's waters were deemed unsafe for swimming. The lake became a dumping ground for polluted water, making it unfit for consumption, bathing or irrigation. Consequently, other parts of the complex started to shut down. Despite being promised during mayoral election campaigns, the revitalization of this refuge for Skopje's residents has not been realized even after 25 years. Among the main reasons for the standstill are the insufficient strategic powers on the part of the city of Skopje and the idiosyncratic nature of its territorial and administrative organization.




Lake Treska, 2018 (Source: marh.mk)

Another pivotal juncture materialized with the shift in ownership in 2013. The government transferred ownership of SRC Treska from the city of Skopje's public enterprise Parks and Greenery to the Municipality of Saraj through a government decision. Subsequently, in 2021, the government passed a decision establishing the Saraj-Matka region as a Tourist Development Zone (TRZ). Paradoxically, this decision presented a conundrum: an avenue for revival and a potential conduit for privatization. The Law on TRZ allows any domestic or foreign figure to become an investor and acquire land within the zone. The comprehensive legal framework of the Law on TRZ, replete with incentives for investors, serves as a testament to the multifaceted nature of the forces at play.

The newly established TR zone was defined with an urban plan for non-populated areas for a Sports and Recreational Centre. This type of plan offers more flexibility as it is not bound by the regulations of Skopje's General Urban Plan, and it does not specify land use parameters for each individual plot or the definite allocation of building





surfaces. SRC Treska is now divided into four blocks based on this plan. By examining the proposed land use for each block (block 1 is for sports and recreation, but the Law for Spatial and Urban Planning (2020) allows for up to 40% compatible uses like hotels, commercial units, business units, etc.; block 2 is designated for private dwellings i.e. vacation homes; block 3 is intended for a hotel complex, and block 4 is reserved for a shopping centre), it appears that the centre is on its way to becoming a closed off weekend community, deviating from the principles on which it was originally built—a public good created through direct contributions from the citizens of Skopje.

This transformation, catalyzed by the transition to a market-oriented economy, poses intricate questions about access and equity. What was once a collaborative effort between the state and its citizens should remain accessible to all for fair and sustainable use, rather than being controlled by the influence of private capital.

#### **4. Impacts on Public Spaces in a Post-Socialist Context**

The neoliberal state, as an agent of the market rather than a regulator, has led to the emergence of urban practices that prioritize capitalist production over social reproduction (Smith, 2002). Public goods and common resources, which were once collectively managed and accessible to all citizens, become privatized or controlled by a select few. These processes can result in a loss of community cohesion and a sense of exclusion among different social groups. The transition to a neoliberal society often brings about the commodification of urban space. Public areas and recreational spaces may be transformed into commercialized zones driven by profit-seeking ventures. The emphasis on individual interests and market-driven decision-making processes can marginalize public participation in urban planning and decision-making. As private initiatives and developers gain more influence, citizens may have limited say in shaping their built environment. The neglect of community-oriented planning principles can contribute to a decline in social cohesion and the weakening of social ties. Public spaces that once served as gathering points for social interaction and community engagement may be compromised or replaced by exclusive spaces that cater to specific groups or commercial interests. This fragmentation can lead to social isolation and a diminished sense of belonging. To effectively address the escalating socio-spatial polarization, growing inequalities, and the deterioration of urban spaces, it is imperative to re-evaluate these areas as valuable resources, socialist heritage, and tangible representations of the right to the city.

#### **5. Conclusion**

The narrative of SRC Treska serves as a poignant illustration of the intricate interplay between shifting socio-political, economic, and governance structures that have redefined the urban landscape. This case study has demonstrated how the transition from a socialist system to a neoliberal capitalist model has led to a profound erosion of community-oriented planning principles and the commodification of public spaces. This case study, with its transformation from a participatory and self-financed public endeavour to a potentially privatized tourist development zone, exemplifies the complexities of this transformation. The legal frameworks, ownership shifts, and changing urban plans underscore the multidimensional forces that impact urban spaces.


The shifting ideologies from collective provision of public goods and communal ownership to market-oriented practices and privatization have shaped not only the physical landscape but also the social fabric of the city. The once collective efforts in constructing leisure and recreational areas have transitioned to a landscape influenced by fragmented ownership, profit motives, and exclusionary practices.

This research underscores that urban planning cannot be viewed in isolation from the broader socio-political and economic transformations. It emphasizes the importance of understanding the intricate relationship between urban planning practices, contextual shifts, and the multifaceted forces that shape the urban environment. As cities navigate the complexities of development in a rapidly changing world, the case of Skopje serves as a cautionary tale and an opportunity to rethink the principles that guide urban planning and development. By prioritizing inclusive, community-driven planning and equitable access to urban spaces, cities can pave the way for sustainable and socially just urban futures.

This research contributes to a nuanced comprehension of the intricate relationship between urban planning, ideologies, and multifaceted contextual shifts within a post-socialist context. Skopje's experience can serve as a microcosm of broader implications across post-socialist societies.

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# Effects of Post-Socialist Industrial Brownfields Transformation on the Revival of Historic Urban Network: Case Study in Niš, Serbia

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## ABSTRACT

*Industrial production shaped Serbian cities in the 20th century. Post-WWII, it played a critical role in the socialist economy. However, the transition to capitalism, global deindustrialization, and Yugoslav wars led to the abandonment of industrial sites, now known as brownfields. These sites have become integral parts of the urban network, negatively impacting surrounding neighbourhoods, but holding great redevelopment potential.*

*This paper examines the possible effects and relations of the potential transformation of an abandoned socialist industrial site, the Mechanical Industry site in Niš, Serbia, on the revival of the historic Generala Milojka Lešjanina Street, which connects the site to the city centre. Based on theoretical research, the authors have hypothesised that the optimal model for adapting abandoned industrial sites in central urban areas is converting them into mixed-use public spaces. By applying a qualitative analysis method, the purpose of this research is 1) identification of potentials and limitations within the brownfield site and the effects that a transformation scenario may bring to the revival of the Milojka Lešjanina Street and 2) to examine the advantages and disadvantages of the historic Milojka Lešjanina Street that connects the Mechanical Industry site to the city centre by evaluating its vital elements.*

## KEYWORDS

*post-industrial brownfield, post-socialism, urban revival, transformation, urban network*



*Figure 1. Production halls of the Mechanical Industry in Niš, Serbia – a post-socialist industrial brownfield (Source: authors, April 2023).*

## 1. Introduction

Effects of the collapse of communism and socialism are still very visible in Serbia, standing as constant reminders of the country's past. Industrial production played a vital role in socialist Serbia (then part of Socialist Federal Republic of Yugoslavia), where investments in the industry sector accounted for as much as 20% of the country's entire GDP (Dražković, 2014). This led to the establishment of industrial giants in Yugoslav cities, and for half a century an ideal of industrial workers as pillars of society was nurtured. However, the end of the 20<sup>th</sup> century brought severe problems to Serbia, including the transition period from socialism to capitalism, the dissolution of Yugoslavia followed by ethnic tensions, warfare, crime, isolation from the international community, and large-scale sanctions. All of this resulted in a catastrophic decline of the industry, with consequences that are still very visible today. However, the decay of post-socialist industrial brownfields affects not only the former production site, but also the surrounding urban network. Therefore, it is crucial to identify these brownfields and thoroughly analyse their effect on the urban network, as well as to consider the potential benefits a redevelopment scenario may bring.

This paper examines the potential effects of transforming an abandoned socialist post-industrial site on the revival of the historic urban network. The case study is set in the city of Niš, Serbia. The post-socialist industrial brownfield is the Mechanical Industry site (MIN), while the most significant element of the surrounding urban network is the Generala Milojka Lešjanina Street (Lešjanin Street), which connects the site to the city centre. Taking into consideration the scale, morphological features, and heritage qualities of the MIN site, as well as interpreting theoretical research in the field of brownfield regeneration, the authors have hypothesised that the optimal model for adapting abandoned industrial heritage sites in central urban areas is conversion into mixed-use public spaces. Analytical instruments were used in field research of the Lešjanin Street and the MIN site and are presented to determine the key potentials and limitations of the case study. A qualitative analysis of potentials and limitations of the MIN site was conducted through the prism of realistic criteria in the field of heritage protection, as well as an analysis of the effects it could have on the Lešjanin Street. Analysis of the effects on the Lešjanin Street was drafted relying on the theoretical

framework set by Jan Gehl (2010). The purpose of this research is to examine the advantages and disadvantages of the historic Lešjanin Street that connects the MIN site to the city centre and to perceive the deep correlation of vacant industrial spaces and their effects on the urban fabric.

## 2. Lešjanin Street and the urban network of Niš - a vital correlation

The city of Niš, the third largest settlement in Serbia, is a city with rich history that dates back to ancient times (Ozimić, 2014). Roman, Celtic, Byzantine, Ottoman, and Slavic power struggles and influences have left a multi-layered legacy and have significantly shaped the urban morphology. Niš was one of the cities of the historic *Via militaris* route (Savčić, 2022), and has a geographic location on a crossroad between Istanbul and Western Europe, thus the main artery of the city is defined by the historical axis. Two key streets form that axis, Lešjanin and Voždova, are the busiest streets in the city.

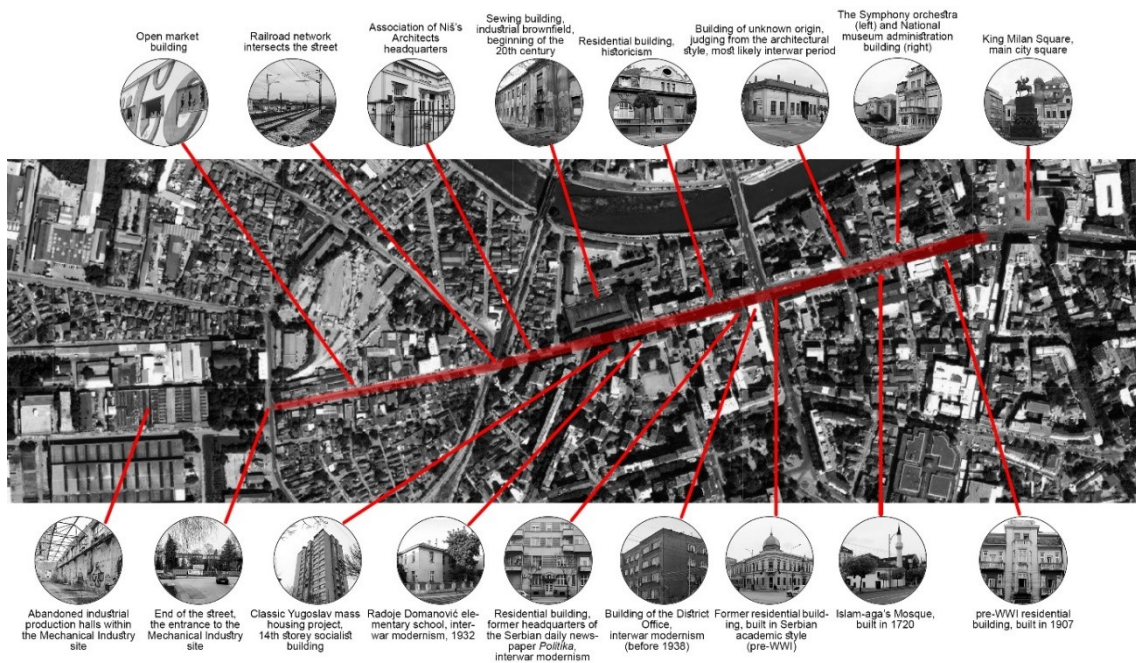


Figure 2. Prominent locations within the street. (Source: [a3.geosrbija.rs/katastar](http://a3.geosrbija.rs/katastar), map modified by the authors; photography: authors)

Even though Lešjanin Street dates back to ancient times, the physiognomy that it has today was shaped after Serbia regained its statehood in 1878. The first regulated urban plan was drafted by Austrian architect Franz Winter, known as Winter's Plan, and it aimed to transform Niš from an oriental, Turkish town into a European city (Ostojić, 2018). Since then, numerous layers of different cultural, religious, commercial, institutional, residential, educational, and industrial buildings have been built in the street. By conducting field research, the authors have created a map showing all the important elements of the street. The map with places of historical, cultural, and other functions is shown in Figure 2. The street starts from the main city square (King Milan square), and ends with the MIN site. Lešjanin Street is 1,1 kilometers long, and according to the functional classification of streets, it is an urban collector street – comprised of a roadway that is 12,5 meters wide, and sidewalks that vary in width, with the widest parts being circa 4,5 meters, and the narrowest parts circa 3 meters (Geosrbija, 2023). Mostly perimeter blocks, and a minority of open

blocks, form the street, with a visible continuity of facades. Facade proportions are diverse. Pre-WWII buildings are one or two storey high, yet there are numerous residential buildings from socialist times with disproportional scales, the most noticeable example being a 14-storey residential building.

Various urban facilities contribute to the vibrancy of the street, and it is frequently used by both pedestrians and motor vehicles. Even though there are numerous types of facilities within the street, most of them are private, with a small percentage that is open and accessible to the public. As the street progresses and approaches the MIN site, a post-industrial brownfield, a shift in the degree of usage is very visible.

## 2.1. Analysis of the current state of the street

Within this chapter, an analysis of the current state of Lešjanin Street will be conducted. The analysis will be conducted on several levels that are of universal relevance when evaluating any urban network: **physical state of the street, public accessibility, urban furniture and utilities, pedestrian and vehicle movement, presence of public spaces, historical and cultural significance, and greenery.**

*Table 1. Qualitative analysis of the Lešjanina Street (Source: authors)*

Level	Analysis
<b>Physical state of the street</b>	The street can be divided into three sections. The first section begins at King Milan Square and extends to the intersection of the Lešjanin Street and Kneginje Ljubice Street, where it is paved with concrete plates. However, from the intersection of Lešjanin Street and Kneginje Ljubice Street to the intersection of Lešjanin Street and Vardarska Street, the paving is in a deteriorated physical condition. The asphalt structures has clear signs of damage and repairs. The last part of the street, up until the MIN site, the street is in moderate condition, paved with asphalt.
<b>Public accessibility</b>	The initial segment of the street is vital in connecting surrounding residential neighborhoods with the city centre, and a significant bus route. The section of the street intersected with the railroad is isolated from the remainder of the street, with no public transportation passing through that particular stretch. There are no direct bus lines from the city center to the MIN site.
<b>Urban furniture and utilities</b>	Lack of urban furniture and utilities poses a big problem, with a shortage of trash cans. Street lighting varies, it is very favorable in the vicinity of the city center, but is very modest when approaching the MIN site. There are no benches, except those near bus stops.
<b>Pedestrian and vehicle movement</b>	Lešjanin Street is vehicle-oriented thoroughfare. Due to limited availability of public parking spaces, the sidewalks are often used as makeshift parking spaces. This practice highlights the car-parking issues in Niš, and inadequately planned public transportation routes. The sidewalks are rather narrow, suggesting that pedestrians primarily perceive the street as a connecting route, rather than a leisure and recreation space.
<b>Presence of open public spaces</b>	The entire length of the street features only one notable public space, the Open market situated near the MIN site. The development of the market is spontaneous. There are two other semi-public spaces which are school yards utilized by the students.
<b>Historical and cultural significance</b>	Lešjanin Street exhibits a diverse array of architectural styles that reflect the historical development. Ottoman influence, Serbian civil architecture, expressionism, Russian-influenced academism, inter-war and post-war modernism collectively contribute to the street's vibrant and authentic note. Many cultural, educational, and religious contents can be found.
<b>Greenery</b>	There is a decent amount of trees in the street. However, the amount of trees is still modest, with scattered arrangement across the street. Other forms of greenery include lawns, but are very rare.

### 3. Industry in Niš

#### 3.1. Chronological review

To comprehend the industrial development of a region, it is crucial to understand the complex and complicated historical events that have unfolded within that territory. In Serbia, industrial development began slightly later compared to Western Europe, specifically in the first half of the 19<sup>th</sup> century, and it was the military industry that had a flourishing growth. Nonetheless, the process of industrial development in Serbia is a great reminder of the citizen's aspirations to keep up with the developed European countries (Milovanović et al., 2013). The city of Niš has started its intensive industrial development in 1878, when it was reintegrated within the Serbian borders after centuries of Ottoman occupation (Jevremović, 2022). The beginning of the 20<sup>th</sup> century marked the rise of agricultural-oriented industries. However, the pre-WWI period was significant for Niš, as several city-level urban plans were adopted. These plans have defined industrial zones in peripheral parts of the city. Mechanical workshops, tobacco industries, and textile factories have become a landmark of the city. Numerous historical events affected the industry in Niš, the overthrow of the monarchy in 1903, Balkan wars in 1912, and World War I (Jevremović, 2022). However, after each event the industry was regenerated, because it represents the core of the European way of life.

The years following World War II have brought tremendous changes in Eastern Europe. Serbia has significantly changed, forming a socialist oriented country called Yugoslavia, and the communist party as its ruling body. Socialist countries have valued the industry and its relevance. In Yugoslavia, the industry was viewed as the fastest way to secure growth, thus industrialization was used as a general development model (Ješić et al., 2006). Under-developed countries that formed Yugoslavia were agricultural countries, however Yugoslavia adopted a strategy that was focused on shifting from agricultural to heavy industries, mainly mechanical and energetic industries.

The deindustrialization process was a widespread phenomenon in Europe, starting at the end of the 20<sup>th</sup> century (Born et al., 2022). Sweeping Western, capitalist countries in the 1970s, and Eastern, socialist countries at the end of the 20<sup>th</sup> century. However, in Yugoslavia, the deindustrialization process had a very struggling narrative accompanied with the state dissolution, shift to capitalist market-led models, inflation, warfare, disproportional migrations, birth rate decline, crime, etc. (Jevremović, 2022). This had left catastrophic consequences on the industry, resulting in the abandonment of a significant percentage of facilities (Hadžić and Zeković, 2019). Moreover, during the NATO bombing of Yugoslavia, many industrial facilities were war targets. At the beginning of the 21<sup>st</sup> century, the newly formed country of Serbia has started a path of transition, which was the most common path for all former Yugoslav and Eastern Bloc countries. The transition period has left the privatization and restructuring of the industry, but often unsuccessfully. The result is a palette of abandoned and decaying industrial facilities, which stand as vacant urban memorials and reminder to the public of a troubling, yet prosperous past.

#### 3.2. The Mechanical Industry site – history, morphology, transformation potentials

The Mechanical Industry (MIN) in Niš, informally described as the industrial giant of Yugoslavia, was an energy, mining, and railway production industry. Although it has



received popularity and capacity expansions in socialist times, the first mechanical workshops at the site of the MIN have existed since the end of the 19<sup>th</sup> century. It has three plants across the city, but the most significant one is the Lower MIN plant, situated near the historic city core, downstream the Nišava river and close to the rail that connect Niš to Belgrade and other prominent cities (Sofia, Skopje, Thessaloniki). It occupies an area of roughly 30 hectares (Geosrbija, 2023). In socialist times it was divided into two segments – MIN TRANS and MIN RAD, both of them legally labelled as Organizations of Joint Labour in 1974. There are roughly a hundred buildings that make up the industrial site, with notable large volume production halls - the biggest one being circa 32000 m<sup>2</sup>. A prosperous production that has actively functioned during socialism has faced a downturn at the beginning of the 1990s as a consequence of ideological shifts. The authors have conducted an interview with the director of MIN FAM, one of the firms of the MIN. He states that the two segments of the MIN (MIN TRANS and MIN RAD) were sold to stock companies in 1990, and later, in 1998, merged into a MIN Holding. In his opinion, the most noteworthy privatization process, was in 2007 when roughly fourteen companies were sold to private firms and investors (Figure 3).

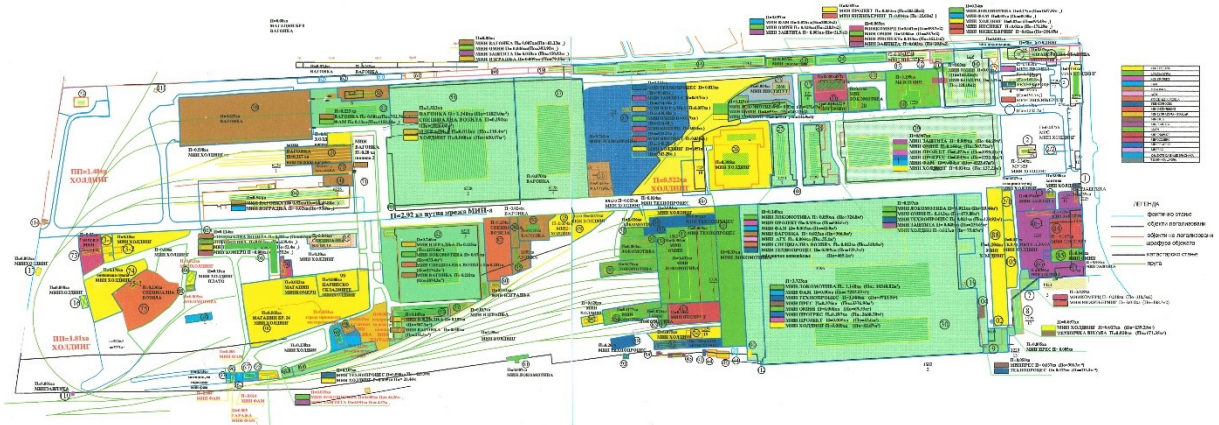


Figure 3. Site plan of the MIN site before the privatization process. Different colors represent different firms that have purchased the spaces within the MIN (Source: archive of the MIN FAM firm)

Parts of the MIN site still function as production spaces, because of the suitable industrial morphology. Unfortunately, there is no more energy, mining, and railway production that was a socialist landmark of Niš, but rather various types of light industrial production (packing, electronics, etc.). However, besides from some spaces being used for production, storage, and commerce, the rest is mostly abandoned and in poor physical condition (Figure 4). The lower parts of the site are not supplied with electricity, and remain in a state of decay, with parts of the building structure and surrounding infrastructure being stolen and illegally sold during the crisis which MIN faced in the transition period.



Figure 4 .The site plan of the MIN site. Red – production areas; green – storage areas; yellow – commercial and business areas; blue – abandoned areas. (Source: a3.geosrbija.rs/katastar, map modified by the authors)

MIN is rarely mentioned by planning institutions. The General Urban Plan of the city of Niš describes the MIN site as an existing industrial zone out of function that should be revitalized and treated as a potential for brownfield investments (General Urban Plan of the City of Niš, 2008). According to the Plan, it is one of the most significant vacant industrial spaces in the city. The General Regulation Plan for the Municipality of Palilula, adopted in 2019, has categorized MIN as a business zone, precisely as an industrial area (Fifth changes and appendices of the General Regulation Plan of the area of Municipality of Palilula – Phase One, 2019). The General Regulation Plan also indicates that there are no further intentions in drafting a Detailed Regulation Plan, thus the organized approach in planning the future of the MIN site is uncertain. In terms of cultural heritage protection, the MIN site faces severe problems. The Institute for the Protection of Cultural Monuments of Niš, which is the paramount establishment in the field of heritage protection, did not classify the MIN site as a cultural monument, or any other type of cultural good that is defined and protected by Serbian law. This leaves the site vulnerable to destruction, unprofessional interventions, and architectural approach that may destroy its unique identity. Unfortunately, buildings of industrial typology in Serbia are being widely marginalized in the heritage protection framework (Nikolić et al., 2020), and the MIN site is no exception.

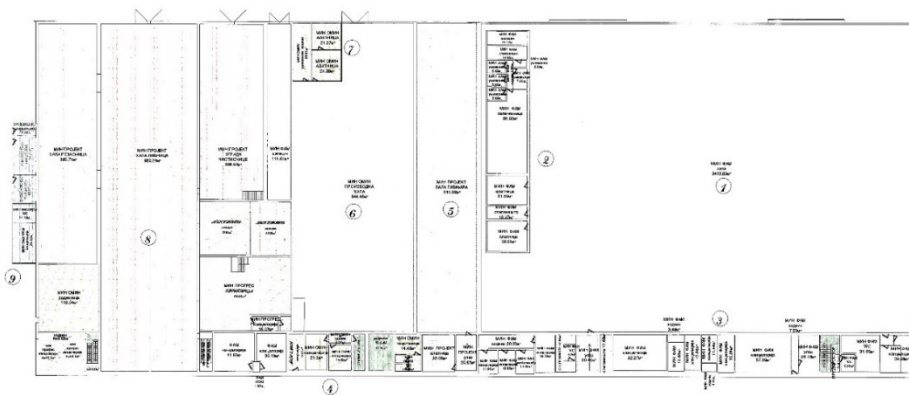
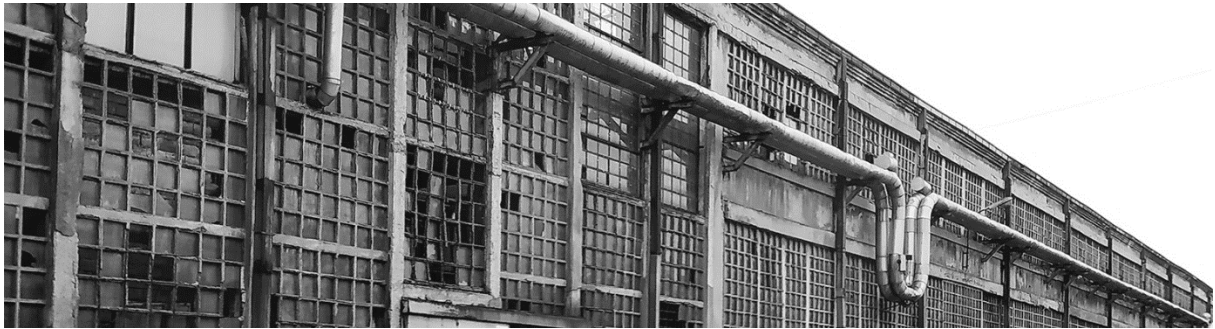


Figure 5. Ground floor plan of the production hall. (Source: archive of the MIN FAM firm)

Industrial activities within the MIN can be classified as heavy industries, thus there are several striking, large scale production halls with flexible functional organizations, significant heights, and numerous installations, which contribute to the

authentic industrial image. All the buildings are oriented along the central axis of the site, forming a clear movement path. There are a few internal streets and plateaus.



*Figure 6. The production halls of the MIN site. (Source: authors, April 2023)*

The question of protection of industrial heritage sites through the principles of adaptive reuse is a global topic, and can be noticed in numerous countries around the globe. From industrial pioneers in the United Kingdom, through defunct Soviet factories in Russia, and all the way to refurbished grain silos in China. Adaptive reuse prolongs the lifespan of industrial buildings and cultivates valuable elements of industrial architecture of different epochs (Turnšek, 2013). Without adaptive reuse, historic industrial facilities don't stand a chance in rapidly growing cities, thus it is necessary to take into consideration the functions that transformed industrial facilities could have in order to survive in the ever-changing 21<sup>st</sup> century. As CABERNET team states (Ferber et al., 2006) revitalising industrial brownfields can facilitate opportunities at numerous levels by improving urban quality of life and enhancing urban competitiveness. Besides numerous challenges, there is no doubt that post-industrial brownfield regeneration can benefit the surrounding urban network in terms of sustainable development (Pahlen and Glöckner, 2004). Old industrial cities and regions need new options and visions for economic, ecological, and social urban development following the decline of their traditional industrial sectors and the closure or relocation of manufacturing and production. The redevelopment of historic industrial sites that are out of function is a complex matter that orbits between several conflicts such as rigid conservation requirements, architectural interventions, urban segregation and gentrification, sustainable development requirements, urban planning perspectives, etc. (Oevermann and Mieg, 2021). Conversion of former industrial facilities into contemporary urban functions is an ongoing debate, with a multi-dimensional background. The vacant spaces can potentially be oriented towards innovations (Mieg and Topfer, 2013), towards cultural industries that accent the identity of the inherited space (Landry, 2000), or towards mixed-use functions. Former industrial facilities are sometimes converted into residential spaces, although industrial morphologies need to fulfil the requirements of housing purposes (Stanojević and Keković, 2019), as well as health regulations, decent insulation, etc. Loures, Panagopoulos, and Burley have conducted a research on assessing user preferences on post-industrial redevelopment. Their findings suggest that popular options for brownfield regeneration are multifunctional and leisure green spaces (Loures et al. 2015).

Having that in mind, the authors have concluded that a possible adaptation scenario for the MIN site is conversion into mix-used spaces. Not only because of the morphology that can support public functions, but also to avoid the contemporary trend of adapting city spaces to suite one type of privileged citizens, while marginalized members of the community are facing severe problems that aren't being treated (Mihajlov, 2009). This initial hypothesis will be used in the research process to analyse

the effects that a fictionally transformed post-industrial site could have on the surrounding urban network.


#### 4. Results – a qualitative analysis

The potentials and limitations of transforming the abandoned MIN site and the effect that it may have on the Lešjanin Street are analysed through the spectrum of theoretical criterion that are of universal importance when dealing with heritage buildings and historic urban fabric. Criterion in relation with the evaluation of reusing heritage buildings consider many dimensions, such as physical, environmental, economic, social, cultural, etc. (Tootoonchi and Bahramjerdi, 2021). The evaluation of the potentials and limitations, of transforming the abandoned MIN site and the effects that it will have on the surrounding urban network (Lešjanin Street) is presented in Table 2.

**Table 2. Potentials and limitations of the MIN site transformation (source: authors)**

Criterion	Potentials	Limitations
<b>Physical and environmental</b>	-the morphology of industrial buildings allows flexible architectural interventions. -transformation of the post-industrial brownfield results in a healthier environment for the entire neighbourhood. -adaptive reuse of historic buildings ensures their survival.	-poor physical state of structural elements, some might not be able to be saved. -potential problems with keeping the favourable situation regarding environmental contamination.
<b>Economic</b>	-economic growth caused by attracting businesses and creating new job opportunities. -increasing property values in the area.	-financial barriers caused by the rather costly investments in field of brownfield regeneration. -costs of maintenance.
<b>Social and cultural</b>	-preservation of historical values of buildings and testifying to the rich industrial past of the city -social solidarity and inclusiveness, participation of the local community -new cultural events and venues and new creative spaces	-gentrification -lack of participation from the local community -possible displacement of locals -changing the identity of the place
<b>Legal</b>	-lack of formal protection in the cultural heritage protection framework makes it simpler for transformation -possible funds and legal support from government authorities	-land use conflicts -conflicts of current private owners and firms and potential investors -the urban planning authorities do not have a clear vision of the future of the site

The evaluation of the possible transformation of the MIN site through a prism of heritage protection criteria shows that there are numerous potentials that are universal for brownfield sites across the globe. These features include: the scale and morphological characteristics of industrial facilities, historical value, structural flexibility, raw industrial aesthetics (authentic installations and infrastructure elements), etc. It is inevitable that the transformation may benefit the entire city in several aspects, especially economically and culturally, bringing social solidarity, participation, new



cultural venues, local business expansion and creativity enforcement, especially among the younger population. However, there are numerous problems that need to be addressed. Currently the most significant are legal ones, such as lack of formal protection in the heritage legal framework, problematic land ownership, and incomplete urban plans with no clear visions about the future of the MIN site. Furthermore, intangible problems such as gentrification, upkeep of the site, alteration of place identity, further division within the community, are not easy to predict, and may cause severe troubles. Thus, the authors have concluded that a transformation of the MIN site is possible, but demands a lot of effort, support, and work, especially in field of legal framework, financial support, and community engagement.

The second part of this research examines the effects that a possible transformation of the MIN site could have on the revival of the Lešjanin Street, a vital street in the historic core of the city. By analysing the current state and trends in the street, the authors have noticed that the usage frequency is linearly decreasing as the street progresses. From a bustling beginning near the main city centre, to deserted parts near the post-industrial brownfield. But can a potential brownfield regeneration change that? The authors have conducted a qualitative analysis of the possible effects that the MIN site transformation can have on the Lešjanin Street. The key parameter that was taken into consideration is that the transformation and reuse of the MIN site will inevitably affect the number of people in the space, meaning it will inevitably affect the number of people in the Lešjanin Street as it is the simplest way to reach the space. When regarding the number of people who use certain urban elements, it is essential to examine the effects through a human dimension. Thus, dimensions set by Jan Gehl (2010) in his publication *Cities for People* will be taken as a reference. Those dimensions are *liveliness, safety, sustainability, and health*.

In term of *liveliness*, Gehl (2010) states that it is important to strengthen the idea that more and more people are invited to walk, bike, and stay in the space. Life in the public space is also achieved with cultural and social opportunities. With numerous new functions and events that would be held in the MIN site, it is inevitable that people will be drawn into the street, increasing the number of users who will give an advantage to pedestrian movement, only after certain physical interventions (e.g. sidewalk expansions).

In term of *safety*, Gehl (2010) states that safety is supported by the idea of people moving about and staying in the space. But safety can also be achieved on other levels. The current state is not very safe, as parts of the street are poorly lit. The abandoned site and surrounding areas provides a space for urban squatters and other types of underground subcultures, which undermines the universal feeling of safety. The transformation is very likely to change that, by equalizing the social structure, which increases the safety of the currently problematic part of the city.

In terms of *sustainability*, the potential transformation may benefit the street in social, economic, ecological, and cultural aspects. It will inevitably change the social structure and dynamics of the area, engaging the local community. It will also change the economic structure of the area, giving a chance to small business that are scattered across the street. Furthermore, it can assess economic growth, tourism potentials, and the revitalization of the local economy. The ecological benefits are obvious, brownfield regeneration effects are almost always the protection of public health and living environment: cleanup of contaminated areas that would otherwise continue to threaten the living environment (Perović and Kurtović-Folić, 2012). New contents will increase the number of public transportation routes, decreasing the car driving culture that is thriving in the city of Niš.

In terms of *health*, Gehl (2010) states that the contemporary health problems are due to the fact that large segments of the population are becoming sedentary, with cars providing the door-to-door transport. It is infeasible to take into consideration that mindful urban planning will decrease the usage of cars, as some problems are deeply rooted in the culture and mindset of the nation. The Republic Statistics Institute of Serbia reports that every year the amount of motor vehicle registration and ownership is increasing. However, potential MIN site transformations might significantly lower the need for car transportation in the Lešjanin Street, providing pedestrian and public transportation alternatives.

The biggest changes will definitely affect the type of outdoor activities. According to Gehl (2011) there are three types of outdoor activities: *necessary*, *optional*, and *social*. The current state of outdoor activities in the street can be described as necessary. However, the transformation of the MIN site will portray new possibilities in familiar city spaces. This will inevitably shift the type of outdoor activities, giving advantages to optional and social activities and enhancing the urban vibrancy of the street and the pace of the entire surrounding urban network.

## 5. Conclusion

It is not enough merely to create spaces that enable people to come and go. Favorable conditions for moving about in and lingering in the spaces must also exist, as well as those for participating in a wide range of social and recreational activities (Gehl, 2011). Industrial heritage redevelopment and reuse, and the possible effects it may have on the surrounding urban network, is a very complex topic. Moreover, it is not just the topic for architects and urban planners, but rather a multi-disciplinary topic involving historians, sociologists, psychologists, and anthropologists. Marginalization in the legal heritage protection framework, as well as complicated ownership statuses, physical conditions, financial risks, and environmental contamination are all problems post-industrial facilities face. However, the answer lies in the collective effort of the society. It is vital to understand that the necessity of industrial brownfield regeneration is not just about the post-industrial site *per se*, and that it can have positive effects on the entire city. Transformation of decaying industrial brownfields represents the citizen's right to the city. The diversity of people who will use these brownfield spaces will directly influence the usage of the surrounding urban space, giving the city new determinants (Mihajlov, 2009). A holistic approach to town planning and heritage protection, and understanding that the city is a living organism where one intervention subsequently leads to another, in a chain reaction, might greatly benefit the entire community. The Lešjanin Street is the key attribute to the successful transformation of the MIN site, and the MIN site is a key attribute to the revival of the Lešjanin Street. These two urban elements are deeply interconnected, thus an analytical and mindful approach in the revitalization process is more than necessary.

## ACKNOWLEDGEMENT

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# Perceived Attractiveness of the City's Features Among Residents: A Case Study in Nyírbátor, Hungary

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## ABSTRACT

*In our research using a representative sample of 300 people living in Nyírbátor, Hungary (age:  $M = 49,14$ ,  $SD = 17,13$ ; 53% women), we aimed to better understand the satisfaction and attitudes of people towards the urban environment. To explore the socio-demographic and contextual variables of Nyírbátor, and the city's attractive features that are important in the residents' decision to live in this city, we used the translated and modified version of the scale developed by Barreira and her colleagues (2017). Principal Component Analysis (PCA) with varimax rotation resulted in four factors of attractive city features included in this scale: environmental, social, leisure environment, and job/school-related factors. After we divided the city into four different districts (inner city, suburbia, industrial area, and segregated area), ANOVAs were conducted to test whether there are differences in the importance attributed to the city's features, i.e., the perceived attractiveness of the city's features among the residents living in the four different districts. The results showed significant differences in the case of all four factors among the four areas of the city. These results could help decision-makers to evaluate better development strategies in Hungarian post-socialist cities.*

## KEYWORDS

*attitudes towards the city, people-environment transactions, perceived attractiveness of the city, urban planning, environmental psychology*





*Figure 1. Nyírbátor, Hungary (Source: personal archive)*

## **1. Introduction**

One of the key areas of urban development in the 21<sup>st</sup> century is understanding the connection between the environment and the people (Dúll, 2017). In Europe, in most cases, the starting point of those investigations is the mapping of the buildings, roads, public spaces, etc., and exploring the role of socio-economic processes on the level of the neighborhoods and the city as a whole (e.g., Miranda, 2020; Alföldi et al., 2021). Unfolding the relationship between the people and the environment within the urban context has been emerging lately (e.g., Guimarães, 2016; Mazumdar et al., 2000; Abdulkarim and Nasar, 2014). The main focus of these papers is to understand the behavior of people in the urban environment, and their wills and incentives while using public spaces (e.g., Marcheschi et al., 2022) or urban services. At the forefront of these researches are exploring the connections between the representation of urban space and the social mobility of the individual (e.g., Dias and Ramadier, 2015) or unfolding the latent factors that can determine people's attachment patterns to the apartment, to the neighborhood or the city (e.g., Lewicka, 2010).

### **1.2. Case study of Nyírbátor**

Our people-environment transactional approached research series aims to map the attachment patterns of residents in the post-socialist city of Nyírbátor, one of the many municipalities of the Eastern-Hungarian Region, in Szabolcs-Szatmár-Bereg county. The study is based on an analysis of the socio-economic and physical characteristics of the settlement. Nyírbátor particularly interesting, because there can be found some social issues according to the dataset of the Hungarian Central Statistical Office (HCSO):

- population loss (in 2011 12,507 people, while in 2020 11,403 people lived in the city; source: HCSO, 2022) and,
- high unemployment rate can be observed in the city (8.83% of the working-age population were registered jobseekers in 2020, which is almost double the regional average of 5.02%; source: HCSO, 2022).

- At the same time, strong economic development can be found in the city:
- the municipality realizes especially high revenue from local companies (157.89 thousand Forint local taxes was collected as a share of the population in 2020, source: HCSO, 2022), and
  - the average price of second-hand dwellings sold in Nyírbátor is higher than the regional average (the average of the second-hand dwelling prices in Nyírbátor was 12.34 million Forint in 2020, while at the North-Alföld regional level, it was 11.65 million Forint; source: HCSO, 2022).

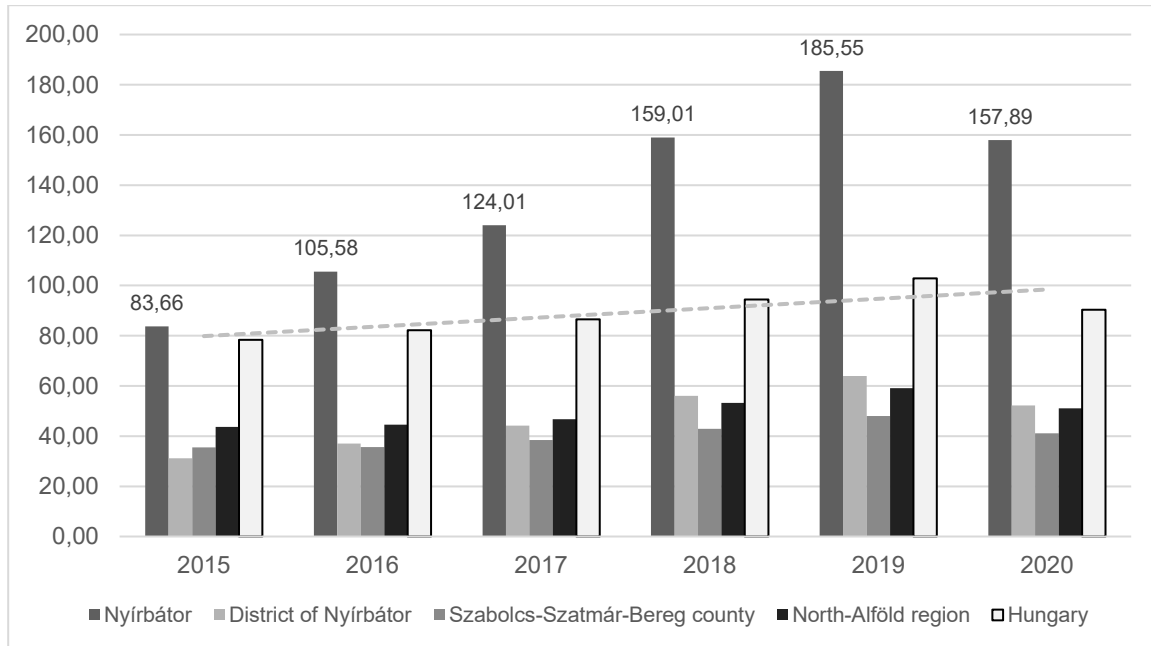



Figure 2. Local government revenue from local taxes as a share of the population of Nyírbátor, at district, county, regional, and country levels – 2015-2020 (source: HCSO 2022)

This duality defines the role of the city in the region. While Nyírbátor is an important labour market and cultural hub in Szabolcs-Szatmár-Bereg county, most of the small towns and villages in the county are experiencing higher unemployment rate than the national average, some kind of social problems occur in many municipalities and population loss makes the situation more difficult in these places. In Nyírbátor a high school and vocational school can be found, and public spaces and heritage sites were renovated with the help of the municipality. The built environment is in good condition: a recently established cultural centre, a swimming pool and spa, and museums are welcoming tourists.

Research on urban governance methods (e.g., Laze, 2009) and understanding the role of development processes in cities on daily life (e.g., Péntzes and Demeter, 2021) have been scarce in Hungary and in the region of East-Central Europe, although the 1989/90's regime change had made a huge impact in the Hungarian local government structure. Some principles of the organization had increased (e.g., the principles of legality) some declined (e.g., state guidance), and a whole new structure of local administration, and decision making processes had formed (Fábián, 2017). Yet the connections between practice and theory are lacking in urban analysis of post-socialist cities (Rinke et al., 2014).



Therefore our objectives with this research were twofold. First, with systematic data collection, we would have liked to understand how residents perceive some attributes of their city. Second, by measuring the perceived attractiveness of the city features by residents we wanted to show what are the differences among certain districts of Nyírbátor in terms of urban attractiveness. As a hypothesis of our exploratory research, we assumed that there is a significant disparity among residents of the city areas in terms of the perceived attractiveness of the urban characteristics of the municipality. The study considers the latent and directly measurable relationships between people and the environment present at every moment of their behaviour.

## 2. Methodology

Aiming to reach a representative sample, the data collection was conducted by the interviewers of H-Reports Ltd, a polling company between 2 June and 29 July 2022 in Nyírbátor. The database contained the answers of 300 residents of the city (age:  $M = 49,14$ ,  $SD = 17,13$ ; 53% women) selected to have a representative sample according to gender, age, and the districts which were specified based on the settlement's latest development plan (Integrated Urban Development Strategy – ITS, 2015, where age- and gender-specific population data are available on district level). In this research, it was particularly important to be able to link the data collection to the districts defined by the ITS<sup>1</sup>. By applying this method, we could measure the urban attractiveness perceived by the residents of each district, i.e., the findings on the economic, social, and built environment analysis referred to the development plan of the municipality could be completed with data emerging from the residents' opinions and perceptions about their city.

The participation in the research was anonymous and monetary compensation was not due for it. The participants could start responding after reading the research ethics information and consenting to participation. The research was conducted based on the ethical permission (number: 2022/302., date: 13/06/2022) obtained from the Research Ethics Committee of Eötvös Loránd University Faculty of Education and Psychology. Thanks to the data collection method, conducting a data cleaning process was not necessary.





The questionnaire pack contained 147 questions for the respondents, however, the focus of this paper is on the questions of the scale developed by Barreira and her colleagues (2017). We used the translated and modified version of this scale to explore how the residents perceive the attributes of their city. According to the intentions of the authors, *this scale measures the importance attributed to the cities' features by residents concerning their decision to live in their cities*. The scale includes 24 items each focusing on an attractive city feature *“identified in the literature as being of importance to residents in the decision-making process of choosing a particular city in which to live”* (Barreira et al., 2017). The content of the questions covers the topics of the built environment (e.g., “historical heritage”, “affordable houses”), the natural environment (e.g., “general environmental quality”, “green areas”), urban services (e.g., “transportation system”, “good place for children to grow up”), daily routine (e.g., “close to the workplace”), leisure and sports facilities (e.g., “leisure venues in the city”, “places for meeting people”), and attachment patterns (e.g., “sense of community”) that can be experienced in the city.

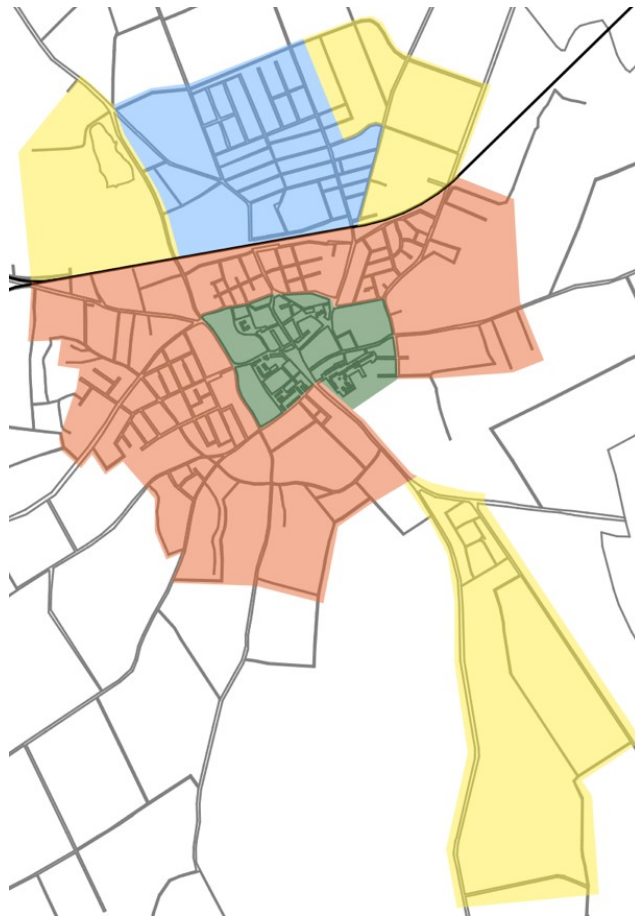
The respondents are asked to rate the extent of how important the given feature of the city is in their decision to live in the city. Respondents answered these items on a 5-point Likert scale (ranging from “strongly unimportant” to “strongly important”,

coded as 1 to 5). The Hungarian translation of the scale was prepared by 4 members<sup>2</sup> of the Environmental Psychology Lab of the Institute of People–Environment Transaction within the framework of this research, considering the appropriate questionnaire translation assumptions (translation into Hungarian, re-translation into English, professional consultation). Due to methodological considerations regarding the issue of whether each of the features is even meaningful in the case of the city, we decided to complement the options of the answers with the option “it is not true for the city/for me” (coded as 0).

Based on the districts specified before the data collection, for this research, we divided the city into four different districts: inner city, suburbia, industrial area, and segregated area. In the Integrated Urban Development Strategy of Nyírbátor (ITS, 2015) 8 districts can be found originally, our delimitation reflects the characteristics of these districts. The inner city was originally “Inner city”, the suburbia consists of two suburban neighborhoods (“Víztorony, Csűröskert, Rózsakert” residential area and “Southwest” residential area), the industrial area is based on three industrial areas of the city “South industrial area”, “Széna meadow tourist area” and “Industrial Park” area) and, finally, the segregated area was combined with the two most distressed areas (“Industrial and economic area around the railway station” and “Northern” residential area) of the city. Urban experts, who have long been working on the Integrated Urban Development Strategy, and the staff of the municipality have been included to ensure that the districts are well-defined for this research in Nyírbátor<sup>3</sup>.

In the analytic procedure, principal component analysis (PCA) with varimax rotation, and reliability analysis were conducted to reveal the dimensionality of the city features included in the scale of Barreira and colleagues. According to the results detailed later, four dimensions emerged. ANOVAs were conducted to test whether there are differences in the importance attributed to the city’s features, i.e., the perceived attractiveness of the city’s features among the residents living in the four different areas.

Color on the map	Name of the districts	N (people; total: 300)	Demography of the district
	Inner city	58	27 men (46.6%), 31 women (53.4%); age mean: 47.43 (SD = 17.67)
	Suburbia	149	69 men (46.3%), 80 women (53.7%); age mean: 49.33 (SD = 16.84)
	Industrial area	17	8 male (47.1%), 9 female (52.9%); age mean: 53.59 (SD = 17.74)
	Segregated area	76	37 men (48.7%), 39 women (51.3%); age mean: 49.21 (SD = 17.25)



**Table 1. Schematic map of Nyírbátor and demographic data of the districts (Source: ITS, 2015 and space syntax analyses for this research)**

### 3. Results

The principal component analysis (PCA) of the city features (Kaiser–Meyer–Olkin measure of sampling adequacy:  $KMO = 0.906$ ; Bartlett test:  $p < 0.001$ ) revealed four components with an Eigenvalue greater than 1, explaining 64.34% of the variance. Factor loadings on the 4 components ranged from 0.49 to 0.82, 0.51 to 0.76, 0.62 to 0.78, and 0.65 to 0.83, respectively. The internal consistency of the items of all 4 subscales was adequate (Cronbach’s alpha = 0.914, 0.889, 0.785, and 0.799, respectively). In the results of the item-total analysis, no item was found whose omission would significantly improve the reliability of the subscales (only the deletion of an item in the third component would increase the value of Cronbach’s alpha by 0.006). The four components were labeled *social*, *environmental*, *leisure environment*, and *job/school-related* factors of attractive city features, including 9, 9, 3, and 3 items, thus, respondents can reach on these subscales scores ranging from 0 to 45, 0 to 45, 0 to 15, and 0 to 15, respectively. Higher scores on the subscales indicate greater perceived attractiveness of social, environmental, leisure environment, and job/school-related attributes of Nyírbátor, respectively.

According to the results of the ANOVAs (with Brown–Forsythe correction as for the first, third, and fourth factor due to the violation of the assumption of the equal variances), significant differences in the perceived attractiveness of Nyírbátor were found in the case of all four factors among the four districts’ residents (social:  $F(3, 60.10) = 20.017$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.209$ ; environmental:  $F(3, 296) = 26.719$ ,

$p < 0.001$ ,  $\eta_p^2 = 0.213$ ; leisure environment:  $F(3, 57.08) = 6.223$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.066$ ; job/school-related:  $F(3, 51.31) = 6.364$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.076$ ) (see Figure 3). The values of partial eta squared indicate moderate and high effects. The results of the Bonferroni post hoc tests are presented in Table 2. (Due to the violation of the normality, the results of the Kruskal–Wallis tests performed as additional analysis showed also significant differences:  $H(3) = 69.015$ ,  $73.205$ ,  $16.452$ ,  $41.484$ , respectively,  $p < 0.001$  in all cases). For the analyses, SPSS version 28.0 and JASP version 0.16.4 were applied.

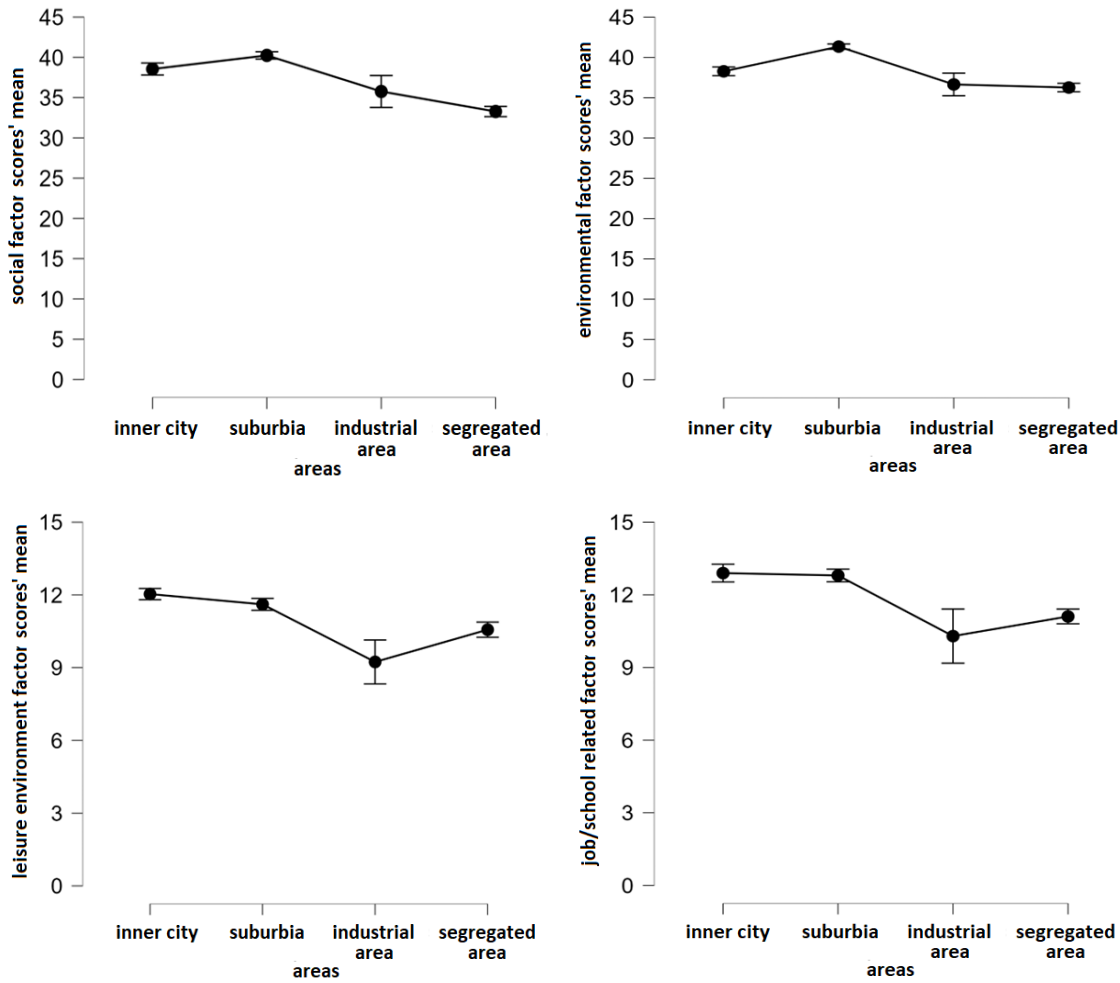


Figure 3. The means of scores reached in the four factors of the city's attributes among the four areas with standard error (SE) bars.

Regarding the social factor, the perceived attractiveness of the social features of Nyírbátor was the highest in the case of the residents of the suburbia, i.e., they perceived the city's social attributes as the most attractive. The lowest scores were found in the group of the segregated area's residents, significantly lower, than in the groups of the inner city' and the suburbia's residents. A similar pattern was remarkable for the environmental factor, however, the perceived attractiveness of the environmental features of Nyírbátor was significantly higher in the group of residents of suburbia, than in the inner city (and the post hoc test related to the Kruskal–Wallis test did not show a significant difference between the inner city's and the segregated area's residents). Regarding the perceived attractiveness of the leisure environment and job/school-related attributes of the city, similar patterns were shown in the case of them: the highest scores were found among the inner-city residents (differed non-

significantly from the suburban residents'), and the lowest in the industrial area residents' group (differed non-significantly from the segregated-area residents'). Furthermore, the inner-city and suburban residents' scores were significantly higher than the scores of the industrial and the segregated area's residents, i.e., the inner-city and suburban residents perceived the city's job/school-related and leisure environment features more attractive than the residents of the industrial and the segregated area. The perceived attractiveness of the city's features did not differ between the group of industrial and the segregated area's residents regarding any of the four factors, i.e., the residents of the industrial area perceived all the city's attributes as attractive to the same extent as the residents of the segregated area. The perceived attractiveness scores in the suburban residents' group were significantly higher than in the resident group of the industrial and the segregated areas almost in all four factors (the post hoc test related to the Kruskal–Wallis test did not show a significant difference between the suburbia's and the industrial area's residents' scores in the social factor), i.e., the suburban residents perceived almost all city's features as more attractive than the residents living in the industrial and the segregated areas. However, the same results were not shown regarding the differences in the scores of the inner-city residents from the resident" scores in the industrial and the segregated area.

**Table 2. The results of the Bonferroni post hoc tests of the ANOVAs testing the differences in the perceived attractiveness of social, environmental, leisure environment, and job/school-related attributes of Nyírbátor among the four areas' residents.**

	factors of city attributes (subscales)	inner city	suburbia	industrial area
<b>inner city (N = 58)</b>	social (M = 38.55, SD = 5.69)			
	environmental (M = 38.28, SD = 4.12)			
	leisure environment (M = 12.03, SD = 1.75)			
	job/school-related (M = 12.90, SD = 2.79)			
<b>suburbia (N = 149)</b>	social (M = 40.24, SD = 5.48)	n.s.		
	environmental (M = 41.34, SD = 4.06)	***		
	leisure environment (M = 11.61, SD = 2.97)	n.s.		
	job/school-related (M = 12.80, SD = 3.20)	n.s.		
<b>industrial area (N = 17)</b>	social (M = 35.76, SD = 8.17)	n.s.	* KW	
	environmental (M = 36.65, SD = 5.80)	n.s.	***	
	leisure environment (M = 9.24, SD = 3.73)	**	**	
	job/school-related (M = 10.29, SD = 4.61)	* KW	*	
<b>segregated area (N = 76)</b>	social (M = 33.28, SD = 5.52)	***	***	n.s.
	environmental (M = 36.26, SD = 4.61)	* KW	***	n.s.
	leisure environment (M = 10.57, SD = 2.71)	*	*	n.s.
	job/school-related (M = 11.11, SD = 2.66)	**	***	n.s.

Notes. n.s.: non-significant, \*\*\*:  $p < 0.001$ , \*\*:  $p < 0.01$ , \*:  $p < 0.05$ , <sup>KW</sup>: the Dunn post hoc tests related to the Kruskal–Wallis test showed a non-significant association

## 4. Conclusion

In the 21<sup>st</sup> century, the urban environment has been changing rapidly. Understanding the relationship of people to spatial elements of certain spaces (e.g., public spaces, neighborhoods) is of particular importance at the level of design and decision-making. If we want to unfold the attitudes towards the city, we need to apply a multidisciplinary methodology where the values of inhabitants can be measured.

This interpretation is also relevant in the East-Central European context, as Hungary is part of the global space, and the development of its settlements is affected by changes in socio-economic processes. International examples (e.g., Strandberg, 2023) show us, that one of the starting points for these efforts is to understand the place attachment patterns of the people living there. Thus liveable, resilient, and successful cities can be developed where most of the residents' well-being can be achieved. These efforts are one of the foundations for the design of neighborhoods that are easily adaptable to changes.

In this research, we analyzed a representative sample of one of the cities in the Northern Hungarian region. Nyírbátor is in a unique situation because social distress and economic growth can be observed at the same time. From the scale that measured the importance attributed to cities' features by residents, four components emerged as significant from the 300 responses: *social*, *environmental*, *leisure environment*, and *job/school-related* factors of the city features. Among the four districts (inner city, suburbia, industrial area, and segregated area), significant differences can be observed in the perceived attractiveness of Nyírbátor. Residents of the suburbia perceived the highest attractiveness of the social and environmental features of Nyírbátor (in the latter case, significantly higher than the inner-city residents), while leisure environment and job/school-related attributes of the city were highest among the inner-city residents (although differed non-significantly from the suburban residents). Suburban residents perceived the attractiveness of the city features in all four factors as significantly lower than the suburban residents, furthermore, the rating of the suburban and the industrial-area residents differed non-significantly. Our results suggest that the residents in the areas specified based on the settlement's Integrated Urban Development Strategy perceive differently the attractiveness of their city's features, i.e., measurable associations can be revealed between the allocation of urban area based on municipal data and the perception of the city by residents living in the thus specified areas.

Among the strengths of the research, the transdisciplinary approach, the use of a representative sample, and the reliable data collection method can be mentioned. However, it is worth emphasizing that our research focused on only one element of the people-environment transaction, furthermore, the research design did not allow us to explore causal relationships.

Most Hungarian post-socialist municipalities are experiencing population loss (Jelinek and Virág, 2020). To tackle these challenges it is crucial to understand what are the main factors of these processes. Our original hypothesis seems to be confirmed: there is a difference between the attitudes of residents of different districts towards the perceived attractiveness of the city's features. By investigating the perception and the perceived attractiveness of the city among the residents living in different areas of the city, our findings can contribute to improving the work of policymakers and urban planners. Our results may thus contribute to the future exploration of different personal and psychological attachment patterns in post-socialist cities (e.g. Tournois and Rollero, 2020).





## ACKNOWLEDGMENT

<sup>1</sup> The delimitation of the districts in the ITS document is carried out in a professionally justified way based on the Urban Development Concept (UDC) and the Settlement Spatial Planning Tools. Each district has at least 3-4 urban areas with a mixed function, which are suitable for providing a central or semi-central function in the city from an economic and social point of view. These districts are also mapped in the ITS documents (based on Hungarian implementation [Önkormányzati és Területfejlesztési Minisztérium Területfejlesztési és Építésügyi Szakállamtitkárság, 2007] of the „The Leipzig Charter on Sustainable European Cities” [Member States of the European Union, 2007])

<sup>2</sup> In addition to the first, second, and fourth authors of this paper, Barbara Fogarasi (Ph.D. student, Institute of People–Environment Transaction, ELTE) took part in the translation process. Special thanks to her for the contribution.

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# (Re)Use of Communist Sports Public Spaces in Romania

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## ABSTRACT

*The study approaches urban spaces for sports manifested in a variety of forms ranging from sports dedicated parks and stadiums to various sized multipurpose halls. These edifices along the public spaces they create have been benefiting from a preferential status regarding the architecture thinking and building effort. The development of modern urban space is closely interconnected with the evolution of sports and totalitarian regimes have usually taken this correlation to a higher, ideological level. Sports were used by the Romanian communist regime as one of many propaganda tools used to control and manipulate masses of people in the creation process of the “glorious new man”. Following the rank of sports halls in the complex national network, their architecture is unique and experimental, defining some key moments in the history of Romanian architecture. These built urban endowments generate diverse attitudes, ranging from rejection associated with the regime they became to represent in social memory, to appreciation from both architectural and economic point of view defining their complex contentious nature. The paper will cover current use and urban integration together with rehabilitation of these types of spaces and built environments, grounded on a couple of case studies detailing local conditions and post-socialist urban model integration.*

## KEYWORDS

*public spaces for sports, communist architecture, refurbishment, sport city zones*



*Figure 1. Polyvalent sports hall from Bacău, Romania (Source: author's gallery)*

## **1. Introduction**

At the confluence of eras, politics and cultures, the development model of sports facilities in post-war Romania created a particularly diverse series of results. Multiplying this diversity with a series of approaches in their post-use, we obtain a fertile ground for the study of complex phenomena of city life in close connection with social experiences, rooted in ample ideological changes at the level of large-scale urban facilities.

The study covers the evolution over time of large scale sports facilities built during the communist regime in Romania and their future beyond their creation era. The article is structured in two distinct parts: the first part paints the story of these sports facilities and their historical context alongside with currents of thoughts that came to influence them; the second part presents a brief overview of the interventions and use types applied to these facilities in post-transition democratic Romania.

This two parts structure offers a vast understanding over what the communist party insisted to create, what were the results back then and, last but not least, how the contemporary societies perceives the sports facilities and chooses to use the spaces accordingly.

Presented evolution is shaped in close relation with tremendous historical events as it required important resources in various nature over time. The evolutionary milestones of the greatest importance for the study phenomena are the end of the Second World War and beginning of the communist era. Other turning points in administration in post-use are the fall of the communist regime and the Romanian transition to democracy.

Without trying to be exhaustive, the examples presented in the paper reflect the realities today and they were chosen according to various criteria, such as uniqueness of the project in terms of architecture and structural solutions making the case of innovative structures, as well as their link to the surrounding areas and the city's urban fabric. Another important factor was the amount of information available on the subject.

Because the subject of the 20<sup>th</sup> century modern heritage is a new topic of discussion in the academic field in Romania, scholars are still undergoing thorough research to recreate the history of recent architecture. This study has the main goal to uncover bits by bits this tangled history of the sports facilities built in the communist era providing the tools for a better approach when considering their reuse.

## 2. Sports public spaces and new facilities in communist Romania

Sports and the spaces for physical movement in Romania experienced an explosive evolution in the period after the Second World War, after the communist party came to power.

*As a result of the party's policy of creating a mass sports movement, sport cease to be the prerogative of the so-called elites. Working-class people enter stadiums, athletics tracks, gymnasiums by the thousands. (Berindei 1962)*

In this context, sports became a tool of political propaganda, especially for promoting the idea of the "new man" and for discrediting the previous historical period. Emphasis was placed on sports as leisure, but also on the discovery of the next performance athletes that could prove the superiority of the communist East over the capitalist West (Boia 2011).

If until then the sports organisation model had German, French or Swedish influences (Pujadas, 2012), with the establishment of the communist regime the main influence came from the USSR, especially in the first years.

In the USSR, since the interwar period, sports played an important role in the creation of the new Soviet man. This promoted sports for the masses in various forms, from work environments such as factories, to all levels of education and other competitions such as the Spartakiads. Sports had to be a permanent component in the life of the new man who, in addition to the duty to work, also had the duty to defend his country and he could only do so only if he was physically prepared (Constantin 2020).

The same was also applicable to Romania. The ideology of the party projected a uniform lifestyle for all workers, a controlled and controllable population even after working hours which involved filling free time with various social and sports activities. Workplace gymnastics became the norm, with physical exercise depending on the type of work and work schedule, following scientific norms to keep production rates high (Constantin 2020).

As noted by Ana Maria Zahariade (2011), during the communist period, all public buildings were erected exclusively through planned state investment — thus, the public domain was a political land. In general, she notes further, they were subordinate to the development of the socio-cultural sector and were dispersed in areas such as education, research, health care, public administration, etc.

As for the sports constructions, they proved insufficient for the busy agenda of the communist party, therefore, in the next 40 years, until the fall of communism in 1989, building sports infrastructure became a priority.

The main goal was for every county municipality or larger city to have at least one stadium, a multi-purpose hall with 1300 to 3000 seats, a swimming pool and an artificial ice rink. The construction of schools also required their provision with spaces for sports, with playgrounds for children, and in addition, new residential areas should be equipped, among other things, with simple sports grounds (Popa 1978).

Further, the paper offers a categorisation of the main types of sports facilities built in that period, especially in the urban areas. They were mostly public spaces, where everyone could have access.

## 2.1. The park for culture and sports

For the development of leisure spaces, in the 1950s, the idea of outdoor sports, in parks or gardens, went further under the name of "culture and recreation parks". This time, the park played a key role within the socialist city, especially in the economy of large urban clusters (Tulbure 2019). The new arrangements were seen by the leadership at the time as ensembles that "combine(d) political education with the improvement of the mental health of millions of workers." Their composition included stadiums (many times the old stadiums from the interwar period were reused), theatres, summer cinemas as well as other leisure elements such as restaurants, all arranged freely in a green setting rigorously landscaped with geometric alleys.

A good example is the 23 August Park (known today as the National Park) from Bucharest, the capital city of the country. It was built for the 1953 International Peace and Friendship Conference for Students and Youth. Inside the park was built the largest stadium of the country and many various sports facilities such as an Ice Rink and other playing field (Marcus 1958). The park became an important public space of the city and around it many other housing units were built (Figure 2).

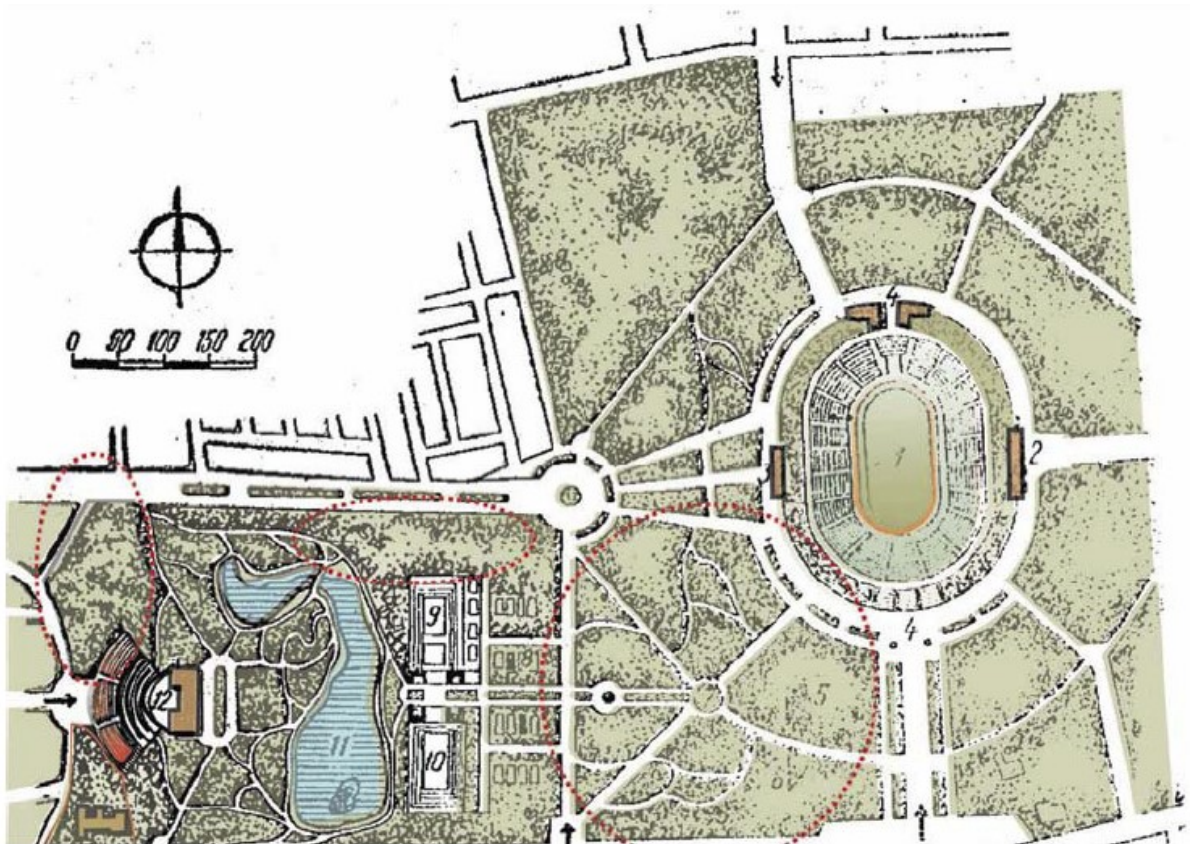
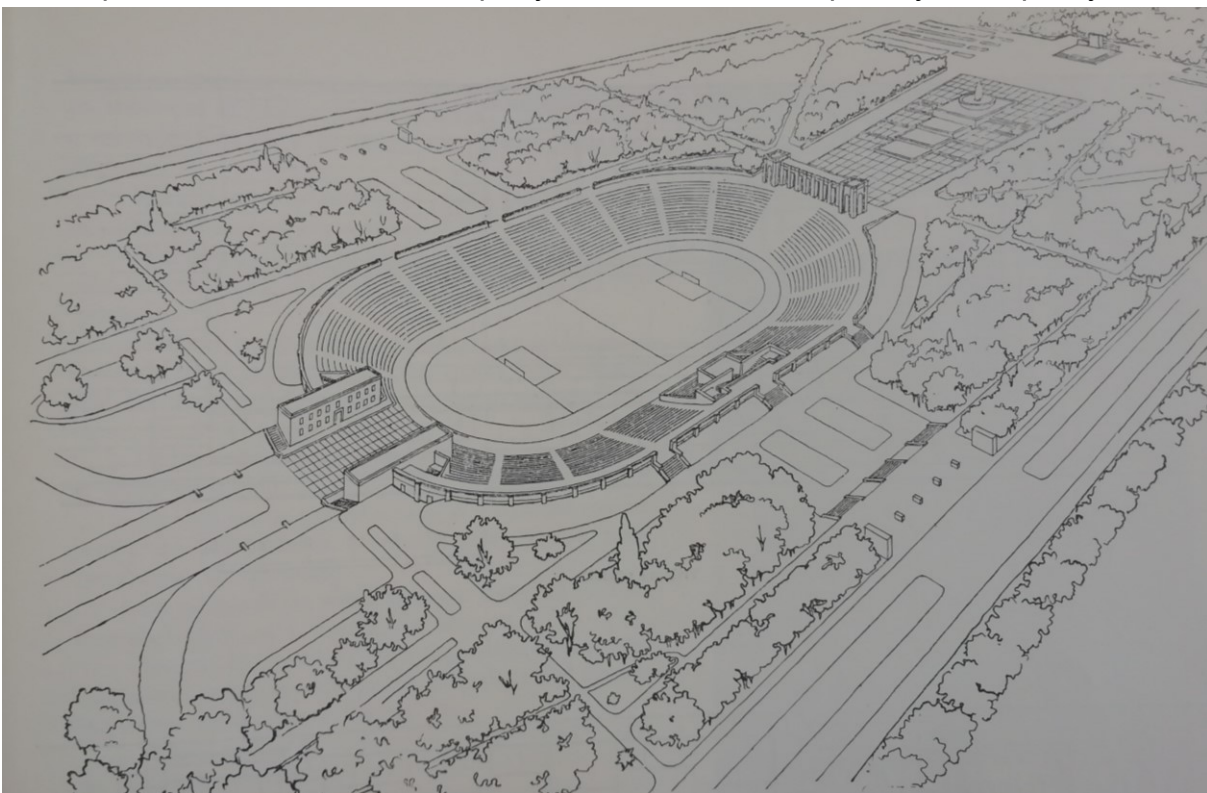


Figure 2. The plan of the 23 August Park and Stadium (Source: Marcus, R., (1958) "Parcuri și Grădini în România" (Parks and Gardens in Romania), Tehnica Publishing House, Bucharest, Romania. )

## 2.2. The sports complex

In the same period, the construction of new sports complexes began, especially in cities with a strong industrial character. Compared to the culture and sports park, this type of exterior design requires greater specialisation. If in the case of parks they were designed by adding various types of activities, such as outdoor theatres or restaurants, the sports complex were solely dedicated to sports activities. Each housed a stadium, playing fields for basketball, volleyball, handball, etc. that could be used by anyone. The initial draft included constructions such as gymnasiums, training halls, multifunctional sports halls, etc. (Figure 3).

Most of the time, these were facilities made according to standard models and sized for the number of inhabitants of the respective city. Until the 1960s, such urban equipment was built in most of the county seats. The quality of these constructions is less important, as the communist party cared more about quantity than quality.



*Figure 3. Constanța Sports Complex, stadium perspective as drawn by the architects (Source: Arhitectura RPR, no. 9 (54), p. 63)*

## 2.3. Sports halls

Starting in the 60s the interest was rather oriented towards indoor sports facilities. This is how the idea of multipurpose sports halls was envisioned, which was not only dedicated to sports activities, but also to other types of public events, which represented a necessity for the city, both during the communist period and today.

From the very beginning, multipurpose sports halls were important elements of urban space which, in addition to their functional significance as indoor spaces that can accommodate many people for various public events, became landmarks of the outdoor urban space.

The positioning of these buildings within the cities takes into account several criteria. Some of these sports halls were built next to sports parks or sports complexes



which were already built, strengthening the character of the existent sports area. In other cases, a singular positioning was chosen to create a centre of interest in the area.

Following the size of their the interior space, the roof structure of these halls became a field of engineering experiments. Their urban form and image is predominantly a result of structural reasons (Figure 4). An effect of grandeur through form is thus obtained, a result of the technique and materiality of concrete.



*Figure 4. Detail of the main entrance of the Polyvalent sports hall of Bacau, (Source: author's gallery)*

In addition to the interior configuration and positioning within the city, another crucial element that the literature of the period omits is the design of the public space adjacent to the new multipurpose halls. We can conclude that the outdoor space was not a matter of great significance. However, looking at the architecture of the halls as a whole, a common characteristic is their monumentality, which required a certain conforming external arrangement.

### **3. Public sports places today**

After the fall of the communist regime in 1989 the transition from a closed central planned society to a more open one began and the sports phenomenon registered a decline, especially regarding the lack of funds and public support. If until then, sport was an instrument for propaganda and societal control, shortly after, sports became only a leisure activity. In this context, the investments for urban sports equipment stopped, and the existing heritage was regarded as old and “communist”.

In this last part of the article the various approaches are presented to handling the sports communist heritage that surfaced in the last 30 years through a couple of case studies.

### 3.1. Demolition and destruction

As previously mentioned, the belonging of sports buildings to the inherited socialist heritage comes naturally with certain problems regarding the integration into the urban form of the contemporary city. This problem is not due to their lack of utility; on the contrary, it mainly refers to a discontinuity at the level of the urban image and at the level of unused public space.

Also, because they are quite recent buildings, even if they present certain defining elements for the architecture of the period or key moments in the development of construction techniques, the risk of their demolition is quite high, especially if they are located in an area of interest for real estate developments.

Even if the spaces themselves are still used by the local community, no maintenance work has been carried out in the last 30 years, which makes them almost unused under normal conditions, an additional reason for their demolition. Such an example can be found in Iași, where the multipurpose hall was built in a relatively central area of the city, in the 70s, following a unique project by the architect Ion Mircea Enescu (2006). The initial project presents a very interesting constructive system, where three main pillars made of pre-compressed reinforced concrete were used to support the roof through concrete elements similar to pre-tensioned cables. The applied structure was removed to the outside of the building, which gave it a special aesthetic, specific to the period. At that time, this constructive system represented a beginning in terms of reinforced concrete structures (Figure 5 and 6).

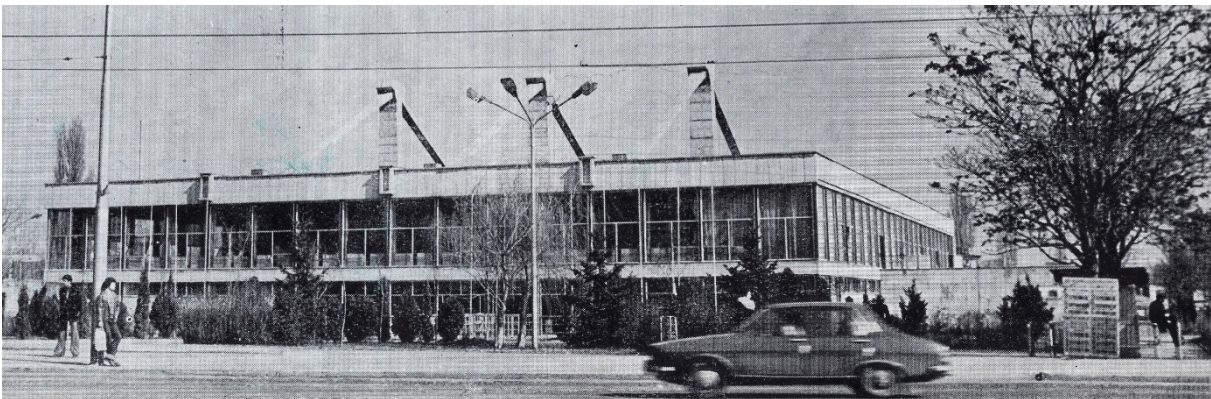


Figure 5. Iasi Multipurpose Hall (Source: *Arhitectura RPR* no. 1-2 (170 - 171), p. 31)

Currently, even if the sports hall is still used, its demolition is desired and high-rise collective housing is planned to be built. Among the main arguments brought forward for the demolition is the non-compliance with current standards regarding the interior equipment, problem that could be relatively easily solved through a reconfiguration of the interior space.

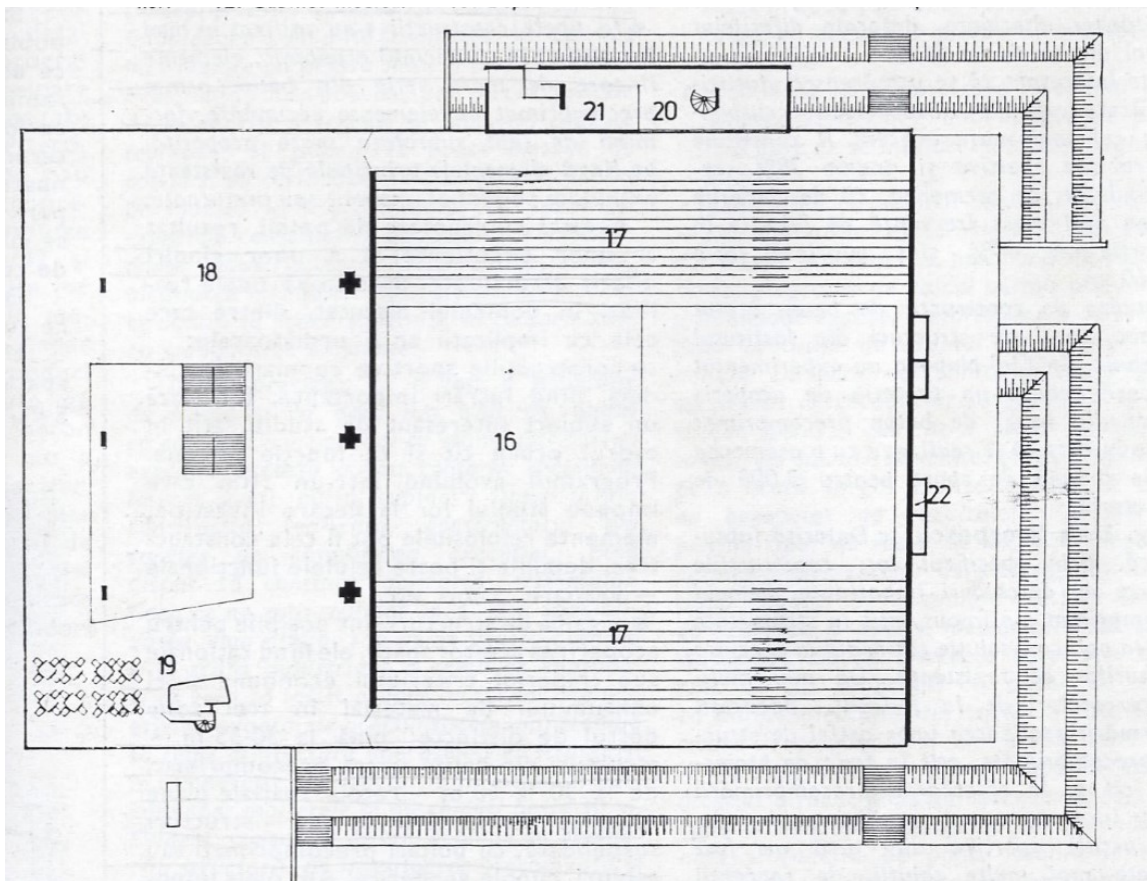
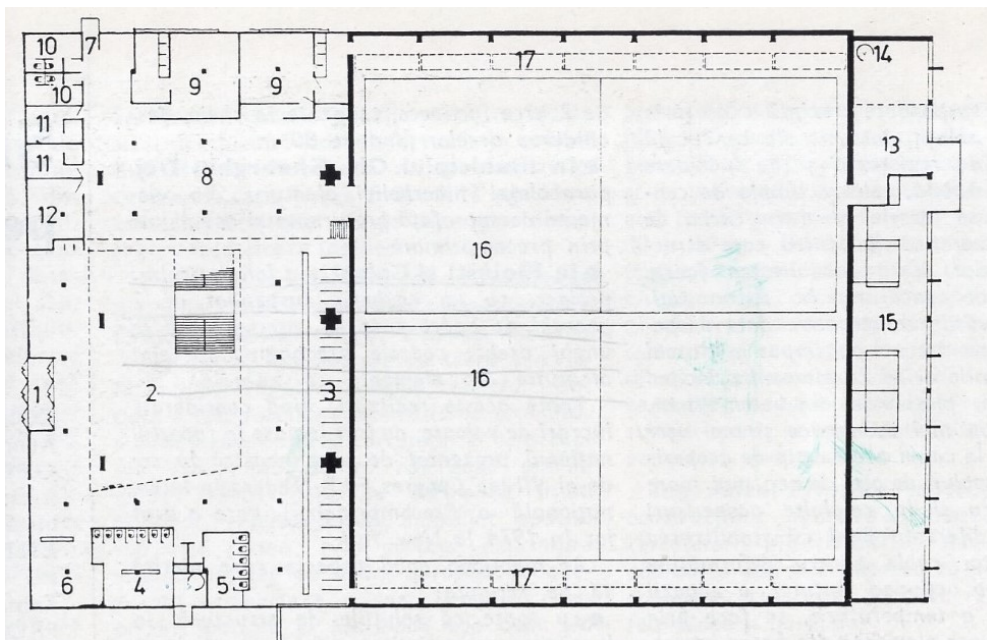


Figure 6. Playing field plan – up– stands plan – down– for the Iasi Multipurpose plan (Source: *Arhitectura RPR no. 1-2 (170 - 171), p. 32*)

### 3.2. Replacing the existing structures

If in some cases the tendency is to demolish and replace sports areas with a different function, another approach to sports buildings is to replace them with new ones, built according to modern standards.

Such examples can be found in several cities in Romania, one of them being the case of Târgu-Jiu, a city located in the south western part of the country. The existing sports complex built during the 1960s and 1970s had a stadium for football and athletics, a separate football field for training, additional fields for tennis and basketball and a multipurpose hall built according to a standardised project. Even if their use is still ongoing, no important maintenance work or other major investments took place with their condition somewhat lacking in terms of modern standards.

Currently, the entire area for sports has been rebuilt, with a completely new football arena, with covered seats for 12,000 people, with conference rooms, locker rooms made according to modern standards and a new public space that connects with the surroundings and generates a point of attraction in the city (Figure 7). Regarding the hall, it was partially restored, preserving the "shell" of the closure. More precisely, the hyperboloid structure was kept, and the interior was completely replaced according to the current standards for a multipurpose hall.



Figure 7. The new Stadium from Targu Jiu and its public space (Source: author's gallery)

### 3.3. Reuse of existing structures

In some cases, there is also a third approach to sports spaces, namely the reuse and renovation of existing structures and keeping them as close as possible to their original form.

Considering that the replacement of an urban space undesirable for various reasons, often ideological, with another urban space equally foreign to the fabric of the city does not actually solve the problem of continuity, the integration of the existing structures into the urban fabric may be the best approach.

Such an example is found in Galați, a city located in the south-eastern part of the country, on the banks of the Danube. The construction of the sports area was started

in the 1950s by building the main stadium on the outskirts of the city at that time, in a park, taking advantage of the relief in the area. In the meantime, the urban fabric expanded, and other sports structures were added to the area, such as the multipurpose hall, a gymnasium, an outdoor swimming pool and other sports grounds. Of these, the football stadium and the multipurpose hall are currently in use.

As for the multipurpose hall, a structure of 4 post-compressed reinforced concrete frames was used, forming an exoskeleton that supports the hall's covering. Having reached an advanced stage of dilapidation, as it was not used at the beginning of the 2000s, the multipurpose hall was refurbished in its original form, including the fresco on the main facade (Figure 8).



*Figure 8. Galati Multipurpose Hall after restoration. The main façade is advertising upcoming events (Source: author's archive)*

Currently, the multipurpose hall is used for various sports competitions, concerts or other public events. The public space adjacent to it and the nearby stadium is currently unused to the extent of its true capacity, one part being occupied by Parking, and another part hosting temporary outdoor fairs.

By restoring the hall and reintroducing it into the city life circuit, the surrounding public space could be subjected to restructuring works in the future, which would mean a connection of the urban fabric of the late '70s, early '80s, with the rest of the cityscape.

#### **4. Conclusions**

Tracing the evolution of sports facilities from their early influences and revolutions presents valuable information about the complex interconnection between urban fabric and social life.

Receiving influence from both western cultures and then eastern ideology, financed and built exclusively through planned state investment under strict political control, these at times huge urban endowments became the target of rejection associated with the regime they came to represent in social memory.

The park for culture and sports, the sports complex or the building for sports, all and any of them oscillated from demolition and destruction to replacement or reuse of existing structures, as society transitioned to a democratic regime sustaining financial, real estate, political and social pressure.

Being a part of the recent history, the sports facilities built during the communist era are a terrain of constant questioning and controversy. The main problem is whether they should remain in the urban fabric or they should be substituted with new buildings or even new functions. As this study shows, many of them have some important intrinsic values, representing crucial moments in the development of new innovative structures that make use of concrete construction systems.

These sports facilities, especially the sports halls and stadium are themselves introverted edifices, which do not offer much to the outside space, but can even have a destructive effect over the urban fabric. This is mainly due to the considerable space they occupy within the city, as well as the disruption of pedestrian flows or some activities in the public space. For these reasons, sports facilities need a stronger connection with the surroundings through various additional functions.

Planning can be linked to building location by studying contextual factors: morphological, social, functional, perceptual, visual and temporal. In this way one can achieve that sense of place and authenticity that an urban catalyst needs to integrate into the environment and begin to positively influence it.

As for the sports facilities, they are not enough in themselves, not being self-sufficient spaces. For this reason special programming is needed around them and inside them so that they can provide an interesting urban environment all year round. Sports facilities need a stronger connection with the surroundings through various additional functions (Smith 2010, Roul & Lefebvre 2013). This approach, together with a thorough planning can solve the problem of the discontinuously urban tissue in contemporary Romanian cities.

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## ARE THEY URBAN INJECTIONS? : comparing the small-scale socialist housing estates in Budapest

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### ABSTRACT

*Criticism of mass housing estates has emerged worldwide, including in post-socialist countries like Hungary, as early as the 1960s. One of the main issues pointed out was the lack of urban integration in the design of these estates. Their size, density, location, architectural design, and social composition did not correspond to the character of the surrounding environment, resulting in the creation of urban boundaries. To address this, the construction of housing estates that blend in with the existing urban environment through “urban injection” was recommended by Szelényi & Konrád (1969). In Budapest, 73 of these urban injections, i.e. small housing estates, were built during the state socialist era. Due to their scale and number, these housing estates have developed various (often progressive) urban forms and lifeways, allowing for their complex examination and comparison. This research focuses only on the built environment (location, zoning, land-use, urban patterns) of Budapest's small housing estates especially based on their land tenure (private, public). The physical manifestation of different land ownerships is the presence or absence of fences, which determines the inclusivity or exclusivity of each space. The research aims to answer two questions: (1) What kind of urban character do the small housing estates in Budapest have? (2) What impact does the presence of fences have on the urban character of the small housing estates?*

### KEYWORDS

*housing estate, Budapest, socialism, urban form, land tenure*



# 1. Introduction

## 1.1. Criticism of the modern housing estates

The elimination of the housing crisis became a priority in the 20th century, facilitated by technological advancements and ideological changes. New planned cities and thousands of housing estates (HEs) have transformed the historical urban landscapes both in the West and the East, as well as in the Third World. Undoubtedly, this era deserves recognition for providing secure and comfortable housing to millions worldwide, supported by an unprecedented number of welfare functions and institutions. However, the problematic nature of the overly proactive spatial transformation of modernism became a central theme in the latter half of the 20th century. The critique of modern architecture, with its flagship: large HE, often revolves around urban fabric isolation (Alexander, 1996), disregard for spatial context (Alexander, 1964), monotonous architectural forms (Venturi, 1966), monofunctionality (Jacobs, 1961), lack of complex land use, land tenure and functions (Gehl, 1987, 2010). In addition to the physical environment, several studies draw attention to the sociological drawbacks of mass housing construction, such as increased poverty and exposure to segregation (Hess et al., 2018), or the lack of mixing between social and demographic groups (Szelényi & Konrád, 1969)<sup>1</sup>.



*Figure 1. Small housing estates in Budapest*

*(Source: 1. Samodai József Zuglói Helytörténeti Műhely, 1954, Fortepan.hu, 2. Kovács Márton Ernő, 1949, Fortepan.hu, 3. BVTV (Orlai Gusztáv) és Lelkes László (Vadász, 1969), 4. Bauer Sándor, 1955, Fortepan.hu, 5. Bartók István, 1973, Fortepan.hu, 6. Bojár Sándor, 1972, Fortepan.hu)*

<sup>1</sup> It is important to note that the demise of modernism - exemplified by the demolition of the Pruitt-Igoe large housing estate in 1972, just 20 years after its construction (Marshall, 2015) - was primarily caused by flawed housing policies and social factors rather than the poorly designed spatial characteristics.

Szelényi & Konrád have proposed three solutions to resolve the criticisms of HEs. Without denying the importance of mass housing, they advised (1) the reform of state rental housing and housing loan systems, (2) the creation of diverse pattern designs from suburban's townhouses to high-rise towers, (3) and the multiplication of small-scale housing estates. They said the use of the form of organic urbanization is necessary. Instead of large-scale demolitions or greenfield investments, there is a need for small-scale housing estates or "urban injections" (see Figure 1.). These smaller developments allow for balanced urban development between different neighborhoods, facilitating the creation of a heterogeneous and integrated urban environment. Targeted construction of small housing estates makes the surrounding areas more resilient and prevents their deterioration into slums.

The starting point of my research is the third proposal of Szelényi & Konrád. What kind of urban character do the small housing estates in Budapest have? Have these urban injections succeeded in creating a heterogeneous, but integrated physical environment in the Hungarian reality?

## 1.2. Hungarian reality of housing estates

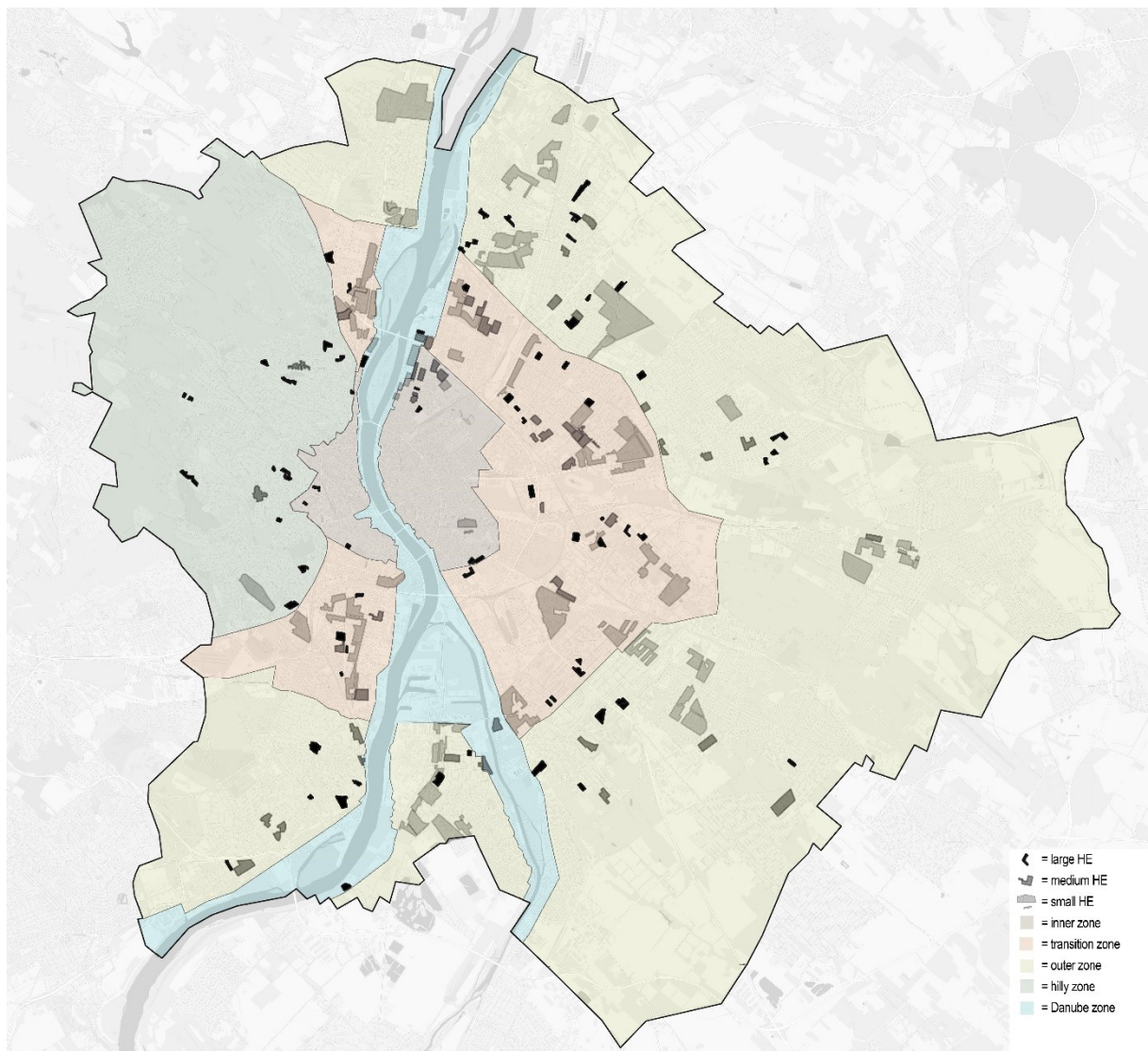
Körner & Nagy (2006) examine the history of mass housing construction in Europe and Hungary, shedding light on the characteristics of post-socialist countries. The main underlying reasons for these characteristics are political exposure and the overwhelming presence of state socialism. The system demanded political styles (e.g. socialist realism), planned economy (specified housing quotas per year), technology (e.g. prefabrication), and the locations of the investments. It caused that spatial isolation is more pronounced in socialist countries due to non-capitalist land ownership and investment conditions (Kiss, 2019). Due to the inflexibility and ineffectiveness of the system, large HEs only started to be built in Budapest in the second half of the 1960s (Balla, 2021). Although criticism of HEs was emerged in Hungary often in sync with international trends by professionals (Szelényi & Konrád, 1969; Meggyesi, 1985), its impact on construction was only realized in the 1980s (BFTVB, 1983; BFTVB, 1988). Monotonous facades, repetitive floor plans, inflexible construction systems, functionless ground floors, and haphazard shapeless public spaces characterize most Hungarian HEs (BFTVB, 1981). Only a few much smaller scale exceptions were built at that era (see Figure 1.). More thoughtful large developments (unique urban forms, diverse floor plans, facades, structural systems, ground-floor functions, etc.) only appeared in Budapest in the 1980s.

The political transition did not bring new momentum to the life of the HEs (Kovács & Douglas, 1996) in the 90s. Due to privatization, individual HEs were fragmented into condominiums with different physical conditions, financial backgrounds and motivations (Egedy, 2001). It determined their limited ability to assert interests and control their physical environment. Despite numerous inspiring international examples of housing estate rehabilitation (Kohout et al., 2016) over the past 30 years, most Hungarian HEs have only undergone energy-related improvements (insulation, window replacements) (Szabó & Bene, 2019). Comprehensive urban planning interventions are still awaited. This research seeks to provide a basis for such future development through an urbanistic study of socialist small-scale housing estates.

## 2. Methodology

The research examines Budapest's state-socialist small housing estates (1949-1989) based on official documents, maps, and fieldwork involving own data collection and observation (June of 2023).

The housing estate is defined as a development of at least two blocks with more than 90 flats, which are accessed from staircases. The buildings are either on island-like plots surrounded by public open space or on the same private plot. All the buildings in the housing estate are built at the same time, on the basis of a common urban and architectural plan. The 161 socialist HEs of Budapest were grouped into three categories by its scale: large (with more than 2000 units) (Balla, 2021), medium-sized (with a range of 500-2000 units) (ÉVM, 1981; Csizmady, 2003), and small housing estates (with a range of 90-500 units) (see Figure 2.). A government decree (PM-ÉVM, 1971) set the threshold of 90 units in Budapest and 60 units in rural areas for HEs.



*Figure 2. Housing estates in Budapest  
(Source: made by author)*

The research covers 3 main topics: location, land-use and zoning, and urban patterns. (1) The spatial location of all residential areas in Budapest is examined based on the 5 main zones of the city's zoning plan and the annual per capita income of the

zones. (2) The 73 small HEs and their surroundings will be presented through the land-use and zoning designation based on the Urban Structural Plan (TSZT, 2021). (3) The urban patterns section will put the urban forms of the small HEs into a new system defined by the researcher, based on map and personal observation. These three studies will show the integration of the small HEs.

For each of the three themes, not only is the set of small HEs considered as the basic set, but the difference between fenced and unfenced developments is also shown separately. The research aims to evaluate and present the urban characteristics of small housing estates in Budapest to compare fenced and unfenced ones. It will review the radical land system created in the 20th century. In many cases, instead of traditional land subdivision, the narrowing of property boundaries to building boundaries has opened up the outdoors and its functions (playgrounds, parking lots) to the public. Its goal is to validate or refute the exclusionary or inclusionary decisions of mass housing constructions. My hypothesis is that the nature of the land/plot ownership surrounding the housing estates has an impact on the integration of the housing estates.



Figure 3. The Queen Elizabeth Road's housing estate  
 (Source: 1.-4.-5.-6. made by author, 2. Samodai József Zuglói Helytörténeti Műhely, 1955, Fortepan.hu, 3. MÉ (1954))

Of the small HEs in Budapest, 34 were built on island-like plots floating in the open public space, while 38 have their own private plots. In most cases, private land ownership means enclosed plots, but there is one exception where, the land surrounding the allotment is private but not enclosed. Therefore, this case is included in the research as an unenclosed HE. Another interesting outlier is the 'anomaly' of the Queen Elizabeth Road housing estate, where some houses are fenced while others are unfenced (see Figure 3.). That is the only small HE in Budapest where land ownership is heterogeneous and is therefore considered a half-fenced, half-unfenced housing estate.

### 3. Results

#### 3.1. Location

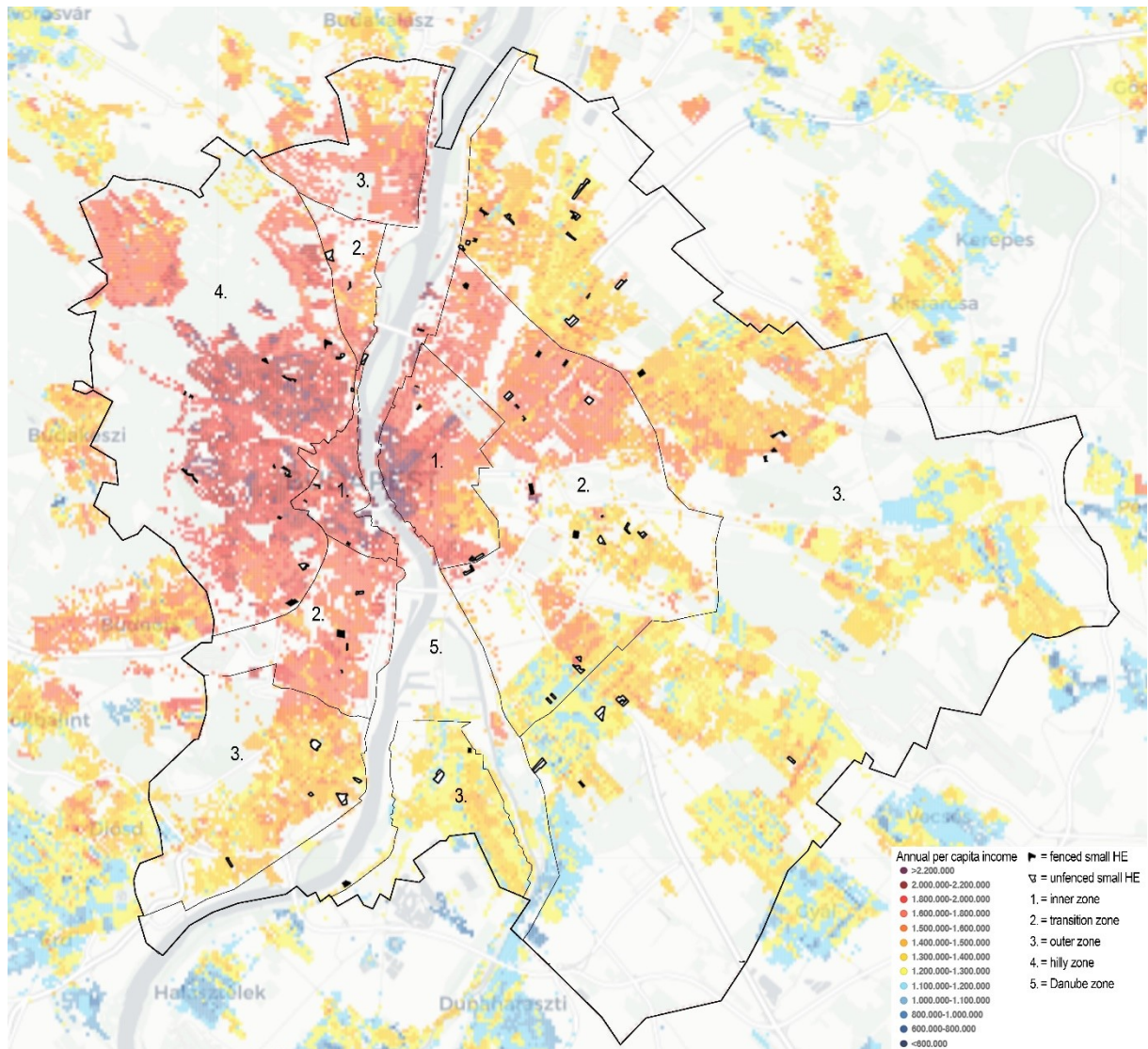


Figure 4. Housing estates in Budapest  
(Source: [www.geoxmap.carto.com](http://www.geoxmap.carto.com))

The location of HEs in the broader urban fabric is illustrated by superimposing them on the zoning map of Budapest (see Figure 2.). The Regulation Plan of Budapest divides the city into 5 zones: inner, transitional, outer, hilly, and Danube zone. Danube, inner and hilly zones can be considered prosperous neighbourhoods, while the transitional zone is average and the outer zone is relatively deprived (see Figure 4.). If we group the housing estates according to their size and urban zones (see Table 1.), we can observe differences in the spatial density of the different-sized HEs. While large HEs have the lowest proportion of units in the hilly (2%) and inner (2%) zones and the highest proportion in the transitional (49%) and outer (42%) zones, the reverse is true for small HEs, with the lowest proportion in the transitional zone (33%) and the highest proportion in the hilly zone (16%). Although each sized HE is found in all 5 zones, large housing estates are over-represented in the low-status zones, while small housing estates are over-represented in the high-status zones. However, the statistically high status of the small HEs is only due to the gated developments. An interesting contrast

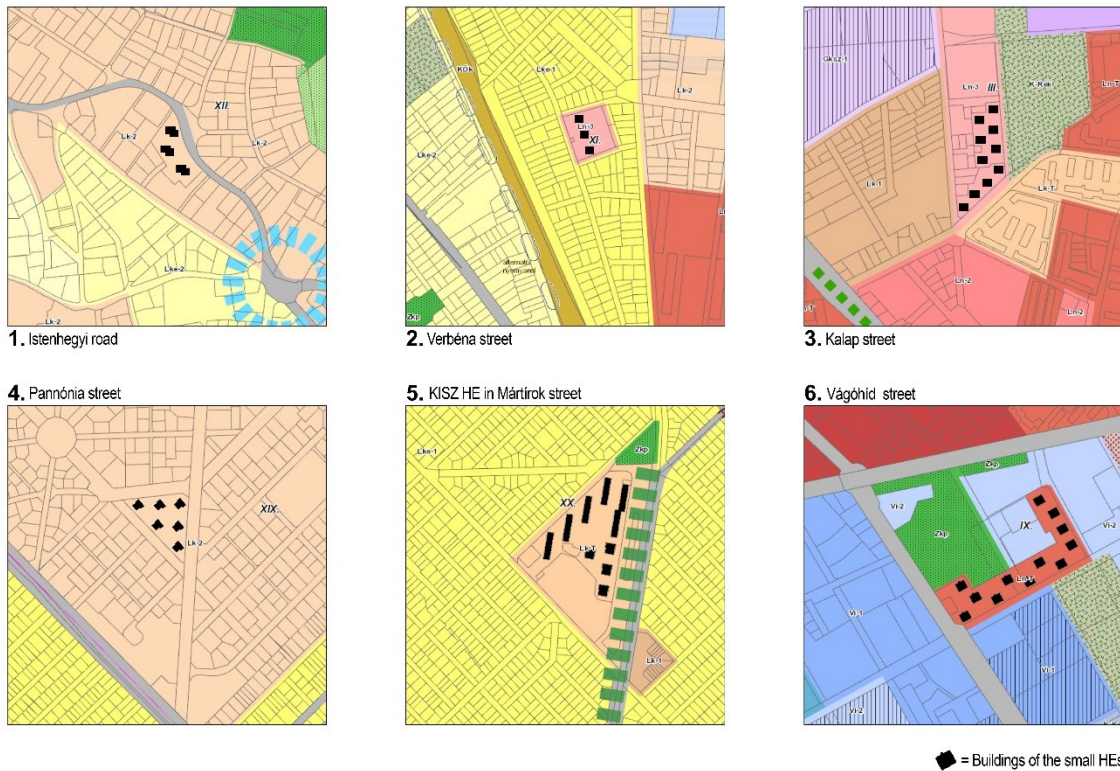
is that fenced HEs account for two-thirds of all HEs in the hilly zone (i.e. they are incredibly over-represented in this high-status area), while more than half of the unfenced HEs are in the outer, in the poorest zone.

**Table 1. The distribution of HEs in Budapest by zones**

Zones	Large HE		Medium HE		Small HE				Total	
					fenced		unfenced			
	pcs	%	pcs	%	pcs	%	pcs	%	pcs	%
Inner	1	2	5	11	6	16	2	5,5	14	9
Transitional	21	49	17	38	11,5	30,5	12,5	35	61	38
Outer	18	42	17	38	9	24	18	50,5	62	38,5
Hilly	1	2	2	4	10	26,5	2	6	15	9,5
Danube	2	5	4	9	1	3	1	3	8	5
Total	43	100	45	100	37,5	100	35,5	100	161	100

**3.2. Land-use and zoning**

To compare the relation between the small housing estates and their direct surroundings, the land-use and zoning designation in the Urban Structural Plan (TSZT, 2021) were used (see Figure 5.). The design of each zone includes the function of the area (residential, mixed, undeveloped, economic, special), the intensity of the development (high-rise urban, low-rise urban, suburban), and the type of development (free-standing, townhouse, housing estate, etc.).



**Figure 5. Land-use and zoning designations of small HEs in Budapest**  
(source: <https://budapestkozut.maps.arcgis.com>)

Among the 73 small HEs, the most popular land-use and zoning designations were low-rise urban residential, free-standing (Lk-2: 23pcs), high-rise urban residential, housing estate (Ln-T: 18pcs), high-rise urban residential, free-standing (Ln-3: 12pcs) and low-rise urban residential, housing estate (Lk-T: 8pcs) (see Table 2.). In addition,

there were small housing estates in other residential designations (Ln-2, Lk-1, Lk-T), in addition to secondary central (Vt-M: 2) and local central (Vt-H: 2) mixed areas.

**Table 2. Matrix of the land-use and zoning designations of the small HEs and their surroundings**

Designations of the small HEs	Nb. of sites	Land-use and zoning designations of the surroundings																											
		Residential									Mixed (central, institutional)						Economic		Special			Undeveloped							
		Ln-1	Ln-2	Ln-3	Ln-T	Lk-1	Lk-2	Lk-T	Lke-1	Lke-2	Lke-3	Vt-1	Vt-2	Vt-3	Vt-H	Vt-M	Vt-V	Vb	Gkez-1	Gkez-2	K-EU	K-Rek	K-ter	Ev-Vg	Ek	Mk	Zip	Vb	
Ln-2	4	1	4																										
Ln-3	12			1		2	5	1	5	1						5					2	2		1			1		1
Ln-T	18	2	3	1	8	3	3		4						1	3							1	1			1		1
Lk-1	2				2	1									1	1				1	2	2	1	1			1	4	1
Lk-2	23			1	1	3	21		4	3	1				2	1	1										5		
Lk-T	8				1	2	3		5	2					2						1								
Vt-H	2					1	1									2													
Vt-M	2						1										2												1
Lk-T/L	1								1						1														
Ln-T/G	1								1										1										
Sum	73	4	7	3	10	14	34	1	20	6	1	4	13	1	6	2	1	1		3	6	2	3	2	1	6	1	6	1
		100									28						9		7			15							

In addition to the classification of each case study, it is useful to look at the classification of their spatial context. The designation of up to 3 different adjacent areas was examined for each small HE. Most of the sites are attached to residential areas (100 sites). They are also attached to mixed (27 sites), economic (9 sites), special (7 sites), and undeveloped (15 sites) areas. Most of the cases (39 sites) the site is classified as being the same as one of its neighbours. In 34 cases, the designation of the built-up area and its surroundings is fully different. It means their urban fabric is heterogeneous. In 16 cases the whole environment of the housing estate has only one designation, which differs in 6 cases and is the same as the housing estate in 10 cases. In 29 cases there are 3 or more different designations around the housing estate. 13 of them are different from the designation of the housing estate too. In such cases, we can speak of a patchwork city.

**Table 3. The distribution of the fenced and unfenced small HEs' neighbourhoods by their land-use and zoning function**

	The functional designations of the surroundings								HE	Total HE pcs / surroundings pcs
	residential		mixed		others		total		total	
	pcs	%	pcs	%	pcs	%	pcs	%	pcs	
Fenced	48,5	48,5	14	50	13	42	75,5	47	35,5	2,13
Unfenced	51,5	51,5	14	50	18	58	83,5	53	37,5	2,23
Total	100	100	28	100	31	100	159	100	73	2,18

On average, fenced small HEs have 2.13 neighbours of different designations, while unfenced ones have 2.23 (see Table 3). In other words, unfenced HEs are minimally but more heterogeneous. Looking at the functional classification of the areas, we can see that while residential and mixed areas are almost equally represented in both groups, areas with other functions (economic, special, undeveloped) are over-represented in the unfenced small HEs. That only reinforces the heterogeneity of its environment. Moreover, 64% of the enclosed small HEs are classified as the same as one of their neighbours. For the unfenced small HEs, this proportion is only 27%. It is even more striking if we look only at the housing estates with one neighbour: 9 out of 10.5 fenced small HEs and only 1 out of 5.5 unfenced small HEs have the same classification as their neighbours (see Table 4.).

**Table 4. The distribution of the small HEs designations by their surroundings' land-use and zoning designations**

Small HEs		Number of the HEs' surroundings' designations							
Land use	Designation	1		2		3		Total	
		pcs	%	pcs	%	pcs	%	pcs	%
Fenced	same	9	86	7	44	8	73	24	64
	different	1,5	4	9	56	3	27	13,5	36
	total	10,5	100	16	100	11	100	37,5	100
Unfenced	same	1	18	6	50	8	44	15	27
	different	4,5	82	6	50	10	56	20,5	73
	total	5,5	100	12	100	18	100	35,5	100
Total	same	10	62	13	46	16	55	39	53
	different	6	38	15	54	13	45	34	47
	total	16	100	28	100	29	100	73	100

### 3.3. Urban Patterns

Taking into account the land-use and zoning designations and based on a map analysis of the individual built-up areas, we can observe six patterns of urban behaviour (see Figure 6.). The formation of each group was guided by two components: the character of the environment and the spatial relationship to it. We could distinguish homogeneous, heterogeneous and incomplete/partial (peri-urban or undeveloped) environments. The urban form of the small HEs could be compatible (neutral) or different. If the built-up area differs from the character of its surroundings, we could identify patterns of integration / addition (positive) or segregation (negative).

When a small HE is neutral to its homogeneous environment, it is called *fit*. If the urban form of the HE is markedly different from its uniform built environment, and this is a formality for its own sake, it is *eccentric* pattern. But if it benefits its surroundings (public parks, institutions, shops), we could call it *center*. Neutral development as a new element in a heterogeneous environment is just another unjustified *patch* in the urban fabric. But if a housing estate is added to a heterogeneous environment as an existing spatial element, or even creates a bridge between patches, minimising the chaotic urban heterogeneity, it is *reconcile*. If a housing estate is incomplete, it can only relate to its surroundings in one way: as a *border*. Of the six groups listed above, we can consider fit, center and reconcile as urban injections that facilitate integration.

**Table 5. The distribution of the fenced and unfenced small HEs by their urban pattern**

	Fenced		Unfenced		Total	
	pcs	%	pcs	%	pcs	%
Fit	12	32	1	3	13	18
Center	2,5	6,5	7,5	21	10	13,5
Eccentric	5	13,5	5	14	10	13,5
Reconcile	9	24	8	22,5	17	23,5
Patchwork	6	16	12	34	18	24,5
Border	3	8	2	5,5	5	7
Total	37,5	100	35,5	100	73	100

In Budapest, 55% of all small HEs belong to the fit, center, and reconcile group (see Table 5.). However, the largest proportion - nearly a quarter of the small HEs - is patchwork. Almost two-thirds of fenced small HEs are integrative urban form, with a prominent fit pattern: characterising almost one in three fenced small HEs. In comparison, only one unfenced small HE is included in the fit category. For unfenced small HEs, the center (21%) and patchwork (34%) characters are prominent. The majority (53.5%) of unfenced HEs are designed with a segregative urban form.



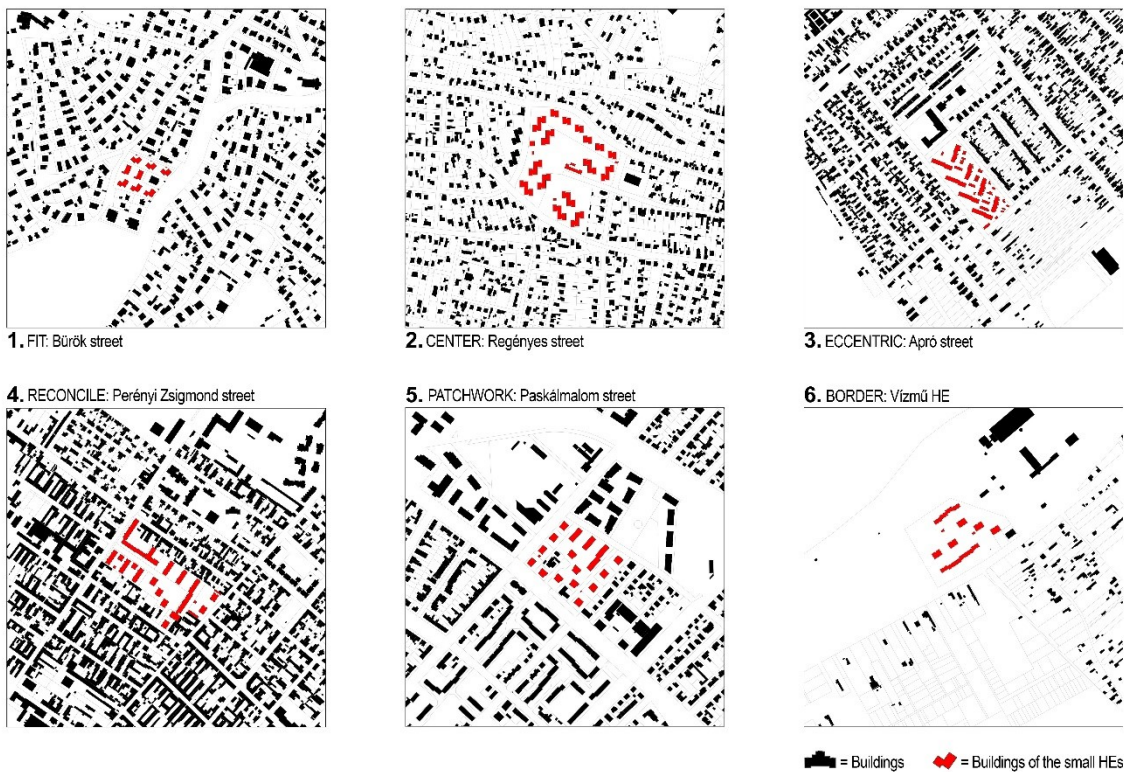


Figure 6. The six urban patterns of the small HEs in Budapest  
(Source: made by author)

## 4. Conclusion

The research was concerned with the collection and presentation of the physical characteristics of the small housing estates in Budapest through 3 sub-themes - location, land-use and zoning, and urban patterns. Due to the complexity of the small housing estates, in many cases, we can talk about real urban injections, but - precisely because of this complexity - some of them are only partially realized and others not at all. Small HEs are located in higher-status zones of Budapest compared to larger HEs. The land-use and zoning study has highlighted the diverse urban context of small housing estates. The urban behaviour of the developments is classified into diverse patterns, most of which can be considered urban injection. For the small HEs as a whole, we can conclude that they have become high-quality, heterogeneous but integrated urban design elements of Budapest.


However, a strong dichotomy can be observed in the examination of the links between land tenure (private vs. public, fenced vs. unfenced) and other urban characteristics. The case study patterns demonstrate that higher-quality small housing estates are exclusive. Whether we look at their role in the city, their location, the land-use and zoning designation of their surroundings, or the urban behaviour of the development, fenced small HEs have more prosperous data in all cases. The fenced small HEs are built in higher-status areas, in more homogeneous neighbourhoods, and nearly two-thirds of their urban form can be considered integrative urban injections. It implies a strong correlation between higher status and private land tenure / fenced plots.

It raises the question of what is the cause and what is the effect. Was it the higher-status location that allowed developers to fence off their land, or was it the fenced housing developments that indicated the wealth of the area? Further sociological,

economic, land use, and architectural research is needed to answer these questions. But all this can help to understand the exclusionary - often spatially segregating - attitudes of contemporary residential developments. Moreover, it may be one of the keys to the renewal of the larger-scale housing estates.

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## Border Situation – Case Study of Órség Area, Hungary

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### ABSTRACT

*The development of tourism, the provision of recreational opportunities and the improvement of the living conditions of the population really appeared in Hungary thanks to the change of attitude of the state socialist party leadership in the Kádár-era (1956-1988). At that time, the development of a rural tourism system came to the fore, which could serve as a counter-pole against the village-destroying ideas of settlement and economic development strategies of the state socialist period. Many settlements hoped that the changes in political attitudes would lead to improvements not only in tourism but also in technical infrastructure and services. At the same time, the lack of modernisation, caution and 'controlled peripherality' continued to prevail in border areas. The present research aims to explore the characteristics and development of tourism network in Órség, Hungary, focusing specifically on the changes in the connections of the area.*

### KEYWORDS

*border area, tourism network, settlement relations, space syntax, Órség*



Figure 1. Landscape, hiking and cycling routes in Órség (Source: own photos)

## 1. Introduction

The system of relations between Hungary's border regions was radically transformed at the end of the 20th century due to the change of regime – and the changing world political processes then the European Union - and thus the changed economic and political situation. The peripheral regions of the country, which had been artificially isolated under state socialist era, finally began to develop and innovate, which led to a significant revaluation of some areas (Mohos, 2005). Órség, which is the subject of this research and is located on the western border of Hungary, can be classified as one of these areas. In 2007, the area won the title of *'Hungary's most developing rural destination'* with its entry *'Naturally Órség'*, and in 2008 it was chosen as one of the *'7 Wonders of Hungary'* (Nagy-Holló, 2011; NTKT, 2007). The area is still a popular tourist destination because of its natural and architectural treasures (Figure 1.), but its geopolitical location has meant that it has been started at a significant disadvantage in the 'competition' to revitalise its tourism-related economy after the change of regime.

The development and relation system of the Órség - which consisted of small villages and until the mid-20th century mainly lived from agriculture and animal husbandry – were significantly influenced by the new state boundaries created after the First World War, and the state socialist era's village-destroying settlement and economic development ideas, and its 'anti-Western' policy. Is this multi-layered historical shock still affecting the inter-municipal and tourist network of the area, or have now managed to interpret and exploit the proximity of the border as a resource?

## 2. Background and methodology

### 2.1. Border situation and Órség

In political and geographical sense, the term border is a *'zone, strip or line separating the territories of States from each other'* (Süli-Zakar, 2003). However, a border can manifest itself in two ways: on the one hand, we can speak of i) a border that separates, closes off and prevents cooperation, and on the other hand, ii) a border that provides opportunities for contacts with neighbouring states and encourages collaboration. These may alternate and merge with each other through different


historical periods and events (Fehérvölgyi, 2010). We Hungarians, for historical reasons, often associate the concept of borders with a separating effect, a peripheral situation, and therefore usually give it a negative connotation, while the positive aspects of the border situation often escape our attention.

It can be said that the nature of a given border fundamentally influences the fate of the settlements alongside it, which can be traced nicely in the Órség. The area was part of the western frontier zone from the 11th century onwards, forming a line of defence against incursions by neighbouring German and Styrian peoples. At that time, it was made up of the following settlements, which still exist today: (Historical Órség): Szalafő, Óriszentpéter, Ispánk, Nagyrákos, Kisrákos, Szaknyér, Pankasz, Szatta, Kerkáskápolna, Bajánsenye, Kercaszomor, Hodos, Kapornak, Donkosfa; which were later joined by the settlements of the Inner-Órség: Magyarszombatfa, Velemér, Csekefa, Szerdahely.

In the 16th century, the population of the area was already engaged in intensive grain and livestock (cattle) trade with the territory of today's Austria, which was the most important element of the region's economic life. The centuries-old, flourishing and close economic relationship was severed by the border demarcation of the Trianon Peace Treaty after the First World War. Initially, only a temporary border was drawn around the watershed of the Raab-Mura rivers, until finally, in 1921 - despite the occupation of the Slavs - Kercaszomor, Magyarszombatfa and Velemér were annexed to Hungary, but Hodos, Domonkosfa, Kapornak, Csekefa and Szerdahely to Yugoslavia - present-day Slovenia. The Órség was thus split in two, partially losing its external markets and being forced from the border buffer zone directly to the administrative borderline (Csiszár, 1983; Beluszky, 2005; Baranyai, 2012; Mohos, 2005).

Until 1947, the relations between the border settlements were maintained to a greater or lesser extent thanks to the loose, poorly controlled border strip. The institution of shopping tourism and dual ownership (cultivation of the remaining lands in the annexed territories) was in operation, but inter-settlement networking became unsustainable in the long run due to the uncertainty of territorial reattachments (Kovács, 1991; Mohos, 2005). Finally, for the border settlements, the post-World War II state socialism brought significant change, during which, until 1989 the demarcation and control of border zones was determined by political relations with neighbouring countries. From 1949, the border strip in the Órség was mined to exclude the Western ideological system, and the area was thus separated from the interior of the country, where in a 15-kilometre strip even Hungarian citizens could only enter with a permit (Mohos, 2005; Fehérvölgyi, 2010). This tightening negatively affected the settlements near the border, both due to the almost complete elimination of their existing communication system, as well as the absence of development policies and support schemes that could improve their infrastructure, land use and buildability possibilities. The settlements became 'dead countryside', which contributed to the fact that the Órség was classified as one of the disadvantaged areas of Hungary (Kovács, 1991; Beluszky, 2005). Besides - precisely because of its untouched nature - it has become one of the tourist destinations.

As the regime of state socialism was relaxed, the closeness of borders began to loosen, but border areas were still treated as peripheral. As well as the Órség, which had the characteristics of an outer region, both socially, economically and spatially, with no hope for development on its agenda. Although the strict border zone was abolished in 1968 and replaced by a fence, visits to border settlements were still



subject to continuous border control, which existed until the change of regime (Muhi-Reményik, 2013; Beluszky, 2005).

After the change of regime (1990), the permeability of borders increased, new border crossing points were opened (Bajánsenye, Magyarszombatfa, Kercaszomor) in addition to the only existing one in Rábafüzes, and the settlements that previously had close relations looked for opportunities for cooperation again, so the connecting character of the state border became stronger. This has been further accelerated by joining the European Union, where the free movement of goods, capital, services and labour has made state borders merely symbolic. Tourism has increased, proving a new economic stimulus for the region (Fehérvölgyi, 2010).

## 2.2. Urban policy and tourism

Under state socialism the development of the settlement network was consciously controlled. It was based on centrally carried out research and state decrees, without taking into account the local features, natural and social systems of each settlement. The aim was to transform the 'inherited, outdated settlement network' to meet socialist needs, including the resolution of the urban-rural divide. Although this idea could have had a positive impact, unfortunately, a village policy with a destructive effect was set in motion, which has made it impossible for settlements with a disadvantaged populational, locational and economic position to develop. This had a particularly negative impact on the already underprivileged border settlements and small rural villages, which were already facing significant supply and social problems (Slachta, 2014; Bajmóczy-Balogh, 2002; Hajdú, 1989; Beluszky, 2005).

The National Settlement Network Development Concept was adopted in 1971, based on the still pathfinding settlement network development plans that had been emerging since the 1950s. The concept considered the maintenance and development of settlements with fewer than 3000 inhabitants to be uneconomic, and in the case of these villages - without taking into account the lack of transport links - it advocated the centralisation of institutions. The settlements of the Őrség were mostly classified as other (without function) and have become functionally impoverished by the regionalization. In the area, Óriszentpéter was classified as a priority lower-level centre, Bajánsenye and Magyarszombatfa as a partial lower-level centre, and Pankasz as a settlement with a lower-level role. For years, the development potential of the area was hampered by the fact that investments in transport and utilities were mainly made in the higher-ranking cities. (Kőszegfalvi, 2009; Beluszky, 2005).

The experts of the period saw the increase of the economic role of the villages on the one hand in the socialist reorganization of agriculture (unitization, large-scale farming and animal husbandry, creation of producer cooperatives), and on the other hand in the establishment of new (light) industrial jobs (shoe factory in Óriszentpéter). Tourism, as a potential economic development segment, was not on the agenda, as it could not be included in the basic Marxist political and economic objectives, and its development would have entailed infrastructure and institutional investments that were not in the interests of management thinking (Ispán, 2019; Rehák, 2009).

Tourism was finally included in the list of 'industries' with economic development potential thanks to the recognition of the unsustainability of the welfare system and the change of approach of the Kádár-era (1956-1988), but in the context of planned economy and state monopoly, typical of state socialism. Initially, it was not planned to spend on the infrastructural (roads, utilities, facilities, public transport) and additional (gas stations, car rest stops, catering) developments needed for tourism. The holiday

than was based on the use of existing and available local capacities (Rehák, 2009; Slachta, 2014).

Nevertheless, more and more rural areas have appeared on the country's tourist map, as the urban population found recreation in villages, which are closely linked to the natural environment and thus offer a sense of tranquillity. The steady growth of rural tourism led to the authorisation of backyard services (hospitality, rural accommodation etc.) in the interest of complementing the existing services operated by the state monopoly. This was a significant income supplement for farmers in rural areas, who were disillusioned by the constant pressure from agricultural production. Moreover, following the change in environmental attitudes in the socialist countries, more and more nature reserves and then national parks were established in Hungary from the 1970s onwards, which also contributed to the growth of tourism, as they ensured the long-term attractiveness of protected areas by preserving their natural, architectural, cultural, historical and landscape values (Slachta, 2014; Beluszky, 2005).

The Órség has also become an area of contradictions. On the one hand, because of its geographical location, it was hampered by a hermetically sealed border strip, and its small settlements could not benefit from the state's 'central' investments, on the other hand, it has become increasingly sought after by domestic - and to a lesser extent foreign (hunting) - tourism. While the former actually made the development of the region impossible, the latter precisely promoted it.

### 2.3. Research methodology

Based on the above-mentioned background, the present research seeks to answer the question of how the tourism network has developed between the different settlements of the Órség and how it has been influenced by the situational and local conditions of each settlement. And whether there are still peripheral areas within the network. The main data of the study is provided by the system of tourist and cycling routes, as well as by the attractive natural and built features present in the area.

The sources of the research are available tourist maps (1993; 2020), statistical data and guidebooks. Their analysis and evaluation, as well as the application of the space syntax method, form the basis of the methodology. The space syntax method, introduced by Hillier and Hanson in 1984, is about analysing the relationship between physical space and society through the characteristics of a given spatial situation. It is typically used for research on cities and neighbourhoods, but in recent years it has also been used to investigate regional relations too (Krenz, 2017). The subject of the study is usually the public areas of the settlement networks suitable for human movement, in this case the marked tourist and bicycle routes of the Órség. This method can be used to explore not only a homogeneous road network, but also its important nodes, centres, sub-centres, as well as its density points (Hillier, 2007).



### 3. Results and discussion

#### 3.1. The ideological effects

The demographic and economic structure of small settlements has been constantly transformed thanks to the settlement policy and economic system introduced under socialism. On the one hand, labour market and human resource development has failed to take place, and their infrastructure problems have deepened, leading to a steady outflow of their population (mainly young people), and thus to an ageing and drastic decline in their population. On the other hand, the introduction of land reform and collectivisation, as well as the forced prioritisation of the industrial sector, led to the restructuring of occupational sectors, which also initiated a social trans-stratification.

**Table 1. Changes in the population, economic structure and tourism in the Őrség area (Source: TeIR, 2023)**

Settlement name	Pop. (ppl)	Population change (%)			Economy – Occupational structure (sectors) 1960 (%)			Economy – Occupational structure (sectors) 2011 (%)			Tourism- rete of accommodation (%)	
		1870-1949	1949-1990	1990-2022	Agr.	Industry	Service	Agr.	Industry	Service	till 1990	2022
Bajánsenye	473	46	-43	-28	74,5	13,4	12,1	10,6	25,3	64,1	1,5	8,0
Ispánk	109	19	-63	20	92,9	2,6	4,5	n.d	n.d	53,7	-	7,9
Kercaszomor	164	36	-62	-40	62,3	17,5	20,2	13,2	29,4	57,4	-	4,9
Kerkáskápolna	55	29	-66	-55	82,6	11,6	5,8	13,6	22,7	63,7	-	1,8
Kisrákos	153	36	-43	-45	80,8	9,8	9,4	11,0	39,0	50,0	-	3,3
Magyarszombatfa	244	14	-48	-30	n.d	n.d	n.d	5,1	52,5	42,4	1,2	5,3
Nagyrákos	236	44	-47	-32	73,6	12,8	13,6	8,8	39,2	52,0	-	4,7
Őriszentpéter	1123	53	-20	-7	61,8	14,0	24,2	11,6	34,1	54,3	89,2	34,0
Pankasz	423	93	-22	-25	48,5	28,9	22,6	15,5	39,8	44,7	-	1,0
Szaknyér	53	21	-57	-34	83,8	9,0	7,2	n.d	n.d	n.d	-	5,4
Szalafő	203	-5	-59	-28	88,6	4,9	6,5	22,2	32,1	45,7	6,9	19,6
Szatta	75	3	-58	-15	86,9	7,0	6,1	36,1	22,2	41,7	-	2,0
Velemér	64	-17	-62	-50	n.d	n.d	n.d	n.d	n.d	68,9	1,2	2,1
<b>Total/Average:</b>	<b>3375</b>	<b>29</b>	<b>-50</b>	<b>-28</b>	<b>76</b>	<b>12</b>	<b>12</b>	<b>15</b>	<b>32</b>	<b>53</b>	<b>100</b>	<b>100</b>

The population of the Őrség reached its peak in 1949 (7936 inhabitants), and although the population decline started in some settlements (e.g., Velemér, Szalafő) already at the beginning of the 20th century, it really accelerated from the 1960s onwards. Although a process of immigration can also be observed from the 1970s onwards, thanks to the phenomena of de-urbanisation and the search for peace by the urban (metropolitan) intelligentsia, the population decline in the villages of the Őrség did not stop with the change of regime, and is still continuing (Table 1).

Social changes have also led to changes in the economic structure and vice versa. The settlements of the Őrség gradually moved from being purely agricultural areas (the rate of agriculture and livestock farming was 85% in 1930) towards the industrial and service sector. Since the geographical characteristics of the area were not suitable for the establishment of major industrial developments (there were only small sawmills, shoe factories, stove factories), the villages sought economic stability in the tertiary sector and tourism (Beluszky, 2015).

### 3.2. Characteristics of the tourism network in the Órség until the change of regime

Tourism appeared in the Órség area as early as the 1930s, during which visitors were given an insight into the secrets of village life and ancient peasant farming. However, from the mid-1940s, due to the principles of state socialism detailed above, tourism declined completely and finally resurfaced only in the late 1960s. At the time, the Órség had several factors that limited the quantity and spatial movement possibilities of the tourists.

- On the one hand, the service and accommodation capacity were limited and actually confined to the centre of the region, Óriszentpéter (*Table 1.*). Even at the change of regime, only Óriszentpéter (232 place), Szalafő (18 place), Bajánsenye (4 place), Magyarszombatfa and Velemér (3-3 places) had registered accommodation (TeIR, 2023).
- On the other hand, due to the unique sporadic nature of the settlement structure (so called “szer’ type) and the lack of infrastructure development, access to some villages was difficult. The Körmend-Muraszombat railway line, which was opened in 1907 and connected the villages of Bajánsenye, Óriszentpéter, Nagyrákos and Pankasz to the country's railway network, was closed in the 1960s. After that, passenger transport was only provided by buses, which were launched in 1952, but they were hardly able to meet the needs of tourists visiting the Órség in terms of frequency and journey times (Csiszár, 1999; Imre, 1984).
- Thirdly, in addition to the technical reasons, the border situation made it difficult to travel between villages and on hiking trails without any problems. In the early 1980s there were no proper tourist maps, not enough marked hiking trails, and the border guard controls disturbed visitors until the change of regime (Imre, 1984).

It can be said that during this period, Óriszentpéter dominated tourism in Órség, although the Vas County Tourist Office (Savaria Tourist) was interested in promoting the whole region. In line with this in the 1970s, only the area of Óriszentpéter and the nearby villages (Szalafő, Nagyrákos, Pankasz) and the Lake Vadása (Felsőjánosfa, Hegyhátszentjakab – out of Órség) was interested in hiking tourism (1977: 7 recommended hiking routes). In 1978 than the Órség Landscape Protection Area was established, which prepared various brochures and information booklets about the history, curiosities and catering of the Órség, to raise awareness of the region. Thanks to this by the 1980s, the two separate tourism centres (Óriszentpéter – Lake Vadása) were connected, including Ispánk, Kísrákos and Szaknyér among the recommended hiking trails (1983: 10 recommended hiking routes). The access to the settlements of the Inner-Órség (Velemér, Magyarszombatfa) was recommended by bus or by own car (Csiszár, 1977, 1983). It is interesting that Kondorfa (which is not part of the Órség) has been a destination for hiking tourism from the very beginning, thanks to the Lugos stream that runs through the area and the forest tourist rest areas that have been established there. Szatta and Kerkáskápolna were then completely omitted from the recommended hiking trails, which had a significant impact on their later development (*Figure 2.*).

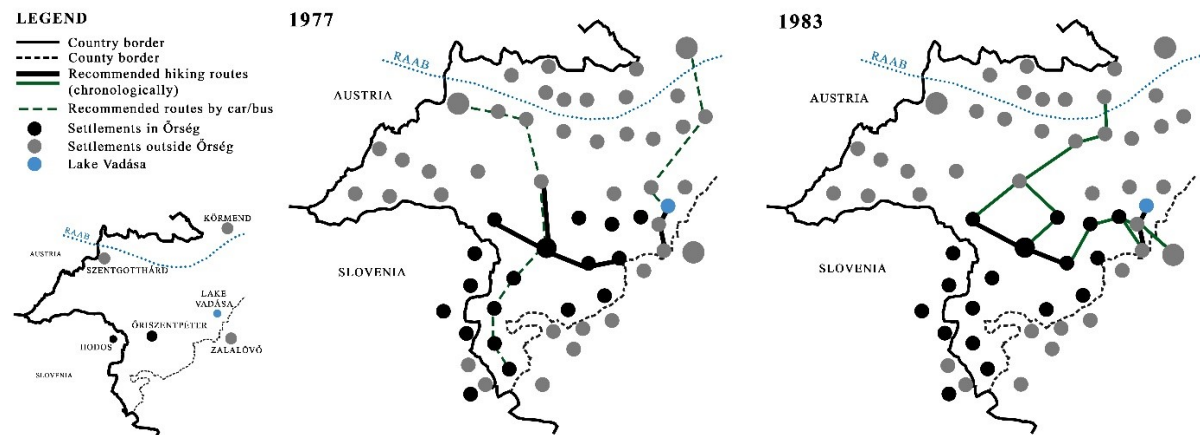


Figure 2. Recommended hiking trails in the Órség according to the small brochures (Source: own drawings based on Csiszár, 1977, 1983)

As the neighbouring Vend areas were only accessible by special permit during this period, they were not included in the recommended hiking trails, at the same time, some settlements in the Raab Valley were accessible via a 'trendril', such as Szentgotthárd or Körmenđ. These settlements were not only a source of job for the local working class because of their urban status, but were also valuable tourist areas. Mostly, holidaymakers in these towns visited the 'poor but idyllic village jewellery boxes' of the Órség as a 'curiosity'. At that time, the hiking trails across the border had not yet been recommended, as the continuous checks by the border guards were already causing enough inconvenience for visitors in the area.

### 3.3. Characteristics of the tourism network in the Órség after the change of regime

After the regime change, the Órség, like the majority of Hungary's rural areas, saw tourism as a stable source of income for the rural population and an important way out of the villages that had been marginalised under state socialism. Since the natural, landscape, built, structural and cultural values of the area have been preserved due to its decades-long isolation resulting from the border situation, it has had a significant attraction for tourists. The opening of the border and the establishment of new border crossings (Baiánsenye; Kercaszomor, Magyarszombatfa and the Vend Orfalu) eased the obstacles to free movement, thus improved its attractiveness further.

The Órség began to open towards the neighbouring Vend (Orfalu) and Raab (Ivánc) areas, which is reflected in its marked and recommended tourist routes and attractions. Although the role of the border location as a connecting point has come to the fore, the recommended hiking trails did not extend across the border until the 2000s. This may have been due to infrastructural disadvantages resulting from the previous political and geographical situation, on the one hand, and the new administrative changes after the change of regime (1990 Local Government Act) and thus the free competition between municipalities, on the other. Finally, in 1998, a Transnational Nature Park (Órség-Raab-Goričko) was created - the first of its kind in Europe - to develop tourism and preserve the natural treasures of the Slovenian-Austrian-Hungarian border areas. The Órség was then able to access international development funds. The cooperation was helped by the opening of the Hungarian-Slovenian pan-European railway line No. V in 2001, which allowed the Órség to re-join

the Hungarian railway network system through Bajánsenye, Óriszentpéter, Nagyrákos, Pankasz (and Felsőjánosfa) and to connect with its Slovenian neighbours (Csiszár, 1999).

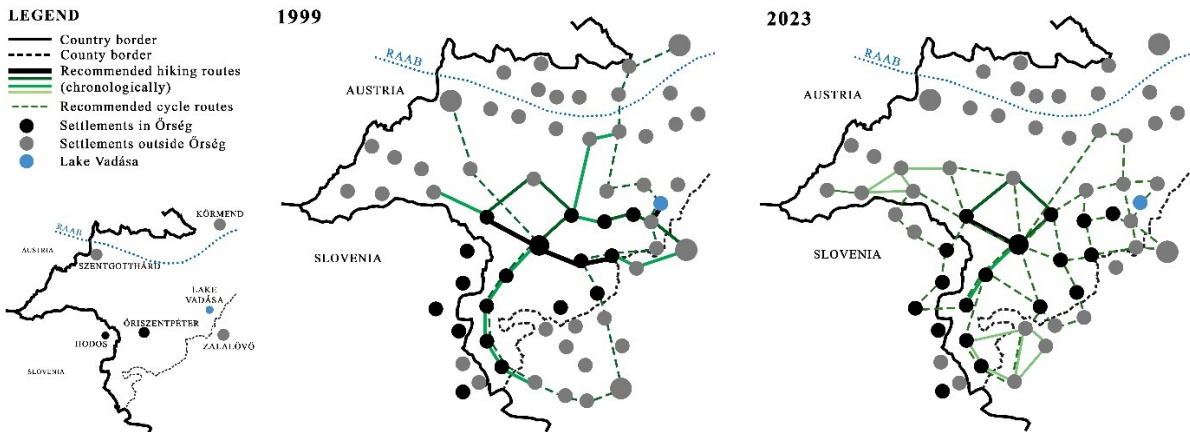


Figure 3. Recommended hiking trails in the Órség according to the small brochures after the regime change (Source: own drawings based on Csiszár, 1999, Bodor-Balázs, 1997; Órség Info, 2023)

In 1999, there were basically 12 recommended hiking routes linking the network of hiking trails in the Órség, still excluding Kerkáskápolna, Szatta and the settlements beyond the border. However, Szentgyörgyvölgy - which already belongs to Zala county, but still has the same settlement structure as the villages in the Órség - was added as a new element to the list of destinations for visitors because of its famous church with blue-painted coffered ceiling (Figure 3.). The infrastructural development of the routes between the individual settlements took place gradually, in addition to the main routes, the smaller connecting and local roads were also paved, so the development of the cycling infrastructure became possible. At the end of the 1990s, 2 cycling routes were proposed for visitors to the Órség and its surroundings, most of which were on public roads, but often without signs (Bodor-Balázs, 1997).

The development of the infrastructure of the existing hiking trails and the designation of new ones, however, only really accelerated after the establishment of the Órség National Park in 2002. The network of hiking and cycling trails has undergone major changes, which, in addition to the continuous development and marketing work (with the extensive spread of the Internet the settlements of the Órség were given a new, fast-emerging marketing platform) of the National Park, the accession to the European Union in 2004 (available EU development funds) have been greatly contributed. Three separate recommended hiking trail systems can be observed: 1.) Historical-Órség path (Óriszentpéter-Szalafő-Kondorfa-Ispánk; Óriszentpéter-Bajánsenye-Kercaszomor) with the centre of Óriszentpéter; 2.) Inner-Órség and Zala county path (Magyarszombatfa-Velemér-Szentgyörgyvölgy-Magyarföld); 3.) Vend area path (Apátistvánfalva-Kétvölgy-Orfalu). In addition, in Szalafő, Óriszentpéter, Velemér and Kercaszomor a total of 8 and in the neighbouring areas another 9 nature trails and two 'szer tours' (Szalafő, Óriszentpéter) were established, which aim are to showcase a specific natural, historical or built asset (Órség Info, 2023; ÖNP App, 2023).



The proposed cycling network has been significantly expanded, but much of it is still on public roads. In 2020, the Euro Velo 14 route (from Szentgotthárd to Lake Velence) was completed, and the tracks of the 6 proposed cycling circuits of the Órség were also handed over, bringing the total number of proposed cycling tours to 8. A significant development is that two of these recommended circuits now also include Slovenian villages beyond the border (Hodos, Domonkosfa, Kapornak, Búdvafalva, Dolány), moreover, with their help, the so far 'neglected' Kerkáskápolna and Szatta were also included in the tourism system of the Órség. Although the first accommodation appeared in Kerkáskápolna only after 2005, in 2021, there were already 24 accommodation places there and 27 in Szatta, indicating their involvement of the two settlements in the system of tourism (ÖNP App, 2023; TeIR, 2023).

### **3.4. Characteristics of the tourism network according to the space syntax**


The space syntax method analyses spatial relationships objectively using different metrics, typically in three ways. These are integration (access and availability), choice (through-movement) and depth (distance). The present research focuses on the 'choice' segment and in order to define both local and main network elements, in addition to the analysis of the whole network, it takes 5 km (local centres), 10 km (local network importance) and 20 km (main blow) as the basis for the analysis. These chosen values are based on the average 'psychological' distance of short (local) - medium - and long-distance hiking and cycling tourist movements.

The study does not analyse the system of previously presented, recommended tours, but the networks that have already been marked as hiking and cycling paths in the given period. Since no tourist map with the necessary information was available from before the change of regime, data from a tourist map from 1993 and a current one (2020 map supplemented with routes shown by web map services) were examined and compared (*Figure 4-5.*). Although they do not directly provide information from the era of state socialism, they clearly illustrate the trends in network changes.

**Marked hiking trails**



Figure 4. Space syntax analysis of the hiking paths in 1999 and today (Source: own figure)



In the map drawn immediately after the change of regime (1993), the marked hiking trails connected the Hungarian network with the neighbouring Slovenian and Austrian areas only at Bajánsenye and Felsőszölnök. On the basis of the 'choice scale', which shows the routes that are presumably used by the most people, the local centres of the hiking trails were concentrated in the Vend area (Kétvölgy, Orfalu) and around Farkasfa and Kondorfa. Among the settlements of the Órség, only Óriszentpéter, Ispánk, Szalafő, and partly Magyarszombatfa and Velemér, had a medium value. In terms of medium-distance hiking, the Vend and the Raab area remained dominant, with the Órség being overshadowed. This has changed in the case of long-distance tours, where Óriszentpéter and Ispánk have been included in the high value areas, and therefore in the likely itineraries of choice for tourists. It is interesting that Szatta has not even one marked tourist route at the time, and Pankasz, with its famous bell tower, was on the periphery. This is mostly due to the fact that the tourist routes to the villages south-east from the Órség have become much less frequent and the distances between them have increased.

Looking at today's network of tourist routes, there is a slight shift in local centres, which, in addition to the still strong Vend settlements, now also includes Szalafő from the Órség area. This is also due to the emerging number of cross-border hiking trails, that reinforcing the role of border settlements in tourism. Medium- and long-distance movements have shifted from the Orfalu-Kondorfa line to the border, thanks to the nowadays green-marked route along the border strip, which was once strictly protected by technical elements, thus giving a greater role to Óriszentpéter via Szalafő. However, certain south-eastern (Szatta, Kerkákápolna) and central (Bajánsenye, Kercaszomor) settlements of the Órség are disadvantaged in terms of the network studied. The former to a greater, the latter to a lesser extent, due to their immediate border location - and thus their 'more valuable connections'.

Today, several national and international hiking trails pass through the Órség, such as the national South Transdanubian Blue Trail (In Órség: Ivánc-Kondorfa-Óriszentpéter-Magyarszombatfa-Szentgyörgyvölgy), or the European Cultural Route of St. Martin (Via Sancti Martin), established in 2005, which directly connects Hungary (In Órség: Szatta, Kerkákápolna, Kercaszomor), Slovenia, Italy and France. These major paths were not distinguished from other tourist tracks in the study. As their entire route is not shown, just only the part crosses the Órség area, their network values are mostly medium or lower (except in the Óriszentpéter area), which does not necessarily reflect the actual frequency of their usage.

### ***Suggested and marked bicycle routes***

Around the time of the change of regime, we cannot really talk about a cycling infrastructure network. There were only a few 'wings' branching off from the designated bicycle path along the Raab (towards Felsőszölnök, towards Óriszentpéter - Pankasz). The Austrian and Slovenian cycling systems were not yet linked to the Hungarian routes. For this reason, the changes in today's cycling network seem very significant. It can be seen that, unlike hiking trails, the cycling network is now more distributed locally and globally, rather than being concentrated in a single area. Local centres are found around Szentgotthárd, Óriszentpéter, Bajánsenye, Lake Vadása and Pártosfalva in Slovenia. The core network of medium-range cycling options can be divided into two parts: on the one hand, the Szentgotthárd area; on the other hand, the Pártosfalva-Magyarszombatfa-Kercaszomor-Bajánsenye-Óriszentpéter line. Looking at the long-distance cycling possibilities, a Kercaszomor-Csörötnek-Szentgotthárd line is clearly visible, connected by 'spurs' towards Pankasz and Kerkákápolna, in fact

forming the 'spine' of the area. The route of the EuroVelo 14 cycle path crossing the Órség has only stood out in the analysis of the global system, and it does not have a major role locally. It is also noted that while Szalafő and Ispánk were relatively at the forefront of the region settlements in terms of hiking routes, their role in the cycling network is low. Unfortunately, Szatta has a peripheral role in the network of hiking and cycling trails as well, which deserves attention in the future.

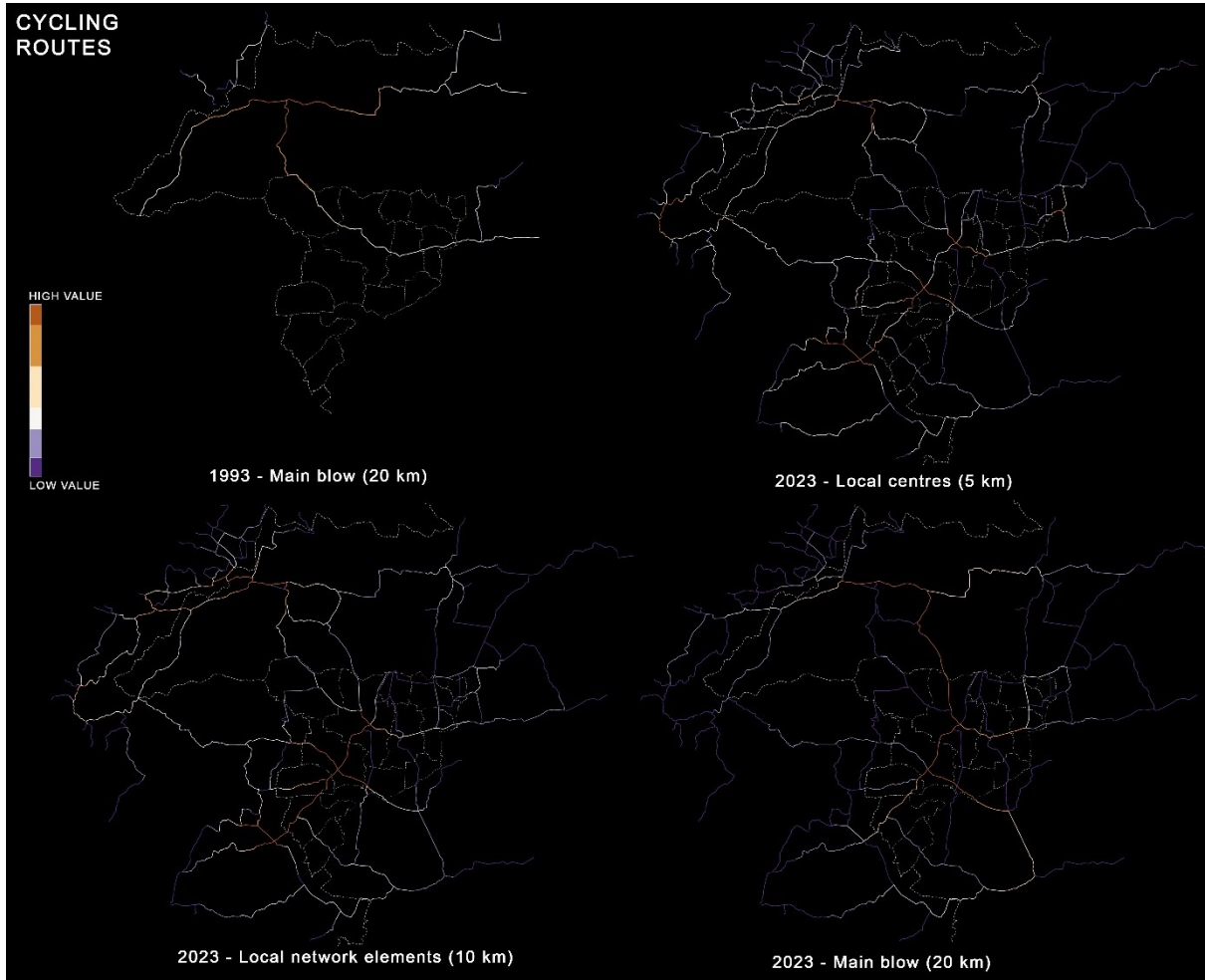


Figure 5. Space syntax analysis of the cycling routes in 1999 and today (Source: own figure)

Overall, it can be said that since the change of regime, both hiking and cycling networks have grown significantly in the Órség area (Table 2.). In the case of the hiking trails, the reorganization of territorial emphasis can be observed on the examined distances, but at the same time, the ability of the entire system to provide permeability and movement flow has greatly improved. The network of cycle routes shows strong growth at all levels of analysis, so there is a huge improvement at local and regional level to which the continuous development of the road infrastructure network in the area and the implementation of international (EuroVelo) networks have contributed.

Table 2. Network evolution results based on space syntax (Source: own table)

	Choice 5 km	Choice 10 km	Choice 20 km	Choice	Integration
1999 hiking trails	3008.45	16215.8	75140.2	437585.0	47.2184
2023 hiking trail	2961.83	15454.5	75184.4	958088.0	55.5293
1999 cycling routes	611.785	2340.32	8803.53	36839.8	17.9023
2023 cycling routes	989.973	5323.32	31055.3	295865.0	73.597





### 3.5. Economy and tourism

There is a correlation between the statistical share of hospitality and the spatial arrangement of the networks under study in the period before the regime change. In Órség, it was mainly Óriszentpéter and its immediate surroundings that were able to benefit from the economic advantages of the awakening tourism, but the expansion of the tertiary sector was not yet typical. It started to rise from the late 1970s and then changed dramatically after the change of regime, when, in addition to the local population, newcomers to the area sought to make a living from tourism, which by then was already a stable presence. Currently, the role of recreation and tourism is the driving force of the economy, although due to the decline and aging of the local (peasant) population, new (mostly intellectual) immigrants are trying to maintain local customs and characteristics. This often means the ‘commodifying’ of local culture, reinterpreting it to meet the changing needs of tourism.

Although tourism micro-centres and network hubs have developed over the years, mass tourism is not typical in the area, as the region's technical and leisure infrastructure does not allow this. The Spatial Development Concept of Vas County (2021) still classifies the Órség as a peripheral area in terms of transport, which needs to be developed. It is precisely because of this feature that the region's tourism has not been affected by the recent COVID epidemic, which caused significant economic damage. As rural areas, rural accommodation with lower capacity and opportunities for active tourism (hiking, cycling, etc.) and a healthier, more natural environment have become attractive during the epidemic (Szántó, 2020).

However, emergencies similar to COVID may still occur in the future, which can be protected against if some settlements try to ‘stand on more than one foot’ in terms of economy. In the Órség, although the share of people working in agriculture has decreased significantly, in some settlements (e.g., Szatta) it still plays a more important role (*Table 1.*), just like small industry (e.g., Magyarszombatfa (pottery), Pankasz (wood industry, former brickworks). However, the share of the tertiary sector is very high (up to over 60%) in some settlements classified as peripheral in the spatial network of tourism studied after the change of regime. These villages (e.g., Velemér, Kerkáskápolna) are burdened by their peripheral location and small population on the one hand, and their greater dependence on tourism on the other, and therefore they are more inflexible to change, thus economically more vulnerable.

#### 4. Conclusion

The situation along the border, both in the past and today, has a significant impact on the development in the Órség. Although under socialism, crossing the border or even visiting the settlements near to it faced obstacles, today a connecting and cooperating border welcomes the visitors arriving to the region, which is also shown by the tourist and cycling routes. The Órség is no longer 'afraid of the border', in fact it has built part of its tourism around it (triple border area, hiking trails along the old border strip, etc.). Óriszentpéter, as the centre of the region from the very beginning, still plays an important role in the area's tourism, however, the upgrading of border areas is clearly visible, especially towards the Vend and Raab areas. The area of Órség thus seems to be spreading, as evidenced by the evolution of the system of recommended and marked hiking and bicycle trails.

Although the Inner-Órség settlements (Magyarszombatfa, Velemér) have been included in the recommended destinations from the very beginning, they are in a more disadvantaged position than their northern neighbours in terms of the network of hiking trails, despite their border location. This is due to the loosening and lack of hiking trails leading to the south and south-east. The negative situation of the settlements is mitigated by the cycling network, of which this area is almost the central core. From the point of view of the examined networks and statistical data, the south-eastern settlements of the Órség area (especially Kercaszomor) can be considered peripheral, as their role in the network is more neglected due to their location, however, the ratio of the tertiary sector is very high in their area. The development of these settlements - based on the studies - would not necessarily be possible only by strengthening their connections and by stronger marketing efforts, but rather by involving their - currently incompletely connected - southern neighbouring villages (Zala, Göcsej) in tourism, and also by reducing the economic dependence of settlements on tertiary sector.

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# Introducing Walking Interview as a Methodology to Explore Gendered Socio-Spatial Relations - A Case Study, Budapest

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## ABSTRACT

*The urban space is constructed by society and so are gender relations. As many years of cross-disciplinary feminist research have revealed, men and women's patterns of urban space use and behaviour, as well as their urban experiences, differ significantly. Although the gap seems to be narrowing with the development of gender equality, differences still can be detected in many areas. The topic of the city and gender is an interdisciplinary field (urban planning, architecture, geography, environmental psychology, sociology, etc.), which I necessarily explore with the same approach. As a research tool, I will use the methodology of the walking interview. The interviews take place along a pre-determined route, thus allowing the participants to reflect on the spatial elements of the public space and their perceptions of the city rather than sitting in a room. The pilot site for the walking interviews is the Magdolna district in the 8th district of Budapest. In response to the lack of empirical data in Hungarian urban research related to space and gender, I intend to answer the following questions: What are the insights of women regarding the analysed area? What are the dimensions of these experiences? What kind of spatial elements could be modified in favour of creating more equal public space?*

## KEYWORDS

*gender, space, walking interview, Budapest, fear*



Figure 1. Streetview in the Magdolna Quarter (Source: Júlia Böröndy)

## 1. Introduction

Our experience of everyday life in the city is shaped by several factors and their intersections. Our access to services and infrastructure, our mobility, and our sense of security, all vary depending on our age, socio-economic status, race, and other, often subjective, factors. Our gender plays an equally important role during experiencing the city. The issue of women and the urban has not received much attention in the Hungarian context so far - this is why my doctoral research aims to reflect these yet unmapped socio-spatial relations.

## 2. The gendered city

Nowadays, women in Western cities have achieved full citizenship; meanwhile, their strategies for using urban spaces, their urban daily routines, and their related experiences still have detectable differences in contrast to men. These specific characteristics are largely of social and/or economic origin. (e.g.: Social roots include, women, even today, continue to bear a greater share of the responsibilities for social reproduction, while a typical economic cause is the gender pay gap and its direct or indirect consequences.) Patriarchal power relations also have a strong influence on urban patterns: the fear of potential victimisation is having a significant impact on women's perception of public space. (Spain 2014, Kern 2020 p. 144-148)

In my previous work (Böröndy, 2023), which I will briefly overview in this paper, I discussed three key issues of women's use of the city. These topics summarise the disparities in the urban patterns of women compared to men, which latter tend to be the basis of our common knowledge and all-timer reference point.

### 2.1. Structural aspects

The issue of agglomerations is a persistent topic in urbanistic discourse, but its gender aspects are rarely detailed. Betty Friedan's 1963 book *The Feminine Mystique* was one of the pioneers in the field, followed almost two decades later by Susan

Saegert (Saegert, 1980), who also pointed out that women in the suburbs have very different experiences and perceptions from their men counterparts.

Single-function areas - which can be the results of the zoning, commonly featured by modernist city planning (and also socialist new towns), and the phenomena of suburbanization - have a negative impact, particularly, on housewives' life who spend most of their time at home. As they are located in a single-function residential area, they completely disconnect from urban life and all its benefits. The problem seems to be resolved with the increased participation of women in the labour market, but the zoned urban structure continues to generate different mobility patterns between the genders.

## 2.2. Mobility

The mobility of citizens can be influenced by a great number of determinants, the most important of which are age, income, and gender (Ng & Acker, 2018). Empirical research shows that working women travel in more, shorter trips on average days, and their workplaces are less distant from their homes. Their usual travel patterns are characterised by trip chaining, which means connecting several shorter trips to carry out everyday household and child-rearing tasks (Ng & Acker, 2018; McGuckin & Nakamoto, 2004). The previously mentioned zoned city planning largely sets back the organisation of rational and reasonable trip chains, which usually, under normal conditions, meant to save time in the everyday's "second shift".

It is essential to clarify that, the gender mobility gap is constantly narrowing, with a tendency of reconsidering the division of tasks linked to traditional gender roles. Research suggests one of the most dominant factors influencing mobility is parenting - a statement reinforced by the detection of similar mobility patterns in single-parent families regardless of the gender of the parent (Rosenbloom, 2006).

Diána Kimmer's article published in 2023 also highlights the internationally proven trends in Budapest, such as women walking and using public transport more, while men cycling and driving more. The study also shows that men are more likely to travel longer distances, but the number of daily journeys is similar for both genders (Kimmer, 2023).

## 2.3. Safety

As Caroline Criado Perez indicates, urban planning practices that fail to protect women from sexual violence on the streets are obvious violations of women's equal right to public space (Perez, 2019, p. 69) Women more often encounter anxiety in public spaces, many cases due to the fear of sexual violence committed by men against women (Spain, 2014; Molnár, 2012). Related research has found that 85% of women experience some form of street harassment in public spaces during their lifetime (Farmer and Smock, 2017). The uninvited sexual approaches only begin to decrease as women get aging. As Janet Wolff notes, *"The very condition of being 'unmapped' translates into freedom from rules, and it could be that older women benefit rather than suffer from their marginality to the social script(s)"* (Wolff, 2010).

Fear of sexual violence does not only determine the routes chosen and the clothes women wear but it is also closely related to travel patterns: women rather choose more expensive modes of travel if they are considered safer (e.g., taxis) (Macedo et al., 2022). In addition to this, it is crucial to highlight, without diminishing the seriousness of street violence, that women are statistically much more likely to encounter violence in their homes, in private spaces, and perpetrated by someone they know well (Kern 2020, p. 145; Spain, 2014).

## 2.4. Accessibility and exclusion

My categorisation of the inequalities women face in the urban space is in two sets: visible and invisible obstacles.

Physical access - visible exclusion encompasses the inequalities produced by the built environment and the interconnected co-disciplines. While these are grounded by a significant social dimension as well (why are women's specific needs not mapped and channelled back into the planning process?), these are the barriers that could be "designed out" of the city (e.g., the obstacle-free crossing of a heavy road is not provided, what can a planner do?)

Invisible exclusion is created by social, economic, and symbolic forces. These are the results of social conditioning and patriarchal conventions, but they do not produce real physical obstacles for women (e.g., mothers with young children are not welcomed in certain public institutions)

At the intersection of the two sets are cases where the design deficiency is imposed by a layer of socially-derived power relations, mostly of the hierarchy of subordination (e.g. violence against women at night in poorly lit bus stops).

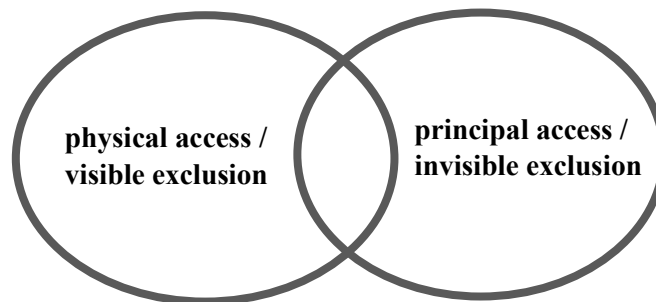


Figure 2. The division of inequalities (Source: Júlia Böröndy)

## 3. Walking in the city

Kevin Lynch writes in his book *The Image of The City*: we experience nothing in itself, our experiences are always in relation to our environment, to previous events, and to memories of former encounters (Lynch 1930, p. 1). Consequently, my chosen methodology also involves a vast curiosity about the circumstances surrounding the experience, the knowledge of previous occurrences, and environmental elements. However, during our ventures in urban spaces we do not always turn outwards, in many cases we are immersed in our thoughts, travelling along only partially consciously chosen routes. We don't necessarily identify our patterns or reflect on why certain spaces, streets, or junctions are attractive to us or, on the contrary, why they are repulsive.

In his book *'The Practice of Everyday Life'*, Michel de Certeau (1988) devotes special chapters to walking in the city and the experience of space. He claims that places (*espace*) are transformed into space (*lieu*) by the people who practice their everyday habits there. His description is certainly linked to Bourdieu's theory of social space, which addresses space as not only a natural and physical environment but also a social one, structured by symbolic classes and positions related to the habitus. (Bourdieu, 2002 (1994)) De Certeau attributes this spatializing action primarily to the people who walk in the streets, who do not necessarily see the city in its entire context, but shape spaces by their presence, their use and their motion (De Certeau, 1988, p. 93, 117). De Certeau, in the chapter 'Walking in the City', distinguishes between two

types of urban actors: the voyeur and the walker. While the voyeur has some preliminary knowledge that makes them decode the city as a coherent and legible whole, the walker experiences it in its elementary form by walking - but this perspective does not allow him/her to interpret the space.

It can be assumed, although there are some urban practitioners who can be clearly classified as more observant or as less conscious, the majority of people have both types of behaviour alternating. One or the other is associated with certain situations: some of our urban practices are more of an observatory behaviour (e.g. looking out of a window), while in other cases we are almost on "autopilot" (e.g. on the way to the office in the morning). (Lee & Ingold, 2006)

The image of certain places in the city is often established on a collective conception of a community, depending on the physical environment and culture (e.g., which streets are labelled as dangerous). The more homogeneous groups we try to divide the city dwellers into, the more similar the image will be (Lynch 1960, p. 6-7.) In my on-going doctoral research, I intend to outline the image of the city as lived by women, staying aware that these groups cannot be considered homogeneous, but they do show similarities based on their roles in society – while this paper focuses a much narrower group of women: young intellectuals.

### 3.1. About walking methodologies

As the application of walking methods in the social sciences is growing, so is the literature on them. The reason behind the proliferation of this method is functional: it allows us to gain easily site-specific and space-specific information when studying people and their relationship to their environment. Examples of different types of methodologies can be seen in the research field, ranging from go-along methods (where the researcher accompanies the participant on a daily journey with minimal researcher intervention, and is technically conducting participant observation) to guided walk methodologies. Guided walks are divided into two typical techniques: the route is being determined by the interviewer or the interviewee. (Kinney 2017, Evans & Jones 2011)

In the case of my adapted method, the route is determined by the interviewer - which aims to record interviews in similar urban spaces and circumstances. This supports later comparison, although has some drawbacks as well: the interviewees do not walk along to their regular routine and feel less empowered than if the route was defined by them (Evans & Jones 2011, Warren 2016).

## 4. Case study

My inquiry concentrates on women's urban patterns and urban experiences, with a walking interview methodology that was field-tested in June and July 2023. During the pilot research, semi-structured interviews were conducted with locally-connected, childless young people from intellectual backgrounds (8 interviews in total, 2 men [control group] and 6 women aged 24-30, names have been changed and I refer to them as such). The walks took place at the same time interval of the day, after work (between 17:30 and 21:00) and under the same weather conditions (warm, early summer). They lasted cca. 25 minutes. The route was described with the aim of including junctions, streets with mixed connotations, and sites of local everyday routines, like markets and shops. The contacts for the pilot interviews live in the Magdolna quarter or in the immediate neighbourhood (except for one who temporarily moved) and were selected through recommendations from acquaintances. The



participants have many local insights since they live in the area - so even though they do not determine the route, are still considered experts in their everyday surroundings.

The case study's methodology has demonstrated two lessons that need to be remarked on for the further doctoral research. Firstly, even if the route is pre-defined, it is not possible to reproduce the same conditions in the city twice: it will always change who is passing by or what is happening across the street, which will recall different memories for everyone. Secondly, although there are indeed actual spatial references along the route to illustrate a story, in many cases the streets we passed through were only scenery for the conversation.

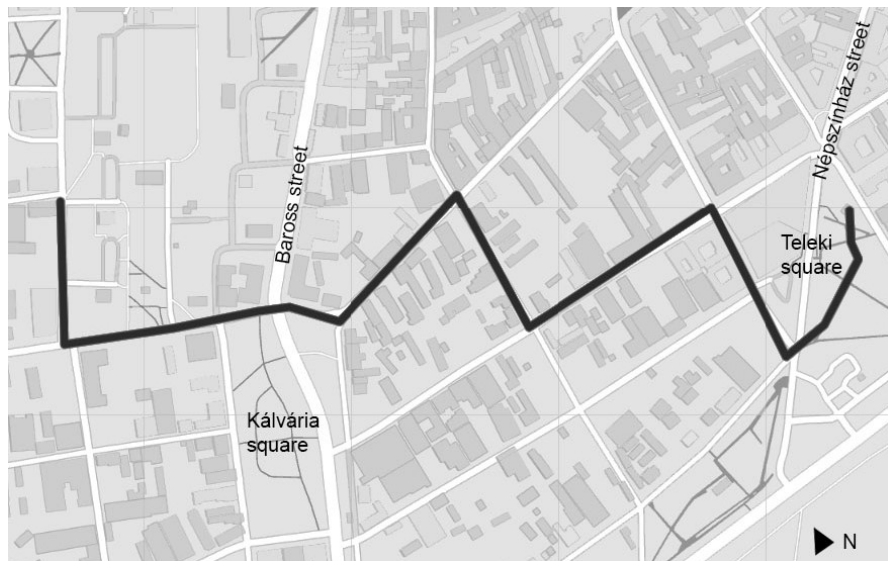


Figure 3. The route for the interviews (Source: Júlia Böröndy)

The Magdolna quarter, located in the VIII. district of Budapest, is a controversial neighbourhood. Its residents are extremely diverse, with the presence of wide range of the society: a mixture of marginalised groups (immigrants, people in poverty, minorities), and young people attracted by low housing costs and good transportation networks. My pilot research will focus on the female perspectives of this latter group.

#### 4.1. Topics of the pilot interviews

During the interviews, I inquired about the previously identified differences in mobility, transport preferences, and past experiences related to safety, with the guide of the following fixed questions:

- Please, tell me about your average weekdays!
- Please, tell me about your average weekends! *How far do you travel usually in the city? How do you get there? Why?*
- Are there any streets/nodes/underpasses/areas near your home or in the area you travel daily that you prefer for some reason when choosing your route? *What are they? Why? What is the spatial dimension of these? What do they look like?*
- Are there any streets/intersections/underpasses/areas close to your home or in the area you travel daily that you avoid for some reason? *What are they? Why? What is the spatial dimension of these? What do they look like?*
- Does the choice of route depend on the time of day? *Do you take a different route in the evening/night?*
- Have you ever felt unsafe in a public place (e.g. street, public transport, underpass, car park, etc.)? *If so, what premonitions did you have about what*

*might happen? Under what circumstances do you feel unsafe? Does it depend on the time of day? Are there people around you at this time?*

- If you could change anything in your living environment, what would it be? (*spatially / socially*)

In my limited pilot research, no clear differences between men's and women's mobility were reported (however, it should be remarked that there are several more precise measurement methods and quantitative research tools, e.g. Gauvin et al. 2020, Macedo et al. 2022, Kimmer 2023).

All my contacts are childless, mostly in their early years of professional careers or still studying in university. Their workplaces and campuses are located outside the district borders, easily and practically accessible by public transport, while two interviewees work from home. None of them said using car for daily commutes, instead using public transport, cycling or walking, while choosing the most practical or “nicest” route.

In the following, I will concentrate on the perspectives that emerge from the women's narratives.

#### 4.2. Planning routes

Perceived comfort is strongly affected by the physical environment and the behaviour of the people present, hence these circumstances are strongly connected with everyday route planning. The way to find a suitable everyday route is to experience more options. Whether it be a minor inconvenience such as the street being windy, or regular/recurring negative incidents – catcalling, 'troubling' gatherings in the evening or at night – it will impact future preferences.

Moreover, route choices are not only defined by what has been learned through individual experience, external narratives, such as “good advice”, mass media, or stereotypes frequently accompany them as well. This aligns with Kevin Lynch's theory about the image of certain places and the determining power of collective concepts of the community. These mentioned external narratives often appear as a concern of someone who cares (*"my mum says to be careful when I go to the house clearance" (Réka, 24)*), at other times as a mere implication (*"I have been told many times by my friends, they don't understand how I can walk home at night, on the Népszínház" (Anna, 24)*). Guidance from outside is often fuelled by negative connotations of the district. *"If I avoid something - I think I only avoid that one street [Diószegi Sámuel Street] - it's because it is said that it used to be so rough." (Petra, 27)*

#### 4.3. Disorderly bold

*"It is so frequently said that women are afraid that it seems almost indecent to say that they are not" (Koskela 1997)*

When I started to analyse the recorded interviews I had to face: these narratives are against the presumptions of women's fear in the urban environment. These women are bold and not restricted by the feeling of insecurity – however, in some situations, they might do feel some kind of intimidation. Koskela (1997) reported the same when researching the fearfulness and boldness of Finnish young women. Although she noted that this could be interpreted from the psychoanalyst approach as the denial of fear, the feeling of boldness still needs to be validated. She emphasizes: *"Women are not merely objects in space where they experience restrictions and obligations; they also actively produce, define and reclaim space."*

Albeit fear is not a daily part of the lives of the women asked, they all have tactics they can operate in the case of danger: such as fast walking or running, calling someone on the phone, holding pepper spray, choosing busier streets in the evening, "staying out of trouble" - avoiding street gatherings. (Apart from two stories of intimidating situations, the women interviewed have not been physically assaulted or victimised since they have lived in the area.)

It also consequently articulated in women's narratives to unlearn internalised stereotypes. Those who live in the Magdolna quarter are presumed to question certain stereotypes about the district, but they sometimes still act as an internal compass. Breaking the internalised stereotypes and invoke the facts give confidence on the streets, Koskela calls this act *reasoning*.

A repeatedly proposed theme in the narratives is the socially burdened environment, different cultures, and their conflicting interpretations. Young intellectuals who have moved to or grown up in the area complain about the noise and lack of public hygiene. Their perceptions are not accompanied by hostility or fear, they approach the issue objectively, and their stories show empathy towards marginalised groups. The attitude towards the problem is rather characterised by a feeling of powerlessness, as Zsófi mentions: "*I often feel that way, as if I were an outside observer watching these totally horrible human fates*" (Zsófi, 27)

Koskela also indicates that the sense of "*at-homeness*" also enhance the "*bold walk*". My interviewees talked about a spectrum of diverse experiences that constructs a weird feeling of home - "*I love this stench, no kidding, I think there is a charm to this district!*" (Nóri, 25). An eccentric atmosphere, the liveliness of the district, the local communities, and initiatives (e.g., Gólya, Szeszgyár) make them content with living there.



Figure 4. Preferred places visualized on map (Source: Júlia Böröndy)

1. II. János Pál Square, 2. Teleki square, 3. Kálvária square, 4. Losonci tér, 5. Corvin promenade, 6. Harmickettesek square, 7. Horváth Mihály square, 8. Mátyás square, 9. Tavaszmező street, 10. József street, 11. Víg street, 12. Nagy Fuvaros street

#### 4.4. Physical and design aspects of perceived safety

As an architect, it is relevant to include the physical aspects of the sense of safety. The need for proper streetlights and open, visible spaces is a systematic demand in the interviews, and not only from women. The location of streetlights seems to be crucial, as Petra pointed out, *"I am less picky in the daylight, and in the dark, I like to be in a place where the street lights are not in the middle, but on two sides, because then I can see what is in the way much better."* (Figure 1.) This preference for legible public spaces is expressed both directly and indirectly in the narratives uncovered. When I ask about favoured public spaces, spacious streets and squares are usually referred as instances. Narrow cross streets create uncertainty because you cannot see beyond the corner. A sense of safety is also enhanced by the presence of visible street cameras. There is no common consensus on whether the presence of people on the street a positive or negative impact on an individual's sense of security has: they can be both a potential help, and even restraint in the situation of an assault, or the threat itself. Most of the occurring

### 5. Conclusion

Based on previous studies, it is evident that women's urban experiences and spatial use differ from men's in several ways. Although the field is less researched in Hungary, the topic's importance is increasing in the international discourse, which raises questions for the Hungarian context too. In my doctoral dissertation, I study women's urban use in a specific area of Budapest, for which I recorded pilot interviews in June and July 2023 to test the methodology. The interviews targeted the mixed-perception Magdolna quarter. I walked along a pre-determined route with young intellectuals while asking about their urban habits. I conducted the pilot interviews with a very specific group of young people (24 to 30 years old, childless, intellectuals), so the results cannot be generalised to the entire society, nor to Budapest as a whole, due to the peculiar, socially burdened research field. Yet, the interviews reveal certain behavioural patterns in women's habits in the city that emerge from time to time (e.g. "ready-made" tactics in case of danger, differences in route and transport choices between day and night, "bold walks" of young women) and describe spatial situations where the sense of safety is reduced – which draws attention to the concerns of planning. At a further research stage, it is substantial to analyse the perspectives of other social groups, which should be specified by socio-economic status, age, marital status, number of children, and their interactions.

#### LIST OF PARTICIPANTS OF THE INTERVIEWS

- Nóri (25), lives alone, works and studies, currently does not live in the Magdolna Quarter.
- Réka (24), lives with flatmates, rents a room, student
- Anna (24), lives alone in her own flat, currently does not work (job seeking)
- Zsófi (27), lives with her partner, rents a flat, works
- Kriszti (24), lives with her partner in her own flat, works, grew up in the neighbourhood
- Bálint (28), lives alone, rents a flat, works and studies, grew up in the neighbourhood
- Márton (24), lives with flatmates, rents a flat, works and studies
- Petra (27) lives alone in her own flat, works

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## From Workers' Settlements to Mass Housing Estates: Evolution of Post-Socialist City (Kharkiv Case)

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### ABSTRACT

*The article deals with the transformation and evolution of urban planning ideas in Ukrainian cities during the Soviet period. The first period is the interwar period, when so-called workers' settlements were built in the form of cottage development. The next stage is the idea of socialist cities, partially implemented in the district of KhTZ. After WWII, urban planners adopted the principle of mass housing estates. Saltivka, Pavlove Pole, and Oleksiivka helped with "housing hunger", but due to being monofunctional, it caused city centralization. In independent Ukraine, the state and communist party no longer held a monopoly, leading to different ideas for urban planning from private developers. Another issue is the problem of using the Soviet urban planning heritage. The plants responsible for social infrastructure have decayed or been privatised, and no longer provide support for schools, hospitals, and recreational places. The urban environment is uncomfortable and unattractive for the residents, and due to the lack of legal control, there is a lot of chaotic rebuilding, which makes this space even worse. The destruction during the full-scale invasion of the Russian Federation raised questions about the future recovery of these Soviet mass housing estates. Thus, in conclusion, we would discuss the possible strategies for the renovation of the Soviet urban planning heritage.*

### KEYWORDS

*mass housing estate, Kharkiv, modernism, urban planning, postsocialistic transformation*

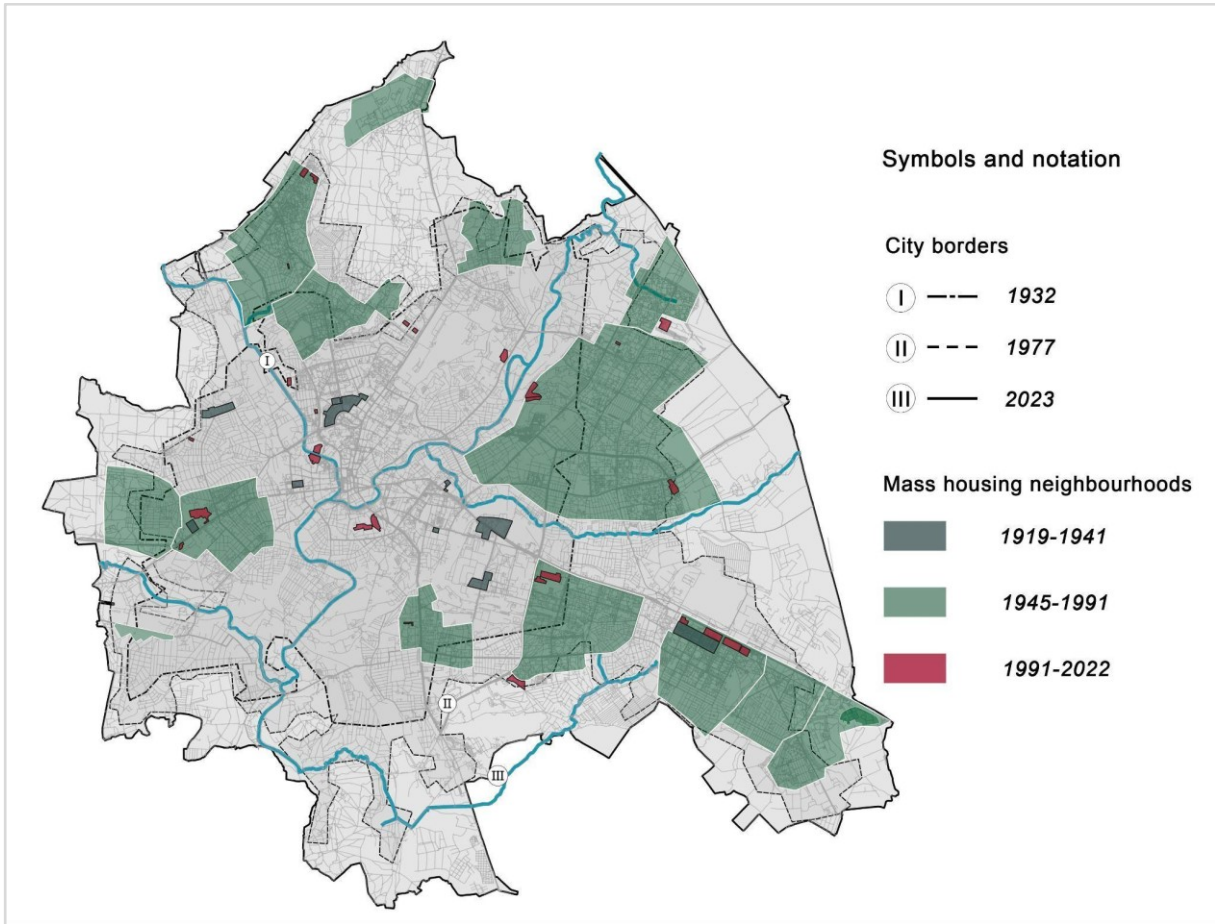


Figure 1. Genesis of Kharkiv residential areas, 1991- 2022. (Source: Authors)

## 1. Introduction

The full-scale invasion of the Russian Federation on Ukraine caused a significant destruction of the mass housing estates. Kharkiv was under massive shelling in the March-April, 2022, thus the problem about a future transformation of the damaged living complexes is discussed among Ukrainian and foreign architects, urban planners. In our paper, we would like to explore the evolution of the residential building in Kharkiv in the Soviet era. Thus, we could understand its meaning as an urban planning heritage and therefore, use this background in the strategies of the renovation.

The problems of residential building in Soviet Ukraine became a subject for research both of historians and architects. For example, Katerina Didenko in her dissertation, describes the development of the Soviet programs for the residential building. The workers' housing and living conditions are studied from the point of the everyday life history by Roman Lubavskij, Myroslav Borysenko and Olha Movchan. The comparative analysis of the post-war mass housing estates in Ukraine (Sykhiv, Lviv) and European cities are made by Natalia Mysak.

Such primary sources as the architectural periodicals highlighted the discussions about the ways of residential building (Architektura Radian'skoi Ukrainy/Architecture of the Soviet Ukraine, Budivnyctvo/Building), the works of the Soviet architects and urban planning consisted the details of urban planning concepts and building technologies.

The geography of this research is the territory of Kharkiv within its boundaries in 1919-2023. The chronology periods are:

- 1919-1941 - first Soviet mass-housing complexes;
- 1945-1991 - renovation after the Second World War and the most intensive time for mass housing;
- 1991-2022 - mass housing estates in the independent Ukraine.

While providing our research we use such methods as:

- field surveys of the current state of architectural and urban planning objects in 2020-2021;
- comparative analysis of historical plans and architectural concepts with modern strategies and requirements for the development of the urban environment;
- case studies, including the selection of specific residential complexes, such as Novyi Kharkiv, Zaderzhpromya, and Novi budynky, and others, for a detailed analysis of their urban planning, study of architectural features, and assessment of the impact on urban infrastructure;
- graphic and computer-based methods were used to create mapping materials in Photoshop and QGIS, that provide a visualisation of both historical and contemporary aspects of urban planning and the destruction caused by Russia's full-scale aggression (see Figure 1).

## 2. Kharkiv urban planning in the Soviet era

In the interwar period, Kharkiv was the capital of Soviet Ukraine (1919-1934). During this period its territory increased from 30.5 km<sup>2</sup> in the 1910-th to 140.8 km<sup>2</sup> in 1929 and its population - from 246,000 to 532,000 inhabitants. Thus, the residential building was urgent. The problem was not only the intensive development but also the necessity to implement communistic ideology into everyday life (Antypenko, et al. 2021). The evolution of the planning conception went from free development and separate housing complexes for officials to the micro-districts as a self-sufficient unit of urban planning (Bachynska, 2017) (See Figure 2).

### 2.1. The workers' settlements and cottage planning

The first type of Soviet planning conception was the working settlements. As Mark Meerovich suggests, they had evolved from the idea of the city garden by Ebenezer Howard, but they had a different way of land-using. The individual land ownership rights were absent as well (Meerovich, 2013). The planning features of the settlements include a homestead principle, rectangular boundaries, small city quarter (up to 3.5 hectares), a clearly defined pattern of primary and secondary streets, a balanced connection between residential development and public buildings, and complete landscaping. The most common type of low-rise housing of that period was two- or four-apartment buildings located in paired blocks (Holovko, 1962).



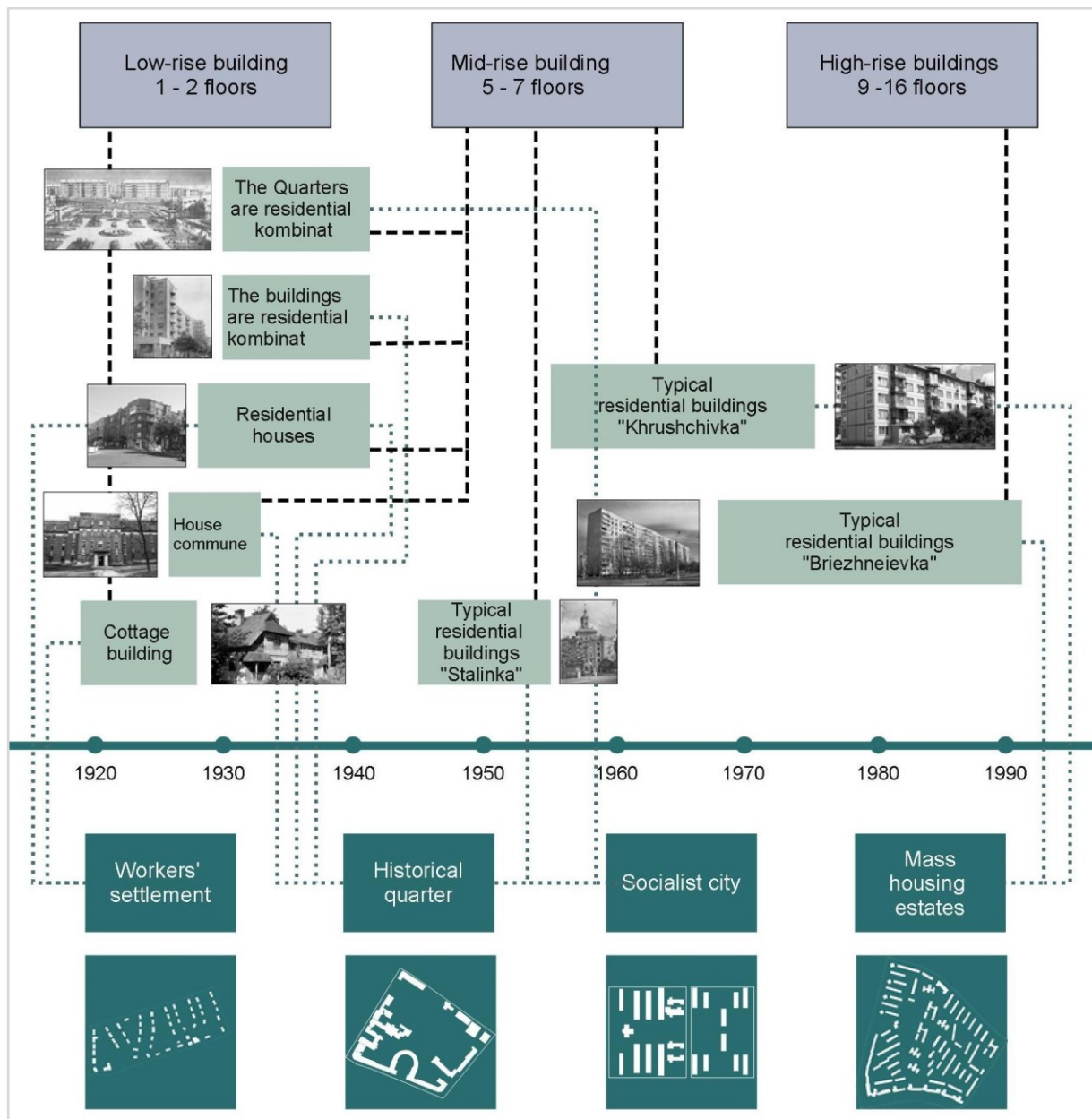


Figure 2. Residential programmes implemented in Kharkiv between 1919 and 1991.  
(Source: Authors).

In the interwar period in Kharkiv, several working settlements were built. Among them are the Red October settlement (1925-1926, A. Langman) and the settlement of the Kharkiv Locomotive plant (1924, V. Trocenko) (See Figure 3). However, this low-rise housing turned out to be insufficient from an economical point of view (Shvydenko, 2023). The settlement of Machine builders (1922-1936, I.Taranov-Beloziorov, V. Bogomolov, M. Zelenina) and Red Ray settlement (1929-1932, G. Vegman, Ie. Lyamar, E. Gamze) are presented as another type of urban planning. The four- and five-story buildings were the main type of residential units. The housing was accompanied by the service infrastructure, which was planned taking into consideration the optimal radius and amount of the residents.



Figure 3. Photos of houses in workers' settlements of Kharkiv. 1. Residential building of the Kharkiv Locomotive Plant. (Source: from the book *Essays on the history of architecture of the Ukrainian SSR, 1962*). 2. Residential building in the Red October settlement (Source: From the archive of M. Kornilov). 3. Red Ray settlement (Source: From the archive of M. Kornilov). 4. Residential building of Machine builders settlements (Source: Authors).

## 2.2. House-commune

In the mid-1920s, architects introduced the architectural concept of the "house-commune" which was considered a fundamental solution to the accommodation problem. There was an assumption that shared cooking, child-rearing and house cleaning should foster a sense of community, which is what communist theorists wanted.

The first of these houses looked a bit like dormitories, with free food and accommodation, but they were only for officials and artists. The construction of this type of housing was driven by an acute housing crisis and a tough cost-cutting policy (Didenko, et al. 2016). However, the house-commune was recognised as utopian and anachronistic after residents repeatedly complained about the limited personal space and moral fatigue. A special decree of the Central Committee of the Communist Party of Ukraine "On Work on the Reconstruction of Domestic Life" (May 16, 1930) condemned the practice of public housing. In the mid-1930s, communes were liquidated, and the buildings were repurposed.

The first (and only) fully functional house-commune in Kharkiv, intended for 2,000 people, with a corridor planning system and a well-established public space, was built in 1925 by architect V. Trotsenko (Dakhno, et al. 1986). A simplified version of the communal house concept was implemented in the Novyi Pobut residential area (1929-1930, M. F. Pokorny). This complex included five residential buildings. The houses had toilets, but no kitchens, as it was planned to build a four-storey kitchen complex to serve these houses. The flats also had different conditions for families and singles, thus for example, only the stairwells in the part intended for family flats were equipped with elevators, while the part for singles did not have this option (Didenko, et al. 2016).

### 2.3. The residential complexes

The centralisation of the planning and management at the end of 1920-th caused the increasing scale of construction in the USSR. The giant plants and factories became the foundation for the planning and building cooperatives. In the interwar period, the concept of the residential '*kombinat*' appeared. It meant that the residential buildings were linked with various social infrastructural objects. For the inclusion of women in production on equal terms with men, the primary need was to free them from household duties by building public canteens, kitchens, laundries, dry cleaners, and other institutions. At the same time, the state sought to take over the education of the children, beginning from the nurseries and ending at the universities and colleges (Didenko, et al. 2016).

While the residential buildings for workers were constructed in the outskirts, near the plants, the housing for Party officials and higher executives were situated in the city centre (Didenko, et al. 2016) (See Figure 4.). One of the most prominent examples of residential building complexes is the one named after Dzerzhynskiy (1931, architect G. Ianovickii). Besides 189 flats in this building were nurseries, kindergartens, department stores, laundry and hair salons (Zherbyn, 1989-1990).

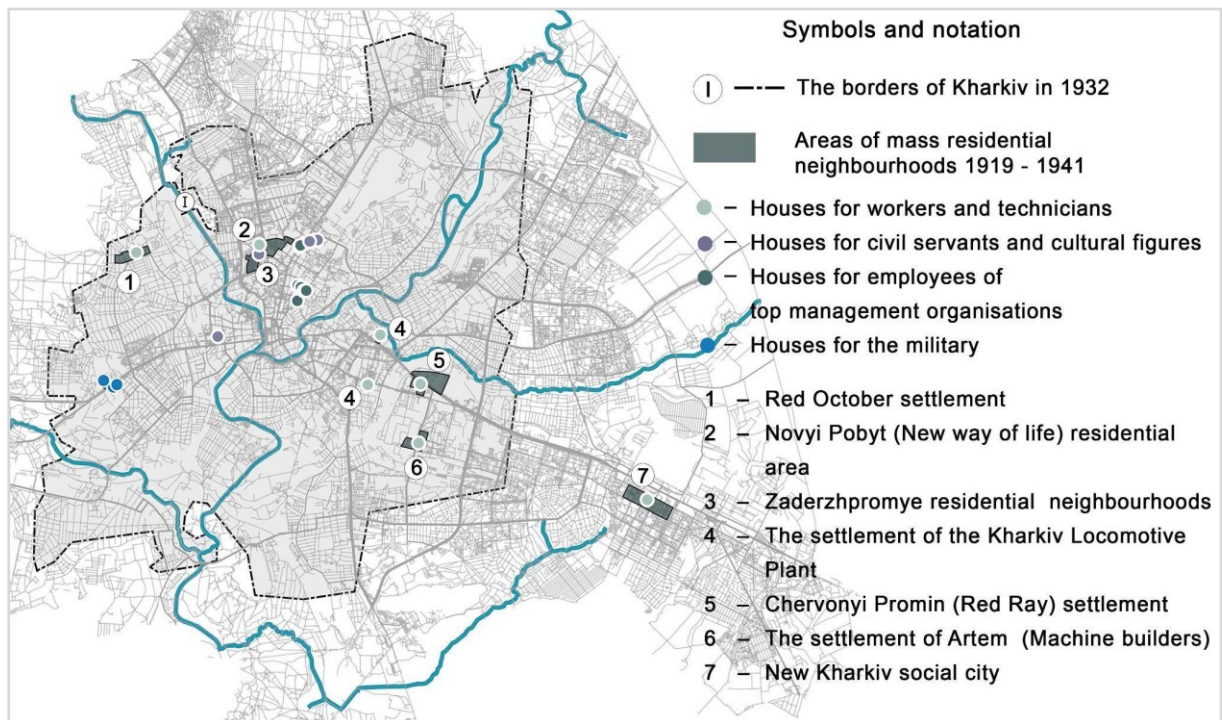


Figure 4. Areas of mass residential neighbourhoods, 1919-1941. (Source: Authors)

Another example is the living micro-district of the Zaderzhpromia, which is included in the Freedom Square ensemble (formerly Dzerzhynskiy Square). In the beginning, the housing was planned as the usual multifunctional buildings within the structure of the quarters. Progressively, the residential complexes with the extensive system of social infrastructures appeared. We could mention such complexes as Red Industrialist (1930, S. Kravec'), House of the specialists (1934-1936, L.C.Lemish), Red Printer (1930th), Voenved (1937-1938, P. Shpara). Lately, separate housing buildings evolved into the residential '*kombinat*'. These complexes became the units of the urban planning of the socialist city (Didenko, et al. 2016).

## 2.4. The socialist city: New Kharkiv

The next stage in urban planning involved discussing urbanism and desurbanism. The idea of a socialist city by Nikolay Milutin was rooted in Howard's garden city concept. Urban planners considered social management tasks, such as the social and professional composition of the population and the projected number of people to align with the planned distribution of resources (Meerovich et al. 2011).

New Kharkiv was planned as a new city, although it was connected to the existing body of Kharkiv in the post-war period. It was one of the significant constructions of the first-year plan, along with the Kharkiv Tractor Plant in the southeastern outskirts near Losevo station. The new city and plant formed an integrated producing and settlement complex (See Figure 5.). The Sotsmisto, under the supervision of architect Pavlo Alyoshin, could accommodate 50,000 people by 1940 (Dakhno et al. 1986).

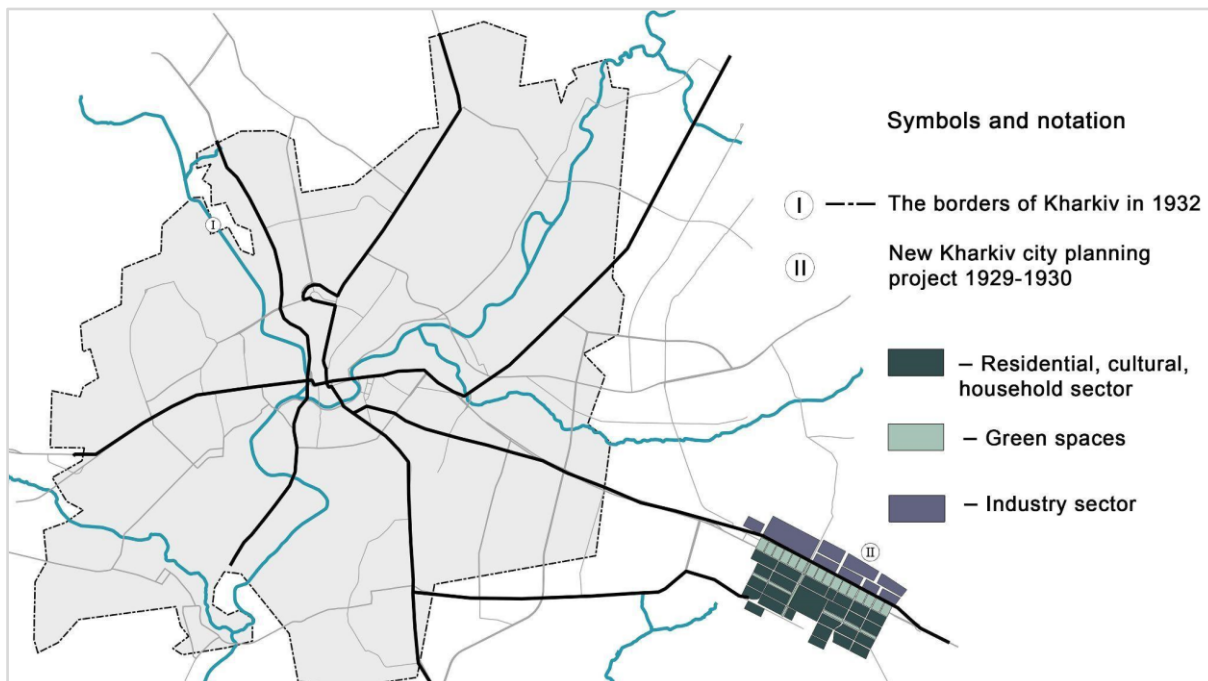


Figure 5. Location scheme of the social city "New Kharkiv". (Source: Authors)

The main units were residential '*kombinaty*' for various categories of inhabitants. The first one was designed for 2,774 people and occupied an area equivalent to a traditional city block (9 hectares). They had a symmetrical structure with a central club-canteen surrounded by two six-story family buildings, six buildings for singles, and four facilities for children - two nurseries and two kindergartens. The plan included warm passages on the second floor connecting all buildings (Zherbyn, Volume 2, 1989-1990). In the initial construction phase, four housing complexes, several public buildings (labour school, cinema, etc.), and a buffer green zone were built (Dakhno et al. 1986).

## 2.5. Mass housing estates

After World War II, Kharkiv experienced significant destruction, with industrial facilities and residential buildings damaged. The population, however, grew rapidly during this time (Ivanov, S. 2010). In 1948, a team led by O. Kasyanov developed a general plan for Kharkiv, improving the urban structure by transitioning from a radial road system to a ring and radial one. Addressing the housing shortage after the war involved renovating damaged multi-story buildings, constructing low-rise buildings on

unused land, and reconstructing earlier flat buildings, including the construction of multi-story buildings in the city centre (Zherbyn, Volume 3, 1989-1990).

During this period, urban planners experimented with new methods and materials for large-block construction (Mysak, 2018). The implementation of micro-districts and typical projects was evident in the construction of the "Novi budynky" mass housing estate in 1957, occupying 700 acres of land previously used as an experimental field (Klein et al. 1987). The construction consisted of two main groups: Square A, featuring strictly planned streets and five-story large-block and large-panel residential buildings, and Square B, with free-planned structure and nine-story buildings (Klein et al. 1987).

Simultaneously, the "Pavlovo Pole" mass housing estate, designed by L. Tul'pa and O. Grigorenko, was built on the other side of the city, incorporating micro-districts and various composition approaches (Klein et al. 1987). The Saltivs'kyj mass housing estate (L. Tul'pa and I. T. Demeshko, 1973-1983), demonstrated a connection between service infrastructure and residential buildings. The trade and household services were concentrated near public transport stops (Dakhno et al. 1986).

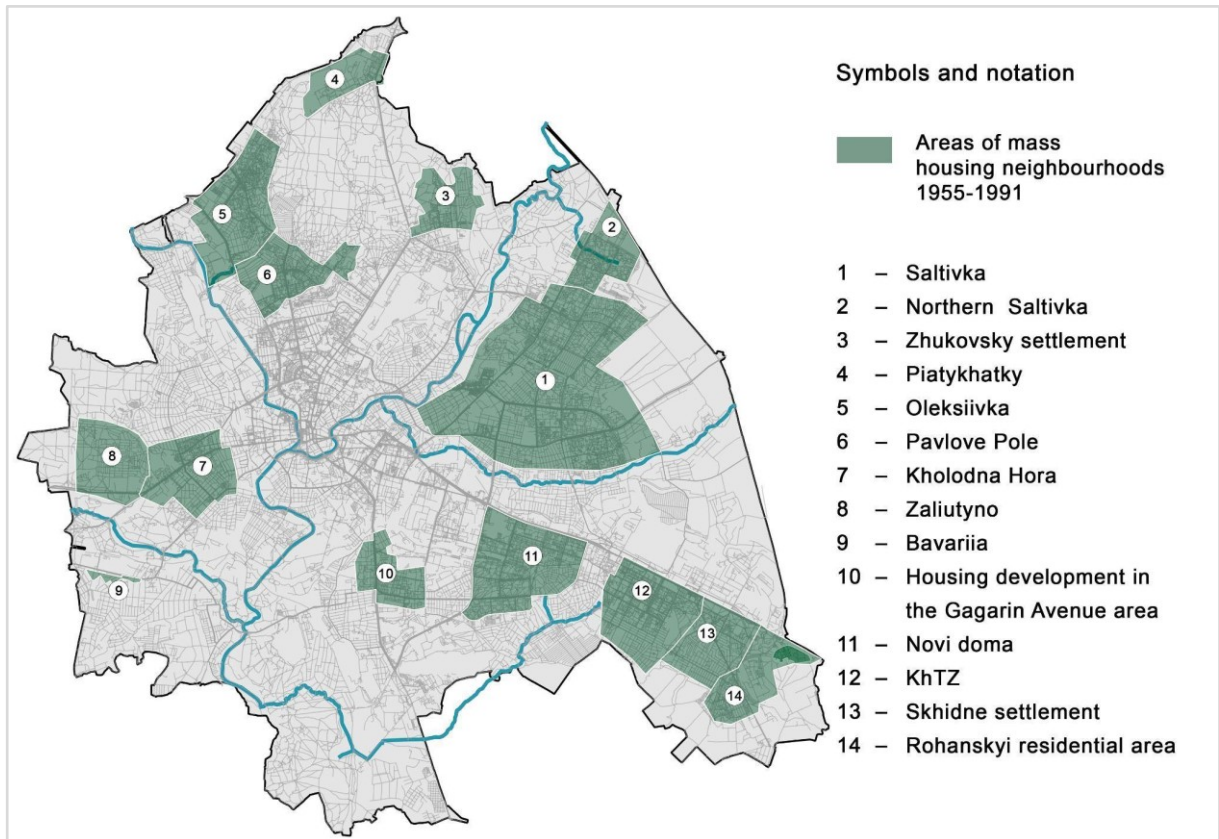


Figure 6. Areas of mass residential neighbourhoods, 1955-1991. (Source: Authors)

In the late 1970s, the construction of the Oleksiivka mass housing estate began, accommodating 90,000 residents in the northwestern part of the city. It featured typical multi-story large-panel buildings arranged in groups, while a student town for 20,000 residents was planned in the southern part of the estate (Dakhno et al. 1986; Cherkasov and Grish, 1965).

During the 1970s and 1980s, significant changes were made to the urban structure of Kharkiv. The general plan developed by V. L. Antonov, S. M. Klevyc'kyi, V. V. Domnyc'kyi, and others at the Kharkiv branch of Dipromisto in 1967 resulted in new mass housing estates such as Saltivskyi, Pavlove Pole, the district of Selection station, the complex in the Ordzhonikidzevskyi district, the complex near Gagarina Avenue,

and Sosnova Girka. Reconstruction efforts also took place along Gagarina Avenue and Moskovs'kyi Avenue, replacing old buildings with 9-16-story structures (Dakhno et al. 1986) (See Figure 6).


### 3. Contemporary problems with the Soviet mass housing estates

Over the past 30 years, Kharkiv's architectural and urban face has been going through a rough patch. Residential programs are now determined by developers and corporations, rather than the state (Bachynska, 2017). Although new residential buildings may not differ much from Soviet prototypes in terms of design, their placement is no longer aligned with an overall spatial concept (Antypenko et al. 2021). The central historical part of the city is being built up with unattractive high-rise buildings, and residential areas are being densified without taking into consideration urban planning projects developed by Soviet architects (Zberezhennya pam'yatok kul'turnoyi spadshhy'ny, 2020). Soviet architects reserved space for the construction of public infrastructure in the planning of residential areas. Due to the economic difficulties of the late 80s and 90s, most of these areas remained empty, and with the establishment of Ukrainian independence, these areas were replaced not by schools and gyms or public buildings, but by residential high-rise buildings. Developers believe that residential development is the most profitable option, as public buildings cannot provide a quick return on investment. The only goal for developers is to place as many housing units as possible on the smallest possible plot to make the most profit. However, the more floors, the greater the pressure on outdated infrastructure that building companies do not develop (Kajdan, 2016).

The main urban planning documents in Ukrainian cities are general plans, zoning plans and detailed territory plans. By law, construction in a city can only take place in accordance with the general plan. De facto, detailed territory plans sometimes do not correspond to the master plans, contrary to the law, as the development of detailed territory plans is usually funded by investors who have an interest in building in these areas. Such projects reflect mainly commercial interests rather than the needs of the local community. Procedures for involving the public in the development of urban planning documents are often complicated and sometimes limited, and therefore many people cannot actually play an active role in this process (37 tez, 2022).

Residential flat buildings constructed in the 1960s and 1970s in Kharkiv, as part of the massive industrial development of that period, are now deteriorating physically and morally, and do not meet modern standards for energy efficiency and living comfort. Approximately 21% or 7.36 million m<sup>2</sup> of the total area in Kharkiv is occupied by housing stock built in the 1960s and 1970s (Hrynevych et al. 2021).

To improve living conditions in these buildings, the Regional Program for the Reconstruction of Residential Buildings of the First Mass Production Series in the Kharkiv Region was developed in the early 2000s. Selective inspections of residential panel buildings revealed defects in exterior wall panels, vertical cracks in panel joints, interfloor defects, foundation damage, and changes in ground properties. As a result, recommendations were made for building modernization, focusing on restoring operational suitability, considering economic efficiency, partially changing space-planning solutions, adding modern facade wall insulation systems, updating engineering equipment, and installing necessary systems such as elevators (Hrynevych et al. 2021). Only one large-panel residential building of the series 1-464 A-Z, located at Petra Hryhorenko Avenue No. 21 and built in 1965, underwent modernization in Kharkiv during this period. The reconstruction included adding



loggias, constructing an attic floor on top of existing flats, and all the works were carried out without relocating residents.

#### **4. The damage from the Russian aggression and possible strategies of the renovation**

According to Kharkiv municipal council data from early 2023, approximately 30% of housing in Kharkiv was damaged due to the shelling by the Russian Federation. This amounts to around 4,000 residential buildings, with nearly 500 deemed irreparable. As a result, over 150,000 Kharkiv residents were left without housing (Programa). The most heavily damaged mass housing estates are Saltivs'kyi, followed by Oleksiivs'kyi and Pavlovo Pole (See Figure 7.). Damaged buildings undergo assessment at multiple levels. Initially, engineers from the communal institution "Zhytkomservis" evaluated the extent of the damage, followed by scientific analysis of building material samples. The buildings are then categorised based on the degree of destruction, ranging from broken windows to buildings requiring overhaul or reconstruction/demolition. As of March 2023, 200 buildings in Kharkiv had been renovated.

The Transparent Cities programme (an accredited representative of the global movement Transparency International) suggests using the following principles to rebuild Ukrainian cities:

- support and renovation of existing housing, including the possibility of restoring damaged residential buildings;
- planning and reorganisation of urban areas, transition from micro-district planning to quarterly planning, increasing the amount of public spaces
- active participation of the community in the process of urban renewal openness and inclusiveness in the city development;
- modern energy modernization, which can be a more efficient and cost-effective alternative to demolishing some Soviet buildings, focus on sustainability and resource conservation;
- local architects, conducting sociological research to understand the context (Post-war reconstruction, 2023).

The study, conducted by the CEDOS, sociological analytical centre, highlights concerns that current housing recovery programs could lead to a repetition of the same housing policy mistakes that occurred before the full-scale invasion and make the crisis in this area worse. In particular, the excessive influence of developers can lead to the large-scale construction of low-quality housing, at the expense of green areas and public spaces, which has been practised for the past 30 years. It also points to the limited public access to decision-making and participation in the development of city plans and urban planning projects (37 tez, 2022). What is the current situation in Kharkiv? Norman Foster, a star of world architecture, is invited to develop a master plan for the reconstruction of Kharkiv. There are no architects of Norman Foster's level in Ukraine. However, there are great concerns in society about the participation of Foster's team in the restoration of Kharkiv. Foster's studio is used to working with corporations and rich oil countries, which involves designing large, expensive and complex buildings, and this experience may not be relevant for post-war Ukraine, which will be limited in finances. Kharkiv architect Oleh Drozdov suggests that Foster's involvement may be questionable, as decisions will be made from the top down, and therefore the outcome may be unpredictable. As an alternative, he suggests a public

discussion of all proposals and holding competitions to involve local specialists (Oleg Drozdov, 2022).

The city mayor plans to present a master plan to the community for approval, but local residents are often excluded from planning in Kharkiv. Information is shared with the public after it's finalised, ignoring their opinion. The conclusion that the city council seeks to make all decisions on its own can be drawn from official statements, for example, "...we note that the rest of the designers and architects who claim to be involved in the process of city renewal are not actually involved in this process" (Kharkiv after the war, 2022). Although it is claimed that a team of Kharkiv architects worked together with Foster's studio, these architects state that this collaboration is currently suspended. Today, there is no coherent vision, concept or strategy for housing reconstruction. After the largest-scale destruction of housing, Kharkiv city mayor Igor Terekhov announced his intention to build new micro-districts rather than restore damaged housing (Igor Terekhov, May 11). On the other hand, representatives of the construction sector (Oleksandr Kharchenko, head of Trest Zhilstroy-1), says that in Kharkiv, only one or two buildings destroyed by shelling are subject to demolition. Northern Saltivka can be restored by 99%. Restoring a building costs 15 times less than building a new house (War-torn homes,2022). When presenting his post-war concept for Kharkiv, British architect Norman Foster emphasised that not all impacted Soviet residential buildings need to be demolished. Contemporary energy modernization can be more efficient and economically viable (Architect Norman Foster).

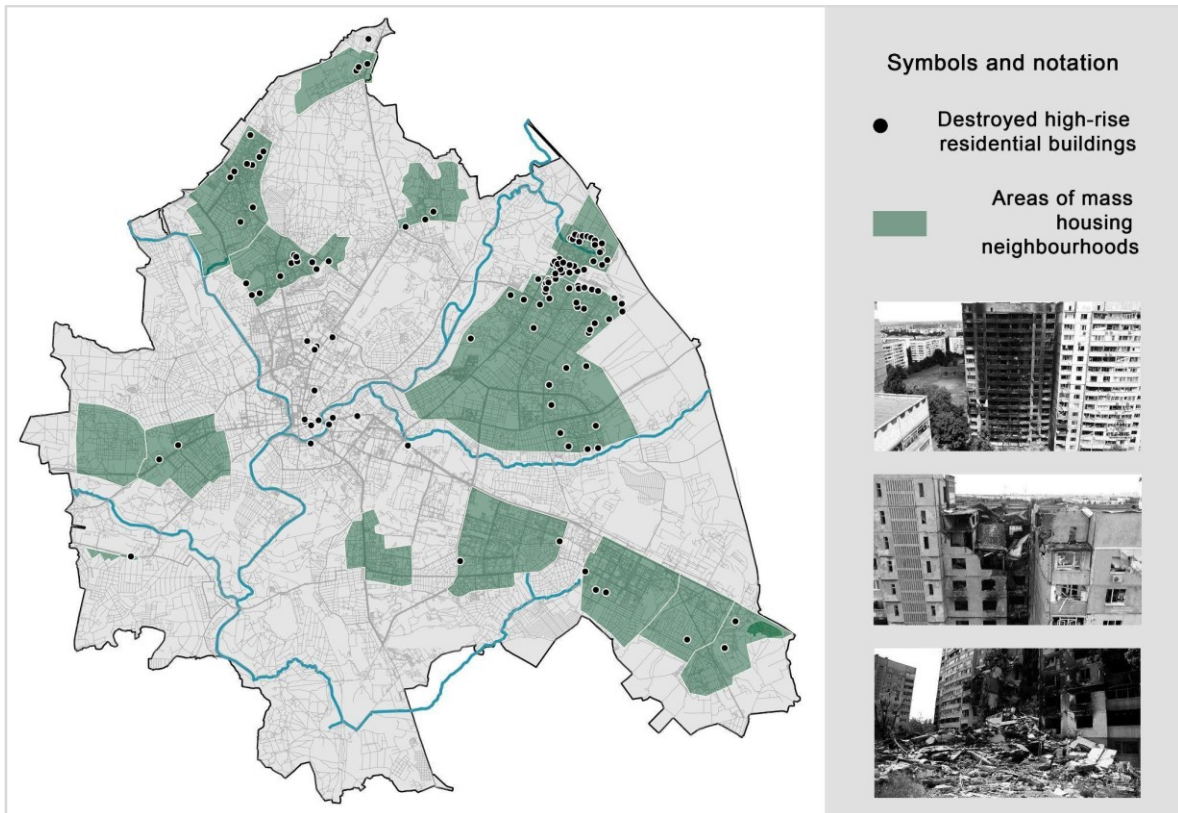


Figure 7. Destroyed high-rise residential buildings by missile attacks in Kharkiv. (Source: Authors, Photo by the Kharkiv Human Rights Group)

Besides the official concepts, there are several local initiatives and projects aimed at the reconstruction and rebuilding of residential areas that have suffered significant damage are actively being developed. For example, the "EGO HOUSE" team



proposed a renovation concept for Pivnichna Saltivka, which suffered significant damage. They suggest transitioning from micro-districts to quarters in terms of planning, aiming to increase the amount of public spaces and enhance living comfort. The multi-story buildings (9–16 stories) and low building density present various challenges that need to be addressed. The proposal suggests integrating residential infrastructure with mixed-use public buildings, some of which would include commercial and office spaces. The maximum building height would not exceed six floors, thereby increasing the square footage of residential buildings to 1.3 million m<sup>2</sup> (Hryshenko, 2023).

Another project presented by Ukrainian architects Lubomir Podolianychn and Kostiantyn Rusiev (See Figure 8.) secured the sixth place in the international program "Impact Competition". Their main idea involves using 3D-printing to create living modules that can be used to repair the damaged parts of the micro-district. The damaged panel constructions would be replaced with these modules, with their structural integrity ensured by metal frames. In June 2023, the "Rebuild Ukraine " competition was launched, aiming to find innovative solutions to replace destroyed residential buildings in the micro-districts of Pivnichna Saltivka. Participants have the option to choose between planning new buildings or increasing the density of existing ones by adding additional flats.



Figure 8. Northern Saltivka reconstruction project 2022. Architects: Liubomyr Podolianychn and Rusiev Kostiantyn. (Source: <https://impactcompetitions.net/result/2>)

## 5. Conclusion

Soviet mass housing estates possess historical and urban planning value, reflecting various aspects of Soviet urban planning history. Additionally, they played a crucial role in providing widespread access to housing, serving as an affordable accommodation solution. It had a significant social impact, meeting basic housing needs for many individuals. Moreover, these housing estates hold cultural heritage value, becoming ingrained in collective memory and subjects of research for architects, historians, and cultural studies experts.

However, it is important to acknowledge the challenges faced by Soviet housing estates, such as ageing infrastructure, structural deficiencies, inadequate social infrastructure, and other issues. The destruction caused by Russian aggression has further exacerbated these problems. Various concepts for post-war residential reconstruction in Kharkiv have been proposed, each offering different approaches to restore and enhance the living environment. Despite their differences, these concepts all consider social, economic, and cultural aspects to create living spaces that meet the needs and modern requirements of residents.

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# Value and Financial Valuation of the Transformation of Modernistic Housing Estate's Structure

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## ABSTRACT

*This paper presents results of the research focused on architectural and economic valuation of the housing estate's modernistic urban structure transformation in Prague - Modřany. Modernistic housing estates in Europe are considered as urban entities that present higher social segregation, anonymity and lower quality of living space. Many housing estates in Western Europe have already been renovated and transformed. In the Czech Republic, revitalizations are often conserving current state without analysing the benefits of this complex transformation. One third of Czech population lives in modernistic housing estates. The quality of environment and public spaces are perceived to be worse comparing to other urban structures. Public spaces account for 70 % of the housing estate's total area, being one of the main factors that effects the use and non-use value of this space. Main problems are lack of parking spaces, recreational activities, safety, social segregation and the image of the location. This paper introduce a method that helps to detect willingness of people living in these areas to participate financially in the transformations and lists the benefits, value, and quality of changes and shows the possibilities of a financial model that integrates the local people, housing associations, groups of investors and the public sector.*

## KEYWORDS

*housing estate, quality, valuation, transformation*



Figure 1. Pardis district in Tehran, Iran (Source: KUZU GRUP)

## 1. Housing estates and the potential of open space around buildings

This paper presents a method for valuation of the open space around buildings of housing estates the efficiency of the use of this space together with the benefits of potential transformation. The presented approach is based on assumption that the quality of housing estate residential environment is worse than environment of other urban structures. Modifications of modernist housing estates are occurring across the world, both by residents themselves, so-called "bottom-up", and by governments and municipalities, managed as "top down". (Chudý & Molnárová 2022) In addition to buildings, open spaces between them play a crucial role in maintaining and developing well-being. (Wittmann & Kubínová 2015)

Maintenance and management of public spaces costs the municipalities a considerable amount of money. Housing estates are large areas of questionable quality. Public spaces in housing estates usually account for around 70% of the total area. The municipalities carry out routine maintenance and repairs in these areas to renew the elements after their service life. (Hudeček et al. 2018) When the importance of the space between buildings is neglected, the quality of the living environment as a whole declines rapidly, and with it its robustness. (See Figure 1.)

### 1.1. Modernist Housing Estates in Czech Republic

I define a modernistic housing estate as an urban structure built using prefabricated panel construction method. These were primarily residential developments built between 1950s and 1990s mainly in Europe but some of them can be seen in other places around the world as well. This resulted in new parts of cities with multi-storey buildings and flowing space between buildings (Hess et al. 2018), (Wassenberg 2004). According to statistical data, there are 62 456 residential buildings in the Czech Republic. A total of 50 - 60 % of prefabricated apartment buildings will reach the half of their service life in 2025 (Witzany 2016). Approximately 1/3 of the population currently lives in housing estates in the Czech Republic and the built environment directly affects them.

### 1.2. Main problems of housing estates

Each housing estate is specific to its time of origin, location and other input conditions. Green areas around the houses and frequent proximity of large natural recreational areas within an accessible distance of the settlement are usually seen as positive qualities of housing estates. However, most of the housing estates are currently dealing with similar issues. Issues seen from the perspective of housing estate residents such us:

- lack of parking spaces
- poor maintenance of the common areas
- mess around the houses
- vandalism (graffiti, frequently destroyed bins and public transport stops)
- not enough amenities, cultural facilities, unreachable services

There are also structural problems such as:

- complicated property relations - many owners of apartment buildings, in some places the situation is complicated by land returned in restitution to individual private persons
- status of the housing estate - mass housing
- risk of excluded localities

Karel Maier evaluates positives and negatives of these housing estates and show how residents, the district and experts see them (Maier 2003). Housing Estates, What's Next (Kohout et al. 2016) is another research paper analysing the shortcomings while proposing an approach to their comprehensive elimination. This research is based on the approach to housing estates mainly in Western Europe where high-rise estates are characterised by a higher degree of social segregation, anonymity and are more susceptible to external influences and changes (van Kempen et al. 2005) (Wassenberg 2004). Approaches how to fix these deficiencies are different in each country or region. Eastern European countries are mainly addressing just the physical construction deficiencies (Šimáček et al. 2015). The social structure Eastern European housing estates does not show the same level of social problems as in Western Europe (Wassenberg 2004). Thanks to the past socialist central planning and closed border in the countries of Central and Eastern Europe. However with the opening of the real-estate market in the 1990s, after the collapse of the Eastern Bloc, there was a gradual outflow of richer people in other places. People with less resources have been confined to stay in less attractive places (van Kempen et al. 2005) An important theme in process of humanisation of housing estates is the correction of the social environment.



It is primarily about civic participation and the creation of meeting places. It is about differentiating the population structure through a typological mix of buildings and different forms of ownership and improving the quality of unbuilt open space. (Borgegård & Kemeny 2004)

## 2. Valuation method of transformation

Transforming modernist housing estates into a more robust, stable and higher quality urban structure could bring benefits to local residents (Chudý 2022a). The basis of this hypothesis is the study of economic valuation methods and setup a procedure that will allow the valuation of the benefits of modifications to the unbuilt open space of housing estates (Chudý 2022b). As a result of the analysis of the modifications carried out, a Catalogue of interventions in housing estates mapping the existing interventions “top-down” and “bottom-up” was introduced (Chudý & Molnárová 2022). Furthermore, a survey was conducted in selected housing estate in Prague - Modřany district using a special questionnaire. Survey showed preferences of the local residents, their willingness to participate in the improvement were also verified on model cases and compared with the valuation of the current state by the same parameters (Chudý 2022a). The results of the valuation of the 3 selected blocks were valued on the basis of Economic Valuation. The procedure was inspired by Stated Preference Methods and the creation of a hypothetical market and examines the Willingness to pay for the interventions presented in the Catalogue of Interventions in Housing Estates. The method used is based on Cost Benefit Analysis (CBA) and expressed using Benefits to Cost Ratio (BCR). The model cases were selected from a case study carried out in the Modřany housing estate within the project Housing Estates, What’s Next? (Kohout et al. 2016).

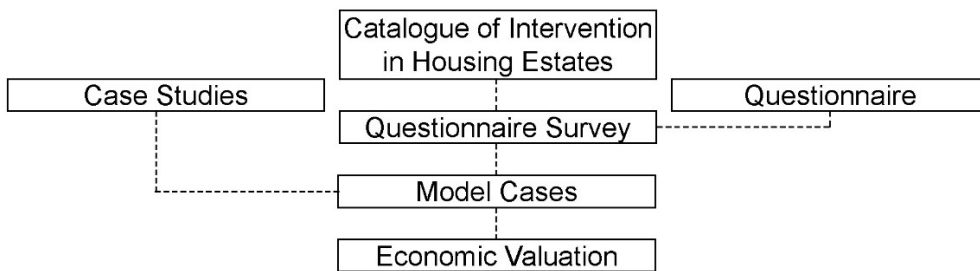


Figure 2. Schema of valuation method (Source: Chudý)

### 2.1. Catalogue of Intervention in Housing Estates

It is a catalogue of 17 recurring interventions, 15 of which are implemented "top-down and "bottom-up". The interventions are mapped with photographs, descriptions of the benefits and quantification of investment costs. Costs were calculated using the URS 2020 price system and own calculations from similar projects (Chudý & Molnárová 2022). The catalogue serves as an overview of the possible modifications of the constructed housing estates.

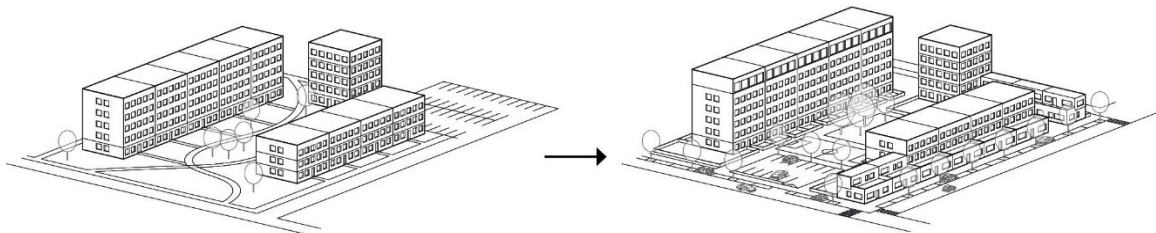


Figure 3. Catalogue of interventions in housing estates - Scheme of transformation (Source: Chudý & Molnárová 2020)





The catalogue contains the following possible interventions:

- adjustments of public spaces
- private gardens
- shared gardens
- front gardens
- adjustments of entrance area
- reserved parking uncovered
- reserved parking with shelter
- shared garages / block shelter with terrace
- private garages
- active parterre
- individual entrances to apartments
- extensions in the parterre
- extensions on the upper floors
- balconies and loggias
- new buildings
- shared courtyards (only “top-down”)
- technical infrastructure network (only “top-down”)

**2.2. Questionnaire survey**

Purpose of the questionnaire was to find out preferences of local residents of a particular housing estate in the hypothetical case of planned interventions that improve the quality of life and the living environment in the housing estates. The interventions were selected from catalogue of interventions in housing estates. The Modřany housing estate in Prague was chosen for the survey and the survey was carried out by interviewing a sample of 216 people in person so that the composition of the whole sample corresponded to the population of the selected housing estate and to a representative sample. Respondents were interviewed in two rounds.

In the first round, cards A1-A6 with modifications were presented and residents were asked, "Would you like this modification..." The answer was closed on a scale of 1-2-3-4-5. (1 – Yes, I would definitely welcome... this change, 5 – No, I would definitely not welcome it). In the second round, respondents were shown B1-B6 cards with the same modifications as in the first round, but there was a price, a monthly fee, for which they could hypothetically purchase the modification. Respondents were asked the question, "Would you like to see implement this change if you had to pay this amount of money per month?" The questions were about the adjustments listed in the catalogue of items with minor variations for ease of questioning. The price that the respondent would hypothetically pay was derived from a calculation of the minimum cost of constructing the element, converted to a monthly payment over the life of the element (Chudý 2022a). The results show preferences for adjustments before and after price information. (See Table 1.)

**Table 1. Inhabitant Preferences (Source: Chudý & Molnárová 2020)**

	Preferences without price					PRICE (CZK/month)	Preferences with price				
	1	2	3	4	5		1	2	3	4	5
Adjustments of public space	61%	16%	8%	8%	7%	55	40%	20%	16%	11%	12%
Adjustments of entrance	51%	23%	12%	7%	8%	30	34%	27%	13%	6%	19%
Private garden	24%	13%	18%	14%	32%	500	11%	7%	14%	12%	56%
Shared garden	35%	17%	17%	10%	21%	60	19%	20%	19%	9%	32%
Own office / market	5%	5%	22%	16%	52%	8500	5%	3%	12%	14%	67%
Shared office	7%	10%	24%	13%	47%	2500	4%	5%	16%	14%	61%
Balcony, loggia	46%	14%	13%	7%	20%	230	31%	13%	14%	10%	32%
Another new room	45%	11%	8%	9%	27%	1530	22%	11%	11%	15%	41%
Parking - uncovered	32%	21%	18%	8%	21%	200	31%	16%	15%	6%	32%
Parking - shleter	32%	23%	11%	11%	23%	400	20%	21%	11%	11%	38%
Parking - block shleter+terr.	27%	19%	14%	9%	31%	1000	9%	9%	11%	19%	52%
Parking - own garage	36%	13%	12%	8%	32%	1700	14%	7%	7%	14%	57%

1 - definitely YES, 2 - YES, 3 - NEUTRAL, 4 - NOT, 5 - definitely NOT

### 2.3. Model cases

Three building blocks were selected from the Case studies housing estate Modřany published in the project Housing Estates, What's Next? (Chudý 2022b). For these three blocks, areas to be transformed were picked and price of adjustments calculated, both for the current state and for the transformed structure. Overall costs of the investment for the adjustments were determined. This was based on the detailed budget for each element prepared in the framework of the Catalogue of interventions in housing estates. For the case model, the prices were converted to unit price. The cost calculation included lifetime and investment and maintenance costs converted to one year. (See Table 2.)

**Table 2. Costs of elements (Source: Chudý 2020)**

costs	Unit price (UP)		Service life (year)	Investment costs (1m2/year)	Maintenance costs (1m2/year)
<b>surface treatment</b>					
roadway - main	1650	CZK/m2	30	55,00	17,19
roadway - additional	1200	CZK/m2	30	40,00	17,19
sidewalks	900	CZK/m2	30	30,00	18,55
paved area - shared	1200	CZK/m2	30	40,00	18,55
paved area - entrances	3000	CZK/m2	30	100,00	18,55
paved area - parking	1200	CZK/m2	30	40,00	17,19
parking - shed	3300	CZK/m2	50	66,00	
parking - inner block	5000	CZK/m3	100	50,00	
parking - garage	8500	CZK/m3	100	85,00	
playground	1500	CZK/m2	30	50,00	11,59
workout	4400	CZK/m2	30	146,67	11,59
earthworks	1315	CZK/m3			
public greenery	200	CZK/m2	50	4,00	11,59
semi-public green	840	CZK/m2	50	16,80	11,59
semi-private green	840	CZK/m2	50	16,80	11,59
private green	1990	CZK/m2	50	39,80	11,59
<b>networks</b>					
public lighting	58250	CZK/piece	80	728,13	2177,00
electricity line	1500	CZK/m	80	18,75	
water supply	5000	CZK/m	120	41,67	
sewerage	10000	CZK/m	150	66,67	
gas pipe	4000	CZK/m	80	50,00	
<b>trees</b>					
plant trees	11000	CZK/piece	80	137,50	
<b>fence</b>					
walls	10250	CZK/m	80	128,13	
hedge	650	CZK/m	50	13,00	
mesh	1700	CZK/m	30	56,67	

For each area, the benefits of the valued transformations were quantified based on the questionnaire. This is the amount that a proportion of people are hypothetically willing to pay for the adjustments to be made. The benefits were converted to unit price / one person (flat) / one year. (See Table 3.)

**Table 3. Benefits of elements (Source: Chudý 2020)**

element	benefit of element for 1 person (apartment)/month		benefit for 1 person (apartment)/month/1 m2		benefit of 1m2 for 1 person (apartment)/year
roadway - main					not counted
roadway - additional					not counted
sidewalks					not counted
paved area - shared	55	for 1 block*	0,0196	for pers.	0,236
paved area - entrances	30	for apart.** per 30m2	1	for apart.	12
parking - uncovered	200	for apart. per 12,5m2	16	for apart.	192
parking - shed	400	for apart. per 12,5m2	32	for apart.	384
parking - inner block	1000	for apart. per 20m2	50	for apart.	600
parking - garage	1700	for apart. per 28m2	60,7	for apart.	728,6
playground					not counted
workout					not counted
public greenery	55	for 1 ha	0,0055	for pers.	0,066
semi-public green	55	for 1 block*	0,0196	for pers.	0,236
semi-private green	60	for 20 apart. per 200m2	6	for apart.	72
private green	500	for 1 apart. per 40m2	12,5	for apart.	150
land for sale					not counted
*1 block (aprox. 2800m2) **1 entrance with 30 apartments					

Benefits are expressed by the amount that a proportion of people are willing to pay per month for a given adjustment. Residents' preferences, as identified in the questionnaire, determine how many residents are affected and whether they are willing to hypothetically participate in the change financially. The amount given expresses the relationship between costs and preferences of residents and the real amount for the value-added. Determination of the marginal utility, i.e. the maximum amount people are willing to pay for a given set of benefits, was not surveyed. This amount represents the sum of all benefits. Different benefits arise when these modifications or new elements are made. The value created can be both use and non-use (Fausold & Lilieholm 1996). It is mainly about making the area more transparent, increasing security, improving orientation and control (Habraken 1998) (Kohout et al. 2016). Defining the main synergistic points, axes and nodes that will become meeting points or the creation of new complementary functions or amenities helps to hierarchise. At the same time, the space is supplemented with outdoor furniture and higher-standard furniture that will support the recreational use of the public space, e.g. a barbecue area or a garden shelter.

All of these adjustments will increase the time spent by resident in the common public space and improve the relationship with the neighbourhood (Gehl 2000). Modifications of the public space (space around the buildings), tightens the hierarchy of space and improves the social control and security. It can be more accurately demonstrated by measuring the reduction in crime and vandalism and quantifying the savings in unmitigated damage. The adjustments to the entrance areas contribute to

clarifying and defining the front of the building frontage (Lynch 1960). The space transformation into shared or private gardens brings both use and non-use value. It can be used for gardening or recreation. In the case of parking arrangements, the benefit is measurable through the availability of the space itself, or in the reduction of time and fuel consumption in finding a free space. It is also the proximity of the parking space to the house and the standard of parking.

## 2.4. Economic valuation

Stated Preference Methods, a procedure inspired by Choice modelling and Contingent Valuation Method, were used to determine the overall economic value. Simplified Cost Benefit Analysis was used and the result was presented in BCR - Benefits to Cost Ratio. BCR is a value reflecting the cost-effectiveness of the project and showing whether the project is more or less beneficial given the same parameters. BCR greater than 1 is financially profitable. Not every public project has to be profitable but higher number indicates greater benefits. On the picture below you can see a comparison of Block 1 ratings - status quo vs. transformation. Transformed structure with a higher BCR is more beneficial. (See Figure 4.) The benefits do not include profits from the possible sale or transfer of the land and the change in the number of parking spaces is shown. A total of 3 blocks were assessed but only results of one block are presented in this paper for illustration. Full list of results for all the blocks can be found in Economic Valuation of Housing Estate Transformation (Chudý 2022b).

Block 1 - current state		Block 1 - transformation	
area of block	34 560 m <sup>2</sup>	area of block	34 560 m <sup>2</sup>
non-built space	27 780 m <sup>2</sup>	non-built space	27 594 m <sup>2</sup>
construction costs	873 153 CZK/year	construction costs	1 552 669 CZK/year
public maintenance costs	466 937 CZK/year	public maintenance costs	380 420 CZK/year
total costs	1 340 090 CZK/year	total costs	2 045 346 CZK/year
benefits	1 980 795 CZK/year	benefits	10 519 239 CZK/year
<b>BCR - Benefits to Cost Ratio</b>	<b>1,4781</b>	<b>BCR - Benefits to Cost Ratio</b>	<b>5,143</b>
other:		other:	
number of parking spaces	82	number of parking spaces	185
		profit from the sale of land (3600 CZK/m <sup>2</sup> )	7 661 m <sup>2</sup>



Figure 4. Model – Block 1, Prague - Modřany  
(Source: Chudý & Molnárová 2020)

### 3. Conclusion

The quality of space directly determines the value of this space and is impacting all the areas: health, society, economy, environment (Carmona 2018). These are often values difficult to measure and quantify in monetary terms. This paper shows a way how the value of space and the newly created benefits can be expressed and partly monetarised. It ascertains the preferences of residents on housing estates and through this it seeks to identify the benefits of interventions that are being implemented around the world in the form of 'top-down' and 'bottom-up' interventions. It examines the possibility of transforming the structure of housing estates into a higher quality and more robust structure, and presents arguments for why it is important to focus also on the open spaces around the buildings, even in new developments. The most desired adjustments in charging are, the improvement of the public space, the front entrance area, balcony or loggia, shared garden, uncovered parking and its other forms and extra room. In most cases, transformations were accepted by more than 50% of residents and greater proportion of resident would also be willing to pay for the transformations

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## Title: Experimental Infrastructure of the Socialist Houses of Culture in Hungary

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### ABSTRACT

*After the Second World War, the structural loss and the socialist regime change meant a forced change of the urban infrastructure, new districts, mass housing estates has redrawn the spatial context of everyday life. This complex forced social transformation, inter alia, had a need for centralised cultural-educating infrastructure. The answer was a rediscovered building type, the community hall of the late 19th century, named house or palace of culture. It was built as normative infrastructure all over the country from a simple hall to various combinations of functions as theatre, cinema, library, ballet room, etc. according to the number of inhabitants. The collective community approach of these projects seems to be up to date even from our half-a-century perspective. One of the most important experiments was called “open house program” in which a special furniture design was introduced to fill entrance halls with interactive trial opportunities of the activities such as crafts, literature, technology to be visible and inviting for a wide range of enquirers. How this infrastructure had evolved, what kind of urban context and architecture provided the framework? How can we reuse these values for the future?*

### KEYWORDS

*public culture halls, public culture experiment, third place, public infrastructure, socialist modernist architecture*





*Figure 1. Kids on the street in Újpalota, 1975 (Source: Fortepan/Gergely János)*

## **1. Introduction**

In most cases in Hungary, building mass housing estates was a well-designed complex project with many disciplines involved – as urban planners, architects, landscape designers, artists – to erect a new area as a city in the city of thousands of new inhabitants. These were mainly green field developments in newly defined or improved industrial zones. Creating the estate as miniature universe was on the one hand a utopian idea – rooting back to the idea of estates for workers in the 19th century Great Britain or the modern life concept of CIAM. On the other, it was a practical educative environment for the tenants – in many cases they moved to the flats from far countryside without a role model of living in a flat – having free time instead of farming, caretaking of animals and the garden.

This new garden city-like urban form in most cases consisted of school, childcare institutions, general medical service and according to the Public Cultural Law – to control and provide quality free time activities for all age groups – cultural besides the monofunctional housing blocks. In the meantime as the Party brought in this legislation, the prefabricated house production had embarked in Hungary. Most of our large estates dating back to this 1965-1989 (Benkő, 2015) period are following the pattern of eight to ten storey high row or point houses of 1000-15000 flats for up to sixty thousand tenants.

## **2. Culture halls in the state socialist Hungary**

From the period of the Austro-Hungarian Monarchy onwards, a succession of clubhouses was opened, initiated by factory workers and then by citizens' associations. Today's basic type of community centre, a public building consisting of a lobby, lecture hall and club rooms, is a powerful educational and ideological product of the post-

World War II political turn. Following the initial, piecemeal construction and mansion conversions, the establishment of public cultural institutions with a content proportional to the number of inhabitants became a legal obligation, and the Institute for Popular Education, founded in 1957, had been strengthened in parallel.

By the 1960s the oversaturated movement symbolism of the 1950s was replaced by an increasingly efficient production of space, typification in terms of content and form. This building programme, which essentially left out the small villages, and the wave of urban intellectuals moving out of the countryside, led to the village-house movement, which soon became intertwined with the Hungarian organic architects. The last fifty years have thus witnessed the alternating emergence of practicality and power-building in the architecture of community spaces.

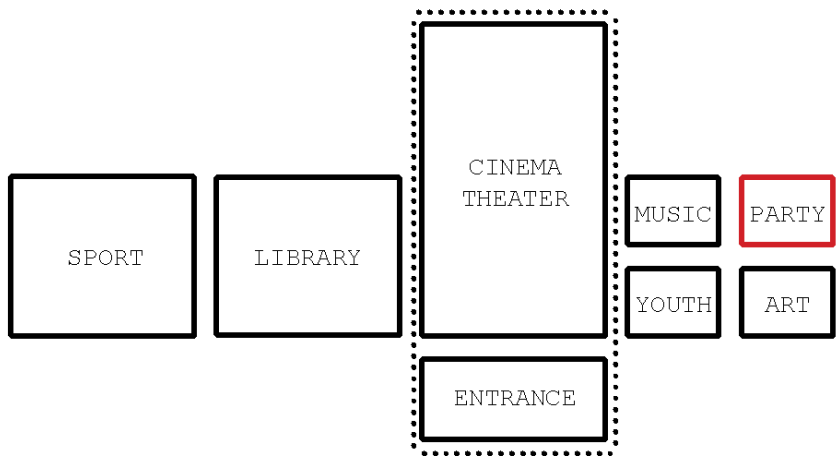


Figure 2. Structure of the cultural institutions in the socialist era (Source: Zsófia Dombrovsky)

### 2.1. Mass culture concept of the socialism

The early years the main goal was to fulfil a strict ideological executive role. For the first time, the regime reused infrastructure of former self-built workers' clubs as well as nationalised castles, mansions. Forthcoming new, monumental houses of culture were built mainly related to factories, in socialist realist style. After the revolution (from the perspective of The Party a counter-revolution) in 1956 the government changed the way of thinking about the role of the culture within the socialist society. From the sixties these houses and their operation had a dual aim: they were to gain control on free time while teaching basic life skills. While maintaining an official class image, the early 1960s saw the launch of a stratified study on social classes that provided a true picture of the lifestyles, preferences, and opportunities of the domestic population – underpinning the need for popular education outlined by the public educators. This turn was a key moment, cultural management appeared as a new profession, and the architectural form followed the functional change while the focus turned on the need of different user groups from pure power representation.

“In addition to dissemination of culture, the cultural home is the setting for active, creative processes, and the institutions are also places of cultural creation, the working document states. It offers and provides opportunities for social and community life, and at the same time aims to become a forum for public life and a local organiser of (socialist) democracy.” (G. Furulyás, 2016)

So, founding the term “művelődési otthon” stands for “educational home” and the Művelődési Otthonok Osztálya (Department of Public Culture Domains) within the

Népművelési Intézet (Public Education Institution) of Cultural Ministry of Hungary the initiative was bias. Controlling and educating the newly coming masses to the city or to the housing estates facing various challenges of their new urban life.

As in many fields of the national administration, legislated standards had prescribed the distribution of the cultural institutions as well. In the case of villages, towns under 1500 inhabitants, a club library was the required form, in settlements of 1500-5000 houses of culture (or culture hall) were built. Over 3000 inhabitants, the cultural centre was the prescribed building. (See Table 1.) But the naming can be mixed up sometimes. The general scheme consisted of a main volume for the gathering, an entrance hall with reception, buffet, cloakroom, and a theatre – house with a podium – and in most cases supplementary functions as library, It was common to equip the event space for cinema screening (Királyerdő, Szarvas), and from the 1970s, it was usual to have it as the main function in the auditorium on ordinary days. One of the most extensive layouts includes a sportshall in Szombathely. From the end of 1970s – according to adapted standards from the United States – a couple of integrated education centres were designed. (Géczi, 2017) Overall more than 3000 public cultural institutions were operating at the end of the socialist Hungary in 1989. (G. Furulyás, 2016)

Size of settlement	Role	Other names occurring	Function	Exemplary locations
-1500	club library	community hall, house of the people, village hall	community space with a podium and/or library, buffet	Badacsonytomaj Dabas Perbál
1500-5000	house of culture	culture hall, “culture combinate”	entrance hall, auditorium (theatre or cinema), section rooms, buffet, office for the party, sometimes library, canteen	Inota Királyerdő Salgótarján Kazincbarcika
3000-	cultural centre	palace of culture (in towns and cities)	entrance hall, theatre with stage and/or cinema, section rooms, buffet, office for the party, library, sometimes sport hall	Szombathely Százhalombatta Debrecen

**Table 1. The relationship between the size of the settlement and the type of institution (Source: Zsófia Dombrovsky)**

## 2.2. Architectural form

As was the nature of hard early days of the dictatorship, the spatial need of a culture hall was an auditorium or at least a hall big enough to educate the “whole town” altogether. The next step was to build Palaces of Culture related to factories, new industrial neighbourhoods. First time noble houses, curias, former workers clubs served as an inherited built infrastructure, where – due to the post-war recession – alterations rarely happened. Later factories as town in town started to build their own cultural institutions. The dominant form was still the big event space with a foyer, in some cases library and/or café, canteen (Inota) completed the form. In the short period of dogmatic socialist-realist style (1951-1954), these buildings were monumental as well as in urban location, as in mass and architectural details.

The real moment for building cultural infrastructure started after the ideological turn back to the modernist style. The Public Education Institution started to work together with architects, designers. On the one hand, numerous idea plans,

architectural competitions and various layouts had been introduced in those days. On the other, a flourishing cooperation of a smaller group resulted in the reformation of the public culture and education practice. Various aspects of the methodology, the experiments have been published in a series of methodological booklets (Módszertani füzetek) by the office.

### 3. Experiments behind the norms

After the early years of strict ideological executive role, from the sixties these houses and their operation opened towards a supportive scholastic attitude. This turn was a key moment, cultural management appeared as a new profession, and the architectural form followed the functional change while the focus turned towards the need of different user groups from representation. Ministry-employed architects and designers started working with the new cultural professionals on experimental design projects to serve the idea of surprisingly socially sensitive and democratic local community development – in the age of centralised directives, censorship in all fields of culture.

The regime realised that instead of ideological lectures, demonstrative acts, soft infrastructure of the social care system would have been better to teach people useful practical skills for the “civilised” urban life whilst the system can still have a control on their free time. This resulted in various experiments within the system. A group of public educators and architects, sociologists have started to travel throughout the country to learn out the infrastructural and methodological challenges.



Figure 3. Street theatre in Újpalota, 1978 (Source: [facebook.com/ujpalotai.kozosseghaz](https://www.facebook.com/ujpalotai.kozosseghaz))



### 3.1. Placemaking by street comedy

Újpalota due to mismanagement of the resources and implementation in, being one of the largest new estates, has been built without any dedicated cultural institution. As from the number of housing units we could see, the estate would have undoubtedly deserved an extensive cultural centre, however, it hasn't been built yet. It resulted in the problem of underaged home-alone mass of kids and young teenagers. The idea to design dedicated space for kids on the streets roots back at least to the concept of De Stijl in The Netherlands. There Theo van Doesburg, Cornelis van Eesteren and later Aldo van Eyck highlighted the importance of barrier-free gathering space of new estates by creating playgrounds. Their model takes the presence of parents given, which was obviously non-operable model in Újpalota case where both parents were working.

The quick answer to act against the escalated violence among straggling children arrived from the neighbouring small culture house (former Workers' Club). They started to gather the kids with mainly drama-based activities first only with Ferenc Péterfi, then with his colleagues. Street comedy companies (Utcaszínház, Pinceszínház) were invited for each Sunday as well as prepared commedia dell'arte themselves with the kids, to present the parents and the whole local community. (See Figure 3.) Only in 1987 Újpalota Family Support Service appeared on the streets. In those days the social, and mental health care system was just at its initial moments.

*“Partly because it was necessary to create an institution without a building. On the other hand, it was also innovative in terms of content, in that we were not thinking in terms of a community centre, but in terms of a neighbourhood and a social space. So we discovered a social challenge – a fashionable word – and we were looking for solutions. At that time, here at the Institute of Popular Culture, there was a professional current to renew the activities of the community centres – this was the open house experiment, which we got involved in.” (Ferenc Péterfi) (Slézia, 2011)*

First, they started their cultural mission in the open air, later they worked at flats of the blocks and at the local house of the Party, and this spatial gap hasn't changed over half a decade.

### 3.2. Culture and education



Figure 4. Foyer workshop with the mobile furniture, Királyerdő, 1978 (Source: Népművelés)

The programme of architectural construction was followed by the development of the content, and then proceeded in a parallel, self-expanding manner. In the mid-1970s, educational centres linked to educational institutions and representative county cultural and youth centres appeared in some large cities, followed by identity-building village community centres, marking the two ends of the architectural toolkit of public education. But the challenge was the same: they had to make the programmes visible and welcoming for the wider community.

Entrance Experiment (Előtér-kísérlet) was an innovative spatial reprogramming. The houses started to open their large entrance halls as a marketplace for the offered activities. The idea was not only to present, but to give them a try in situ: to place workstations to the space for music, housekeeping, sewing, radio operating, plane modelling. In a look forward the idea was to build up a more common workshop system with the interested visitors gathered. Debrecen-Csapókert, Százhalombatta, Kazincbarcika culture halls joined, sharing the work of educational material development. (Beke, 2010)

Basic element of the 1979 entrance experiment programme, the multifunctional workshop furniture known in its day as the container. The modular kit of furniture made of plywood and iron shelving units was based on the graduation project of István Ferencz, a young architect. (See Figure 5.) First time it was introduced in Királyerdő (architect: Minka Csizmadia Nándorné, ÁÉTV, 1971-1975), where the garden city public and the long entrance hall both predestined the experiment for success. Carpet-tufting, floral design, foreign language learning, technical drawing, leather crafts listening to music were among the first containers. However, the offered activities were popular, the project was soon to be stopped due to shortage of professional staff; some of the mentioned workshops are still operating over half-a-decade.

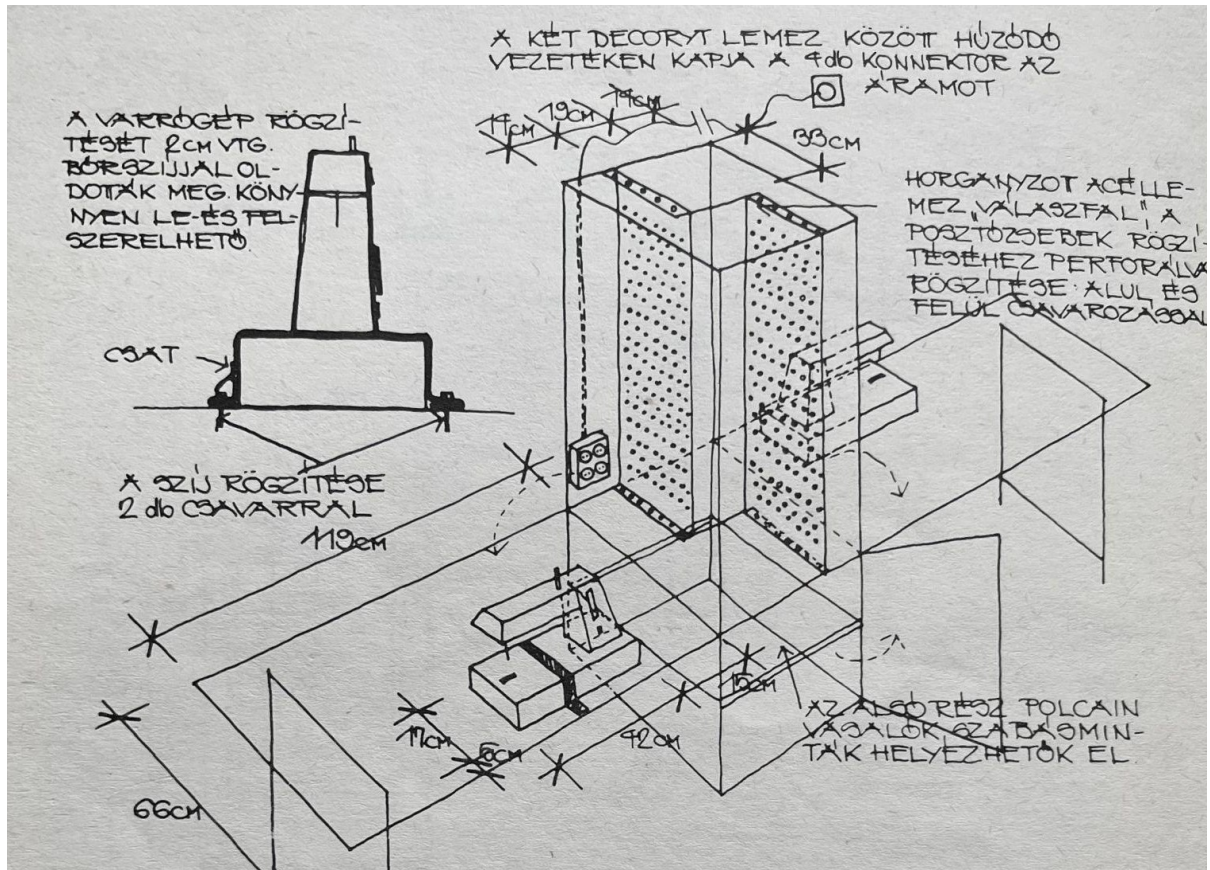


Figure 5. Design detail of the experimental workshop furniture for sewing, Királyerdő, 1978 (Source: *Művelődési otthon - Műhelyszekrények*: Zoltán Szentpéteri (ed.))

“The first workshop to open during the experiment was the leather workshop. There were several arguments in its favour. This kind of work had hardly ever been done in a cultural home, so we had to adapt to our intentions and the logic of the craft. We saw every workshop as a bit of a playground, every job as a bit of a game with the material and our skills. We also wanted to give space to this playful creative activity by creating workshops.” (Szentpéteri, 1978)

Based on the consequences of the experiment, a larger, more operable version, the Open House Programme (Nyitott-ház program) spread in Hungary. However, the real importance of these projects in the background was the manner, how the non-democratic socialist State – through community educators – promoted democratic operation with the given possibility of self-organisation and bottom-up decision-making within the local activities. Also, as a specific mobile workshop space, it can be taken as a predecessor of today's makerspaces and was attracting professional interest from beyond the Iron Curtain. (Beke, 2001)

### 3.3. Liberation – performing arts

Amateur theatre, puppetry, dance workshops became even popular in the 1980s. This forecasted the turn towards emerging interest in artistic bodywork as leisure activities. Culture halls were an ideal place to host these programmes. Challenges evolved when more and more ballet and gymnastic groups started, since these buildings were not equipped with changing rooms for multiple groups at the same time.



*Figure 6. József Attila Theatre in Óbuda, 1978  
(Source: Óbudai Művelődési Központ)*

In Óbuda Cultural Centre (architect: György Kévés, 1975) at Óbuda Estate there is a long tradition of theatre making, artistic dance. Kévés constructed a flat square shaped volume, with a main hall floor seated to basement level. The overground load bearing structure is completely exposed steel framework, creating a transparent building form inside and out – two years prior the opening of the international pioneer of flexibility and structural transparencies of Pompidou Centre in Paris (Renzo Piano, Richard Rogers, 1977). The all-around glass façade envelopes a variable spatial structure with mobile walls and huge mirroring surfaces creating light spacious atmosphere – that is inevitable for professional work with the body. (See *Figure 7.*) Later artistic gymnastics started in 1990, using the original flexible layout of the building. When renovation happened, the sliding walls and their openability were completely refurbished by Benczúr Weichinger Architecture only the original red colour transformed into even brighter textures.





*Figure 7. Renovated sectionnable interior of Óbuda Cultural Centre, 2018  
(Source: Eszter Walton)*

#### **4. Third place in use – social activation as future**

Ray Oldenburg when introducing the expression “third place” in 1989, talked about cafés, pubs, beergardens. Later as it was adapted in the vocabulary of critical social and spatial studies, urban geography, third place not only means a cosy meeting space anymore, but a barrier-free environment, a safe space for all members of the society in case of age, race, gender, and social status. In this interpretation we need more than the first named consume-driven, profit based institutions. In the meantime, our slightly outdated public institutions, culture halls, libraries can provide exactly the need for this accessible function.

The lack of freely accessible spaces, so-called third place, is a scientifically described phenomenon in our everyday lives. In recent decades, almost every segment of culture has been priced in, and the shrinking time frame has pushed the consumption of our shortened leisure time. However, there is an ever-widening group of population who – because of their age or status, or their profession – are not tied to a particular place, i.e. have greater spatial freedom in their daily lives. At the same time, we all have a need to commute and a space of encounter, which grassroots, and market initiatives (youth centres, community offices, cultural cafés) are trying to meet. In Western Europe, this is already common practice, while in our country, a base of public, municipal, and educational institutions is being formed which are also trying to play the role of open community space.

The National Institute for Culture still exists in Hungary, but seemingly lost the power to turn the public culture upside down to be up to date and appealing for today and tomorrow. The controversy is that the place for barrier free, informal meeting is still needed – the newly established projects mainly in vacant buildings are the best

evidence – but by the investor these are business-oriented projects, whilst the existing public cultural centres seem to be under-utilised in many cases. To name a couple, new single parent centres in Budapest, Turbina Community Hall, the former Technika Workshop are all important initiations but either the function nor the financial background can provide working as a normative act.

## ACKNOWLEDGEMENT

In retrospect these experiments can show us that architecture and design can provide a valuable framework when there is a genuine dialogue with all partners and civil society organisations involved. The examples of the street, the entrance and the variability are different in the toolkit, but the unlimited flexibility might be adaptable for revisioning our post-socialist urban neighbourhood.

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# The Place of the Civil Rituals in the Post-Socialist City

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## ABSTRACT

*The establishment of socialism in Bulgaria after the Second World War brought a number of changes in the spiritual and social life of the population. Atheism became the leading state policy, as one of the aims was the replacement of religious beliefs and practices. This paper focuses on the place of the civil rituals: name-giving, wedding and funeral in the urban fabric of the city, as the transition to atheism marked the need for new spaces where these rituals would be conducted. The research aims to determine how the civil rituals were first implemented in the urban settings of socialist cities and how they and their surroundings have changed after the fall of socialism. The spatial focus of the research is on Sofia and Plovdiv in order to analyse how those buildings were integrated into cities of different scales while taking into consideration their actual situation and their uses and interventions through time. This paper endeavours to address the question whether such types of structures will be necessary for the future, whether their intended role will persist, or if they will undergo alterations in their architectural attributes and functional usage.*

## KEYWORDS

*atheism, civil rituals, post-socialist public space, Sofia, Plovdiv*



*Figure 1. The House of the Newlyweds in Plovdiv (Source: By the author)*

## **1. Introduction**

### **1.1. Brief history of the rituals in Bulgaria**

The rituals are a fundamental facet of human culture, embodying ancient mythological and poetic expression. They exhibit a collective nature, uniting "actors" and "spectators" in symbiotic harmony, often accompanied by intense emotions and demarcating celebrations from daily life.

In archaic societies, rituals served religious-legal, military, and productive-economic functions, imparting understanding and behavioural guidance. In later traditional societies, these functions persisted but with fading symbolism, sometimes acquiring religious or festive dimensions. Industrial and post-industrial societies often replaced traditional religious rituals with civil ceremonies.

Bulgarian rituals, drawing from ancient Greece, Rome, paleo-Balkan traditions, and Slavic culture, shaped the nation's identity and statehood since 681 AD. In the 9th century, Christianity infused Eastern Christian mythology into Bulgarian culture, intertwining with pre-Christian remnants. Cultural competition with the Byzantine culture during the early Middle Ages fostered literary development and polemical discussions on folklore rituals.

Ottoman rule in the 14th century introduced a Muslim culture, leading to the adoption of Turkish rituals by some Bulgarians and the eroding of Christian liturgical traditions.

In the late 19th century, Bulgaria revived Christian traditions, promoting tolerance towards minorities, as exemplified during World War II when Bulgaria protected its Jewish population. Totalitarianism imposed atheistic propaganda but also spurred cultural initiatives to preserve heritage and stimulate cultural expression. These included the reconstruction of folklore rituals and various festivities (Atanasova, 2004).

The state's approach in Bulgaria, guided by Soviet directives, hindered religious practices through temple restrictions and clergy discrediting. Additionally, atheist propaganda was disseminated via lectures and newspapers to counter religious influence (Lefterov, 2019).

After the democratic transformations post-1989, interest surged in religious and church culture and revived overlooked ethnic traditions. These cultural shifts aimed to establish a new identity distinct from the communist era and encompassed diverse ethnic and religious communities in Bulgaria.

## 1.2. Sofia and Plovdiv

Sofia and Plovdiv, as the two most populous cities in Bulgaria, hold unique historical, cultural, and economic significance, contributing substantially to the country's diverse identity. Both cities attract international residents and businesses, fueling their rapid development.

Sofia, Bulgaria's capital and largest city, situated in the western region, boasts a history spanning over 2,000 years, rooted in ancient Thracian and Roman settlements. With approximately 1.3 million inhabitants, it stands as Bulgaria's most populous city, marked by its diversity, encompassing Bulgarians, ethnic minorities, and a growing international community. It serves as Bulgaria's economic epicentre, playing a pivotal role in the nation's economy, trade, and innovation.

Plovdiv, located in the southern region, stands as one of Europe's oldest continuously inhabited cities, with a history spanning over 6,000 years, influenced by Thracian, Roman, Byzantine, and Ottoman civilizations. With a population of 469,806, it ranks as Bulgaria's second-largest city, marked by its diverse demographic, consisting of Bulgarians and various ethnic groups.

Culturally, Plovdiv is celebrated for its diversity, with its Old Town designated as a UNESCO World Heritage Site. The city thrives as a cultural centre, hosting numerous events, festivals, and art exhibitions. Economically, Plovdiv plays a crucial role in trade, commerce, and industry due to its strategic location along major transportation routes.

## 1.3. Methodology

This research explores the integration of civil rituals, such as name-giving, weddings, and funerals, within the urban fabric of the cities, particularly in the context of transitioning to atheism and the consequent need for alternative spaces. The objective of this study is to examine the initial implementation of civil rituals in socialist cities and explore how these practices and their associated spaces have evolved following the decline of socialism. The focus of the investigation centres on Sofia and Plovdiv, allowing for an analysis of how these rituals were integrated into urban environments of varying scales.

The study adopts a historical approach to trace the development of the selected sites, emphasizing the physical characteristics of the built environment. Furthermore, an on-site investigation is conducted to assess the current state of the buildings and their surroundings, providing valuable insights into the present condition and utilization of these spaces.

This paper endeavours to address the question of whether such types of structures will be necessary for the future, whether their intended role will persist, or if they will undergo alterations in their architectural attributes and functional usage.

## 2. The case of Plovdiv

### 2.1 Buildings for Joyful Rituals

The ensemble of buildings for joyful rituals is in the central part of the city of Plovdiv, positioned in an area surrounded by religious buildings - churches, mosques, and a synagogue. (See Figure 2) This neighbourhood appeared at the close of the 14th century, following the Ottoman Turks' conquest of Bulgaria, they established their residential districts along the lower right bank of the Maritsa River. The nucleus of these districts, situated in the western sector, became known as "Orta Mezar," signifying the "Central Cemetery," owing to its unique juxtaposition of residential quarters and burial grounds (Toleva-Nowak, 2020). Within this precinct, a bathhouse bearing the same name was constructed, and its partially preserved ruins endure to the present day. In close proximity stands the mosque, presently repurposed as a restaurant. Between the two of them, there was a square which served as the venue for the local marketplace.

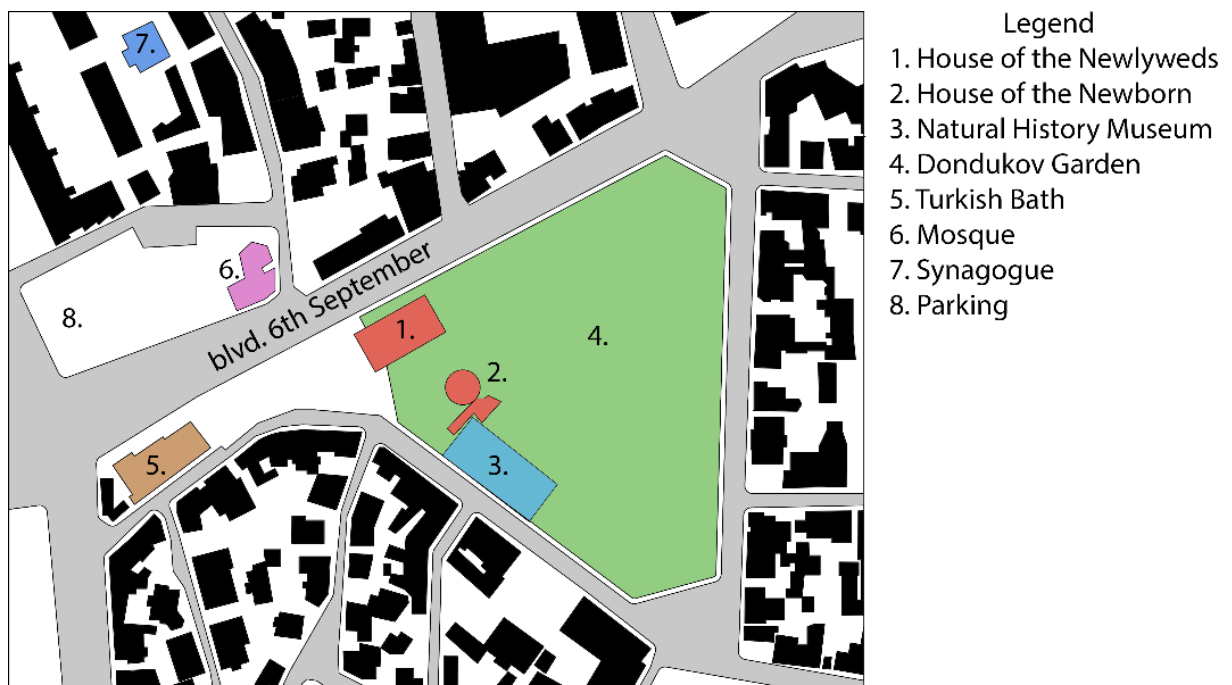


Figure 2. Site of the Houses for Joyful Rituals in Plovdiv (edited by the author)

The House of the Newborn and the House of the Newlyweds is situated on the site of the Turkish cemetery where in 1878 (Municipality of Plovdiv, 2020) the first City garden in Plovdiv was built. It covers an area of 19 hectares and is in the "Central" district. The construction of the building of the Plovdiv Municipality in the southwest part of the garden began in 1881 and decades later it was transformed into a Natural History Museum – nowadays it still functions as such and the House of the Newborn is also part of it. In 1930, the City Casino was built in the west part of the garden on which place in 1963 The House of the Newlyweds (See Figure 1) was built.

Improvements in the Dondukov Garden were made in the 1950s, but the most significant intervention took place in 1978 to commemorate its 100th anniversary. The changes included the construction of fountains, expansion of the pathways, the addition of an alpinarium, a children's playground, and recreational areas. The vegetation was enriched, the water supply and sewage system were reconstructed,

and the pavement of the alleys was replaced. Since 1992, it has been recognized as a Monument of the Park Art.

The boulevard on which the newlyweds' house is situated constitutes an integral part of the primary urban street network, forming the core communication and transportation network within the urbanized area. This designation renders it one of the most heavily trafficked road arteries. The adjacent sidewalks are considerably narrow, secured by imposing bollards, and the movement of both vehicles and pedestrians is primarily transitory.

Adjacent to the boulevard, there is a bus stop, serving as a halt for 12 buses out of a total of 29 operating within the city, thereby affording easy access to the homes dedicated to joyful rituals through public urban transport.

The buildings are in proximity to the city's pedestrian zone, rendering pedestrian access highly convenient. This is of considerable benefit, as the parking spaces surrounding these residences are limited in number and paid. Across the boulevard, there exists a public parking area offering eight parking spaces; nevertheless, available parking spots are scarce to come by.

The House of the Newlyweds underwent significant renovations for the first time in 2018. The facade has been preserved in its original state, with the external stonework cleaned and the window frames replaced. During the renovation, all valuable exterior and interior elements of the building were meticulously preserved, as many of the details have been handcrafted specifically for the house.

The stained-glass windows created by the artist Dimitar Kirov, as well as his steel sculptures, have been retained. On the second floor, a space dedicated to the artist has been established, showcasing the eight stained glass windows that were relocated from the building's facade, where the main entrance is. This space also exhibits the sculptures that were previously displayed on the wall in the ritual hall. Currently, a video wall has been installed in their place, broadcasting videos and photographs of the newlyweds during their wedding ceremony or capturing the emotions of the bride and the groom. Through these changes on the second floor, a gallery has been established, recounting the history of the house, ensuring a connection to the past while integrating modern technologies without depersonalizing the space.

The unique brass railings and original light fixtures in the foyers have also been preserved. In the past, the ground floor foyer housed a bridal shop, but after the renovation, the space has been repurposed for exhibitions. Originally, the building was designed with a restaurant on the ground floor, accessible from the foyer, this way both the ritual and celebration could be held in one place. However, the restaurant has since been completely separated, and its entrance has been walled off, functioning as an independent entity. During the 2018 renovation, the wall that had been erected during its separation was removed, converting part of the restaurant into office space for the administration of the house. At present, the restaurant continues to operate independently.

On the second floor, the original design had envisioned a photography studio for the needs of the newlyweds. Nowadays, such a space is no longer necessary, as each couple hires their own photographer for the day. Thus, these rooms are currently used for storage and as a break room for the staff.

The most substantial transformation occurred in the ritual hall. In addition to the replacement of the steel sculpture with a video wall, the cold blue colour on the walls, applied during a cosmetic renovation years ago, has been removed. Now, the opposing wall continues the granite tile theme, used for the new flooring in the hall, combined with decorative lighting. A new acoustic ceiling has been installed, and the



original table from the hall has been moved to the steel sculpture area in the second-floor foyer, replaced by the table from the House of the Newborn. This change was likely made because the original table had been poorly modernized in a previous renovation, being covered with veneer.

The ritual hall differs from the foyer; currently, the two rooms feature distinct architectural styles that do not correspond in any way. Different materials were used for the walls and ceiling, and the lighting fixtures are also fundamentally different. This discrepancy likely stems from cosmetic alterations made to the hall over the years, gradually erasing the distinctive architectural elements of the original design, such as the placement of a gypsum wall in front of the original one, which served as a background for the ritual. (See Figure 3)



Figure 3. The Foyers and the Ritual Hall in the House of the Newlyweds (Source: the author)

The Newborn House is a single-story building consisting of the Lotus Hall, where naming ceremonies and weddings took place, and an administrative section comprising the director's office, accounting, and human resources offices. The circular Lotus Hall is framed by windows on its façade, with lotus leaves arranged around it. The hall was built on multiple levels with an amphitheatre made of high-quality marble, and during its construction, the zodiac signs made of copper were placed in the hall but were later stolen. The building symbolizes the beginning of life, fertility, and the spirit of childhood.



Figure 4. The Lotus Hall in the past and its current state (Source: [www.night.com](http://www.night.com); [www.wikipedia.com](http://www.wikipedia.com); [www.marica.bg](http://www.marica.bg); the author)

The Newborn House underwent the most significant transformation among the buildings for civil rituals in Plovdiv. In 2018, the Lotus Hall was transformed into a cave, where dinosaur exhibits are now displayed. This intervention destroyed the interior, as the high-quality marble was removed and replaced with material intended to recreate the atmosphere of a cave. The mini amphitheatre in the building was also demolished, previously it has been used for discussions with the citizens about topics concerning the city development.

The windows of the hall were sealed, and two trees were placed at the entrance of the hall, rooted in the only original element left in the hall - the woodcarving on the ceiling. Currently, the hall is filled with soil, vegetation, and dinosaurs of various sizes, with videos of dinosaurs being projected onto the sealed walls. (See Figure 4)

The administrative section of the building is now also part of the museum's exhibition area, while the administration of the ritual house, previously located there, now is relocated to the first floor of the renovated House of the Newlyweds.

In April 2023, the Dondukov Garden, surrounding the Houses of Joyful Rituals, began undergoing renovations. The project aims to restore the garden to its pre-socialist era state, including removing existing fountains, introducing new ones, and adjusting pathways and pavement to mimic the garden's appearance before 1978 (Municipality of Plovdiv, 2023). The designers seek to closely resemble the original state but do not consider the presence of socialist-era buildings in the garden.

Modifications are also planned for the children's playground, but the new design seems disconnected from the park's aesthetics. Additionally, a new pavilion, linked to the Natural Science Museum, will be constructed. However, achieving a complete restoration of the garden's historical form is hindered by practical challenges and the existing socialist-era structures.

This renovation reflects a broader trend of attempting to alter or erase the socialist-era heritage, often driven by self-interest rather than a genuine desire to restore the past. It's crucial to acknowledge that a full return to the original state may be unfeasible due to the city's ongoing development.

## 2.2 Buildings for Mourning Rituals

As previously mentioned, in 1878, with the new urban plan of Plovdiv, the old cemeteries in its central part were transformed into urban gardens and parks. At the insistence of Prince Dondukov, new subdivided cemeteries were established outside of the city for the main religious denominations: Orthodox, Armenian, Jewish, and Muslim. (Shivachev, 2018).

The House of the Mourning Rituals within the Central Cemetery Park in Plovdiv was constructed in 1960. The building is located on the western boundary of the park, north of the pedestrian entrance. The building has two entrances - one through which the deceased is brought in, located on the western facade, and the other for the mourners, located on the eastern facade, which is accessible from St. Archangel Michael Square, through which one passes to enter the cemetery park.

The House of the Deceased in Plovdiv is a two-story structure. On the first floor, there is a hall for civil funerals, refrigeration chambers, administrative offices, workers' quarters, a boiler room (which is no longer in operation), and storage spaces. The telephone exchange and additional storage facilities are situated on the underground level.

The building has a truncated pyramid shape culminating in a dome, beneath which the floor level was descended by three steps of 15 cm each.

Once again, as observed in the House of the Newborn in Plovdiv, there are crude interventions in the architecture of the building - a portion of the western facade is enclosed, and the execution is completely at odds with the character of the building (See *Figure 5*). This alteration was made to create space for a boiler room, necessary for heating the building.



*Figure 5. East and West façades of The House of Mourning Rituals; The Ritual Hall (Source: the author)*

The sunken area with three levels and a dome, which originally aligned with the architectural style of a temple and invoked a sense of sacredness, has been levelled. This decision appears to have been motivated by the inconvenience it posed to the staff, indicating a lack of comprehension regarding the symbolism of the structure.

Apart from the floor-levelling adjustment, no other substantial changes have been made to the hall over the past 14 years. During this period, the walls have been refreshed without affecting the original stone, the curtains have been replaced changing from black to red colour and the lighting fixtures have been updated.

### 3. Sofia

#### 3.1 Buildings for Joyful Rituals

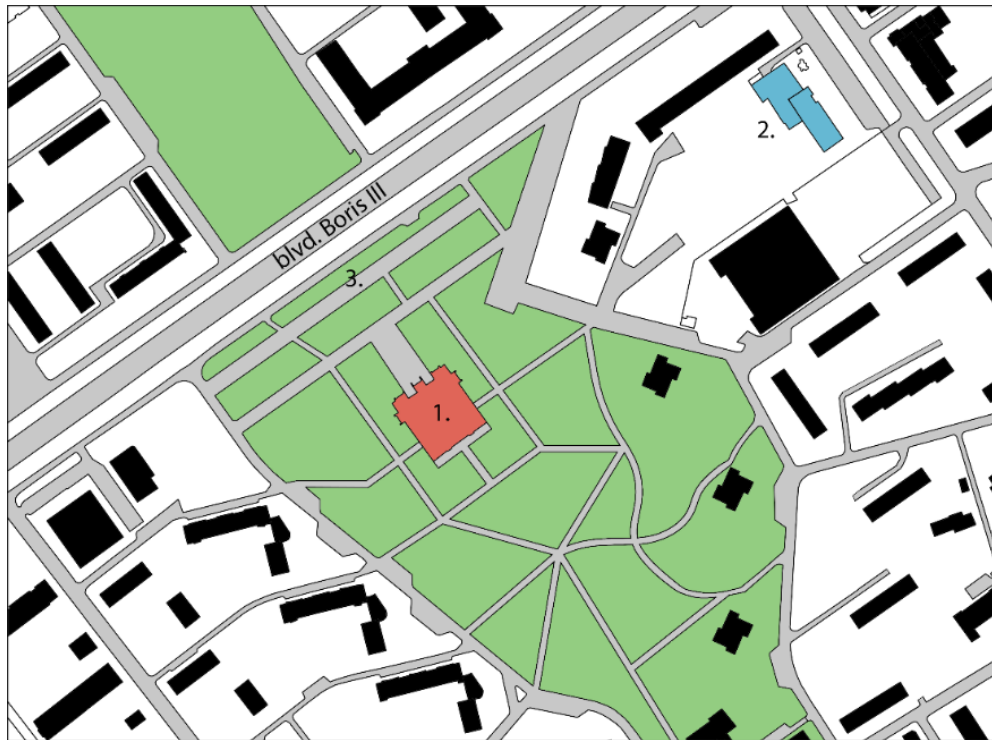
The halls for joyful rituals in Sofia are seven, of which six are currently functioning. The four halls located in the central part of the city are as follows: Triaditsa Ritual Hall, Sredets Ritual Hall, Oborishte Ritual Hall, and Serdika Ritual Hall. The remaining three halls are situated outside the city centre: Krasno Selo Ritual Hall, Studentska Ritual Hall, and Vazrazhdane Ritual Hall (which is currently inactive). In Sofia, most of the halls for civil rituals are positioned within the heart of the area with the highest concentration of religious buildings. All the halls are situated in proximity to park environments, except for Serdika Hall, which is located at the Lions' Bridge Square. The Krasno Selo Hall stands out as the only one situated within a park.

This paper focuses on the Krasno Selo Hall, which is accompanied by a park, similar to the example in Plovdiv and as it is the most preferred wedding hall in Sofia.

The Hippodrome Residential Complex was built on the site of the old Hippodrome, as implied by its name. The planning and development of the complex incorporate a more dynamic and picturesque approach to the buildings surrounding the micro-district park. The main face of this micro-district opens towards the park, which essentially serves as the centre of the neighbourhood (Tashev, 1972). The positioning of the residential buildings surrounding the park aims to offer a view of Vitosha Mountain.

The House of Culture "Krasno Selo" is situated on Boris III Boulevard, which is classified as a Grade II street (urban arterial road) and serves as a primary conduit for vehicular traffic in cities with populations exceeding 30,000 residents. These roadways facilitate swift transportation links between distinct urbanized areas and connect them to national highways and expressways. Local lanes have also been established on both sides of the boulevard. (See *Figure 6*)

Several public transportation stops are located along the boulevard, including a tram stop serviced by two tram lines and a bus stop used by three bus routes. The building's proximity to the city centre, combined with the presence of multiple transit lines, renders access to the venue highly convenient. Moreover, a significant number of parking spaces surrounding the facility, which are not subject to paid parking regulations, further enhance its appeal as a preferred venue for marriage ceremonies.



LEGEND  
 1. House of Culture  
 2. Hotel Forum  
 3. Parking

Figure 6. Site of the House of Culture Krasno Selo in Sofia (edited by the author)

The House of Culture was put into operation in 1989. The Krasno Selo Ritual Hall is the largest ceremonial hall in Sofia, with a capacity of 250 people. It is near an Orthodox church and a hotel whose restaurant can be used for post-ritual festivities.

The Cultural Centre "Krasno Selo" was initially planned and constructed with the sole purpose of serving as a ceremonial venue. It consists of three stories, on the first floor there was the foyer, the naming ceremony hall, shops, a restaurant, a recording studio, a photography studio, and administrative offices. On the second floor, there were two halls for civil marriage ceremonies, accompanied by adjacent foyers, a hall for greetings, a sound room and administrative facilities. In the basement, there were service rooms and restrooms.

Access to the building can be gained through the main entrance or the rear entrance at the back of the building, leading to the office of the Ceremonial Activities in Sofia and the administrative section of the Culture Centre on the second floor. Currently, out of the initially constructed three halls for civil ceremonies, only one operates as such.

The naming ceremony hall, located on the first floor, is now utilized as a space for dance lessons, chamber concerts, performances, meetings, conferences, presentations, and group activities, with a seating capacity of 120 people. In this hall, the original artwork created for the naming ceremonies has been removed, and the flooring and lighting fixtures have been replaced, leaving nothing from its original design.

Another hall for chamber performances, recitals, and concerts, with a seating capacity of 50, has also been designated on this floor.

The second-floor hall, originally intended for civil weddings, is currently employed for concerts, meetings, conferences, symposiums, and other events. There is sound equipment, multimedia appliances, a grand piano, and a regular piano. It has a seating capacity of 150 people. The original artwork in the hall has been preserved, while the walls have been repainted, and the flooring and lighting fixtures have been replaced.

The hall designated for wedding ceremonies can also be rented for concerts, meetings, conferences, symposiums, etc., its capacity is 150 seats. The walls have been repainted, the flooring and lighting fixtures have been replaced, and the artwork and furnishings have been preserved. (See *Figure 7*)

The hall for greetings is the largest space within the facility, covering an area of 250 square meters, and has been transformed into a venue for dance lessons, chamber concerts, performances, meetings, conferences, presentations, and group activities. A movable stage has been installed, with a seating capacity of 200 people. When the stage, covered with black curtains, is set up, it conceals the woodcarvings on the hall, but they have not been removed.

The facade of the cultural centre has also undergone modifications aimed at improving the energy efficiency of the building. The materials selected for cladding the building differ from the original ones, compromising the monumentality of the structure.



*Figure 7. Wedding hall; Greeting Hall; Renovated façade of the House of Culture Krasno Seo (Source: the author)*

### 3.2 Buildings for Mourning Rituals

The Mourning Complex in Sofia is located within the territory of the Central Sofia Cemeteries. They are situated in the Orlandovtzi neighbourhood in the northern part of the city. The cemeteries officially started operating in 1889.

In the 1960s, Sofproekt conducted a study for the reconstruction of the administrative-commercial section of the cemetery park, with the aim of building a crematorium. This was deemed necessary due to the rapid increase in the city's population and the insufficient burial space. The project was implemented between 1980 and 1982, and the new mourning complex was situated at the southern entrance of the cemetery. (Stoilova, 1992).

The Mourning Complex at the Central Sofia Cemeteries consists of two ritual halls, farewell rooms, facilities for preparing the deceased, refrigeration chambers located beneath the farewell rooms, a hall used as a space for eating after the funeral, as part of the ritual, a café, administrative quarters, storage areas, and service rooms.

The farewell rooms have undergone renovations, including the replacement of flooring, the installation of gypsum board ceilings, and the removal of the original lighting fixtures. Each farewell room is associated with a refrigeration chamber in the basement. Initially, the ventilation system connected these two spaces, allowing cold air from the chamber below to be introduced while loved ones said their farewells. Currently, the ventilation system has been dismantled.

The main ritual hall has also undergone renovations, with the addition of gypsum board ceilings and the replacement of lighting fixtures. The furnishings have been preserved in their original form. (See *Figure 8*)

The post-funeral hall where people gather to eat after the ritual has also been altered, with no original interior elements retained. The walls have been painted in a peach colour, and the original furniture has been replaced.

The renovation activities were necessitated by roof leaks in the buildings and were not driven by a desire to modernize the spaces.



*Figure 8. In order: Farewell room; Façade of the Ritual Hall; Interior of the Ritual Hall  
(Source: by the author; by the author; www.sofiamemorial.bg)*

The transformation of the cemetery park after the socialist period included the addition of a new territory to the west. During the incorporation of this territory in 2019, access to the new plots was established in the southwestern part of the property, but the current access solution to the new plots appears ill-considered. Along the entire length of the old western boundary, there are existing columbarium walls which make the access to the new plots extremely inconvenient and narrow, with vehicles passing centimetres away from urns.

During contemporary funerals, it is a common practice to utilize one of the farewell halls located in the northern part of the complex. In these halls, the deceased is placed behind glass before the mourners enter, without them witnessing the physical transition of the deceased. The glass serves as a barrier between the living and the deceased, physically distancing them from each other. Once the mourners bid their farewell, the deceased is returned to the catafalque and as it carries the remains to the church located within the cemetery park, the family follows in procession. In this particular scenario, we discern the utilization of facilities that were originally established during the socialist era to facilitate and reinforce civil rituals, all the while maintaining adherence to the observance of religious rituals.

#### 4. Conclusion

As stated in the beginning this paper aims to answer the question of whether there is a contemporary need for the typology of the ritual houses as originally conceived during the socialist era, or if these structures are now dormant edifices merely preserving history.

When deciding how to modernize the ritual houses for joyous ceremonies, two trends emerge:

1. The first one is the complete removal of the architectural elements connecting the building to its socialist past under the pretext that the younger generation perceives them as relics, cannot identify with them, and thus does not wish to solemnize their weddings in such spaces.
2. The opposite approach in renovating these houses follows the logic of primarily preserving elements from the socialist era. This preservation maintains the connection with the past, allowing newlyweds to feel a sense of belonging to the space where their parents also married, thereby becoming part of a tradition spanning generations. By replacing elements in the hall, such as sculptures, furnishings, and lighting fixtures that contribute to the ambience, the connection with the past is disrupted. In this manner, the significance of the hall becomes inconsequential, as the same ceremony could take place in a newly constructed hotel, given that the materials used would be identical.

The ritual houses for funeral ceremonies are renovated primarily for optimization purposes and are rarely used, mainly for the burials of prominent figures when a large number of people gather to pay their respects. They are actively employed only when no nearby church is available. Even then, they cannot generate enough revenue to be self-sustaining. Consequently, the changes made to these spaces are budget-driven and dictated by the desire to maintain their basic functionality, often without considering the sacred atmosphere they should evoke.

The conclusions drawn from this analysis indicate three potential directions for the future development of ritual houses in Bulgaria:

1. To remain as "time capsules" - preserved exactly as originally designed, but this would require a continuous influx of resources that will not be generated by the houses themselves. This is happening with the houses of the deceased.
2. To remain the same but adapted - if the goal is for them to be self-sufficient and generate income, they must adapt to and incorporate new trends, as demonstrated by the example of the Krasno Selo House of Culture.
3. To adopt an entirely new function - the fact that the original designations for the building have not become established and are no longer practised suggests a path of development similar to what is observed at the House of the Newborn in Plovdiv, which has been repurposed for the needs of the Natural History Museum and serves a completely different function from its original intent.



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# Public Spaces Analysis of Budapest's Klauzál Square With a Focus on Perceived Safety.

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## ABSTRACT

*Public space rehabilitations are major projects that involve public funding and affect many people's life. Perceived safety is a huge factor influencing comfort and the positive perception of public spaces according to Project for Public Spaces. The current study is aimed at the development of a strategy for public spaces evaluation that includes the component of perceived safety. Barriers and obstacles, such as fences and vegetation are frequently used in public spaces for safeguarding and for separation from the surroundings and zoning inside. Investigating the way these barriers are used in public spaces to ensure the feeling of security can contribute to rehabilitation projects with a positive public reception. Klauzál Square in Budapest was chosen for analysis for its central location and as it awaits refurbishment. A qualitative interpretive methodology is used to understand the socio-physical aspects of perceived safety. Mental mapping, guided observation and a questionnaire filled out by foreign architecture students were used to picture the situation. As a result, the main features and problems of Klauzál Square were determined, and possible solutions were offered for its improvement.*

## KEYWORDS

*perceived safety, public space renewal, fences, qualitative research, mental mapping*



## 1. Introduction

Guaranteeing sufficient public space – walkable streets, parks, squares, green zones – is a key factor in improving life quality in cities as they help form a sense of community and culture and contribute to social capital and economic growth. Regular use of outdoor spaces as a public good creates well-managed and safe urban environments, which makes the city an inviting place to live and work.

Perceived safety is an important factor of public spaces that contributes to people's behavioural decisions and well-being. Studies prove that if people feel unsafe in a public space, they will rather avoid going there, and vice versa, public spaces with a rich social life are considered to be safer than deserted ones. Investigating perceived safety in public spaces allows us to know which human and environmental factors contribute to the general sense of safety, that information is important for the success of rehabilitation projects.

## 2. Literature review

### 2.1. The components of public spaces influencing perceived safety

Safety is one of the most important factors influencing public space usage: perceived safety of an area has a main influence on decision making whether one would use or avoid a public space. While answering the question 'What makes a great place?', Project for Public Spaces (2017) includes the factor of perceived safety in the comfort and image categories. The perceived safety of public spaces for a human depends on the following factors: degree of maintenance, visibility, the presence of greenery, and streetlights, the number of people visiting the area, and the time of day. A safe area is considered comfortable according to Mehta (2014).

Maintenance of public spaces is also a complex issue, it includes cleanliness of the territory, the prevention of vandalism and the need for repair of damaged property. Signs of vandalism in the area make the space less attractive and keep people away (Shenassa et al., 2006). According to the 'broken window theory' (Wilson, Kelling, 1982), low maintenance suggests a low level of safety. If small crimes like vandalism are prevented in an area people perceive that as a sign of attention; orderliness decreases the esteemed possibility of bigger crimes. Otherwise, a perceived violation of laws gives people the feeling that there is no control in the area and the visitors of such public spaces are also vulnerable to crime (Gau et al., 2014). The degree of illumination of the space after dark also affects the sense of security (Nasar, Bokharai, 2017).

According to Jacobs (1961), three rules must be considered to ensure perceived safety in urban streets: (1) public and private spaces should be divided; (2) businesses located along streets need to have big windows directed to the street, causing the effect of extra eyes watching what is happening; (3) arranging spaces so that people continuously can pass by.

Moreover, magnet points to bring people to the street such as various activities and places for social interaction also make the environment safer all day long. According to Newman (1972), providing natural surveillance, access control, and territorial definition reduces the crime rate.

Further research on the safety of built environments showed that not only physical features of a space matter but also social and community factors (Letch et al., 2011). Building communities in a neighbourhood would lead to a reduction in crime there. It

can be achieved by creating urban meeting places and youth clubs, and by involving local residents in the local social life (Saville & Cleveland, 1999).

Later, vegetation in public spaces was also put as an important factor, but it can have different effects on the fear of crime. It can have positive effects because green spaces are generally perceived as safer and more lovable. However, dense and unmaintained vegetation can reduce visibility, and create dark zones therefore because of the lack of visibility, it can be perceived as dangerous.

A deeper investigation of the problem leads to the extraction of economic and public health sustainability as new components influencing crime prevention in built environments. Economic sustainability means investment in neighbourhood infrastructure and economic development. Public health sustainability refers to empowering residents to co-create neighbourhood plans that prioritize health-promoting resources and services (Mihinjac & Saville, 2019).

In conclusion, both physical and social factors contribute to the perceived safety of public spaces in a complex way. The first ones include maintenance, visibility, greenery, illumination, and the presence of natural surveillance. Among the latter, there are strengthening the local community and improving the economic and public sustainability of the area.

### 3. Research methodology

A qualitative interpretive methodology based on guided observation was used to understand how Klauzál square functions in detail. It allows us to investigate in depth the socio-physical features (Stokols & Shumaker, 1981) of the square and leads us to conclusions without initial assumptions based on the subjective experiences of the individuals involved in the study.

The methodology includes the initial architectural analysis of the current state of the square to form ideas on how redesign would be possible, it also includes a field study that consists of a mental mapping combined with a short questionnaire filled out by international architecture students of BME.


Mental mapping is a visually demonstrative and informative tool that gives a picture of the perception of the place as a whole and in its parts by the users. Such an understanding cannot be reached by a questionnaire alone. Introducing socio-physical categories – not only built and natural elements but also human presence – and using a qualitative methodology help to capture the phenomenon at large and the features observed rather than offering countable data about the location.

Single-choice questions in the questionnaire were based on the components of public spaces influencing perceived safety and were interpreted together with the mental maps. It was also a means to guide the attention of the observer in space and time. Open questions, in turn, allow participants to write their opinion of the square in detail. The results were supposed to offer an overall picture of the perception of the square, not only its perceived safety.

#### Research questions:

The research is aimed at the development of a strategy to evaluate public spaces considering perceived safety through physical elements and it sets a goal to answer the following questions:

- What components of public spaces are important for the visitors in terms of perception of space?

- 
- What functions and meanings barriers can have as a tool in public spaces to ensure a feeling of security?

### **Case study selection**

Why was Klauzál tér chosen for the case study? There is a great number of public spaces in Budapest similar in size, functionality, and history of their development. Their area ranges from 0.4 to 2 hectares. They accommodate various activities, including recreational pursuits, sports, and the preservation of natural features. Besides, they were renovated after World War II, during the socialist period. Even in the post-socialist period, during the refurbishment of such public spaces, bigger parts of their layouts didn't change much. During socialist times they either were surrounded by a low fence or had no fence at all. So, they had unlimited access all day long. In addition, back then they didn't have separate dog areas which negatively influenced the upkeep of these spaces. During the renovations made after the communist rule came to an end, high fences closed at nighttime were added as well as dog parks.

Just to name a few examples of public spaces in the central Pest area combining all these features and historical facts, Hunyadi Square ("Hunyadi Tér", n.d.), Mátyás Square ("Mátyás Tér", n.d.), Almássy Square ("Almássy Tér, Hutyra Ferenc Utca", n.d), Károly Garden ("Károly Kert", n.d.) and Klauzál Square ("Klauzál Tér", n.d.). The latter was taken as a case study for the current research as plans for a new refurbishment are already being made and communication about the renewal process has started (Erzsébetváros Önkormányzata, n.d.) so it offers the possibility of revisiting the square within some years and re-evaluate it after the redesign.

### **Field study participants**

29 architecture students at the Budapest University of Technology and Economics took part in a field study on Klauzál Square in the frames of the Environmental Design subject. They were chosen for two reasons:

- Klauzál Square is assessed based on its physical characteristics. Having a preliminary idea of the social status of the public space is more likely to draw the focus away from the physical characteristics during filling in the questionnaire.
- Architecture students already can work with space and better explain their perception of the public space on a mental map.

### **Expected results**

The study is supposed give an overall image of the importance of perceived safety as a factor of public space evaluation, and it needs to extract problems and strong sides in the current state of the Klauzál Square related to perceived safety and barriers.

## 4. The location: Klauzál Square

### Historical background

Klauzál Square is located in the centre of the Belső-Erzsébetváros district in Budapest. Until the late 1800s, it was a square with an open-air market surrounded by houses. In 1872 a theatre was built there, but a huge fire in 1874 destroyed it and in 1878 it was demolished (Magyar Színházi Intézet Budapest, 1986).

A market hall was opened in 1897 and it is still functioning now. In addition, the appearance of the square also changed: it became green and turned into a park, and the surrounding houses were renovated (Wágner, 2021).

In the early 1900s, public transport reached this area, from 1911 to 1941 single-car trams had their routes along the square. The pair of rails also turned into the market hall to facilitate the feeding of goods.

During World War II, the square was defined as the centre of the official Pest ghetto. In the last winter of the war, the public garden served as a cemetery until the ground couldn't fit bodies anymore. After that, everything that belonged to the square became a cemetery: the surrounding shops, apartments, courtyards, where hundreds and thousands of bodies laid piled on top of each other.

When the war ended, the bodies were exhumated and removed from the square. But in 1956, during the Hungarian Revolution, fights took place in the district and the dead were temporarily buried in this square. Back then public services were disrupted and the square was used as a local garbage dump. In three months, residential waste stood in mountains. (Bojár, 2018).

After managing to resolve this situation, the deliberate landscaping of the square began. In 1969, Ildikó Kecskésné Szabó designed a model playground surrounded by a low wooden fence with interesting games and a sledding hill. It was during this time that the two football fields were also constructed there ("Klauzál Tér", n.d.).

Over the decades, the playground equipment installed during the initial setup had worn out, and the behaviour of the local dogs' owners had created an unfortunate situation. Therefore, in 1997, the Municipal Office renovated the square.

Some elements of the park were preserved from socialist times, for example, the hill and the sports fields (KÉK – Kortárs Építészeti Központ Alapítvány, 2013).

Among new features, a community space with bleachers was created for different events and a dog park was set up. In addition, a high metal fence was set up around the whole park and between separate zones as well. The gates were open in the morning and closed in the evening instead of 24/7 access.

By now, the year 2023, twenty-six years have already passed since the last renovation.

### The square nowadays: expert observation

Visits to the location were necessary to know about the current problems of Klauzál Square, then the authors performed a thorough analysis of the location during winter and spring 2023. Based on this, changes were added to the existing map of the park designed in 1997, taken from the website of Erzsébetváros district (Figure 1).

Klauzál Square is framed by a metal fence from the outside and it is split into several sections in its present state. In some places, the fences are covered by the bushes. For example, the children's playground is almost completely surrounded by them.



The inner territory has a park with benches and flowerbeds, a children's playground, a dog walking area, a sports zone with a workout area, two play fields and a toilet area.

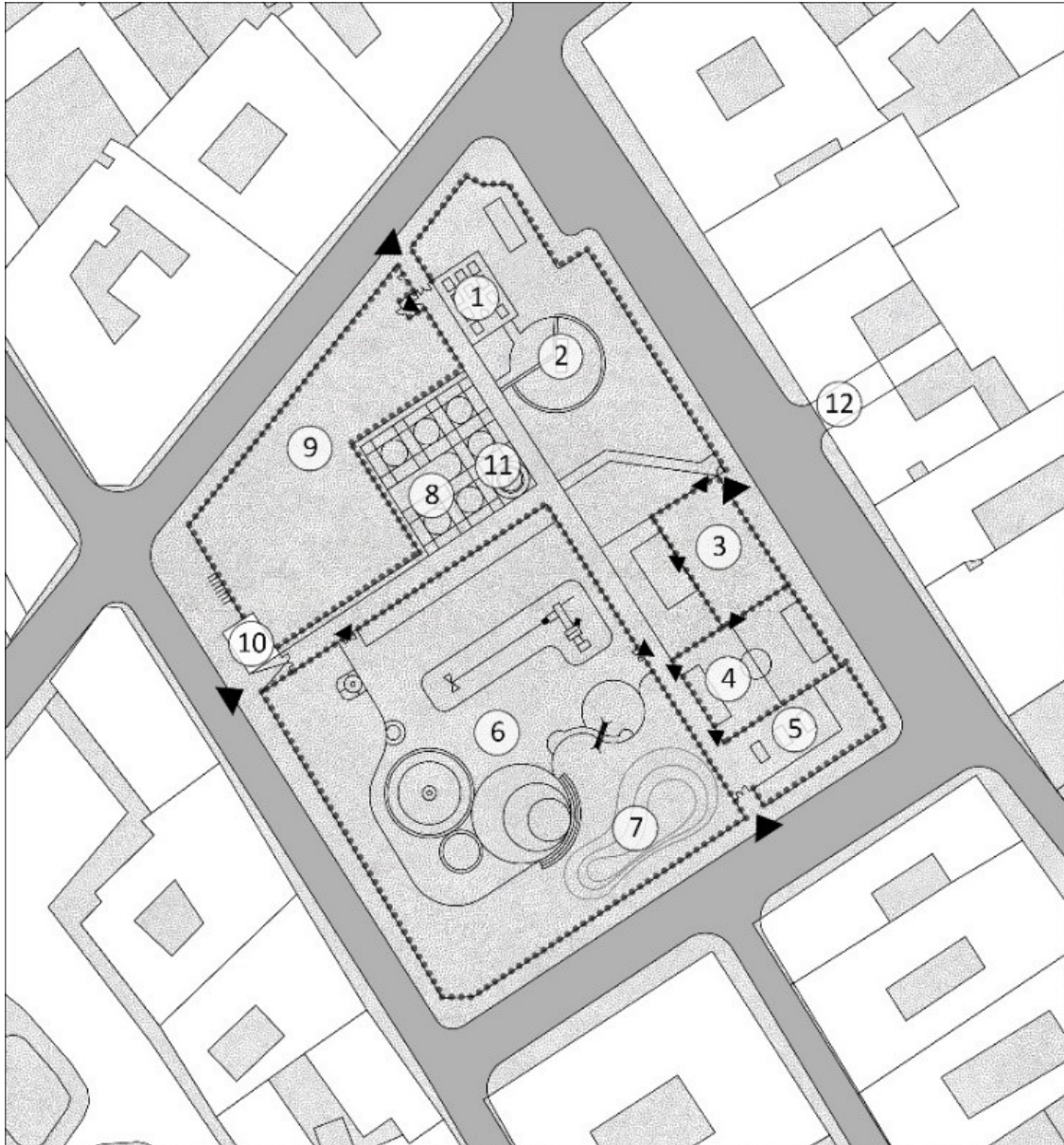


Figure 1. Map of Klauzál Square. Separate areas are labeled with numbers. 1 - picnic zone, 2 - memorial, 3 - basketball court, 4 - football court, 5 - ping-pong tables, 6 - children playground, 7 - hill, 8 - flower beds, 9 - dog park, 10 - toilet, 11 - fountain, 12 - Klauzál market. The entrances to the park are marked with big- , the entrances to separate areas with small black triangles. The fence is shown with a dotted line. (Source: the author, 2023)

It is rich in function, however, several problems of the square connected to its layout were extracted during the on-site analysis:



Figure 2. The territory of the park is elevated and surrounded by a fence. (Source: the author, 2022)



Figure 3. The view from the market exit showing the parking lot and that the gate is not seen. (Source: the author, 2022)



Figure 4. The gate at the stairs always requires efforts to open. (Source: the author, 2022)



Figure 5. Graffiti on a building and plaster falling off. (Source: the author, 2022)



Figure 6. The cases of stolen bicycles on the Klauzál square. (Source: the author, 2022)



Communication about the facts and ideas of the coming redesign is located on a series of boards. They suggest a professional attitude to the renewal process. The same details can be found on the website of the 7<sup>th</sup> district of Budapest (Erzsébetváros Önkormányzata, n.d.). The latest information states that the latest public meeting with the residents of the neighbourhood occurred on May 14, 2022. However, the outcome of the discussion wasn't presented online. After this date, neither the website, nor the district's social media don't say any new information, so the current state of the rehabilitation project is unknown.

### Field study performed by the students

The study was performed in the afternoon of March the 30th, 2023. 29 architecture students of non-Hungarian origin were involved.

The students had two tasks:

- The first task was to prepare a mental map for which they got a drawing with a contour of the park. The participants could move anywhere on the site, and they had 30 minutes for the tasks. A blank and a complete task are shown in Figure 7.
- Afterwards, the students were given a questionnaire. They had 25 minutes to fill it in.



Figure 7. Mental map template and a nice example of a completed task. (Source: the author, 2022)

As we are using the interpretative approach, we investigated the connection between the mental mappings, the single-choice and open questions together to give a better understanding of the human perception of the square in terms of perceived safety.

## 5. Findings

The most important results were summed up on a map in Figure 8.

A few key points were recorded during the analysis of this map, we marked with red and green dots the most and least favourable locations of students on a separate map:

**Gates:** Groups of red dots near each gate suggest that gate regions are important but negative/problematic locations. E.g. according to students, the gate in front of the market *“is very narrow, you can barely walk there”*, *“the entrance is very uncomfortable and poorly designed, disabled people are not considered to enter this gate”*, or *“the entrance is too narrow”*.

The corner near the toilet smells bad and the fences are higher there enhancing the impression of strict separation from the street, so the park is an enclosure. *“The least favourable place for me is next to the toilet, because it seems vandalized and dirty, at night time when visibility is not clear it might feel insecure.”*

The northwest gate is next to the waste store, it also smells bad.

**Optical problems and accessibility:** The southern part between the sports terrain and the gate (table tennis tables) is also perceived as problematic, it is noisy and too small. It is the least favourable place for many: *“It is hidden behind a fence, there is no place and no visibility.”* Another student wrote: *“While it is supposed to be a place to have fun and interact with each other, it is fenced in a way that it feels like a prison. Also, the natural terrain (hill) prevents visual connection with the street and it is not visible from the street from outside.”*

**Maintenance** was often mentioned when positioning the least favourable places. (LFP) *“The square feels neglected and forgotten. You see some parts of the park are colourful and vibrant, others are dirty and lack greenery. I believe the court should be modernized and the whole area clean.”*

**Ambiguous locations:** Road crossing was an important location, too but is ambiguous some label that as the best location (FP) for the possibility of social interaction, others least preferable (LFP) for the lack of maintenance or affordances - it seems that cultural background of the students has a great influence on their responses. This must be further studied.

**The southern playground** part in the amphitheatre next to the hill has only green dots.

**Memorial and picnic zone:** Northern part is intensively filled with both labels. It has benches and a memorial area but maintenance is questionable. Those, who do not like it, complain about bad maintenance, the seats are old and dirty, and the place is too small. *“Not well organized and looks dirty, doesn’t encourage people to seat, play or eat in it.”* *“The place has a lot of potential but it isn’t properly used. The floor is awkward, there is not much space, and the tables are small and too close to each other.”* *“Visual interaction with dogs is really nice for me, also it is a green and peaceful place to seat and enjoy my time.”*

For others it was a good location as it is calm, surrounded by greenery, *“you can chill there”*, *“nice place to talk, eat and pass time outside, though a little bit too small”*, *“It is well designed in terms of enjoying the surroundings and sitting and relaxing.”*

**Smells:** The area near the toilet is densely filled with LFP dots and there are no FP labels – ambient features such as smell are the most important factors in their evaluation.



**Within the fence:** As a general feature, it was interesting to see that even though the mental mapping task could have been applied to the whole square the streets and pavements included, the students interpreted it only for the inside of the fenced area: no marks were located on the streets. Though students are trained in architecture, they pay no attention to the surrounding buildings, not even to the market. It suggests that the participants perceived public space only inside the fenced isolated area.

**The zoning of the park** was an important task of the mental mapping process. We were interested in knowing how interior barriers, routes and functional elements are visible to the users. Analysis of the maps was performed by two interpreters separately. They looked at all of the resultant maps and recorded how many areas and divisions are visible. Both of them mostly identified the same number of zones (except three) suggesting that the legibility of the maps is clear. By interpreting the maps, we can say that zones were divided not just by the fences, but functions (flower beds with benches, desks with chairs, and memorial areas) are also clear signs of usage zones. However, the most evident separations of the areas are fences, secondary signs are other physical obstacles such as bushes and visual barriers such as change of floor covering/grass.

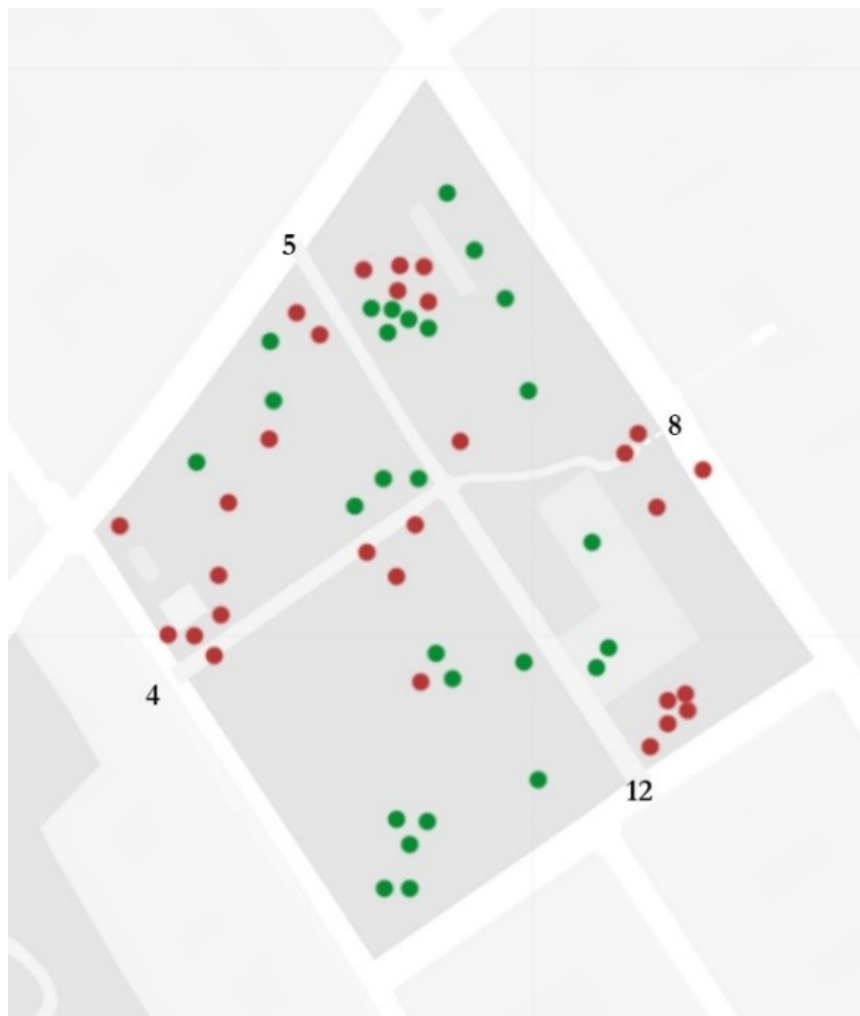


Figure 8. Map with marked favourite and unfavourable spots of each student and the number of students who put each of the gates as the most preferred. (Source: the author, 2022)

## 6. Interpretation of key issues and conclusions

Choices of favourite and least favourable places show that the diversity of functions is clearly visible and rich enough for the students: everyone could find a good enough and a rather bad spot there. Students enjoyed the variety of activities in the park which is the condition for the “extra eyes effect”.

In accordance with the literature, the written answers underline the importance of the quality of the design and maintenance. Low visibility and accessibility from the street are key points in the answers just like the presence of ambient factors such as bad smell from the toilet or homeless people. Low visibility from the street due to greenery and reduced accessibility to the square should be investigated deeper with software evaluations using space syntax methods.

The fences of the square became a most important issue for students, it has both a negative and a positive interpretation. Gates are the most problematic parts of the park – their visibility is bad and the gates are narrow. They do not invite people and they are obstacles if one would like to quickly quit the park when is perceived danger. The height of the fence is a problem, for being too robust at all times.

The very negative connotation of ‘prison’ suggest that fence can be a negative factor of perceived safety, so it has the opposite result as the designers had intended. The students complained about exterior fencing framing the park as it isolates the park from the street, it is seen as an obstacle. That is in tune with the cited literature that suggests the importance of natural street life and the extra look and attention of passers-by as a positive factor of perceived safety.

Other fences, e.g., fences inside the park – even around the children’s playground –, were perceived positively. Students said that even the artificial hill placed in the playground was a good boundary to lock out the danger of traffic, noise and bad smell. The fence around the sports playground was also justified.

Fences were evident separations for everyone, but the students interpreted division in a more diverse way: paths, ways, green areas, floor coverings, objects (the statue, benches), and even different activities are also markers of division. In some cases, the interpretation of the mental mapping was difficult as activities/ functional units and physical separations are not clearly distinguished on the drawings. That also suggests that students mapped the park as a socio-physical setting, not just a physical one.

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# Soviet-Era Projects That Did and Did Not Happen in the Historical Site of Šnipiškės in Vilnius

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## ABSTRACT

*Šnipiškės is a historical suburb of Vilnius, one of the closest to the Old Town. During the Soviet occupation, due to intensive urban development, Šnipiškės was divided into relatively isolated parts and separated from surrounding areas by new highways and widened old roads. Moreover, it was decided at that time to develop the new modern city center here, in Šnipiškės, which led to a fundamental change in spatial structure and identity that continues to this day. However, a part of the heritage and history in the central part of Šnipiškės was preserved after the largest mass housing project - the Žalgiris district - was not realized. Alongside the old wooden houses, high-rise buildings are now being intensively developed here as part of Vilnius' central business district. The Soviet era has left a deformed, fragmented, partially rebuilt historical suburb with many contrasts, tensions and urban conflicts that the urban community has to deal with in order to achieve sustainable solutions and harmonious internal development of the very central Vilnius.*

## KEYWORDS

*public space, mass housing, heritage, identity, CBD (Central Business District)*

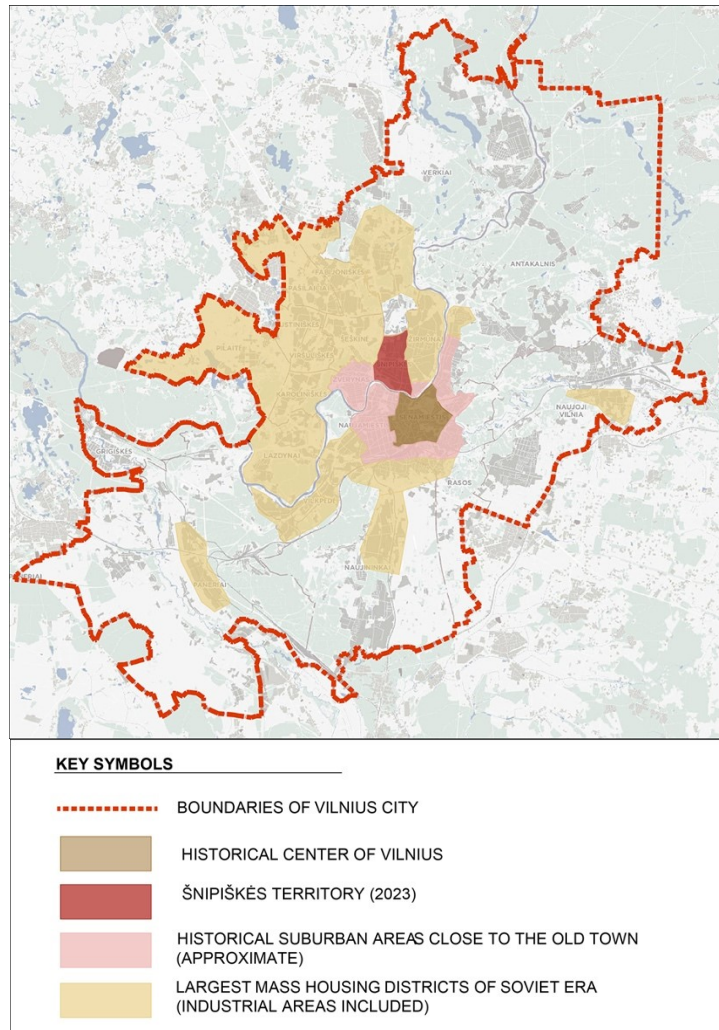


Figure 1. The scheme of Vilnius city development (Source: made by author)

## 1. Introduction

Vilnius, the capital of Lithuania, is a city with a rich history, inhabited since Neolithic times. Vilnius was and is the political and economic center of Lithuania and the city that "has had a profound influence on the cultural and architectural development of much of eastern Europe" (UNESCO 1994). It has one of the largest preserved old towns in Europe (352 hectares), which was included in the UNESCO World Heritage List in 1994, and is surrounded by historical suburbs, one of which is Šnipiškės (See Figure 1.).

Significant urban transformations in Vilnius began after World War II. These changes were predominantly influenced by the Soviet regime and led to a transformation of both the architectural landscape and society: many new arterial roads were built and new neighborhoods of mass housing were created, private property was nationalized, settlers (Lithuanians, Soviet colonists) replaced the large Jewish and Polish communities that lived in the city in large numbers. Under the guise of wartime destruction, the Soviets simply demolished many buildings that could be repaired in order to implement their new urban planning ideas (Verkeliš 2015). This physical destruction and post-war social changes abruptly interrupted the natural continuity of urban development. The historical suburbs, especially their wooden architecture, were considered worthless, however it was residential and mixed-use areas. Therefore, the

new Soviet the new developments were basically built behind historical suburbs, in an empty area, and not instead of them, what contributed significantly to preserve part of the city's urban heritage and authenticity until Lithuania's independence in 1990.

The new city center of today's Vilnius - the historical suburb of Šnipiškės - became a focal point for urban changes during the Soviet period, in the tension between preservation and the pressure of modern development needs, and still is. All Soviet contemporary urban planning elements were realized in this area, but even then they were recognized as those that "... do not always coexist with historical structures, whose volumes and proportions are much more modest and restrained" (Makariūnas and Pipynė, 1973). Taking into account criticisms of modern urban theories by internationally recognized authors such as Jane Jacobs (Jacobs, 2020) and Jan Gehl (Gehl, 2023), as well as the relevant findings of Kevin Lynch (Lynch, 1960), this article raises the question: How did the urban transformation projects of the Soviet period in Vilnius affect the historical suburb of Šnipiškės? The answer to this question will help in the further search for sustainable approaches to balancing the evolving urban landscape, its contrasts and urban tensions.

This article is part of an ongoing research (Gabrėnienė, 2022a)(Gabrėnienė, 2022b)(Samalavičius, Gabrėnas, and Gabrėnienė, 2023) and focuses on Šnipiškės history, development, and change.

## 2. Transformations of the historical suburb in the Soviet era

### 2.1. Borders, barriers and connections

The Žalasis Bridge, connecting Šnipiškės and the Old Town of Vilnius, was the only bridge over the Neris River in the city until the 20th century. Two old roads branched off from this bridge: one led to Riga and Ukmergė (called Ukmergė Street), the other one to Verkiai (today Kalvarijų Street), around which the Šnipiškės suburb developed. The area next to the Žalasis Bridge was once an important place of the historical suburb, as a gateway to the city, where the chapel of Jesus in the XVIII century was built on the hill in front of the Church of St. Raphael the Archangel. It was destroyed in the 1960s when Kalvarijų Street was widened. In the process, half of Hilary Raduskiewicz's historic palace - an important accent on the corner of Kalvarijų-Žvejų Street - was also demolished. Kalvarijų Street was once a part of the long pilgrimage route of Vilnius. Although Kalvarijų Street was widened during the Soviet period, the scale of the street was preserved along with the historical buildings in short sections.

The other historic street - Ukmergės - was essentially eliminated during the Soviet period, when construction of the new Vilnius public center behind the Church of St. Raphael the Archangel and the Monastery began in the 1960s. The old street (or part of it) was transformed into a pedestrian promenade, at the end of which was the tallest 22-story hotel in Lithuania at the time. The promenade, which was supposed to be lively and full of people, seemed to lose its importance and status during the independence period, as did the entire public center. For a long time the promenade was quite abandoned and only now an architectural competition is being announced to find a new image for this public space. The members of Šnipiškės community have even raised the issue of restoration of the chapel, as it was once the famous landmark and part of the identity of the suburb.

The emergence of new streets in Vilnius is related to the development of the entire city and the internal development of Šnipiškės. During the Soviet period, the



second largest industrial area and new mass housing districts were built in the north of Vilnius. In 1968, it was determined that the main traffic problem in Vilnius was the lack of connections between the northern and southern parts of the city, so it was necessary to build highways in the near future and that the general plan of the city (authors Vacl. Balčiūnas, K. Bučas, V. Mikučianis, V. Sližys, J. Vaškevičius, M. Raibis) envisaged the construction of five such highways, which would mean 20 new lanes (Raibis, 1968). Šnipiškės, a somewhat isolated historical suburb behind the river, eventually became a central area of Vilnius, divided and enclosed by new streets. Geležinio Vilko Street (the construction of which began in 1976), together with one of the most complicated traffic junctions in the city - a two-level roundabout - marked the boundary of Šnipiškės on the left, separating it from the Šeškinė hills and the historical suburb of Žvėrynas (See Figure 2.). Today it is the busiest street in Vilnius and one of the biggest sources of noise and air pollution. The idea of installing a cableway for pedestrians connecting Šnipiškės with the residential district of Šeškinė above Geležinio vilko Street was even discussed during the local elections.

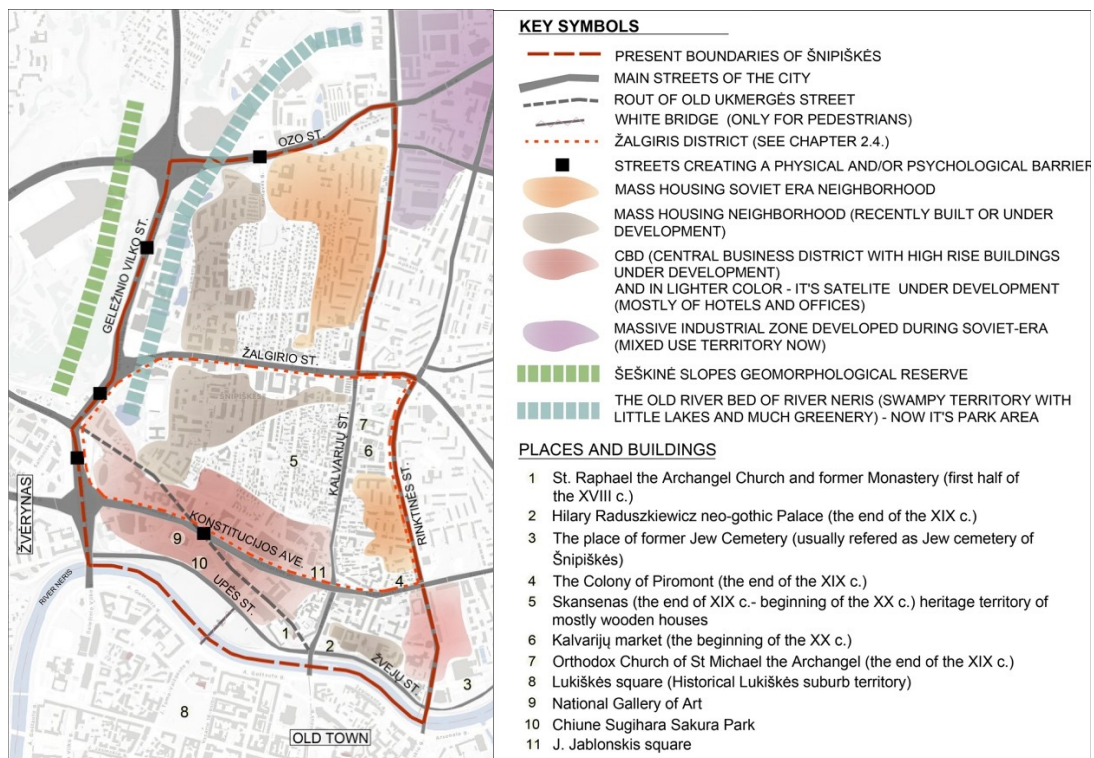


Figure 2. The scheme of Šnipiškės and its immediate surroundings (Source: made by author)

Quite similar to Geležinis Vilkas Street is Ozo Street, which marks the border of Šnipiškės on the northern side and was also built during the occupation. However, the most discussed and problematic street is Konstitucijos Avenue, which was built in the middle of Šnipiškės along the new public city center. It was supposed to solve the ever-increasing traffic problems. However, since other connecting roads in the center of the neighborhood were not widened, this avenue, unsuitable for Vilnius, not only does not solve the congestion problems, but is also a great source of various pollutions, a repulsive psychological and physical barrier in the urban environment that divides Šnipiškės into separate parts. The events that have taken place there recently illustrate the character and scale of the avenue: in 2018 a military parade was held there, and

in 2022 the Formula 1 car show "Red Bull Showrun" (See Figure 3.). However, in 2021-2022, new trees and shrubs were planted, new bike lanes and safety islands were installed when the measures of the Sustainable Urban Mobility Plan were implemented there. This created a barrier between pedestrians moving along the sidewalks and the street space, improved the esthetic image and safety.

In order to reduce the traffic load on Kalvarijų Street and the green bridge track, it was proposed during the Soviet period and in the city plans to install another parallel track between Šnipiškės and Lukiškės. But it was not realized. Instead, the Baltasis pedestrian bridge, designed together with the public center in the 1960s, was built only after Lithuania regained its independence in 1990.



Figure 3. Konstitucijos Avenue: 1-2018 y., 2-2022 y., 3-2023 y.  
(Source: photo made by Agnė Gabrėnienė)

**2.2. Empty places of gathering**

During the Soviet period, not many new squares and parks were built in Šnipiškės. The aforementioned pedestrian promenade built on part of the historic Ukmergė Street, a small urban open space now covered with trees at the corner of Konstitucijos Avenue and Kalvarijų Street named after linguist Jonas Jablonskis in 2019, and the square near the former Revolutionary Museum built in 1980 (Arch. G. Baravykas, V. Vielius, Engineer C. Strimaitis). In 2009 the museum building was reconstructed (Arch. A. Bučas, D. Čaplinskas, G. Kuginys, Engineer D. Bulybenko) and since then it houses the National Gallery of Art. The museum was planned in the Soviet era on the western side of Šnipiškės, behind the new public center of Vilnius. Next to it, a square was created in the middle of the slope, from which a beautiful panorama of the Neris Valley opens. It remained unchanged and unrenovated since the Soviet period. Here, on the pedestal, a cast bronze sculpture called "The First Swallows" (sculptor J. Mikėnas) was placed in 1987 and inaugurated in honor of the Soviet cosmonauts, but now it symbolizes Lithuania and the birds rising from the hand - the freedom of our country (Go Vilnius, 2023).

There are no major pedestrian routes crossing this square, and since the National Gallery of Art has not become a vibrant cultural center, the number of people crossing it is usually small. The square has neither a clear function nor the typical elements of a modern public space adapted to different social groups, and it is not itself a point of attraction. The square consists of several levels separated by stairs. On the north side it is bordered by a wall, which gives the square a certain intimacy. At the same time, it separates the square from the noise and pollution of Konstitucijos Avenue. Recently, the square is sometimes used for city festivals or other events. During the "SPOT" 2023 - Street Art Festival, part of the square was used to set up a small stage for performances. The audience could sit on the steps and watch the performance from

different sides (See Figure 4.). The square attracts crowds of residents and guests to the city every spring when the cherry trees bloom on the nearby slopes in Chiune Sugihara Sakura Park.



*Figure 4. Square besides the National Gallery of Art in 2023  
(Source: photo made by Agnė Gabrėnienė)*

J. Jablonskis Square, on the other hand, is much more passable - it is located on the footpath from the center to the building of the city administration and other public administrative and business facilities, behind which a residential area extends. Due to the small size of this urban open space and its strongly perceived proximity to busy streets, people rarely linger here. The square was created in this place during the Soviet era, probably during the construction of the current Konstitucijos Avenue, after part of the existing buildings were demolished. However, this square in the classicist style, characteristic of the Stalinist period, was planned as early as 1950, but was not realized (author: A. Grigorjev ) (Grigorjev, 1950). Now it is overgrown with mature trees that was planted about half a century ago. In 2009 the sculpture "Light" was placed here (sculptor V. Gylėkis, arch. M. Markūnas) and has already become the highlight of this place. There are efforts to find new functions and image for the square, which will help to make it attractive for the employees of the surrounding administrative buildings, including the city administration, to create a place for the workers to rest or have lunch, to create a recreational space here, which will be appreciated not only by the residents as a place to walk dogs (Made in Vilnius, 2021). Recently, the Vilnius City Council approved a pilot project to create a biodiversity oasis in this urban area (Made in Vilnius, 2021). Lithuanian plants that tolerate our climatic conditions well have been planted, and it is expected that they will at least partially absorb street noise and pollution. At the same time, this is an educational project to help society better understand the importance of biodiversity and the benefits of native plants. This landscape project fits well with the idea of placing two beehives on the roof of the municipal building in 2021. In the middle of the square, an extension of the pedestrian path was built on both sides with benches that create a small, somewhat enclosed space where people can hide under the trees on hot summer days (See Figure 5.).



*Figure 5. J. Jablonskis Square in 2023  
(Source: photo made by Agnė Gabrėnienė)*

### **2.3. The potential of mass housing neighborhoods**

The decision to build a new public center and to form the "architectural hill" during the Soviet era on the right bank of the Neris River (in the area between Upė Street and today's Konstitucijos Avenue) essentially determined the direction of the future development of this area after Lithuania regained its independence. The idea was transformed into the ongoing intensive development of a Central Business District with high-rise buildings. According to Laura Kairienė, advisor to the Office of the Chief Architect of the Vilnius City Administration, the goal is to create here "...a central business district of all the Baltic countries, an intensive center where all the offices of international companies would move in and which would be the New York of the Baltics" (Made in Vilnius, 2023). This process has influenced the sharp increase in real estate prices in Šnipiškės and the lowest prices are still found in Soviet-era houses built next to single-family homes. These Soviet-era apartment buildings are concentrated in northeastern and the east side of Šnipiškės. A majority of these Soviet-era buildings were built up to and around 1972, so the predominant buildings made of prefabricated elements or white silicate bricks are of extremely primitive and faceless Soviet architecture and being quite old in a poor physical condition. The urban planning study of 2021 has shown that, compared to other parts of the historical suburb, the age group of elderly people (57-93 years) predominates here and this is the most densely populated area of the district (Jonasuskis, 2021). The study also showed that there is a lack of public places, the existing ones in Vilnius are quite far away and the major recreational areas of the city cannot be reached at a distance of less than 500 m (Jonasuskis, 2021). In these neighborhoods, there are other problems peculiar to Soviet mass housing neighborhoods, such as the lack of parking spaces, which leads to disorder and the occupation of green spaces in the middle of yards (See *Figure 6.*), the lack of universal design elements (elevators, ramps, etc.), children's

playgrounds and sports facilities. Renovation (modernization) is quite slow and often of poor architectural quality, which also does not contribute to the harmonious integration of these areas of Šnipiškės into the development of the new city center and does not attract younger citizens to live there.

However, an advantage and even a certain uniqueness of the Soviet mass housing areas in comparison with the modern residential buildings with underground garages are the old trees that cover the yards. This immediate surroundings full of greenery can somewhat compensate for the inaccessibility of the public spaces and recreational areas. Moreover, it must be admitted that most of the state kindergartens in these neighborhoods were built in Soviet times and are still in operation. It would be extremely convenient for young families to live nearby.

There are some attempts to bring the environment created during the occupation period a little closer to today's standards by installing new sports facilities, renovating children's playgrounds and redesigning the parking systems in the courtyards (See Figure 6).



Figure 6. Mass housing neighborhood in Šnipiškės: parking problems on the left, new playground on the right (Source: photo made by Agnė Gabrėnienė )

#### 2.4. The vision of the Žalgiris district and its failure

The first projects after the World War II envisaged the construction of long rows of quite simple apartment blocks on the right bank of the Neris River. However, when it was decided to develop the new center of Vilnius and the "architectural hill" here in Šnipiškės, the architecture of higher quality was the concern of the city architects from then on. Modern buildings had to represent the contemporary capital of Lithuania since then. The central area of Šnipiškės between Konstitucijos Avenue, Šeimyniškių Street and Žalgiris Street, later named after the Žalgiris district, had to be developed as a suitable background for a new public city center to be built between the Neris River and Konstitucijos Avenue, according to the 1964 architectural competition.

The first detailed development plan for the whole area of Šnipiškės was prepared in 1966-1968 by the city architect B. Kasperavičienė (See Figure 7.). According to it, the whole area was to be built up with 8 micro-districts of new residential blocks and up to eighteen-story public buildings along Kalvarijų Street (which was also to be widened to 48 m) and to house 25 thousand people instead of the 7 thousand who lived there at that time (Kasperavičienė, 1968). Too little attention was paid to the preservation of the historical street network, and even in Soviet times it was criticized as too routine and typical for a central area of the city, and not designed according to

the character and urban traditions of Vilnius (Girčys, 1973). After this project got stuck in the mid-seventies, an architectural competition was announced to plan only the central area of Šnipiškės – Žalgiris district and seven projects were submitted. In 1979, the design task for the latter territory was updated and the Žalgiris district project was entrusted to architect A. Leckienė, who planned to group 7-10-story residential buildings around single-story primary service centers amid courtyards (Leckienė, 1979). Although it was more sensitive, this project was also not realized.

It can only be assumed that the ambitions were too big, possibly too expensive and too aggressive for the historical suburb of Vilnius (in the Žalgiris district project in 1979 it was already estimated that it would have been necessary to demolish about 770 houses in the area and destroy 2800 apartments) (Leckienė, 1979).




*Figure 7. Model of detailed layout of Šnipiškės project, architect B. Kasperavičienė  
(Source: Regional State Archives. f. 1036, ap. 11, b. 652.)*

### 3. Conclusion

During the Soviet era, many urban transformation projects were prepared to realize the ideals of Soviet society in Vilnius. Among the most important and largest ones, which affected Šnipiškės the most, were the relocation of the New Center of Vilnius to the right bank of the Neris River - the area of the historical suburb - and a new network of streets that divided and defined Šnipiškės territory. During the implementation of these projects, the natural integrity of the city center and its historical suburbs was destroyed and a significant part of its heritage and authentic features was lost. The occupation period created and left great contrasts between the abandoned historical neighborhoods, the many and typical Soviet apartment blocks and the luxury real estate projects that are currently being built here. However, Vilnius can consider itself lucky that the central part of Šnipiškės was not completely destroyed and rebuilt, because the largest Šnipiškės project in terms of the size of the area and the number of people affected - the Žalgiris district - was not realized there. Part of the historical environment was preserved, which provides the perfect opportunity to develop this area in a sustainable way and create architecture of high quality with respect for the *genius loci*.

The public spaces created in Šnipiškės during the Soviet period do not attract many people, but ways are being sought to integrate them, make them functional and



create new values in them. The height differences and stairs that were popular during the Soviet period are a characteristic element that has been successfully adapted to today's needs, especially for events. The old trees present today, which were planted at that time, create additional esthetic value, contribute to the improvement of the microclimate and fit seamlessly into today's urban greening initiatives. On the other hand, the new greening is being used as a sustainable tool for visual enhancement, adding a new esthetic quality to Soviet public spaces.

More detailed interdisciplinary research, including phenomenological and cultural studies of the genius loci, would be needed to find the most sustainable ways to further develop the historic suburb that is now a new urban center of Vilnius. More discussion with all interested parties on a common vision for the entire area would help to preserve the diversity of the neighborhood.

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# Spatial Integrity of the Socialist Planned Cities in Hungary. Comparative Study of Their Urban Cores.

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## ABSTRACT

*The study covers a comparative structural analysis of the central districts of a selected group of new cities established in Hungary during the period of rapid socialist urbanization. Most of them were founded alongside industrial complexes as service settlements providing accommodation for the workers. As noted in the available literature, these cities usually display low urban cohesion because of the delayed or incomplete development of their inner areas, carried decades after the building of factories, mines, power plants and housing estates. The aim of this study is to assess the location of the central districts within the corresponding city plans and to compare their structural and functional complexity, spatial legibility and patterns of present usage. These parameters were assessed as possible factors contributing to the performance of the studied inner districts as centres of social and economic life and distinctive, integrating components of the urban landscape. The study was based on the research into archival planning materials and maps, satellite imagery, photographic resources and the contemporary geospatial data, supported by on-site excursions carried by the author. Morphological analyses of the city plans were carried along with the comparison of the integration and connectivity of their street networks. Based on that framework, smaller-scale analyses of the inner-city public spaces were developed. Despite affinities in the patterns of development and recurrence of architectural typologies, varying levels of spatial integrity were identified among the case studies. While in some examples the central districts of the cities are easier to distinguish, in others they remain underdeveloped and illegible. These qualities may lend themselves to the different prospects and pacing of urban regeneration in each of the towns.*

## KEYWORDS

*post-socialist cities, planned cities, shrinking cities, urban resilience, urban morphology*



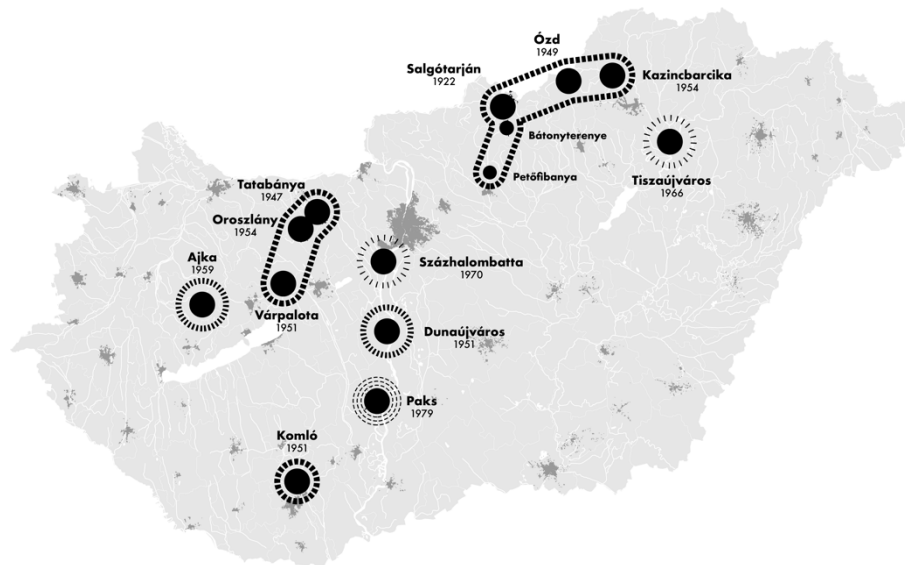


Figure 1. Socialist planned cities in Hungary (Source: Author's study)

## 1. Introduction

The end of the Second World War and the consecutive establishment of communist regimes in Central European states marked a turning point for the future trajectories of urban development in the region. Rebuilding nations were faced with problems of recovery from varying levels of wartime destruction and the task to transform their economies according to newly imposed doctrines. It should be noted that majority of the countries which constituted semi-independent part of the Eastern Bloc were severely underdeveloped in terms of their production capacities, infrastructure and quality of life even prior to the war. Socialist transformation of economy thus blended with a much-delayed modernisation project, which involved rapid industrialisation and attempts to restructure the urban network along with it. Period of postwar recovery provided opportunities for intentional mitigation of development disparities between metropolises and periphery inherited after the preceding decades of nascent capitalism. However, implemented in times of scarcity and along the lines of rigid and one-sided vision of advancement, modernisation projects in Central Europe only led to moderately successful outcome. On the one hand the economic boom and the simultaneous redistribution of capital, access to education, healthcare and opportunities of social advancement among the inhabitants of the region were undisputable. On the other hand, the urban and architectural legacy of the period raises multiple questions. Monotony of the built environment, insufficient functional complexity and excessive reliance of heavy industry in newly built cities are only some of the issues discussed by scholars.

In the middle of the 1940s Hungary struggled with a highly uneven distribution of population, as well as social and industrial potential, with the agglomeration of Budapest generating almost 40% of the country's economic output (See: MUT, 1986). The rest of the country remained predominantly rural, with few and dispersed cities of small or medium size. On top of that most of them retained their original petty-bourgeois profile, with small commerce as the basis of economy and barely present industrial production. However, there were singular established production centres, like Miskolc, as well as pockets of intensely developing yet often unregulated industry in the mining regions of north-eastern and western Hungary.

The latter locations soon became the ground for establishing some of the first generation of Hungarian new towns, all of which were organised around branches of heavy industry such as coal mining and steel production. In cases like Tatabánya – the first one in the group – new settlements were planned in places where makeshift colonies of poor-quality housing had already emerged. Others, like Dunaújváros, were founded in scarcely populated rural areas, while the city of Várpalota was laid out over a destroyed prewar township. Building of most new cities was initiated before the breakout of the Hungarian Revolution of 1956, after which the town-building effort both slowed down and evolved from monumental socialist-realist urbanism towards the principles of international modern movement. At the same time the production base was diversified to include other types of industry, such as chemical, petrochemical or nuclear. Along with construction of new production complexes the last of the remaining new towns were built. As a result, every single planned city in Hungary originated as an industrial monocity. Dependence on state-administered heavy industry translated to a fairly reduced functional and social complexity of those settlements and played a significant role in their future history of development and decay.

The objective of this paper is to look at the selected examples of described generations of Hungarian new cities and compare properties of their central districts, with special attention dedicated to the quality of public space. Established in different decades they happen to be typologically diverse.

## 2. Classification of socialist planned cities in Hungary

One should note that over the last decades scholars proposed several classifications of socialist planned towns in Hungary, which do not perfectly overlap. Classification proposed in one of the most recent studies includes 11 settlements which obtained city rights and their present urban structure during the period of State Socialism (See: Szirmai, V. et.al. (2016)) The selection criteria of the cities proposed in the study are methodologically consistent and encompass all the proper new socialist cities in the country - that is all which on top of shared origin of their built environment obtained their rights during the period of state socialism.

However, since the approach of this study is predominantly based in urban morphology, the author of this article proposes to take into consideration one additional city: Salgótarján. The city obtained its town rights in the years following the First World War, in 1922, and therefore cannot be treated as a socialist new town in the legal sense. However, it shares undeniable structural affinities with the entire group of eleven proper socialist planned town. The vast majority of Salgótarján's city core was built in the 1970s as a result of one of the most ambitious urban development projects attempted in the history of Hungary. On top of that there is little prior historical heritage to speak of, and the resulting city form is purely Socialist-Modernist.

The group of socialist planned cities in Hungary is heterogenous in terms of their origin, as indicated in comparative studies carried out in the previous decade. Rechnitzer, J., Berkes, J. and Páthy, Á. distinguish three main groups: cities developed in areas with no previous settlements, cities developed on top of proto-urban settlements and cities rebuilt after the obliteration of preceding built environment during the Second World War (See: Szirmai, V., et al., 2016).

Another classification would combine elements of chronology and types of industry dominating in each of the town, which are correlated. The first generation of Hungarian new towns from the late 1940's and early 1950's was founded to provide housing for the workers in new coal mines and steelworks. Over time other modes of

industry become prevalent, which is reflected in the profile of the next generations of cities. The ones founded around 1960's served the purposes of chemical and petrochemical industry, while the last of the new cities was built for the workers of the only nuclear power plant in Hungary. Location of the planned cities in question is marked on the map opening this article (See Figure 1). The chronological comparison of the establishment dates of these settlements and their respective current populations is listed below (See Table 1.).

**Table 1. List of socialist planned cities in Hungary (Source of the demographic data\*: Hungarian Central Statistical Office)**

Number:	City:	City rights acquired:	Population (2022)*
1.	Salgótarján	1922	31,484
2.	Tatabánya	1947	64,305
3.	Ózd	1949	30,639
4.	Dunaújváros	1951	41,103
<b>5.</b>	<b>Várpalota</b>	<b>1951</b>	<b>19,308</b>
6.	Komló	1951	21,927
7.	Kazincbarcika	1954	24,186
8.	Oroszlány	1954	17,442
<b>9.</b>	<b>Ajka</b>	<b>1959</b>	<b>26,720</b>
10.	Tiszaújváros	1966	15,055
<b>11.</b>	<b>Százhalombatta</b>	<b>1970</b>	<b>17,403</b>
<b>12.</b>	<b>Paks</b>	<b>1979</b>	<b>18,019</b>

### 3. Case studies

Four cities out of the group of twelve were selected to compare properties of their urban cores. Methods, premises of selection and unique qualities of each case study are discussed in detail below.

#### 3.1. Methods:

Selected cities were studied in terms of their structure, functional disposition and the level of transport integration. Parameters were grouped in three main clusters:

- A. Urban composition and townscape;
- B. Programme and usage;
- C. Integration of movement.

Each of the parameters was graded on the scale from one to five. Their description is provided in the section regarding the comparative analysis of the case studies and accompanied by a table of values assigned for the respective cities (See Tables 2. and 3.). Evaluation of the properties of the cities was supported by on-site excursion, during which public spaces were visited, documented and assessed. Afterwards, a set of large-scale analyses of the structure and composition of the urban cores of the cities was conducted. One of the crucial patterns that were analysed in the second part of the study included figure-ground plans of the developments in central districts of each settlement (See Figure 6.). The other one was the street network forming the urban grid, which was evaluated in DepthmapX using the apparatus of Space Syntax (See Figure 7.).

### 3.2. Selection criteria of case studies:

Out of the twelve socialist planned cities in Hungary four examples were selected to develop case studies: Várpalota, Ajka, Szazhálombatta and Paks. Intervals between their dates of establishment are roughly equal and average at almost 10 years. Discussed settlements were founded, respectively, in 1951, 1959, 1970 and 1979. The population of each of the cities is also similar, in most cases slightly below 20 000 inhabitants, with Ajka being substantially larger than the rest. Average size of population in the entire group is over 20 000 inhabitants.

Due to varying circumstances surrounding establishment of settlements, each of them represents a different phase of socialist urbanisation of Hungary and displays the presence of characteristic densities, typologies and approaches to the design of public space and distribution of the elements of functional programme.



Figure 2. Photographs of the city centre of Várpalota (Author: Grochal K., 2023)

### 3.3. Case study 1: Várpalota (1951);

Várpalota is one of the poster examples of the socialist-realist phase of urban planning in Hungary while retaining notably complex morphological characteristics. As opposed to planned cities with predominantly modern origin, such as Ózd, Dunaújváros or Kazincbarcika, Várpalota has a longstanding protourban tradition represented by several remnants of the built heritage dispersed all over the central districts of the town. Destruction of the preceding settlement during the Second World War allowed to design a new street network, along which the city was built. It should be said that paradigms of socialist-realist urban planning remain in closer relation to the idea of traditional city and could be applied to seamlessly integrate the existing monuments, such as the Thury Castle and several baroque churches, into the newly implemented urban plan. The central public space of Várpalota is organised around the visual field of the castle and defined by continuous facades of residential and public buildings, most of which date back to the 1950s. Developments around the main squares and streets are formed in semi-closed perimeter blocks to bring back the feeling of a historical urban fabric and even the eastern wall of the castle square from the late socialist period follows that logic. Housing blocks farther away from the centre are grouped in regular, but more open arrangements, and retain the heavy, socialist-realist architectural style of the period.

Várpalota is an important hub of heavy industry, with coal mining, metallurgy, chemical and petrochemical production being one of the main branches of economic activity. Its profile is therefore quite diverse for a monocity.

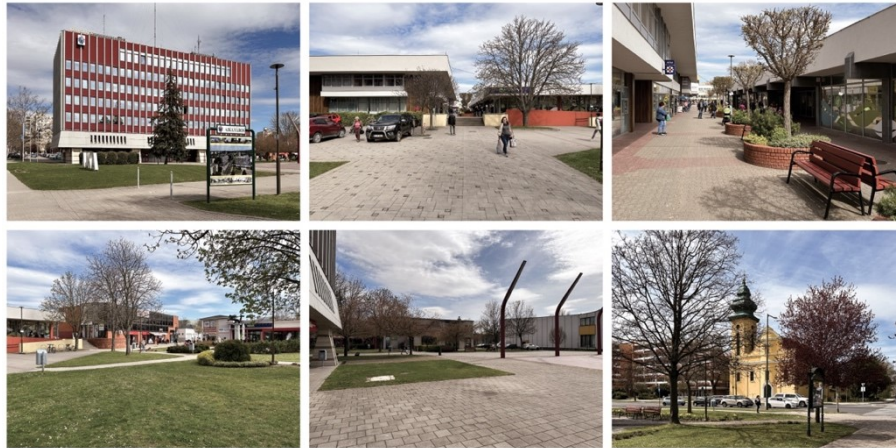


Figure 3. Photographs of the city centre of Ajka (Author: Grochal. K., 2023)

### 3.4. Case study 2: Ajka (1959);

Ajka is an example of the transitional period between the socialist-realist and socialist-modernist approach to planning new cities in Hungary. Metallurgy (aluminium) was the dominant among a couple other branches of industry present in the town.

While the construction of the first housing estates in the western part of the settlement began earlier in the 1950s, Ajka was officially declared a city only in 1959. Majority of public buildings and facilities that constitute the central district of the town were only erected in the following three decades. And so were the remaining housing estates in the eastern part of the settlement. Ajka is a representative instance of disintegrated urban development often seen in industrial monocities, where production facilities and housing estates were built long before essential services for the population could be provided. For years it did not even receive a proper city centre.

Interestingly, the current administrative, cultural and commercial centre of Ajka is located on the south-eastern periphery of its urban core. Layout of the oldest group of housing estates from the 1950's contains spatial and compositional elements indicating the intention to establish a local centre in that area. Green square located in the middle of the neighbourhood is of particular importance in the overall street network of the district but is poorly equipped with facilities that could sustain that function.

The city centre that was eventually built is based on an open, low-density urban composition integrating extensive green spaces. It includes buildings of regional administration, culture centre complex and a street-like, open shopping mall.

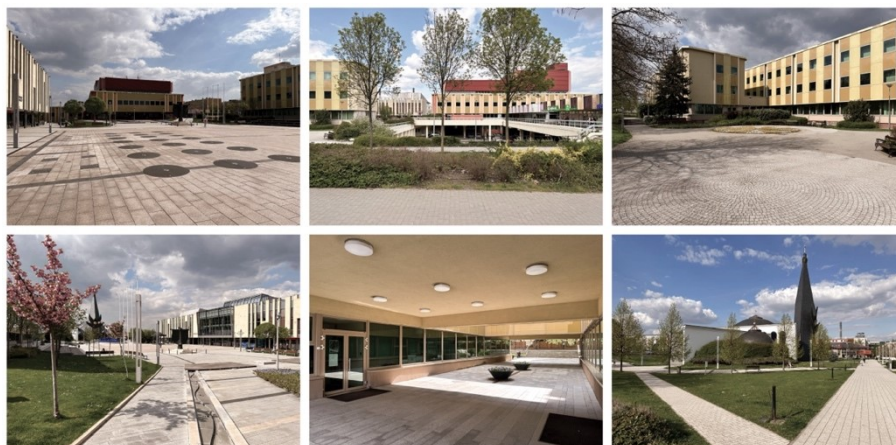


Figure 4. Photographs of the city centre of Százhalombatta (Author: Grochal. K., 2023)

### 3.5. Case study 3: Százhalombatta (1970)

Százhalombatta is an example of the late period of socialist urban design, built over a short period of time with wide use of standardized construction technologies to provide housing for the workers of the nearby oil refinery. While most buildings in the housing estates are uniform prefabricated blocks of flats, the core of the settlement was developed with a clear intention of creating a unique and recognizable district of municipal relevance. The main square of the city is surrounded with public buildings built from the 1970's onwards. The building housing the cultural centre is the oldest element of the complex, which also includes edifices such as the city hall and a church.

As opposed to the two previous examples of planned cities, construction of which took decades, Százhalombatta is highly uniform in terms of architectural typologies and style. Due to the high density and regular spatial arrangement of multifamily dwellings, it also has the most compact urban form out of the four analysed cities. Majority of public buildings, including schools and shopping pavilions are grouped along a functional stripe highlighting the axial structure of the settlement. The adjacent blocks of flats are grouped into units resembling micro-rayons and use homogenous style typical of the mass housing of the period. Despite the monotony of residential buildings defining the border of each block, the design of vast internal courtyards provides a set of relatively individualized and welcoming semi-public urban interiors.



Figure 5. Photographs of the city centre of Paks (Author: Grochal K., 2023)

### 3.6. Case study 4: Paks (1979)

Built simultaneously with the nearby nuclear power plant over the course of the 1980's, Paks represents the very-late period of socialist urban planning in Hungary. Construction of the new settlement took part during the time of the terminal crisis of the state socialism but progressed quickly thanks to the priority status of the investment in the national energy policy. The urban core of Paks is characterized by a spatial separation of different municipal activities, such as commerce, administration and education, which are nevertheless grouped inside and around one urban superblock. The superblock was designed as a strictly pedestrian zone surrounded by low-rise pavilions housing stores and services, which were arranged loosely along the perimeter of the area. Pavillions are connected by a system of canopied passages. The only free-standing, multi-level building within the block is the cultural centre. Additional services are in the direct vicinity. Most of the buildings dedicated to education, including high school, primary schools, nursery and kindergarten, are grouped in the adjacent western superblock, designed in form of a large, fenced park.



Figure 6. Urban cores of the selected cities: Várpalota (top left), Ajka (top right), Százhalombatta (bottom left) and Paks (bottom right); (Source: Author's study);

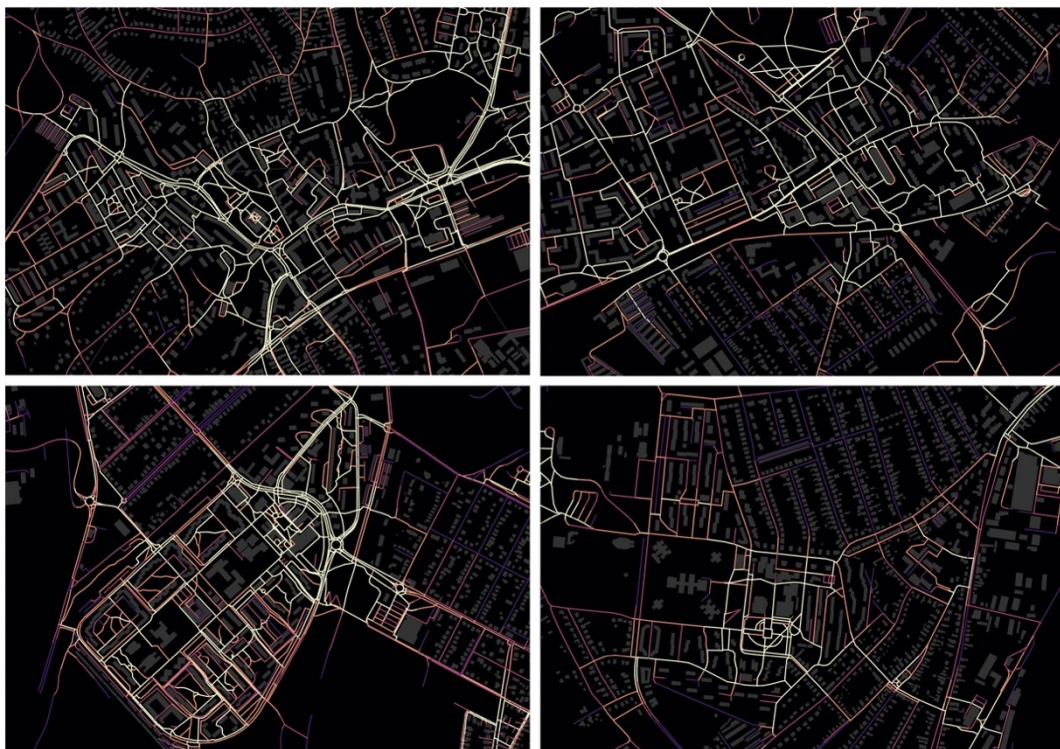


Figure 7. Space Syntax analyses of the urban cores of the selected cities: Várpalota (TL), Ajka (TR), Százhalombatta (BL) and Paks (BR); Parameter: metric choice  $r=500$  m (Source: Author's study);

**Table 2. Parametres of integrity scrutinized in the study (Source: Author's study):**

Cluster		Parameter		Extremities (Graded 1-5)	
A.	Urban composition and townscape	A.01.	Location of the city centre in the urban core	peripheral	central
		A.02.	Intensity of development	low	high
		A.03.	Perimeter of the urban core	illegible	legible
		A.04.	Definition of urban blocks	loose	defined
		A.05.	Definition of main public spaces (such as squares)	open	defined
		A.06.	Architectural dominants	none	strong
		A.07.	Historical landmarks	none	multiple
		A.08.	Modern landmarks	none	multiple
		A.09.	Architectural diversity	low	high
		A.10.	Harmony of architecture	low	high
		A.11.	Art in public space	absent	abundant
		A.12.	Integration of water into the townscape	low	high
		A.13.	Quality of public greenery	low	high
B.	Programme and usage	B.01.	Administrative facilities	low	high
		B.02.	Cultural facilities	low	high
		B.03.	Educational facilities	low	high
		B.04.	Commercial facilities	low	high
		B.05.	Restaurants, cafes, bars	low	high
		B.06.	Sports and leisure facilities	low	high
		B.07.	Religious facilities	low	high
		B.08.	Active building fronts	inactive	active
		B.09.	Quality of urban furniture	low	high
C.	Integration of movement	C.01	Traffic barriers	strong	permeable
		C.02.	Primary mode of movement	traffic	pedestrian
		C.03.	Proximity to the main railway station	far	near
		C.04.	Proximity to the main bus terminal	far	near
		C.05.	Access to municipal public transport	poor	high
		C.06.	Cycling infrastructure	poor	developed

**4.6. Comparative analysis of case studies:**

In order to approach the complex problem of urban integrity in a structured and qualitative manner, the author selected a list of parameters which influence the perception and patterns of usage of public space in each of the case studies (See Table 2.). Related properties were groped in three main clusters: A) Urban composition and townscape, B) Programme and usage and C) Integration of movement. Qualities of four cities were graded using a 5-point scoring system and assembled in a table corresponding to the original evaluation sheet (See Table 3.). As evident from the obtained results, central districts of the selected cities show varying levels of integrity.



**Table 3. Evaluation sheet of integrity parametres (Source: Author's study):**

Parameters		Cities																
Cluster	Parameter	Várpalota				Ajka				Százhalombatta				Paks				
A.	A.01.			4			2					4				3		
	A.02.			4			3					5				3		
	A.03.			3			2					4				3		
	A.04.			4			3					4			2			
	A.05.			3			2					4				3		
	A.06.				5			4				3			2			
	A.07.				5			4	1					1				
	A.08.			3			3					4				3		
	A.09.				4			3			2				2			
	A.10.				5			3					4					4
	A.11.			3			3					3				3		
	A.12.				5			3			2				2			
	A.13.				5			3				3				3		
B.	B.01.		2					4					5	2				
	B.02.			4				4					5			4		
	B.03.			3				3					5			4		
	B.04.			4			3					3						5
	B.05.			3			2				2					4		
	B.06.				5		2					4			3			
	B.07.				4				4				4	1				
	B.08.				4			2					3				4	
	B.09.				5				4				4			3		
C.	C.01.			3			3						5					5
	C.02.				4			3					5					5
	C.03.			3				3				3			2			
	C.04.			3						5			3		2			
	C.05.				4				4				4					4
	C.06.		2					2				2			2			

### Cluster A. Urban composition and townscape.

Parameters included in the first area of comparative analysis are primarily related to the structural characteristics of the urban form. Location of the centres within the cities as well as spatial arrangement of the urban blocks were scrutinized here. Questions of the perception of urban form, highlighted by landmarks and architectural dominants, was also of great importance. The urban cores of Várpalota and Százhalombatta are located centrally in relation to the city plans, as opposed to the off-centre placement of the main district of Ajka and the almost-peripheral situation of the new centre of Paks. On top of that both Várpalota and Százhalombatta scored high in terms of the intensity of development as well as definition of urban blocks and the main public spaces. The main square of Százhalombatta is the most compact and well-proportioned urban space out of all the analysed cities. Older generations of new cities were generally more successful in establishing architectural dominants. However,

Várpalota and Ajka had the advantage of the presence of some recognizable historical landmarks, such as old churches. While all the evaluated city centres contain extensive green areas, Várpalota has the best developed and well-maintained system of public greenery, supported by interesting landscape design introduced in a recent renovation.

### **Cluster B: Programme and usage.**

The following section of the analysis dealt with the functional programme and complexity of the inner areas of the selected cities. Generally speaking, all city centres contain some mixture of variously purposed public buildings and commercial facilities, such as department stores, shopping malls or canopied markets. Particular functional combinations differ and so does the performance of these areas as main districts. Due to the diversity of public buildings and their arrangement around a compact square, Százhalombatta was the most successful at establishing a civic centre.

### **Cluster C. Integration of movement.**


The last area of the evaluation included pedestrian and cyclist movement and integration of the city centres with public transport. The case studies from the older generations of planned cities tend to struggle more with the presence of traffic in main public spaces. Centres of Várpalota and Ajka are both divided by busy streets, which are obstacles to free and safe pedestrian movement. Main squares of Százhalombatta and Paks, which represent the newer generations, were designed as pedestrian-only zones from the very beginning. Ajka is the best well integrated with the public transport because of the proximity of the bus terminal to the city centre. The distance to the railway station is higher, but below one kilometre, just like in Várpalota and Százhalombatta. The centre of Paks scored the worst in that aspect. Both the railway and the bus stations are located more than one kilometre from the main square and far apart from each other. None of the cities has a highly developed cycling network.

### **Figure-ground plans and Space Syntax analyses.**

On top of the qualitative comparisons based on the evaluation sheet template described above, a set of supporting analyses of the urban form and street network were developed. The figure-ground plans of the central districts of four cities are paired with Space Syntax simulations of the hierarchy of pathways. Their juxtaposition highlights the interdependence between the physical structure of urban blocks, determined by the arrangement of buildings, and the patterns of pedestrian movement allowed by the available connections. In all four cases the location of the city centre is moderately aligned with the presence of most optimal routes for short-distance walks.

## **5. Conclusion**

Despite their common origin as industrial monocities, the urban form and integrity vary significantly between the selected examples of settlements. The same applies to the duration of the building process of their centres. One of the important tendencies observed in Hungarian new cities is the delay between the construction of the industrial developments and housing stock and the municipal facilities (See: Kissfazekas, K, 2016). It resulted in a spatial and architectural disconnection between housing stock and services, often separated by several decades. However, the intensity of that delay differed in different examples and tended to reflect the economic situation of the respective periods of construction.



It should be noted that the disconnection in question is more vividly present in the earlier generations of new cities, established in the times of post-war scarcity and rapid modernisation focused on the most essential elements of the settlements: housing and production infrastructure. The central district of Várpalota received its final form only in the late socialist period, when the eastern perimeter of the castle square with the department store and apartment blocks with ground floor services was developed. Ajka did not have a proper city centre at all long after the establishment of the city.

Conversely, construction of Százhalombatta started around the high point of the state socialism prosperity, at the verge of 1960s and 1970s and, supplemented with developments from the following decades, resulted in a consistent and well-executed arrangement of public spaces. Paks was founded right before the late structural crisis of state socialism in Central Europe of the 1980s. Because of its privileged position as the only nuclear power production centre in Hungary, the building of its central district continued despite economic obstacles. Lower integrity of the city centre as opposed to Százhalombatta is mostly the consequence of low-density design principles applied during its planning.

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## Title: Facing Yugoslav Memorial Parks in Three Case Studies in the Republic of Serbia

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### ABSTRACT

*After the Second World War, memorial parks were built on Yugoslavia's territory to honour the war victims. These complexes represent authentic structures and are considered extremely high achievements in Yugoslav modern sculpture, but also high architectural and urban achievements. During the socialist regime, they were regularly visited. Historical, urban and cultural analysis will be conducted on three case studies of memorial parks on the territory of the Republic of Serbia. The case studies that are the subject of this work are Bubanj Memorial Park in Niš, Šumarica Memorial Park in Kragujevac and Kadinjača Memorial Park near Užice. All the mentioned parks are under protection, preserved and in good condition. With their existence, they still preserve the memories of the victims of war and remind them of a past time. This research will look at how visitors perceive these memorial parks today. The goal is to evaluate the urban heritage of this type and to point out the importance of promoting a conscious stay in these complexes.*

### KEYWORDS

*memorial parks, Yugoslavia, culture of memory, post-socialism*



Figure 1. Monuments in memorial parks a) Bubanj, b) Šumarice c) Kadinjača (Source: <https://sr.wikipedia.org/>)

## 1. Introduction

During the Second World War, a large number of victims were recorded on the territory of Yugoslavia, including the civilian population. After the end of the war, with the establishment of the socialist regime and the creation of the Socialist Federal Republic of Yugoslavia, one of the ways to pay tribute to the victims of the war was to erect monumental monuments and memorial parks. This paper is concerned with looking at how today's society perceives memorial parks dedicated to this period now that the socio-political system is different and a certain period has passed since the creation of those memorial parks. In the first part of the paper, a summary of the concept of memorial parks is given. Then, using the case study method, three examples of memorial parks on the territory of the Republic of Serbia were included: Bubanj Memorial Park in Niš, Šumarica Memorial Park in Kragujevac and Kadinjača Memorial Park near Užice. The history of the place where the memorial parks were built, their organization and ways of experiencing modern visitors will be analyzed. The main goal of the research is an attempt to deal with the reinterpreted memory of the war and the period after the war, to deal with the monumental heritage that, with its abstract form, creates a different way of honouring. The methods that will be applied in this work are analysis, synthesis, survey, and analytical methods.

## 2. Conceptuality of memorial parks

The character of each epoch of social development is also reflected in the material culture of that period (Tepina, 1961). After the end of the war, to honour the victims, numerous orders for public memorial sculptures were made. Their number was supposed to emphasize the character of the socialist-communist movement. The choice of location for placing the monument was mainly places of suffering and battles during the Second World War (Makuljević, 2022). The issue of memorial parks, i.e. the arrangement of historically significant places, is very complex. This type of marking the place of suffering is a procedure that includes aspects of urban planning, architecture,

sculpture, art, historical-cultural and political activities. From an urban aspect, memorial parks occupy an important place in space and must have a harmonious relationship with the context that surrounds them. From an architectural and sculptural aspect, the structures that make up the memorial park form a qualitative element of the space that tends to become the urban benchmark of that area. The artistry and the historical-cultural aspect indicate the psychological effect that these structures will have on the visitors. According to their function and content, they should have "lasting value" and stimulate the emotions of visitors. Memorial parks are perhaps the greatest expression of tribute, preceded by sculpture in a public park (Stojanović, 1961). It should be emphasized that a large number of artists who were hired to create monuments in honour of war victims were war participants, prisoners or exiles. This experience of the war affects what the memorial park should convey (Zdunić, 1977).

In Yugoslavia, memorial parks were important places of remembrance, but also spaces that supported the then-current ideology, which is why they were also used as ceremonial spaces for holding important state events. Nevertheless, the Yugoslav environment, which contained elements of conservatism, had an ambivalent attitude towards these memorials. Citizens actively participated in organized events that were held in memorial parks, but they also had a certain distance towards memorial structures. They did not interpret them as an answer to the question: "What is the magnitude of suffering during World War II?", but as decorative elements in historically important places (Pintar, 2014). With the disintegration of Yugoslavia and the rise of nationalism, a different attitude was established towards the characteristics that are related to socialist ideology (Makuljević, 2022).

### 3. Case studies

In the case study method, three selected examples of memorial parks on the territory of Serbia built during Yugoslavia in honour of war victims are analyzed. These are Bujanj Memorial Park in Niš, Šumarica Memorial Park in Kragujevac, and Kadinjača Memorial Park near Užice. (See *Figure 2.*) The primary criteria based on which these three memorial parks were selected are:




- Differences in their conception and organization,
- Difference in surface,
- Memorial parks are located in different districts.

Basic data on memorial parks are given in the table. (See *Table 1.*) For each example, a brief history of the place where the memorial park was established and the spatial composition of the memorial park is given. For the research, an anonymous survey was conducted that examines how people today perceive the symbolism of memorial parks. The results of the survey will be tabulated and then further discussed in the Discussions chapter.



Figure 2. Fragment of the memorial park a) Bubanj, b) Šumarice c) Kadinjača (Source: <https://cultofghoul.blogspot.com/>, <https://www.prvatehnicka.edu.rs/>, <https://www.spomenikdatabase.org/> )

Table 1. Data on memorial parks that are the subject of analysis (Source: author)

	Bubanj Memorial Park	Šumarice Memorial Park	Kadinjača Memorial Park
<b>Planner</b>	Ivan Sabolić (in collaboration with Josip Frankol, Ante Lozica, Anđelo Rotkvić)	Mihajlo Mitrović, Radivoj Tomić Smiljan Klaić, Miodrag Živković and other authors (I. Antić, I. Raspopović...)	Miodrag Živković, Aleksandar Đokić (in collaboration with Ladislav Feketa, and Puteš Ajdin)
<b>Construction year</b>	1962–1963.	1963–1981. (successive construction)	1977–1979.
<b>Location</b>	Niš, South Serbia	Kragujevac, Central Serbia	Kadinjača, 14 km from Užice, Western Serbia
<b>The position of the memorial park in the city</b>			
<b>Surface area</b>	9 ha	352 ha	15 ha
<b>Number of monuments within the memorial park</b>	1 monument (+1 monument added later), 1 bas-relief	10 monuments (+2 monuments added later), several smaller landmarks	1 monument, 3 formative large units
<b>Objects within the memorial park</b>	/	Museum "21. October"	Memorial home "Kadinjača"
<b>Materials</b>	Reinforced concrete, marble	Poured concrete, reinforced concrete, marble, metal, bronze	Poured concrete, reinforced concrete, marble, granite
<b>Protection status</b>	Cultural heritage of exceptional importance	Cultural heritage of exceptional importance	Cultural heritage of exceptional importance
<b>Preservation</b>	Well preserved	Well preserved	Well preserved

### 3.1. Bubanj Memorial Park

*History of the location:* During the Second World War, Niš was the centre of the national liberation struggle in the south of Serbia. Bubanj Hill is part of the Gorica Mountain located in the southwestern part of Niš. Several hundreds of people were shot there daily (Stojanović, 1961). In the period 1942–1944, a total of 10,000 people lost their lives in this way. For the first time, this place was commemorated monumentally in 1948, with the installation of a monument in the form of a pyramid of hewn stone, 2.25 m high. The ceremonial opening of the current memorial park Bubanj was in 1963 (Simonović, 1995).

*The concept of the memorial park:* The Bubanj Memorial Park covers an area of 9 hectares. The current decision was preceded by two competitions. From the foot of the hill through the forest area, a 470 m long memorial path leads to the top where there is a central memorial composition that dominates the natural environment. The composition consists of a stone plateau, a horizontal marble frieze depicting war events in five fragments measuring 32x2.5 m, and a memorial structure made of three geometrized clenched fists 16 m, 14 m and 13 m high. An amphitheatre with a stage is located on the southeast side. (See Figure 3.) Secondary footpaths are not particularly developed, as the focus is on visitors walking along the main path which provides them with an ambient experience (Jokić, 1986; Popović, 1981). Car access to the memorial park is from the south side, and there is a parking lot at the foot of the hill. The urban solution of the park contains aesthetic value due to authentic sculptural components whose concept is based on the symbolic representation of the people's suffering and their defiance. The park contains the necessary urban furniture. In 2004, the contemporary sculpture "Glass Chapel" was added (Pintar, 2014).



Figure 3. The central part of Memorial Park Bubanj (Source: <https://www.youtube.com/watch?v=Y19XKmgSkec>)

### 3.2. Šumarice Memorial Park

*History of the location:* Kragujevac is the largest city in the Šumadija region. In Šumarice, a peripheral part of Kragujevac, on October 21, 1941, more than 7,000 male residents of this city and its surroundings were shot. This act was carried out as a way of retribution for the dead and wounded German soldiers. Among those shot were 300 high school students, 18 professors and 15 children under the age of 12 who were



taken out of school. On the anniversary of the shooting in 1945, a memorial plaque was placed in front of the barracks from which the hostages were taken to be shot. By raising a large memorial park, an attempt was made to adequately honour the victims and indicate the extent of the suffering (Jokić, 1986; Pintar, 2014).

*The concept of the memorial park:* Memorial Park Šumarice is located in an area of 352 ha. The proposal for the conceptual solution of the memorial park was adopted in 1955, but its construction lasted several decades. There are 30 authentic burial mounds inside the park, and 3 mounds are outside its borders. The memorial composition consists of the Museum "21. October", 12 monumental monuments and a large number of smaller monuments. The authors of the monument are prominent Yugoslav sculptors of various artistic styles. Two monuments are artworks of foreign authors. The diversity of memorial styles affects the complexity of the spatial experience. Concrete, metal, and bronze were used as materialization. At the entrance of the park, a museum has been designed that is entirely dedicated to this tragic event. Its volume is the result of a complex metaphor. The memorials and the large green area can be visited on 7 km long organic paths that symbolize the 7,000 victims. Pedestrian routes are designed to connect all monuments and mounds that are very far from each other and represent independent smaller ambient units within the main one. There is also an old military cemetery in the memorial area (Jokić, 1986; Pintar, 2014). The terrain of the park is uneven and the park has a memorial and recreational function (Stojanović, 1961). (See Figure 4.)



Figure 4. a) Path segment around the "Interrupted Flight" monument b) "Interrupted Flight" monument (Source: <https://www.youtube.com/watch?v=VkJT6Z5E9cOY>)

### 3.3. Kadinjača Memorial Park

*History of the location:* Kadinjača is located 14 km west of the city of Užice, to which the Republic of Užice is connected - a free territory that was active for 67 days during the war. A battle took place there on November 29, 1941, to prevent the siege of the city. All participants in the battle died, and their exact number has not been established with certainty. In 1952, an ossuary with the remains of fallen soldiers was built on the highest point of Kadinjača, and a four-sided marble memorial pyramid with a height of 11 m was erected. In 1962, an initiative was launched to arrange the memorial park, the ceremonial opening of which was in 1979 (Jokić, 1986).

*The concept of the memorial park:* Kadinjača Memorial Park covers an area of 15 ha. It consists of three parts: the Amphitheater of the Republic of Užice, the Alley of the Workers' Battalion and the Plateau of Freedom. (See Figure 5.) Before the main memorial unit is the "Kadinjača" memorial home, which is incorporated into the environment. There is a permanent museum exhibition dedicated to the battle at this place. The path leads to the first part of the memorial park - the amphitheatre intended

for a cultural program. The path divides into two organic-type directions and leads to the Alley, which includes the previously built memorial pyramid. In this part, 21 monolithic concrete sculptures with the outlines of the faces of the victims were placed in the height range of 2-5 m. The third part of the complex contains the main motif, a sculpture with a central opening reminiscent of a bullet burst. From an urban aspect, it creates excellent visures. Its height (14 m) symbolizes the distance from the city. The central volume is surrounded and elevated by geometric sculptures. The sculptures contain a specific artistic and aesthetic value that is in harmony with the environment and the narrative. The path is granite with edges of white stone, except for one part of red stone. The landscaping is very thoughtful and the plants have their symbolism through color and shape. The park has no additional urban furniture (Niebyl, 2018; Jokić, 1986).

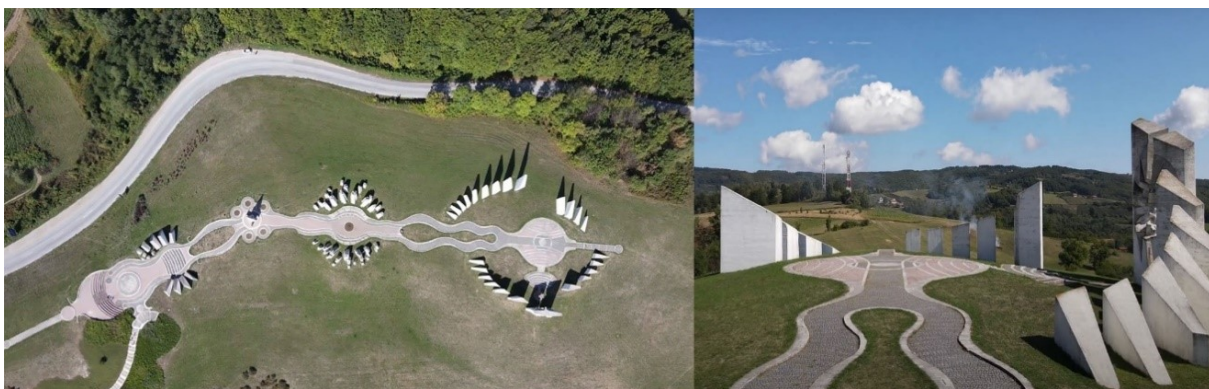


Figure 5. a) The organic structure of the memorial park b) The rhythmicity of the composition  
(Source: [https://www.youtube.com/watch?v=7FmsX3J\\_nnc](https://www.youtube.com/watch?v=7FmsX3J_nnc))

#### 4. Survey results

The survey was conducted on 50 respondents from different parts of Serbia using a questionnaire. Part of the survey was done in the places of the memorial park, and part of the survey was online. Most of the questions are open-ended so that respondents have free space to express their attitude towards memorial parks. Although the questions had open answers, a certain repetition of emotions and descriptions of the monument can be observed. Table 2 provides an analysis of the arranged data. (See Table 2.) Answers to questions concerning a more detailed perception of memorial parks are given descriptively in the Discussions chapter.

**Table 2. Survey results (Source: author)**

	Bubanj Memorial Park	Šumarice Memorial Park	Kadinjača Memorial park
<b>Age group:</b>	19-25	19-25	19-25
	26-35	26-35	26-35
	36-65	36-65	36-65
	66-more	66-more	66-more
<b>From the city where the memorial park is located:</b>	Yes	Yes	Yes
	No	No	No
<b>Revisiting the park:</b>	Yes	Yes	Yes
	No	No	No
<b>Knowledge of the history of the place:</b>	Excellent	Excellent	Excellent
	Basic	Basic	Basic
	Low	Low	Low
<b>Knowledge whom the memorial park is dedicated to:</b>	Excellent	Excellent	Excellent
	Basic	Basic	Basic
	Low	Low	Low
<b>Impression and emotions:</b>	Monumentality	Monumentality	Monumentality
	Sadness	Sadness	Sadness
	Admiration	Hope	Admiration
	Pride	Pride	Nostalgia
	Revolt	Revolt	Rage
	Peace	Peace	Elation
	No emotion	No emotion	No emotion
<b>The Memorial Park is a pleasant place to spend free time:</b>	Yes	Yes	Yes
	No	No	No
<b>Organizing cultural manifestation in the Memorial Park:</b>	Yes	Yes	Yes
	Necessary	Necessary	Necessary
	No	No	No
<b>Development of commercial content in the Memorial Park:</b>	Yes	Yes	Yes
	Necessary	Necessary	Necessary
	No	No	No
<b>Satisfied with the current state of the park:</b>	Yes	Yes	Yes
	Partially	Partially	Partially
	No	No	No

## 5. Discussion


By designing memorial parks, the areas of suffering are marked as historically and culturally important. However, their connection with the socialist movement is inevitable. In the sources from that time, it was recorded that memorial parks are visited mostly by former participants in the war, and in this way, they express respect for the victims, as well as devotion to the ideals of the revolution. The problem of the relationship between today's society and memorial parks in Yugoslavia is multi-layered. Based on the survey, the contemporary perception of memorial parks can be considered through several factions.

*Identity and tradition:* In today's social structure, the weakening of the individual's identification with the symbolism of memorial parks can be observed. In the conducted survey, this is noticeable in the youngest group of respondents who see memorial parks mainly as recreational spaces and environments for free time and socializing. They recognize certain symbolism only if they know the history of the place. The younger respondents who live in the place where the memorial park is located emphasize that they try to suppress the tragic events in that area. The majority of respondents declared that they would come to the memorial park again. Visits are mostly independently organized, but visits through excursions or tourist routes are also mentioned.

*Thematic preoccupation:* A large number of respondents state that they know the history of the place and to whom the memorial parks are dedicated, and this significantly contributes to a better understanding of the concept of memorial parks. In the example of the Šumarica memorial park, this is particularly pronounced, because the experience of pain is primarily caused by the knowledge of a tragic event. The fact that the children suffered causes a feeling of sadness in the visitors and they clearly interpret the memorial forms as a tribute. According to the results of the survey, the Bubanj and Šumarice memorial parks leave an impression of peace and tranquillity, while the Kadinjača memorial park evokes delight and admiration. The different feelings in different memorial parks are the result of a complex combination of the environment, the historical theme and the way of its translation into sculpture: Bubanj and Šumarice are places of suffering, and Kadinjača is a place of struggle.

*Area and ambience:* Memorial parks are defined as complex urban, architectural and artistic projects. Respondents perceive each of the analyzed memorial parks as monumental. Therefore, the influence of the surface of the memorial park is not significant for achieving its imposingness. The expressiveness of the verticality of the memorial is much more influential. Visitors associate this vertical dimension with the great sacrifice these people made in the war for the sake of freedom. The high-quality development of the urban and architectural arrangement in all memorial parks made it possible to create the most adequate route that guides the visitor with the clear goal of having a preconceived experience. In all memorial parks, the natural environment stands out.

*Form and symbols:* The tendency to stylize the form, vertically oriented volumes, the choice of materials and the metaphorical reliving of tragic events through the shape of the memorial are common to the analyzed memorial parks. Due to their abstract expression, memorials used to cause confusion among visitors, and through talking to interviewees, it can be concluded that today they are interpreted as monumental forms that symbolize pain and revolt. The symbol of the revolt is expressed in the Bubanj and Kadinjača memorial parks, while Šumarice tends more towards symbols of sadness, and the symbol of monumentality is recognized in all memorial parks. This symbol can also be connected with the symbol of eternity. Through the survey, it can be seen that



the respondents associate the memorial park mainly with one monument that left the strongest impression on them, even though the memorial park should form a whole. The reason for that is the motive preoccupation and the feeling of overstrained emotional tension that develops during a tour of the park, after which the form that caused the most substantial set of emotions is singled out and is remembered as such.

*Individual sublimated view:* The contemporary view of the analyzed memorial parks, based on the survey, will be given separately for each memorial park in the following part:

Bubanj – Through its position, monumentality, form and material, the memorial park gives the impression of strength, dignity and timelessness. It evokes a feeling of admiration, peace and tranquillity, but also anger and defiance. Some perceive it as a pleasant place to rest or spend time with family and friends, while others see it as a sign of collective trauma because it is a place of suffering. Some visitors perceive this memorial park as a construct of the former socio-political arrangement, so they view it negatively.

Šumarice – As a significant historical site, it evokes a sense of injustice and loss caused by the brutality of the retaliatory process. The whole complex is imbued with strong pain and sadness, and it is mostly associated with the symbol of lost youth. Visitors interpret it as a representation of the individual's powerlessness over violence during the war. They define it as an important historical memory that is immortalized in sculptures at the place of suffering. There are no negative impressions.

Kadinjača – The monumental building with its volume indicates that it is of great importance and exceptional value. The majority of respondents emphasize the adequacy of the composition of the memorial park for showing respect for the fallen and interpret it as a suitable permanent memory of the fighters who died for freedom. There is an expression of nostalgia for past times, but also resentment. Such emotions can be attributed to the fact that only one of the analyzed memorial parks contains a dramatic feature in its concept.

Freedom and recreation - The majority of respondents for all three case studies answered that they would spend their free time there. The reason for this is primarily the natural environment, which is far from the city centre. Also, different motives for spending time in the park are mentioned, namely that by staying longer, visitors show respect for the people who suffered and do not run away from the place of suffering. A smaller part of the respondents did not support the idea of spending free time in the memorial park and cited exactly the opposite reasons, namely that it would disrupt the concept of the place and violate respect for the victims.

*The current state of the park:* According to the results of the survey, there is an opinion that the memorial parks are in adequate condition, but that it is always possible to improve them, especially in terms of urban furniture. Even the respondents who stand by the fact that they have no expressed sympathy for the memorial park say that they should not be allowed to be vandalized, but that they should be maintained.

*Cultural and artistic programs and tourism:* During the existence of the socialist regime, cultural and artistic events were organized to honour the victims every year at the very place of their suffering. In the memorial park in Kragujevac, this continuity was maintained in the development of the cultural and artistic program, while in the other two memorial parks, the commemoration of the anniversary is not at a sufficiently high-quality level. Respondents support the holding of cultural manifestations in honour of war victims but also advocate the idea of organizing artistic programs that are not directly related to the theme of the park, such as symphony orchestra concerts. The majority of respondents expressed a negative attitude towards the setting of

commercial content, stressing that they do not want a classic touristic attitude towards these historically important places and are against the creation of a cult for the sake of economic prosperity.

*Maintaining respect:* Most respondents agree that the analyzed memorial parks honour the victims with respect, but that our attitude towards them is not adequate. The new collective identity after the breakup of Yugoslavia had no particular contact with the previous socialist regime, so today memorial parks are interpreted as the material remains of the past that are significant to accentuate the space of suffering. Visitors still look at memorial parks with respect, but their interpretation depends on current cultural patterns, socio-political framework, and knowledge of the historical period to which they are dedicated.

## 6. Conclusion

Memorial parks represent an authentic form of honouring the victims and marking places of remembrance. The volume, monumentality and materialization of the memorial highlight the greatness of the sacrifice these people made. The clarity of the sculptural process that pervades all analyzed memorial parks gives the impression of a serious and respectful attitude of the artist towards the subject.

By surveying a certain number of people, it is possible to get a certain sample of today's connection of people with memorial parks. Contemporary visitors see memorial parks as correct sculptural and urban planning for evoking a moment of great sadness and memory, viewing them as monumental structures. Facing memorial parks, understanding the symbols of their form and connecting them with the location can be considered a cathartic process for which, according to the survey, some people are not ready, while some are very eager to expand their knowledge about memorial parks. Therefore, memorial parks still correspond with visitors by encouraging social empathy and peace, but the visitor's distance from the socialist regime and ideals can be stated. Given that today's society's values are oriented towards the future with an occasional reference to the past, the assumption of visitors' insecurities about the value of monuments is not entirely correct. The arrangement of these parks is important because they attract people to spend time there. However, the psychological moment and atmosphere that memorial parks possess have the greatest influence on the fact that they are still very visited. Authentic concepts with imbued symbolism and high-quality urban-architectural solutions of memorial parks, visitors were provided with adequate environments for searching and choosing the way to face the past of these locations.



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# Valorising Architecture by Developing Place Attachment in the Case of 20<sup>th</sup> Century Heritage

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## ABSTRACT

*The built heritage that surrounds us has a profound effect on our identity as we can connect to certain elements of architecture on an emotional level. The strongest such interaction can occur in the case of apartment buildings where we live. This study examines three iconic residential buildings in Budapest from three different architectural eras of the 20<sup>th</sup> century. Each chosen landmark has touristic value, and in recent years have participated in cultural activities and urban festivals. In a post-socialist city like Budapest with a heterogenous urban tissue it is important to locate architectural heritage and to draw the attention of locals to the value and potential of their neighbourhood. Through in-depth interviews and social media analysis this study examines if Late-Modern architecture can be valorised with the same tools as Art Nouveau or Interwar Modernism.*

## KEYWORDS

*place identity, Budapest, architectural styles, heritage valorisation, proximity tourism*





Figure 1. Building visit at the Watertower-house (Source: B Mohai, Hype&Hyper, 2020)

## 1. Introduction

The architectural styles of an urban district greatly influence its character. A sense of place can be developed among residents connected to certain iconic buildings. They can act as landmark objects that help in orientation, self-identification, and place branding. This study aims to inspect the identity forming potential of three distinct architectural styles of the 20<sup>th</sup> century (Art Nouveau, Interwar Modernism and Socialist Modernism) by analysing the role of iconic residential buildings in forming the character of their neighbourhood.

Recently, research on urban development started to take into consideration the symbolic meaning the built cultural heritage can provide for locals (Tweed and Sutherland, 2007). The involvement of communities in heritage protection is important for a sustainable social and economic outcome. Through place branding strategies the community can also be reached, which can lead to collaborative projects for cultural heritage enhancement. On the other hand the recent bottom up approaches in heritage conservation have controversies (Yung and Chan, 2011). The question of what is worthy for protection cannot always be decided objectively by locals as they might not have sufficiently profound knowledge necessary for making such decisions. This is especially true for contested heritage (Liu, Dupre and Jin, 2021), where a personal bias based on historical context influences the public opinion, as it happens with socialist heritage. Furthermore, the question of community participation also depends on the community's awareness and knowledge as pointed out by Rasoolimanesh *et al.* (2017), concluding that a high level of participation can be expected from locals with deeper knowledge about the architectural values of heritage sites.

This study is based on the hypothesis that with cultural place branding tactics the built heritage of the 20<sup>th</sup> century can be valorised in a way that the local community will regard it as worthy of protection. Even though the three iconic buildings in question (Figure 2) were built in very different architectural styles, they have all participated in local cultural events, and their community has close ties to the building.

### 1.1. Developing a sense of place

Place identity is the focus of many academic fields. In environmental psychology the personal attachment of locals to their built environment is examined with different methods. It is to understand the emotional relation (place attachment, place identity, place memory, etc.) of individuals and communities to their environment (Lewicka, 2008). Developing a sense of place is also important in the case of environmental education (Kudryavtsev, Stedman and Krasny, 2012), as closer ties can be made based on emotional factors and experience based programs. In urban tourism research a recent study found that the perceived authenticity of a place is an antecedent to place attachment (Yi *et al.*, 2023), and this correlates with the assumption that visitors prefer places that are already popular among locals. The effects of neighbourhood attachment are also researched in walking studies, showing that a stronger sense of place can influence locals' life satisfaction and well-being (Chan and Li, 2022).

### 1.2. The benefits of architectural heritage valorisation through urban festivals

As we can see there is a profound connection between the urban fabric and the place identity of locals. If revalorisation processes are well managed the authenticity of the building can be kept, or even further developed, and by involving the local community the value co-creation of the place will ensure a long and sustainable use for the site (Deacon and Smeets, 2013). Naturally, in the case of residential buildings a functional change is less adaptable, but the approaches for heritage valorisation should be applied in these cases as well. A strategy which is commonly used is place branding for which a perfect framework are urban festivals (Kádár and Klaniczay, 2022) that can involve local communities. The programs of urban festivals attract locals, who behave like tourists, participating in experiences originally designed to show visitors the attractions of the city (Diaz-Soria, 2017). This kind of proximity tourism also has the potential to motivate residents to explore their own neighbourhood from a new perspective (Hoogendoorn and Hammett, 2020), and show locals new ways of appreciating buildings.

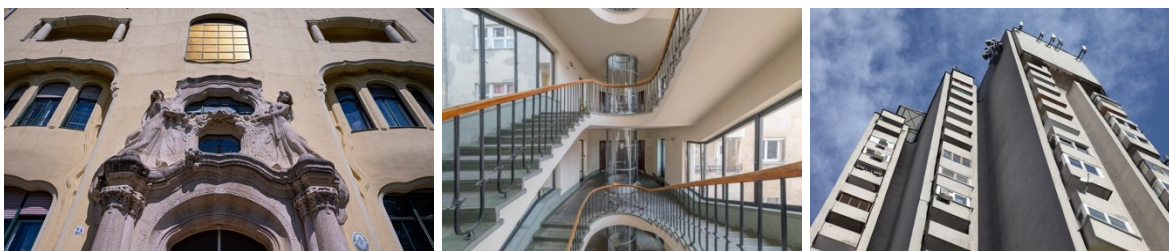


Figure 2. Iconic elements (from left to right) Sonnenberg-house (N. Farkas, 24.hu, 2021), Piston-house (Á. Polgár, BP100, 2019), Watertower-house (Virtuális Leletmentés, 2021).

In the past decade several innovative initiatives surfaced in tourist-historic cities that focus on the place branding and place identity development of locals through architectural urban experiences. In the case of post-socialist cities, the built heritage of the 20<sup>th</sup> century is quite heterogenous, providing a suitable base for such thematic events. Whereas the built heritage of the late-modern era is in danger of being destroyed for the lack of public interest. The aim of this study is to analyse and compare three distinct examples from Budapest. Residents of these iconic apartment buildings built in different periods have a strong place attachment and have participated in local cultural events recently. The study will analyse the experiences of these successful

residential communities. By comparing the good practices of the three buildings the study aims to discover patterns that can be implemented to valorise Socialist-Modernist.

## 2. Urban and architectural heritage of the 20<sup>th</sup> century in Budapest

Budapest is a typical tourist-historic city with a wide variety of cultural programs for visitors and locals. The architecture of the city is a heterogenous mixture of 19<sup>th</sup> and 20<sup>th</sup> century styles. In the early 1900s many architects started to design in the Hungarian Art Nouveau style, called “Szecesszió”, which became a national identity forming movement, looking for motives in the vernacular architecture. During the interwar period the International style appeared in Budapest as well, with many Modernist villas and apartment buildings, quite often with more decorative, Art-Deco style design elements. The second half of the century brought the Late-Modern, or so called “Socialist Modern” style. The architecture and urban planning of this era is the focus of several academic studies, examining the narratives of the transition of post-socialist cities (Diener and Hagen, 2013), and how this rather mundane architectural heritage can be turned into potential cultural capital (Smith and Puczkó, 2012). A growing number of exhibitions and cultural projects also focus on this Late-Modernist heritage, and placemaking initiatives also started to appear in prefabricated large housing estates (Benkő, Balla and Hory, 2018), where currently more than 30% of the population of Budapest lives.

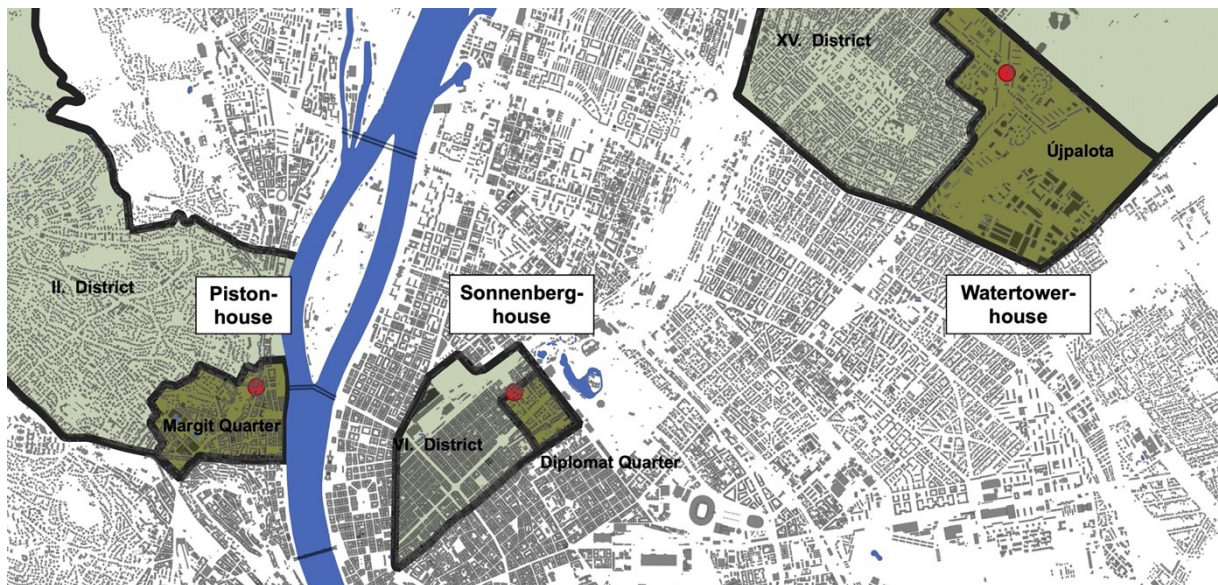


Figure 3. Map of Budapest with the three examined iconic landmarks, their neighbourhood areas and districts. (Source: author)

The Art Nouveau-style Sonnenberg-house is found in the 6<sup>th</sup> district, called Terézváros (Figure 3.). The better part of the area was built in the second part of the 19<sup>th</sup> century and has the UNESCO World Heritage Site of Andrásy Avenue crossing its entire area. In the Diplomat Quarter many Art Nouveau villas can be found. An outstanding example of a bottom-up restoration process is the case of the Sonnenberg-house. The two-storey building was constructed in 1903-1904 by the period's renowned architect Albert Kálmán Kőrössi (1896-1955), with ornate decorations of the façade (Figure 4a) and coloured windows by Miksa Róth (Vincze, 2021). A newcomer retired couple who moved to one of the apartments in 2016 took

matters into their own hands, with the aim to restore the original architectural values (Figure 4d) of the building lost during a reconstruction in 1957. Motivating and organising the community of in the house through cultural events and lectures about the architectural values was only the first step in their initiative. They also approached the municipality to acquire funding for reconstruction, successfully getting the third of the total costs. They prove the power of communities in heritage management.

The Modernist Piston-house is in the Margit-Quarter of the 2<sup>nd</sup> District (Figure 3.). The luxury apartment building with designed by Ferenc Domány and Béla Hofstätter in 1938 has a unique spiralling staircase (Figure 4b and 4d) with a pair of integrated elevators in glass cylinders, gaining the catchy “piston house” nickname for the building (Harmath-Gyvetay, 2019). The community participated in the 2019 edition of the Budapest100 festival when the building opened its gates for a weekend attracting more than 2000 visitors. The residents became the volunteers of the program (Szőke, 2022), actively participating in the organising process. The community festival had such an effect that following the events, they even organised a mutual visit to another house by the same architects.

The Socialist-Modernist Watertower-house is located in the large, prefabricated housing estate neighbourhood of Újpalota in the XV<sup>th</sup> district (Figure 3.). Developed by Ferenc Callmeyer, Árpád Mester, and Tibor Tenke in the late '60s following the theories of Team 10, the estate has about 60 000 residents (Benkő, Balla and Hory, 2018). Constructed in 1975 in just one year, the 20-storey high vertical Watertower-house (Figure 4c), designed by Tenke is a key landmark of the area (Tábi, 2020). In 2021 the house was featured in the Otherness exhibition of the Venice Biennale's Hungarian Pavilion. Building visits were organised by KÉK (Figure 1) with a thematic walking tour of the neighbourhood, providing new architectural experiences for participants (Klaniczay, 2021).

### 3. Research Methodology

The research methodology chosen for this study in comprised of quantitative and qualitative methods equally, as suggested by Amaratunga *et al.* (2002) for dealing with built environment research. Semi-structured in-depth interviews with 5 open-ended questions were conducted with residents who are involved in the daily life of the examined buildings. The structure of the interviews was based on similar studies done in built environment and place attachment research (Chan and Li, 2022). The questions asked during the interview focused on the personal relation of the interviewees with the built environment, in neighbourhood and building scale as well:

1. Why did you move to this house?
2. How much does the building define the identity of the neighbourhood?
3. Could you list at least five architectural elements of the building that contribute to its character?
4. What motivated the community to participate in cultural programs?
5. How did the community react to visitors in their house?

To complement the strong qualitative approach of the interviews the analysis of social media trends was done. Similarly to tourists, locals also tend to upload digital content about interesting architecture to platforms such as Instagram, making it possible to map local landmarks and attractions (Kádár and Klaniczay, 2022). For each building the trends of Instagram hashtags (#) were analysed in the context of the neighbourhood, the architectural style, the architect and the building itself.



Figure 4a. Archive photos (from l to r) S-house (FSZEK, 1906), P-house (kitervezte.hu), W-house (Fortepan / Gergely János, 1975)

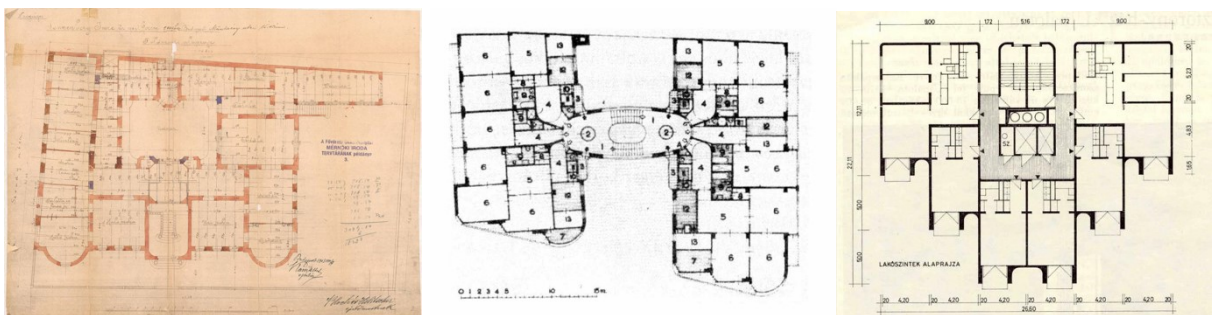


Figure 4b. Architectural plans (from l to r) S-house (Budapest Time Machine), P-house (Ferkai, 1995, pp. 114), W-house (viztorony.hu)



Figure 4c. Building total today (from l to r) S-house (N. Farkas, 24.hu, 2021), P-house (Gy. Jókuti, Budapest100, 2019), W-house (B. Mohai, Hype&Hyper, 2020)

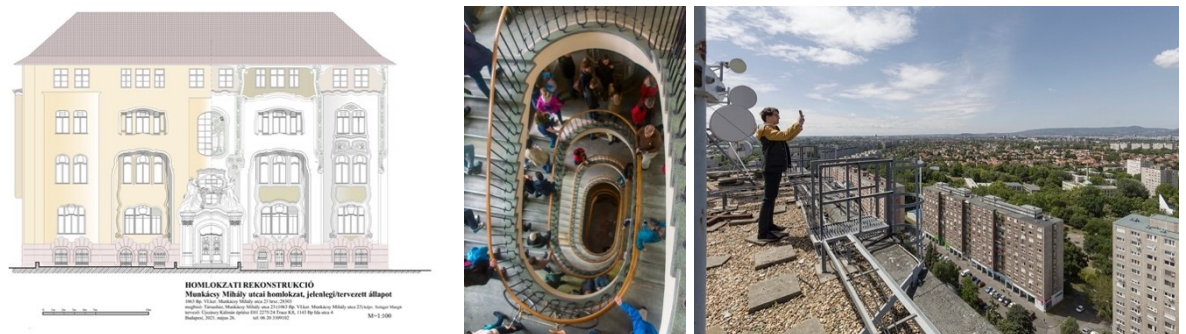


Figure 4d. Key events of heritage activation (from l to r) Façade reconstruction plan of S-house, Budapest100 visitors in 2019 at the P-house (Sz. Gyulai, Budapest100, 2019), View from the top of W-house during a KÉK building visit (B.Mohai, H&H, 2020)

## 4. Results

### 4.1. In-depth interviews with residents

The three interviews took place in the first week of July 2023. In each case the interview was recorded and transcribed with the consent of the participants. In Table 1 the comparative analysis of the three interviews is shown. All participants are actively engaged with the building in different ways but play equally important roles in the community management of their house. Their personal answers have a value that can be generalized for the building's community. The interviewed residents of the Sonnenberg-house and Piston-house were highly motivated by the architectural values when moving in. Whereas the caretaker of the Watertower-house has lived in the building since its opening in 1976.

When asked about the role of the building in the neighbourhood's identity each answer confirmed that the building is known by the local community, but for various reasons. The Sonnenberg-house is infamous for the successful community-led renovation of its architectural character. The Piston-house is more of a hidden heritage, as the most interesting features are on the inside, but some locals know about it. The tower in Újpalota is an iconic landmark with its soaring height among the monotony of the prefab mass houses. An additional interesting fact from all three buildings is that the local municipalities play an active role in the life of the buildings, having partial ownership of apartments.

The answers concerning the architectural values of the buildings differ the most between the interviews. In the case of the Art Nouveau house the interviewees listed mainly decorative elements. In the Piston-house the unique engineering solutions (e.g.: elevators, central heating) were identified as the greatest values, but the spatial concept of the stairwell was also mentioned. In the Late-Modernist building the mentioned elements were mainly architectural design related, such as the height, the arrangement of apartments and the construction methods, but no exact elements were named.

All buildings were chosen for their previous participation in cultural events when the house opened its gates for visitors as well. Their motivations for joining such events differ extensively. The Sonnenberg-house consciously participates in architectural events and organises lectures for only the residents, with the aim of creating a community through discovering the values of the building. Their goal is also to get noticed by potential sponsors and professionals, who might get involved in the renovation process. In the case of the Modernist Piston-house the principal motivation of residents for joining any cultural event is their feeling of prestige about the house. Also, in a very unique way the building allows visitors any time who pay a minimal entry fee that supports the house budget. The Watertower-house was involved in programs with less concrete goals, mainly being reached out to by external event organisers. Other residents of the houses responded to the events positively, wanting to participate in the programs, and even taking on roles in the organising process if possible.

A common point concerning the plans for the future is that all three houses see the opportunity in participating in cultural programs as a way to organise the community and attract the attention of the municipality and potential sponsors to finance renovations of the house.

**Table 1. Comparative analysis of interviews**

	<b>Sonnenberg-house</b>	<b>Piston-house</b>	<b>Watertower-house</b>
<b>Interviewed resident's relation to the house</b>	President of the foundation (34 apartments)	Common representative of residents (47 apts.)	Caretaker and shopowner (98 apts.)
<b>Q1 Personal motivation</b>	Moved in 2016, apartment was perfect fit and "it was love at first site" with the building	Moved in 2017, husband was especially looking for apartment in the building	Family moved in 1976, mother was previous caretaker
<b>Q2 Neighbourhood identity</b>	Very much in it, the news of the community-led renovation spread among locals	Listed heritage, but locals mainly know it from the previous toll collector's office	Everybody knows the building. Living in the "Casco-house" is sensational for others.
<b>Municipality involvement</b>	Ownership of two apartments Partially funding the renovation "because we are authentic"	Ownership of storefront spaces Organising occasional building visits	Ownership of 30% of apartments
<b>Heritage status</b>	Local protection, 1994	National pr., 1978	Local protection, 2022
<b>Q3 Elements of architectural identity</b>	Windows by Miksa Róth; Sculptures; Railing of the staircase; Main door.	Structure of One-layer window in the staircase; Roof terraces; "Piston" elevators; Curves and lines of the façade; The confusing half-floor system	Cast concrete structure; Height; Apartment design (e.g.: windows in the bathroom; studio apartments); Insulated; Balconies
<b>Cultural programs in the house</b>	Cultural Heritage Days; World Art Nouveau Day; Conference about the building; Lecture about the building for residents.	Budapest100 2019 edition; Frequent building visits of groups	Bottom-up community events in the '80s; Urban walking tours and building visit organised by KÉK
<b>Q4 Reasons for participating</b>	Community building, Spread the word about the initiative to get sponsors and claim public interest.	Out of prestige, residents feel proud of their house, they wanted to show it to visitors	General openness, accepted the proposition from organisers;
<b>Q5 Reactions of residents</b>	At first a little reluctant, but gradually accepted, because the organisers are authentic.	Participating in the preparations, cleaning of common spaces, with lots of enthusiasm	They wanted to participate also in the building visit, very excited about the opportunity
<b>Future plans</b>	Neighbourhood heritage walks; house festival; finishing the window renovation	Renting common space for cultural events in the house to finance renovations	Organising building visit for the residents; Celebrating 50 <sup>th</sup> anniversary in 2026.

#### 4.2. Quantitative analysis of social media appearance

A total of 54 hashtags on Instagram were reviewed to get better insight into how the public perceives the buildings. The percentage of the number of photos (public and private) for each category uploaded to the popular social media platform was compared. For each category data of several different hashtags were summed (See Table 2). Measures for words with Hungarian accents were taken with both versions (e.g.: #margitkörút and #margitkorut).

**Table 2. Collected hashtags from Instagram divided into categories**

	Sonnenberg-house	Piston-house	Watertower-house
<b>Style</b>	#szecesszió ( <i>art nouveau</i> ) #szecessziósépületek ( <i>art nouveau buildings</i> ) #budapestartnouveau #artnouveaubudapest	#modernizmus ( <i>modernism</i> ) #modernépítészet ( <i>modern architecture</i> ) #modernistaépítészet ( <i>modernist architecture</i> ) #bauhausbudapest #budapestbauhaus	#későmodern ( <i>late-modern</i> ) #későmodernépítészet ( <i>late-modern architecture</i> ) #későmodernbudapest ( <i>late-modern Budapest</i> ) #szocmodern ( <i>socialist modern in Hungarian argo</i> ) #szocialistamodernizmus ( <i>socialist modernism</i> )
<b>Neighbourhood</b>	#terézváros ( <i>Therese city</i> ) #diplomatanegyed ( <i>Diplomat's quarter</i> )	#margitkörút ( <i>Margit Boulevard</i> ) #margitnegyed ( <i>Margit District</i> ) #másodikkörület ( <i>Second District</i> )	#újjalota ( <i>New Palace</i> )
<b>Architect</b>	#kőrössyalbertkálmán	#dományferenc #hofstätterbéla	#tenketibor
<b>Building</b>	#sonnenbergház ( <i>Sonnenberg House</i> )	#dugattyúsház ( <i>Piston House</i> )	#víztoronyház ( <i>Watertower House</i> )

In the Style category photos of Art Nouveau buildings were represented with more than 80%, whereas Modernism only had around 10% and Late-Modernism about 5% of the hashtags. The Neighbourhood category showed more even distribution, but posts connected to the Margit-Quarter had 40%, showing how the official urban branding process uses social media as well. The hashtags including the architects were most popular for Domány and Hofstätter, but this might also be that as a pair of architects they often both participate under the posts. For photos tagged with the building's name the most popular turned out to be the Piston-house, and surprisingly the Watertower-house was nearly twice as popular on Instagram than the Sonnenberg-house (Figure 5.).



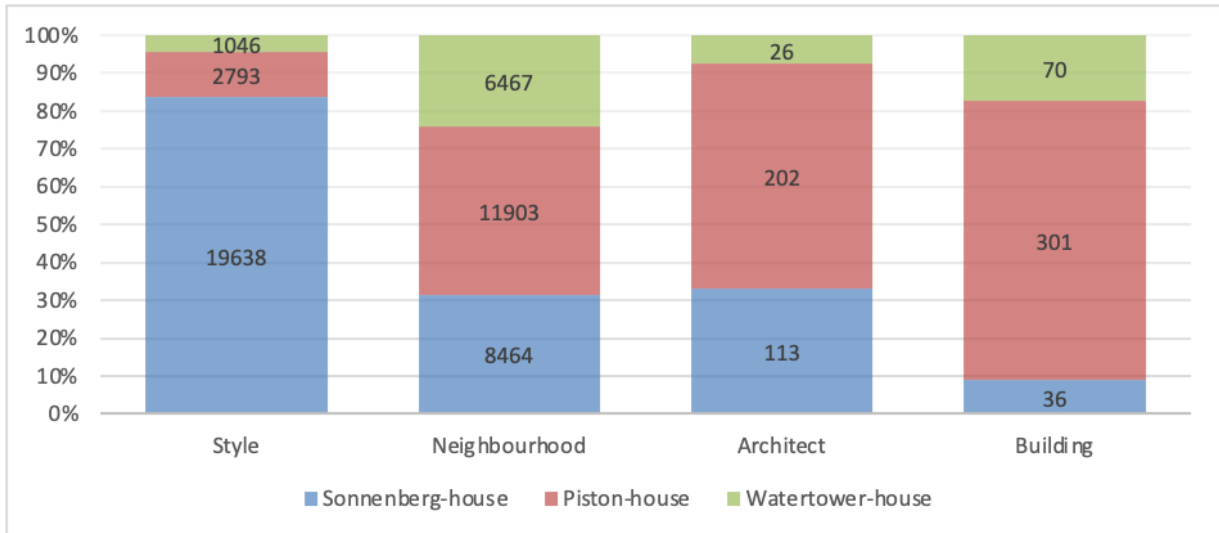


Figure 5. Distribution of social media hashtag counts in different category groups (see Table 2) connected to the examined buildings (Source: author)

## 5. Discussion

The results of the interviews give new insight into how active residents can organise the community of their house based on the experience-based discovery of its architectural values. But there is still a rather big difference between heritage of the first and second halves of the 20<sup>th</sup> century. Late-Modernist architecture is not yet perceived as worthy of protection, but the residents of the Watertower-house do realize that they live in a unique building. As mentioned during the interview the residents would like to participate in the building visits to discover the qualities of the building. But even the most enthusiastic and long-time resident caretaker was not able to distinguish the architectural elements. The methods used in the Sonnenberg-house to organise the community provide a great example that can be adapted to other situations as well. But the sensible approach of the interviewees also lies in their educational background. The fact that the community of the Piston-house participates in programs out of prestige is also a key information, because if the residents are aware of the values in their surrounding their willingness to join cultural programs are better. Overall, the three interviews provided valuable insight into how the engines of the community work in bottom-up situations. In the context of residential buildings, the active participation is necessary from residents and their formal or informal leaders.

The data collected from social media correlates with the findings of the interviews. The already established global popularity of Art Nouveau is reflected in the data, but the iconic status of certain buildings can make Modernist and Socialist heritage the focus of trends. These new platforms can also reach younger generations, which is very important to have a long-lasting and sustainable effect. In the valorisation process of architectural heritage, the internet plays a key role, and a bigger hype can be generated through cultural events organised in these buildings.

In a post-socialist city like Budapest valorisation of the 20<sup>th</sup> century architectural heritage is a key to fighting new urban problems such as overtourism (Smith, Sziva and Olt, 2019), by spreading the tourist load more evenly in the neighbourhoods of the city. The landmark status of the buildings can also be used for city branding purposes, benefiting the local community and the local economy as well. All three buildings are protected heritage (Table 1) on different administrative levels (local, municipal or national). Interestingly, even though the Piston-house has national protection since the

'70s, its reputation among locals or in the social media does not reflect that. The new additions of 2022 in the municipality protection generated a discussion among the public about the status of Socialist heritage. These administrative (top-down) tools are also necessary to catalyse grassroots initiatives.

Further analyses should be conducted on the transcripts of the interviews to find patterns and common themes in the discussion about the built heritage. And the social media data holds even more information, that was not yet analysed (time of photos taken, users, content analysis of photos, etc.), that can reveal global trends (Kádár and Klaniczay, 2022). In summary, further research should be conducted with the already acquired information about the buildings.

## 6. Conclusion

This comparative case study aimed to get a better understanding into how the emotional relation of residents to their house can be used to organise communities for the valorisation of the built heritage. International academic literature already started to focus on the potential energies unblocked by involving locals in cultural heritage protection. Bottom-up initiatives can have a long-term effect. The character of the urban fabric is often affected by certain iconic buildings. Through branding these landmarks the entire neighbourhood can profit socially (in terms of place attachment) and economically (in terms of sustainable tourism).

Through the three in-depth interviews residents active in the community of the house were engaged to reveal their personal views of the iconic landmarks they live in, providing new insight into how place-attachment depends on architectural quality as well. The analysis of social media data complemented the qualitative evidence from the interviews, showing that the popularity of the Socialist-Modernist style is growing.

The good examples of the well-working communities in Art Nouveau and Modern apartment buildings can provide some guidelines for valorising Socialist heritage. The attachment of locals to the building can be improved through cultural programs focusing on architecture. It is important to distinguish certain architectural elements (ornate windows) or special features (piston elevators) of the house that can be part of the building's identity. The Watertower-house has many similar opportunities of self-branding and organising its community. The discussion of a 50-year anniversary celebration in 2025 already started after the interview. Their example can also be inspirational for other communities living in Socialist-Modernist buildings.

This paper is the basis for future research into the dynamics of place attachment and place branding through cultural urban festivals connected to local architectural heritage. It is a valuable addition to the global research of how the organising of communities can be a powerful tool for architectural heritage valorisation and management. In the case of the contested heritage of post-socialist cities the good examples presented in this paper can serve as waypoints for developing the reputation of Late-Modernist buildings.

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# Large Housing Estates in the Context of Structurally Affected Regions of the Czech Republic

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## ABSTRACT

*Modernist housing estates continue to constitute a significant portion of the housing stock in the Czech Republic. The proportion of flats in housing-estate neighborhoods (data limited to panel construction) stands at 28%, rising notably to around 40% in so-called "Structurally Affected Regions." This term pertains to areas sharing commonalities in social and economic attributes such as depopulation, urban shrinkage, elevated poverty rates, and the pervasive stigmatization of the entire landscape. As these regions also undergo transition away from coal mining, which forms a significant part of their economic base, towards the pursuit of climate neutrality, their economic and social circumstances are anticipated to deteriorate. When considering the advancement of structurally affected regions, the discourse surrounding housing, its competitiveness, and attractiveness is predominantly confined to the technical and energy aspects of buildings. The blind spot in the housing discourse is also conspicuous in the distinct strategies adopted by these regions, resulting in a paradoxical situation where the regions boasting the highest concentration of modernist estates exhibit the lowest count of urban renewal initiatives. This paper aims to delineate the role played by housing estates in the developmental dynamics of structurally affected regions and to draft the trajectory of prospective research that could facilitate the comprehension of direct correlations among the physical, social, and economic milieu, thereby enabling evidence-based policymaking.*

## KEYWORDS

*large housing estates, urban renewal, structurally affected region, former industrial area*



Figure 1. The city center of Most, completely destroyed and newly built city  
(Source: EasyMap)

## 1. Structurally Affected Regions

The Czech Republic is divided into 14 greater territorial self-governing units. Among these, three regions – the Karlovy Vary Region, the Moravian-Silesian Region, and the Ústí nad Labem Region – are classified as structurally affected (Ministry of Regional Development 2019). This classification indicates that these regions face challenges related to the concentration of social, economic, and environmental problems, such as a decline in the number of economic entities, job shortages, high rates of long-term unemployment, low levels of educational attainment, the lowest life expectancy, demographic aging, population outflow, urban shrinkage, lower voter turnout in elections, and overall stigmatization of the entire landscape.

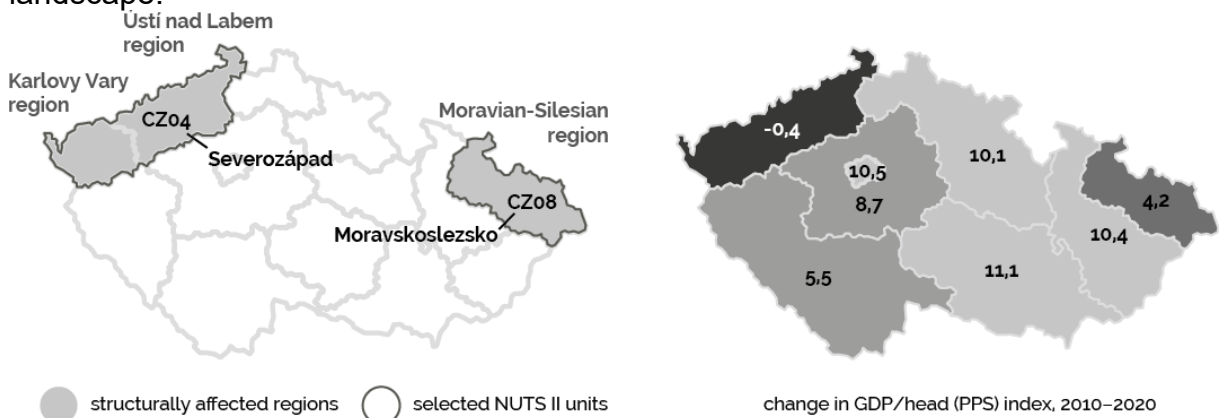


Figure 2. Structurally Affected Regions of the Czech Republic  
Change in GDP per Capita in NUTS 2 Unit (Source: Author)

In the European NUTS classification system, the Ústí nad Labem and Karlovy Vary Regions are joined into the NUTS 2 unit called Severozápad (Northwest). The latest Eurostat data show that this region is the only one in the Czech Republic that is not converging with the EU average GDP (European Commission 2023). (See Figure 2.).

## 2. The Story Behind

While delving into the causes of the decline in these regions falls beyond the scope of this paper, it is important to highlight certain common narratives in their evolutionary trajectories. Firstly, the Ústí nad Labem Region and Moravian-Silesian Region have been described by various authors as former industrial ones (Koutský 2011, Skokan 2004, Kadeřábková 1991). Industrial tradition in regions might be traced far into the very beginning of industrial development in Czech countries. The Karlovy Vary region also has had a strong presence in industry together with significant economic activity in spas.

Significant changes occurred after 1870 with the onset of the industrial revolution. Regional economies became highly specialized in the mining, chemical, paper, energy, textile and glass sectors. The coal-mining industry especially formed a significant role in local economies. Boom in mining during the era of state socialism caused the local landscape to undergo a complete and fundamental transformation. Starting in the 1970s, the physical arrangement of the regions changed rapidly, extensive technical infrastructure was built, along with several industrial cities. Most, Chomutov, Ústí nad Labem, Ostrava, Karviná and many others were rapidly developed in accordance with the principles of modernist urbanism. Notably, the old royal city of Most was completely demolished, in spite of the coal beneath it, and was then newly built according to the principles of the Athens Charter, making it a unique case worldwide.

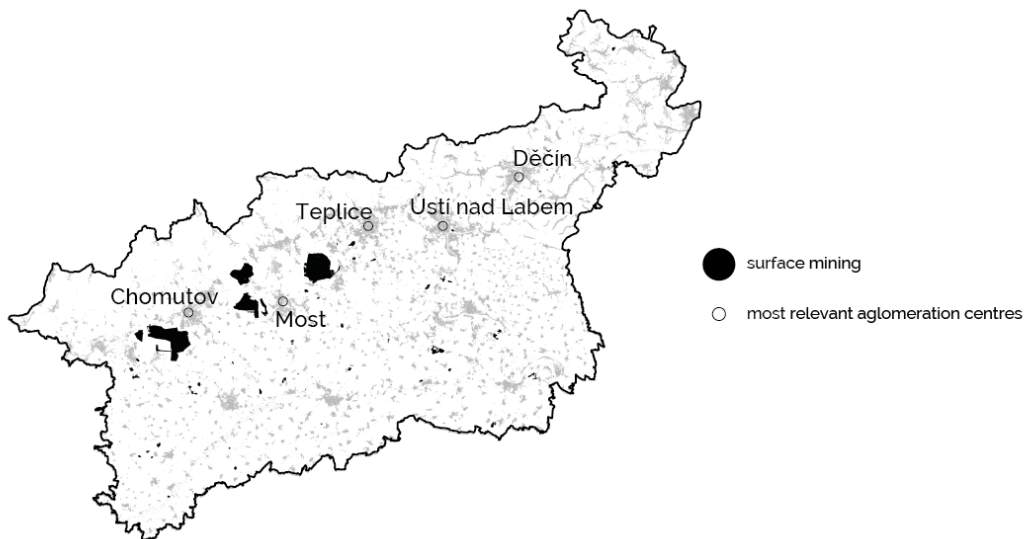
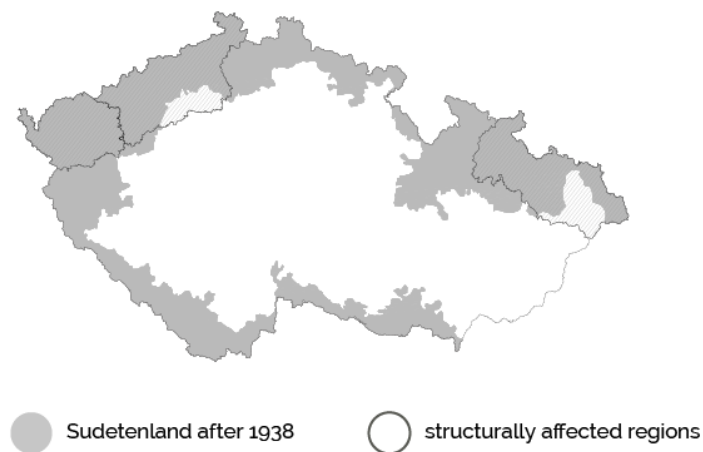


Figure 3. Spatial Distribution of Surface Mining Areas and Major Cities in the Ústí nad Labem Region (Source: Author)

The specific social background of these areas is shaped by numerous factors. While the industrial focus certainly drew specific categories of workers, it is even more pertinent to consider the geographical proximity to Germany and Poland, given that all three structurally affected regions are situated along the borders of the Czech

Republic. The evolution of the social fabric has been extensively studied, with notable mention of Matěj Spurný's work titled "They are not like us. Czech society and the minorities (1945-1960)", which vividly portrays the societal dynamics in regions originally inhabited by predominantly German-speaking populations.

In connection with this historical context, the establishment of the German protectorate, the post-war expulsion of Germans, and the subsequent resettlement of borderlands represent some of the most profound upheavals that these regions are still grappling with. The legacy of the Sudetenland border continues to hold significant sway when analyzing areas marked by high unemployment rates, home foreclosures, and lower voter turnouts.



*Figure 4. Sudetenland After the Munich Agreement in 1938 (Source: Author)*

The year 1989 represents another significant milestone in the evolution of the Czech Republic, particularly impacting predominantly industrial areas. The shift in the political, economic, and social landscape of the country initiated the transformation of industrial production, which had hitherto been characterized by collective ownership of production capacities and central planning, towards the mechanisms of a free market economy. The repercussions of this transition were felt deeply in the predominantly industrial regions.

The effects of this transformation were notable, leading to an economic recession that endured until the late 1990s, during which the engineering and mining sectors suffered the most substantial loss of employees (Koutský 2011). The decline in mining throughout the 1990s had been anticipated and was formalized through the government's binding resolutions on the Territorial Limits of Brown Coal Mining in Northern Bohemia and the Territorial Limits of Brown Coal Mining in the Sokolovsko Region, both issued in 1991 (Government of the Czech Republic 1991).

The subsequent support for foreign direct investment and the establishment of industrial zones significantly expedited growth in the secondary sector and, on the whole, have received positive evaluations (Wokoun 2010). However, it is important to note that these efforts had both positive and negative impacts on the regions in question.

### **3. Towards Climate Neutrality**

In line with the Green Deal, wherein the European Union has committed to achieving a climate-neutral economy by 2050, the cessation of coal mining is projected to occur between 2030 and 2038 (Ministry of the Environment of the Czech

Republic 2022). The repercussions of this shift away from coal will be particularly pronounced in structurally affected regions. These regions not only grapple with the intricacies of the transformation itself but also contend with an inherently weaker initial economic situation, which diminishes their capacity to effectively adapt to the transformation.

In spite of these challenges, efforts have been made to mitigate the impacts of the transition process. The establishment of the European Just Transition Fund aims to address these concerns. The fund's primary focus areas encompass: the retraining and re-skilling of workers, investments in small and medium-sized enterprises, the establishment of new businesses, research and innovation, environmental restoration, the promotion of clean energy, job placement assistance, and the transformation of existing carbon-intensive facilities. The initial program period spans from 2021 to 2027.

#### 4. Transition Lessons

The studies of transitioning regions have been conducted across numerous countries worldwide, with researchers aiming to outline processes and identify effective strategies for implementation. It is imperative to factor in the challenges and context-specific circumstances when applying these principles to diverse geographical settings.

In the Czech context, geographers Blažek and Uhlíř have provided a comprehensive assessment of recent and emerging concepts and theories in regional development. As an accompaniment to their publication, they offer a list of foundational conclusions designed to enhance regional competitiveness in an era of globalized economies and contribute to the formulation of successful regional economies. In a broad overview, these conclusions encompass:

1. fostering excellent research and strong research-business collaboration,
2. supporting talent and skill development,
3. cultivating a favorable business culture and recognizing patterns,
4. facilitating strategic financial investments and providing expert guidance,
5. establishing and nurturing contacts and networks,
6. ensuring effective governance and a conducive regulatory framework,
7. enhancing the region's quality of life and overall attractiveness, and
8. improving transportation accessibility.

Within the more specific context of transitioning old industrial regions, the work of Czech geographer Jaroslav Koutský stands out as highly relevant. He offers a comprehensive evaluation of significant developmental trends within these regions, identifies factors contributing to their successful transformation – supported by numerous case studies – and outlines potential avenues for development within the Ústí nad Labem Region. Koutský's study highlights five key intervention areas:

1. diversifying the regional economy and fostering innovative systems within progressive industries,
2. retaining and attracting segments of the population with higher education levels,
3. enhancing the built industrial and urban environment,
4. leveraging the industrial landscape as a unique tourism theme, and
5. strengthening territorial development management.

The role of the built environment and housing estates is in the aforementioned works addressed indirectly. Probably, as a too much detailed topic, it is

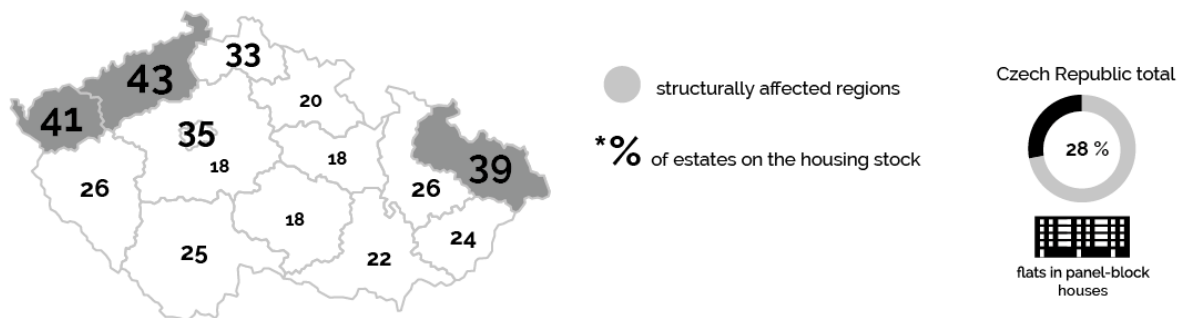


encompassed within the broader theme of environmental quality and regional attractiveness. However, national and regional development strategies touch upon the topic of housing estates also very briefly.

Koutský also acknowledges the significant negative externalities associated with industrial development that can diminish environmental attractiveness and functionality. For example, the initial positive impacts of infrastructure development or resource extraction may later become detrimental to the environment, constraining future growth (Koutský 2011). However, these works do not extensively emphasize the nature of housing stock, which, following this logic, could also be seen as a negative externality of industrial development. The housing estates that once provided housing for a substantial population and a capable workforce now pose limitations to the region's transformative potential due to their inherent lack of adaptability. In subsequent research, I intend to build upon these foundations and delve more deeply into the role of such structures within the regional transformation process.

## 5. The Role of Estates

As a consequence of their industrial heritage, the prevalence of apartment units within large housing estates is significantly pronounced in structurally affected regions. These regions exhibit substantial percentages of flats within their housing stock: 39% in the Moravian-Silesian Region, 41% in the Karlovy Vary Region, and 43% in the Ústí nad Labem Region (CZSO 2021). In larger cities, this proportion surpasses 50%, with urban centers such as Most, Chomutov, and Bruntál reaching levels of approximately 65%. Despite the recent housing shortage in the Metropolitan area of Prague, which has led to a noticeable surge in the surrounding regional centers due to housing affordability, the regions under investigation continue to grapple with urban shrinkage.



\*\* only prefab panel technology, no estates constructed of brick houses calculated

Figure 5. Percentage of Housing Estates in Territorial Units of the Czech Republic (CZSO 2021) (Source: Author)

The situation on most of the estates in the studied areas can currently be described as socially stable. However, data indicate a trend where the economically and socially more affluent segment of the population is opting to move away from this type of housing in search of higher-quality accommodations. A study focusing on housing estates in Prague, which had a more favorable starting condition, raises concerns that large housing estates could potentially transform into enclaves characterized by an unfavorable social structure, marked by above-average age and below-average educational levels (Němec and Brabec 2015). A comprehensive study

specifically oriented towards estates in structurally affected areas has not yet been undertaken. It can be hypothesized that the current observed social stability of estates in the researched regions paradoxically arises from their significant share of the housing stock – the presence of a considerable middle-class population still contributes to a diverse social composition on these estates.

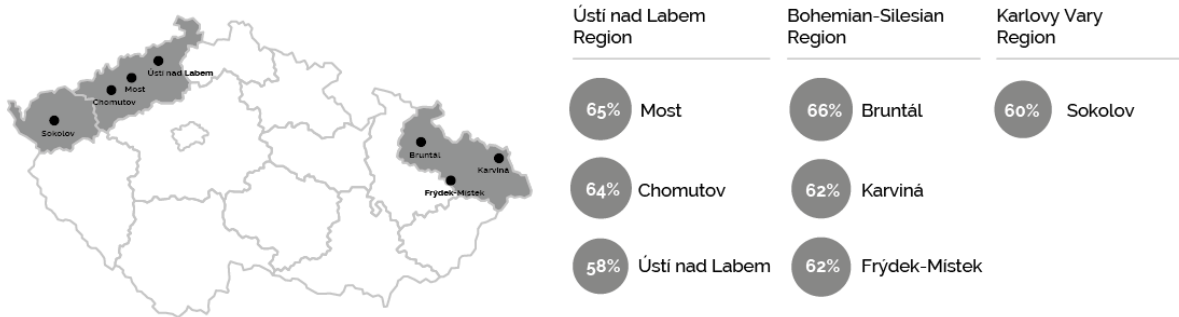


Figure 6. Percentage of Tenants Living on Housing Estates in Major Cities (CZSO, 2011)(Source: Author)

The specific and often underestimated role of estates in the process of regional transition arises not solely from their significant share of the housing stock, but more importantly from the distinctive attributes and inherent features of these structures. The exploration of urban structure performance, adaptability, and potential for transformation was a central focus of the Housing Estates, What’s Next? project, conducted at the Faculty of Architecture CTU in Prague since 2014, which culminated in a publication bearing the same title (Kohout et al. 2017). This project engaged with various aspects, including the unique characteristics of urban layout, the reversed relationship between building volume and public spaces, low legibility of the urban setting, and the particular adaptability of specific morphological typologies.

The attributes mentioned have a direct and profound impact on the social and economic conditions of the areas. The characteristics of housing estates, such as their uniformity, the intricate balance between building volume and available public space, and their adaptability (or lack thereof), play a significant role in shaping the overall fabric of these regions.

The publication also featured numerous case studies showcasing intricate urban renewal efforts targeting large housing estates that shared similar principles. However, unlike in Western European countries, the Czech Republic has yet to witness a comprehensive urban renewal project of similar scale. This disparity primarily arises from differences in property ownership and management, where the prevailing orientation in the Czech Republic leans towards private ownership (as per the latest Eurostat data, 78.3% of flats in the country are privately owned). Additionally, there has been a lack of focus on the quality and adaptability of the built environment, often overlooked by governing bodies.

An illustrative example can be found in an overview of projects submitted for a subsidy program that ran between 2018 and 2020. Notably, the Ústí nad Labem Region and the Karlovy Vary Region submitted the lowest number of projects, despite having the highest proportion of flats situated within large housing estates. In contrast, the Moravian-Silesian Region exhibited an above-average performance in terms of the number of projects submitted. (See Figure 7.).

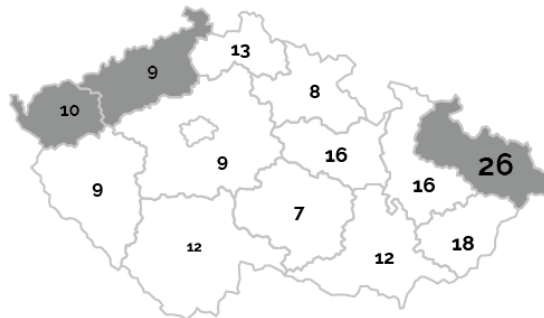


Figure 7. Number of Urban Renewal Projects Submitted, 2018–2020 (Source: SFPI, 2022)

These patterns underscore the significance of property ownership structures and governance perspectives in influencing the level of urban renewal activity, further emphasizing the need for strategic interventions to address the challenges posed by aging housing estates and to facilitate their successful integration into evolving urban landscapes.

## 6. The Research Design

As stated in the introductory part, this paper aims to delineate the role played by housing estates in the developmental dynamics of structurally affected regions and to draft the trajectory of prospective research. Besides the description of initial context and motivation, basic research questions and hypotheses can be stated. The broader research questions stands as follows: “In what manner does the performance of the urban structure of large housing estates affect regional development?”

Following topics will be further explored, and corresponding hypotheses will be tested:

- The uniformity in housing design can contribute to certain homogeneity in the population's social structure residing in these areas. This can potentially lead to challenges related to diversity, which is essential for a thriving and dynamic community.
- Inverse relationship between building volume and public space influences the economic and social sustainability of the estates. Oversized public spaces and inadequate connections between buildings can hinder social interactions and require higher economic demands.
- The rigidity and limited adaptability of estate structures affect their ability to accommodate and incorporate new economic activities or respond effectively to changing circumstances. Flexibility and adaptability are key factors in fostering economic sustainability and allowing these areas to evolve and thrive in the face of shifting economic conditions.
- The social status of large-housing estates plays a significant role in tenants and investors decision-making.
- What are the patterns and trends in the social fabric of large housing estates? Are large housing estates more likely to have smaller household sizes compared to other urban areas? Is there a higher proportion of older residents living in large housing estates as compared to other urban areas? Do large housing estates experience a consistent population outflow over time?

- What are the key features of their spatial attributes that have the major impact on its attractiveness, competitiveness and resilience?

These attributes collectively contribute to shaping the identity, functionality and overall vibrancy of the regions undergoing transition. Understanding and addressing these factors are essential for effectively guiding the transformation process and ensuring the long-term success of these areas.

The survey on the topics outlined above will be significantly limited by data availability. Many of these issues also are within the realm of sociological expertise.

The initial research steps will involve a basic statistical data survey. The primary source of data is the Census of Population, Houses, and Apartments. The smallest territorial unit for which it collects data is called the Basic Settlement Unit. Importantly, this unit often corresponds to the boundaries of specific urban types (see *Figure 8.*).



*Figure 8. Correlation of Basic Settlement Units and Urban Layout Types in The City Most (Source: ČÚZK, 2023)*

As an illustrative example, the size of the floor area of dwellings might be chosen, as it forms one of several attributes representing the level of housing quality. Even the data on regional level indicate the lowest floor area ratio in structurally affected regions and Prague (which stands out as a specific case due to the highest real-estate demands) (see *Figure 9.*).

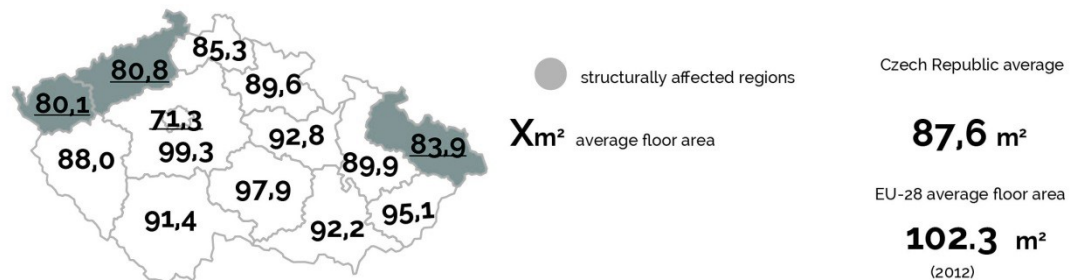


Figure 9. Average Floor Area in Territorial Units of The Czech Republic (Source: Author)

The data related to urban fabric and apartment units will be subsequently tested at the neighborhood level (Basic Settlement Units) to derive the fundamental characteristics of large housing estate settlements.

## 7. Future Challenges

Several significant trends in the near future are poised to exert a strong influence on the conditions of estates within the researched regions. Firstly, the gradual increase in the availability of alternative housing options may hasten the departure of the middle class from these estates. Secondly, the adverse effects stemming from the transition towards climate neutrality and the eventual closure of the coal mining industry could expedite social and economic decline.

Nevertheless, it is crucial to recognize that the potentially negative scenarios outlined above can also be viewed as opportunities. These challenges should not solely be perceived as threats, but as catalysts for positive change. As the success of the transition hinges not only on reshaping the economic foundations of the region, we must also critically evaluate the physical composition of the built environment and capitalize on this juncture. The measures and recommendations proposed in Regional Development studies or European transition programs cannot be effectively realized without a significant redefinition of the physical layout. Analogous to the realm of IT, new and innovative software for the region cannot be seamlessly integrated into a historical and malfunctioning hardware system.

Embracing this perspective presents an avenue for holistic and transformative urban renewal that aligns with the broader goals of regional development and sustains the viability and vibrancy of these areas for the future.

## 8. Conclusion

In the context of structurally affected regions in the Czech Republic, the role of large housing estates stands as a pivotal yet often overlooked factor in the process of regional transition. These estates, remnants of an industrial past, possess attributes that extend beyond their sheer proportion in the housing stock. The urban form, adaptability, and performance of these estates exert a direct influence on the social and economic dynamics of the whole regions.

The uniformity of housing designs within these estates might contribute to a certain level of social homogeneity, potentially hindering diversity within the community. Additionally, the reversed relationship between building volume and public spaces affects the overall sustainability of the estates, influencing social interactions and economic activities. The rigidity and limited adaptability of the estate structures can further impact their capacity to accommodate new economic uses and respond to evolving conditions.

Despite the apparent social stability observed in these estates, data indicates a trend where economically and socially affluent segments of the population seek higher-quality accommodations, potentially leading to concerns of negative social structures. However, these challenges also present opportunities for transformative urban renewal.

Notably, the Czech Republic has yet to witness comprehensive urban renewal projects akin to those in Western European countries, primarily due to property ownership structures and a lack of focus on built environment quality. As the region grapples with transitioning towards climate neutrality and post-coal mining scenarios, addressing the physical form of housing estates becomes imperative for successful regional transformation.

Recognizing these challenges as opportunities, a paradigm shift is required. Just as advanced software necessitates up-to-date hardware, the successful transition of these regions requires a significant redefinition of the physical layout and performance attributes of large housing estates. This transformative approach aligns with broader regional development goals and is essential for realizing the potential of these areas, ensuring their sustainable growth, social vibrancy, and economic resilience in the face of evolving circumstances.

Overall, this research paper has laid the foundation for future investigations into the relationship between large housing estates, regional development, and urban renewal in structurally affected regions. It underscores the importance of considering the physical, social, and economic dimensions when formulating evidence-based policies for these regions' sustainable transformation.

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# **Brownfield Regeneration Possibilities for Supporting and Developing Green Infrastructure, Railways as green corridors, Transylvania, Romania**

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## **ABSTRACT**

*Over the past few decades, rapid urbanization has become a growing concern, leading to numerous problems for city dwellers. Urban areas in Central Eastern Europe has been struggling to address the challenges brought about by the post-socialist era and over-urbanization. In several of these cities, the post-World War II era saw the explosive development of industrial areas, leading to population growth, urban densification, and eventually the deterioration of the built environment. Even today, many of these former industrial areas persist, often abandoned and degrading the environment through pollution and other factors. Current research aims to identify abandoned brownfield areas in Transylvania, Romania, within a macroregional context and develop methods to improve such urban/territorial areas. The objective is to find optimal solutions for stabilizing and extending urban green infrastructure, particularly by renaturalizing residual areas and connecting larger green spaces in urban and peri-urban areas through smaller green elements such as abandoned or underutilized railway lines. Such measures can contribute to increased biodiversity, reduce pollution, and bring numerous ecological, economic, social, and other benefits to the city and its inhabitants.*

## **KEYWORDS**

*Residual areas, brownfields, rehabilitation, post-socialist urbanism, green infrastructure.*





*Figure 1. Industrial disused sites, brownfields in Baia Mare (images by the author, 2023)*

## **1. Introduction**

The Industrial Revolution led to a wave of urban development (not necessarily in favour of the environment), where natural areas were transformed and "cleared," wetlands were drained, rivers were regulated, and riverbeds were covered in concrete. All of these have resulted in the removal of nature from cities (Cvejić et al., 2015). Many cities and territories are still grappling with the remnants of the post-socialist era, as seen in the built-up areas, urban residual zones, and abandoned industrial areas (Stanilov, 2007).

Harmful human activities have affected the surrounding environment, and these effects are largely irreversible but still form part of our daily lives. Reducing their impact is a major challenge of our time. However, rapid urbanization and overdevelopment in recent decades have led to increased density and a decrease in living space in cities. To address this, increasing green space and nature-based solutions can improve quality of life (Hunter et al., 2017).

The regeneration of disused areas is a necessary action on the agenda of territorial cohesion in the European Union. It brings a set of benefits both to the places themselves and to the people accessing those places. It contributes to reducing inequalities by creating developments that increase people's chances of employment and improve their quality of life (Territorial Agenda of the European Union, 2007). The rehabilitation of these disused areas, the creation of green infrastructure, and the increase of green spaces in cities through the utilization and greening of residual areas can greatly contribute to addressing these urban anthropogenic issues. This aligns with Jan Gehl's perspective, as expressed in his book "Cities for People," which posits that a livable city is characterized by a thriving community, ecological health, and aesthetic attractiveness, all of which contribute to the psychological and physical well-being of residents (Gehl, 2014).

Currently, in the urban fabric of former industrial cities in Romania, there are many unused, abandoned, or polluted industrial areas (see Fig. 1). The recycling, reusing, or rehabilitating of deactivated areas and transforming them in a well-thought-out manner is becoming increasingly important in today's world. Many large cities in Europe are struggling with the effects of rapid urbanization, with approximately 80% of the population living in cities, reaching around 76% in Romania, according to the Urban Development Portfolio in Romania prepared by the World Bank. This means that cities are expanding into larger territories, the built environment is becoming denser, and green spaces are shrinking (see Fig.2). Ecosystem services are affected by these radical changes.

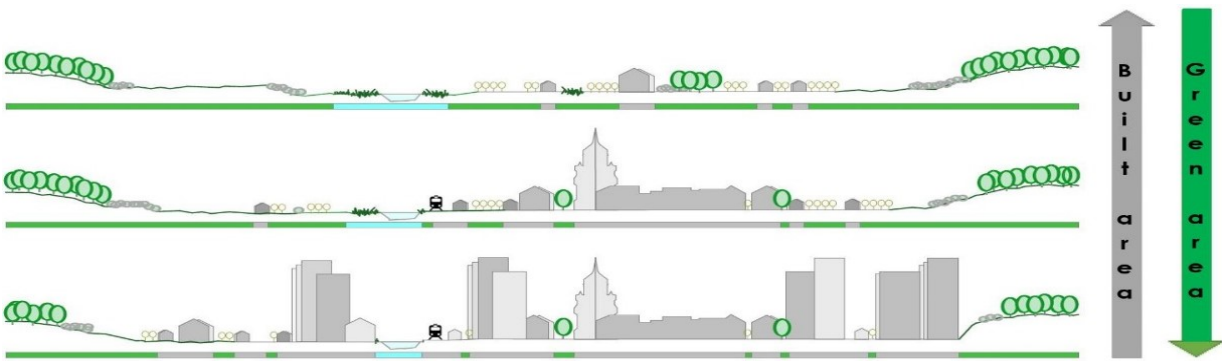


Fig. 2. Effects of rapid urbanization and urban densification (author's drawing)

Through rehabilitation, renaturalization, and reuse, these areas become accessible and can provide local residents with an experience of nature in the midst of the city. At the same time, they preserve local biodiversity, support their growth and enrichment, and align with urban development strategies, can contribute to the creation of new green spaces within the urban fabric that resemble the local natural environment. They also help restore the urban ecosystem and improve the microclimate in densely built-up areas. These aspects have gained even more significance after the year 2020, the year of the Covid-19 pandemic when the presence, or rather the lack, of easily accessible recreational green spaces for local residents became more apparent in many cities.

## 2. Methodology

The complexity of the subject requires a comprehensive research process that necessitates an interdisciplinary approach. Residual lands, specifically brownfields, are not just an issue limited to industrial sites but encompass a much broader range of challenges that require an integrated approach involving multiple stakeholders. Some of the perspectives from which the subject of the study will be approached include landscape architecture, ecology, environment, sociology, regional development, and tourism.

The study will begin at a geographic scale and progress to an urban scale. In terms of the geographic scale, the analyses will focus on the Transylvanian Plain, the main deactivated industrial areas, and existing, utilized, and unused railway lines. Additionally, in the case of researching the subject at the urban scale, the morphological diversity of the study area will enable the creation of a green infrastructure development strategy adaptable to different urban areas through the rehabilitation and renaturalization of the brownfield zone and disposed or underused railway lines.

### 3. The infrastructure of brownfield areas in Transylvania

#### 3.1. Background

Like many other European countries, Romania has a long history of industrialization, resulting in significant pollution of land and groundwater. In the past few decades, Romania has undergone a major transition, with many companies and industries that were active during the socialist period being closed or restructured. This transition has been coupled with a decreased capacity to remediate contaminated sites for reuse. The integration of Eastern and Central European countries into the European Union in the early 21st century has further highlighted the relevance of brownfields.

The objectives of the research are to identify areas and methods through which urban green space can be expanded using regenerated and renaturalized residual areas. This will help create green infrastructure, maintain and enhance local biodiversity by utilizing elements from the local flora, and establish sustainable green spaces. Additionally, it aims to strengthen the relationship between the city and its surrounding ecosystem.

Deactivated industrial sites, including railway lines in certain areas (see Fig. 3), are products of the industrial revolution. Railways, as corridors passing through many localities, connect most degraded or unused industrial areas, currently appearing as residual zones within the urban fabric. They link various parts of the city, including the historic core, peripheral neighbourhoods, larger green spaces, and other important linear green and blue infrastructure elements within the urban fabric.



Figure 3. Desafected railway line in Târgu-Mureș (images by the author, 2022)

By analyzing and detailing the definition of brownfields, the following research questions arise:

- Can residual areas represent something other than a diverse range of problems? Is there potential for these areas to be seen as opportunities for development or regeneration instead of just problems and obstacles to urban development?
- Are there other ways to identify residual areas beyond approaching them as problematic zones? Can alternative criteria and indicators be used to identify these areas and assess their potential?
- Is it possible to determine residual areas as areas with high potential in terms of green infrastructure? Can these areas be viewed as sources for the development of green infrastructure in urban environments?
- Is a paradigm shift necessary in approaching residual areas? Is it possible to have a more integrated and solution-oriented approach that aims to transform these areas into productive and ecologically sustainable spaces?

These research questions can be explored to gain a deeper understanding of how residual areas can be perceived and addressed in the context of sustainable urban development.

The dilemmas of brownfield stem from the differences in the definition of these terms between countries and continents. The origin of the term "brownfield" itself is contested and can be traced back to various sources from the 1970s, spanning from America to across Europe (Orosz, 2012; Ferber & Grimski, 2002).

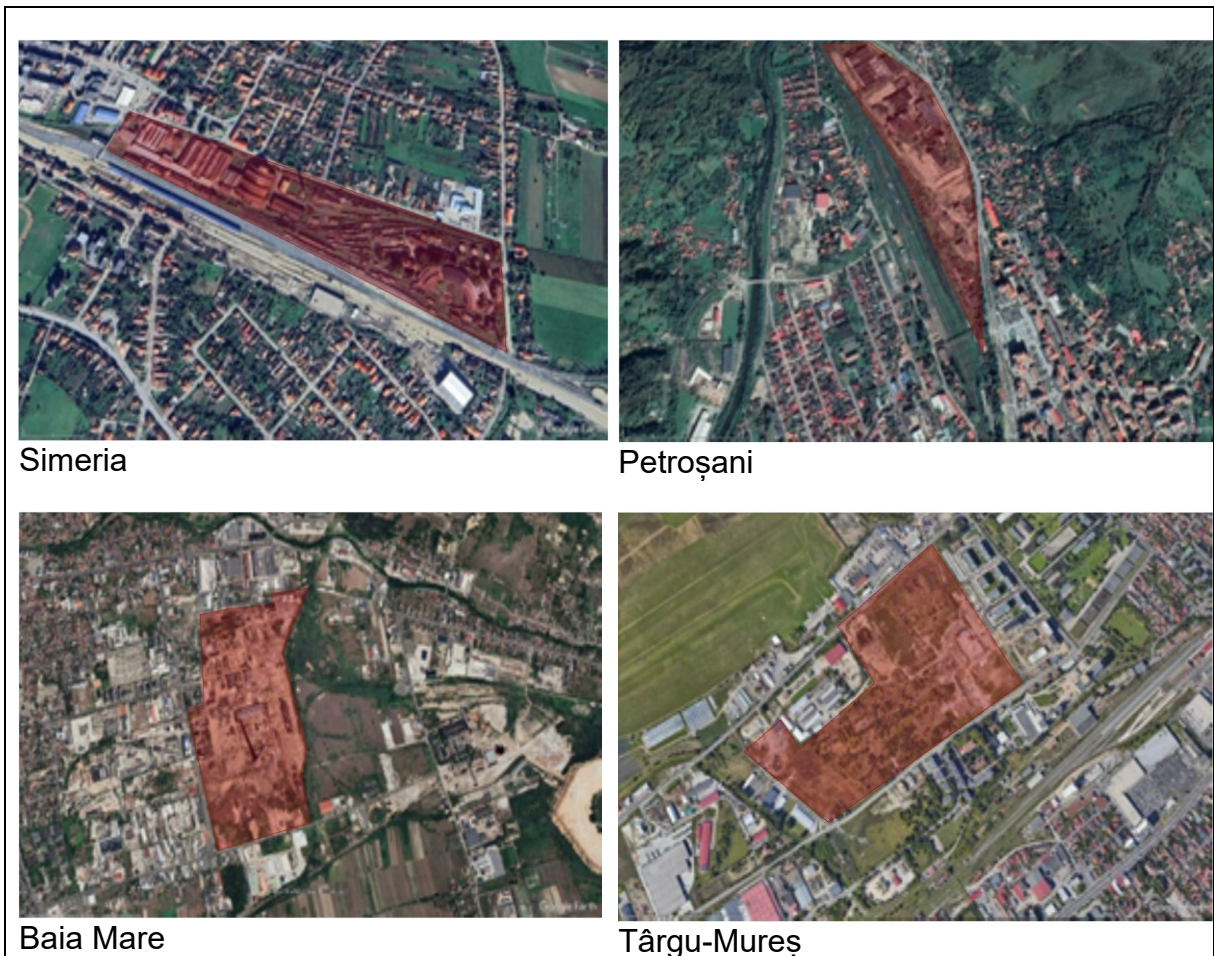
### **3.2. The evolution of the disused industrial areas in Europe and Romania.**

The process of deindustrialization has brought significant changes to the European landscape. Society has been restructured down to its core activities, with new economic trends and social transitions driven by globalization. All countries in the world have been affected by the transition from an industry-driven era to an information-driven era. The effects have resulted in social and political change, as well as changes in spatial development and land use patterns in urban areas. Local industries have declined or collapsed, armies have been downsized, agricultural processes and railway usage have changed, and national institutions have been dismantled. The outcomes of all these processes have been a large number of abandoned sites and areas (Birgmayr, 2021).

In terms of its function, Romania was an agrarian country before the World Wars, and even during the interwar period. In the country, including Transylvania, after the Second World War, industrial development took place in the 1950s and 1960s, leading to population migration to cities and the expansion of the built environment in settlements. Romania's industry, as a result of a centralized economic approach that allocated 50-60% of all investments to the industrial sector, experienced significant growth between 1970 and 1989 (Popescu, 2000), resulting in a high growth rate. The effects were reflected both in the number of industrial units and in their territorial distribution. This process occurred simultaneously with the urbanization process, with both having comparable growth rates between 1948 and 1992 (Filip & Cocean, 2012).

In the book "The Romanian Railway Project," Teader Popescu states that the construction of railways is seen as the "great Romanian modernization project". The research, which aimed to track the evolution of the railway project and verify its compatibility with the specific models of Romanian modernization, mentions that the construction of railway lines can be interpreted as a national endeavour intended to serve as the "development and modernization of the economy (particularly in terms of

industrialization), the implementation of a Western institutional model, as well as the promotion of material and cultural values of the same origin, inherent to modernity" (Popescu, 2014). The construction of railways in the country has helped with the industrial development of the cities involved. In several cases, the extension of the railway line has been part of industrial development projects. On one hand, the decline of the industrial sector has led to the decline of railway lines. On the other hand, the development of road infrastructure has taken over a significant portion of railway transportation, further amplifying this decline. These industrial areas (see Fig.4), explosively emerged in the 1990s and still largely contribute to the brownfield region in the Transylvanian landscape.



*Fig. 4. Brownfield zones in the urban fabric (satellite images from Google Earth)*

### **3.3. Case studies**

In the case of settlements that had multiple functions, the decline or collapse of the industry could be renewed more easily and rapidly, both in terms of functionality and territory. For this reason, for example, this process of deindustrialization was less typical for settlements inhabited by the Saxons, which is why disused areas are less present in the current urban fabric. At the same time, geographic characteristics have also played an important role in the development of disused areas in certain settlements.

The investigations of the settlements have been delimited and grouped, including the analyses of disused areas, based on the following criteria, which will be further expanded and supplemented during future research:

- From an industrial perspective, considering the presence or absence of industry.
- From a regional perspective, which includes the geographic characteristics of the settlement and the possibilities for rehabilitation and renewal.
- From a demographic standpoint, grouping cities of similar size in terms of their population.

Examining the historical evolution of the settlements in the Inter-Carpathian region from a philosophical-landscape perspective, we have highlighted the following settlements and a few interesting facts that have influenced their formation and led to their current shape. (Fig.5)

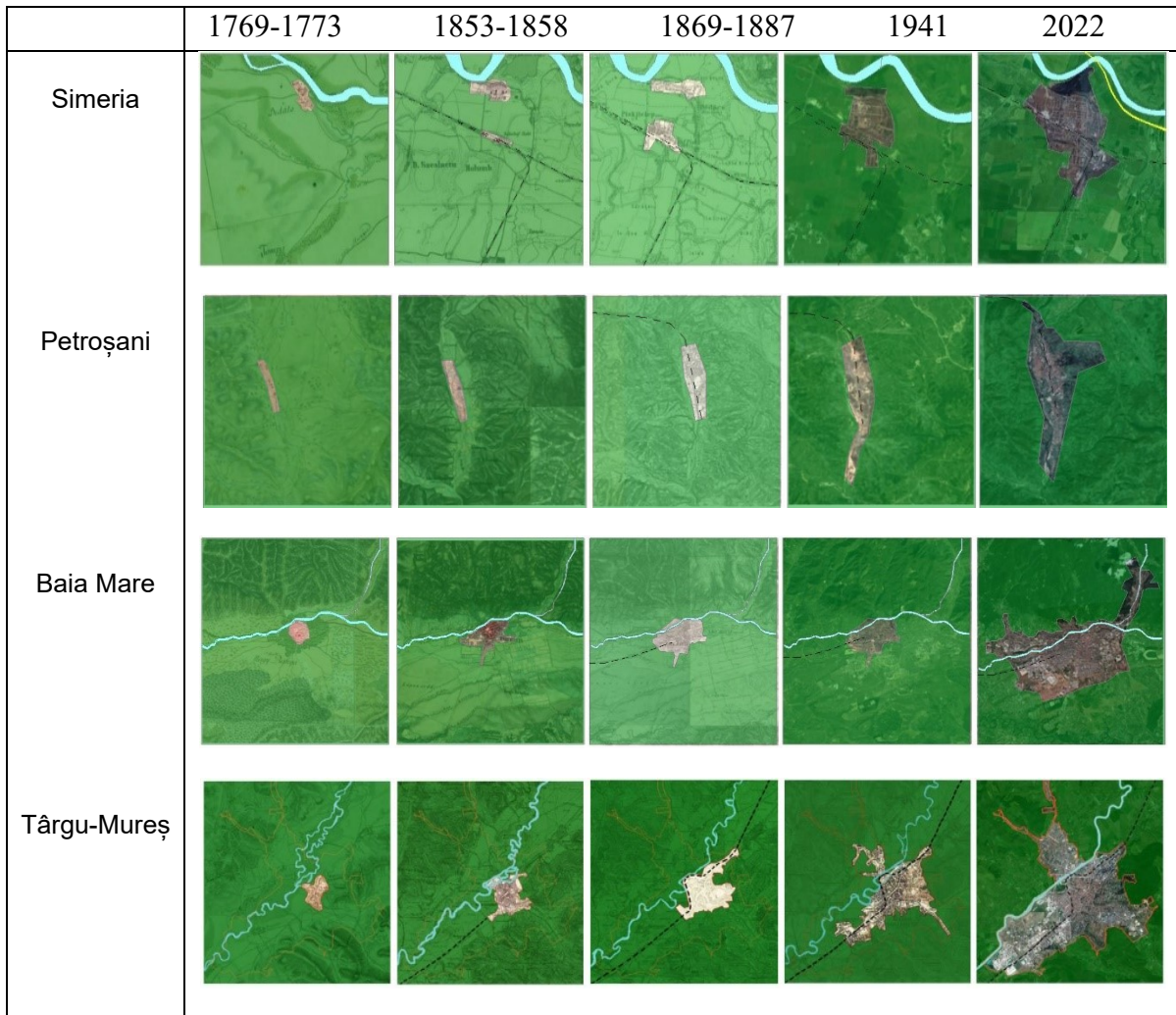


Fig. 5. Historical and urbanistic evolution of some analysed cities in Transylvania (author's drawing based on military topographic maps and satellite images from Google Maps)

In the analysis of Inter-Carpathian cities, we have also considered and expanded on the research conducted by Sorin Filip and Pompei Cocean titled "Urban Industrial Brownfields: Constraints And Opportunities In Romania." This research discusses the categorization of industrial residual areas based on their spatial dispersion within the administrative territory of settlements. As a result, three major categories of spatial patterns have been identified: *compact* spatial model, *bipolar compact* spatial model and *dispersed* spatial model. These categorizations help to understand the spatial organization of industrial brownfields in Inter-Carpathian cities and provide insights into their constraints and opportunities for future development (Filip & Cocean, 2012).



### 3.3.1. Simeria

The opening of the Simeria-Hunedoara railway line took place in 1884. With the construction of the First Transylvanian Railway, the section of the so-called southern railway from Deva to Simeria was decisive for the development of the settlement, which was intended from the beginning to be a railway junction. This was the point that, due to the geographic characteristics of the area, allowed railway access to the Transylvanian Basin. As a result, the development of the settlement's industrial character was entirely determined by the railway. The majority of the population worked for the railway, in railway workshops and at the marshalling yard, until the Second World War (Popescu, T., 2014).

Nowadays, the railway lines are underutilized, and the workshop buildings in the settlement function as ghost castles. Currently, some parts of the railway line are undergoing renovation, but most of the railway tracks and their associated buildings are out of use.

### 3.3.2. Petroșani

After the year 1840, the region experienced rapid development because that was when the first surface coal mining operations began in the area. This area would later become the largest coal basin in Romania and one of the most significant in Europe. The development of the locality was closely linked to the growth of the mining industry, starting in 1848.

The industrial development during the 1970s and 1980s was not limited to mining activities alone; furniture and textile factories were also built during this period. However, after the Revolution of 1989 and starting from the year 1990, with the political and economic changes in Romania, rules were implemented that marked the transition to a "market economy," fundamentally altering the organization and functioning of existing structures. Following this period of transition, restructuring processes took place in the mining industry, carried out between August 1997 and December 1999, resulting in the layoff of over 90,000 people out of a total of 175,000 employees. As a consequence of the restructuring of mining activities, several economic units in the area scaled back their operations, leading to a collapse in the economy of the entire region and an increase in unemployment. This phenomenon continues to the present day (Petroșani City Hall, 2021).

In the case of the city of Petroșani, the development of the settlement was determined by coal mining, and in the 1870s, a railway line was constructed to connect the settlement and increase its level of utilization. Currently, most of the mining areas belong to disused industrial zones.

### 3.3.3. Baia Mare

The first mining activity in the area dates back to the 2nd and 3rd centuries AD and lasted for centuries until the 19th century. The development of the city and the surrounding settlements revolved around this function. In the second half of the 20th century, mining became unprofitable, but the communist regime continued to sustain this activity. After the fall of communism in 1989, gold mining ceased, and the mining areas were preserved. Additionally, the majority of heavy industries established under communism also ceased operations, and the main economic force in the city became commerce.

Regarding the railways, the railway section connecting Satu Mare and Jibou was opened in 1899. This railway section, passing through the city and leading to the south-western part of the city, was dismantled in the 1960s.

The distribution of industrial residual areas are dispersed, characterized by the island-like distribution of abandoned land sites within the urban system. These sites may occasionally form clusters of abandoned lands that dominate the urban area and generate a specific type of urban structure (Filip & Cocean, 2012). The central brownfield areas were rehabilitated in the past few decades, but the peripheral zones are still dominated by brownfield areas

#### **3.3.4. Târgu-Mureş**

As the name suggests, the main activity of the city and its surroundings was the production and organization of markets. This characteristic was heavily influenced by industrialization after World War II (Târgu Mureş City Hall, 2010).

The opening of the railway line between Târgu Mureş and Reghin took place in 1886, coinciding with the adaptation of protective customs tariffs between Romania and Austro-Hungary, followed by the enactment of the industry encouragement law the following year (Popescu, 2014). This decisively marked the direction of the city's development, both in terms of urban morphology and industrial growth.

The city experienced a period of extensive development in the 1950s and 1960s, which influenced the population growth and territorial expansion. After the regime change, most of these industrial facilities ceased to operate, and in many cases, they now appear as disused industrial areas within the city. Based on Filip & Cocean classification (2012) the distribution of industrial residual areas can be enrolled in the category of dispersed model.

#### **3.4. Potential for creating the backbone of green infrastructure**

The subject of residual areas, their regeneration, and their integration as elements of green infrastructure in urban fabric, as a result of sustainable development, plays an increasingly important role in the present period. The importance of this can be justified by ecological, economic, and socio-cultural challenges, both at the national, local, and global levels. "In large cities, industrial residual areas serve as reserves and the basis for zonal and territorial sustainable development of settlements. The conversion of these dysfunctional, underutilized areas will also contribute to urban development with space saving, limiting the expansion of built-up areas, and promoting the development of green spaces for urban rehabilitation" (Hutter, 2015).

As urbanization intensifies, urban fabric becomes denser, gray surfaces become more prevalent, and green and blue infrastructure elements and spaces shrink, resulting in unfavourable microclimate changes. These changes can disrupt local ecosystems, leading to the loss, fragmentation, and eventual destruction of biodiversity in populated areas. Have to be taken in consideration actions that are based, not only on sustainable urbanism, but actions for the creation of sustainable landscapes that includes urban and territorial levels at the same time and are placed on multiple pillars for stability (see Fig. 6).

In agreement among ecologists, economists, social scientists, and urban planners, urban green spaces can be considered as public and private spaces in cities primarily covered with vegetation, available to the public for direct use (e.g., active or passive recreation) or indirect benefits (e.g., environmental benefits) (Koohsari et al., 2015; Kardan et al., 2015, Plunz & Sutto, 2010). The United Nations' World



Commission on Environment and Development defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987). Douglas Farr's approach to "sustainable urbanism" advocates that urban density and connection with nature are key components of sustainable urban planning (Farr, D., 2007).

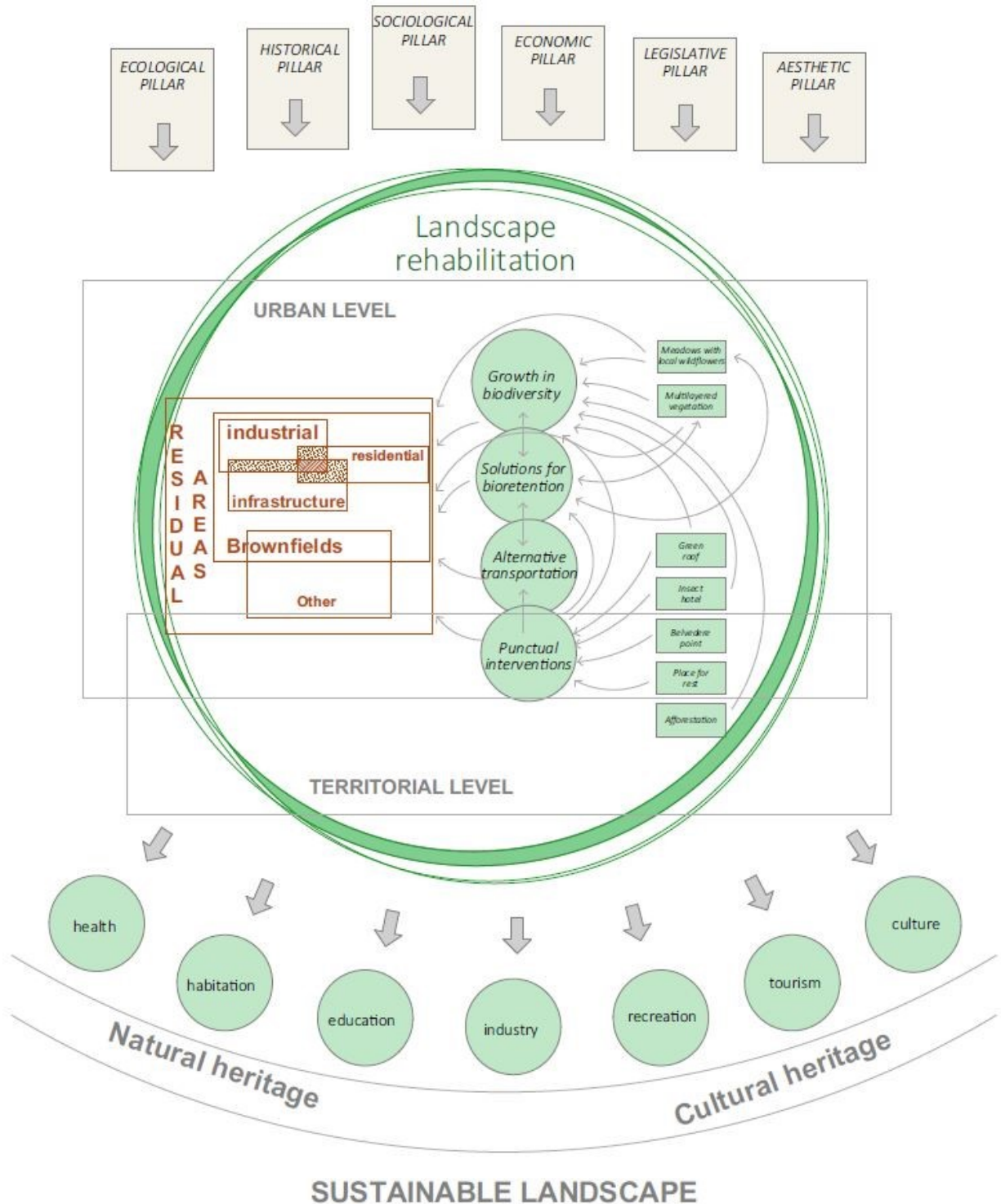


Fig. 6. Schematic approach of creating sustainable landscapes (author's drawing)

## 4. Conclusion

In conclusion, the creation of industrial residual areas, both at the national and Transylvanian level, can be understood in several ways: as a process of deindustrialization and demilitarization, a consequence of suburbanization, or simply a natural process or cycle in the life cycle of the city as an organism. Regardless of the perspective we sympathize with, the objective of rehabilitating disused industrial areas is always the same: to bring these areas back into the natural cycle of land use. As one of the reasons for the formation of disused areas was their initial mono-functionality, meaning there was only one specific purpose, during the rehabilitation process, conscious efforts must be made to diversify the functional use of the land.

Although the overall importance of the subject is high and relevant, the lack of preliminary research on residual spaces and their approach in urban settings in Transylvania justifies the need for further research. The regeneration of disused areas provides an opportunity to achieve objectives such as limiting urban sprawl and creating more green and public spaces in European cities, as established by documents such as the EU Territorial Agenda 2030 (2020), World Bank in Romania (2021), the New Leipzig Charter (2020), and the Urban Agenda for the EU (2016). However, these documents lack specific prescriptions or precise indications that could assist in the implementation plan.

By examining the current structure of settlements and researching their historical development, the first observation is that the major advancements of the first and second industrial revolutions, as well as the remnants and footprints of most of them, now constitute a significant portion of the available disused and residual areas today.

The emergence of the railway in the Transylvanian Basin in the late 1800s greatly influenced the development of industrial zones and industrial settlements, as it served as the primary mode of transportation for industrial products in the first half of the 1900s. Therefore, all major industrial units and military bases were directly connected to the railway through the construction of branches. Therefore, the second observation is that the presence of the railway played a key role in shaping the industrial nature of settlements, and after the decline of the industry, these railways and related facilities also became largely underutilized, appearing as disused areas within the urban fabric. Through regeneration, renaturalization, and the integration of valuable green areas into the grey zones of the city, green spaces along railway corridors can become key elements of urban green infrastructure.

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# The Impact of Mixed Culture on Open Public Spaces in urban areas: A Case Study of Mega - Block 70, New Belgrade

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## ABSTRACT

*Public spaces are important in the cultural landscape of a city, as they provide opportunities for social interaction, recreation, and civic engagement. The way these spaces are designed and managed has a significant impact on their use and meaning. This paper explores the influence of mixed culture on open public places, focusing on housing mega-blocks – the „Block 70“ in New Belgrade as a case study. Block 70 is a mixed-use development that includes residential, commercial, and cultural facilities. It is located in one of the most prominent areas of New Belgrade, which has undergone significant transformation in recent years. The study uses a combination of quantitative and qualitative methods to analyze the cultural influences on the use and perception of open public spaces in Block 70. The paper begins by providing an overview of the theoretical framework for understanding the relationship between culture and open public spaces. It highlights the key concepts of cultural identity, social practices, and the role of the cultural impact seen from the aspects of urban design that is shaped and redefined by different cultural trends. The study then presents the results of a survey conducted among the residents of Block 70, first shown in non published paper which examines their perceptions of the cultural influences on urban design in open public spaces. The survey results indicate that the cultural diversity of the residents is reflected in the use and perception of open public spaces in Block 70. The study identifies several cultural factors that influence the use of these spaces, including social norms, gender roles, and cultural traditions. For example, women tend to use the public spaces in Block 70 less frequently than men, due to cultural norms that dictate their roles in open public spaces. The paper also examines the architectural features of Block 70 and their impact on the use and perception of public spaces. Additionally, the study highlights the importance of creating inclusive and accessible open public spaces that reflect the cultural diversity of the community. The findings of this study have implications for urban planners, designers, and policymakers, as they seek to create public spaces that promote social interaction, civic engagement, and cultural exchange.*

## KEYWORDS

*open public spaces, culture, transformation, mega block 70-New Belgrade*



Figure 1. An axonometric drawing attempts to map informal changes in today's Block 70.  
(Source: author)

## 1. Introduction

### 1.2. Plan for the new city

New Belgrade began as a city of great ideas that produced significant architectural and urban initiatives while it was being built, but in the end, public and social housing with undeveloped open space became its primary use. Between 1960 and 1980, this new city was rapidly constructed in order to address Belgrade's ongoing shortfall of 50,000 housing units. The Athens Charter and microrayon system, which organized residential complexes around compact neighborhood hubs with stores, services, and centers for primary education and health, served as its urbanistic foundation. In the context of the former Yugoslavia, the municipality of the planned modern expansion of the capital, New Belgrade, was exposed to intensive urban development (Jovanović and Stupar, 2021).

From the very beginning, this new “city within a city” was planned with the dominant function of state administration, however, over time it gave priority to much needed housing (figure 2). The basic idea of the development was the construction of blocks with large residential buildings, the articulation of basic geometric shapes, an orthogonal matrix with a series of services and large areas of open public green areas, which represented the essence of modern urbanism (Blagojević 2007).

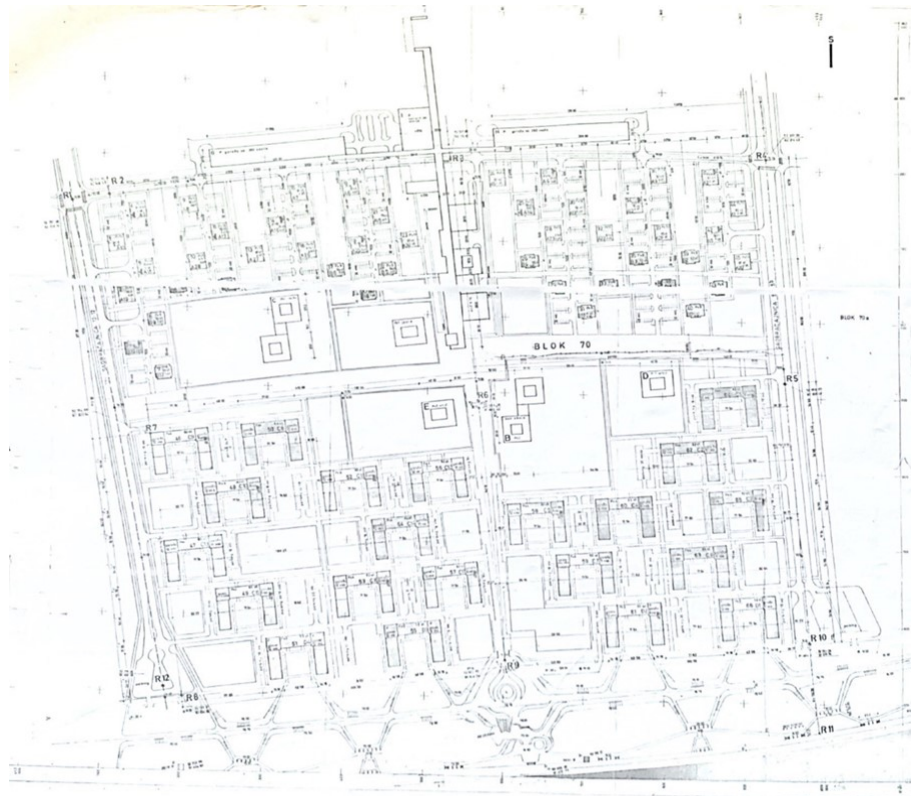
The paper focuses on Block 70, due to the fact that this superblock underwent a large transformation in spatial and functional way, and regarding the fact that because of the functional services in this area it is rather inhibited with different cultures, mostly Serbian and Chinese. The surface area of Block 70 is approx. 137 ha, with the built area of approx. 8,000 apartments for 15,700 inhabitants. The superblock is bounded by a huge green buffer zone next to the main road (Jurija Gagarin Boulevard) on the north, and a green promenade next to the Sava River in the south.



*Figure 2. Masterplan of New Belgrade, 1950. (Source: Archives of the Urban Planning Institute of the City of Belgrade)*

In 1962, the municipality of Novi Beograd adopted a regulatory plan. It was planned that a settlement with about 60,000 inhabitants will be built on the green area of the village of Bežanija and along the Sava River. On the basis of this plan, the urban design of a typical block was developed. The two similar superblocks, 45 and 70, represent the largest housing unit in New Belgrade, with surface of approx. 800 x 800 meters. In 1965, on the Yugoslav competition for urban planning concepts the first-prized design was done by Ivan Tepeš and Velimir Gredelj, and Milutin Glavički and Jovan Mišković made a detailed urban plan according to the initial design (figure 3).

The original urban plan for New Belgrade from 1948 defined a special urban fabric composed of superblocks. New Belgrade was developed as a symbol of the modern socialist country in the political and cultural way. The organization of the state was presented through this new development and huge construction, primarily developed as the antithesis of capitalism, which fundamentally determined the concept and strategy of its development. However, today it represents an illustrative example of how the market law can define the spatial organization of the capital (Djukić 2015).



*Figure 3. Masterplan of blk 70 in New Belgrade, 1965. (Source: Historic archive of Belgrade)*

A qualitative research design was employed through expert observation techniques such as field study with cognitive mapping, while quantitative research utilized online surveys conducted among local citizens residing around Mega Block-70 New Belgrade. The data collected provided insight into how different cultural backgrounds impacted open public space usage patterns. Qualitative research methods such as in-depth interviews with more than 10 participants were used in the combination with aforementioned methodology. Consequently, qualitative methods are used to observe the behaviour of local communities and identify community issues and needs from the aspect of open public space usage. Qualitative methods are advantageous for this type of research as they provide a basis for planning community efforts that lead to long-term change. However, qualitative methods do not always yield results that can be reduced to numbers. Therefore, it is important to use a combination of both qualitative and quantitative methods in order to gain a more comprehensive understanding of overall space characteristics and usage.

## **2. Impact of Urban Redevelopment on New Belgrade Block 70 Usage**

The urban redevelopment of New Belgrade Block 70 has changed the cityscape of the area and the overall morphology of New Belgrade. City authorities initially argued for the sale of land in the area to justify the intensive construction and promote it in the area. This has led to under-utilization of open spaces and problems with maintaining them, as well as poor maintenance of communications between homes and buildings, which has appeared to have a negative effect on the public image of New Belgrade. Physical deterioration of housing and semi-public open spaces in Block 70 is also evident. New Belgrade follows the principles of scientific urbanism, emphasizing light, air, and green space, and in the 1970s there was a socialist construction boom, while

in the 2000s new construction aimed to densify the urban fabric. The predominant prefabricated structural system in New Belgrade was developed at the Institute of Materials of Serbia and widely used in residential construction in Yugoslavia and exported to non-aligned countries.

Traditional theories of ethnicity rely on a straightforward relationship between identity and place, even when used to depict cultural distinctions in contexts where people from different regions cohabit. Social-scientific representations of space provide images of fracture, rupture, and disjunction a lot of attention. The cornerstone for the distinctiveness of civilizations, nations, and cultures is the occupation of "naturally" discontinuous territories, which appears to be an unproblematic partition of space. The concept of discontinuity serves as the foundation for theories that explain how cultures and societies interact, clash, and contradict one another (Gupta & Ferguson, 1997).

*"Experience is a single whole, within which modifications may be distinguished, but which admits of no final or absolute division; and that experience is everywhere, not merely inseparable from thought, but is itself a form of thought."* (Oakeshott 2015).

The unique sense of physical identity that a place can communicate is one of the generalizations with which most authors relevant to the research topic agree. It is recognizable in certain ways. It can be a physical unity that is represented by topographical details, such as being bounded by hills or mountains or partially or completely surrounded by water. Unlike a border, a central landmark, such as a harbor, a mountain, or a historically significant structure such as a church, temple, or mosque, can provide identity. Identity of Block 70 is defined by existing Chinese shopping market, but also by the Riverfront that is most frequently used by citizens for socialization and recreational activities, alongside with the river boat restaurants and clubs called "splavovi" that represent a perfect example of people tradition and identity in Belgrade. To borrow a definition from phenomenology, people are rooted in their environment, or, in other words, in their lifeworld. The interaction between an organism and its environment is ongoing, and because the two are closely related, our conceptual distinctions are often misleading and useful only as heuristics. For example, we often refer to the interaction between a person and an object or a person and a location. In contrast, there is a merging of concepts that are usually considered distinct entities, such as body and consciousness, culture and organism, inner thought and outer world, in the most basic sense of existence. Public spaces play a significant role in improving the quality of life for those living in urban areas. They provide an opportunity for social interaction, physical activity, and mental relaxation. However, cultural differences can influence how public spaces are perceived, used, and shaped by the community members. This essay explores the impact of mixed culture on open public spaces using Mega-Block 70 as a case study in New Belgrade.

Public spaces are crucial because they foster social cohesion and encourage community development (Mostafa, 2021). The design and maintenance of public spaces can have various effects on human behavior and well-being (Li et al., 2022). Cultural diversity is an essential aspect that adds to the richness of urban public space experience (Bulatović, 2022). Mixed cultures refer to various ethnicities or racial groups living together within a particular locality. Cultural influences are a major determinant of the use of public spaces and can even determine how they are shaped. Research indicates that age, gender, marital status, and area of residence are key influencers in the utilization of public spaces. Studies have also indicated that public spaces are



essential for the enjoyment and exercise of human rights, particularly cultural rights [6]. Furthermore, research has highlighted the importance of interactions between behavior and the built environment in public spaces. Indeed, it is important for planners and others to consider normative principles when designing and regulating public spaces in order to ensure that cultural influences are taken into account. Cultural influences have further impacted urban development across the world by influencing the design of open public spaces, which provide the means of connecting culture, nature and people. Consequently, it is clear that cultural influences must be taken into account when planning public spaces in Block 70 to ensure that they meet the needs of different cultural groups. While there is little acknowledgement that civilizations have irrevocably lost their way, "multiculturalism" is an attempt to integrate this multiplicity of cultures into the framework of national identity. Similar to this, the concept of "subcultures" upholds the notion of various "cultures" while acknowledging the relationship between many cultures and the dominant culture within the same geographic and territorial realm. Even when employed to explain cultural variations in circumstances where people from different areas coexist, traditional theories of ethnicity rely on an unproblematic connection between identity and place (Barross, 1990; Dovall, 1991).

Having a culturally diverse public space in Block 70 is incredibly beneficial. For example, regarding the connection between culture and public spaces, investing in these areas increases access to markets, jobs, and education. It is also important to recognize why different people of different cultural backgrounds use public spaces, whether it is because of the opportunities or exchange of ideas and experiences, or simply to enjoy the natural characteristics of open public space. Studies have also shown that urban green spaces influence lower levels of stress thus improving overall physical and mental health. Public spaces also bring many different people together, creating a positive framework for shaping public space. Moreover, with fresh development decisions, urban spaces can change spatially, increasing prosperity and extending expectations of modernization.



*Figure 4. Photo of usage of green spaces in block 45 and 70 in 1970. (Source: Exhibition in gallery Neon, 2019)*


It is evident that spending time in open public space can have a rather beneficial impact on the community, but how is this mixed community using these spaces. One of the most important benefits of having a culturally diverse public space in Block 70 is the ability to create cultural sensitivity, insight, and local knowledge, which can lead to higher quality. Therefore, having spaces. Diverse public space in Block 70 is essential for creating a safe and welcoming environment for everyone.

### 3. Analysis of Cultural Influences on the Usage of Open Public Spaces in Block 70

The utilization of open public spaces in Block 70, New Belgrade is affected by both cultural and political factors. The super-blocks in New Belgrade were built as part of a modernist urbanism plan, as a statement about the establishment of a modern socialist state. This plan resulted in the division of the super-blocks into smaller pieces and a current threat of privatization (Jovanović, Vuković / Mitrović 2019), which has a direct impact on the utilization of these spaces. These open public spaces are also an integral part of the super-blocks and form one of the most interesting aspects of these spaces. The super-blocks also became independent local communities to a certain extent, and formed an integral part of the everyday lives of the people living in the blocks. Therefore, the cultural factors surrounding the use of these public spaces should be taken into account before any decisions about them can be made.

Block 70 in New Belgrade, Serbia, is a unique urban area shaped by environmental, social, cultural, and spatial factors (Rakonjac, et al. 2022). The open public spaces in the New Belgrade waterfront area, in particular, reflect the influence of several of New Belgrade's characteristic super-blocks (70a, 70, 44, 45). Researchers have studied the structure of settlements and public spaces of the open block in an effort to understand the initial planning of sports and cultural areas (Milojević, Maruna / Djordjević 2019). This had an important theoretical impact on subsequent planning (Prokopljević 2015). Block 70 in New Belgrade is a modernist mass housing area that comprises several super blocks (45, 44, 70) (Zivkovic, i drugi 2019). This has a major impact on the context of the entire housing "Block 70," and by bringing new values to urban areas, public spaces can also be expanded to the other blocks of New Belgrade (Carlos A. Moreno-Camacho 2019). These factors have significant implications for the city structure and network them to have a broad impact in terms of functional and cultural aspects of open public places (Đukić / Antonić 2019). For example, Block 45 in New Belgrade was designed in accordance with the principles of Green Infrastructure (Simić I 2017). In addition, there are urban gardens in New Belgrade's Block 23, estimated to affect approximately 70 households (Djokić, i drugi 2018). Moreover, spatial comfort within open public spaces and comfort with the city of Belgrade is widely due to its long cultural-historical impact (Vukovic, i drugi 2021). Thus, open public spaces provide terms of sustainability and a new method of cultural sustainability.

Open public spaces have the potential to bring a range of benefits. In Serbia, the community has implemented various initiatives to bring greening efforts to the area, such as urban gardening workshops, pocket park implementations, and the transformation of abandoned places in to places of culture. For instance, Vienna has an established system of community gardening that involves local initiatives in formal action plans, while Budapest engages a well-organized civil sector to find optimal models of cooperation (Simić I 2017). Vienna also provides financial support for



community gardens, while KÉK acts as a mediator between local initiatives and the local government (Simić I 2017). Block 70 is planned with more than 50% of occupied ground as greenery and spaces for leisure and recreation. Through survey and interviews conducted in 2022 and 2023 with residents, denizens and workers insight in to how open public spaces is perceived is broadened. Residents had answers that differentiate based on their gender. For women perception of security is influenced with neglect of space

#### **4. Discussion and Conclusion**

Mega-Block 70 exhibits diverse cultural influences due to its proximity to residential complexes where people from different cultures reside (Bulatović ,2022). These include food markets selling different delicacies from diverse cultures which provide residents with choices beyond their traditional cuisines hence leading towards acceptance and mutual respect between each other's cultures. This creates a unique sense of place with more opportunities for people to interact with each other thus breaking down barriers that may exist amongst them.

Individuals of many social classes, racial and religious backgrounds frequent liminal zones, which are heavily and simultaneously used by a large number of individuals. Although overuse fosters tension, it also presents opportunities for meetings and conversation, which are crucial components of integration. Between the socialist mass housing estates and Gagarin Boulevard, the setting of the Chinese shopping market could be seen as a kind of transitional area. Interviews as a methodology has given insights in to how users perceive shared spaces. Questions for the interview are based on the answers of the questionnaire that was previously conducted, making the order reverse in search of better research topic understanding. Interviews have been conducted in 2023 and do not represent full picture but merely a snippet of users and inhabitants' realities. Fragments of interviews shown in this paper will strive to articulate and examine theoretical framework. Interview conducted was with inhabitants who live in block 70, examinees have given insight in to personal relation with space and expressed need for better maintenance of greenery and surroundings of Chinese market place. Same interview questions were presented to the workers in Chinese market place. Examinees who work in market place have concerns with space deficiency for their needs. Lack of maintenance of greenery and public spaces presented one of the key concerns. As number of them stated, they do not use different open public spaces except for commute. Reasons varied from feeling of not belonging to a lack of interest.

Results indicated that shared values were more important than similarities in language or ethnicity for creating a sense of community among the residents. The study also showed that cultural differences play an influential role in shaping public space usage patterns.

The interpretation of findings suggests that urban design practices should reflect and embrace cultural diversity to encourage inclusivity and promote social interactions (Li et al., 2022). It is critical to have sensitivity concerning cultural values, traditions, and customs when designing public spaces to ensure they cater to all cultures present within the locality(Bulatović ,2022).

In conclusion, Mega-Block 70 serves as a perfect example of how mixed culture can positively influence open public spaces by fostering social interaction and breaking down barriers between different ethnicities or cultures. Urban design needs to be

sensitive to these differences so that they reflect and embrace the cultural diversity present within localities.

This research was limited by time constraints hence limiting further methods like focus group discussions which would provide much deeper insight into how diverse cultures were blending together around Mega Block70. Furthermore, the data collected are only from one specific area hence not generalizable across other areas with similar demographics.

## ACKNOWLEDGEMENT

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# Traditional, Modern, or Contemporary? A Main Square's Search for Identity, District IV, Budapest

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## ABSTRACT

*In the District IV of Budapest, Újpest, the rehabilitation of the main square began in 2007 with a phase delay compared to the private investments after the regime change. The process, which was not fully completed until October 2023, was punctuated by tactical and conceptual changes, the latest phase of which is the so-called "Green Public Park". The aim of the study is to examine the center around Szent István Square, one of the most metropolized local centers of Budapest outskirts – urban zone annexed to Greater Budapest in 1950 –, from the point of view of the urban character targeted in each development phase, by exploring the underlying identity politics motivations. The study also places great emphasis on the architectural approach to the state socialist heritage. The premise of the study is that due to the contradictory attitude towards our heritage, politics made decisions instead of professional actors, which resulted in an unconceptualized overall picture.*

## KEYWORDS

*Budapest, outskirts, District IV, city center, public space*

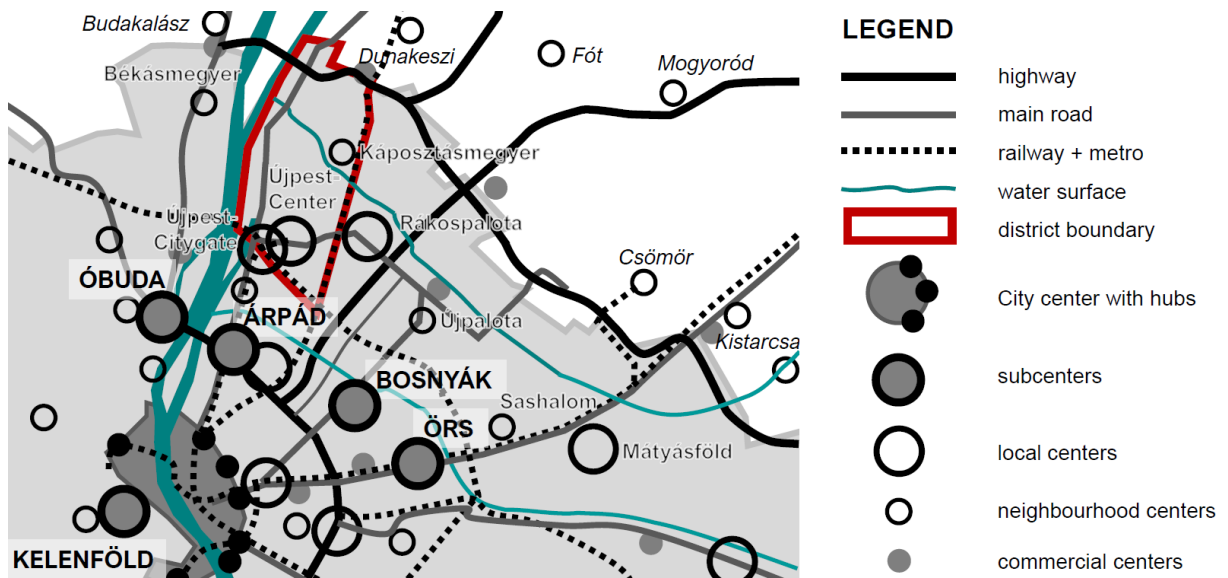


Figure 1. District IV of Budapest (Source: Author, based on BFVT, 2013)

## 1. Introduction

Since the early 2000s, the political and professional debate surrounding the transformation of the main square in District IV, Budapest has dominated local public discourses. The aim of the study is to explore how the use and architectural character of Újpest Center, and its surroundings have changed over the past 150 years. The second question of the paper is how recent development ideas (implemented and unrealized) have dealt with the state socialist heritage. The analysis is particularly topical given that the renovation of the “Green Public Park”, which is in stark contrast to previous development ideas, is due to be opened in spring 2024. The paper seeks to explore the motivation behind the design decisions over time by interviewing planners, designers, and chief architects of the District IV (former, and current).

The industrial town Újpest, with 22 other agglomeration settlements, became part of Budapest in 1950 as its District IV. *Figure 1* depicts the actual centrality around the current area of the District IV, the interpretation of which is demonstrated by the indication of the main urban network elements, and the two structural watercourses towards the Danube (*Rákos* and *Szilás* streams). During state socialism, Újpest was marked as a subcenter on the city-level development concepts, and one of the most important target areas of the so-called “modernization”.

On the Urban Development Concept of 2013 (BFVT, 2013), all the “subcenters” are positioned in the transition belt – bypassing the outer zone –, and the document distinguishes local centers by catchment area. “Local centers on a higher level” are defined as district centers or traditional community centers that have a major capacity of connectivity to the city. In the District IV, the historic *Újpest Center* (*Központ*) and the post-socialist, yet unrealized idea of *Újpest Citygate* (*Városkapu*) is marked with this sign. The ones termed “local centers on a lower level” are defined as neighbourhood centers; the only one is *Káposztásmegyér Housing Estate* in this district. For *Újpest Center* and *Citygate*, a completely new development plan was prepared after 2017, selected from several alternatives (Szesztai, 2023). The district's chief architect's office has designated ten local centers for the ten neighbourhoods, but the symbolic and institutional center of Újpest will undoubtedly remain around *Szent István Square* (Mártonffy, 2023).

## 2. Local centers in the periphery of the post-socialist metropolis

Although, as Bertaud (2004) emphasizes, capital cities of Central and Eastern Europe are "*more European than socialist*", it is important to draw attention to the characteristics of state socialist metropolises. The model of Sýkora (2009) of the socialist urban structure distinguishes four zones: the center; the inner city; housing estates as independent units; and the *periphery* (in the socialist version) or the *outskirts* (in the post-socialist version). French and Hamilton's book *The Socialist City* (1979) draws the following zones in the outskirts of socialist cities: the transitional zone; the area of socialist-realist housing construction in the 1950s; modern residential areas from the 1960s and 1970s; the green belt; the industrial zone; and rural areas. Integrated into this framework, Újpest Center is the part of the periphery that is in contact with a *large housing estate*, while Újpest Citygate is located on the border of the transforming *industrial zone*.

Supporting the theory of Gentile et al. (2012) about "*homopolitization*" under state socialism, and "*heteropolitization*" during post-socialist capitalism, it can be stated that Budapest plans were prepared centrally before 1990, and in a multi-level system featuring the conciliation of interests after the system change. This – layered upon the inherited structure, and different development paths along history – gives rise to great disparity among the development paths of centers on the outskirts. Based on how well the local center was able to incorporate itself into the larger metropolis since 1950, the following development models can be distinguished: *the metropolized, the transcript, the rehabilitated, the urban village model; new socialist centers; and new capitalist centers* (Losonczy et al., 2022). *Újpest Center* represents the typology of the *metropolized model*, since being already an important town center before 1950, witnessing communist urbanization and modern mass housing construction, which were not implemented through total demolition, but supplementing the existing urban fabric and institutional network. Today, these centers can be characterized by good status and good connectivity (Benkő et al., 2017). *Újpest Citygate* represents *new capitalist centers* as one of the planned intermodal hubs (BFVT, 2013) that became the sites of institutional developments as well.



Figure 2. Újpest Large Housing Estate form the East, with the Water Tower, symbol of District IV in the foreground. (Source: Újpest Media.)





Figure 3. Streetscape at the corner of Árpád út and István út, 1961.  
(Source: Fortepan / BFL / Városrendezési és Építészeti Osztály)

### 3. History – changes of central functions over time

The overview table (see Table 1) summarizes the changes of central functions around Újpest Center, showing four important moments of time in history: 1900, when there was already a significant population and industry there, but the range of central functions was not yet complete; 1950, when significant representative functions were built, but the city was annexed to Budapest; 1990, which shows the changes that took place under state socialism; and 2023, showing the changes after the regime shift, and the elements of the “Main Square Program” (M-Teampannon, 2007) were completed in several phases.

#### 3.1. Újpest Center in 1900 – the new industrial town

The area of the district is a mostly flat land, its geography is determined by the Danube, and Szilas stream flowing into it in an east-west direction. The area first belonged to the medieval settlement Rákospalota, today’s District XV (Losonczy, 2021). The construction of the first Hungarian railway line in 1846 and the regulation of the riverbank gave an impelling force to the industrial expansion in the area North-East from Pest.

Already at the end of the 19th century, on the favorable transport conditions of the protected Danube branch port (Újpest Bay) and the road to Vác (named *Váci út*) – with the first horse tramway line in Budapest since 1866 –, the newly created Újpest emerged rapidly on the border of “small” Budapest established in 1873 due to industrial developments incl. leather, wood, and ship factories (Garay & Benkő, 2014). The landscape of Újpest was dominated by low-intensity worker tenements and the factory buildings that stood out from them. The main central functions were in the part of the main road (today: *Árpád út*) closer to the Danube (see Table 1, row 1).

#### 3.2. Újpest Center between 1900-1950 – need for civic representation

As laws prevented immigrants from moving to Budapest after the Trianon Treaty in 1920, and property prices were high, the population of peripheral settlements

multiplied, and a contiguous built-up area was created along the city limits (Kocsis, 2008). Újpest developed into the 4th largest city in the country, with a strong civic-intellectual society and religious diversity. As a result, the need for representation and community development increased, and the low-intensity center saw the construction of substantial, imposing public buildings. In addition to the railway, several trams operated during this period, and the growth of the built-up area along these was more pronounced (see *Table 1, row 2*).

### 3.3. Újpest Center between 1950-1990 – the district of the working class

The district was established in 1950 as the town Újpest, along with six other towns and sixteen villages, were amalgamated into the so-called Greater Budapest. Újpest, becoming the District IV, was the targeted area of urban intensification along the new, north-south development concept along the Danube. In this way, instead of Rákospalota, the state socialist General Development Plans 1952, 1960 and 1970 designated Újpest Center as one of the future subcenters (Preisich, 1998). The State Department Store was inaugurated in 1952, in connection with the modernisation of Árpád Road.

The *large housing estates* of Budapest were realized following the example of most post-war European cities. To realize Újpest Housing Estate, large-scale demolitions were carried out, mainly affecting blocks of workers' tenements on the two sides of the main road towards Rákospalota (Losonczy et al., 2020). The aim was to provide evicted residents of Újpest with new housing locally. The new modernist masterplan respected some components from the past: several public buildings were preserved, and the historic one- or two-story-high residential-commercial buildings on the two main axes (*Árpád and István út*) remained intact (Benkő et al., 2021). In addition, the prefabricated slabs and towers were built in two phases, at the beginning of '70s and '80s, and they did not occupy the former streets, so they are remnants of the past (Ádám & Bangha, 2014). The institutional network of the socialist housing estate development remained incomplete and delayed compared to the preliminary plans, but the traditional center was little affected by the redevelopment, so the old and the new centers continued to exist in symbiosis (Losonczy et al., 2022).

The markets in Újpest (a large hall and the flower market) were built on the site of the former open-air market to institutionalize the former temporary market, thus defining the image and use of Szent István Square for decades. The modern Ady Endre Cultural Centre was only opened in 1983, The complex, designed by István Ferencz, was an exceptional architectural work of art with a unique spatial design solution (Pesti, 2020).

In the 1970s, the development method was car centric, so most tram lines were shut down throughout Budapest. The Metro Line 3 was eventually built only up to Újpest Center, and completed with 12 years of delay, in 1990 (See *Table 1, row 3*).

### 3.4. Újpest Center after 1990 - wayfinding

By 1990, the construction of Metro Line 3 put Újpest Center in a much better position than other hubs in the outskirts of similar role, making it an important target area for private condominium construction in Budapest after the change of regime. Residential developments brought a major change of scale to the area around the metro station, but the economic crisis of 2008 interrupted the process.

After the structural change in economy, the former industrial zones along the Danube became brownfield areas, but due to the high development potential provided by the new zoning and development concept of Budapest (BFVT, 2013), Váci Road

became a linear investment area towards Újpest Center (Garay & Benkő, 2014), one of Budapest's most important office districts after the change of regime. Several important wholesale units (Westend, Lehel Market, Duna Plaza, TESCO) were built along it (See Table 1, row 4). However, the development wave of the axis did not reach the Citygate area of Újpest. Mixed and unresolved ownership relations between the capital and the district have strongly contributed to the stalled development in the Újpest Citygate area (Szesztai, 2023). The post-crisis economic boom (after 2013) created an opportunity for a resurgence of private construction, which led to the construction of the Károlyi Centre on the Danube, for example.

The provisions of the City Structure Plan (BFVT, 2017) and the new District Building Code (Újpest, 2018) have also supported the creation of functional mix in Újpest Center. The code requires that the ground floor of buildings in mixed-function land use units and along main roads should be predominantly used for commercial purposes. In the zones of the local center, the building code encourages the construction of public spaces with various concessions, which (in line with the objectives of the 2007 Main Square Program) were intended to create public spaces of a different quality from busy or even narrow public spaces.

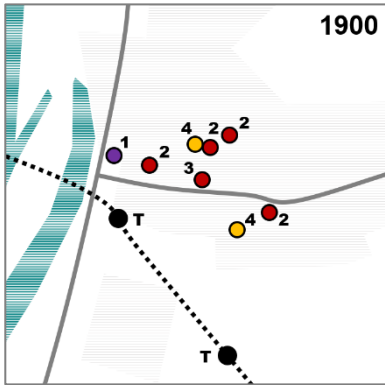
Even with these very generous regulatory concessions, the possibility of passagemaking in Újpest has been used by developers in only a few cases, and the examples that were implemented are not being used to their full potential. However, there was no market demand for the expansion of ground floor functions, as the shops along the main roads are also underutilised (Losonczy & Benkő, 2020). In Újpest Center, there were and still are ground floor shops or commercial yards along Árpád Road and around Szent István Square, which are not run down, but the average quality of these services is low, which also has a negative impact on the streetscape as well (See Figure 4).

In the next chapter, the extent to which individual phases of the arrangement of the main square were able to change this overall picture will be investigated.

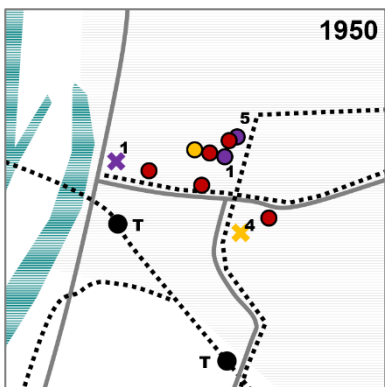


Figure 4. Streetscape of Kemény Gusztáv utca, 2020  
(Source: Author's photo, September 2020)

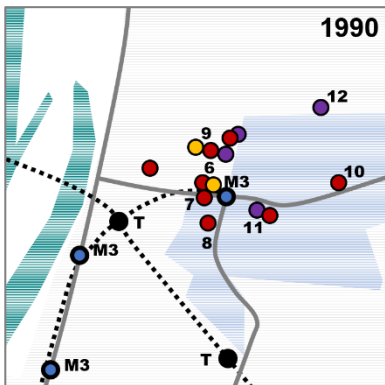
**Table 1. Changes in the central institutions of Újpest Center.**  
(Maps: Author's own representation. Photos: Fortepan.)



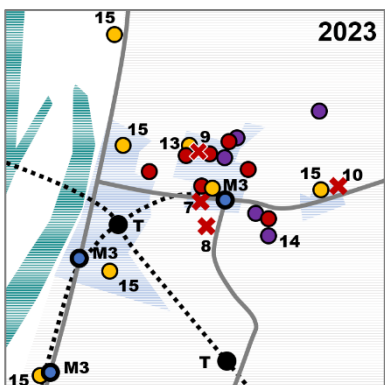
- 1. Old City Hall
- 2. Churches (Catholic, Evangelic, Calvinist, Synagogue)
- 3. Old Cultural Centre
- 4. Marketplaces
- T = train stations



- 1. New City Hall
- 5. Post Office
- Churches
- X 1. Old City Hall
- X 4. Marketplace



- 6. Department Store
- 7. Movie
- 8. Cultural Centre
- 9. Market Hall + Flower Market
- 10. Swimming Pool
- 11. Police Station
- 12. Health Centre
- City Hall
- Post Office
- Churches
- M3 = Metro 3 stations



- 13. New Market + UP! Cultural Centre
- 14. Courthouse
- 15. Stores & Plazas
- Department Store
- Flower Market
- Police Station
- Health Centre
- City Hall, Post Office, Churches
- X 7. Movie
- X 8. Cultural Centre
- X 9. Market Hall
- X 10. Swimming Pool

**Legend:** ● new institution, ● existing institution; X discontinued institution. Purple: administration and governance; red: culture and recreation, yellow: commercial facilities. (Source: Google Earth 2023, Arcanum Maps 2021, Fortepan.)



## 4. Transformation around the Main Square

The city's vast main square was originally used as a fairground. The morphology of the space is defined by the regularity of the urban fabric, forming a rectangle. First the Catholic parish church, built in 1873, and then the town hall in 1903, were added to the empty market square, dividing the vast space into sections. Three axes run down from the square towards the Danube, the most important is Liszt Ferenc Street. The state socialist system certainly neglected the development of the historic urban fabric. In addition, motorisation was on the increase, and the economic downturn after the change of regime failed to slow it down significantly, so that public spaces became car centric. In the initial situation after the system change, Szent István Square was mostly used for parking, and due to its proximity to the metro station, it was unofficially used as a P+R parking lot. The market's traffic pull and the transport of goods increased the phenomenon in the area, damaging public perception (See Figure 6a).

For a long time after the change of regime, the issue of whether to demolish or keep the market halls remained one that could not be decided. People and the political leadership saw the solution in the total dismantling of the socialist heritage, while most professionals (also for practical reasons) proposed more rational plans. In 2003, a national design competition was launched. But until 2007, only condominium buildings were built in the vicinity of the main square, which radically increased density, in accordance with the ideas of the chief architect at the time (See Figure 6b).

The aim of the Main Square Program (M-Teampannon, 2007), set out by the municipality, was to make the square a focal point for all aspects of urban life, a place for cultural and community events: to make *“Szent István Square an urban agora, a commercial, cultural and leisure focus, a symbol of the life and identity of the people of Újpest, and a true city centre”*. The concept defined a Phase 1.a to be implemented in the short term and a Phase 1.b to be implemented in a few years as a “minimum programme”. It was not possible to schedule the renovation of the rest of the square at that time, but all the options envisaged keeping the large hall and demolishing the flower market. The concept specifically referred to increasing the density of the buildings along the square. In the first phase, the square around the Town Hall – *Károlyi István Park* – was restored, and the work was completed in 2010, funded through an EU program (See Figure 6c).

The main objective of the second design competition, launched in 2009, was to build an underground car park on the southern side of the square, which would have involved the demolition and reconstruction of the flower market, with the declared aim of *“restoring the square to its historic status”*, and providing an event space which was missing from the Main Square (MÉK, 2009). In 2010, a study plan for the renovation of the old market hall was drawn up, which means that the demolition of the socialist building was still not the aim (Bun, 2023). Eventually, as a result of an agreement between the Municipality and the Church, the land of the Catholic parish was purchased and the underused, ground-floor building on it was demolished. In exchange for this land, the parish received and upgraded the former music school plot in one of the tenement buildings on the north side of the square (See Figure 6d). In this way, they made it possible to construct a new market not on the square as a stand-alone object building, but as integral part of a traditional urban block (Losonczy, 2015).

The new market was built in 2018 on this acquired plot. Funding was provided from an EU grant application, which led to the inclusion of a cultural centre – UP! Event Space – in the design programme. The development and the design objectives were complex. On the one hand, the new building had the chance to become a landmark of Újpest's 21<sup>st</sup> century renewal, a point on the new pedestrian axis between the Danube,

the district's historic center, and the modernist housing estate. The ground floor is a farmers' market, the gallery floor has additional shops and bakeries, and the third and fourth floors are the cultural centre. The two basement levels are used for goods transport, storage, and parking. According to the designer, the marketplace was designed to be integrated with the main square – visually and functionally. The conceptual objectives included densification, compactness, and integration (Bun, 2018). In their 2014 conceptual design, the architect studio would have still retained the roof structure of the old market hall, designating the covered-open event space and agora. However, the district planning council decided that, as the hall had no architectural value and its constraints limited the church–market connection, it should be demolished instead (Bun, 2023) (See Figure 6e).

Longer-term plans included the redevelopment of Szent István Square, including the creation of an elevated walkway to the third level, towards the entrance of the UP! cultural centre. In fact, it was then, that the planners defined the four phases of the main square development: the third one should have been the renewal of the northern section, and the fourth one should have been the complex transformation of the southern part of the area (Bun, 2023; Sándor, 2023).

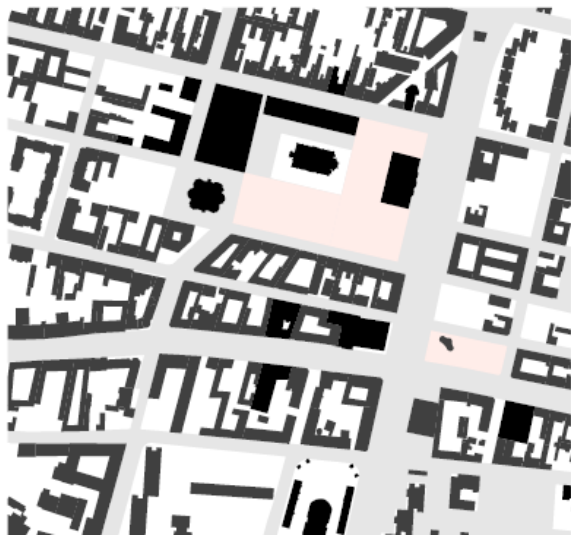
The old market could fulfil its function during the several years-long construction period. Then, after the opening of the new building complex in 2018, the socialist-era market hall was demolished to make space for further development of a public forum (Benkő et al., 2021). After that, several years of confusion followed, as the district underwent a political regime change in 2019 and the new management did not agree with the concept of the mostly paved “agora” concept, claiming that the investment would have been wasteful and would have included too little green space (Újpesti Napló, 2020). Instead, they ordered the development of a new concept, the so-called “Green Public Park” (Építészforum, 2023). None of the previous developers and designers were involved in the development of the Green Park concept, and although the political communication emphasizes that the current concept is in continuity with the pre-2010 concept (Újpesti Hírmondó, 2023), this cannot be established due to the completely changed circumstances since then.

All these decisions were also influenced by the policy of austerity, since instead of the originally estimated 2 billion HUF, the investment will be implemented with 365 million HUF, from the TÉR\_KÖZ capital tender source. The handover of the “Green Park” is expected by spring 2024, by which time the further fate of the southern part of the square and the flower market will probably be clarified.

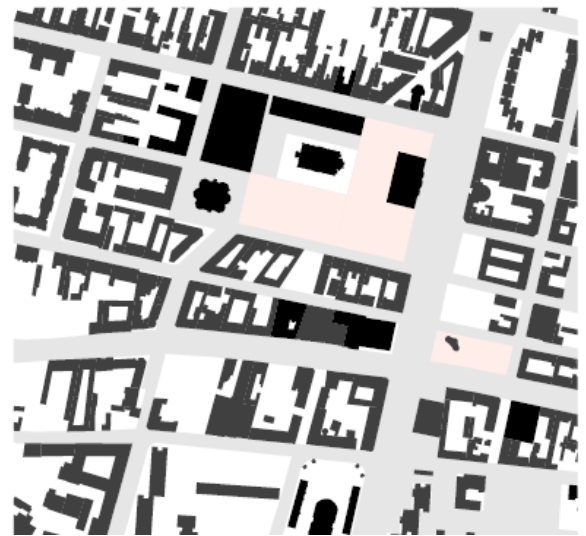
While they were busy with the redesign, the plot was empty for most of the year, only temporary events were held there. With the construction of the new UP! Event Space, the fate of the old Ady Endre Cultural Centre was sealed: after many years of neglect, it was demolished in 2022 (See Figure 6f).



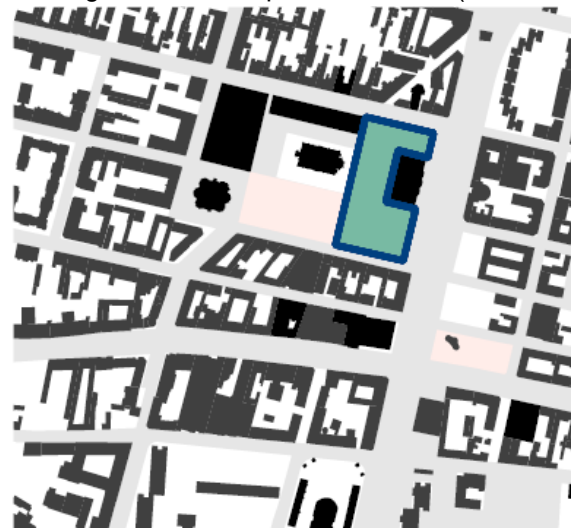
Figure 5. Visual plans of the concept made in 2014 and the landscape architecture concept to be implemented by the beginning of 2024. (Source: S-Tér Kft.; Platinum Group)



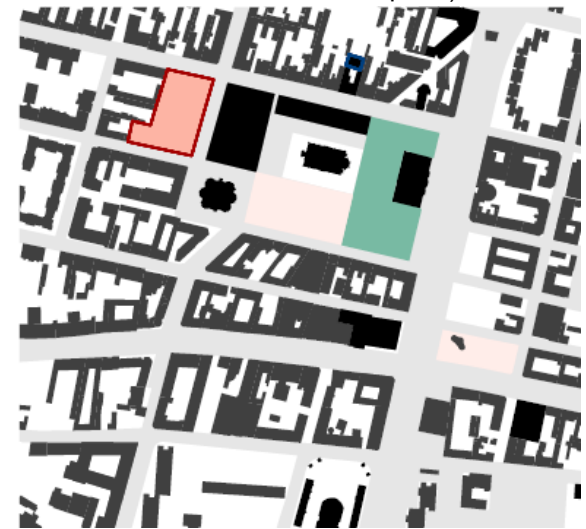
6a. – left: The initial state (1990).



6b. – right: The 2007 “pre-crisis” state (condominium constructions around the Main Square).



6c. – left: Rehabilitation around the Town Hall (2010).



6d. – right: Demolition of the parish to build the new Market Hall (2014).



6e. – left: Construction of the Market Hall and Cultural Centre, demolition of the old Market (2019).



6f. – right: Construction of the Green Public Park, demolition of the old Cultural Centre (2023).

*Figure 6. The development phases of Szent István Square after the change of regime (Source: Author’s own representation).*

## 5. Conclusion

The main square is clearly the centre of the district, both in terms of use and identity, but the thinking of the politicians and architects was sometimes too preoccupied with its rehabilitation and neglected the development of other centers in the district, and the urban spaces around the square (Szesztai, 2023). In the meantime, the condition and use of the adjoining public areas have not been substantially changed, and the ground-floor commercial services are still of a low standard. The attempt to humanise Árpád Road failed, as the concept submitted in 2018 was not applied, and the road was renovated in 2019 without any change of use. The car-centric city operation remains one of the most important barriers to the complete renewal of Újpest Center.

The building of the market and event space was a strong change in scale and style compared to the environment, with a declared *metropolitan* character. The landscape architecture concept to be implemented, on the other hand, creates the impression of a conventional public park with a rather *suburban* character. The landscape elements planned in 2014 would have made the space more suitable for organizing events, creating “*the Main Square of Újpest with capital letters*” (Sándor, 2023).

The examination of the processes that took place around Szent István Square showed that it is sometimes worthwhile to adapt to changed situations and to be able to seize good opportunities. However, it also made clear the dangers of individual political regimes politicizing financing system, putting excessive pressure on planners, and not pursuing each other's long-term ideas and plans. In the process, as was identified as a risk in the Main Square Program (M-Teampannon, 2007), “*the essential content elements of the original concept may be lost*” because of these shifts. The principle of *sustainability* can be hardly applied under such circumstances; the instability of the multi-level system of self-government, as well as the fact that the districts of the *periphery* in Budapest are constantly forced to compete for resources and reputation, make long-term planning and cooperation extremely difficult.

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# Mobility Network in Post-Socialist Mass Housing Neighbourhoods: Case Studies of Havanna and Kőbánya-Újhegy Housing Estates from Budapest

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## ABSTRACT

*Mass housing neighbourhoods can be defined as an isolated group of buildings, these estates are characterized by multi-family towers and slabs constructed using prefabricated technologies. In socialist times, housing estates in central and east Europe were effective in resolving the housing crises, however, following the collapse of communism, they faced various consequences such as physical downgrading, lack of maintenance, and insufficient network upgrading, which had a profound impact on liveability and mobility network. The research aims to investigate the liveability and quality of street networks of post-socialist housing neighbourhoods in Budapest represented by mass housing. The research applies the case-study method to two cases in Budapest. Quantitative data will be collected by mapping the neighbourhoods' streets and a descriptive analysis of street geometrical patterns, layout, connectivity, and accessibility. The assessment is carried on based on liveability indicators in means of accessibility and connectivity. The indicators depend on spatial analysis of the selected area which will be conducted through mapping and space syntax analysis tools. The findings will contribute to the development of urban design and planning strategies that promote sustainable and liveable neighbourhoods in Budapest and other cities facing similar urban challenges.*

## KEYWORDS

*Mass Housing, Post-Socialist, Connectivity, Mobility, Space Syntax*



## 1. Introduction

Mass housing neighbourhoods were constructed in eastern and central Europe in the post-war era and have gone under significant transformation during post-socialism. These neighbourhoods are defined as multi-family towers, constructed from prefabricated elements. Mass housing was designed to address the housing crisis and to provide affordable and accessible housing. However, mass housing started to deteriorate after the collapse of communism, mainly affecting the physical conditions, maintenance, and infrastructure, which were reflected in the liveability and mobility networks. In achieving urban planning and adaptive design strategies, it is crucial to examine the liveability and mobility network within mass housing. Optimizing the connectivity of the network can have a positive impact on liveability and well-being. Therefore, this research aims to investigate the liveability and quality of vehicle accessibility through street networks in Budapest's mass housing. By applying a mixed-method approach of combining quantitative and qualitative data, the paper explores vehicle mobility and connectivity patterns to set urban strategies that can improve neighbourhood liveability.

The findings address the possible sustainable development of liveability that can be improved through mobility. By identifying the opportunities for improvement, the gained insight into urban planning and design strategies can be implemented within similar case studies. The research assesses vehicle mobility in mass housing in Budapest to support stakeholders' and officials' decisions for future development efforts.

## 2. Mass housing

### 2.1. Mass housing definition

Mass housing is the provision of large-scale residential buildings, which aims to accommodate a substantial amount of people. These housing solutions are typically constructed to address the needs of a growing population for affordable and accessible housing. In Europe, mass housing started emerging during the post-world-war II era, due to the significant demand for housing in that period which was caused by the post-war destruction and population growth. These projects were initiated and driven by the governments as a solution for low-income individuals and families.

During the socialist era, housing estates in central and eastern Europe played a crucial role in addressing the housing crisis by offering affordable and decent living conditions. However, with the collapse of communism, these estates encountered various challenges related to their prefabricated construction. Issues such as a lack of maintenance and repairs led to a gradual deterioration of the physical infrastructure during the post-socialist period. The technical characteristics of the buildings themselves significantly influenced the overall housing standards. In recent years, the development of large housing estates in former state-socialist countries has brought a broader perspective. Since the political changes around 1990, these estates have taken diverse paths, ranging from decline to revitalization, from ageing districts to becoming hubs for students, and from being popular to being stigmatized (Grossmann, Kabisch, & Kabisch, 2015).

The architectural style and design of such buildings can vary throughout Europe, nevertheless in general it is featured as high-rise apartment buildings, multi-story housing, or row housing. The choice of such a design is mainly to maximize the use of the land and resources efficiently for a larger number of housing units. Mass housing

has evolved, reflecting the changes in urban patterns, architectural trends, and social priorities. Recently, the focus has been growing toward sustainability, energy efficiency, and creating liveable communities within these developments.


## 2.2. Mass housing in Budapest

In the politically and economically divided Europe during post-war era, there was a strong emphasis on international collaboration and the exchange of ideas regarding modern housing and planning solutions. Hungarian stakeholders looked to countries such as France, the United Kingdom, Scandinavian countries, and the Soviet Union as their primary points of reference. A new urban organization appeared throughout Europe with different terminologies, in the United Kingdom it was called micro-district as well as the Soviet-Union, villas Nouvelles in France, Großwohnsiedlung in Germany, and Lakótelep (large-prefabricated housing estate) in Hungary (Benkő, 2015). Most of the large housing estates in Hungary were built between the early 1960s to the late 1980s period, the peak of its construction was in the 1970s. Over time these states went through a transformation regarding their size and population. When in fact in the 1960's these estates were generally smaller and inhabitant by a high-status population, estates built in the 1970s were bigger and accommodated by lower-status residents, while in the 1980's the population consisted of people who didn't move to a bigger housing or who consider it a temporary solution (Tosics, Geröházi, & Szemző, 2005).

In Hungary, mass housing implemented prefabricated technologies as the main construction method, this policy was introduced through the initial fifteen-year housing plan from 1961 to 1975, along with the subsequent five-year development project from 1961 to 1965 (Benkő, 2015). The mass housing in Budapest, represented by large panel housing estates were typically located on the outskirts of the city, such as Újpalota, Újpest, and Kispest projects. The basic planning for these states consists of prefabricated residential blocks, which were standardized as building layout, communal space, open green areas, and integrated services. After the 90's the economic and cultural scene of Budapest changed toward more globalized social scenes, and prefabricated housing gained a more negative image. Efforts regarding these issues dealt with renovation and sustainable development to improve the living conditions of such neighbourhoods. Additionally, urban planning strategies have shifted towards a more diverse mix of housing types and the revitalization of urban neighbourhoods.

## 3. Urban Liveability

Various definitions of the term can be found in the research discourse of urban liveability, it can be defined as the comprehensive quality of life and well-being experience. The concept of liveability consists of various factors which can be partly responsible for the comfort and well-being of the urban environment achieving sustainable development of the community. It addresses different aspects, which include the physical environment, infrastructure, social fabric, economic factors, sustainability, safety, and security. Urban liveability is diverse and complex, a concept that depends on the city's variables such as cultural, socioeconomic, and geographical contexts. In any development or effort to improve liveability, it is essential to consider the requirements and preferences of the local community. On the other hand, liveability is a dynamic concept that evolves and varies depending on the characteristics of the individuals defining it (AbouBakr & ElSerafi, 2023). It is a dependent function, which



is relative to the environment and social attributes. To comprehend the concept, it is essential to take into consideration all the variables.

Liveability is often connected with the term sustainability or sustainable development, which is widely defined as the development that meets the requirements of the present while taking into consideration the future generation's needs. While liveability focuses on the present needs of the urban communities and focuses on the “now” considering the social factors, sustainability is a future-oriented perspective, with a global point of view which is long term. Liveability promotes the concept of quality of life, which drives a sense of satisfaction and well-being in a built environment, and it can be achieved by the provision of quality amenities. The research on urban liveability indicates its significance and propose various assessment model to measure it. The measurements provide insight to determine the potential strategies for urban development. Some of these approaches include rating systems that rank cities globally based on their level of liveability, the utilization of quality-of-life indicators to measure liveability, and the association of liveability with overall well-being (AbouBakr & ElSerafi, 2023).

Vehicle mobility is a crucial factor in achieving liveability, in this context, mobility involves efficiency, safety, and accessibility of transportation options within an urban area. Mainly it concerns achieving a transportation which meets the needs of the community to enhance their quality of life. Some of the main aspects of mobility-related liveability are; efficient public transportation that provides multiple mobility solutions for the users, efficiency indicates the provision of convenient and affordable transportation options with reliable services that are inclusive to the different parts of society. Provision of other means of active transportation such as walking and cycling, well-designed pedestrian and cycling paths integrated into the urban planning system to connect residents to surrounding areas can increase the quality of life for the inhabitants. Effective traffic management that reduces congestion and improves traffic flow. This can be achieved through a well-planned transportation system and parking solutions, which optimize the use of road space and enhance mobility on the network. Prioritize safety for all users, vehicles, cyclists, and pedestrians. Which includes implementing traffic measures that reduce traffic flow, well-designed crossings, designated lanes, and well-planned public transit stops. Inclusive accessibility, which is considered a crucial aspect of liveable mobility, means ensuring that transportation options are available for all individuals including age, ability, and socioeconomic background. Promote environmental sustainability practice through implementing policies that reduces energy consumption such as clean and efficient public transport, in addition, the one that reduces greenhouse gas emissions and pollution.

#### **4. Methodology**

The research adopts a mixed method, both qualitative and quantitative approaches in collecting and analysing the data. Quantitative data will be collected by mapping the neighbourhoods' streets and a descriptive analysis of street geometrical patterns, layout, connectivity, and accessibility. On the other hand, quantitative data will be collected through an analysis of the accessibility and connectivity indicators. Which will provide measurements and spatial information on the physical characteristics of the neighbourhoods under study.

This comprehensive approach will be conducted through a case study approach, the chosen cases are two mass housing developments located in the south-east of Budapest: Havana and Kőbánya-Újhegy. The selection of cases was guided by their

relevance to the study, as well as their geographical location and significance. Both of these cases hold significance as prominent examples of mass housing projects that exemplify the era of social housing policies. The study area is a radius of 1.5 km from the centre of the project. By analysing these cases, the research aims to gain an understanding of the street network. The assessment is conducted based on liveability indicators in means of vehicle accessibility and connectivity. The indicators depend on spatial analysis of the selected area which will be conducted through mapping and space syntax analysis tools. The goal is to help visualize the mobility pattern, connectivity, and physical layout. These main indicators of the study are location, geometric patterns, hierarchy patterns, Nodegram, and connectivity.

**4.1. Case study analysis**

**4.1.1. Location and public transportation**

Both case studies are located on the pest side (east of the Danube) and were constructed in the social era, they were built between (1966-1986) using prefabricated elements. Table (1) demonstrates the location, population, and density of the selected cases.

**Table (1) area and population source (Matrouk & Maiteh, 2021)**

Project name	Location	Area	Population*	Density
Havanna	Transitional area- xviii	0.49 km <sup>2</sup>	17,000	34,693 person/km <sup>2</sup>
Kósbánya-Újhegy	Transitional area- x	0.52 km <sup>2</sup>	16,000	30,973 person/km <sup>2</sup>

Figure (1) represents the location of the project within the city of Budapest. Since the location is an unchangeable characteristic, the infrastructure development of the city is the variable to take into consideration regarding measuring and improving the quality of life for similar projects. In Budapest, large housing estates or mass housing projects were initially planned to have improved public transport connections, although these plans were never established (Regina, Benkő, & Durosaiye, 2017). As a result, these projects are functionally and socially isolated from the city centre. Therefore, these sites rely on neighbourhood-level developments, but to create a liveable urban environment there should be a balance between neighbourhood improvements and a city-wide infrastructure development.



*Figure (1) location of the selected cases*

Table (2) presents street patterns and public transportation availability. In the case of Havana, the development of the city was divided by an arterial road, resulting in increased traffic flow. However, this road also provides easy access to public transportation. A similar situation can be observed in Kőbánya-Újhegy housing estates as well. These developments are designed in a way that includes common services and shopping stores within the vicinity, reducing the need for residents to travel long distances for their daily needs. This arrangement promotes convenience and accessibility for the residents, as they have essential amenities within proximity to their homes (Matrouk & Maiteh, 2021).

**Table (2) street pattern and public transportation availability (source: (Matrouk & Maiteh, 2021))**

Accessibility indicators				
	Streets	Public transportation	Street pattern	Layout
Havanna	Bounded by 4 local streets (Barcsay/Vörösmarty Mihály, Kolozsvár, Baross, Margó Tivadar)	Accessed by four bus lanes and one tram lane - approximately 45 minutes from the city centre	Gridiron	Perpendicular trapezoid
Kőbánya-Újhegy	Bounded by 2 local and 2 collector streets (Sibrik Miklós Út, Mádi U., Tavas U., Gyömrői Út)	Accessed by five bus lanes and one tram lane - approximately 25 minutes from the city centre	Gridiron	Trapezoid

#### 4.1.2. Geometric pattern analysis

Both cases present a pattern of an axial-grid street network, which is the street layout that consists of intersecting main roads (axis), that form a grid structure. It can be deduced from the geometrical map figure (2), that the street network features main arterial roads which are parallel creating a defined hierarchy. The current geometry indicates efficient mobility as well as promoting accessibility and enhancing connectivity. Having such a pattern often reflects urban planning and design efforts, which can contribute to functional land use, site utilization, and the creation of defined plots and open spaces. As for the urban morphology of the neighborhoods, it is influenced by the axial grid, which creates rectangular-shaped blocks.

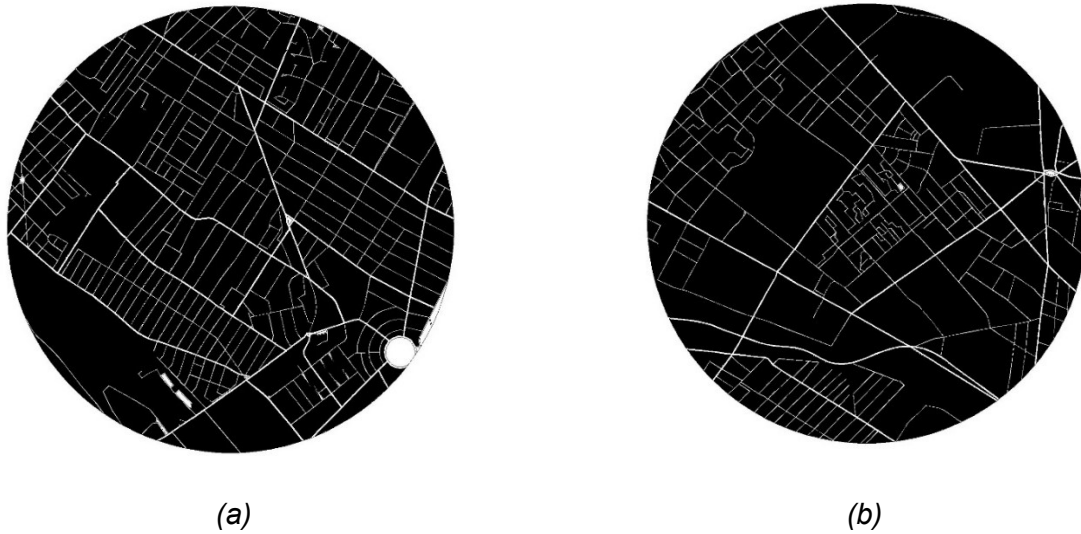
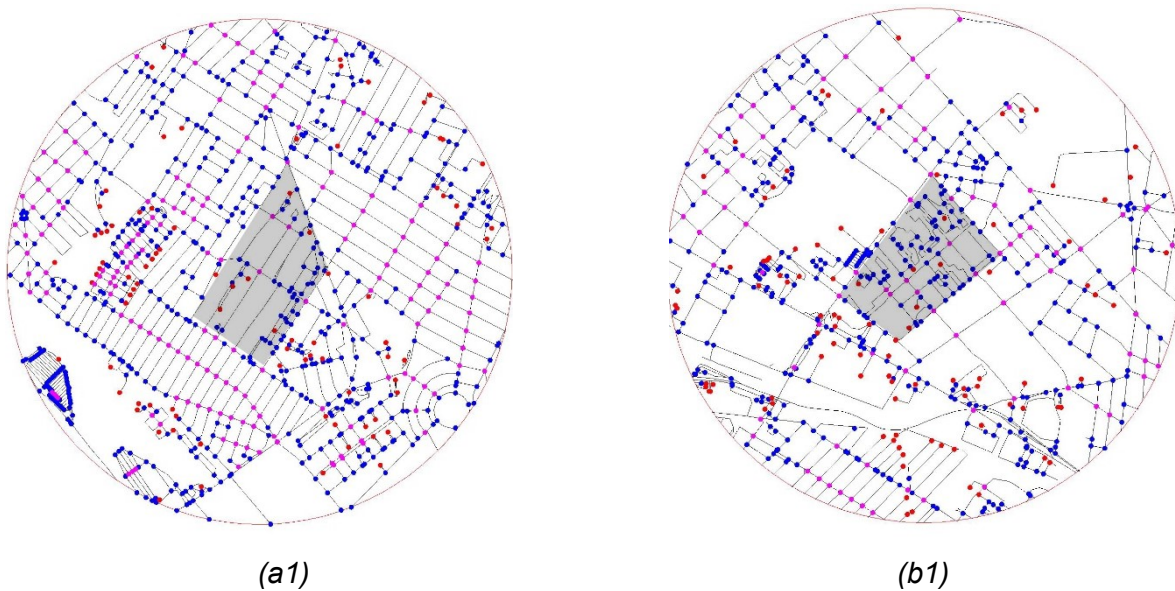


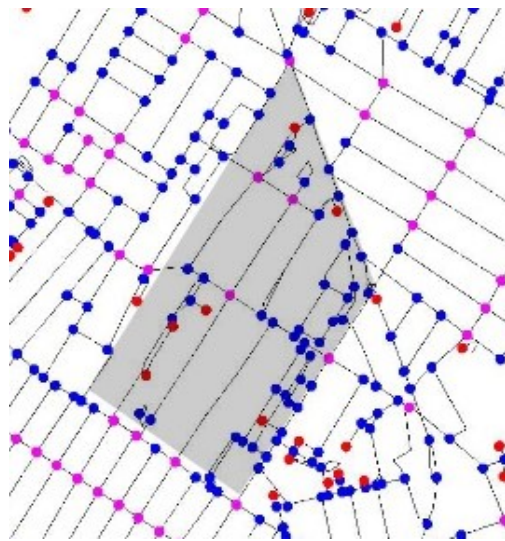
Figure (2) geometric pattern (a) Havana (b) Kőbánya-Újhegy

**4.1.3. Typology pattern**

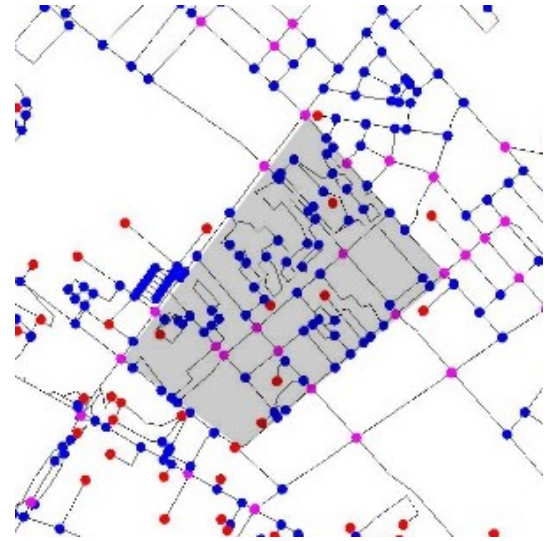
Urban patterns can be classified based on various factors, two distinguished factors are networks and junctions. Junction classification of urban typology is based on the type of connections the network has, such as T- T-junctions, or X- junctions. This classification can be developed to approximately distinguish grid layouts from others. According to (Marshall, 2005) configuration tests to classify urban patterns based on types of junctions can be done through the demonstration of 3 key quantifications (T- ratio, X- ratio, cell ratio, and cul ratio). The test of configuration is done by defining all T- T-junctions, X- junctions, and dead ends on the tested sample of the urban pattern in this case the mass housing projects, Havana and Kőbánya-Újhegy figure (3). Later the T- ratio and the X- ratio are calculated as a ratio of all junctions in table (3). Therefore, the sum of the two-ratio equals one. In urban patterns, there is always a mixture of the T- and X- junctions, the corresponding ratios will fall between zero and one.







(a2)



(b2)

Figure (3): (1) meso and (2) micro scale configuration test of mass housing projects  
Red marks dead ends , blue marks t-junctions, magenta marks x-junctions  
(a) Havanna (b) Kőbánya-Újhegy

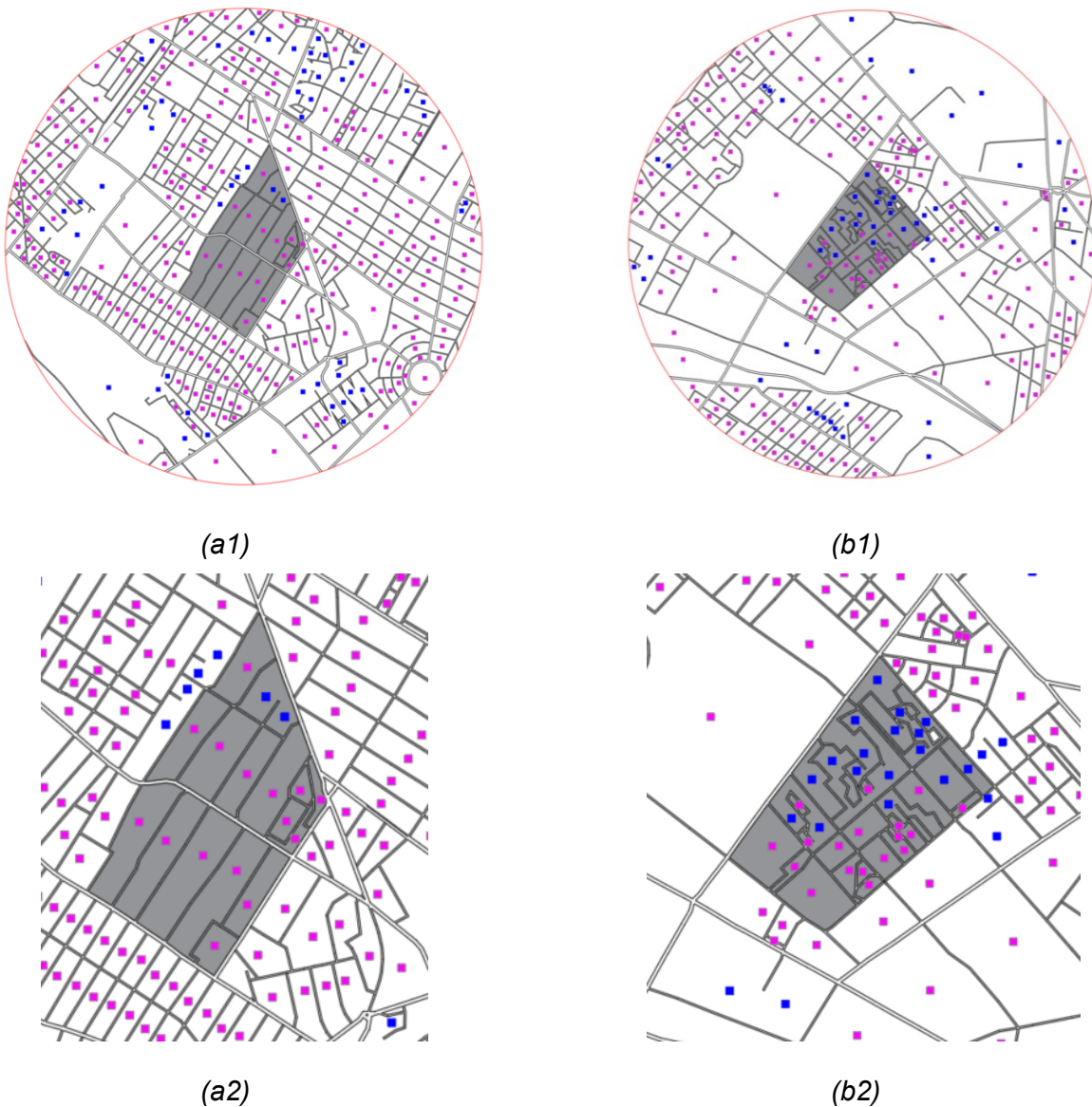
Table (3) Havanna and Kőbánya-Újhegy tested configuration ratio (x-junction and T-junction) (source: the author)

Scale	Connections	Havanna	Kőbánya-Újhegy
Meso scale	Links	790	561
	No. Of x- junctions	169	85
	No. Of t- junctions	533	378
	Total no. Of junction nodes	702	463
	X-ratio	24%	18%
	T-ratio	76%	82%
Micro scale	No. Of x- junctions	7	12
	No. Of t- junctions	43	68
	Total no. Of junction nodes	50	80
	X-ratio	14%	15%
	T-ratio	86%	85%

The cul-ratio is defined as the ratio of cul-de-sacs to all urban blocks, while the cell ratio is defined as the ratio of cells to all urban blocks. The total of the cul-ratio and cell ratio is one. In the case of a pure “tree” layout, it is the urban pattern will be composed of open branches of cul-de-sacs; on the other hand, in a pure “cellular” configuration like a grid, the cell ratio will equal one. In contrast, there will not be a cul-de-sac in a plan that is entirely cellular; in this situation, the cul-ratio will be 0 and the cell ratio will be one. Nearly in every urban pattern, there will be a combination of the two. The tested configuration quantified ratio can be examined in the following table (4)

**Table (4) Havana and Kőbánya-Újhegy tested configuration ratio (cul-ratio and cell-ratio) (source: the author)**

Scale	Cell pattern	Havanna	Kőbánya-Újhegy
<b>Meso scale</b>	No. Of cul	53	51
	No. Of cell	273	172
	Total no. Of blocks	326	223
	Cul- ratio	16%	23%
	Cell- ratio	84%	77%
<b>Microscale</b>	No. Of cul	2	17
	No. Of cell	14	18
	Total no. Of blocks	16	35
	Cul- ratio	12%	48%
	Cell- ratio	88%	52%



**Figure (4): meso (1) and micro (2) scale configuration test of mass housing projects  
blue marks cul-blocks, magenta marks cellblocks  
(a) havanna (b) Kőbánya-Újhegy**

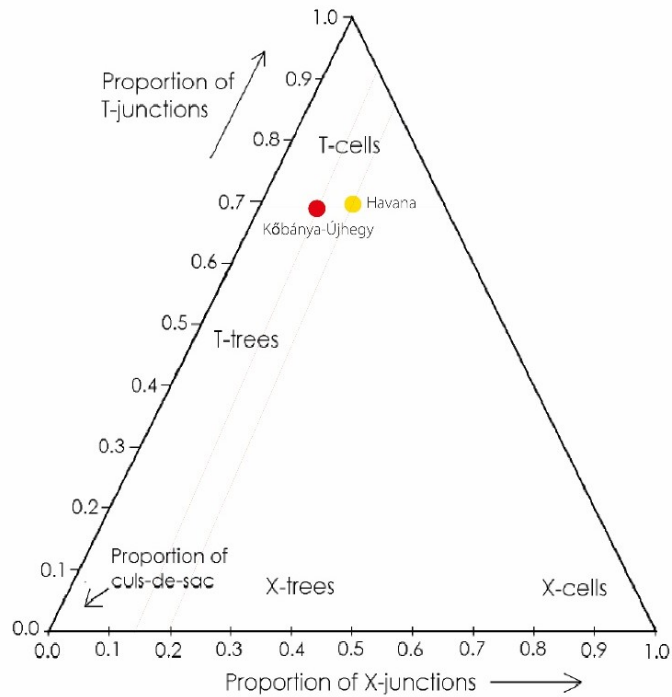


Figure (5): the Nodegram. Each point represents a network, according to its proportion of T-junctions, x-junctions, and cul-de-sac, thereby giving a quantified graphical impression

The Nodegram presented in figure (5) indicates that both cases consist of a high percentage of cell configuration due to the high number of cross junctions (T-junctions), however, it's noticed that in the Kőbánya-Újhegy neighbourhood, cul-ratio is much higher compared with the Havana neighbourhood. The T configuration in the Havana neighbourhood is structured with the main road and branches into secondary roads the configuration highlights the hierarchy of the urban pattern which is centralized and establishes focal roads. Nevertheless, this configuration limits connectivity and block integration and results in a linear movement pattern, while the urban fabric of Kőbánya-Újhegy has a high cul ratio can indicate a less connected and integrated street network, the movement pattern can be less flexible and has lower mobility, however, the street hierarchy would be essential for safety since it limits visitors access on the neighbourhood.

#### 4.1.4. Hierarchy pattern

Buchanan's thesis is founded on a basic principle, which divides the street into main distinguished types, distributing roads which are designed for movement, and access roads which provide service to the building, therefore this adaptation of function can create different relationships between mobility and accessibility resulting in various urban patterns. Street hierarchy can be classified into different themes such as traffic speed, trip length, destination status, administration, and ownership. The street hierarchy classification can have a great contribution to the urban pattern and social interaction. In the hierarchy test streets were given different colour codes to indicate the level of the street depth. Street depth can be identified with the level of accessibility of the network segment, the deeper the street the less mobility, and connectivity.

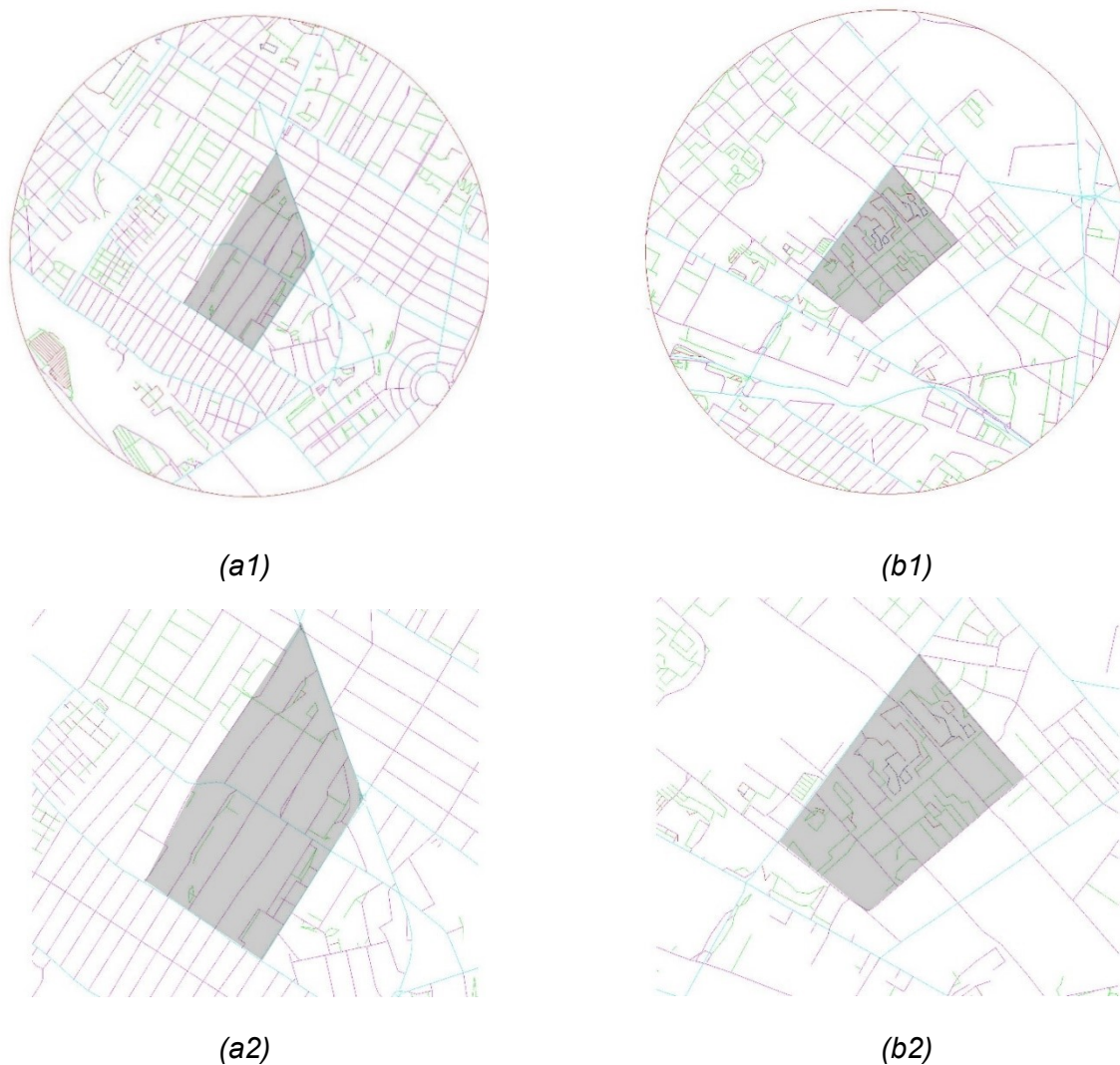


Figure (6) meso (1) and micro(2) scale route hierarchical structure of mass housing projects  
(a) havanna (b) Kőbánya-Újhegy

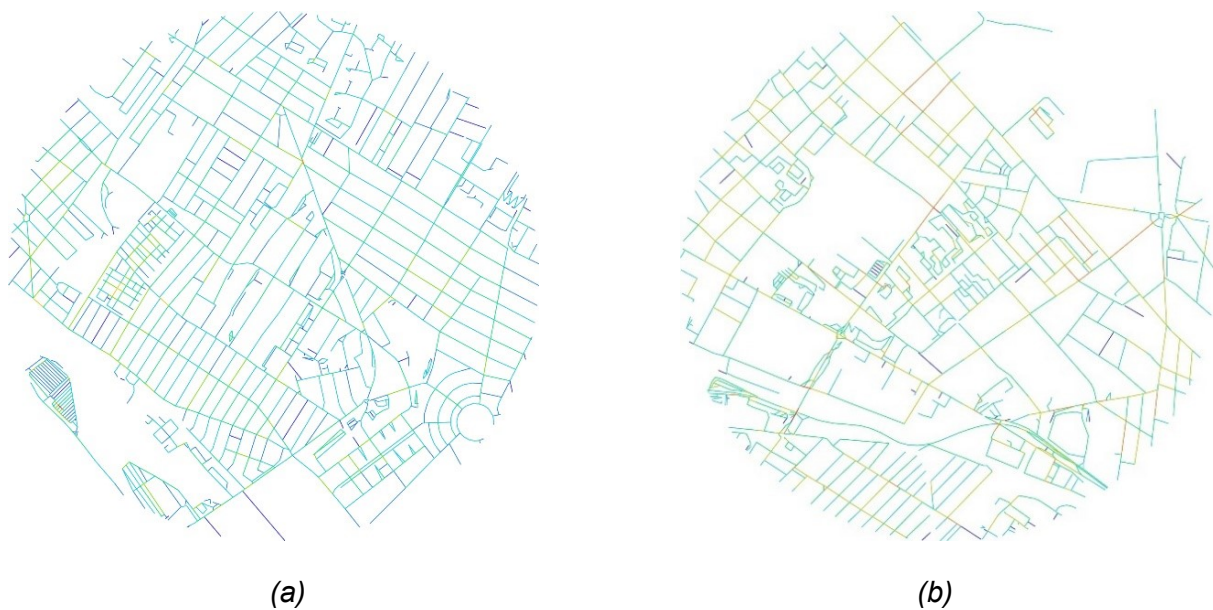
In the illustration figure (6) it was noticed that the surrounding neighbourhoods of Havana mass housing had a clear hierarchy of street depth and had 5 levels of street depth which showed a variety of functions and diverse accessibility however the mass housing neighbourhood itself only included two street depths which limits diversity, accessibility, and services. On the other hand, Kőbánya-Újhegy displays the opposite, the mass housing neighbourhood street hierarchy is very diverse showing 5 levels of depth providing accessibility and higher traffic and movement quality. However the surrounding neighbourhoods' street hierarchy is not clear and lacks mobility and connectivity.

#### 4.1.5. Connectivity analysis (space syntax analysis)

“Connectivity measures the number of spaces immediately connecting a space of origin” (Hillier & Hanson, 1984). Several local and global measures were determined to be good predictors of movement, but accessibility stood out. Overall, it appears that individuals are more frequently observed walking in larger spaces and places where there are more opportunities for exploration, mobility, and control. This may indicate a



desire for motion that is closely related to visibility. As the connectivity diagram of the two cases showcases it can indicate that the Havana mass housing neighbourhood has higher connectivity since the surrounding streets indicate higher movement patterns along the northern west side of the Kőbánya-Újhegy neighbourhood. On the other hand, the Havana neighbourhood surrounding area show similar movement pattern which indicates that there is equal connectivity and traffic pattern are similar around the neighbourhood (figure 7).



*Figure (7) connectivity analysis of mass housing projects  
(a) Havana (b) Kőbánya-Újhegy*

## 4.2. Findings

To revitalize the mass housing projects' urban landscape and enhance the quality of life for its residents, several key improvements should be considered. First and foremost, investing in the enhancement of public transportation infrastructure is imperative. A robust and efficient public transit system can alleviate traffic congestion, reduce environmental impact, and promote sustainable urban development. Moreover, the existing axial-grid street network offers immense potential for future growth and development. However, it's essential to address the high T-junction ratio in Havana, which can hinder connectivity and lead to a linear movement pattern within the city. While a high cul ratio in Kőbánya-Újhegy may indicate less connectivity within the urban fabric, it also offers a sense of safety, which is crucial. Additionally, a balanced street hierarchy can provide flexibility within neighbourhoods, but it's important to ensure that mass housing areas do not suffer from a lack of integration. Lastly, it's crucial to bridge the connectivity gap between the surrounding neighbourhoods and the development itself to create a more cohesive and well-connected urban environment in Havana.

## 5. Discussion

During the post-World War II era, the construction of mass housing projects presented various challenges, mainly considering the location of the projects due to the great impact they can have on public transportation and infrastructure. The main premise of mass housing construction was to provide standardised, adequate, high-quality, safe, and healthy living conditions for everyone which was a translation of the socialism aspirations. However, achieving such a goal often resulted in compromised mobility and accessibility followed by uneducated services and infrastructure. For instance, mass housing buildings which were located on high mobility or traffic rates streets were less accessible because of the lack of access roads leading to those buildings, and access roads were made to access designated parking but not buildings, while neighbourhoods with lower mobility or lower traffic may have had buildings with higher accessibility. Regardless of the accessibility and mobility conditions, the axial grid morphology of mass housing developments provided an opportunity for future development. The clear structure of the street network plays a crucial role in offering flexibility and adaptability, sustaining a remarkable potential for improvements and expansions. The configuration of street network junctions also played a crucial role in determining the connectivity, efficiency, and coherence of the overall street network. A properly planned street network establishes apt and efficient junctions which could enhance the connectivity between different areas within the mass housing project and improve the overall transportation efficiency to and from the mass housing neighbourhood. Furthermore, the hierarchy of streets within mass housing developments had a significant impact on the diversity of street network functions, accessibility, and clarity. Clear and well-designed street hierarchies ensure easy wayfinding and support different types of street functionality and provided services, such as main thoroughfares designed for high traffic flow, while local streets are established for residential access and pedestrian-friendly pathways for ease of movement.

It is important to note that the challenges and considerations mentioned in the research may vary based on the specific context and goals of mass housing projects and their social structure. Additional research and analysis may be necessary to comprehensively understand the complex interplay between location, transportation, infrastructure, and the design of mass housing developments. The sustainable expansion of the infrastructure in mass housing is becoming an important imperative in today's post-socialist cities. The key to achieving this goal is the creation of a well-connected public transport network that ensures efficient mobility and accessibility for residents. It's important to realize, however, that simply having connectivity is not in itself a guarantee of high liveability in a neighbourhood. To improve our understanding of the complex relationship between accessibility, mobility and living conditions in residential areas, future research should focus on exploring the delicate balance between these factors. Therefore, there is a need to improve connectivity within the neighbourhood network to promote fluid connections and optimize the movement of people. In addition, a clearly defined street hierarchy is important to ensure the safety and functionality of housing developments. Alongside, the creation of dedicated paths for pedestrians and cyclists must be taken into consideration, as it not only promotes sustainable modes of transport, but also encourages physical activity, and adapts to resilient and liveable neighbourhoods. By looking at these issues holistically, mass housing can be transformed into thriving and harmonious communities that embody the principles of sustainability and improve the quality of life for occupants.

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# From Young City to Historic City: The Heritagisation of Pest City Centre

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## ABSTRACT

*Since the 1960s, urban preservation has taken on a new dimension, with the need for a change of scale in Europe and North America: instead of protecting only monument buildings, preservation has been extended to larger territorial units. The concept of the historic city centre has developed in Pest at a pace that was in line with global and European intellectual movements, while taking into consideration specific local internal elements. Hungary's 'tumultuous' history and the consequent almost total absence of architectural heritage became a recurrent theme in the journals of architecture and urbanism in the the 1960s. Thus, the urban heritage was considered both invisible and fragmented, transmitted and carried by concepts such as 'townscape', 'landscape', and 'urban structure', of which the boundaries were less defined, even transcendental, irrelevant, in contrast to the Western European concepts articulated around characteristics such as ancientness, homogeneity, and architectural unity. In this context, the challenge of creating urban heritage was therefore sought in the construction of a spatial and temporal continuum. The paper aims to identify those spatial references elaborated by the Hungarian architectural discourse of the 1950s and 1960s that were used to redefine certain urban spaces and consequently to shape their heritagisation process, with a particular focus on the city centre of Pest.*

## KEYWORDS

*urban heritage, protected urban space, urban landscape, historic city centre, architectural discourse*





Figure 1. Exhibition to celebrate the 100<sup>th</sup> anniversary of the unification of Pest, Buda and Óbuda in 1973. Detail of a 1:500 scale model of Budapest. (Source: Fortepan / Lechner Nonprofit Kft. Dokumentációs Központ)

## 1. Introduction

Budapest has several historic urban cores, to which the qualification ‘historic’ has been attributed at different times and in different ways. The ‘youngest’ historic centre is on the left bank of the Danube, in Pest. At the turn of the 1920s and 1930s, certain qualifications in the architectural discourse symbolise the diversity of visions about the past, present, and future of this area: *‘the old lost Pest’*, *‘the epigone city’*, *‘the young city without historical patina’*, *‘the disordered, outdated, and confused city’* (Oláh, 2020a). These labels and *topoi*, which were sources of argument for the conceptions of the future city, testified to the fractures between divergent visions. Five decades later, during the 100<sup>th</sup> anniversary of the unification of Budapest in 1972-1973 (See Figure 1), writings about the history of the city placed its origins in a distanced past and the ‘historic’/‘historical’ marker was used to describe certain parts of the city centre (Perényi, 1974). The centennial celebrations gave an opportunity to ‘proclaim’ the

historicity of the Pest in the public and professional discourse. Thus, during this period of time, the qualifications of the 1920s have changed radically or even disappeared, while new ones have emerged to represent the city in a summary way. Nevertheless, the temporal models have increasingly converged towards the city centre of Pest: historicity has become a characteristic and a way of describing aspects of urban life. All this happened without any major changes in the townscape, urban structure and built environment of these urban areas. Decades of statements and debates show the transformation of the perception of the inner-city areas of Pest, which at the end of the 20<sup>th</sup> and the beginning of the 21<sup>st</sup> century resulted in a protected status with multiple scales and definitions. The creation of the historic centre of Pest is in fact the history of two interdependent processes: on the one hand, urban preservation, which underwent chronological, spatial, and conceptual expansion, and on the other, changes in society's relationship to the temporalities of the city.

Since the 1960s, urban preservation has taken on a new dimension, with the need for a change of scale in Europe and North America: instead of protecting only monument buildings, preservation has been extended to larger territorial units (Roncayolo, 1997, p. 250). The concept of the historic city centre developed in Pest at a pace that was in line with global and European intellectual movements, while taking into consideration specific local internal elements. The paper aims to identify those spatial references elaborated by the Hungarian architectural discourse of the 1950s and 1960s that were used to redefine certain urban spaces and consequently to shape their heritagisation process, with a particular focus on the city centre of Pest.

## 2. Methodology

I decided to approach the research problem and the sources with a methodology based on the concepts and representations of a defined social group, i.e. a conceptual history supplemented by methods of discourse analysis (Foucault, 2008; Koselleck, 2004). For this study, we will look at theoretical texts relating to urban heritage in Hungarian architectural journals. This has a number of advantages for this topic: the journals, as frameworks for professional representation in a particular field (architecture, urban planning, monument protection, etc.) with a constant periodicity, offer a platform for discussing current issues (Schmiedeknecht and Peckham, 2018, p. 2). These sources are essential because they allow us to focus on the construction of the concepts of urban heritage, without directly extending our study to political discourses, the perceptions of residents, etc., which although all interesting subjects, are too complex to study in one block.

## 3. Linking townscape with urban preservation: the quest for tradition in the socialist realist period

During the socialist realist period, from 1949 to 1955, the aim was to promote a new style that would be 'national in form and socialist in content'. The implementation of this programme gave rise to numerous theoretical texts on interpretations of the past, history, tradition, and the nation in the architectural journals. The contradictions of socialist realism dominate these articles, some of which seek to integrate the recognition of the past, the expression of current social progress and the idealised future. The result of this quest for a national architectural style was the identification of neo-classicism as a pre-socialist stage, as a 'progressive national architectural tradition' (Oláh, 2020b).

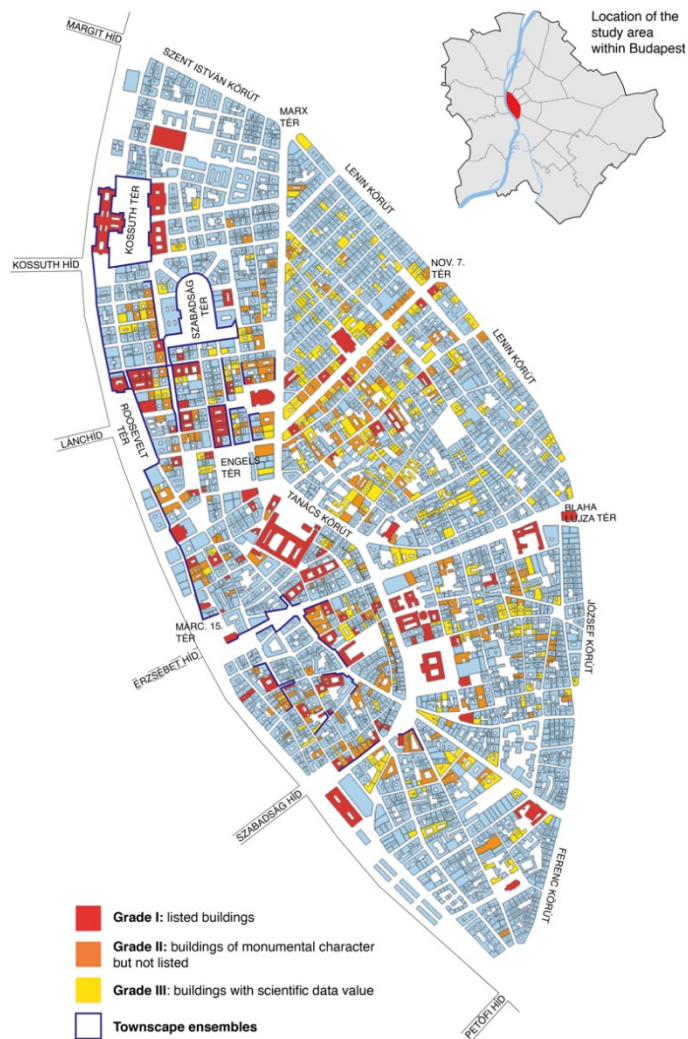


Figure 2. Categories of listed buildings and townscape ensembles in the general master plan proposal (1952/1955) and in the register of monuments (1955) regarding the inner-city area of Pest

(Source: Pogány et al., 1955; Preisich et al., 1954, p. 131; created by Gábor Oláh; software used to create the map: QGIS based on OpenStreetMap.)

The aesthetic and functional ideals of urban composition of the socialist realism led monument protection to move from buildings towards larger scales. The concept of the *townscape* became key in this process. This change of scale, defining the element to be protected as a 'unit of superior quality' or a 'complex effect', allowed buildings and sites of non-outstanding value to be integrated into the scope of monument protection. Some authors described the underlying aim of this change of scale as a desire to harmonise urban planning and the protection of monuments (Csemegi, 1950, p. 267; Gerő, 1951, p. 523, 1950, pp. 260–266; Granasztói, 1955, pp. 58–59; Kisléghi Nagy and Pogány, 1950, pp. 385–397). The surveys on the townscapes and monuments (1951–1957) also called for a better conceptualisation of this notion. Reflection on the socialist city led to the creation of a coherent temporal model expressing new approaches (designation of groups of 'townscape ensembles', protection of the radial concentric urban structure of Budapest), and the requalification of certain neighbourhoods (the two banks of the Danube, 5<sup>th</sup> district) (See Figure 2). With socialist realism, the visual aspect became a decisive factor in the interpretation and design of urban space. The visual integrity of the city brought into play the

importance of the compatibility of the old and the new city. As a result, the townscape made it possible to reconcile the preservation of traditions with contemporary urban development. These two fields were theoretically reconciled through the narrative of a specific urban aesthetic that the concept of townscape expressed (Perényi, 1952, pp. 68–69; Pogány, 1954, pp. 7–8).

After the revolution of 1956, an essential element of the political consolidation of the regime was the image of a capital built on existing values and modernised in its appearance. The political potential of the traditional townscape was thus perceived, and an attempt was made to give the impression of a modernising city (Simon, 2006; Tamáska, 2018, pp. 38–39). During the 1960s, the dominant position of the townscape changed in parallel with the development of the spatial categories of urban preservation both nationally and internationally. The discourse turned to the analysis of larger territorial units, which were no longer defined by the concept of townscape. In this trend, the concept, which had previously included cultural and historical aspects, took on a definition corresponding to the visual integrity.

#### 4. Changing scales: understanding the historicity and the spatiality of Pest's urban heritage

The surveys on townscapes and monuments were completed in 1957, providing a basis for the definition of the protected areas of the towns. In addition to the development of the legal-administrative framework of urban preservation, some authors have also attempted to synthesise the gathered urban morphological findings. Hungary's *'tumultuous history'* and the consequent almost total absence of architectural heritage turned out to be a recurrent theme in the articles, becoming an indispensable element in argumentative schemes in the 1950s and 1960s (Granasztói, 1956; Korompay, 1960; Gerő, 1967). For example, Pál Granasztói (1908-1985) concludes that urbanisation has developed differently in Hungary: whereas Western European cities have developed based on *'wealth and tradition'* since the Middle Ages, this was hardly the case for Hungarian towns. He considers that the *'lack of consolidation of architectural and town-planning traditions'* is a characteristic feature of these towns, as a result of a history marked by profound ruptures. This context was aggravated by capitalism and modernisation in the late 19<sup>th</sup> century, which led to an unprecedented degree of urbanisation in Hungary. According to Granasztói, these processes completely transformed the towns, leading to the disappearance of architectural and urban traditions, and, therefore, to a constant quest for national tradition. According to Granasztói, the lack of *'organic historical evolution'* made the townscape a central issue in Hungarian discourse (Granasztói, 1956, pp. 29–32).

Internationally in the 1960s, Venice undoubtedly came to symbolise the paradigm shift in urban heritage, becoming a key meeting place for the international scientific and professional communities on this topic. The most significant was undoubtedly the Second International Congress of Architects and Technicians of Historical Monuments, which established the Venice Charter in 1964. Almost simultaneously, on the eve of the Congress, a three-day meeting of the Standing Committee on Historic Urban Areas of the International Federation for Housing and Planning (IFHP) concluded in the same place (See *Figure 3*) (Biegański, 1964). Pál Granasztói was a member of this organisation and gave a lecture in French entitled: *Budapest et Szeged, deux villes hongroises caractéristiques de l'urbanisme de la fin du siècle dernier* (Granasztói, 1970, 1964). The uncertainty over terminology that characterised this period was already present in the Committee's name, revealing fundamental differences in the

official languages of the conference: *'sites historiques urbains'* in French, *'historic urban areas'* in English and *'Historische Stadtviertel'* in German. The change in scale of urban heritage referred to different territorial units, to varying scales and thus distinct perceptions of 'urban realities': *site*, *area*, and *Viertel*. This difference in terminology is partly due to the fact that the new urban preservation paradigm has not yet been conceptually established (Sonkoly, 2017, pp. 37–39; 139). This conceptual diversity provides an appropriate context for analysing Granasztói's conference paper.



Figure 3: The conference proceedings of the IFHP Standing Committee on Historic Urban Areas. (Source: Biegański, 1964, p. 47; Ostrowski et al., 1965)

Almost all the speakers at the IFHP meeting in Venice, apart from the Hungarian participant, spoke about medieval or early modern architecturally homogeneous units (Biegański, 1964). François Sorlin, a high-level functionary of the French monument protection, succinctly defined the main criteria of historic urban sites as ancientness, ensemble/architectural unity and homogeneity (Sorlin, 1971; Tomas, 2004). These conditions do not apply to the Hungarian context, according to Granasztói. His intervention was based on three interdependent principles: 1) there are no unified neighbourhoods or groups of buildings of outstanding historic value in Hungarian towns, but only isolated buildings (or ruins) dating from the Middle Ages; 2) these isolated monuments are concentrated in the city centres, where there are traces of the old road network and the old division of land (for example, the Buda Castle Quarter, the 5<sup>th</sup> district in Pest); 3) the urbanistic foundations of Szeged and Budapest were determined by the eclectic style of the second half of the 19<sup>th</sup> century. One of the main characteristics of *fin-de-siècle* urban planning is that, although it built on the old urban structure or developed it organically, it almost entirely destroyed the remaining monuments and architectural units. In his view, while the paradigm has been shaped around medieval and early modern towns or urban cores, the Hungarian context induces a radically different understanding of historicity and spatiality. His approach implies that the qualifiers 'ancient' or 'old' do not have a sufficiently relevant meaning

to describe the Hungarian townscapes and its elements, whereas the term ‘historic’ leaves much more room for manoeuvre. To apply the conceptual innovations of urban heritage the term ‘historic’ needed to be redefined. Granasztói concludes that the second half of the 19<sup>th</sup> century produced homogeneous architectural ensembles, in the case of Budapest and Szeged, on a city-wide scale. Hence the outstanding value can be discovered at an urban scale, and thus, he reaches a cautious theoretical rehabilitation of eclecticism. He considers *fin-de-siècle* urbanism to be a ‘historic subject’, separated from the present by radical socio-economic and technical changes. The definition of the territorial unit of urban heritage was also problematic in the Hungarian discourse, as it put forward concepts such as the *townscape*, the *urban structure* or the *landscape*, the boundaries of which are less defined and even irrelevant in relation to the concepts developed in Western Europe (Granasztói, 1964, pp. 123–126).

Since the concept of the townscape was no longer able to adequately express the change in scale of urban heritage, it was relegated to the background in favour of larger territorial units. In line with international discourse, when their protection criteria were being developed, one of the main focuses of the Hungarian discourse was on the questions of delimitation. As François Tomas (2004) points out, the issue of the boundaries of the urban areas to be protected was very important, as it enabled to comply with functionalist urban planning standards. In the Hungarian context, in most cases, however, urban heritage has not been manifested in concepts that express delimitation, such as ‘territory’, ‘area’, ‘zone’ or ‘district’. Mostly, notions expressing the *urban centre* or *core* (e.g. historic urban core) were used to describe the changing approach in urban heritage (e.g. Gerő, 1967). These can be defined both with and without specific boundaries.

## 5. Conclusions: dissolving the boundaries of urban heritage

We started from the assumption that the conceptual development of urban heritage across Europe took place partly in a spatial dimension in the 1950s and 1960s. The elaboration of the legal-administrative vocabulary of urban heritage was obviously always ‘behind’ the conceptual demands of the discourse (Veschambre, 2008, p. 20). Thus, we can look to architectural journals as a more immediate imprint to changes in the perceptions of urban space. This also implies that we analyse a diverse and fragmented picture of perceptions and conceptions of urban space, which cannot be described as a linear history.

As the Hungarian discourse was dominated by the need for comparison with Western Europe, at the centre of search for continuity was the “self-evident”, organic development of the envied Western European towns, which made the past, dynamically linked to the present, visible and tangible (Moravánszky, 1989, p. 6) The difficulties in transposing the emerging international concept of urban heritage, encouraged the theoretical elaboration of the specific historicity and territoriality of the city centre of Pest. Pál Granasztói, in his lecture at the IFHP meeting, formulated two important propositions: the city of Budapest built in the second half of the 19<sup>th</sup> century should be considered as a unified, large-scale ‘urban architectural’ masterpiece, and should be approached as a *historic*, and even a *historical* subject: it is not only important in history, but also belongs to history. In this theoretical construction, the historical importance - and the outstanding value - is manifested on a large scale, making it unique and exceptional universally. Scale and historical distance were important in attributing outstanding value to Pest city centre.



Thus, the urban heritage was considered both invisible and fragmented, transmitted and carried by concepts such as ‘townscape’, ‘landscape’, and ‘urban structure’, of which the boundaries were less defined, even transcendental, irrelevant, in contrast to the Western European concepts articulated around characteristics such as ancientness, homogeneity, architectural unity and tangible boundaries. The traces of the past are therefore to be found in concepts that express a continuity: urban planning practices that have *adapted to the landscape* and the legacies of previous generations. In a very concise way, the historicity of Pest city centre has been developed, and has even become intelligible, through changes in spatial and temporal scales. In this context, the challenge of creating urban heritage was therefore sought in the construction of a spatial and temporal continuum.

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# The Legibility of the Socialist Cult Building's Memorials. The Case Study of the Labour Movement Pantheon in Budapest

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## ABSTRACT

*Alongside the housing estates that dominate the cityscape, memorials are a smaller but distinctive architectural element of the post-socialist urban heritage. Cult building and long-term planning were typical of the period, and memorials are tangible manifestations of this. These works are intended to focus on the present rather than the past and to shape the future, and their use of space and symbolism therefore transcend the architectural style of the period. In addition to elements of socialist realism, the architectural tool is monumentality, which makes them stand out by their scale and dominant character in a neighbourhood. The present study examines the Labour Movement Pantheon in the Fiume Road Graveyard at different scales: it analyses the urban situation of the cemetery, the role of the monument in the cemetery, the built elements of the monument and the works of art placed on it. The monumentality characteristic of the architecture of the period is achieved in the Labour Movement Pantheon not by the height of the crowd, but by its spatial formulation: by reversing the scale of the cemetery, it expands by occupying a huge plot of land. Although it differs from most socialist monuments in that it serves as a memorial and burial place, it has the same function as most socialist monuments: to remember and to be remembered. Through the case study, the paper seeks to answer the question of how these memorials are readable to today's eyes and how we can make them part of our built heritage, a historical prop close in time and distant in ideology. In addition to original plans and archival documentation, the work is based on site visits and photographs of the current state.*

## KEYWORDS

*cult building, memorials, socialist realism, cemetery*



*Figure 1. The Labor Movement Pantheon in the Fiume Road Graveyard (Source: author)*

## **1. Introduction**

Memorials are structures that inherently contain an illusion, a representation other than objective reality, because they tell the story of the past from the present and aim to shape the future. In Hungary, as in the socialist countries, architecture was one of the pillars of cult building at the turn of the 1940s and 1950s, and monuments played an important role in this. A focus on the present, image-building and long-term planning were typical of the period, and the idea of creating the Pantheon of the Labour Movement fitted in well. Thus, unlike general memorials, the example in this study does not deal with a specific event (such as war, revolution, pandemic, etc.), but rather commemorates the exceptional (often future) dead of a current political regime - in other words, it is not a memorial of the past, but of the present. The aesthetic and ideological intentions at the time of its construction and our relationship to the past have changed between the time of its construction and the present, as has the use of the space of the monument, and the question is whether its legibility connects the two eras.

## **2. Legibility of memorials**

In this thesis I define legibility from two perspectives: physical legibility and metaphorical legibility. Physical, because these works must stand out from their surroundings, they must be different from the built elements around them - this can be achieved through architectural representation, changes in scale, monumental elements and their position in the cemetery - and metaphorical, because their symbols must be interpretable and understandable in order to convey their message and fulfil their original purpose of commemoration.

Physical legibility in the period under study, the mid-20th century, refers more to the size, monumentality and formal structure of the monument. At the turn of the 20th and 21st centuries, with the emergence and proliferation of 'counter-monuments', this became less and less important, a trend that continues to this day. The metaphorical part of legibility is the deciphering of symbols, decorations and ornaments that refer to

the triggering event, the time of the monument's construction, the names of the buried, and the date of the monument's creation.

A monument can be defined as architecturally legible if it can give the visitor an interpretation in both of the above senses. An example of this is the ancient pyramids, where we can see the difference and monumentality from the surroundings (physical), but we cannot read the hieroglyphs (metaphorical), so without research and background knowledge we cannot find out when, by whom and for what purpose. In the next chapter I will examine the system of legibility I have just established using a concrete example, the Labour Movement Pantheon ensemble in the Fiume Road Graveyard.

### 3. The case study of the Labour Movement Pantheon

#### 3.1. Relationship between the cemetery and the memorial

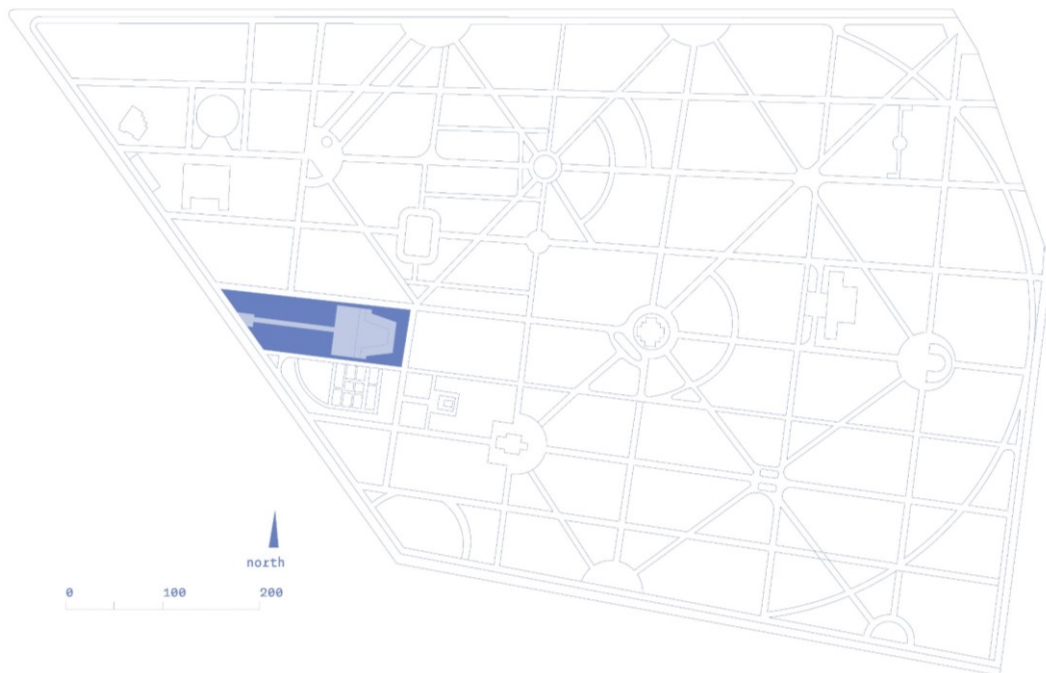
Because of their size, cemeteries play an important role in cities and are a dominant visual element. By the mid-19th century, Budapest had become a world city, and its expansion led to the opening of new cemeteries with much larger areas than before. The medieval, Ottoman and reformist cemeteries were built around the city over the centuries, and the public cemeteries that are still in use were opened in the second half of the 19th century. While the cemeteries used to have a uniform appearance based on religious affiliation, the appearance of the public cemeteries made their scale uncontrollable and the uniform image was often replaced by kitsch, ostentation and meaningless tombstones, then mausoleums and monuments built in different periods.

The cemetery known today as the Fiume Road Graveyard was inaugurated in 1848. After the Compromise (1867), Lajos Batthyány (the first Prime Minister of Hungary) was buried here and his mausoleum is still a dominant architectural element of the cemetery. Later, monumental mausoleums were built for Ferenc Deák and Lajos Kossuth (Varga, 2003), involving some of the best architects and artists of the time. By the end of the 19th century, the cemetery had become one of the most important memorial sites in the country, where many poets, writers, painters, composers and, in general, highly respected and politically important figures of Hungarian public life were buried, their tombs and mausoleums designed by the most renowned architects, sculptors and artists.

After the world wars, the leaders of the day built monuments of different styles and sizes to represent their own ideology, whether they were military cemeteries, communist cemeteries, the Trianon Memorial or the graves of the victims of the Revolution of '56. State socialism, which emerged after the Second World War, followed this pattern and they renamed the Fiumei Road Graveyard to National Cemetery. The concept of burying all communists in one place had already been formulated by the party leadership in 1949 (Apor, 2002), so in 1952 part of the cemetery was closed to the public, and in 1956 the Metropolitan Council declared it a closed cemetery (Szerényi, 1977). The chaos that followed the 1956 revolution gave a new boost to the realisation of this ambitious plan: at that time, the most important thing for the leadership was to consolidate the power of the party, and the newly built memorials were a symbol of socialist identity and history.



Architect József Körner and sculptor Zoltán Olcsai-Kiss were chosen as the two designers, both of whom have a prominent role in the work of the Labour Movement Pantheon. The two disciplines of architecture and sculpture are on an equal level in this work, with the sculpture in front of the main entrance and the reliefs decorating the pilasters being as important as the architectural design. Although the Labour Movement Pantheon is stylistically exemplary of its time, socialist realism occupies a different place in the careers of the two artists. Körner was a founding member of the Hungarian CIAM at the beginning of his career and a representative of modern Hungarian architecture in the 1930s, and after the World War II he designed in the style of socialist realism in state planning institutes (he is also responsible for the Dagály beach building, the Ministry of Foreign Trade building, the Party House in District II, and the experimental housing estate in Óbuda), before returning to his (late) modernist role in the 1960s. Zoltán Olcsai-Kiss studied painting, became a prisoner in World War I, after his release he was forced to emigrate abroad and did not return home until 1945, when he began to work in the early period of socialist realism. In 1959, the year after the inauguration of the Pantheon of the Labour Movement, they were jointly awarded the Kossuth Prize.



*Figure 2. Siteplan of the Fiume Road Graveyard (Source: author)*

The complex of buildings they designed differs from the original structure of the cemetery because, unlike the mausoleums of the past, it is not located at the junction of plots, but in the middle of a plot. The original layout of the cemetery is simple: following the four roads that border it, the internal division of the plots is a grid of identical rectangles, with three sides perpendicular to each other and the fourth, where the main entrance is located, cutting the grid with an oblique plane. The Pantheon of the Labour Movement achieves the monumentality typical of the period not through the height of the mass, but through its spatial formulation: it subverts the scale of the cemetery, becoming a huge plot of land. (See Figure 2.) The other nearby mausoleums (Count Lajos Batthyány, Lajos Kossuth, Ferenc Deák, etc.) and monuments stand out for their ornamentation and height, while this socialist monument stands out for its horizontal extension.

Although the most important element of the Pantheon, the Mausoleum, was inaugurated three years after the Revolution, in 1959, the construction of the complex was not completed until the mid-1960s, by which time the plots adjacent to the Pantheon had already been vacated (six plots in total): the Great Labour Movement Plot, the Ministerial Plot, the Artists and Scientists Plot, the Martyrs Plot, the "Lenin Boys" Plot and the Plot of the Fallen in 1956), thus creating a large coherent territorial unit (See Figure 3.).

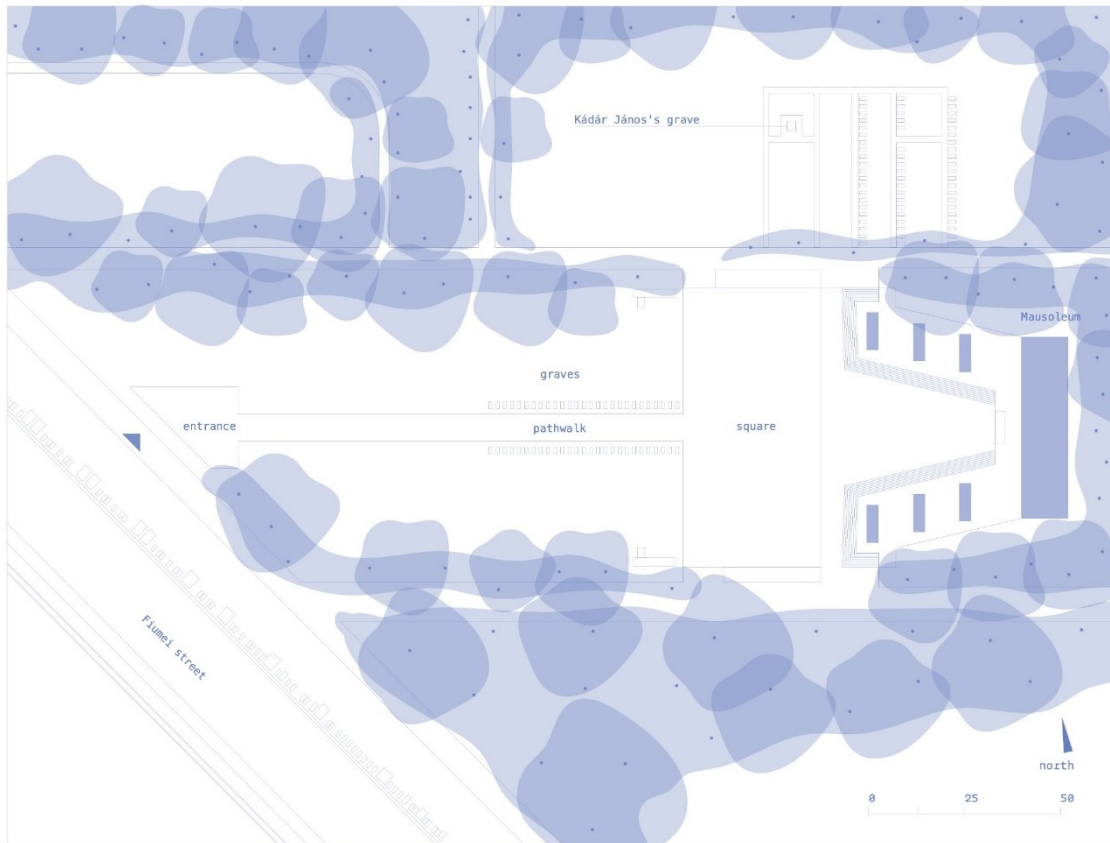


Figure 3. Siteplan of the Labour Movement Pantheon (Source: author)

### 3.2. Architecture significance, legibility

The Pantheon of the Labour Movement is part of the Hungarian socialist heritage, and the themes of its reliefs can be found in other works of the period, on the facades of houses (Klanciczay, 2021), in representative spaces, in sculptures on monuments. At the same time, the Pantheon is unique in its function as a memorial and mausoleum, as a gathering place and a place of worship.

In addition to the mausoleum, it is made up of the pilons (See Figure 4.) in front of it, the postamens on either side and the tomb walkways. The Pantheon was not only a memorial with names, but also a burial place for the greats and martyrs of communism. The two-storey mausoleum is symmetrical, with a group of statues at its centre, above which is the motto *They lived for the Communism, for its people* (See Figure 5.), the entrance door on the right bearing the names of the people who belonged to the urns on the ground floor, and the entrance door on the right bearing the names of the people who belonged to the urns in the basement. “*The attachment to a name always implies a socio-political identity. With memorials, survivors create an identity for themselves.*” (Jan Assmann). Assmann, a leading expert on the culture of memory. Paradoxically, the use of the Pantheon as a burial place was meant to

symbolise the immortality of the regime, the "continuity" between the living and the dead, bound together by history and the idea that has lasted from the Soviet Republic of 1919 to the present day of socialism.



*Figure 4. One of the six pilon's relief (Source: author)*

The concept was therefore based on the idea of permanence, the aim being to create a building that will stand forever and fulfil its original role. However, the change of regime has buried the representative buildings of communist ideology (György, 2000), and today we can see the consequences of this in the Fiume Road Graveyard, where the Pantheon is showing signs of decay due to lack of maintenance. Its disuse is indicated not only by the grass growing in the assembly area, but also by the emptiness around the plaques and tombs of the dead. Not only have there been no wreath-laying ceremonies in the square since the change of regime, but the dead who were revered and buried here under communism are not remembered.



*Figure 5. The Mausoleum of the Labour Movement Pantheon (Source: author)*

*"It is certainly true that the more parts of a ruin fall victim to decay, the more picturesque it becomes: its antiquity loses its intensity as it decays, i.e. the less it is replaced by the less it is replaced by, the more intense it becomes, i.e. the more the remaining parts have a powerful effect on the viewer."* (Alois Riegl) Riegl's interpretation of the value of antiquity suggests that the disruptive power of nature paints a neglected building in decay, and thus affects the emotions. In the process of decay, he also cites as an advantage the fact that while the original building speaks to a dedicated community, the ruined building speaks to everyone. This kind of detachment from ideology can be seen in the current use of the Fiume Road complex: instead of solemnity, people using the cemetery as an urban park sit on the shaded steps.

The architectural appearance of the Labour Movement Pantheon has remained unchanged over the past 70 years, mainly due to the former use of stone. The aesthetics of the Socialist Realism style of the time, with its contrast, emphasis, rhythm and scale, are still predominant. The layout of the composition is perfectly symmetrical, the scale increases as you walk along the central axis of the Pantheon - first past the tombs, then between the pillars, and finally to the central Mausoleum.



Figure 6. The Mausoleum's interior space (Source: Author)

In addition to the Mausoleum, the composition consists of the pilasters in front of it, the postamens on either side and the tomb walkways. A path running axially from the central entrance to the cemetery leads into a central square, where large wreath-laying ceremonies and gatherings took place. Individual tombs are located on the street frontage of the complex, while on the other side of the square, the pilasters on opposite sides of the complex are drawn closer together, the whole complex being closed by the Mausoleum. The layout of the building is clear and simple, functional: entering through either of the doors on either side of the main façade, one is faced with the red marble wall of the staircase leading to the basement, which can be interpreted as the lobby of the central urn room. Here too, the scenic composition is evident: the Zsolnay urns are arranged in two rows, one below the other, in the wall sockets, and lit from above by a diffused light behind a black corrugated panel. The urns are



arranged in chronological order of death from left to right on the two longitudinal walls of the Mausoleum, with two banal chairs in the middle, which were added during the '73 renovation: three oak planks bolted to limestone legs. (See Figure 6.)

In the central hall of the basement there is an identical layout, with urn spaces in the two parallelogram wings, but mostly just empty consoles. Of the original 365 spaces, 72 urns were used up to the change of regime (this number has since changed due to relocations and one or two new burials). Since the third final handover in 1973, the building has remained unchanged, with the original wall and floor lamps, benches and railings all reflecting the layout of the time, and only the urns on the ground, empty consoles, soiling and falling plaster indicate a lack of need for renovation.

The vast paved space, the axially symmetrical layout and the upward perspective evoke sacred spaces, with a huge inner nave (allowing for commemorations for thousands) and a central sanctuary (the Mausoleum). It is a paradox that the Pantheon is apparently secular, yet it "preserves a religiously oriented behaviour" (Eliade, 2019), a funeral; the mourning ceremony, the memorial service, the wreath-laying are all elements taken from the sacred world, but they are not visible in the building and its architecture, only the past tense of the inscription on the main façade of the Mausoleum (*They lived [...]*) refers to death and function.

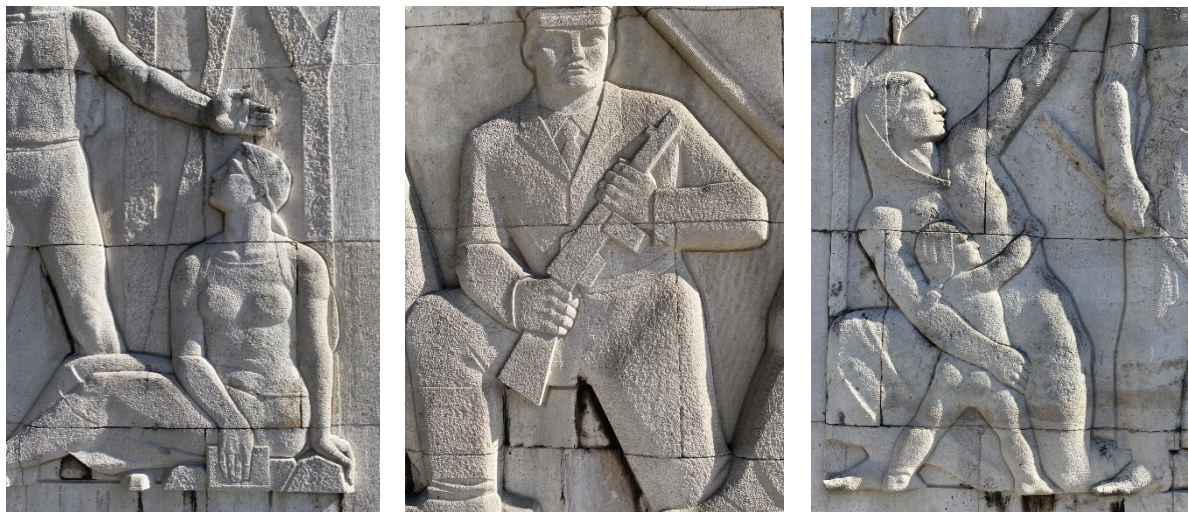


Figure 7. Details of the pilon's reliefs (Source: author)

The dramaturgy and theatricality of this memorial also reflects the era's ethos. The idea expressed by Gottfried Semper is visible in this study: *"The intention to commemorate an important political act or event always brings with it the stage, with all its splendour and splendour, which adds to the splendour of the celebration."* (Gottfried Semper). The emphasis is not only in the built environment, but also in the hierarchy of those buried there: the furthest from the centre are the tombs of those from lower party positions, while the interior of the Mausoleum (also on the ground floor) is for those in the highest party leadership. The central inscription on the façade of the Mausoleum and the group of statues proclaiming socialist patriotism are both towering, while the three pilasters on either side of it bear the names, birth and death dates of the less senior party members on one side and statues depicting everyday scenes of the working people (See Figure 7.) and major events of the workers' movement on the other.

The theatricality of the Pantheon is further reinforced by the fact that while the other mausoleums in the cemetery are walk-around, with all sides and facades

sculpted as equal, the Mausoleum of the Pantheon of the Workers' Mosaic is one-sided: it opens onto the square, but its rear facade is closed, with no decoration or opening. One reason for this is that Plot 21, behind the Mausoleum, is where revolutionaries and counter-revolutionaries who died in street fighting after the 1956 revolution were buried together; the identity of the dead was unclear and could not be clarified until the Pantheon opened. (See *Figure 8*.)




*Figure 8. Back facade of the Mausoleum (Source: FORTEPAN/ VÁTI/32336)*

#### 4. Summary

In the building of the Labour Movement Pantheon, we can observe the organic coexistence of creation and ideology, where dramaturgy was the main force organising the space: the newly created entrance to the cemetery, the straight path between the graves, the huge assembly area and the closure of the space, which then narrows with the building of the mausoleum, are theatrical, where each space has its pre-determined function. And although the scenic quality of the monument is still relevant, it is also a victim of transience, a building that has fallen victim to a vanished ideology; today, unused, it is slowly decaying, having lost its function. Since the funeral of János Kádár (the last general secretary of the Hungarian Socialist Workers' Party) in 1989, very few funerals have been held there, and the number of wreath-laying ceremonies has been reduced to one or two a year. It has not been restored since its construction and is no longer open to the public as it is now in a state of disrepair.

Meanwhile, the cemetery where the Pantheon is located is slowly being transformed by the burial culture: looking at the trends of the last decades, it seems that the function of cemeteries has reached a turning point. This is reflected both in burial customs (many people choose cremation, scattering, green burial) and in the use of green spaces in cemeteries. In particular, graveyards in large cities are beginning to be used for recreation, walking, running, and relaxing because of their large continuous green spaces.

The Labour Movement Pantheon is another example of this change: its pilasters and mausoleum can be interpreted as the walls of a large, enclosed interior space: this kind of theatricality was ideological at the time of its construction, but now the elements



of the Pantheon are more like a scenography, and instead of being used for gathering and commemoration, the steps are nowadays used for rest, reading and sunbathing, forgetting the original function of the building and thus depriving us of the possibility to inform ourselves about our own past and to process it in a meaningful way.

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## Painting the Postcard – Sunset on Commercial Centres, Bars and Restaurants (Romania)

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### ABSTRACT

*On a plain stretch of land along the sea, one finds the new standing monuments of a then-entertainment and a particular shopping desire of the time- commercial centres, restaurants, bars and open-air theatres, joint together in the same resorts for the last sixty years. In this recurring formula of promoting a mass culture and a certain holiday dynamic, the modernist allure was more like a sunny glance over the Ocean, than into the old working class, imposed vacation time. Although at first, they may have seemed to be a step into the future, due to their experimental character, the test of time made them more of an exponential object. They are partially still in use today, even though the buildings as a whole are decaying and covered with improper additions. The following paper is trying to reassess their initial value, analysing their current state - concluding from site investigations, and wondering into their possible future. These particular twentieth century ruins are a curious study case, as their falling into obsolescence indicates a strong shift in the way the resorts are being used today and what they are expected to offer.*

### KEYWORDS

*seaside, commercial centre, restaurant, bar, modernism*



Figure 1. Mamaia as seen from the south side, early 60`s.  
(Source: *Arhitectura RPR Magazine*, 1/1963, pg. 7)

## 1. Introduction

Restaurants and commercial centres are a special type of programme that gained attention in the preplanned resorts of the 1960s in Romania. Usually, they come as auxiliary facilities, yet in this case, they represented central architectural pieces. The paper tries to reassess their value at the time of the construction, highlighting their aesthetic qualities, as well as the functional ones. Later on, the focus will be set on the current situation, as they are now vulnerable mid-century heritage. Exploring this state, a small preview into their future is formulated. This kind of socialist heritage is often disregarded, resulting in an improper use, that degrades both the object, as well as, the general image of the resort.

The research process is divided in two parts. One is represented by active archive searches and other academic materials, comparing original plans and reading architectural literature of that time. The other part, which comes together in the second half of the study, is based on field observation over the years. During the time spent on site, not only were the facilities investigated, but also the surrounding area, both on and off vacation season. There is a lack of contemporary materials available on this kind of architecture, hence the reason of the study. Even though, there are a lot of recent works focusing on the socialist seaside and the politics behind its construction, none of it pinpoints on this particular matter.

The term *commercial complex*, or sometimes, *commercial centre*, can be quite vague, or better said, not very precise. Anyhow, it constantly implies an *architectural unity* (Baker and Funaro, 1951) responsible for linking the actions inside. It represents a special setting where multiple commercial entities working together under the same rules for a common well-being (Gruen and Smith, 1960). Once this is properly laid out, it is easier to understand the final architectural product and the relationships created.

## 2. Mamaia`s Main Shopping Stop

Today, Mamaia is one of the most sought-after resorts along the Black Sea coast, being flooded every summer with numerous holidayers from all over the country, and beyond. However, at the end of the 1950`s, Mamaia was a barren land, with wild plants covering all the space between the lake and the sea.

Starting with the year 1960, an ample project was about to take place in Mamaia which would later result in a complex resort for 10.000 people. The man in charge was Cezar Lazarescu, a famous Romanian architect from that period often associated with the development of the seaside. Along with his team, they managed to set up, in less than a year, a new city on a 70ha area, given priority to the North-South direction (Băncescu, 2012). Given the elongated horizontal lines of the environment, the design presented itself with a particular rhythm, comprised of tall hotels alternated with low volumes in between other functions (Lazarescu, Cristea, 1972). The spatial equilibrium was an element very much sought after (Lazarescu, Cristea, 1972).



Figure 2. Mamaia`s Commercial Center, early 60`s.  
(Source: *Arhitectura RPR Magazine*, 6/1963, pg. 31)

### 2.1. As It Was Back Then

Mamaia`s commercial centre is set close to the entry of the old resort, in a complex assembly made up by the shopping spaces, an open-air summer theatre and some luxurious garden adorned with water mirrors and modernist statues. Even though the latter are gone today, one can still read from above the initial placement.

The commercial centre was presented in 1963 (completed the previous year) in a number of *Arhitectura RPR* magazine which was the main periodical of that time. Even though, it was not the first example of this programme built on the Romanian seaside (as there is one in Eforie Nord from 1960), due to its overall characteristics represents a valid choice. The built area of the assembly is 3850 meters, partly covered by a beans cassette standing above at five meters (*Arhitectura RPR*, 1963) to filter the rays of sun and immediately joined by the theatre. It is a unique case these joint of

*social-cultural functions* (as they are often called in the summaries of *Architectura RPR*), mostly due to the initial configuration of the resort.

The shopping area is comprised of a series of cubical modules that are spread across the covered garden which connected them both formally, as well as functionally. The model implied here is a modernist interpretation on the idea of the old bazaar (*Architectura RPR*, 1963). The temporary use of the complex (it was open only during the summer months as most of the initial functions of the resort) supported the idea of an unrestrained, open circulation. A sort of architectural promenade was obtained around the building, as the space for entertainment was linked to the one for shopping via a covered passage.

The interior of the commercial centre held two kinds of building that designated the shopping area. There were small cubes either closer to the centre (with a view of the garden), or the sea. They were organised through an open plan, as the ceiling, as well as the concrete beams outside were held by a series of metal columns set at 4.80 meters away from each other (*Architectura RPR*, 1963). The architects employed specially designed furniture as room partitions. Opposed to this group previously described, there were the two storeys shops meant for heavy traffic that were in need of a place to store the goods. Those one would be closer to the main road of the resort and would employ a service court hidden behind the rest of the volumes. The structure differed in this case; the metal columns being replaced by concrete ones (*Architectura RPR*, 1963).



Figure 3. Inside the Commercial Center, Mamaia, early 60`s.  
(Source: *Architectura RPR Magazine*, 6/1963, pg. 33)

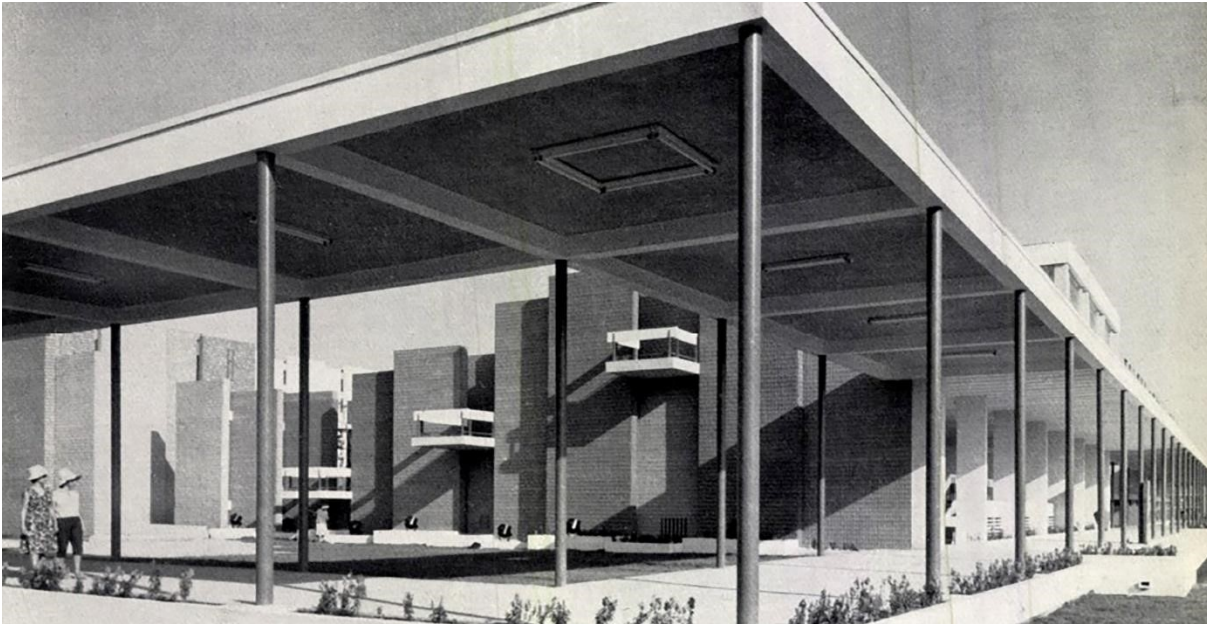
A pleasant, aesthetic unity was created by a general treatment for the cubes with glass walls being the main closure used. The floors were covered with the same model terrazzo on the inside, also on the outside, with ceramic panels covering the remaining blank walls (*Architectura RPR*, 1963). The care given for the finishing details in this case is similar to the one for the summer theatre next door.

The small units sold beach accessories, traditional souvenirs while also hosting a travel agency, an office for the train tickets and a bookshop. Inside the larger stores, there could be found a market, a shop selling tobacco and a variety of functions, such as a library and a space for exhibits (*Architectura RPR*, 1963).

Looking back to its meaning at the time of the construction, the commercial centre in Mamaia is a fine example for the architectural searches from that period. As

mentioned before, there are others, smaller in scale, yet caring on the principles of design and quality, as well as the material used or the solutions for the structure (honourable mentions here are the ones from Eforie Nord and the latter one from Neptune, both belonging to the architect Roxana Berstein-Katz). The heavily used glassed, the gardens belonging to a fairytale dream with their shadowed passage, the long, sharp lines that eventually blended with the environment- were all in strict correlation with their mainly summer use.

## 2.2. One for the Theatre



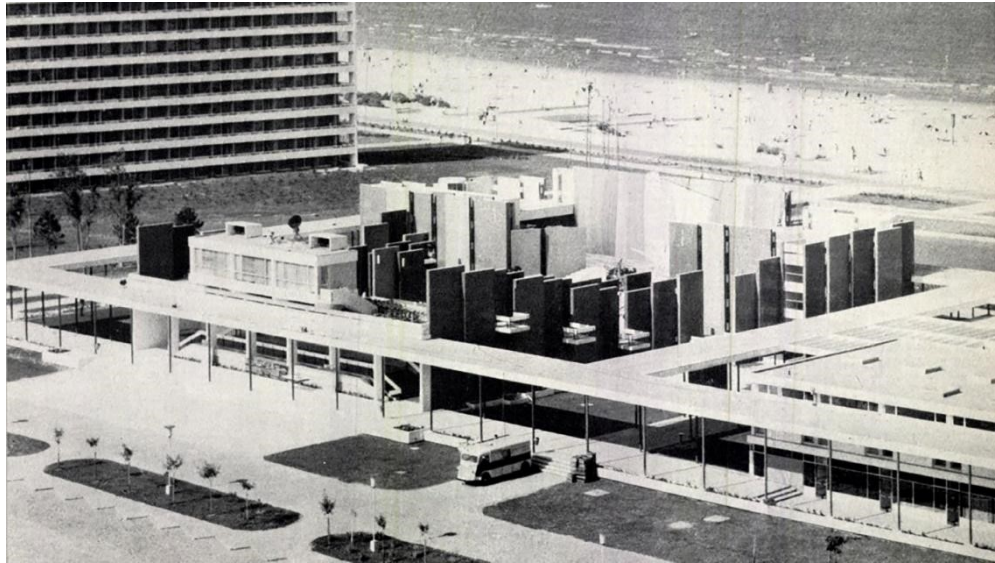
*Figure 4. Lateral, Balconies of the Theatre, early 60`s.  
(Source: Arhitectura RPR Magazine, 1/1964, pg. 27)*

The theatre joining the commercial centre was meant to complete the unique use of this social-cultural establishment. It was made to contrast with the shopping spaces, employing an alternative opaque architecture for the outside, opening up to the entertainment area (Arhitectura RPR, 1964).

The open-air theatre was meant as a place both for cinematic projections, as well as for live shows, thus resulting in an architectural manner that would benefit both. The perimeter was closed by various concrete walls, different in size, that would push the sound and vibrations along (Arhitectura RPR, 1964). With their coloured ceramic tiles, going down from the top, the entire geometric game resembled some kind of utopic scenography.

With a total capacity of 1138 places, it has the access from the West side, opposed to the sea. There is also the service area, stacked inside a rectangular volume, along with some storage space (Arhitectura RPR, 1964). Two separate ways are opening up to the screening space, conducting the viewers. From there, it was an easy access to the lateral terraces, some of which made a visual connection with the commercial centre.





*Figure 5. The Theatre and Part of the Complex seen from above, early 60's.  
(Source: Arhitectura RPR Magazine, 1/1964, pg. 29)*

### **2.3. Situation Today**

The aftermath from the fall of socialism left an unbearable mark on the Romanian seaside resorts, with chaotic, unsupervised developments, driven only by the cash profit. Mamaia as a whole felt all this change, the current image of the resort being totally different from the original one. The case of the commercial centre is not the worst one yet, with the original structure still visible and most changes over-all being reversible (one may take into account the case of Eforie Nord where the whole building was covered with plastic panels, the gardens are now under a concrete floor and the new partitions make the place unrecognizable).

The theatre has been closed for over a decade, with wood nailed onto its front doors and graffiti drawings covering most of the inside, even the scene. The small ceramic tiles are falling over the concrete piles and the chairs are all broken. Even the covered passage that went around, connecting the two architectural programs is now falling apart. On a positive note, the shops are still being used, only for the summer months as they were original intended. Where it is present, the original elements and material used are seen rotting away, if not falling or exfoliating. The municipality of Constanta has not made any serious investment since the early 90's. The shop windows were replaced by modern, yet cheap solution, while the fabulous garden was left to dry out. The plants were left to dry, and above, the now crusty beans are accompanied by AC machines on the facades.

The outside gardens with the large pools are now under construction, with an event restaurant and apartment blocks taking their rightful place. The current density of the resorts is overwhelming, the free-urbanism traces having been lost, thousands of new buildings rose from the ground. Still, the description takes a turn for the worst in the winter months when everything is a toned grey. In the summer time, due to the crowds of tourists, the coloured umbrellas and beach toys hanging from the building and all those flashy carnival lights the damage seems hidden.

## 2.4. Heading Towards

The Perla Complex, as it is usually known, has an extraordinary position in the resort, being easily accessible from the beach, as well as from the main street that connects everything with the city of Constanta. This aspect, together with the remaining size of the establishment, offer a great economic value. The theatre is set to be remodelled by the public authorities (*focuspress.ro*, 2023), which, in theory brings hope for the commercial area. Yet, as we can see so far from the project, the original idea is neglected and badly accompanied by new metallic structures.

One must pay attention to the fact that these concrete structures have been heavily exposed to harsh conditions due to their closeness to the sea. After a technical evaluation, the metal and the actual concrete might not be able to withstand the buildings and the heavy traffic for much longer. Since the columns and beams are shown to crumble and continuously exfoliate, one should wonder whether to keep the former material or to build from scratch. The actual utility in today's world for a place so big is to be taken into consideration, as only part of the commercial area is still in use today. Moreover, the proximity of a countless number of markets, a digital world that prescribed the consumers habits and a particular kind of public that comes to visit, might put to challenge the functions within.

## 3. The Glass Box and the Umbrella

The original plan for Mamaia (see *figure 6.*) was organised in a functional manner, with the general services at one side of the resort, the hotels and the restaurants in between the road and the sea and small spaces for commerce and utilities along the beach. The principles of free urbanism are easily readable, giving the resort a very fashionable appeal at that time.

Along with the commercial centre and the theatre, there are quite a few emblematic restaurants such as *Victoria* (which will be later discussed), *Sirena*, *Flora*, *Parc*, and others. There were typical models, generally repeated two times, either serving a hotel or free-standing.

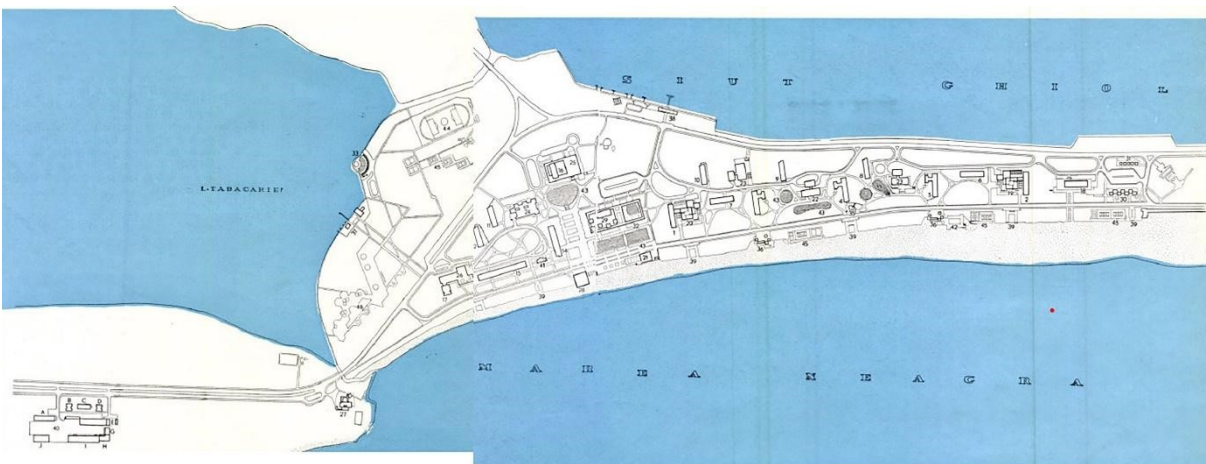


Figure 6. The Masterplan for Mamaia.  
(Source: *Arhitectura RPR Magazine*, 4-5/1961, pg. 6-7)

### 3.1. Victoria Then

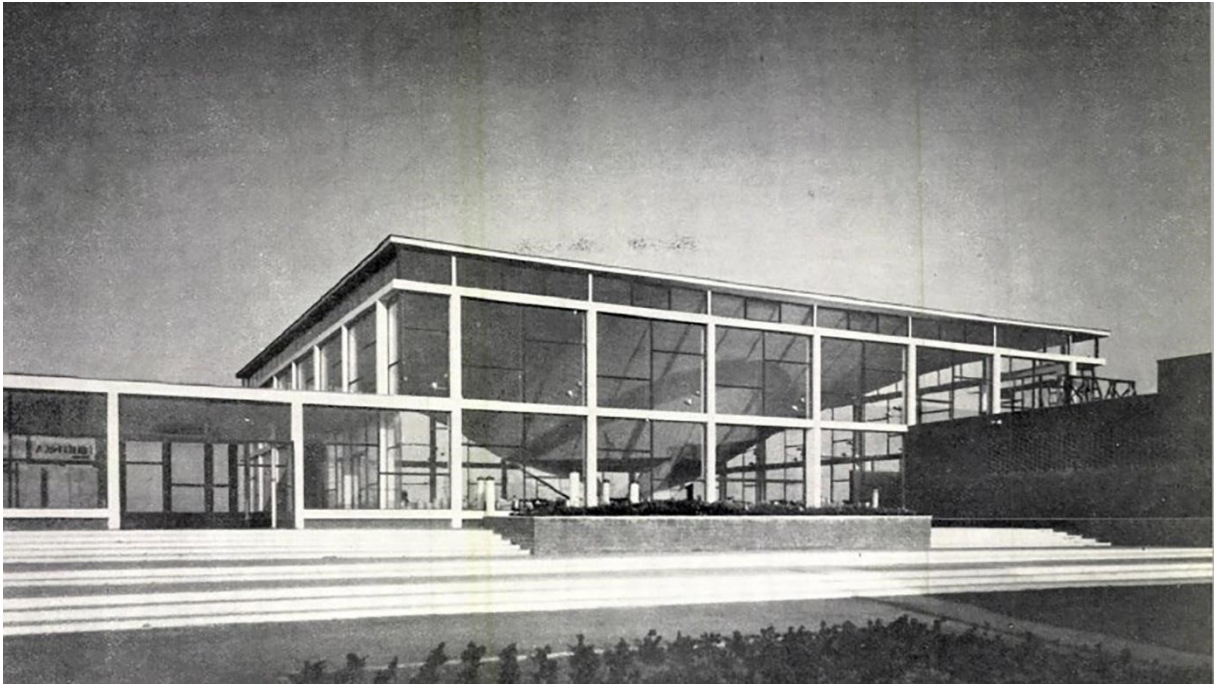


Figure 7. Outside Restaurant Victoria, Mamaia. Early 60`s.  
(Source: *Arhitectura RPR Magazine*, 4-5/1961, pg. 33)

Victoria Restaurant has a perfectly square plan for the main area that helps the necessary circuits to happen properly without overlapping the tourists with the service area. It serves 650 at once, with a capacity for 1300 a day and it is linked to the hotel with the same name- unlike most restaurants from the first period of construction that were standing alone (*Arhitectura RPR*, 1961). Together with the hotel, it creates a unitary composition and it is accessible from any direction. This type of restaurant was used two times in the project for Mamaia, both buildings still being in use today under the names *Victoria* and *Aurora*.

The structure is by far the most recognizable feature for the restaurant, the serving area being covered by a thin concrete slab held by four hyperboloids coming together in the middle. The arched slab stops at 2.80 meters, with only the *mushroom* legs coming down, connecting the sky with the open water basin inside (*Arhitectura RPR*, 1961). The serving area, set at different heights-with a full visibility of the place due to its circular solution- is opening to the outside, once through the extensive use of glass, as well as, the windows facing the terraces that slide away. Overall, it resembles the principles used by Marcel Breuer for the Alcuin Library – built later in 1965. As one could see with the commercial centre of Mamaia, the modernist works on the Romanian seaside from the early 60`s allure to the late modernism employed by European architects over the Ocean.

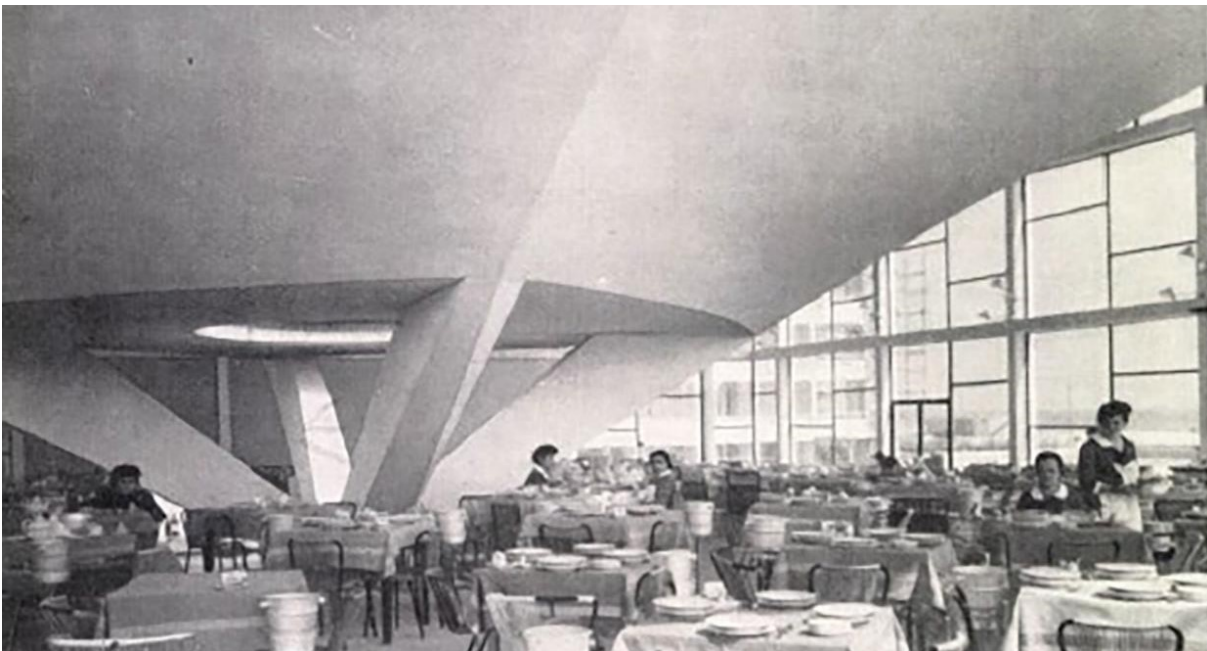
It is hard to deny that this type of restaurant makes one of the greatest projects from that time. The innovation resides mainly on the structural solution, which is rather hard to replicate even today, yet the whole formal treatment is nothing to shy away from. During the night, the whole room would be lit out, making the slab completely visible, like a sail blown by the wind. Everything seemed to float in an illustrious, extremely modern image.

### 3.2. Coming Today

The present state for this restaurant is a tragic example of treatment in regard to this kind of modernist heritage. Until it reached its present form, it went through a series of major transformations; the most recent being one in the early to mid 2000's (which is still visible for *Aurora Restaurant*), and another one in the past few years.

After the first remodel, the exterior glass walls have been replaced with opaque materials, only the upper set of windows remaining completely untouched, as well as some from the eye level. The interior is dominated by burgundy and cream shades, pulling it away from the initial fabulous image. There are heavy curtains and the middle that used to connect the elements inside the heart of the building is sealed, the water basin being switched for a cage of artificial plants. It is fair to say that it is still in use, making a profit, even more so, open all year round.


The second disastrous scenario from today is the state for *Victoria Restaurant* that went from its original form to one with aluminium rails installed and lace curtains hanging around the windows, to its present one where it is almost completely walled on the outside margins with cheap canvas hanging over stone clad walls. This time, the colour theme is blue, with neon lights following the thin concrete slab. The ground is covered with synthetic flooring, the finishing continuing to the reception area. Moreover, the centre is now a spot for the serving buffet, with rectangular tables set on the levelled floor. Probably the worst part is on the outer facades, as the one facing the sea, probably the most important, is covered with polyester frames.



*Figure 8. Inside Restaurant Victoria, Mamaia.  
(Source: Arhitectura RPR Magazine, 4-5/1961, g. 3)*

### 3.3. Possibilities

Even though the present scenario is far away from an ideal one, there is still hope in this case for the future. As both *Restaurant Victoria*, as well as, *Aurora*, have been continuously in use and taken care after (the remodelling is clearly not an acceptable manner to deal with this particular kind of architecture, but a step away from letting them crumble), their structural integrity might still be feasible and should not face demolition.



In an ideal situation, with modern, yet proper materials, these two restaurants could come back close to their original form, even continue to function all year round. The dilemma encountered here lies in the general taste of the public, that would rather associate the original image with a socialist building. As it has been showed so far, it could not be any further from the truth, yet, the unspecialized user would come to think so. A change in the general aesthetic resides in a change of attitude towards mid-century modernist heritage. One can only hope that the next architect that will take on the renovation projects can propose a better way of usage in accord with the initial principals of these buildings.

#### 4. Conclusion

The restaurants and commercial centres along the Romanian coastline represent a particular case of modernist architecture from the 1960s. Their original qualities and aesthetic are a unique display of architectural work. The initial projects proposed a holiday utopia, with an impressive scenography even after today's standards. Unfortunately, after thirty years, this kind of heritage becomes vulnerable, being slowly lost under the new additions.

The current image for Mamaia is a disgraceful one, with the resort having suffered uncontrolled transformation, with the older buildings being covered in improper modern materials, while the new ones have almost nothing in common with the special environment they reside in. It is surely an example of bad tourism, with high prices and poor services. As a metaphor, one can translate the horrible state of most of these early programmes to the general unpleasant state of this holiday destination. This is not an unique case, similar situations happened also in destinations like Eforie Nord (*Perla Marii* Restaurant having its entrance covered in metal panels and neon lights, *Eforie Summer Stores* have other smaller buildings inserted inside), or Neptun (the commercial centre from 1967 is built over on more than half of it, only recognisable from its original concrete beams).

In conclusion, urgent actions ought to happen in order to preserve this kind of architecture. Due to its experimental value- the model for commercial centres being later adjusted and repeated in other urban areas across Romania- it represents an invaluable piece of built history. The public is reluctant to the original image, as it is a reminder of a certain period, but their perception should be changed by the professionals. There is a small timeframe in which the current matters can change. By returning these spaces to their original principles – to later be used accordingly- there is a chance to instil an example of good practice.

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# The Bittersweet Story of the Hungarian Amusement Parks

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## ABSTRACT

*From the fifties to the nineties one hugely important aspect of leisure in the lives of Hungarian people were amusement parks. They supplemented the structure of the full-year operating House of Culture system. The cultural parks contain many facilities (for example amusement park, zoo, pioneer railway or camping) and are operated seasonal way from May to September. The conceptual function of the leisure system transformed as a result of the regime change in 1989, but it seems the metamorphosis was not permanent or smooth enough. This paper will focus on the disappearance of amusement parks. Following some operating seasons and yearly optimistic developments, almost every park faced financial difficulties. In contemporary press mentioned, that the amusement park staff and the users struggled to maintain the parks but were unsuccessful. After a while, they were all closed indefinitely. In the utilization of the sites, we can discover fractures. Upon their closure, the structures and systems that had been put in place were often visible for a significant amount of time. If the spatial changes and the users' attachment to places do not transform s, it could cause breaks. I consider the aspect through case studies. It is very important to maintain the architectural layers of our living spaces, and this topic is current because recently built buildings are sometimes not appreciated enough.*

## KEYWORDS

*amusement\_park, leisure\_time, recreation, erodation*



*Figure 1. A machine in the amusement park of Budapest, a memory from a family album, 1959 (Source: Fortepan, picture no. 201568, Handa family)*

## **1. Introduction**

This paper will examine the disappearance of amusement parks in Hungary in recent decades. In order to fully understand the role of these architectural structures, this paper will first focus on the leisure time of Hungarians between the fifties and nineties, and also on its built components. The main focus is on the contrast between the vivid beginnings and the erodation of the parks. In my hypothesis is this gap is causing later issues, in the space usage.

### **1.1. Related literature**

The literature on amusement parks and their architecture is extensive, but there is not much about the former Soviet bloc's concrete institutions. Except the one in Chernobyl, which is one of the well-researched institutions but from another perspective. The nuclear catastrophe made it necessary to cease its operation after only a few days.

Another important aspect worth exploring is open-air architecture in Central and Eastern Europe in the second half of the past century. This topic is researched extensively in Hungarian and other languages as well.

## 1.2. Methodology

For my research, I use archive articles ([www.arcanum.hu](http://www.arcanum.hu)) and archive photos ([www.fortepan.hu](http://www.fortepan.hu)). The materials were organised by cities. Although I contacted several records, I found that, the plan material is not wide. The deficiency is related to the spontaneous method of the construction of the amusement parks as it will be shown in the following paragraphs.

Social media posts related to the topic (e.g., archive photos and comments on Facebook or Instagram and video comments on YouTube) offered an informative layer to my research. Comments often report from personal experiences and memories.

## 1.3. Structure of the paper

The paper has two main parts. After showing a general context in the introduction, the first part focuses on the erodation of the amusement parks. Following the first sign of erodation, there were several attempts to rebuild the sites. To understand the failure of these attempts, we need to explore the changes in history and politics, the processes of which were interlinked with the metamorphosis of such a physical environment.

The last part will elaborate on the root causes of the aspects, which don't let the sites transform into something else.

## 2. Leisure time and the amusement parks

From the fifties, Hungary was under Soviet influence. This situation seems to have had a massive impact on the everyday lives of Hungarian citizens, especially in the areas of housing and work. Several dwelling projects started, to reduce the housing crisis of the late forties. These new structures had new spatial organization logic both smaller scale (e.g., new apartment floor plans, smaller kitchen), and on a larger scale (e.g., free-time zones, parks in urban planning). Connected with these developments they usually started building various kinds of leisure time objects for the residents near the new housing estate (houses of culture, playgrounds, sports facilities... etc.) (Dénesi, 1959). It is also crucial to note that the concepts of leisure are influenced by shifts in the Central European economy and politics. The main ideological influence during the communist times used to be governmental control not just over the working hours of the day, but over leisure time as well, as will be shown later. This is apparent in the following motto: learning through having fun.

Accordingly, in an attempt to cover the needs of the whole population, the government created a whole infrastructure. They produced both a seasonal and a full-year operated structure, e.g. campings, pioneer railway camps, and worker resorts.

This system encompassed more components, for instance, house of culture, urban parks, playgrounds, and cultural parks (Granasztói 1954). Cultural parks were dense areas with many facilities and components. The system had its own architectural and political concept, as previously discussed in the former Doconf publication (Sámson 2021), and the architectural specificity of the cultural parks has also been described in detail (Delgado da Silva et al. 2021).

One of the facilities of Cultural Park was the amusement park. This fenced area offered an important seasonal entertainment possibility. It opened every May with a festival and operated until September or October. Most of these parks were huge natural sites with a couple of playground objects. The plot offered a place for many social interactions for children and their parents, as well as for teenagers and young adults. The main idea was that all age groups should have an opportunity to engage in entertaining activities and learn through these. The towns inspired each other in this



process, to build these places. For instance, before building the amusement park in Pécs, a delegation examined the amusement park of Dunaújváros, to draw conclusions (u. a. 1960 Hogyan épült ...). It was similar in other cases e.g. Szeged, Győr and Székesfehérvár as well. Through the text of the archive articles, the conceptual similarities are noticeable.

To further understand the importance of these places, we need to examine their origins. In Hungary (and in other Soviet bloc countries), work had a symbolic role at the time of socialism. People were encouraged and even forced to do extra work after finishing the eight-hour shift at, for example, the factory. The government generated an artificial contest between people, who competed to see who could accumulate the most of working hours. When amusement parks were built by their subsequent users or by the parents of their subsequent users, the same logic was applied. However, this demand caused aversion in the users and emotional attachment to these places, because of being involved in the process. If someone physically creates something, it can cause bounding to the particular place.

### 3. The erodation of amusement parks

#### 3.1. The beginnings

At first, after the cities and towns had finished the construction, citizens had a high interest in visiting them. The opening ceremony of new amusement parks was organised in a festive spirit, as described in the daily journals of the fifties and sixties. (u. a. 1961, Megnyílt a ...) The parks usually opened their gates on the 1<sup>st</sup> of May or 20<sup>th</sup> of August.



*Figure 2. Marching on the 1st of May, in Budapest, 1964  
(Source: Fortepan, picture no. 51423, Gyula Nagy)*

1<sup>st</sup> of May was the 'holiday of work' in the Soviet bloc. 20<sup>th</sup> of August was an older national holiday, originated in the 18<sup>th</sup> century, related to Maria Theresa. Between 1950 and 1989 the date was the holiday of the Constitution of the Hungarian People's Republic. (After the regime change the day became a national holiday again.) During the socialist era, it was regular, to cover something with an another thing (holiday, place... etc.) that matched better with the current political approach.

On these days, instead of working, the whole town participated in the march on the main street and the specific parade routes. These paths were typical forms of socialist leisure time architecture as well (Granasztói, 1954).

At the parade, pioneer bands, factory workers and children from the school and nursery marched in lines. The commissioning of the amusement parks became part of this huge holiday. Every year, their opening ceremony also signified that the season had begun. It became a regular and long-awaited summer event in the life of the town.

Although many people waited excitedly for the opening of the parks and the local governments also put much effort into the realisation of the projects, problems appeared early on in their operation. The first signs popped up in local newspapers, where they wrote about the yearly need for developing/upgrading the physical structure. According to these articles, due to the increased number of visitors and the financial situation of the parks, these developments were indispensable. Although these initial problems were projected the subsequently grounds for closure.

### 3.2. The first signs of erodation

In the first years, the papers were optimistic. The amusement parks were always prepared to face the next season with new attractions and the 1<sup>st</sup> of May was still a huge festival. A few years later, however, the interest waned, and the parks could not offer excitement anymore.

There were also problems with the idea itself because the parks did not have a clear design concept. On the one hand, they tried to offer everyday activities, but on the other hand, they also wanted to amaze and surprise the visitor again and again. These two ideas were at odds with each other. From the architectural aspect, such two aims require different spatial arrangements. If the focus is on social interactions and weekday recreation, the physical environment should be familiar and homely. But if the purpose is to impress visitors, another set of architectural tools is needed. The annually renewed attractions were only interesting for a moment, but they were not suitable for maintaining the interest of citizens for a significant period of time.

At this point it worth to examine the fundamental difference between the eastern and western amusement park type. By the western park-type the creators focused on to dazzle the visitors. For instance in Coney Island they have so complex achievements, that they started to improve the metropolis's architecture itself (Koolhaas, 1997). But in Hungary, it seems that the focus was on the social interactions, although the maintainers keep trying to develop the sites with new experiment elements all of the time.

Besides (and probably in relation to) the low number of visitors, the space also started to erode. The area of the amusement parks was large, around 1-6 ha. Financially maintaining such a site could not be easy, especially if the system was not profitable. (Which issue is connected to the misguided double concept explained above.) In the following, we take a look at the individual stories of some amusement parks through local newspaper articles.

The fate of the park in Dunaújváros (formerly Sztálinváros) is worth exploring because the town was an ideological communist worker city with several factories. The park opened in 1952 when the first impressions and opinions were optimistic.

*'Not as big as the Budapest one or the Prater [in Vienna - edt.], but it is ours!'* (Lónyai 1960)

*'A beautiful and boundlessly optimistic phenomenon.'* (Barsi 1964)

In the late sixties, a discussion started about prohibiting the sale of alcohol in the area of the park, but the attempt was not successful. (Horváth 2000) During these times, vandals trampled on the flowers and scattered litter occasionally. (u. a. 1960 Ünneprontók)



*Figure 3. The iconic giant ferris wheel of Székesfehérvár, 1972  
(Source: Fortepan, picture no. 87692, Tamás Urbán)*

The above-mentioned incident was not an isolated case, other towns also struggled with similar problems. The amusement park of Székesfehérvár opened in 1960. In 1994, there were financial problems and a disco operated at the site. After closing the park, the local government attempted to address the situation by regulatory instruments. Comparing two articles about the biggest attraction of the park offers a symbolic view. The first one writes about the newly built giant ferris wheel (Bartha

1964), while the second writes about its demolition (2007). Nowadays (since 2014), a historic thematic leisure park (Koronás Park) receives visitors in the same plot.

There are differences between the parks and how long they worked well. In Oroszlány, the idea transformed from a 'divine spark' to 'unprofitable' in five years (Szente 1986). In Pécs, the park functioned for longer: it opened its gates in 1961 and closed in 2011. We can, however, read about problems already in the 2000's. Ironically, the construction was completed by social workers, and fifty years later, the demolition was also carried out by civil servants.

The park in Veszprém started to degrade after ten years (between the sixties and seventies), in conjunction with the burning down of the Pioneer Organization's Camp.

The most complicated story of all the amusement parks is the history of Várpalota, Lake Grábler. The amusement park was situated at the location where a historical tragedy had happened. In the winter of 1945, the gendarmerie of Várpalota and the far-right Hungarian ultranationalist group (called 'nyilas') executed more than a hundred Romani people, among them women and children. The Soviet army occupied the town this year (Harmat 2015). Although in 1949, they investigated the crime, in the sixties, when the amusement park was constructed, it was already a cold case. Almost nobody remembered the details, and the traces were hazy. There was a peculiar diver search conducted in the lake in 1961, the cited reason for which was the prospect of building a new boathouse. It was considered that such diving 'was indispensable to search the depth of the lake', but only for the sake of this project (Hajdu 1962). In reality, the diving search was probably because of the former tragedy. This presumption is supported by the fact that in the next year, the president and the secretariat of the city committee were fired due to irregularities in relation to 'the high fees of the divers' (Hajdu 1962).

Although the amusement park of Várpalota opened in 1960 and operated for just ten years, it had a significant impact on the life of the town. In 2015, after forty-five years, there was a nostalgia exhibition organised, where old photos were exhibited and retro sweets were sold.

### 3.3. Changes

To understand the changes of amusement parks, it is important to take a look at the historical-political changes in the country. In 1989, the regime changed. From a people's republic with Soviet influence, Hungary became a democratic republic. At this time, four of the eleven parks were closed, and the remaining faced new market conditions, which were absolutely different from the original idea. The maintainers of these seven parks struggled with the Western profit-oriented principle of operation.

The spatial relationship of the city/town and the amusement park also changed. Due to the developing area of the city, the former peripheral location of the park became more central and frequented. In some cases, this caused unresolved situations in the structure of the city. Such a problem is striking, especially if the institution is closed and the park, situated in a densely populated area, is not utilized.

#### 4. Happiness and trauma

The current situation of the empty sites mentioned above is obviously the opposite of their past situation before the operation and in the first optimistic years. Where there used to be huge festivals and thousands of worker visitors, now there is only emptiness and ruined places.

People are still attached to the attractions and parks created by their own town. However, the former political system also evoked controversial feelings, which caused a dissonance in people who had emotional ties to these places. Solving the current situation of these sites requires exploring the mental and physical changes.

Some specific situations are more difficult to understand. One (and maybe the most important) of them is the situation of Várpalota discussed above, where a complex history has to be accounted for. There are also towns where the catholic church had had important historical memorials, and the regime probably chose these sites on purpose for the amusement parks (Győr, Veszprém). After so many layers of historical and personal memories, it is not easy to transform or reuse these areas...

If one encounters the topic of a closed amusement park in a Facebook group, on the homepage of the town, or in the comment section of a YouTube video, he or she can find deeply emotional comments from former visitors. Although many nostalgic feelings are connected to these places, it is definitely not just a simplistic retro vibe (Nadkarni, 2010).

In this case, we speak about psychological saving. The concept of these places, while not perfect, was meaningful: connecting people and creating a non-dense structure in harmony with the natural sites. There are true values and worth maintaining the idea related today's economic crisis as well.

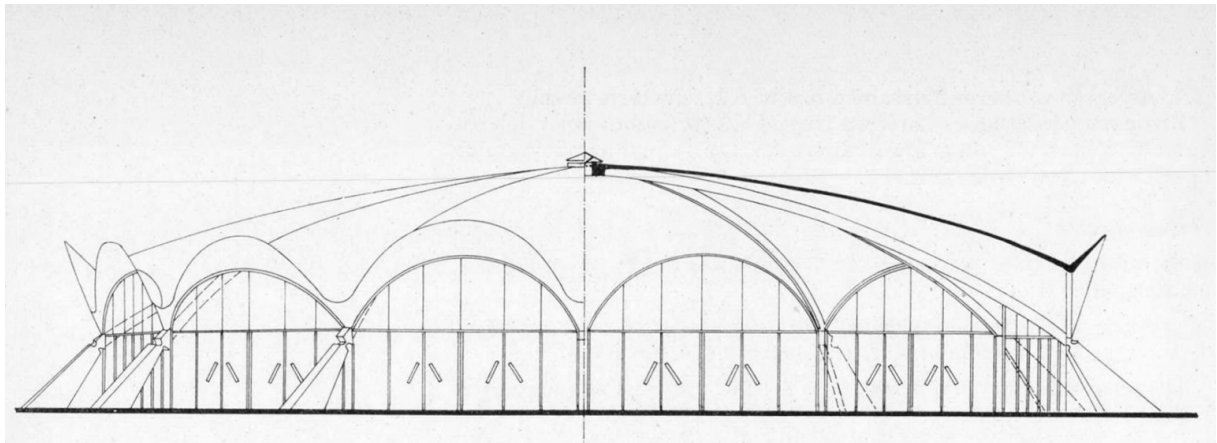


Figure 4. The electric car hall in Budapest. Facade and section, 1971  
(Source: Füzi J. (1971) "Vidámpark fedett villanyautópálya csarnoka". Magyar Építőipar, Volume 20, pp. 295)

## ACKNOWLEDGEMENT

This essay focuses on the problematic situation of former Hungarian amusement parks. It has been established that the physical conversion of these sites is also blocked by mental and psychological factors. In conclusion, it is important to highlight as well that in Hungary, the architecture of recent history is often misunderstood or not appreciated enough, and it is worth paying attention to because these architectural objects are often valuable by profession. These amusement parks are especially deeply connected to the citizens' spatial perceptions, and to let them disappear without understanding the process behind them could block the development of specific parts of Hungarian cities.

The aim of my research is to contextualize these locations. The sites cause unsolved spatial situations in the urban structure. I believe that understanding these places and the connecting memories better contributes to solving the situations.

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# Green-Regeneration of Modern heritage: The role of Green Infrastructure in Urban Morphology

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## ABSTRACT

*In recent years, a growing trend in several European cities has been to reshape their urban centers to become more resilient in the face of contemporary social and environmental challenges. However, post-socialist cities in Eastern Europe face unique obstacles due to the legacy of modernist spatial conception acclimated to the requirements of the previous political regime. Issues such as urban decay, inadequate infrastructure, and insufficient green spaces compound these challenges. Therefore, the reconstruction and adaptation of these cities aim to improve the quality of life for residents while preserving their unique cultural and historic character. This study aims to assimilate the main characteristics of public green spaces in Budapest's IX district, which was adapted to modern guidelines between the 1960s and 1980s and is now on the verge of being requalified again to meet contemporary standards of performance and well-being in European cities. The methodology used for this analysis is a morphological investigation, through a typological study of the green elements that compose the public space of the research area. Eighteen sub-elements were specified for conducting the survey on-site. Preliminary results indicate that the amplitude, articulation with public facilities, and spatial arrangement of green spaces within modern housing estates favor their adaptation and subsequent resilience of this urban structure.*

## KEYWORDS

*Green Morphology, Urban Green Infrastructure, Urban Typology*





*View from Telepy utca (Source:by author)*

## 1. Introduction

Eastern European cities underwent a notable shift in their urban development strategies during the socialist period, with a significant portion of investments of this nature being centrally planned (Tofiluk et al., 2018). In Budapest, a master plan devised in 1960 played a crucial role in identifying suitable areas for housing developments. This undertaking shaped new residential expansion zones and influenced the renovation of existing urban territories, aiming to meet the newly redefined living standards in both central areas and areas in the transitional belt of urban environments (Benkő, 2015).

Thus, in socialist cities, the establishment of housing estates designed under modern ideology and guidelines served as a means to meet the growing housing demands of the expanding urban population but also, in specific contexts, address issues of urban renovation and stretched population density in areas considered inadequate or underutilized. This approach supported the mass production of housing estates for new residents and the renovation of existing urban areas (Dekker et al. 2006).

The transition to a new political regime in Eastern European cities brought about significant changes in the socio-economic context. Consequently, the previously developed modern residential structures from the socialist period came under scrutiny due to various factors related to constructive techniques, aging, and design. These structures began to be questioned as a viable urban development model in light of the altered circumstances (Tofiluk et al., 2018). Moreover, some of these buildings (or

entire neighborhoods) have acquired a negative stigma and have become symbolic of the political background that initially facilitated their construction in the region. In the current contemporary context, new parameters such as sustainability, technical feasibility, and harmonious integration into the urban landscape further challenge and complicate the existence of these modern buildings.

The dynamics of generational transformation is another crucial aspect in comprehending the current social condition within modern post-socialist communities. As the buildings themselves age, so do the original residents of these housing estates. This demographic shift brings about noticeable changes in the principles of communal living. With globalization and the rapid advancement of technology, urban societies have witnessed a shift towards individualistic tendencies. This societal transformation puts urban systems, initially developed for communal purposes, as mentioned earlier, to the test (Benkő, 2015).

When considering the criteria for developing sustainable cities suitable for human-scale living, four pillars stand out as essential: compactness, density, diversity, and integration (The Sustainable, 2004). Notably, many prefabricated housing estates from the twentieth century, conceived under the modernist paradigm, are directly or indirectly aligned with these factors. This inherent adaptability makes them well-suited for meeting contemporary requirements (Benkő, 2015). Consequently, in the post-privatization era, new urban governance structures tailored explicitly for large housing estates have emerged (Pirrus and Leetmaa, 2021). In Budapest, these housing estates constitute a significant portion of urban housing and accommodate a substantial population.

Green infrastructure plays a fundamental role in the modern developments mentioned before on various scales. The residential complexes constructed in Budapest during the 1980s and 1990s display more ambitious green solutions compared to earlier decades. These efforts were aimed at offsetting the declining prestige of these developments (Bakay, 2012). Public spaces have become an effective platform for fostering alternative governance strategies and reshaping the position of large housing estates within the urban agenda of post-socialist cities (Pirrus & Leetmaa, 2021).

## 2. Methods and materials

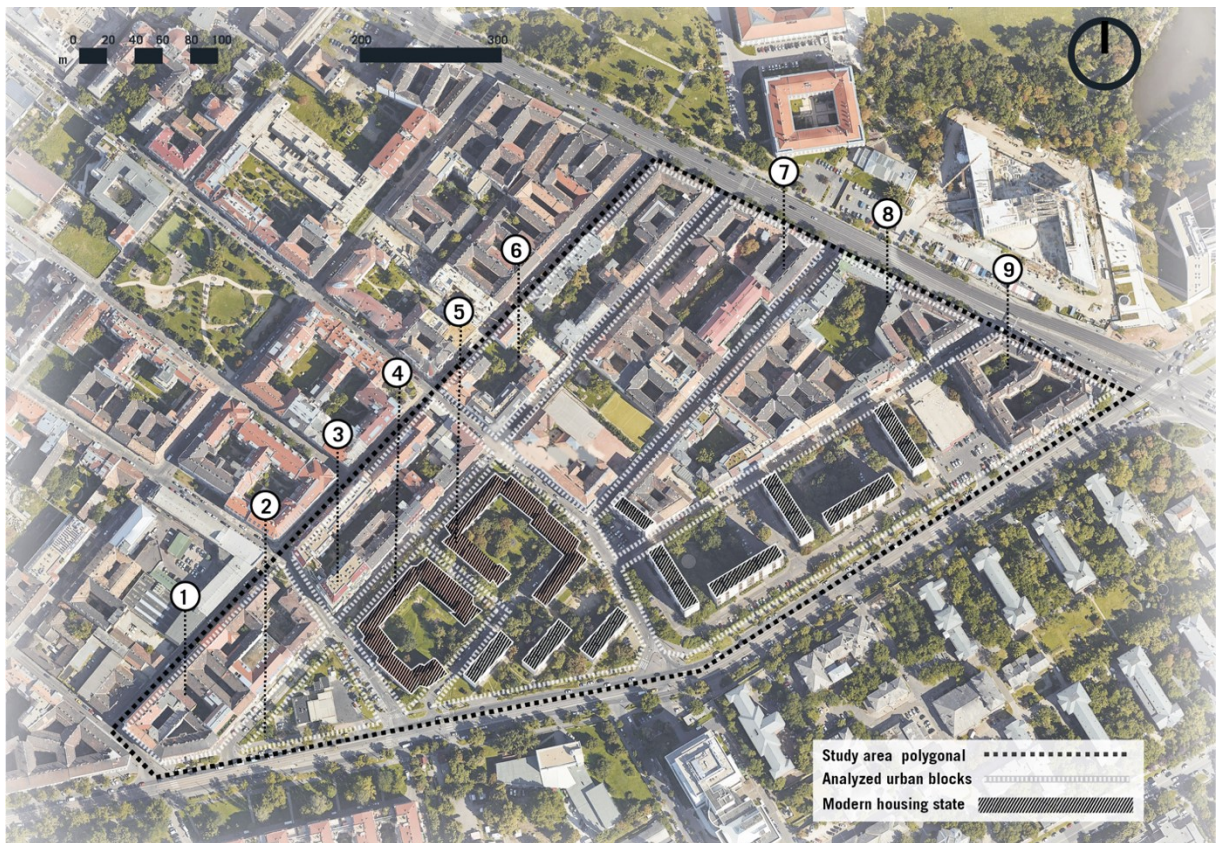
Despite the growing recognition of green infrastructure's ecological importance and associated benefits to the quality of life, especially in densely occupied urban environments, its contribution to the morphological structure of urban areas has yet to be largely disregarded (Whitehand, 2018). Even in the formulation of modern masterplans, although, in many cases, there was a commitment to maximizing public green spaces, the emphasis often lies on the layout of architectural components rather than prioritizing the relationship between those and the particular features of the green elements. This case study seeks to analyze the morphological impact of green infrastructure on urban environments through a broad typological investigation. By examining how green elements shape urban spaces' physical character and landscape, the study aims to highlight their crucial role in promoting sustainability and fostering urban resilience.

The study was conducted using materials and analyses gathered during the Urbanism workshop conducted in the spring semester of 2023. A comprehensive curriculum comprising theoretical and practical classes and guided technical visits facilitated content generation. During the workshop, specific parameters were

established to ensure the definition of high-quality standards for data collection and interpretation.

## 2.1. The selection of the study area

The study area chosen for this analysis is a section within the IX District of Budapest (see map 01). Over the years, this area has been the subject of ambitious renovation projects initiated since the 1970s. These projects aimed to reconstruct the historical urban structure from a modern perspective. However, the majority of these initiatives were not effectively implemented, except for specific interventions, such as the housing estate situated on Haller Street (Locsmándi, 2011). The polygon specified for this study encompasses the aforementioned housing estate and the surrounding blocks. This approach allows for examining the interaction (or lack of connection) between the built complex and the green elements within these blocks, which exhibit distinct morphologies.



*Map 01: the study area (Source:by author)*

Also, this particular area was selected to allow the workshop participants to identify, describe, and categorize the recurring types of green elements concerning the architectural ensemble. This location's abundance of diverse solutions enabled a comprehensive and varied analysis. The initial assessment of the existing structure concentrated on the different types of green elements present within the urban environment. These include green buildings, characterized by the incorporation of green features such as green roofs, green facades, or green balconies; green courtyards, which are open spaces surrounded by buildings and developed with greenery; green streets, which are linear open spaces designed for mobility and enhanced with green elements, in some cases through the inclusion of green frontal

building setbacks; gardens, that can be described as green open spaces nestled among buildings; public parks, which are, for the sake of this investigation, large open spaces featuring significant vegetation designed and maintained to cater to recreational activities and contribute to ecological balance; and finally, the investigation also assesses public squares, urban open spaces accessible to the public and designed to accommodate recreational and leisure functions.

**2.2. The green typology assessment**

The assessment criteria are derived from the various recurring types of green elements mentioned above, ensuring a comprehensive evaluation. The table prepared for the in-loco investigation is divided into four evaluation subgroups devised to cover the structure and essential features of the area's use patterns (see Table 1).

First, the Green Urban Morphology covers the open spaces' size, form, and shape - considered to interpret the space in three dimensions, incorporating the effects of space walls on the atmosphere and user experience. Ownership and management practices were examined in the Property session, including analyzing use patterns and the overall physical environmental quality. The Physical Environment subgroup considered green spaces' functions and special features. This session concentrated on significant structures, pavements, outdoor furnishings, natural light incidence, and other components within the green spaces. These elements contributed to the overall evaluation of the spaces in terms of their functionality, aesthetics, and user experience (Zhu, 2022). By incorporating these criteria, a comprehensive understanding of green spaces and their attributes was achieved.

Vegetation forms and types also played a significant role in the assessment, initially ranging from individual trees, lines of trees, groups of trees, hedges, individual or grouped bushes, flowerbeds, lawns, mixed perennial, and bushy surfaces. However, fewer elements were listed as recurrent in the assessment table. This way, the green pattern was analyzed, including the spatial organization and ratio of existing vegetation forms, the overlapping layers of forms, and their density status.

**Table 1. Green typology assessment (Source: by author)**

Urban Block:							
Green Urban Morphology							
Ratio or percentage of canopy coverage	<20%	20%<x < 70%		>70%			
Form (most relevant element)	Group of trees	Line of trees		Bushes	Lawn		Mixed
Shape	scattered	linear		compact			
Property							
Management	Public	Private		Mixed			
Ownership	Public	Private		Public with private appropriation			
Maintenance Status	Intensively maintained	Extensively maintained		Lack of care			
Pattern of use	Intense - protracted use	intense - connection path		Light - protracted use	Light - connection path		
Physical environment							
Function	Leisure	Urban residential area		Connection	Other functions		
Ratio or percentage of green area	<20%	20%<x < 70%		>70%			
Dominant Pavement	Predominantly green cover	Water permeable paving		Non permeable paving			
Outdoor Furnishing	Not applicable	existing, insufficient		existing, sufficient			
Building layout	Not applicable	Unified Courtyard		Individual courtyard	Detached Building		
Urban block structure	Transparent	Enclosed		Scattered			
Open Space							
Size	small	Medium		Large			
Shape	Round	linear		rectangular	Triangular		
Space walls type	Building facade	Gable		High Hedge	Tree plantation		
Space walls ratio	1/1	1/2		>1/2			
Solar incidence	Low	Medium		High			

**2.3. Urban regeneration is underway**

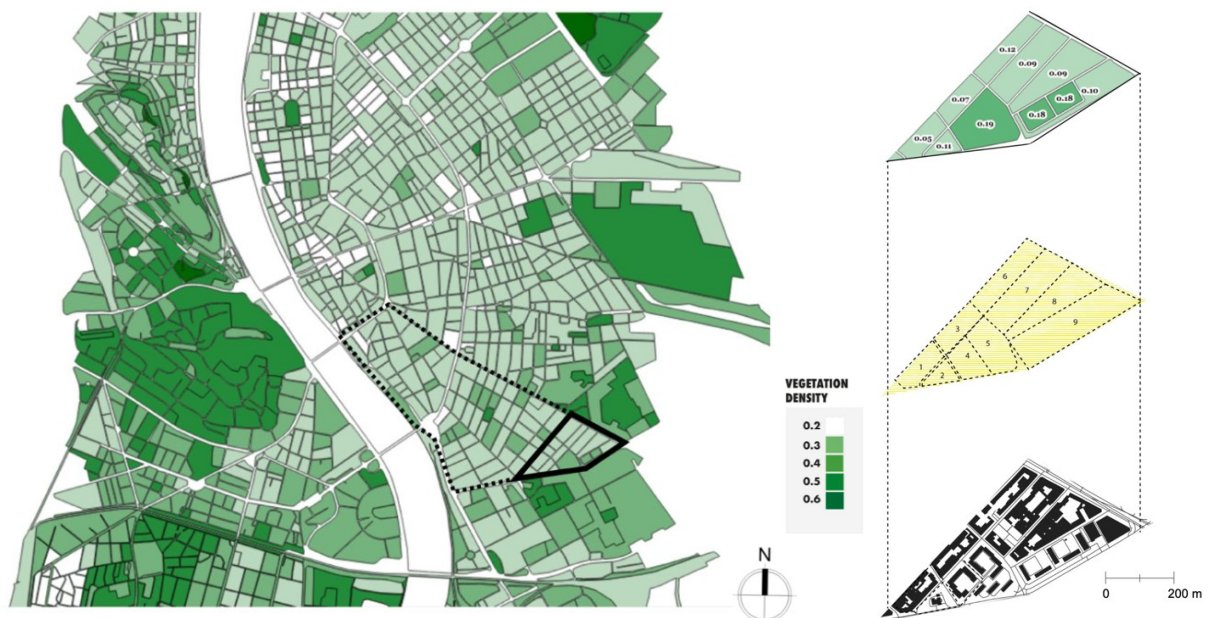
In the early 2000s, the urban renewal initiative for the middle Ferencváros region gained momentum, characterized by the cooperation between public interests and active participation from real estate investors (Locsmándi, 2011). The local city hall coordinated this collaborative effort. The primary objective of this intervention was to

establish a comprehensive green infrastructure and enhance population density within the area. To achieve this goal, two design guidelines were adopted, among other standards: the creation of shared green courtyards and the preservation of essential morphological elements that contribute to the region's urban and landscape intrinsic characteristics. Utilizing vacant land, whether originally unoccupied or resulting from demolishing inoperable historic buildings, played a crucial role in the renovation process, facilitating adaptation and restoration efforts.

However, it is essential to note that the renovation process did not unfold uniformly and simultaneously across the entire region. Instead, urban interventions were strategically implemented in designated "Centers of Gravity" as determined by the City Hall. As anticipated, the positive transformations gradually extended to other parts of the area. While these interventions were dispersed throughout the territory, the renewal efforts were initially more concentrated along the Ferenc körút axis, with fewer noticeable effects observed in the vicinity of Haler Street - precisely within the study area.

## 2.4. Analyzing the site layout

The housing estate examined in this study is situated within a highly diverse urban environment, which has also been considered for contextual purposes. In this particular case, the layout of the buildings is characterized by detached strip-like formations, a design choice viable for industrialized construction techniques. This architectural configuration is reflected in the arrangement of semi-closed green courtyards, with roads and car parking primarily located outside or at the ends of urban blocks (Wittmann et al., 2019). This particular configuration sets it apart from the surrounding blocks, where high occupancy rates and the traditional layout of historic buildings pose challenges to implementing a cohesive and extensive green infrastructure.

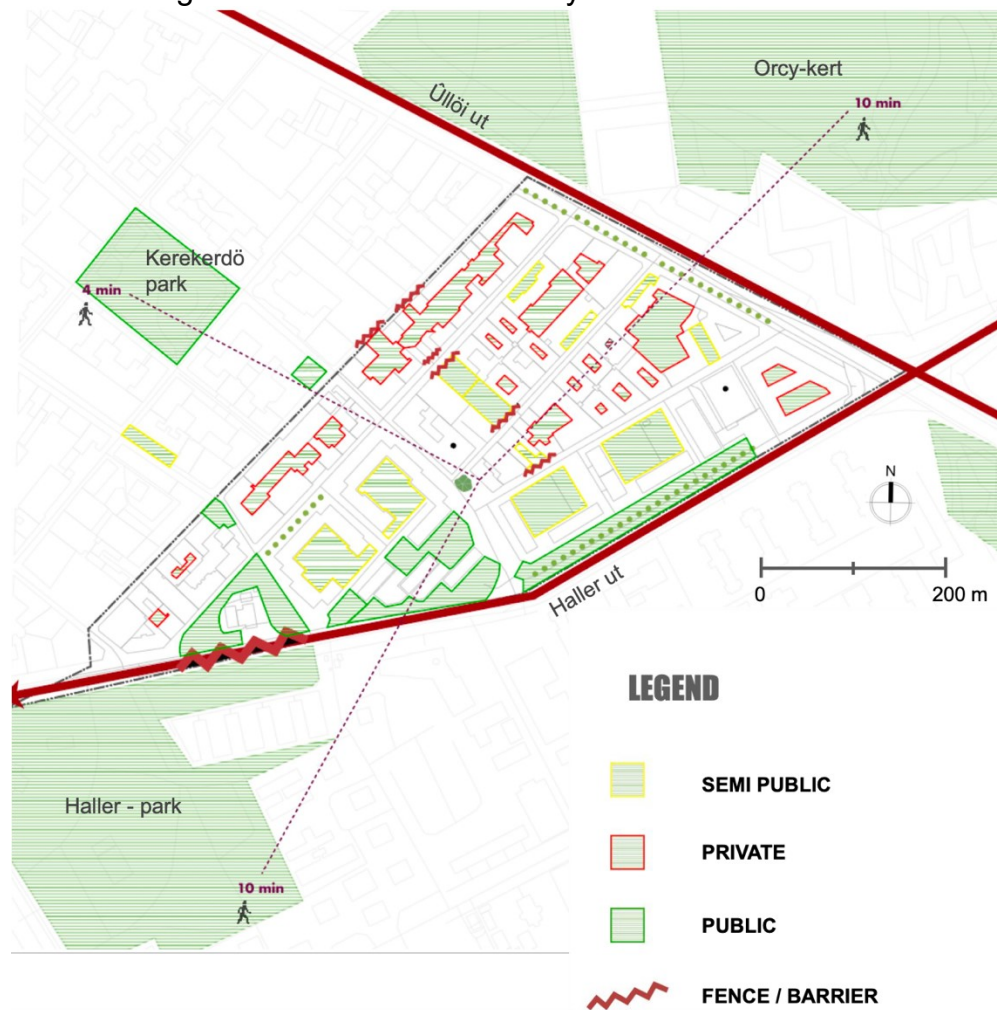


*NDVI analysis of green areas revealing that modern housing estates occupy the greenest urban blocks - Landsat 8 Satellite 2022.08.02. (Source: outcome of the Urban Planning Workshop)*

## 4. Results

The results of the typological study were analyzed through a comparative approach, aiming to assess the perspectives of each group of students on the various aspects outlined in the survey. It is necessary to note that all groups evaluated the same aspects in the same study area. The collected data were then organized according to urban blocks and interpreted within these subgroups.

In this study, the housing estates spotlighted in the evaluation are situated in the urban blocks 04, 05, and 09, which visibly influence the area's green morphology and physical spatial organization. These blocks exhibit significantly more greenery and present larger open spaces, leading to increased sunlight exposure. This stark contrast with the surrounding urban blocks is noteworthy.

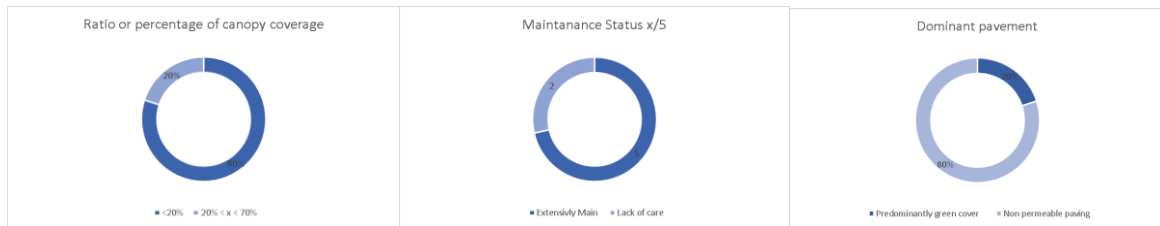


Accessibility analysis of green areas (Source: outcome of the Urban Planning Workshop)

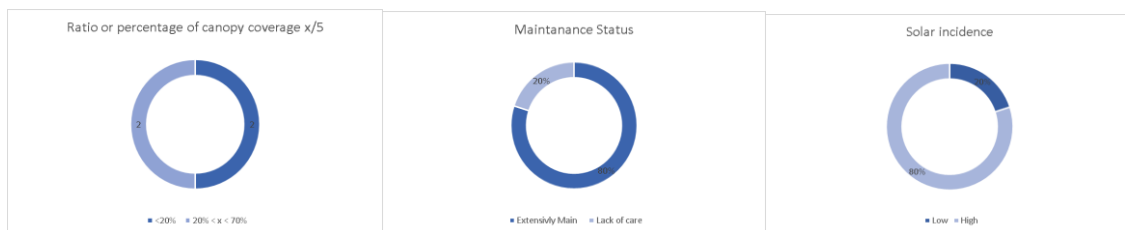
Based on the analysis, the following key outcomes have emerged from the study:

1. In **Urban Block 01**, regarding Green Urban Morphology, the groups' opinions were divided between scattered and compact shapes. Vegetation arrangement and type were found to impact shape perception. The block primarily serves private residential use, leading to a lack of maintenance. The Physical Environment analysis revealed a residential function with non-permeable pavement and enclosed infrastructure. Outdoor furniture was not present. The solar incidence

was influenced by the interplay of horizontal and vertical elements, and all wall types were identified as facades.



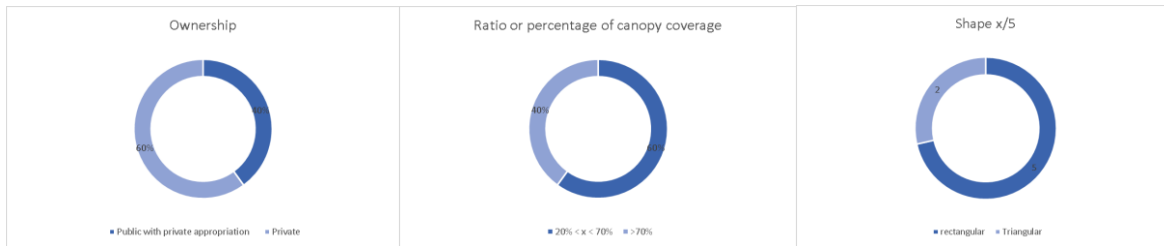
2. **Urban Block 02** exhibited diverse vegetation and scattered shapes. Canopy coverage ranged from less than 20% to 20-70%. The block had extensive maintenance, mainly public ownership and management. It consisted of detached buildings with an average green area and predominant green cover. The block structure was transparent, but the outdoor furniture was insufficient. Solar incidence was high due to the relationship between horizontal space and vertical elements.



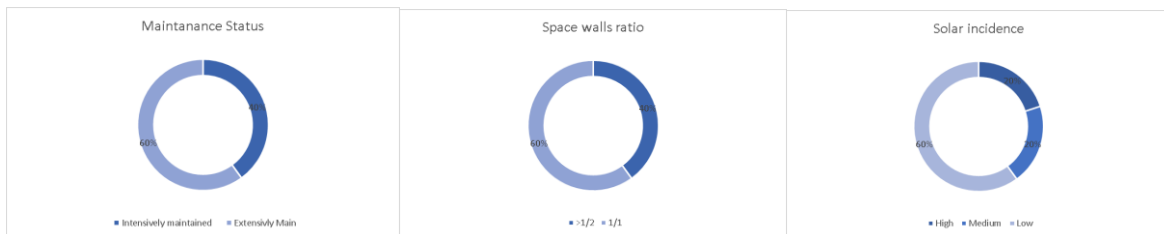
3. In **Urban Block 03**, the majority reported less than 20% canopy coverage with scattered and linear shapes. Management was mixed, and public ownership with private appropriation prevailed. Maintenance varied, with some areas lacking care and others being intensively maintained. The block was primarily urban residential, with less than 20% canopy coverage. The paving was mainly permeable, and a unified courtyard was present. Solar incidence perception varied among groups.



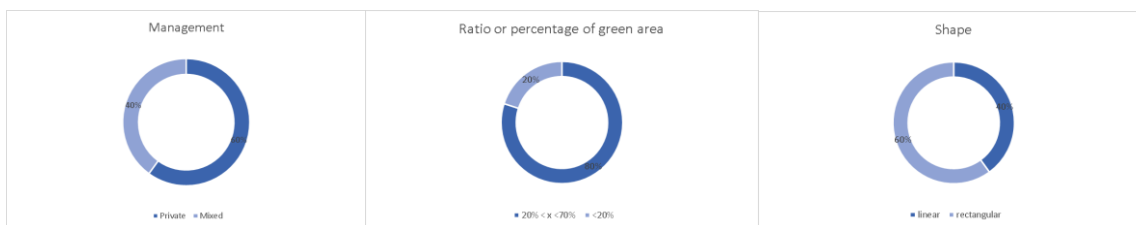
4. **Urban Block 04** held low canopy coverage with compact and scattered shapes. Sixty percent perceived private ownership and mixed management. Maintenance was most intensive, with some areas lacking care. The block showed light protracted use as the primary pattern. It was predominantly residential with over 70% green area, non-permeable pavement, and building facades as space walls. The open space was large and mainly rectangular, with varying perceptions of solar incidence.



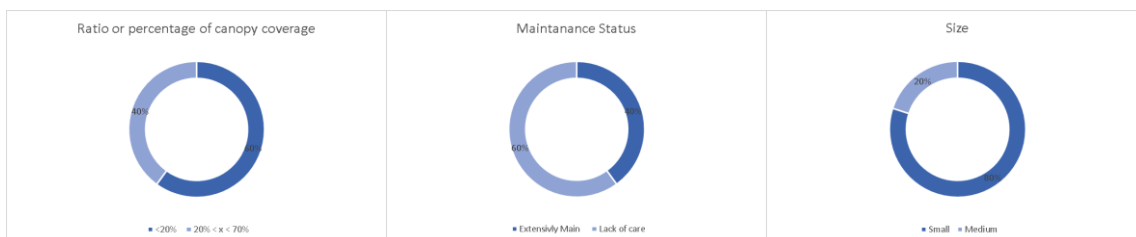
5. **Urban Block 05** had canopy coverage higher than 70% with compact shapes. Management was mixed, and public ownership with private appropriation prevailed. Extensive maintenance and intense, protracted use were observed. The function was mainly residential with ambiguous green area percentages. Non-permeable paving was predominant, and solar incidence was low. Space walls included tree plantations and building facades.



6. **In Urban Block 06**, private management and ownership predominated. Lack of care and intensive protracted use were observed. The function was entirely urban residential with low green area and non-permeable pavement. The block structure was transparent and enclosed. The open space was medium-sized and rectangular. Building facades were the space walls type, and solar incidence was medium.



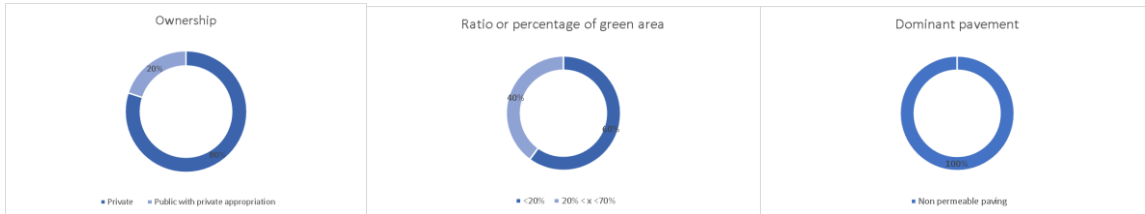
7. **Urban Block 07** presented less than 20% canopy coverage with scattered shapes. Mixed management and predominantly private ownership were observed. Lack of care and intense, protracted use were reported. The block function was mainly residential, with a low green area, non-permeable paving, and transparent and enclosed block structure. Solar incidence varied between high and medium, with building facades as space walls.



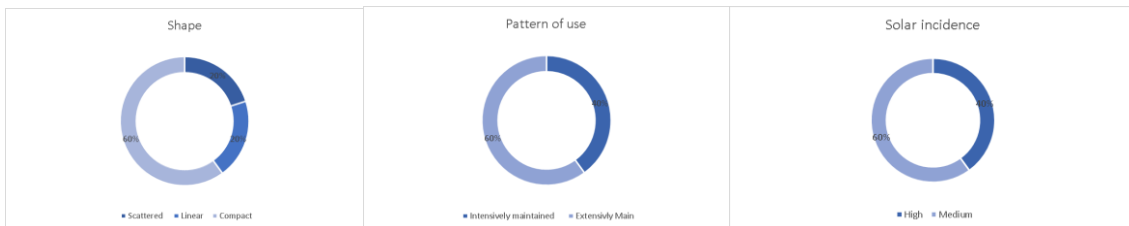




8. In Urban Block 08, canopy coverage was less than 20% with linear and compact shapes. Management was mixed, and private ownership prevailed. The area was extensively maintained, with intense, protracted use. The function was residential, with less than 20% green area. Non-permeable pavement dominated, and the building layout had individual courtyards in a transparent block structure. Solar incidence was medium.



9. Urban Block 09 comprises less than 20% canopy coverage with group trees and compact spaces. It exhibited intensive maintenance and a lightly protected pattern of use. The function was mainly residential, with over 70% green cover and a detached building layout. The block was large and rectangular, with building facades as space walls. Solar incidence was medium due to space wall ratios exceeding half.



## 4. Conclusion

The results of this study provide evidence supporting the adaptability of open areas within modern buildings, particularly when viewed through a comparative stance. The comparative framework employed in this study has also proven valuable in ensuring the reliability and robustness of the typological data. Adopting this approach makes the methodology more comprehensive, as the observed differences in the results have helped identify equivocations and critically evaluate the assessment parameters. Moreover, it has allowed for the consideration of subjective factors in the investigation regarding the multiculturalism of the groups involved in the process.

However, despite this urban type's potential flexibility and adaptability, this case study has revealed specific challenges to its resilience in terms of urban integration and accessibility (Askar et al., 2022). These challenges include the lack of functional diversity, as the analyzed blocks were predominantly residential, and the inadequate maintenance condition of public areas. These issues may derive from the semi-public nature of the urban layout inherent to this type of development.

Addressing the challenges mentioned above, further attention could be given to enhancing functional diversity within these urban blocks, encouraging the integration of mixed-use spaces that cater to the needs of the residents and the surrounding community. Additionally, improving the maintenance of public areas is crucial to ensure the longevity and attractiveness of these spaces (Khakzand et al., 2016). These findings accentuate the importance of a holistic approach to urban development that

considers the physical and environmental aspects and the social and cultural dimensions of the built environment.

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# Using Photography to Approach Space and Place in Mass Housing Estates

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## ABSTRACT

*The contribution reflects on the potential of photography as a research method to investigate the spatial experience and perception of urban space in prefabricated mass housing estates. It does so by drawing upon the discourse on space and place, which spans geography, urban planning, social sciences, urban studies, and architecture. The notion of place allows capturing how we establish our relations, create attachments, and conceive and project meanings onto space. Often the place also serves as a remedy against dreadful monotonous urban conditions, of which prefabricated mass housing is often accused. Mass housing appears then as an ambiguous ground in search of a place. On the one hand, it is portrayed as a placeless anonymous site lacking in identity and human scale. On the other hand, no less often it stands for sites of nostalgia, memories, symbolic meanings and heritage of failed modernist promise, making them places with very strong character. No less ambiguous is the nature of space in housing estates, as from being conceived as separated and programmed under functional imperatives, it often comes to life as a non-discrete void. Photography opens up important ways to capture such ambiguities of space and place in mass housing estates, as it shares two fundamental aspects with spatial experience therein. The act of framing photographic space could approximate the process by which we conceive of certain spaces as places while disregarding the rest, how we differentiate space when it has no affordances, distinct features or clear physical borders to do so. Further, photography could capture atmospheres and convey a sense of being in, or portraying places in such a way as to open an insight into the perceived dimension of it. The reflection will be grounded on a case study of Marzahn housing estate (Berlin), as a side project accompanying PhD project focused on space and place in housing estates.*

## KEYWORDS

*Space, Place, Photography, Housing Estate*



## 1. Introduction

Ubiquitousness and unrestrained proliferation of photographic images nowadays become a commonplace statement. Photography appears in many capacities: as a practice and occupation, as an art medium, as an aid to preserve personal memories, and many more. Due to its ubiquitousness the scope of its uses could hardly be contained. Photography has also pervaded scientific discourse and has been integrated as a research method into a wide range of disciplines, including social sciences [Heng, 2016] and geography [Crang, 2010]. On the one hand, photography-based methods such as photovoice, photo-diaries, photo-elicitation interviews, and many more, have yielded new ways of obtaining knowledge within the above disciplines, including on place [see for ex. Bijoux and Myers, 2006; Beckley et al. 2007; Briggs et al. 2014]. On the other hand, it remains undertheorized as compared to the extent it's been employed, which leads to underutilization of its potential and hinders its reliability in the research context [Langmann and Pick, 2018].

This paper aims to contribute to methodological discussion around the use of photography in the interdisciplinary context revolving around space and place. The terms 'space' and 'place' refer us to spatial disciplines, such as geography and planning. In such a disciplinary context, the debate around those two terms revolves around how we conceptualise space and place, and what epistemological implications it brings with it. Space, as rightfully stated by N. Thrift, "is not a common sense external background to human and social action" [Thrift, 2003], but a manifold concept that requires rigorous theoretical attention. Among numerous schools of thought, which problematize space from different perspectives [Massey, 2013; Lefebvre, 1991; Harvey, 1993; Hillier and Hanson, 1989], a very broad perspective could be distinguished as approaching space through the concept of place. Such a perspective is rooted in human geography [Tuan, 1979; Cresswell, 2014], and demarcates an abstract geometrical notion of space from a 'lived' human space as perceived, experienced, and endowed with meanings, defining the latter as 'a place' in the most general sense [Cresswell, 2004]. Space and place are also addressed within architecture and urban design domains [Hillier, 2005]. Despite the terminological inconsistency, the interchangeable use of the two terms, and even addition of new ones [Peterson, Littenberg et al., 2020], it still resonates broadly with the above distinction between an abstract geometrical view of space and a more human-oriented 'platial' view of space.

The above terms, however, do not entail narrow and strict disciplinary boundaries of spatial disciplines, as 'spatial agendas' have entered nearly all social, urban, and even media studies domains [Warf and Arias (Eds.), 2008]. Respectively, space and place also feature prominently in those discourses as human, social, and even digital phenomena, thus enriching their 'spatial' disciplinary counterpart readings a great deal. Another field where the topic of 'place' is currently on the upswing is GIScience [Wagner et al., 2020; Purves et al., 2019]. Further, the increasing focus on place opens new ways of conceptualization and representation of platial information while building on advances in digitalization of spatial disciplines [Mocnik, 2022]. This allows for novel types of concepts (e.g., platial rhythm [Romm, 2023]), forms of inquiry (e.g., integrating place and urban morphology [Slivinskaya and Westerholt, 2022]), bridging qualitative and quantitative domains (e.g., in terms of statistical spatial analysis, [Westerholt, 2019]), and reflections on the role of technology for the spatial sciences (e.g., regarding immersive technologies [Klippel, 2020]).

The scope of this contribution will address the challenge of approaching space and place in particular urban settings of prefabricated mass housing employing


photography. In doing so, the paper will proceed as follows. First, it will outline the approach to space and place as produced, constituted and practised through actions, activities and processes that feed into spatial relations. Second, one particular parallel will be drawn, bringing together photography as an act of spatializing and framing with the way how we conceive places in urban settings, arguing on potential of such integration for exploring spatial composition of housing estate through a place lens.

## 2. Making Space and Place

Space and place could be conceptualised as spatial and social praxis performed and re-enacted by multitudes of actors and their actions [Thrift, 2000]. The performative nature of space, it is argued from such a perspective, requires a non-representational approach to it, since all representational approaches would effectively substitute actual lived phenomena and shift the research focus to abstracted reflection [ibid]. Place in such a view comes to life through practice, and could not be captured beyond it without losing its essential nature. It is constituted by human actions and us as active spatial agents, who by re-enacting or performing our day-to-day routines in space, constantly create and recreate places in certain permanent or temporary settings. 'Practised' places are given to us through our direct experience, thus the performative approach enters into the dialogue with the phenomenological approach to place [Buttimer and Seamon, 2015].

Space as a product of social activity on a larger scale is conceptualised prominently by the critical geography school [Dorsch, 2013], in which authors contest 'reification of space', foregrounding practices and processes (such as social, economic, institutional, etc.) that spans from global down to local scales and effectively comprise the actual substance of space. Within this discourse, space is favoured or even takes precedence over place [ibid]. However, overcoming this terminological discontinuity, many of its conceptual premises open important insights into 'lived' spatiality imbued with social meaning (as opposed to the abstract notion of space), whether it is termed 'space' or 'place'. Another critical spatial thinker, Michel de Certeau, takes the most local-scale individual spatial routines and actions as a ground level to theorise social and spatial realms as rooted in praxis. De Certeau defines space as "a practised place" [De Certeau, 1985], making a distinction between place as an established 'proper' order, or compositional arrangements of static things in locations, and space as what comes out when we act on it in time [ibid]. De Certeau too subverts the terms 'space' and 'place'. Reversing it, one finds that de Certeau's 'place' as an abstract imposed order corresponds to the abstract instrumental notion of space as planned and organised, while his 'space' corresponds to lived, reenacted, and experienced spatiality, which we refer to here as 'place' (in a human geographical vein).

De Certeau's reading opens an insightful perspective if we are looking into ways to conceptualise our relations with material settings of places and the built environment. There, the opposition of strategies and tactics [De Certeau, 2013] gives us an instrument to unveil our ways of acting on space beyond direct physical actions such as design or material changes. In De Certeau's terms, strategies impose spatial order by institutionalised means, while tactics realise our individual agency to act on space, often against the totalizing 'proper' spatial order. This distinction between space and place also runs across modes of representation available for each, which de Certeau marks as 'map' and 'route' [ibid]. Whereas map embodies a static flat representation, substituting non-traceable acts for trajectories, route, which is a



narrative of our movement in space, does better justice to representing space (which, again casting aside terminological opposition, we refer here as place in its human geographical understanding).

We make places by not only routine actions and daily activities that happen to be in certain settings and locations. The very creation of place is also an act of our agency on space. Such agency could also be read along the lines drawn by De Certeau, coupling it with the conceptual framework borrowed from Martina Löw's work on the sociology of space [Löw, 2016]. Drawing parallels with De Certeau's distinction of strategies and tactics by types of agency towards space (institutional vs. individual), Löw also distinguishes two fundamentally different processes of space constitution. Those are 'spacing' as the collective institutional practice of ordering physical things in space, and 'synthesis' as an individual act of conceiving them in their unity. The process of spacing as defined by Löw includes 'erecting, deploying or positioning social goods, people and their ensembles' [ibid.]. However, this alone does not suffice, as an operation of synthesis is required for the constitution of space. By synthesis, 'goods and people are amalgamated to spaces by way of processes of perception, imagination and memory'. [ibid.]. Those are acts of a different nature than the physical arrangement of things in their spatial order. As such, they could not be directly projected outside by means of visible direct traces left in the spatial realm. Then, in De Certeau's terms, what kind of 'route' could we trace for such actions in order to access the tacit knowledge that goes into such a process of synthesis?

Photography in its two capacities, those of a representation and an act, enters into a conceptual dialogue with the outlined considerations. Photographic means of inquiry might be employed in its representational capacity of how we act upon space in a fruitful way. Such is for example a study conducted in the context of domestic space in the high-density environment of Hong Kong housing estates [Rooney, N., 1997], which examined how people took pictures of their homes. As such, the study focused specifically on the representation of domestic space, thus staying in line with the representational nature of photography as a medium. However, drawing upon insights from a performative approach to place, we might attempt to approximate the act of synthesis that goes into creation of a place. This could be attempted through 'narrating the route' in De Certeau's words, which in our case would mean tracing the trajectory of how a place is framed as such by us in its spatial extent.

### **3. Towards a Method**

The suggested methodology for photography-based inquiry into our relations with spaces of mass housing estates is proposed to be built upon the analysis of the process of taking pictures by the residents. This brings the method closer to walking interviews, where residents are asked to take pictures on the site. Photography has been widely used in this capacity, including in housing estates in particular [Klaniczay, 2021], which offers a rich source to draw upon. The contribution of the suggested method lies in proposing a distinct mode of using photography and interpreting the resulting outcomes.

In particular, photography is proposed to be employed to mediate the process of conceiving space of housing estates as meaningful and contained within certain areas. Composing photographic space by framing the shot can be read as doing exactly that. Instead of inquiring about conceiving space in an abstract way, the residents are asked to tell about the concrete action of taking a picture of a particular area. This frames the conversation about space by anchoring it to the subject matter that might seem less

detached. Whereas we form places by meaningful engagement with our everyday environment, we rarely do it in an intentional and conceptually explicit way, thinking in terms of theoretical discourse around place. It then requires a certain amount of abstracted reflection, which might not be necessarily easily and readily possible for participants, or would require extra time and effort. Part of the researcher's job in designing methods which involve communication with residents is to stimulate the exchange and facilitate the engagement of people in ways that are inviting and almost intuitive to follow, not confusing and loaded with conceptual terms. Compare asking the residents "Tell me what area is included in your frame and why?" instead of "How do you conceive of space here?" In this way pictures lend themselves for structuring the conversation around a concrete and familiar action, while opening up an access to gain insights into deeper mechanisms that underlie our relations with space.

Interpreting the photographs taken by the residents for the above purpose then relies less on visual semiotics and other visual theories which might be evoked for analysing visual information contained in the picture. Instead, it requires analyzing the narratives of residents as they reflect on their own actions of taking particular pictures, bringing it closer to text-based and interview-based qualitative methods. In De Certeau's terms, pictures serve us as an instrument of 'narrating the route' by helping us to articulate how we conceive of space. The researcher collects pictures as secondary artefacts, but the primary data source for the inquiry about place stemming from the suggested method comes from reflecting on the very process of taking those pictures. This reflection is steered away from general considerations, aesthetic qualities or properties of particular objects included or excluded from a picture. The main objective is to record the process of constructing the photographic space by means of a frame made by the residents in order to understand better how they approach this task. It is assumed that this task bears affinity to the way we make sense out of our surroundings by synthesis in Martina Löw's terms.

Given the above, this method could not be applied to interpret a vast body of work, including many excellent photographic projects, which have as their subject housing estates, such as for example a series of pictures portraying interiors of typical prefabricated apartments in Eastern Germany by Susanne Hopf and Natalja Meier, who juxtapose the diverse personalities expressed through home environment and standardized monotonous architecture which hosts it [Hopf and Meier, 2004].

Photographic projects contribute to unveiling manifold facets of housing estates as places, at times in beautifully sensitive and insightful manner, which cast housing estates in a different light from common preconceptions, portraying them as warm, human, at times nostalgic sites imbued with utopian promises of better life for all, as for example greyscale pictures of Panelaks (prefabs in Czech) by Jaromír Čejky [Čejky 2020].





*Image credit: Jaromír Čejky*

The pictures which feature in these works are ruled by conventions of visual composition, symmetry, use of geometrical patterns, references to pictorial art, capturing 'a decisive moment' and other artistic tropes, as they are aimed at producing visually compelling images with artistic message. Repetitive landscape of prefabricated facades is an example of one of iconic photographic themes and particular aesthetics of housing estates.



*Image credit: Zupagrafika*



*Image credit: Michael Wolf*

In contrast, pictures to be taken for the suggested method are not intended to be governed by aesthetic or artistic conventions. They look simple and unremarkable in terms of their composition, as they depict everyday sites of housing estates with ‘a mundane eye’. Their value lies beyond appearance in their making.





*Image credit: Author*

#### **4. Framing Housing Estates with Photography**

Mass housing estate [Urban, 2021] is a residential typology with a certain image (not always fair and unbiased) of hardly the most place-friendly environment [Coleman et al., 1985]. Conceived within the functional planning paradigm, it inherits its complex legacy, including mono-functionality, a 'bird-eye' approach to spatial composition, which tends to dominate over human scale perspective, and sparse connectivity, which challenges easy navigation and wayfinding [Urban, 2021]. Housing estates arguably don't lend themselves easily to be conceived in a coherent way as a distinct environment inviting feeling of attachment and belonging (although in great part this is also part of the public image for such sites, which often meet a counter-narrative from long-term residents). They often appear as monotonous, repetitive, and undistinguishable spaces with a lack of affordances to anchor our perception. Yet, residents of housing estates still form their places in such conditions. Unveiling how they do so would require not only a tailored methodological approach, but also a certain research sensibility, which would navigate the established preconceptions and contested image of housing estates, and photography can be employed towards these ends.

Conceiving a place in housing estates through an act of synthesis in Löw's terms could not be traced in the same way as, for example, natural movement could be recorded, or place-ballet could be observed. As argued by De Certeau, the way we act in space (including conceiving a place in its spatial extent) lends itself to be captured by narrating it as a route, rather than by means of an abstract flat representation. A photographic act can be utilised as an instrument for such narration, unveiling how we perceive the spatial extent of places. It is argued that photography is an act of spatializing [Elkins, J. ed., 2013]. Taking a picture means bringing out the spatial dimension of captured things in their relations. Things and space around them are taking shape in relation to each other, and photographic space created by the picture exposes such relations. Further, the act of photography is always an act of framing, that is, of the configuration of objects (in space) within the frame [ibid]. A photographic frame thus acts as a tool, a border, an invisible container to visibly delineate a portion of space and enclose it. Photography taken as an act of framing can open an outlet to trace an otherwise untraceable action of synthesis in Löw's terms. Here we can


conceive conceptual affinity between the two actions: an act of framing the photographic space of an image and the act of framing a spatial unit to perceive it as a distinct and meaningful place. Consciously reflecting on how to frame a picture of particular spatial settings that we consider meaningful for us as a place, we can bring to light how we perceive those. It might feel overly abstract to engage in direct reflection on our perceptions of space in general, and photography of particular spatial settings, mediating it, gives us a way to be less abstract about it.

Housing estates with their characteristic built and spatial form can be a fruitful ground to draw upon the above affinity. In housing estates, we are often confronted with 'confused spaces' in the terminology of A.Coleman [Coleman et al., 1985], which lack defined and clear boundaries. Ambiguous and fuzzy place boundaries is one of challenges yet to be resolved towards better formalisation of place, including identifying the spatial extent of a place.

Another signature feature of housing estates is a sparse verticality of high-rise apartment blocks, and a specific type of seeing-through skyline composed by tower-and-slab arrangements. Compositions of housing estates are a curious and picturesque subject to observe on morphological plans, and often they look quite distinct and even iconic (e.g. Bijlmermeer, NL). However, it is rarely trickled down to a human-scale environment, which despite top-down compositional variations, often appears unremarkable and anonymous at the ground level. This creates distinct visibility conditions in housing estates, and visibility is yet another significant feature that is being studied extensively in connection with the perception of space [Varoudis and Psarra, 2014]. It underlies many approaches to space modelling (e.g. Space Syntax) which are concerned with the perceived notion of space and its workings from a human perspective. Photography as a visual method naturally associates with visibility studies, as it lends itself to recording vistas, tracing the sight and capturing open space where the camera lens can reach. However, it is argued that photography might also bring a strong added value if we are interested in stepping beyond the perception of space in general to the realm of place. Creation of place involves our conscious engagement with space as expressed by Löw's approach. We are selectively drawing into our notion of place some things and leaving out others. Similar selectivity is involved in the act of framing photographic space.

Features of the built environment, which we might perceive or ignore, constitute another relevant topic, to which the suggested use of photographic image might also contribute. Reading photographic image not in its representational capacity (e.g. as simply depicting buildings), but retaining the focus on the act of framing and spatializing, we might unveil inner spatiality mediated by the built form that made its way into a frame - and as argued here - into our perceived place.

Finally, one more link will be highlighted before wrapping up the argument for using photography as a means to approximate space and place in housing estates. This link is built on another special feature that might be attributed to a photographic frame, which resonates with the nature of a place. It concerns the ambiguous ability of a photographic image to cut space while retaining a certain power to project or to imagine the continuum of a captured site beyond what is cut by frame. The evocative nature of a photographic frame makes us aware not only of what is inside but what is out, albeit in a very ambiguous manner. "We cannot draw a neat boundary around images" [Langmann and Pick, 2018] in the same way as we hardly could draw a neat boundary around any place. Yet, frame, or boundary, is of essence to both photography and place. "The inherent trait of a place is its differentiating nature, that is, it's recognized by means of being different from another place: there is never merely



one place anywhere; or the minimum number strictly speaking is two” [Casey, 2013]. In the case of housing estates, a framed shot might convey a very characteristic feature of its appearance which might impede our ability to form places: an impression of endless monotonous succession of repetitive blocks, variation without difference, which extends beyond the frame.

## 5. Conclusions

“Photographs are not neutral evidence and contain subjective meaning instilled in their make and use; therefore, a photograph is a subjective composition of observation, production, reproduction and display” [Rose, 2000 as quoted in Langmann and Pick, 2018]. Employing and interpreting photography in its capacity of a subjective act of composition, we can gain insights into how we approach spatial settings of places. Reading the photographic act of framing in the light of Michel de Certeau’s notion of the route for what M. Löw terms as the process of synthesis, we can unveil an otherwise invisible mechanism that sustains our very ability to perceive places as distinct spatial entities.

Performative and embodied nature of place escapes visual representations. Photography in representational capacity has also been criticized for obscuring the totality of embodied experience in favor of visual aesthetic [Pallasmaa 2012], and even accused of partaking in failure of modern architecture (of which housing estates often named as emblematic) to create inviting and engaging places of human scale [Rosa 1998]. Employing photography to approach place needs to be reflective of these conceptual incongruences, and using it in a performative way could be a step towards such reflection. Putting aside visual and artistic qualities of pictures in favor of partaking in a photographic act itself could be seen as more accommodating to the nature of place.

It is to be acknowledged that the parallel drawn here between the act of framing and perceiving spatial settings of a place does not claim to mirror the two acts in an accurate and clear-cut manner, nor the identical nature of the two. It is sustained on a high conceptual level of abstraction bordering metaphorical analogy and therefore should be interpreted as such, making proper concessions to any obtained insights. Yet, recognizing such conceptual origins of the approach, it promises to yield valuable insights for the nature of place in housing estates, not in the least because of retaining sensibility to perceptions and inner workings of mind that reside in such rich and deep concept as place, which are not easily captured on record in a precise and objective manner.

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# Buildings, Parks and Humans: The Case of Aerodrom Neighborhood

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## ABSTRACT

*This paper gives a chronological presentation of the development of the post-earthquake spatial segment of the mass housing neighborhood Aerodrom, in order to show values and qualities, which represent a serious improvement in terms of the living environment, compared to the conditions before the earthquake in Skopje in 1963. The paper presents the neighborhood from three time positions: In terms of comparison with the context before the earthquake, in terms of its spatial, sociological and cultural relevance, compared with its contemporary architectural and urban paradigms, as well as in terms of its resilience towards new infiltration within the contemporary transitional context. Using archival materials to understand the level/extent of authenticity and the idea behind the settlement in combination with a method of observations for an objective and contemporary perception of its current state and way of use, the purpose of this paper is to showcase the qualities of Aerodrom neighborhood and to position it in the mental map of its users as a significant heritage of late modern architecture in Skopje.*

## KEYWORDS

*Aerodrom neighborhood, Skopje, post-earthquake reconstruction, collective housing, late modern architecture*





*Figure 1. Pedestrian street in Aerodrom neighborhood (Source: Author's photo)*

## **1. The pre-context**

When analyzing the current urban and architectural form of Skopje, it is impossible to miss the modern character of the city. From the beginning of the First World War until today, Skopje has strongly expanded in terms of the number of its inhabitants, as well as the territory on which it has developed. At the same time, it undergoes several different sociopolitical contexts. From an administrative center of Southern Serbia with 47,000 inhabitants in 1914 (Ivanovska Deskova. 2021) to the capital of the independent Republic of Macedonia with more than 526,000 inhabitants in 2021 (State Statistics Office. 2022), the appearance of Skopje has been influenced by several forms of modernization that shaped today's architectural silhouette of the city.

The process of spatial modernization takes place through a series of regulatory and general urban plans that transform the city from a radial structure with concentric streets to a longitudinal structure with a dominant axis of development in an east-west direction. However, when it comes to the modern character of Skopje and the architecture that marks the second half of the 20th century, almost all observations and research are inevitably connected with the Skopje earthquake in 1963. The earthquake completely destroyed or left without the possibility of repair 70 to 80% of the built stock of the city (Ivanovski et al. 2015: 56). The serious damage required a quick response and an immediate answer to the housing problem for over 150,000 people whose homes were damaged in the earthquake. At the same time, this situation created an opportunity for a thorough and modern analysis that led to a

solution for the reconstruction and expansion of the city, in which, additionally to local resources, foreign experts were involved in different ways (Senior. 1970: 358- 383).

“Aerodrom” is a mass housing neighborhood developed on the eastern side of Skopje. What is nowadays recognized as its territory is a spatial segment of the city in which one can read several urban-morphological entities suitable to the time and social context in which they arose. The initial development of the city towards east (in the middle of the twentieth century) is the product of a logical extension of the existing built structure towards the east. Furthermore, the beginning of the 1960s brought modern influences to these territories, with freestanding residential buildings of different types placed in parks and greenery. However, historical circumstances prevented these ideas from complitly coming to fruition, with the catastrophic earthquake opening the opportunity for a careful rethinking of Skopje’s urban development.

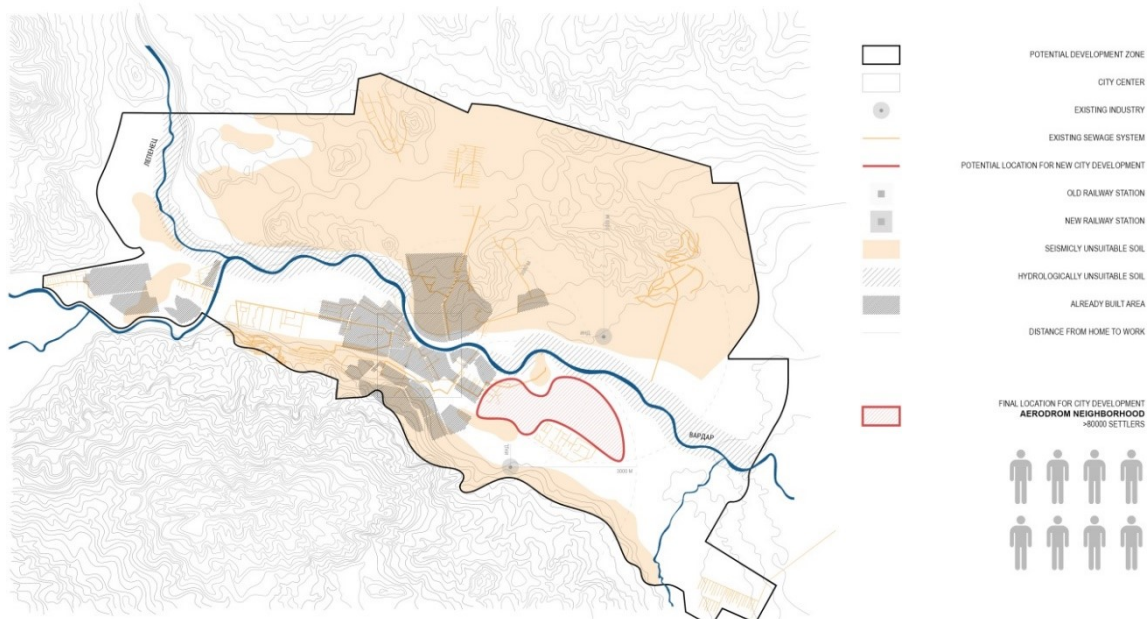
## **2. After the disaster**

### **2.1. The initial concept**

Immediately before the earthquake, Skopje and its surroundings had about 220,000 inhabitants. After the earthquake, many people were left with an open housing issue. When we add to that the natural growth of the population as well as the intention of Skopje to invite the people from the surrounding area to settle in, in order to contribute to the rebuilding of the city, demographic analyses showed the need to solve the housing issue of close to 154,000 inhabitants by the year of 1981 (Senior. 1970: 178).

The initial and quick response to this situation came in a form of 17 prefabricated settlements on the outskirts of the existing city that provided more than 14000 dwelling units (Mijalkovic., Urbanek. 2018). Nevertheless, this did not represent a permanent and complete solution to the problem. With the intention to successfully overcome the new and unexpected situation, a plan for renewal and expansion of the City of Skopje was developed in the year of 1965.

The first step of the expansion plan was the choice of a new area suitable for residential development. Choosing a rational and optimal location for the new city expansion was made by conducting a detailed analysis, considering the factors that can influence the selection of the most affordable land. Using the threshold theory (Kozlowski. 1971) and investigating aspects that were considered for the first time in the planning history of the city (such as seismic and hydrological suitability of the land considered for development), the analyses indicated that certain eastern meadows of the city of Skopje show the most optimal and promising potential for territorial expansion in need of the new residential part of the city (fig. 2). The housing capacity of 81,000 inhabitants (Senior. 1970: 188), compared to the total number of inhabitants in the city that was expected to reach 350000 by the year 1981, as well as the size of the planned territory on which this settlement should be developed can be viewed as extremely important for the modern urban and architectural history of the city. That marked the beginning of a new period for the development of the Aerodrom settlement.

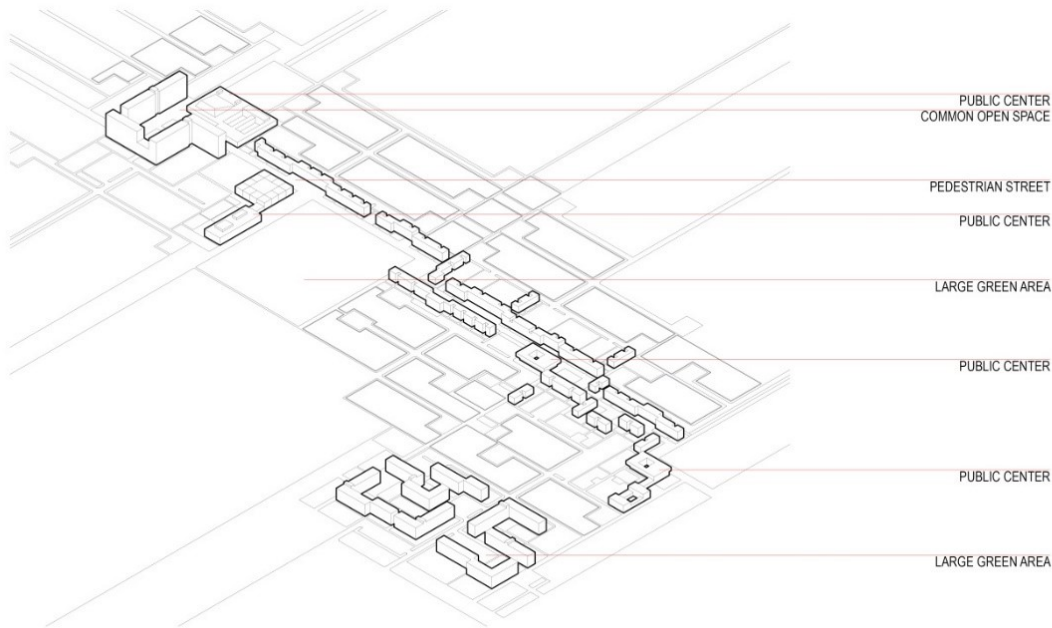


*fig. 2 Implementing threshold theory for choosing the most suitable area for the new city residential zone (Author's drawing based on information available in Senior. D. (1970) "Skopje Resurgent: The story of a United Nations Special Fund Town Planning Project", United Nations, New York.)*

## 2.2. Beginnings of a new vision

The general urban plan from 1965 was a result of collaboration between the Institute for Town Planning and Architecture (ITPA) - Skopje, the Polish firm Polservice and Doxiadis Associates from Greece. Most of the city renewal and transformations were made possible by the Special Fund of the United Nations created specifically for the reconstruction and redevelopment of Skopje after the earthquake. The plan provided guidelines on the basis of which the "new city" should be developed and rules to be followed in order to raise the housing standard and achieve a pleasant and more humane living environment (ITPA. 1965: 82-100). In the planning process, Doxiadis Associates took part in preparing the housing studies. Respecting the pre-set principles drawn by the plan, they also proposed various housing typologies. The simulations were prepared for a specific location, on the territories of the Aerodrom neighborhood, showing the residential communities at different scales. At the lowest level, the drawings show elementary units of the neighborhood created by several types of freestanding residential buildings connected with each other by pedestrian streets, large green areas, open common spaces and public centers for the social convergence of the population. Vehicles are excluded from the visual composition and are located on the edge of these communities, with the space predominantly inhabited by people (fig. 3). Such an attitude towards residential areas and taking humans as the most influential factor in shaping the space is not at all strange. Considering the time context and international influences, it can be interpreted from two points of view. The first and probably dominant influence is experienced through Doxiadis ekistics as the science of human settlements (Doxiadis. 1970). The second and slightly more distant comes from the current architectural and urban paradigms of the world avant-garde group TEAM 10,

which, in its late-modern interpretation of architecture, places human experience and behavior in the central focus when shaping the built space (Team10online).



*fig. 3 Axonometric view of the neighborhood units proposed by Doxiadis associates (Author's drawing based on the plan of Doxiadis associates, available at Senior. D. (1970) "Skopje Resurgent: The story of a United Nations Special Fund Town Planning Project", United Nations, New York.*

The breakthrough of the late modern influences on the territory of Skopje can be felt especially with the competition for conceptual urban design of the Aerodrom housing neighborhood in 1974 (The Association of Architects of Serbia, the Urban Planning Association of Serbia and the Association of Applied Arts of Serbia. 1975). Seven teams from Macedonia and other Republics of former Yugoslavia participated in the competition, and the first, second and third prizes went to the Yugoslav Institute for Urbanism and Housing (known as JUGINUS), the Institute of Urbanism from Belgrade and the Institute for Urbanism from Ljubljana, respectively. Each of the proposals, although conceptually different, respected the guidelines of the urban plan from 1965 for shaping the residential communities, and at the same time, spoke in the language of the late modernism.

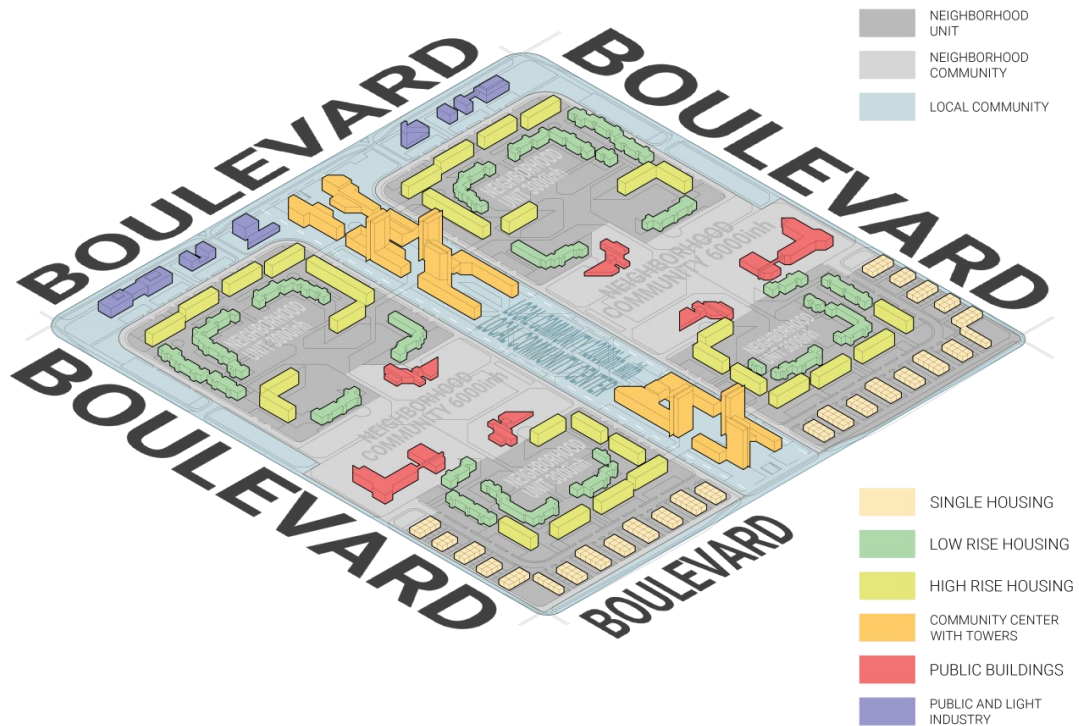
The first-prize competition proposed urbanism in which nature and the built structure coexist together and formed an inseparable bond that later gave birth to a neighborhood with a strong spatial and cultural identity. In their solution, nature penetrated the built space and the built space mixed with nature, thus creating an ideal balance of open and closed spaces, built and free areas.

**2.3. JUGINUS's idea for humane living**

The first prize-winning proposal of JUGINUS was prepared by a multidisciplinary team consisting of urban planners, architects, university professors, psychologists and forestry engineers. This variety of disciplines allowed for an improvement of the plan in different aspects, in order to create spaces that will thoroughly satisfy the need for a healthy and humane living environment.



In terms of organizational composition, the proposal followed the guidelines of the urban plan of 1965 which proposed different levels of communities defined by their number of inhabitants, the area in which they should be developed and the program they contained. A basic building element in the solution provided by JUGINUS was a neighborhood unit with 3000 inhabitants. Two neighborhood units formed a neighboring community, while four units (two neighboring communities) formed one spatial-political structure called a local community, which counted 12000 inhabitants (JUGINUS. 1975) (fig. 4).



*fig. 4 Axonometric view of the local community by the first prize winning proposal (authors drawings based on the drawings found in the As+2000 elaborate)*

The balance between built and open space in the neighborhood was created by the parts planned as a residential area and what was envisioned as public space. The neighborhood unit consisted of different types of residential buildings that formed a semi-porous perimeter block. Shaped like a double horseshoe, it contained an outer layer of high-rise multifamily buildings and low-rise multifamily buildings on the inside. A pedestrian street passed through this system of buildings, which has the character of an extension of the apartment, but also, an entrance to the wide open spaces located in the center of the unit. The centers of the units were open green areas that accommodated kid's playgrounds, kindergartens and places for sitting and socializing.

Defined in this way, the neighborhood unit was the basic structural unit that shaped the Aerodrom neighborhood. By opposing and mirroring them spatially, a neighborhood community was formed. Furthermore, by placing two neighborhood communities parallel to each other, the local community was created.

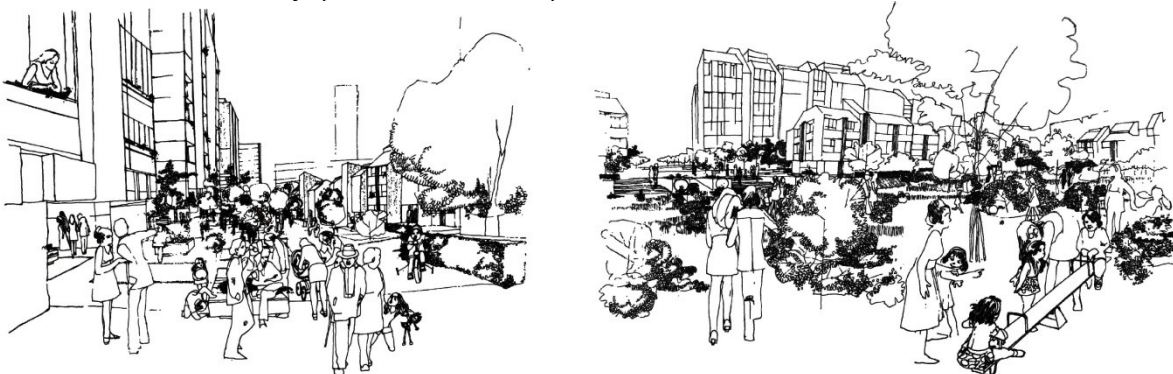
Within the local community, in addition to residential content, there were also open public zones. The centers of the neighborhood units merged into one large and

elongated urban meadow that united all the units, acted as a meeting place for residents and was the bearer of the natural character of the neighborhood. The meadow received various public contents that should support life in the settlement. Different playgrounds and elementary schools represented the built infrastructure that enriched its program. Such longitudinal greenery stretched across the whole settlement, passed from one local community to another and represented a continuous green axis in the settlement.

In addition to the meadows, another public entity appeared between two neighboring communities. Perpendicular to the meadow, the center of the local community consisted of tall multifamily buildings, residential towers and also public open spaces and content that met the daily needs of the residents of the neighborhood. (Market, post office, shop, hairdresser...).

However, the overall value of the proposal and its spatial qualities were not the result of just a successful volumetric organization of the built and opened space. The inclusion of various experts from different fields in the winning team introduced a positive coefficient in the quality of the solution, achieved by adding a layer of semantic study of the space. Using the experiences of Kevin Lynch, Christopher Alexander and others, the shape of Aerodrom was planned from the position of roads, barriers, fields, checkpoints and hotspots that should refine the spatial mental map of the inhabitants of the neighborhood. The space was divided into sections for information, motivations and instructions, which subtly reinforced the identity of the space. In order to achieve the optimal relationship between closed and open spaces, research has been done on the emotional experience of the space according to its confinement, serenity, color, tameness, natural character, etc. which then turned from empirical results into a definitive space. Also, in addition to the environmental and functional role of greenery, a vegetation analysis was carried out, aimed at improving and protecting the space from noise, temperature and pollution.

All these aspects, in addition to the quantitative improvement, especially led in the direction of improving the qualitative values of human life. Having that in mind, the visualizations of the work itself, showed the residents of the neighborhood as active participants in the open green areas, pedestrian streets and children's playgrounds (fig.5). Through them, one could hear the echo of Walter Gropius (1931) who talked about the importance of man's contact with nature, as well as Alison Smithson's (1968) struggle to return built space to the domain of the human spirit, as well as her emotional identification of man through reinterpreting the terms House, Street, District and City (Smithson. 1956).



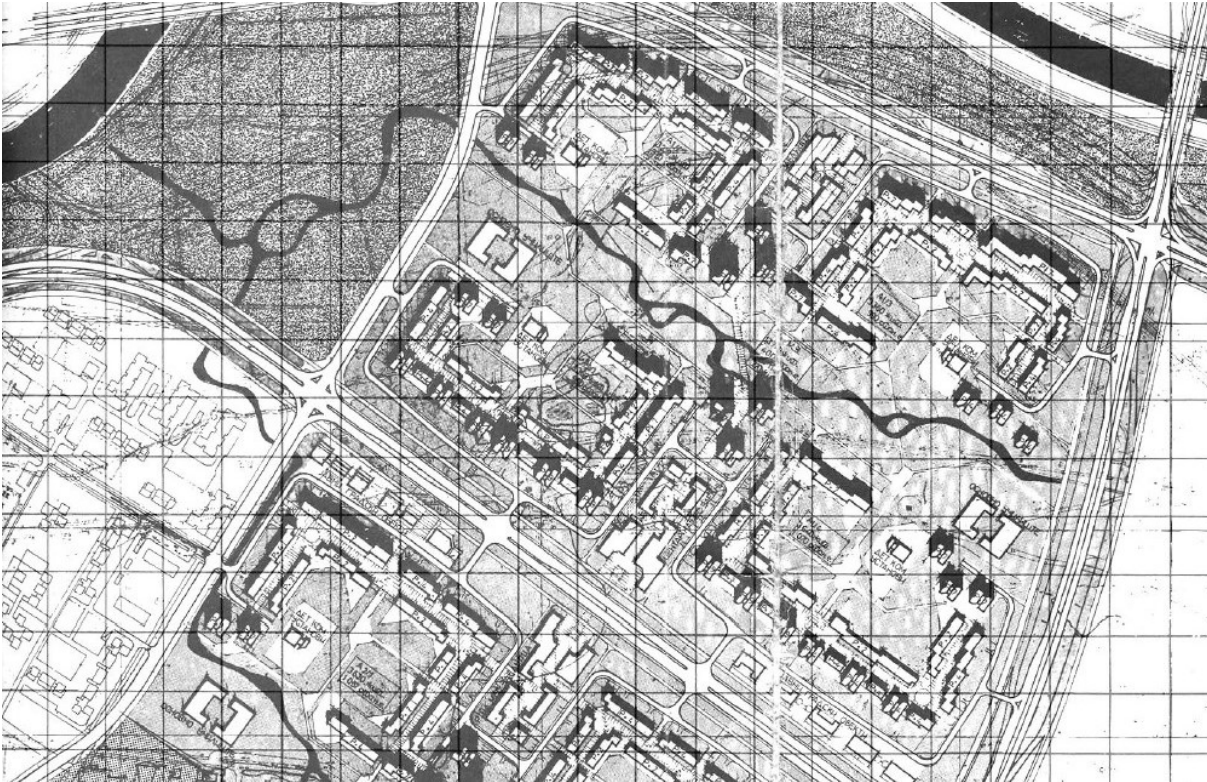
*fig. 5 Spatial visualizations of everyday living in the neighborhood (AS+2000 elaborate explaining the concept of JUGINUS's winning proposal. Available at JUGINUS's office. Belgrade, Serbia)*



## 2.4. First development plan

Soon after the competition, the first development plan for the settlement was prepared, which largely derived from the first-prized proposal (Fig. 6). There were changes in the residential structure and in the public open spaces and their content, but the basic concepts of a double horseshoe and an open longitudinal park were still present as the main theme of the neighborhood. When it comes to the changes, this plan excluded single-family houses envisioned on the edge of the neighborhood units. Thus, the units remain only as a system of multifamily low, medium and high-rise buildings, as well as towers. In terms of public areas, the development plan envisaged the enrichment of the settlement by introducing public water infrastructure. The longitudinal urban forest received artificial water channels drawn from the river Vardar which should have emphasized the natural attributes of the neighborhood and created another attractor around which meetings and socialization of the residents would take place. Such ideas once again showed the intention to improve the built environment and the living conditions that were available to an average Skopje citizen.

Considering that the pre-earthquake standard of housing was less than 9m<sup>2</sup> per capita and that 30% of households did not have proper toilets and kitchens in their homes (ITPA. 1965: 36), the ideas of a semi-public forest and river, as well as walking streets with free space for socialization and spontaneous companionship are equal to utopian visions. Overlapping this with the socialist context of Yugoslavia, as well as the utopian ideas it wanted to achieve (Mrduljaš. Kulič. 2012), Aerodrom can be viewed as another attempt to demonstrate a perfect ideology through urbanism and architecture. An attempt that focuses on the improvement of the immediate human habitat, but also, to the overall living experience. After all, the pastoral motif is an integral part of the utopian discourse (Picon. 2013).



*fig. 6 first development plan of Aerodrom neighborhood, (Korobar, P.V. (2017) "The Encounter at the Margins of City and Society: the Case of the Aerodrom Housing Area in Skopje", Marginalia, Limits within the Urban Realm, Volume 5. pp 54)*

## 2.5. Realization of the neighbourhood

If planning in the twentieth century was the link between architecture and utopia (Tafari, 1973: 92), on November 13, 1977, the construction of the Aerodrom neighborhood began, marking the beginning of a new vision for Skopje. The settlement was planned to be built in several phases, with local communities A1 and A2 planned to be the first in line to be implemented, and two others soon after. Compared to the development plan, Aerodrom received the planned residential facilities, but the public content has been reduced. The walkways between the buildings of the neighborhood units retained the character of spaces on the borders between inside and outside, functioning as an extension of the apartment and successfully allowing spontaneous meetings, gatherings and children's games. On the other hand, the idea about the river that penetrated through the open greenery was never realized, although traces of it can be found in some drawings of the built objects in the immediate vicinity. In addition, the number of public buildings that should have optimally served the needs of the neighborhood has been halved. This reduction of the content of the settlement was the case with several similar situations. The need to primarily solve the housing issue of the people who needed it the most has exhausted the material resources provided for such undertakings, so the common story was that providing public content and infrastructure that is not necessary should be part of another phase, a phase that many times did not come. With this practice, the settlement deprived its central segment of the function of a public attractor and what was intended as a public spine of the settlement has turned into an urban forest alienated from the residents themselves. What should have been





the basic public component of the neighborhood turned into transit zone between the different units of the neighborhood.

On a lower scale, the detailed planning and design of each of the units of the neighborhood was entrusted to some of the most successful construction companies in SR Macedonia. Given the size of the undertaking, this move optimized the building of the neighborhood over time. Furthermore, each of the companies kept the big idea for the shape of the new part of Aerodrom, but within its smallest units created personal micro-urbanism that shaped the identity and spirit of the particular segment of the neighborhood. The differences ranged from the dominant color of the buildings according to which an initial distinction should be made, through the character of the greenery, the wide diversity of apartments for different groups of users, to the way of shaping the pedestrian streets and places for meeting and socializing. Everyone tried to localize the repeatability of the model, forming its own character of space.

Viewed at the level of the buildings themselves, the shape of the buildings affected the overall spatial experience of the neighborhood. Instead of large, long and monolithic structures, their volumes were divided into several pieces that created a rather complex appearance of a building. Thus, the dynamic volume, with some parts extruded and some retracted, reimaged the idea of the monumentality of the buildings, and such a dynamic volume brought the objects closer to human-scale. So, the idea of the multifamily building in the resident's mental map descended to the level of an individual house.

In terms of the spatial experience obtained, the positions of the buildings created another effect that encouraged the movement of people through the neighborhood. Instead of strictly following an axis on which they line up, the buildings had their positions slightly moved in relation to the main direction of walking, as if to create a closed perspective in the neighborhood. Thus, the movement of the pedestrian was constantly alert, with small shifts in direction. The person became a traveler who could experience the neighborhood through several plans at the same time, and semantically, there was always a "sign" that showed him the direction to follow. Adding depth to the movement effect, the green open areas and trees intertwined with the path itself and the buildings. The courtyards of the buildings blurred the boundaries between public and private and the positions for socialization, meeting and rest that unobtrusively sprang up along the pedestrian path, further emphasizing the feeling. Thus, the pedestrian was not just a passive passerby but took on the role of an interested explorer of the urban space (fig.7).

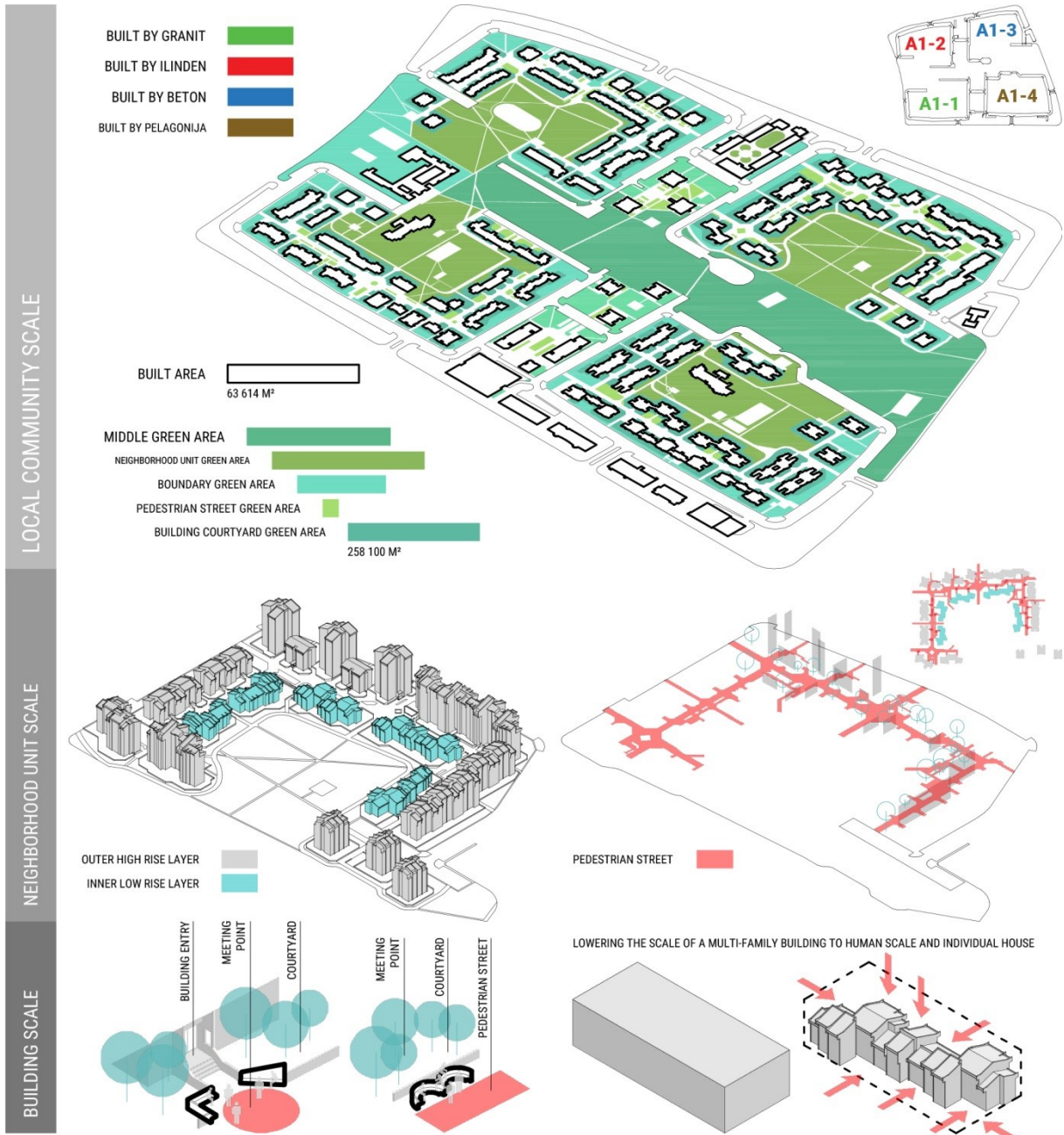


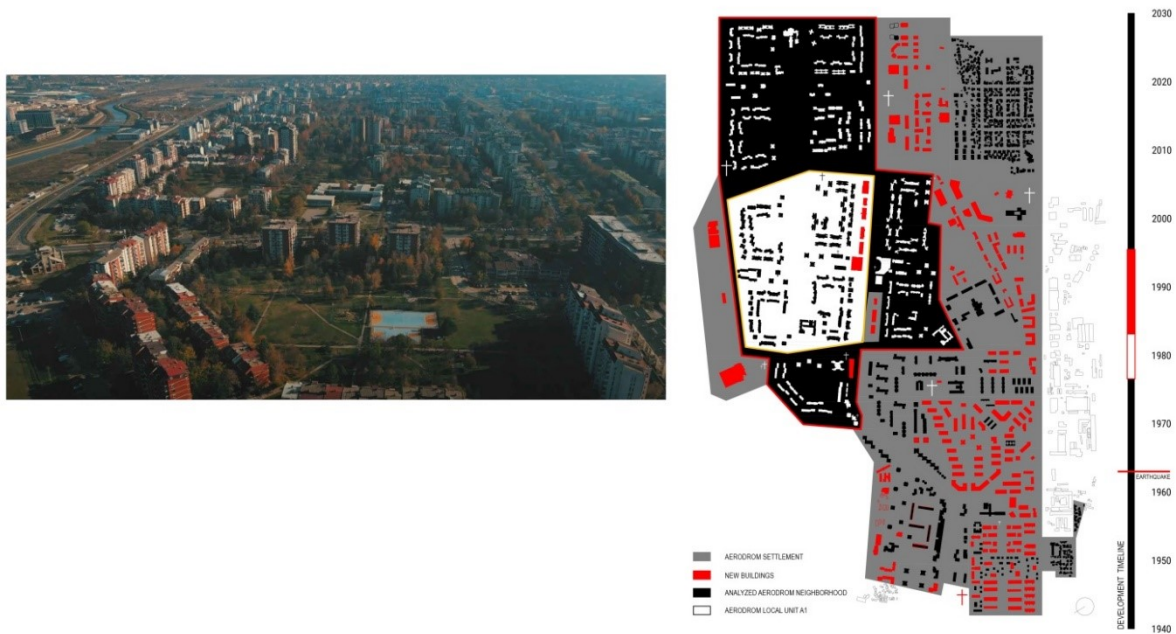
fig. 7 Spatical qualities of Aerodrom neighborhood in different scales. (Author's drawing)

### 3. Resistance to the new age building approach

The last structures built in the recognizable spatial segment of Aerodrom took place in the early 90s. This spontaneously coincides with SR Macedonia exiting the Yugoslavian federation and its transformation into an independent state. Changes like this intensified the social shift from socialism to capitalism. Such a change was reflected in various disciplines, including architecture and urbanism. The concept based on individual growth, which is propagated with the new social system, is manifested in the built form by raising tall buildings in positions where there were small individual houses or none. Much of the places of prefabricated shacks that were the immediate response to the post-earthquake housing problem have now been converted into multifamily buildings, several times larger.

Such densification occurs at the expense of public space and the human environment. These transformations are present in several parts of Skopje and while somewhere stronger and somewhere milder, this phenomenon is also present in some spatial segments of the Aerodrom settlement.

The part that is most resistant to this phenomenon is the spatial segment built in the seventies and eighties (fig. 8). Changes are spotted alongside the boulevard in the form of buildings of different types (malls, mixed-use buildings, churches...), but the core of the neighborhood stays authentic. Explanations for this durability can be seen from several hypothetical perspectives.



*fig. 8 Resilience to spatial infiltration of the newly erected buildings (Author's drawing)*

(1) Its relatively new formation makes it still resistant to contemporary construction encroachments. (2) The built form represents a closed spatial composition, leaving no room for a new residential building that will continue the same story. (3) The values that this neighborhood possesses are recognized by people, so they show interest in protecting Aerodrom's spatial integrity...

With a lack of one clear reason, the reality is that resilience exists and keeps the character of the neighborhood original and safe. Full of values, the focus should be placed on preserving this condition, protecting this exciting spatial entity of the late modern movement.

#### 4. Experiences and lessons

In cities with an earthquake history, the chronological development of the built space is intuitively divided into periods before and after the earthquake. The Skopje earthquake in 1963 turned the focus of the world protagonists of modern architecture towards these territories. The visual and functional idea of a utopian city is manifested through numerous realizations from the 60s and 70s. Plans and ideas that then represented the urban and architectural peak are already passing the first time threshold when they can receive the first objective critique and evaluation.

The post-earthquake part of the Aerodrom neighborhood has never been fully built. Out of the seven local communities foreseen in the competition, only three and a half were realized. Some of the program representing socializing content for the residents was not built, and the contact with the river Vardar in a form of sports fields and a botanical garden, which was supposed to strengthen the connection with nature, today is a target of capital investments... Despite such concessions and shortcomings, the part of the neighborhood that was built is particularly significant for Skopje for several reasons.

Even with its reduced size and number of inhabitants, Aerodrom is still recognizable as one large, homogeneous part of the city. At the end of the seventies, the self-governing interest community for housing made most of its investment in the territories of the Aerodrom neighborhood. In terms of shape, compared to other spatial concepts in the city, the urban morphology that characterizes Aerodrom neighborhood is unique and has remained authentic to this day. In discussing the meaning of originality, Emile Aillaud (1975) interprets the ability of a place to adequately withstand the test of time as its most important aspect. Expanding on this, the thorough analysis on which the neighborhood rests, the measured ratio of built and open space and the methods used to set the sociological and psychological qualities of the space resulted in the creation of a settlement that allows construction of a clear cultural identity and spirit of a place that is still kept.

Seen across multiple scales, in the context of the city, in the context of the neighborhood units and at the level of the buildings and the mutual relationship they build, from the largest park, through the pedestrian streets, to the shape of the buildings themselves, Aerodrom presents a new approach in forming the neighborhood. It follows the directions of the current urban plan of 1965, finds its roots in late-modern architectural paradigms and models, and successfully copes with the test of time, a battle being lost by a numerous urban places today. Aerodrom is the result of a time in which the shaping of architecture was ideologically inseparable from other immaterial factors (Glendinning. 2008). Recognized as a "neighborhood of Skopje's future" (Nova Makedonija. 1973) and "an undertaking on the scale of a new city" (Chepreganov, 1983), in addition to the spatial ones, it is based on values shared by other collective housing settlements from that time. With an appropriate time distance, the experiences from it can be translated into a lesson for future architectural productions and cultural debate (Tostoes. 2014). Thus, Aerodrom neighborhood becomes more and more worthy of bearing the title of architectural heritage of the late modern movement, even if that is only present in the collective consciousness of the common man. In fact, the one for whom it was ultimately made.

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# Continuities and Anti-Continuities of Post-Socialism: A Case of the workers' settlement Narvskaya Zastava in Saint Petersburg, Russia

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## ABSTRACT

*This paper examines the post-socialist transformations of Narvskaya Zastava, a workers' settlement located in Saint Petersburg, Russia. The paper begins by exploring the continuities of post-socialism, reflected in socio-material heritage of socialism. It shows how the socialist urban fabric of Narvskaya Zastava, still partially accommodating workers of a nearby Kirovsky factory, and the ongoing prevalence of communal flats in the neighbourhood are distinctive features of post-socialism. The study then delves into the anti-continuities of post-socialism in Narvskaya Zastava, particularly the market-driven infill construction aimed at densifying sparse urban space and capitalizing on unrealized gains. The paper then discusses public-private partnerships initiated for an urban renewal project, aiming to deal with decaying socialist heritage in the condition of budget austerity but impeded by the fragmented ownership structure of housing resulting from housing privatization. By presenting an in-depth analysis of the continuities and anti-continuities of post-socialism in Narvskaya Zastava, this study contributes to the broader understanding of the complexities and nuances of urban transformations in post-socialist cities. The findings offer valuable insights into the enduring legacy of socialism in the urban landscape and the challenges posed by market-driven approaches to urban development.*

## KEYWORDS

*Post-socialism, Narvskaya Zastava, St. Petersburg, socialist heritage, workers' settlement, continuities of post-socialism, anti-continuities of post-socialism*



Figure 1. Working-class housing on Traktornaya street (Source: <https://zen.yandex.ru/media/id/5d8b6500c49f2900aed01f6c/jilmassivy-sanktpeterburgachast-3-prospekt-stachek-5e22399698930900b5bc73e5>,: Accessed 26 April 2022).

## 1. Socialist housing heritage – a case of a workers' settlement

In discussing socialist housing heritage, our initial mental imagery might consist of monotonous modernist towers and slabs, extending across extensive urban areas. Nevertheless, this architectural legacy is far more diverse than commonly perceived, encompassing various other morphologies. In all sincerity, even the modernist blocks themselves exhibit considerable variation in design and characteristics (Urban, 2013).

One of the housing forms within the context of the "socialist city" (*sotsgorod*) in the USSR was the socialist workers' settlement, known as *rabochiy poselok* or *sotsposelenie* (Meerovich, 2015). Meerovich points out that while its spatial structure was influenced by E. Howard's garden city concept, the fundamental social aspects of garden-city cooperatives, such as collective land ownership and community management, were absent in Soviet projects starting from 1922. The author emphasizes that in the Soviet Union, housing was perceived as a means to attach workers to their workplaces, leading to the establishment of workers' settlements in close proximity to industrial facilities. Furthermore, housing served as a tool for promoting Soviet anti-bourgeois values, resulting in the replacement of the original garden city idea of "one family – one housing unit" with communal living arrangements, notably in the form of shared flats known as *kommunalki*.

Following the demise of state socialism, the socialist housing heritage underwent significant changes. While there has been extensive research on the post-socialist transformation of large housing estates, including rehabilitation, ruination, and demographic changes, across various countries (Kovács and Herfert, 2009 offer an international comparison, and Nedučin et al., 2019 provide a review), less attention has been given by international scholars to the alterations in the urban and social fabric

of workers' settlements. Apart from discussions concerning urban shrinkage following the closure of the industries in workers' settlements existing as separate entities of small and medium-sized cities or company towns (monotowns or *monogoroda*) (Crowley, 2016; Batunova and Gunko, 2018, to name just a few), scant research exists on workers' settlements as residential neighbourhoods of bigger cities. A notable exception here is the recent study of Uralmash district in Yekaterinburg by Ilchenko (2022). Ilchenko describes how, unlike in monotowns, the decline of the Uralmash plant did not lead to a considerable drop in district's population, as the newly unemployed could find a job elsewhere in the city and new residents would arrive in search of cheap housing. Ilchenko then tells a story of symbolic post-socialist development of Uralmash: how its public image evolved from an ordinary residential district to a heritage site worth preserving.

This paper focuses on Narvskaya Zastava, a workers' settlement located in Saint Petersburg, Russia. Saint Petersburg is a city well-known for its historic centre, listed as a UNESCO World Heritage Site. However, the importance of the city's socialist heritage is hard to underestimate, given its status as an experimental ground for modern architecture after the 1917 revolution. Narvskaya Zastava is famous precisely for this: for a new exemplary working class neighbourhood on Traktornaya street, built in the 1920s by architects A. I. Gegello, A. S. Nikolsky and G. A. Simonov (Figure 1). In addition to the new housing, the neighborhood was filled with symbolic architecture of the new regime: a kitchen factory (*fabrika-kuhnya*), a palace of culture (*Dvorec Kultury*), a house of soviets (*Dom Sovetov*) and an innovative school whose methodology was then based on shared responsibility and group work. Further developed during the city's reconstruction after World War II, Narvskaya Zastava is a compelling example of a socialist workers' settlement.


## 2. Studying the post-socialist city through continuities and anti-continuities of socialism

Although Narvskaya Zastava was an aspiration for the socialist city, it has undergone profound transformations since the fall of the Soviet Union. Nowadays it represents what the "Post-Soviet", or rather "post-socialist" city is about. While the former term relates to the cities of the former Soviet Union, the latter has a more universal claim, and is highly debated today.

The current debates over the post-socialist city are centred on whether the term "post-socialism" is appropriate at all to describe the changes happening in cities after the demise of state socialism (Hirt, 2013; Tuvikene, 2016; Müller, 2019; Kinossian, 2022). While Müller (2019) suggests a radical break with this concept, Tuvikene (2016) insists on its usefulness for comparative urbanism and the inclusion of this subfield of study in a more global discussion, and presents a new configuration of "post-socialism as a de-territorialized concept", which implies that "post-socialism does not apply to a whole city, or in that matter to a society or a region, but to more specific aspects of social and urban worlds." (Tuvikene, 2016, p. 141). This conceptualization of post-socialism departs not only from the common essentialist understanding of "post-socialism as a spatio-temporal container", or as processes bound to a particular region at a particular historical moment, but also from a flat ontology of "post-socialism as a condition", or as a hybridized aggregate of local specific temporal and spatial relations.

Using Tuvikene's optics with Narvskaya Zastava as the case study, I show a few examples of continuities and anti-continuities of post-socialism in urban transformations of Saint Petersburg. As noted by Tuvikene (2016, p. 141), "continuity





in the sense of post-socialism as a de-territorialized concept pays attention to the hybridity of the city”. It shows how, despite many changes that happened after the demise of state socialism, some important traces of socialism remain in the city, eventually becoming post-socialisms. As for anti-continuity, it can be defined as the novel processes that were absent in the state socialism but that were introduced with the reference to it, be it a previously ignored demand, a specific spatiotemporal arrangement or willingness to depart from some feature of socialism.

I base this research on the corpus of more than 40 interviews with urban planners, developers, municipal officials and residents of Narvskaya Zastava, collected online or *in situ*, as well as on statistical databases from the St Petersburg Housing Committee and cadastral maps, accessible online, and on ethnographic observations supplemented by photographs of the Narvskaya Zastava neighbourhood, carried out during my PhD fieldwork in the summer of 2021 and the summer of 2023.

### 3. Post-socialist continuities in Narvskaya Zastava

#### 3.1 Socio-material heritage of socialism: a workers’ settlement

One of the major differences between previously socialist and capitalist cities is the material heritage of socialist housing and their residents’ spatial distribution.

The urban fabric of Narvskaya Zastava remains predominantly socialist. The majority of the neighbourhood consists of a low-rise neoclassical ensemble (See *Figure 2.*), known as *malojetazhnyj ansamblevyj poselok*<sup>1</sup>, that was designed by architects Kamensky and Belov and built between 1946 and 1954 (Rybalkina, 2018). Notably, Narvskaya Zastava is situated in close proximity to or includes in itself prominent constructivist architectural landmarks from the early Soviet era, including workers’ housing complexes (*zhilmassivy*) on Traktornaya and Turbinnaya streets and Putilovsky (Serafimovsky) gorodok, as well as infrastructural facilities such as the House of Culture, public baths (Ushakovskie bani), and a public canteen known as *fabrika-kuhnya* (today a Kirovsky shopping mall).

The settlement, comprising 190 houses, was specifically intended to accommodate workers employed at multiple factories, especially the Kirovsky factory, situated to the south of the development (See *Figure 3.*). In reality, the neighbourhood was never socially homogenous: there lived not only the workers of the the Kirovsky plant, concentrated in the south in immediate proximity to the workplace, but there were also houses of Politburo (The supreme executive body of the Communist Party and the Soviet state) and a so-called teachers’ quarter, assumingly housing local intelligentsia working in the neighbouring school in the north of the ensemble<sup>2</sup>.

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<sup>1</sup> *Malojetazhnyj ansamblevyj poselok*, a low-rise architectural ensemble used to reconstruct some city neighbourhoods after the war, located in the direct proximity to a factory to house its workers (Rybalkina, 2018)

<sup>2</sup> Interview with a resident of Narvskaya Zastava



Figure 2. Post-war neoclassical housing (Source: author's photographs, 2023 – on the left, 2021 – on the right)

Despite some changes in the neighbourhood's social structure over time, Narvskaya Zastava still serves as a residential area for Kirovsky factory workers, as well as the employees of Admiralteiskie shipyards, located further away to the north of the neighbourhood<sup>3</sup>. As both Kirovsky factory and Admiralteiskie shipyards continue to operate, albeit with reduced workers' numbers, the original purpose of the settlement perpetuates after the Soviet period.

### 3.2 Socio-material heritage of socialism: communal flats

Following the Bolshevik revolution, the urban landscape underwent significant changes in the city centre. The former bourgeois flats in this area were forcefully converted to accommodate denser living arrangements. For instance, a single 5-room flat, which was previously inhabited by one family, would now house five families, with each family occupying one room. This densification strategy continued throughout the Soviet era, even in newly constructed housing, where multiple families shared a single flat. This approach was not solely due to resource constraints but also aligned with the socialist ideology of communal living. The aim was to transform individuals from a peasant lifestyle, characterized by communal living but independent work, into workers organized within production collectives. Embracing communal living also facilitated more straightforward governance (Meerovich, 2015).

According to Meerovich's analysis, communal flats or *kommunalki* became a distinguishing characteristic of workers' settlements, setting them apart from the original concept of the garden city, which emphasized individual family units. The shift towards communal living in housing reflected the socialist principles and the collective transformation of societal structures during the Soviet period.

<sup>3</sup> Interview with a former resident of Narvskaya Zastava

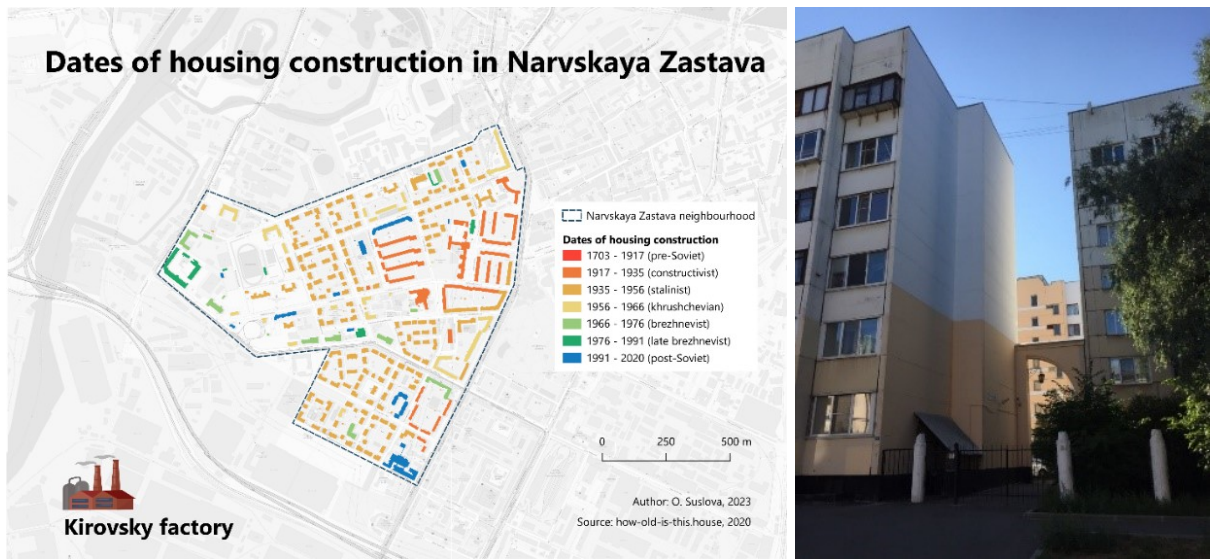


Figure 3. Dates of housing construction in Narvskaya Zastava on the left, Post-soviet infill construction on the right (Source: how-old-is-this.house, 2023, author's photograph, 2021)

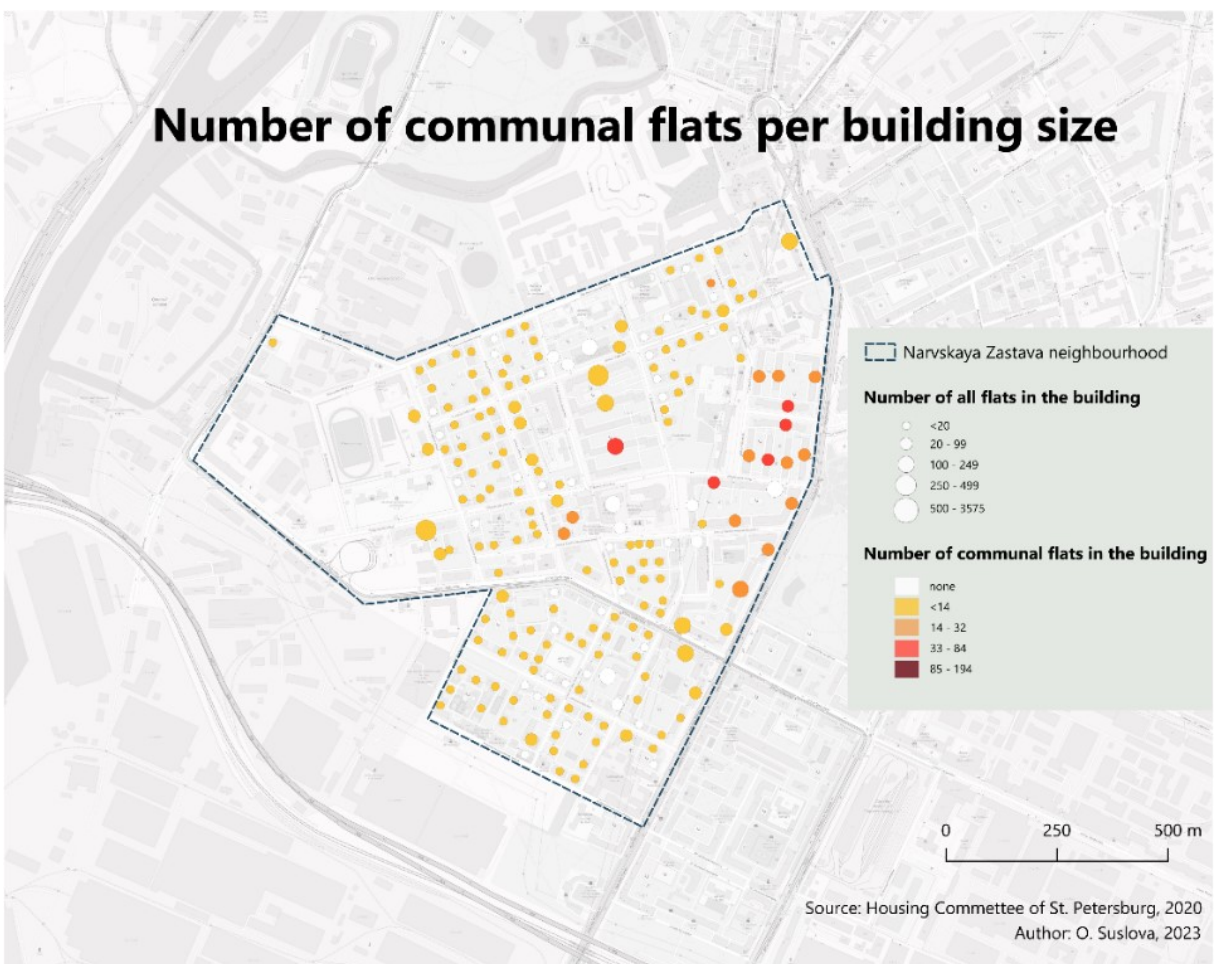


Figure 4. Number of communal flats per building size in Narvskaya Zastava neighbourhood (Source: Housing Committee of Saint Petersburg, 2020)

Three decades after the collapse of the Soviet Union, communal flats continue to be a prominent feature in Saint Petersburg. As of 2018, the city housed a total of 71,800 communal flats, accommodating 233,000 families<sup>4</sup>. While the majority of these flats are concentrated in the historical city centre, they are also prevalent in considerable numbers at the city's periphery. In the Narvskaya Zastava neighborhood, communal flats can be found in nearly every building (See *Figure 4.*), although their distribution varies depending on the housing type.

The introduction of the housing privatization program during the 1990's led to the emergence of what is described as a "regime of property without markets" (Zavisca, 2012), where housing was only partially commodified – but commodified still. Those with sufficient financial means began to privatize and sell their rooms and move out of communal flats, leading to the dissolution of some as individual rooms were sold to single owners and upgraded. Consequently, "kommunalki successively became a housing choice mainly for those who, for different reasons, were not able to earn high incomes" (Bernt, 2022, p. 193). This trend of increasing poverty concentration within communal flats is confirmed in the case of Narvskaya Zastava:

*"At the moment there are a lot of well, I would call them dark personalities living there. Well, I mean, not very trustworthy. I mean there is such a thing. Well, again, it's because there's a large number of communal flats. <...> Drinkers, people who are not very keen on cultural life - there are more of them. <...> A large number of communal flats, people who have the opportunity, they leave there and sell. <...> And it's not even that they sell, a lot of housing is rented there, somehow a lot of such incomprehensible people live there» (A former resident of Narvskaya Zastava, who lived there for 15 years, moved away in summer 2022 and now rents out her room in a kommunalka)*

This interviewee described in very good terms her own relationship with her communal flat neighbours, workers at Admiralteiskie shipyards, who chose not to privatize their rooms. However, she underlined the trend of concentration of marginalisation in another block of communal flats, organized in the form of large dormitories, unlike her relatively small communal flat for three families.

It should also be noted that in spite of the launch of the program of housing privatization, social renting remained a minor but substantial practice. Some residents, fearing the skyrocketing maintenance costs and property taxes or being unhappy with their current housing condition, decided not to privatize their housing (Amestoy, 2001). In Narvskaya Zastava, around 20% of the neighbourhood's residents live in socially rented flats, primarily consisting of kommunalki occupants, especially in the dormitories-like housing<sup>5</sup>.

While the initial social diversity found in communal flats during the Soviet era is gradually waning, kommunalki continue to represent a socio-materialist manifestation of post-socialism. The spatial organization and fragmented ownership structure of communal flats make it hard to dissolve them outside of prestigious central locations, therefore their abundance become a specific feature of post-socialism.

<sup>4</sup> <https://nsp.ru/25978-kommunalnyi-tupik>, accessed: 20<sup>th</sup> June 2023

<sup>5</sup> Interview with the developer in charge of urban renewal of Narvskaya Zastava

## 4. Post-socialist anti-continuities in Narvskaya Zastava

### 4.1 Infills to densify socialist land distribution

A major change in cities that experienced a drift away from planned economy was the introduction of market reforms in urban planning. One of the first steps in establishing market principles in urban planning is supposed to be the clear delimitation of property rights on housing and land. However, the privatization of housing that happened after the fall of the Soviet Union did not lead to the complete ordering of urban land. Even though the property of land passed from the state to municipal, and eventually could be privatised, not so many condominium co-owners engaged in the process of privatization of a land plot on which their property was standing.

The first Land Code of the Russian Federation was adopted only in 2001, and for the whole decade, the Land Code in place was the one of the Russian Soviet Federalist Socialist Republic of 1991. It allowed privatization of land, but put a moratorium on its selling until 2001 (Kirchik, 2004), that might have hindered its privatization for those interested in its marketization. Even when the new Land Code was adopted, the legal procedure of registering the land plot in the land register was obscure, costly and time-consuming, which prevented ordinary citizens from doing it.

This resulted in a fragmented ownership structure of the urban land, where some land was privatized by condominiums, some was privatized by companies and some stayed public, either state or municipal. The vast part of the land became a “no man’s land”, officially belonging to the municipality of Saint Petersburg (See Figure 5.). This included many non-privatized land plots under the buildings, green in-between spaces and courtyards. Such a legal lacunae allowed a practice that was called “densification” – active infill construction by private developers on a free land spot that created a lot of contention from the part of the residents (Dussault, 2010).

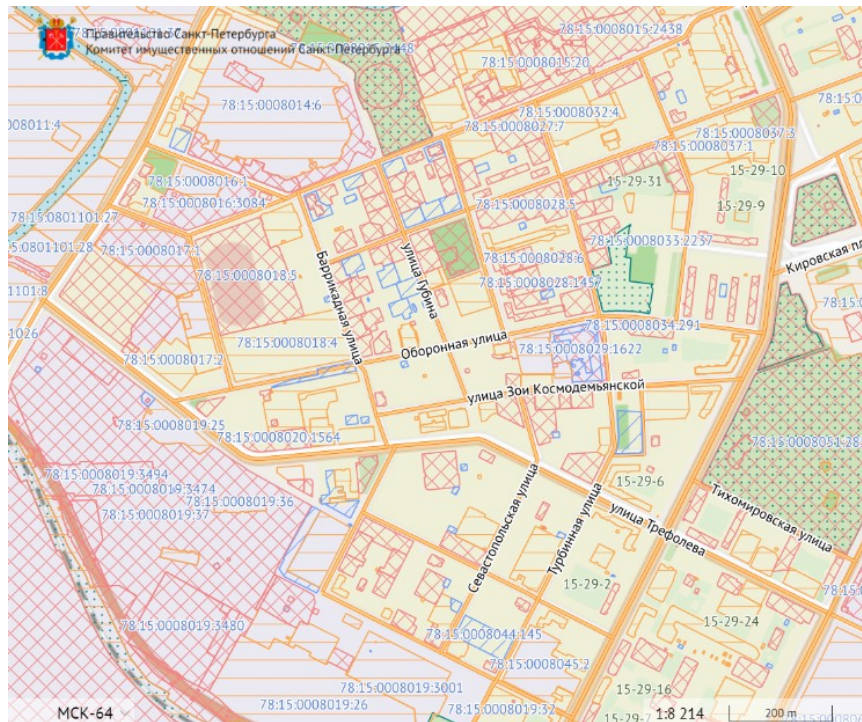


Figure 5. Registered land plots (in red: counted, in orange: previously counted, in blue: temporary) and the empty space - a “no man’s land” (Source: Committee of housing of Saint-Petersburg, 2020)

Even though the overwhelming majority of buildings in Narvskaya Zastava was constructed in the Soviet period, some sporadic new development has appeared in the area since 1991 (See *Figure 3*). As a result, one notable characteristic of the socialist city – the presence of vast green spaces between buildings – has become a marketable asset for the city authorities. They have opted to sell some of these green areas to private developers for construction purposes. They did so in order to make the use of land more “efficient”<sup>6</sup> and appropriated for the market economy, in contrast to the socialist land distribution, which nevertheless prepared the ground for this intensification.

This shift towards denser development allowed for a slight social change within the neighbourhood. The newly constructed flats were bought on the freshly minted, albeit limited, housing market. As they were not distributed by a public entity or inherited, it guaranteed their higher social homogeneity. Compared to the long-standing inhabitants of more socially mixed socialist housing, the new residents proved their ability to buy property. Even though some of the newcomers bought property inside socialist housing itself, in the interviews they clearly differentiate themselves from those who got the flat through the socialist system. Unlike the latter, the former chose to live in this neighbourhood, and managed to get a necessary sum of money for it (even if it comes from an inheritance).

#### 4.2 Public-private partnerships for dealing with socialist heritage

During the Soviet era, many historical buildings suffered from a lack of maintenance and repairs, except for 30% of buildings in the city centre that underwent reconstruction between the 1950s and 1980s (Sharlygina, 2019). However, by the end of the 20th century, numerous Soviet buildings also required significant repairs. In response, the municipality initiated a city-wide program of refurbishment of “damaged” or “ruined” housing. As Bernt (2022, p. 189) writes, “Russian planning authorities distinguish between two categories: a building is counted as damaged (*avariinyj*) if 40% of its structure is dilapidated and as ruined (*vetkhyj*) if 60% or more of the structure is affected. At the time of writing, around 5800 residential building were considered by the city to be damaged or ruined.”

In the centre of the Narvskaya Zastava neighbourhood, one constructivist building underwent this resettlement program. It was reconstructed, meaning that the interior structure was modified while the façades were upgraded but remained substantially unchanged (See *Figure 6*). A private investor financed the works, adding an additional floor to finance the repairs through selling of the flats on the housing market.

At the same time, similar constructivist houses in the neighbourhood were included in a different program, the one of urban renewal (*Development of the Built-up Territories*, or *RZT*), understood as demolitions of socialist housing and new denser constructions (for the list of buildings included in the program in Narvskaya Zastava, See *Figure 7*). Instigated by the local government in 2008, the project is a private-public partnership funded by private investors. The developers are to finance demolitions, rehousing of residents and new constructions, while the city would pay for the necessary social infrastructure (such as schools) and provide land on beneficial terms. The developer *Spb Renovatsiya*, conceived in 2009 specifically for this purpose,

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<sup>6</sup> The same rhetoric is used by the authorities to justify an urban renewal program, described in the section about public-private partnerships

took in charge the development of 22 neighbourhoods out of 23, including Narvskaya Zastava.

However, the problems of the program were multiple, slowing down or completely stopping the process in many neighbourhoods for years. A major one was the absence of “starting plots”, land plots where to construct the first building in order to start the loop of demolitions and new constructions. According to the program’s rules, resettlement could take place only in the same neighbourhood (except for the cases of special arrangements with the developer), and sometimes there was simply no land available. Noticeable was also the “last resident’s problem” (Korableva et al., 2021), as developers and city officials called it. According to the law, in order to start the demolition, 100% of flat or commercial spaces owners in the building should have agreed to the developer’s terms. When at least one owner disagreed, this could hinder the process for many years. That exactly what happened in Narvskaya Zastava.

As of 2023, no building has been demolished in Narvskaya Zastava. While the inhabitants of constructivist houses were relocated, the buildings now remain in ruins (See *Figure 5*). In addition, due to a recent change in heritage protection legislation, demolition in the area is prohibited until 2029, and the contract with the city and the developer is also set to end in 2029. Consequently, the developer, in an interview, expressed the view that no significant progress will be made in the neighbourhood until at least that time.

Interestingly, that is how post-socialist anti-continuities such as marketization of urban planning through public-private partnerships did not manage to succeed partially due to another anti-continuity: the fragmented ownership structure resulting from privatization of housing. As Zavisca (2012) and Korebleva et al (2021) put it, privatization of housing did not go hand in hand with its marketization.



*Figure 6. Constructivist buildings: the upgraded one on the left, the ruined one on the right (Source: author’s photographs, 2021)*

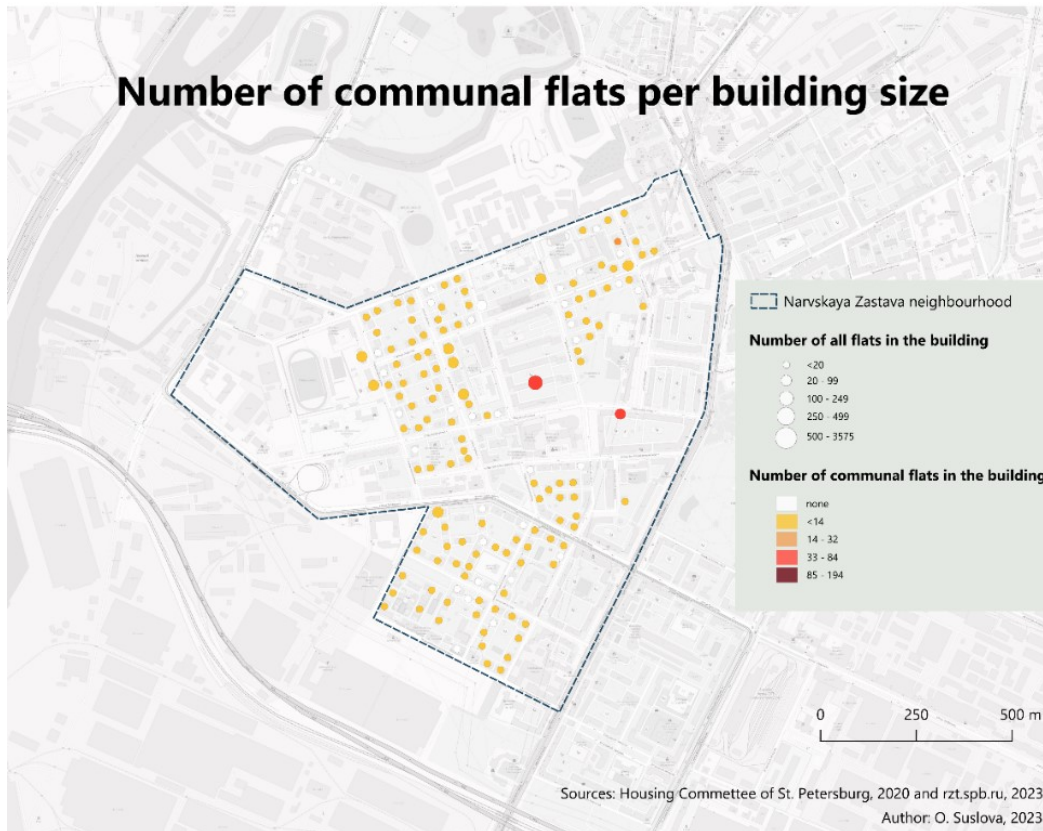


Figure 7. Number of communal flats per building size for buildings to be demolished according to the project of urban renewal program in Narvskaya Zastava neighbourhood (Source: Housing Committee of Saint Petersburg, 2020 and rzt.spb.ru, 2023)


## 5. Conclusion

Using Tuvikene's optics of post-socialism as a de-territorialized concept, this paper demonstrates how certain aspects of post-socialism's continuities and discontinuities manifest within the Narvskaya Zastava neighborhood in Saint Petersburg, Russia.

However, new developments intersect with the continuities and anti-continuities of post-socialism within the neighborhood. The urban renewal program, ongoing since 2008, is not the sole threat to the preservation of Narvskaya Zastava's socialist heritage. Another citywide urban renewal program was adopted in 2022, known as Integrated Area Development (*KRT*). Yet, it encountered an unprecedented protest movement among the city residents, delaying its implementation until 2024. This upheaval was driven by the stricter relocation rules imposed on *KRT* residents compared to those in *RZT* (the possibility of being relocated far from one's neighborhood against one's will, with only two-thirds of apartment owners' agreement needed to initiate the process). Consequently, even though this new program is similarly rooted in private developers' initiatives and investments, it exhibits new authoritarian characteristics that do not seem to directly originate from socialism or its disavowal, and thus at least at first sight, do not fall under the purview of post-socialism.

Although Narvskaya Zastava neighborhood was officially only part of the *RZT* urban renewal, some residents feared potential inclusion in *KRT* in the future. In other words, the neighborhood's developments discussed in this article, specifically post-socialist continuities and anti-continuities, began to blend with new processes stemming from different reference points aside from socialism. Tuvikene's framework





of post-socialism as a de-territorialized concept allows for a comprehensive analysis of the Narvskaya Zastava workers' settlement, free from simplistic characterizations of a post-socialist region, enabling a more nuanced examination of it within the context of an ordinary city.

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# Making Acquaintance With a Stranger? The Patterns of the Late Modern Buildings in the Towns of Hajdú-Bihar County

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## ABSTRACT

*After World War II as an effect of the industrialization, the infrastructure of the small villages began to evolve. Part of this economic development community buildings were installed which are characteristic elements of our towns. In many cases they restructured the villages and formed new centres, they appeared as foreign elements in these situations. These buildings' acceptance and judgment by the civil society, their function and the role in the settlements are also questionable in the Hajdú-Bihar County. In addition to capturing current state of the late modern buildings in villages with less than 2000 inhabitants, the main purpose of my research is to get acquainted with the form of the reshaped buildings and their surroundings by the local communities. How they integrated them to the settlement? The systematization is based on a collection made from google street view and then on-site visits. There are six categories, the transformation methods are complex and each case is influenced by the current location, the available materials, the historical events and the space usage. Hence, we get to know the intentions of the transformations, their consequences and the layers of the interventions. Should familiarity even be established at all?*

## KEYWORDS

*rural modern architecture, community buildings, buildings transformation, integration, local intervention*



Figure 1. Store in Esztár, 2022 (Source: personal archive)

## 1. Why do they feel “stranger”?

As a result of the modernization following the devastation of World War II, the development of infrastructure in rural areas began alongside the urban areas. In addition to improving the economic conditions of villages (water facilities, bus stops, stores), the installation of community buildings (cultural centers, healthcare and educational institutions, mortuaries) took place. (Ferkai et al. 1998) Due to the contrasting changes in the built environment that occurred in a short period of time, the new modern buildings appeared as "foreign elements" in the structure of the village. They often restructuring its system and creating new town centers. (Kissfazekas et al. 2010) Despite their physical proximity, they still felt distant, different, separate, incompatible with the system. In Hajdú-Bihar County and its county seat, Debrecen, the general acceptance and societal perception of late modern buildings, as well as their role in the life of the city, are questionable. The reasons for their lack of understanding can be attributed to the temporal overlap of architectural styles after World War I, the interruption of the process of historical layering resulting from this, the nostalgic relationship to the past and the resulting misidentification (Kovács et al. 2018). From another perspective, according to architect István Janáky, who worked during this period, the schematic way of thinking compelled designers to use tools that simplified the design language, creating a distance between the resulting structure and the everyday users (Janáky et al., 1984). How is it possible for modern buildings to be not "foreign" but full-fledged, integral elements of the settlement? As architects, how can we work today, with what tools, based on what models, to make the "unknown" familiar? Is it even necessary to make it familiar?

The understanding and resolution of this experience can be aided by examining the relationship and transformation patterns between late modern buildings in small

settlements of Hajdú-Bihar County and their users. The sense of foreignness is observable both in the history of large cities and small settlements, although the current attitudes differ. In Debrecen, there are few cases of renovation or expansion, while in small settlements, due to the smaller building stock, the user community, and limited opportunities for grants and investment, the decision to retain and reuse the existing structures seems more rational. Another major difference is that in cities, due to the heterogeneous social contexts and large populations, it is difficult or even impossible to develop a smaller scale approach that involves the community and incorporates local materials and "archetypes," or allows for "spontaneous" architecture. Sociological aspects need to be considered when answering these questions regarding the relationship between small settlements and modern buildings, involving topics such as culture, spatial use, characteristic material use, and aesthetics. (Biczó, Teller, Boros, Orbán et al. 2005) In terms of the subject matter of the research, several sociological studies have served as precursors. One such study, conducted in the 1980s, examined the behavioral patterns of residents following the construction of housing estates in Debrecen. People who previously lived in houses with gardens, so-called "kertségek," tried to adapt to the sudden change in scale in their homes' location, which had become more urbanized. As their larger, easily adaptable living spaces transitioned into a fixed system, they sought points in their residential environment where they could freely shape and modify. Thus, they began cultivating the still-undeveloped areas between the panel buildings. (Béres et al., 1990) Another study examines cultural heritage creation in the context of the transformation of the built environment through the examples of Tiszafüred, Sukoró and Nagykarácsony in relation to the dissolution of traditional settlement forms. (Tamáska et al., 2011)

The importance of this research lies not only in understanding the ongoing topic of "foreignness" but also in the unexplored nature of modern building stock in small settlements. In 2009, Tamás Herczeg's dissertation focused on the architecture of funeral homes in rural areas, but did not address other community buildings. Currently, we lack data and a collection regarding what happened to these buildings after their installation, how they are used, what impact they had on their surroundings, and conversely, how the location influenced interventions. To establish patterns of transformation, I examined the late modern community buildings of settlements in Hajdú-Bihar County with populations under 2000. After an initial online collection, I reviewed forty settlements and then confirmed the assumed transformation groups through on-site visits. I did not collect residential units as their alterations tend to prioritize individual interests.

## 2. Patterns of reconstruction

During the online pre-screening and on-site visits, the focus was on the changes that occurred in the exterior of the building and its immediate surroundings. Through this, it is possible to examine the current presence of "otherness" in the representation of the building, its role in the life of the community, and its relationship to the environment. The investigation starts from the immediate context surrounding the building, namely the garden, and then zooms in on the house itself. The emphasis is always on the user's perspective, the needs and shaping of their living spaces, but certain degree of architectural presence is necessary for the transformation of the houses, thus the analysis concludes with their appearance.

## 2.1. Cultivation of the garden

Agricultural cultivation is an integral part of everyday rural life, typically taking place in the outskirts of the village and in kitchen gardens around homes. Flowers are often planted in the areas in front of and next to the house. (Magyar Elektronikus Könyvtár et al. 2023) The cultivation of the garden and the beautification of the house's surroundings are still observed today, both in urban and rural environments. The presence of plants is not only important for the experience and approachability of everyday activities, but also for their positive impact on our senses, which can contribute to the acceptance and positive evaluation of a building. (Tamáska et al. 2011) Cultivating a garden implies a constant presence, intellectual and physical attachment, and serves as an important means of personalizing the space. In small settlements nowadays, it is common to find flower boxes placed on windowsills in community facilities, as well as the creation of protected areas with vegetation in front of the buildings. This behavior can be observed, for example, at the Pub in Zsáka. There is no difference in elevation between the pedestrian and car roads in front of the building, the spaces are not separated, no curb stones. The building is situated close to the road, with plant islands serving as delineation and creating transitional spaces. Tall flowers, such as canna indicas, function as a form of fencing.



Figure 2. Pub in Zsáka, 2023 (Source: personal archive)

## 2.2. Communal space usage

The late modern buildings placed in the village generally did not align with the existing settlement structure, creating new centers. However, the characteristic public use areas typically found in cities did not develop due to the demarcation by fences drawn at the property boundaries. Nowadays, this is changing, because while social developments are slow, distinctive patterns of special usage are gradually evolving. Nevertheless, with the acceleration of change and increasing lifestyle differences

among generations, this is undergoing transformation. (Tamáska et al., 2011) In Bakonszeg, the fence surrounding the Cultural House gives the impression of a residential house within the town. This is also reflected in the layout of the elements placed consecutively in the garden, such as the oven, the covered dining area and the hay storage. Due to continuous expansion, the courtyard arrangement resembles that of traditional houses. However, upon crossing the property boundary, the scale of the garden and the use of open space begin to resemble a public area. It represents a boundary situation between urban and rural public space usage.



*Figure 3. Cultural House in Bakonszeg, 1974 (Source: personal edit, Originalsource: fentrol.hu; Lechner Nonprofit Kft.)*

In contemporary urban areas, the public spaces in front of civic buildings are freely accessible. Their usage is emphasized similarly, if not more so, than that of the buildings themselves. Due to suburbanization processes an increasing number of people are moving to small towns and they are influencing the residents' patterns of space utilization. By removing the former fences, increasing the paved areas around the buildings, and potentially modifying the vegetation, the behavior of separation can be eliminated. The use of space around the building can become similar to that of urban areas. The spaces in front of the buildings "open up" and become functional supplementary areas. This change can be observed in the case of the Library, Information, and Community House in Váncsod. By transforming the fences, the library is surrounded by a multi-level communal space, featuring both paved and landscaped areas. The former fence elements have been repurposed and strategically positioned to create a closed parking area, integrating with the corners of the building.



*Figure 4. Library, Information and Community house in Váncsod, 2023 (Source: personal archive)*

### **2.3. Preservation and maintenance**

The preservation and maintenance of structures serving and assisting everyday life, such as bus stops, small shops, water utilities and sports facilities are characterized by interventions aimed solely at structural preservation. These interventions include activities such as repainting and coloring walls and bases, re-varnishing wooden materials, or replacing damaged elements. Similar practices are carried out at the bus stop in Magyarhomorog, where functional reasons, aside from providing shelter from rain and wind, play a role in preservation through the resemblances it bears with the surrounding waiting pavilion. The design of residential houses in the settlement aligns with elements such as scale, freestanding placement, independent presence as separate units, the presence of a front yard, the height and plastered aesthetics of the base, the lattice and fence-like structure, and the material appearance of the roof. The bus stop serves as a transitional space, exhibiting similarities with the windowed design of porches observed in residential houses in the settlement, both in terms of its glass structure and the internal atmosphere it creates. In preservation, not only aesthetics but also the understanding of locality, the spirit of place, the comprehension and continuation of the identity of rural spaces can play a role. (Tamáska et al., 2011)



Figure 5. Bus stop in Magyarhomorog, 2023 (Source: personal archive)

#### 2.4. Continuation with additive elements

The continuous development and expansion of homesteads through the addition of structures bring about changes in plot and garden usage, the immediate surroundings of the buildings, their compactness, and the perceived scale resulting from these transformations. When it comes to the management of public buildings, there are several instances where their evolution involves the incorporation of additive elements. Their former simple appearance becomes enriched, and the focal points undergo changes. From the perspective of the local inhabitants, such interventions can be seen as a form of improvement or folding. The use of materials, structures and forms that are tied to the locality is characteristic, although in most cases, these elements differ from the existing ones in terms of their systematization. The densification of new elements impacts the visual aesthetics, functionality, and integration into the overall urban landscape of the buildings. As an example, the Újszentmargitai Elementary School can be highlighted, where the functional considerations of wooden garden benches and the canopy also influence the perception of scale.



Figure 6. Hunyadi Mátyás Elementary School in Újszentmargita, 2023 (Source: personal archive)



## 2.5. Energy renovation

Due to the everyday functional usage, as well as the deterioration of building structures and materials, energy renovations have become necessary in numerous cases. These interventions are always planned, but the approaches taken can yield different outcomes. The examples falling within this category represent a border situation between preserving and continuing the existing building and undergoing a complete transformation. Through energy renovations, valuable aspects of the original structure, its architectural details, visible construction or finishing materials and the color schemes of paint and plaster can be compromised. By preserving the original structure, distinctive and valuable elements and details are partially retained. For instance, in the case of the gymnasium at Irinyi Károly Elementary School, the new envelope follows the structural framework, while the surfaces between the supporting pillars were left uninsulated.



*Figure 7. Irinyi Károly Elementary School Gymnasium in Esztár, 2022 (Source: personal archive)*

In the case of other buildings within the category, such as the Community House in Zsáka, there is no expansion that alters the original massing, but distinctive elements have been concealed. The façade has been unified, with no reference to the former red brick architecture that divided the building into sections. The arrangement of the plastic windows largely follows the original pattern, although changes were made on the ground floor to accommodate a bank ATM and an access ramp for people with mobility limitations. Alongside functional considerations, modifications of the surfaces and the use of plaster as a defining material, as well as careful color selection, have the ability to transform the appearance of the building into an element that aligns more closely with the character of the local community.



Figure 8. Community House in Zsáka, 2023 (Source: personal archive)

## 2.6. Complete transformation

In these cases, the structure is merely used as a framework, as its function, mass, and appearance are completely redefined. In their "new" details, articulation, roof design, material usage, and color, they generally exhibit similarities with the local architectural style. In contrast to additive alterations, large-scale integration occurs, sometimes involving not only the main building but also neighboring structures. As a result, their appearance and functionality often become complex and interconnected.

The Cultural Center in Körösszakál has been transformed into a Social Service Center over the past 10 years. According to the mayor, the expansion's functional program was determined in collaboration with Attila Kertész, a local architect from Magyarhomorog. No specific requests were made regarding form or material usage, leaving those decisions to the designer. The building exhibits characteristics typical of the village's architecture, including articulation, high-pitched roofs, and the use of small-scale elements. These features are evident in the fragmented massing, the entrance canopy, the additional pitched roof and the small windows. The complexity of the building aims to represent not only its immediate surroundings but also function as a center unifying five settlements. Despite the positive expectations for the building's evaluation and use due to such interventions, the mayor states that it is not utilized to a greater extent than before the transformation. The accumulation of different materials and finishes is characteristic, with elements such as exposed masonry, plaster, tiles, pavers, basecoat plaster on the façade, gravel bedding, and plastic and wooden structures all present simultaneously. There is no trace of the original character. The fence has been removed, and the pavement extends from the road to the façade, allowing free access to the building, which functions as a civic center.

From the street view, it appears as a standalone unit, but approaching it from the garden side or gaining insight into its operations reveals that it functions as part of a complex, together with the adjacent plots. It is likely that the complexity of the municipality's social fabric played a role in generating such development beyond

economic and political considerations. In a 2003 publication, Péter Sztankó describes the village's ethnic composition as highly complex, which serves as the primary starting point for analyzing the settlement. The research shows that while ethnic belonging may separate the use of the village, various community spaces, such as the cultural center are used by all members of the population without "symbolic boundaries."



*Figure 9. On the left is the Cultural House in Bakonszeg, which has preserved its appearance according to the original design. On the right is the Social Service Center in Körösszakál (formerly the Cultural House), which has been completely transformed. The similarity between the two buildings can only be noticed in the arrangement of the windows. 2023 (Source: personal archive)*

### 3. Summary

Based on the examples presented in the collection and those highlighted for illustrative purposes, six distinct types can be distinguished. These include cultivation of the garden, preservation and maintenance, communal space usage, continuation with additive elements, energy renovation and complete transformation. The categories present not only spatial, but also temporal changes too. Modifying and adapting the house's surroundings bring up questions of transience and small-scale changes, because these types of interventions are relatively easy. The alterations and renovations focused on the house become increasingly extensive in terms of scale and durability, until they reach a comprehensive and radical transformation level. Initial categorization resulted in seven main groups, but site visits confirmed that nowadays only one building, the carport in Esztár falls into the "spontaneous" category. Currently, without further examples, this cannot be considered as a separate category. The carport was expanded with a makeshift wooden roof structure and the windows were covered with OSB boards. It is conceivable that further examination of higher-population settlements will validate the existence of this category.



*Figure 10. Carport in Esztár, 2022 (Source: personal archive)*

In several cases, multiple types of changes were observed in a single building, such as the Library, Information and Community house in Váncsod, where in addition to communal space usage, gardening and energy renovations aligned with the original structure also took place. The study of cultural centers revealed that several examples were built according to typological plans. In Esztár and Kismarján, comprehensive energy renovations were carried out on the buildings, resulting in similar transformations, differing mainly in color and vegetation use. On the other hand, the Körösszakál and Bakonszeg Cultural Centers, designed by Bernát Boruzs, display completely different patterns. While Körösszakál underwent a complete transformation, Bakonszeg focused on structural preservation with minimal functional interventions. The underlying reasons for these transformations and the interconnections between them and the settlements should be further investigated through case studies on both social and architectural aspects, including design language, material usage and spatial utilization.

The research reveals that as a result, the buildings have not become familiar in the most cases; rather, they have transformed and adapted to their surroundings, the environment, and the current usage. The elements and structures coexist in the same time and space, but there is no coherence among them. Some cases, such as continuation with additive elements present a collage-like image. Therefore, the sense of foreignness can be analyzed not only from the perspective of the building, but also from the interventions themselves. In cases, where at the same time, not just the building is a foreign element, but the types, structures, materials and design language of the interventions are also foreign to the originals, can call dual foreignness. Exploring this title as a new observation is worthwhile through detailed case studies, addressing issues related to settlement structure, design language of the interventions, material usage, spatial utilization and user perspectives.

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# Renovation of Mass Housing District: Novo-Lenino Case in Irkutsk

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## ABSTRACT

*Mass housing districts are an indispensable part of the urban structure of many post-socialist cities. The question of how the current state of large housing estates meets the contemporary needs of society and how to elaborate strategies for the development. The improvement of residential environment is an urgent and acute issue in many countries of the former socialist camp today. Among many different methods of transformation, renovation of mass housing districts has recently become widespread. Renovation is extensively used in Western and Eastern European countries. The approach of transformation of microdistrict area is implementing today in Russia, but interpreted in a very specific way. New mechanisms for renovation of mass panel housing stock should be envisaged without total building demolition. Construction of new residential buildings should improve the quality of the existing urban environment, and not create urban conflicts. The article considers definition of renovation related to microdistrict area. As part of the research, one of the largest peripheral residential districts in Irkutsk was analyzed and its transformation model was considered.*

## KEYWORDS

*Mass housing district, large housing estate, microdistrict, renovation, densification*



*Figure 1. Aerial view on Novo-Lenino (Source: Astafev)*

## **1. Introduction**

In the middle of the 20th century, industrial mass panel construction became the main typology of housing and determined the appearance of many Soviet cities. Today, most of the housing stock of Siberian cities in Russia consists of mass prefabricated panel buildings, formed into a structural element – a microdistrict. It is characterized by a large scale (usually 10-60 hectares) with clear functional zoning, controlled population density, and a set of standard maintenance services (TSNIIP Gradostroitelstva 1989). This description is applicable both to panel buildings constructed in Soviet period and to modern multi-story buildings.

The Soviet system of management was aimed at development of new territories, which continues till present time. The construction of high-rise residential housing, as well as neighborhoods with low-rise residential buildings, is actively carried out in many Siberian cities, mainly on the outskirts. However, the efficiency of using the territories of existing microdistricts and new build-up districts has been reduced. Outskirts of cities continue to be built up with residential high-rise buildings, surrounded by ground car parking. Generally, they are described by the term "affordable housing". Although, developers do not pay attention to what problems such urban planning leads to, thinking primarily about their own benefit.

As a result, cities lose their density and become more and more sprawling. The microdistrict environment continues to degrade along with the rapid moral and physical "aging" of panel houses. While mass housing districts potentially have all the infrastructure resources. The issue of assessing and using the potential of microdistricts and their further transformation in order to improve the comfort of the urban living environment is relevant at the moment.

## 2. Problems of microdistrict building

According to the Soviet urban management system, residential microdistricts were built on the outskirts of cities. For instance, in 1960-1980 more than 70% of the housing stock of Irkutsk was built, mainly on the periphery. Even at that time the city faced a number of problems: there was a significant increase of daily pendulum migrations and traffic congestions of public transport in the historic city center (Engel, Kozlov 2019). Today, the remoteness and isolation of peripheral territories, combined with low connectivity of public transport routes, lead to increased car usage.

Moreover, panel buildings have serious constructive problems, microdistrict territories also are characterized by poor organization of open spaces, which are being developed spontaneously and fragmentarily (Engel 2019). Pedestrian traffic within the microdistricts is difficult, the transport schemes of the microdistricts were not designed for a further increase of car use, changes in the standards for organizing parking spaces. New types of service facilities in microdistricts often emerge spontaneously.

Basically, the processes of changing the environment within microdistricts are associated with the development of open spaces. This leads to the social effect of "mixing" zones for various purposes and emerging of "uncontrolled" territories (Zabruskova et. al. 2009). Such problems exist due to the methodology for designing microdistricts of mass housing building. This methodology is based on the following principles:


- allocation of urban planning units of an enlarged scale – microdistrict (optimal area – 10-60 hectares);
- delineation of the boundaries of a residential area, the boundaries of which are the main streets and driveways, natural boundaries;
- organization of a graded service infrastructure within the microdistrict (daily service with accessibility up to 500 m and periodic – up to 1000 m);
- development of residential areas based on free planning, which did not limit the territory of courtyards with physical barriers;
- Guidance under buildings location by the norms of insolation, wind protection, topography, compositional and aesthetic principles.

Modern urban planning standards in Russia still offer microdistricts as the main structural element. Developers prefer to build up houses up to 20-30 floors high. As a result, there is an outflow of resources from the existing residential areas to new ones, growth of infrastructure and pendulum migration, growing disproportions in access to education, availability of public goods, recreation and entertainment, and elimination of natural assets near cities (Anoshkin 2011). Despite the fact that the programs for comprehensive territory development declare the self-sufficiency of the territories under construction. However, in reality they are characterized by monofunctionality, remoteness from workplaces and, at the same time, insufficiency of workplaces, cultural institutions, sports facilities, etc. (Korolev 2018).

As a result of repeating the mistakes of the Soviet design principles, cities continue to be built up with mass "affordable" housing on the outskirts, and microdistricts of the 1960s-1980s continues to degrade without investments. Today, when the problems of microdistrict development are becoming more and more obvious, it is important to find a reasonable solution for its transformation.

Thus, it is possible to single out the main problems of microdistrict development in many Siberian cities:



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1. Remoteness and isolation of microdistricts;
  2. Enlarged sizes of blocks, low density of building and road network.
  3. Monotonous buildings, low housing supply. Limited number of apartments in prefabricated residential buildings and inconvenient apartment layouts.
  4. Lack of a clear delineation of open spaces into public and private.
  5. A complicated system of driveways inside microdistrict and hampered pedestrian traffic.
  6. Lack of public and commercial infrastructure facilities near the house.

### **3. Potential of microdistricts for intensive development**

In despite of fact that some problems are similar in different cities of post-soviet countries, urban planning in Russia has its own specifics. Today municipalities do not play such significant role in the spatial development of cities. Developers are not interested in already built-up areas, but in the construction on undeveloped territories.

Demand for new residential construction in cities is growing, driven by several factors. Firstly, this is the influx of population into large cities against the background of a rapid outflow from small cities and villages. Secondly, low incomes and the unaffordability of middle-class housing for the majority of Siberian population generate need for cheap mass housing. And also new construction on the undeveloped periphery is easier and less costly for developers, because risks of conflicts with existing land owners are reduced (Golubchekov et. al. 2013).

The development of existing microdistricts is seen in the urban concept of a compact city, which is based on the idea of intensifying the use of already developed urban areas through their reorganization and transformation (Dieleman et. al. 2004). Also, this concept implies “intensive development of built-up areas, work with urban density, strict management of urban growth and boundaries, maximum preservation of undeveloped areas, connectivity, accessibility and permeability of urban forms, emphasis on public transport systems and a variety of forms of housing, economic activity and leisure, strengthening local communities” (Korotkova et. al. 2016). However, it must be understood that such a concept can lead to an increase in social inequality and be the reason for the reduction of green areas in the city and, as a result, the growth of environmental problems (Van Der Waals 2000).

Microdistrict development is characterized by a large number of unused ares, which provides ample opportunities for new construction, which is already sufficiently carried out. The planning of sustainable development of panel building areas requires an integrated interdisciplinary approach. It is also necessary to comprehend the values and specific features of these districts with its historic, economic and social aspects (Engel 2019).

### **4. Moscow renovation**

At the moment, there is no comprehensive renovation of panel buildings in Russia's regions. However, Moscow is already actively implementing the renovation program launched in 2017 by Moscow Mayor Sergey Sobyenin.

The term "renovation" implies a process of improvement, reconstruction, restoration without destroying the integrity of the structure. However, in Russia, the process of renovation is primarily associated with the complete replacement of housing that has lost its consumer attitudes, with the subsequent densification of development and increasing its number of storeys (Prokhorova 2019). Abroad, renovation is carried

out on the principles of sustainable spatial planning in accordance with green standards. Modernization of a building or residential groups and adjacent territories is carried out by partial replacement of structural elements (appearance of superstructures, end and front extensions, dismantling of sections, appearance of terraces and loggias) using modern technologies (Vavilova 2019).

The typology of modern residential complexes is practically not different from peripheral residential districts, and represents districts of high-rise sectional houses. Such solution allows to use existing transportation, engineering and social infrastructure, directing funds to its reconstruction. But despite the stated advantages of the program, the expert community has been critical about this method of renovation.

The main negative aspects can be emphasized:

1. Inflexibility of the renovation model.
2. Destruction of the morphotype of the formed urban environment, completely rejecting its architectural and historical value.
3. Social conflicts due to the lack of guarantees for the protection of residents' property.

The renovation process in Siberian regions is delayed due to lack of a regulatory framework for the comprehensive regeneration of microdistricts, low interest of developers, and the need for large investments from the municipal budget. Today there are federal and municipal programs, which are aimed at improve of courtyard spaces, but they are implemented slowly and not always successfully. Improvement of courtyards or building sanitation are carried out separately, without taking into account comprehensive development of microdistricts as a whole.

Implementation of renovation program of microdistrict buildings requires a more careful approach, taking into account the complexity and specificity of the environment. Complete demolition and further building construction are more damaging to the existing ecological system of microdistricts. Renovation of Soviet-era districts, which implies transformation rather than demolition, from the environmental point of view, will create a sustainable urban environment.

## 5. Analysis of the territory

In 1950's-1960's peripheral areas were actively developed through the implementation of industrial methods, initiation of standard design, unification and standardization of structural elements (Zeifert 2004).

Mass housing construction in the USSR was driven by economic and social decisions. In the period from 1950 to 1980, Irkutsk increased significantly along with the population, industry was actively developed, hydroelectric power complex was erected, and scientific centers were built. Thus, the structure of the city formed a "panel belt" in the peripheral territories. (See *Figure 2*.)

In 1960, large factories were formed in the northwestern part of Irkutsk and formed into an industrial hub. According to the "functional city" principle, housing had to be placed next to industry. Thus, the former scattered planning of the settlement was transformed into a large district – Novo-Lenino, with a population of more than 35 thousand people.

Nowadays, Novo-Lenino is the largest remote residential area of the city: it is located 20 km from the city center. Rosa Luxemburg Street is the main compositional axis of the residential area. The composition of microdistricts was based on the principles of free planning. (See *Figure 3*.)

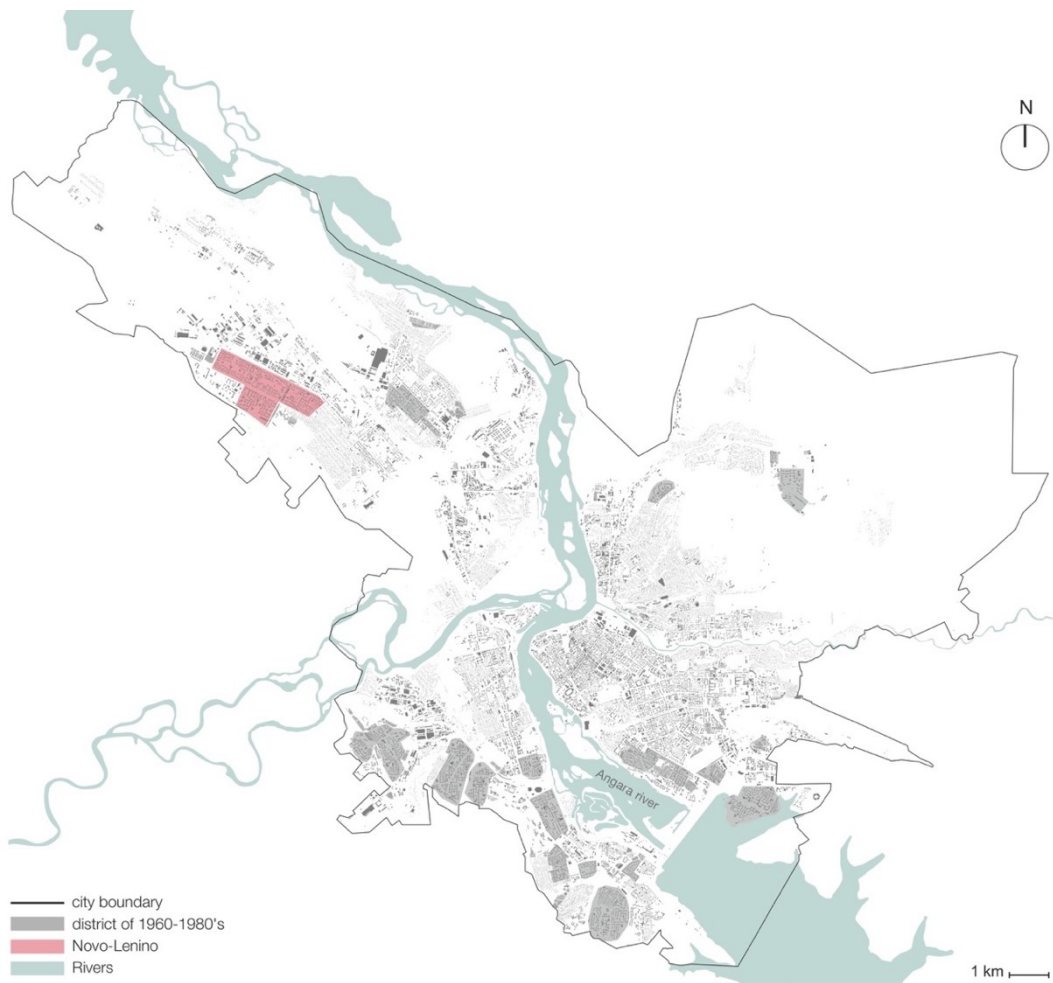


Figure 2. Irkutsk city, 2022. Source: author

During the Soviet period, microdistricts 1, 2 and 3 in Novo-Lenino were built up in a comprehensive approach, but there are minor deviations from the original planning project. Characteristic urban planning methods can be identified:

- closed type of linear principle of construction. Houses are located along the perimeter parallel to the main streets of the microdistrict;
- placement of pedestrian axle and social infrastructure facilities (schools, kindergartens) in parallel to the main planning axis of the district. In microdistrict 2, pedestrian connections are correlated with central park.

There were used the first generation of mass panel housing – 335 series with a height of 5 floors and the later 135c series with a height of 9 floors. The main values of building typology are landscaping of microdistrict inner space and diversity in the layout of microdistrict.

The main identified problems of such panel housing construction are transit character of the territory, non-separation of public and private spaces, transit character of yards as a source of conflicts, degraded landscaping of courtyards due to uncertainty of responsibility for maintenance between owners and municipality, a large number of free land plots. Also noted is the uniformity of the development, where all facades are designed in the same style, which makes orientation within the microdistrict difficult.



Figure 3. Assessment of planning characteristics based on the district planning project.  
Source: author

## 6. Renovation model

The concept of development of microdistrict 2 in Novo-Lenino was considered. (See Figure 4.) In the design project of the Ostozhenka architectural bureau the morphotype of a mid-rise microdistrict building (over 10 hectares in area) was taken as a basis. The following renovation methods were used:

- division of the microdistrict into quarters with clear boundaries;
- phased replacement of buildings on the formed land plots;
- the recommended plot area is 0.7-1.5 hectares and the number of storeys is 5-9 floors, the maximum density per quarter is 25,000 sq.m./ha
- transformation of the first floors into commercial facilities along the main planning axes (Rosa Luxembourg Str. and Bauman Str.)
- separation of spaces between houses into courtyards and public ones, as well as privatization and use closed type of courtyards
- formation of open spaces with the strengthening of the existing recreational area (local park).

Proposed method preserves the existing structure of the microdistrict, but it implies the complete demolition of existing panel residential buildings. The model of transformation of microdistrict should be based on the existing structure, without total

demolition of existing buildings, strengthening of the planning structure, development of inefficiently used land and densification of the existing development.



Figure 4. Project of renovation of microdistrict №2 with demolition of existing panel houses.  
Source: architectural buro "Ostozhenka"

It can be argued that the key idea is not only the importance of densification of microdistrict building area, but also the correction of the existing drawbacks, preservation of its advantages and special qualities.

The key principles for spatial renovation of microdistricts include the following issues for further microdistrict perspectives:

- Densification and increase of spatial diversity of the mass development through the construction/addition of new houses not exceeding 9-10 floors.
- Formation of microdistrict building area with denser street network, where streets act as a linear public space.
- Residential floor extension, reorganisation of first floors to commercial units along street fronts to support small businesses.
- Privatization of intra-block areas. Today, most areas within microdistrict blocks are undivided.
- Formation of a coherent and readable structure of green areas (boulevards, parks, squares).

## 7. Conclusion

This article considers conceptual model of renovation of mass housing district that is focused on the perspectives for the modernization of microdistricts. The considered model offers a set of spatial methods that would allow creating conditions for the development of cities with "Soviet heritage" on the way of compact development. Using methods of spatial renovation of microdistricts it is possible to cover the city's needs in new real estate for many years, avoiding sprawl of the urban area. This concepts, on the one hand, propose principles of compact city, on the other hand, imply demolition of existing panel buildings, which may cause both environmental and economic issues and loss of historical value.

Therefore, further research is required to find an alternative solution, while preserving the maximum number of existing panel buildings. This requires additional assessment of the current structural condition of the panel houses. In addition, it is necessary to investigate not only spatial, but also socio-economic and political methods of neighborhood renovation and urban development on compact development, including urban planning regulation and land use policies.

Overall, the renovation of microdistricts is a complex and multifaceted task that demands a comprehensive approach and dialogue among urban authorities, ecologists, architects, and the public. Only through such a balanced approach can we achieve the best results, ensuring the sustainable and harmonious development of cities with Soviet heritage.

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# Socialist-Era Civic Centers in Romanian Cities: Miercurea-Ciuc, a Case Study.

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## ABSTRACT

*Miercurea Ciuc (Csíkszereda) is a town in the Szeklerland (Ținutul Secuiesc/Székelyföld) area of Romania. The town underwent far-reaching interventions into its urban fabric during the late seventies and eighties by the ruling socialist regime for the building of a new civic centre, consisting of the “manifestation square”, flanked by the “political-administrative building” and the “cultural centre”. Numerous other buildings were planned but were never realized due to a shortage of funds and a lack of political will during the last stages of the regime, as the original plans also envisioned a library, cinema, shopping centre, etc. This paper examines the processes through which the civic centre of Miercurea Ciuc came into being, the political background, characteristics of the design, as well as its reception and the relationship the project would go on to have with local residents, both at the time of construction as well as after completion.*

## KEYWORDS

*socialist city, civic centre, urban fabric, public space*





*Figure 1. Miercurea Ciuc main square before the modernization works undertaken in 2013-2014. On the right side: Harghita County Council building. In the background: Hotel building – currently Sapiientia University.*

*(Source: [http://album.network.hu/kepek/erdelyi\\_tajak/erdely\\_\\_csikszereda](http://album.network.hu/kepek/erdelyi_tajak/erdely__csikszereda))*

## **1. Introduction**

The present paper focuses on the civic centre of the town of Miercurea Ciuc, Actual construction work on the site began in 1979, with demolition work progressing in parallel with building, and the project included, in addition to the main square ("Events square"/Piața de manifestații), a series of urban facilities such as an administrative offices building ("Political-administrative headquarters" / Sediul politico-administrativ), a cultural centre ("House of culture"/Casa de cultură), a 300-bed hotel, a post office and, of course, numerous apartment blocks (all of these were built), as well as some buildings that were eventually not built (library, cinema, public services building, various urban facilities and certain apartment blocks). (*Decree of the State Council No. 122/11.05.1976 on the "Approval of the urban plan of the town of Miercurea Ciuc in Harghita County"*)

Expropriations and demolitions related to these projects continued until almost the end of the communist regime, with the last decree regarding expropriations and demolition work for this site being dated 15.06.1987.

The paper tries to give an overview of the urban processes through which the civic centre of Miercurea Ciuc came into being, its roots in the political landscape of the period, its design, which was done by centralized planning bureaus in the capital Bucharest, far away from the input or the influence of local stakeholders, as well as its reception and the relationship the project would go on to have with local residents, both at the time of construction as well as after completion.

## 2. Methodology

The research relies on the one hand on the study of archival material such as plans, maps, photographs, state decrees and other government documents found mostly in the Archive of Harghita County Council, to obtain a picture about the specifics and details of the actual processes that led to the construction of Miercurea Ciuc civic centre. This also serves the purpose to highlight the particularities of this specific example and enables a qualitative analysis of the architectural aspects of the project.

The above is interpreted in light of information relating to the wider general phenomena of civic centres in Romanian cities during the communist regime, available through literature about the subject. Political and economic aspects are analysed regarding their influence on the architectural product.

Finally, the change in perception of local residents about the civic centre is gauged, by comparing historical accounts (interviews, press material, etc.) available through literature sources, to present-day on-site observation.

## 3. Historical background

### 3.1. Pre-war development

The urban fabric of Miercurea Ciuc has always been dominated by two main roads: on the North-South axis the road connecting Siculeni (Madéfalva) and Tuşnad (Tusnád) and on the East-West axis the road leading to Odorheiul Secuiesc (Székelyudvarhely). Thus, the layout of the main streets formed an approximately T shaped plan. The town had a strong rural character up until the beginning of the 20th century, and its size did not exceed by much that of its neighbouring villages (e.g., Şumuleu/Csíksomlyó, Ciceu/Csíkcsicsó).

The centre had always consisted of the former Florilor (Virág), currently Kossuth Lajos Street (the main E-W axis), which had a significant spindle-shaped widening in its centre and was the place where the frequent markets and fairs were hosted. This street was also home to most of the public institutions (the first town hall, the old royal post office, etc.) and was the central public space of the town. The urban fabric would develop perpendicular to this main street, in a N-S direction: first along the main roads leading south and north, then the lesser roads to the other neighbouring villages, and finally the smaller streets linking the town's core to the administrative centre represented by the Mikó Fortress area, as well as to the town's new railway station, the railway having reached Miercurea Ciuc in 1896 (Gidó, 2013, p.143).

From the above, we can gather that the town never had a large, developed centre as such. Its urban tissue was more akin to that of a rural settlement, in accordance with its relatively modest size at the beginning of the 20th century. These aspects would come to play a significant role in the further development of the town.

### 3.2. Socialist growth

The creation of new administrative units (counties) in socialist Romania by Law no. 2/1968 on the "Administrative organization of the territory of the Socialist Republic of Romania", propelled the town of Miercurea Ciuc to the status of seat of the newly created Harghita County. This led in the following years to a significant increase in the number of inhabitants, as well as to an unprecedented expansion of the built-up area of the small town. (See *Table 1.*)

**Table 1. Population of Miercurea Ciuc (Source: Varga, 1998;  
Source: INS Institutul Național de Statistică,  
<https://www.recensamantromania.ro/rezultate-rpl-2021/rezultate-provizorii/>)**

Year	1912	1930	1948	1956	1966	1977	1979	1992	2021
Population	3,701	4,807	6,143	11,996	15,329	30,936	34,549	46,228	34,484

After the 1968 administrative reforms, practically all the towns designated as county seats were targeted for urban renewal, with the principles of the civic centre applied systematically to all these projects. During the late 1970s and 1980s, the expression “civic centre” designated an ensemble of public buildings (mostly the political-administrative headquarter – the seat and symbol of state power – and as in this case, a cultural centre) that define an open but well controlled public space. (Răuță, 2013) In spite of its name, the civic centres were always projects of the central government and were always imposed top down.

For Miercurea Ciuc specifically, the new status of county seat, coupled with the greater political oversight this entailed from the central government, meant both the influx of major industrial investments (Garment Factory, Tractor Factory, etc.) as well as a large number of new dwellings built to meet the labour needs of industrial enterprises. (*Decree of the State Council No. 113/13.04.1972*) The forced industrialisation and the rapid increase in the number of inhabitants, and thus the increase in the built-up area, would bring about major changes in the urban fabric of the town, which still had a strong rural character and was not at all prepared to accommodate such growth. (See Table 2.) Urban interventions typically consisted of the demolition of old buildings (usually private houses) and the complete replacement of entire neighbourhoods.

**Table 2. Apartments built in the town of Miercurea Ciuc (Source: Daczó, 2003, p. 86)**

Period	1960-65	1966-70	1971-75	1976-80
Number of apartments	337	1,437	2,449	5,164

This was not always the case though, as there are also examples of civic centre projects in Romania that have been designed as a counterpoint to the historical centre of the town (ex. Baia Mare, Braşov). Here urban planners opted to place the new civic centre some distance away from the old centre.

The exact reasoning for the choice to replace the old town centre in the case of Miercurea Ciuc remains a matter of debate and speculation. A few hypotheses can be constructed, however. First there is the modest size of the town and accordingly the relatively more modest buildings that had to be demolished, which were in contrast to bigger, more prestigious medieval town centres of larger Transylvanian cities, where the regime was less eager to intervene drastically. Another possible reasoning could be the ethnic character of the urban projects undertaken by the communist regime. It is a widely circulated idea that urban renewal projects were seen as part of a larger social engineering programme, meant to create a “new man” in a new and homogenous society, by assimilating ethnic minorities and erasing local memory. (Tismăneanu, 2007)

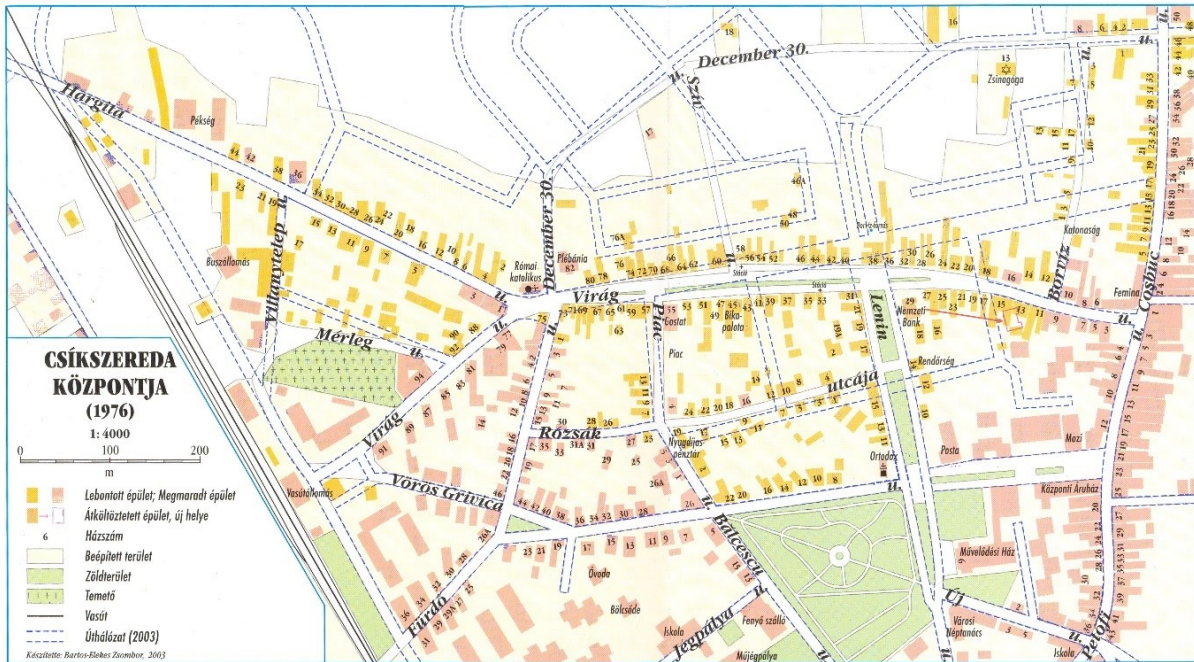


Figure 2. Map showing the centre of Miercurea Ciuc in 1976. Yellow: buildings that have been demolished before the 1989 fall of the communist regime. Pink: buildings that have not been demolished. Blue dotted line: the street layout of Miercurea Ciuc in 2003.  
Author: Bartos-Elekes Zsombor, 2003. (Source: Daczó, 2003)

#### 4. Miercurea Ciuc civic centre

In the case of Miercurea Ciuc, after focusing their urbanising efforts on peripheral areas of town during the 1960s and early 1970s, the attention of political decision-makers and planners would also turn to the city centre, the decisive moment in this respect being the visit of the Ceaușescu couple to Miercurea Ciuc on the 5<sup>th</sup> of October 1976, on which occasion Nicolae Ceaușescu gave a speech before the “people’s assembly” (adunarea populară) of Miercurea Ciuc. In his speech, Ceaușescu, besides mentioning the need for building even more homes, distinctly touches on the subject of the urban plan for Miercurea Ciuc, which in his vision had to become a modern city, the “pride of Szeklerland”. (Ziarul Scânteia, 1976).

As a starting point for the actual project of the civic centre, in May 1976, by State Council decree, the urban plan for the town of Miercurea Ciuc was approved. (*Decree of the State Council no. 122/11.05.1976 on “The approval of the layout plan of the town of Miercurea Ciuc in Harghita County”*). This plan contained detailed drawings for the “Central Area Complex”, marking a departure from previous practices where only residential buildings were to be built in the centre.

Even though the “Central Area Complex” appears as a new function in the plans, it is noteworthy that included in this document, there were still a number of 3442 apartments planned to be built in the central area of town. This means that even though on a political level bold new statements were being made about the new urban projects, in Miercurea Ciuc, residential buildings would still constitute all of the actual built matter as late as into the 1980s.

On the other hand, it is also important to mention at this point that despite the precarious economic climate characteristic of Eastern European communist countries by the late 1980s, and despite the presumed ethnic animosities of the state leadership towards the project, Miercurea Ciuc is one of the most ambitious civic centre projects

realized in the 1980s in Romania (along Satu Mare) concerning both its size and its scope (main square, political headquarters, cultural centre). (Răuță, 2013) This leads us to believe that the local authorities still played an important part, foremost in their ability to secure sufficient funding for their counties from the central government, as well as in being able to successfully lobby their cause.



Figure 3. The Ceaușescu couple during a visit to Harghita county. Photo taken at the Garment Factory in Miercurea Ciuc, 5<sup>th</sup> October 1976.

(Source: Fototeca online a comunismului românesc. Cota: 251/1976.  
<http://fototeca.iiccmer.ro/picdetails.php?picid=41330X10X13>)

Pertaining to the architectural characteristics, a decree from 1977 would impose very specific requirements on the design of the civic centre: the political-administrative headquarters had to be in the centre of the composition; the house of culture had to be on opposing sides of the political-administrative headquarters; the buildings had to reflect “the specific architecture of the Romanian nation”. (Decree of the Central Committee of the P.C.R. no. 5331/19.10. 1977); (State Council Decree No 454/10.12.1976 for “The expropriation and demolition of other buildings for the purpose of building housing, commercial establishments and nurseries.”)

All this is very much in line with the general guidelines drawn by Ceaușescu concerning the design of civic centres in this period. (Răuță, 2013). Even though some of these observations were superficial and borderline impossible to realize (e.g., traditional motifs and inspiration on mass fabricated elements, etc.), other aspects denote the special attention that the communist leader gave urban renewal projects at this time.

The year 1981 would mark the beginning of construction work on the main public buildings and public spaces of the civic centre, following years of demolitions and construction of residential buildings. (Decree of the State Council no. 54/21.03.1981) (Decree of the State Council no. 114/12.05.1981) (Decree of the State Council no. 241/4.07.1983)

Thus, in addition to the residential buildings, works finally begin on the political-administrative headquarters, then later on the square itself, as well as on the house of culture shortly after.

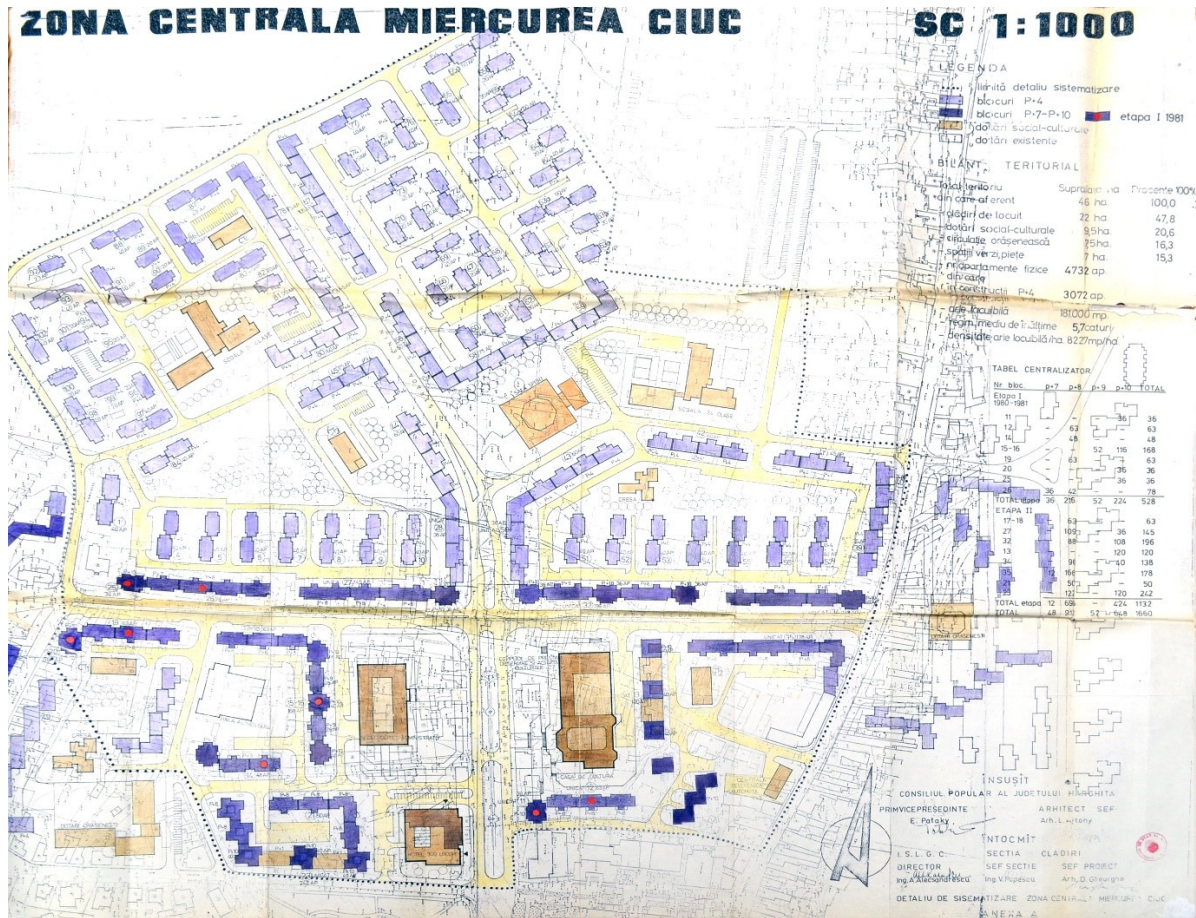


Figure 4. Masterplan for the central area of Miercurea Ciuc, with the civic centre in the lower central area and Lunca Mare residential neighbourhood on the upper side. Civic centre consisting of the main square in the middle, flanked by the political-administrative building on the left, house of culture on the right, hotel below. Public buildings marked in brown; residential buildings marked in purple; demolished urban fabric on the site of the civic centre marked with light black lines in the background. (Source: "Piața centrală Miercurea Ciuc, proiect nr. 2803/1 din octombrie 1982". Harghita County Council, Chief Architect's office, Archive department.)

1983 marks the point in the project where car traffic disappears completely from the square (as opposed to the 1981 revisions, which still included motorised vehicle traffic through the main square). Instead, a pedestrian platform occupies the whole space, linking the two public buildings together from both sides of the square.

## 5. Post-socialist intervention

The history of the civic centre of Miercurea Ciuc does not end with the fall of the communist regime. Worth mentioning is the extensive rehabilitation/modernization project finalized in 2014. Started with European funds in December 2010, according to the plans drawn up by architect Zsolt Tövissi and his team, the attitude of the architects in approaching this project is probably characteristic of the attitude of the larger population towards their socialist heritage.

“It was, in a way, a healing work for the city, after it had suffered for a long time during socialist restructuring. On this theme, it was not mostly technical data that was used, but more urban psychology data, because we have all had the sad experience of using spaces that are foreign to us and were not made for people, but for a totalitarian system. We focused on rectifying these urban mistakes and actually restoring spaces in people's consciousness that would be loved and used humanely by the city,” said architect Tövissi Zsolt, the designer of the city centre modernisation works. " (Oşan, 2014)



*Figure 5. Photo of the main square still under construction, viewed from the House of Culture, also under construction. Photo taken on 15<sup>th</sup> August 1984, just days before the festive inauguration on 23<sup>rd</sup> August 1984. In the background left: political-administrative building. (Source: Agerpress Photo/Arhiva. Author: Armand Rosenthal. <https://foto.agerpres.ro/foto/detaliu/330607>)*

## 6. Conclusions

The general opinion of local residents about the original project for the civic centre was overwhelmingly negative from the very beginning. (Daczó, 2003) This fact was however owed mainly to the circumstances surrounding the project: it was imposed forcibly, by a completely unpopular authoritarian regime which it basically became to symbolize. It is clear today that this top-down way of doing urban development practised during the socialist regime did not gain any sympathy with the population but rather generated resistance to it. This situation seems to persist even long after the demise of the regime, in the rejection people still feel towards anything they consider as “communist architecture”.

Further worsening the perception about the civic centre in the specific case of Miercurea Ciuc is the fact that extensive demolition work was undertaken to make way for the new constructions, which left a collective wound in the memory of townspeople.

It is no wonder then, that the civic centre never got a real chance to be judged on its architectural merits or lack thereof. This is in contrast to professional circles, where the project was well regarded, as it was awarded the prize of the Union of Romanian Architects in 1986.

I would argue however that going forward, this perception can and is changing. There are qualities to the project that could redeem parts of its troubled past.

From an architectural standpoint the square has a balanced composition: the political centre building is a counterpoint to the cultural centre at the other side, articulated by the former hotel (now university building) on the third (southern) side of the square. All three buildings, despite cost cutting measures during construction, are monumental, built to unique architectural plans rather than catalog plans widely used in the period, and also made use of relatively premium materials (travertine and marble cladding, generous glazed surfaces, sculptural roofs with enamelled tiles).

Of further importance, especially today, is the large pedestrian square linking all three buildings, which although built for very different reasons back in the day, constitutes today an important element of the town centre and together with the adjacent network of streets, makes it a lively and well-utilised space.

Also to be mentioned is the good balance of functions (administrative, cultural, hotel – now education and housing) that make up the buildings, ensuring that the square is lively at all times of day, usually not too busy but also not too empty, so as to become a genuinely useful public space of the town.

Furthermore, the generous and ample free space with no vehicle traffic makes possible today the organization of events, and as such, the square is intensively used for various occasions (concerts, sporting events, town fairs, religious events, etc.) Especially striking is the fact that one of the most notable events taking place yearly is the blessing of food on the occasion of the Catholic Easter celebrations, attended by huge numbers of people – ironic given the intentions of the former regime.


Regarding the renewal project undertaken between 2010-2014, by analysing the finalized project, which was done very subtly and delicately, we see that the main focus was concentrated on: 1) the replacement of the old, degraded pavement 2) new and more subtle lighting 3) extending a pedestrian promenade southward to the theatre 4) the insertion of subtle new elements: a water fountain and a group of statues.

However, the general spatial layout of the square remained largely unchanged, as did the pedestrian connections to the monumental buildings flanking the square, traffic flows, etc. This leads me to believe that the spatial layout as such was not fundamentally flawed and the space functions well in the actual urban context. My opinion is that there was a need for appropriation, to change the perception of people that this space belongs to them and was meant for them rather than some superior political power. Younger generations seem more eager to judge the space without the added baggage of history. This seems to be evidenced by the ever more increasing usage of the square on a day to day basis, but also increasingly intensively for events. All this gives hope for the future, that the large socialist urban heritage of Romania will be better utilized in the future and will be regarded more on the merits of its architecture rather than rejected automatically for the wrongdoings of the former regime.

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- Decretul consiliului de stat al Republicii Socialiste România nr. 114/12.05.1981; Arhiva Consiliului Județean Harghita
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# “Leave It For Now, It Will Hold On For a While”: Slowly Unpacking Crisis of the Infrastructure in Mass Housing Neighborhoods of Aktau

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## ABSTRACT

*This paper explores how residents, maintenance workers and others navigate the slowly unravelling collapse of infrastructure, and how they perceive it. The city of Aktau was planned as a dream 70 years ago: in the desert, with all infrastructure provided by the nuclear power plant, which also desalinated the water for the whole city. Today, the city of Aktau still relies on the same plant, which has been converted into a thermal power station. However, the city is growing, with new housing sprouting up all over the city, despite the fact that the infrastructure was only planned in Soviet times to support a certain amount of neighbourhood planning, and the materiality of it has not undergone any major renovation or modernisation since it was built. Focusing on the city's mass housing neighbourhoods, this paper unpacks the process of negotiating the state of infrastructure. As the Aktau case shows, it is rare for something to be in one state: either repaired or broken. More often than not, people have to operate and negotiate between these two states. In contrast to studies of emergencies and breakdowns and how people cope with them, this paper deals with a grey zone and the negotiation of it.*

## KEYWORDS

*brokenness, maintenance, Global East*



*Figure 1. The 4<sup>th</sup> neighbourhood, Aktau. Taken by the author*

## **1. Infrastructure and brokenness**

Infrastructure is treated as something barely noticeable, something that makes the experience of everyday life as we are used to it. However, as research on infrastructure shows, it cannot be treated as simply as a water supply, an electricity grid or a rubbish collection service. Infrastructures, even the modernist ones that claim to be built for all and to unite people, are not neutral. Infrastructures are provided in a certain way, for certain groups, and managed in a certain way. The way many infrastructures are designed does not make it obvious to the people who use them every day what kind of work goes into maintaining them and turning them into seemingly flawless machines. But infrastructure is not (yet) perpetual motion, and it breaks, and breaks a lot. When it fails to deliver, it reveals the complexity of the relationships - economic, social, political - behind it (D. J. Denis, 2019; Graham & Thrift, 2007). Such moments of disruption 'allow us to excavate the usually hidden politics of flow and connection, of mobility and immobility, in contemporary societies' (Graham, 2010: p.3). Moments of failure highlight how fragile they are and how infrastructures cannot be taken for granted.

This perception of infrastructure running smoothly and unnoticed until it breaks down is not universal. The feeling that infrastructure is flawless and fully functional is not universal, but rather specific to the minority of (richer) cities. What makes the infrastructure seem perfect is the huge amount of labour and daily attention that goes into not only preventing things from breaking down, but also constantly repairing and maintaining them. In other words, maintaining infrastructure requires a lot of input and care, which is always politically charged (Corwin & Gidwani, 2021). Not all things can be cared for in the same way, especially in a state of limited resources. Caring for some things means neglecting others. Such a state of things is well researched in urban studies when the cases include the global south and east (Tuvikene et al., 2019). In

many cities, infrastructure is present and evident in everyday life, as it does not go unnoticed: daily power cuts, food shortages, water cuts are not always extraordinary events, but the ways in which infrastructure exists all the time.

Such a perception allows to go beyond the binary perception of things in order and things out of order and to study the shades and multiple states of being functional (de Laet & Mol, 2000; Thieme, 2021). Many authors studying cities in the Global East suggest that dysfunctionality is one of the essential components of infrastructure, and we need to study how people adapt to this constant failure (Martínez & Laviolette, 2019; Мохов, 2021; Пинчук, 2021). With this paper, I support the optics of looking at infrastructure from the state of brokenness (Martínez & Laviolette, 2019). This prism suggests looking at all infrastructure as something that needs to be achieved through labour, resources and practices. By accepting that all infrastructure will be broken at some point, we acknowledge that none of these things are stable or finished at the moment they are created. This is particularly evident in housing infrastructure: the materials age, the water deforms the pipes, the electrical grid becomes obsolete. Focusing on brokenness shows that things do not always work as we expect, but also that things can be made to work again. I am not suggesting, however, that all infrastructure, especially in the cities of the Global South and East mentioned above, is flawed and perpetually broken. On the contrary, as anyone familiar with the railway system in Germany knows, I argue that the state of brokenness is a very useful lens through which to look at any city, anywhere.

Focusing on maintenance helps to overcome this "broken or not" dichotomy and to unpack the social components of infrastructure everywhere in the world. Firstly, a focus on maintenance allows us to see the processual side of infrastructure: the gradual and everyday care, the tasks that pile up, the slow but inexorable ageing of materials. Secondly, it helps to unpack states of emergency and to trace what is actually considered a break, an emergency, or when things are beyond repair and need to be decommissioned. Third, the focus on maintenance and, most importantly, the maintainers helps to reveal the social relations behind infrastructure (Martínez & Laviolette, 2019; Мохов, 2021; Пинчук, 2021). Repair is a socially mediated process: it shows how actors negotiate which condition should be considered repaired or broken, who is involved in answering this question. It shows who cares about infrastructure and who is allowed not to care.

The study of infrastructure in post-socialist spaces is particularly focused on the clash of two logics, socialist and capitalist, and how actors and materiality cope with it (Collier, 2011; Tuvikene et al., 2019; Хархордин et al., 2013). After the dissolution of the Soviet Union, the established relationships of who was responsible for maintaining which part of the infrastructure changed. Water, electricity, common property of each building - all the relationships based on centrally managed infrastructure had to be reconfigured. In this paper I focus on the case of Aktau, Kazakhstan, and its housing infrastructure. In housing studies, infrastructure, as an integral part of housing, is often invisible and taken for granted. In the city of Aktau, which is heavily dependent on a power plant, the infrastructure is visible and exploitable. More than half of the city was built from scratch during the Soviet era, and the infrastructure that supports its inhabitants is ageing massively. Although many post-socialist cities face similar problems of decay, Aktau is an exemplary case because of the scale and intensity of the deterioration. Recently, with the intensification of the climate crisis, the question of how to deal with environmental degradation has come to the fore more than ever. In this paper, I will observe different perceptions of the crisis and different responses to it.



## 2. Methods and data

This paper is based on fieldwork conducted in Aktau between October 2022 and May 2023. The data consists of 50 in-depth interviews with an average duration of 1.5 hours. The interviewees have different relationships with maintenance. For some, it is their primary responsibility - technicians, maintenance cooperatives, infrastructure workers, authorities. For others, it is not their day-to-day job, but it affects their daily lives - local business representatives, residents of different tenures, bloggers.

The data was also supplemented by an analysis of legislation, public speeches and news in the local media. I was also able to follow and observe various technical workers and maintenance staff at work. I attended conferences on various aspects of maintenance, meetings of maintenance associations, the local branch of a political party, public hearings, and meetings between the mayor and the governor with residents.

In my research I devote a lot of attention to materiality: the way infrastructure is designed, what it allows actors to do and how it limits them, how materials age. In this paper I do not focus on one particular part of the infrastructure, but on the whole range of what are considered to be inalienable parts of housing. This includes water supply, sewerage, electricity, rubbish collection, collectively managed common spaces, green spaces.

## 3. The history of housing infrastructure in Aktau

The story of how the city of Aktau came to be is linked to its infrastructure. Founded in 1964, the city was built as a celebration of science over nature (Guth, 2022). Situated between the desert and the sea, the city was built primarily to serve the nearby uranium mining industry. Most of its microdistricts were built in the 1970-s and 1980s, and the planning was implemented by the Leningrad's architects and planners. The planning was innovative: the architects, who were able to draw the city from scratch, planned according to the hostile steppe winds – the positioning of the buildings – and the sun to eliminate its effects by building balcony-entrance (*galereyki*) buildings. Aktau became an exemplary urban project of Soviet urban planners and engineers, whose ambition was to conquer nature and create a livable oasis. The city's entire infrastructure was provided by the first ever nuclear power plant, which also desalinated the water for the entire city.

Although the nuclear reactor was decommissioned in 1999 following de-atomisation, the city's infrastructure is still largely dependent on the same plant, although it is now gas-fired. The thermal power plant still provides fresh water, electricity and heating for the whole town, some other towns in the region and nearby industries. The plant has not been modernised since it opened in 1973 and its capacity is still limited. However, the city's appetite has increased dramatically: firstly, it has grown by at least 30% in recent decades and continues to do so; secondly, water and electricity consumption per household has changed and is no longer in line with calculations made more than 30 years ago. For example, because of the high temperatures, almost everyone has air conditioning, which puts a lot of pressure on the old power lines. Water consumption has also changed. Before the 1990s, toilets and bathrooms were supplied with so-called "industrial water": desalinated sea water, but not enriched with elements that make it drinkable. However, the quality of the water was poor: it has a slightly yellowish colour and tends to corrode sanitary ware very quickly. So when it became possible in the 1990s to decide on the water pipes inside the building, many residents turned off the tap water and switched everything to fresh

water. This led to a dramatic increase in demand, which threatened the guarantee of a constant supply of water and electricity from the power station.

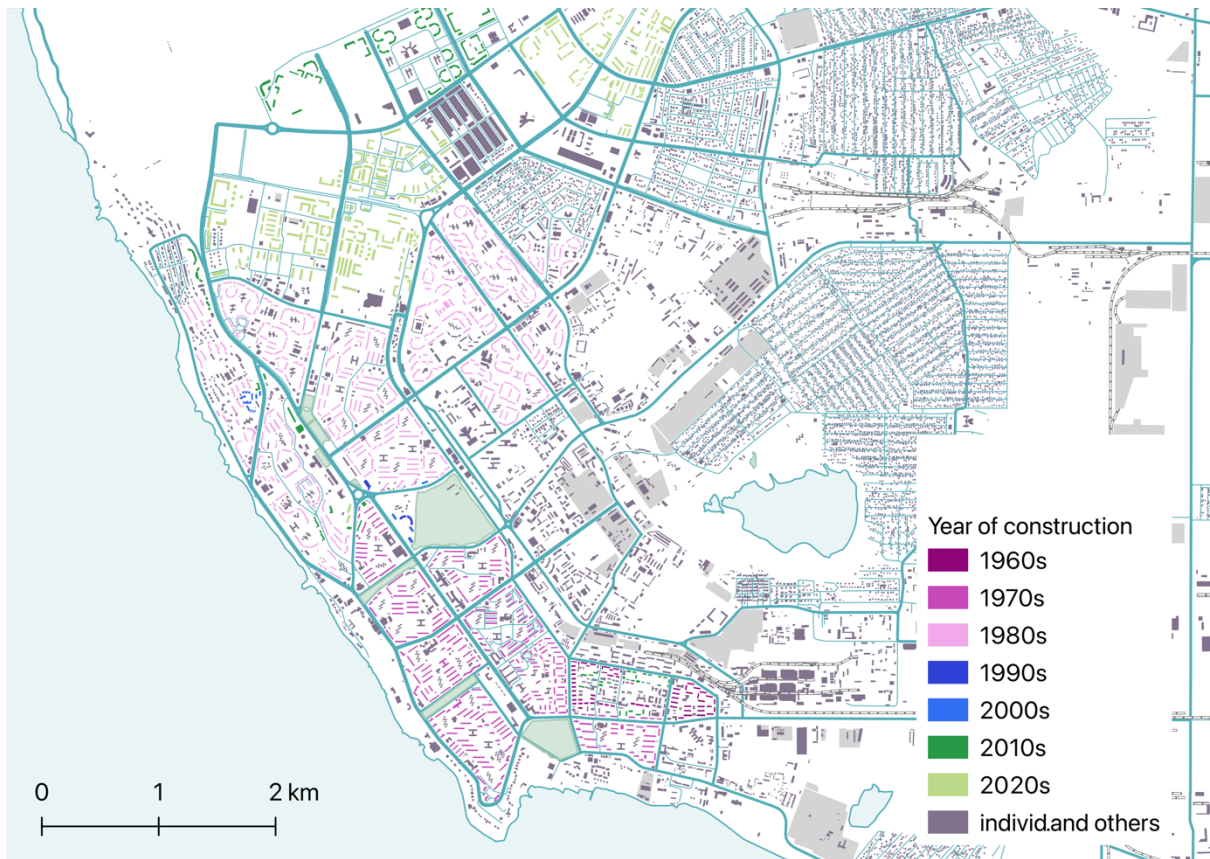



Figure 2. Years of construction of housing, Aktau. Created by the author using open OSM data

Many parts of the city's infrastructure have remained the same, but have aged. The calculated level of deterioration is 75% (Lada kz, May 2023) - average for water, sewage and electricity systems. But many other aspects of the infrastructure - the distribution of responsibilities, the norms - have changed and are still changing. First, the management of shared infrastructure has become the responsibility of residents - a skill that needs to be learned and invested in. Second, the financial responsibility for maintaining the infrastructure also fell largely on the residents. Public utilities are still heavily subsidised, but payments are gradually increasing. Any major changes that need to be made to the dilapidated infrastructure that residents inherited from the public services with the privatisation of the flats, including major repairs, also became their responsibility. Thirdly, the financial crisis of the 1990s exacerbated the deterioration. At some point, the local public service technicians could no longer cope with their duties, the city had run out of money. In such a situation, pipes without constant maintenance deteriorate and clog more quickly, exacerbating the crisis the city is currently facing.

Breakdowns and emergencies are so common that they have become routine, part of small talk and even the subject of stand-up comedy jokes about the city. Almost every day, at least one building in the city experiences some kind of water shortage. While this may seem surprising and unusual for residents of cities where water and electricity supplies are never interrupted, for those who have lived in Aktau for a long time, such a situation is quite common, but the intensity and political, social and



economic context of it varies. In the next parts, I will unpack how actors interpret and negotiate the crisis and how to deal with it.

## 4. Different perceptions of the crisis

Here I present the different attitudes of different actors towards the constant breakdowns and the slowly worsening infrastructure crisis. It is important to note that I cannot divide the actors into different groups: those who care more and propose to take certain actions, or those who prefer to ignore the situation. On the contrary, the same actors show different attitudes in different circumstances and in response to different questions.

### 4.1. If I ignore it, maybe it will go away: seeing the crisis but trying to avoid direct confrontation with it

For any part of the housing infrastructure, be it water supply or rubbish collection, there are times when breakdowns can be tolerated without actually fixing the problem. If the water pressure is very low, but still sufficient to take a shower, complaining to the authorities can wait. If you are a technician working for a local maintenance company and you are planning what to do first, to replace the pipes that have holes in them or those that sometimes leak, you will probably choose to replace the ones that are not working.

“INT: Could you please tell me, how do you define which situation is an emergency, and which is not yet it? It is because it is not visible from the outside?”

TECHNICIAN: Well, what we cannot see, we do not write down [*in this form*]. If there is a crack outside, then we write it down. And if something is falling out then we need to do it urgently, the first thing. And those little cracks – it can wait.” [Technician, works in one neighborhood for 15 years]

As the quote above shows, not repairing certain parts of the infrastructure, in this case cracked facades, is not deliberately making the crisis worse. By making such decisions, engineers are ignoring some signs of deterioration, knowing that they may have to deal with them later. But for now, such actions of deliberate ignorance buy time.

But decisions that ignore the infrastructure crisis and deliberately make it worse are also common. The city's local government is allowing new construction in the hope that the thermal power plant will be renovated in the future and that electricity and water will be produced in sufficient quantities. However, the plant has still not been modernised and its capacity has yet to be increased. By allowing the city to grow, the local authorities gain more investment in the city and increase the budget, but they put the infrastructure at risk by ignoring its capacity and rate of deterioration.

### 4.2. It is wearing out but we are making it work

Another way of perceiving the slowly unfolding crisis is to make do with what is given. Often those who have to physically deal with the problems that arise do not have much power to influence the redistribution of resources. So, with what they have, they acknowledge the deterioration and the crisis, but do what they can with the few resources available. The scarcity of resources is acknowledged at a high level of power:

“When I came there, it was very difficult. Sometimes, we did not even have any spare parts... We even had to borrow billets from somewhere, we asked for it. We

were trying to make our way with it...” [The head of the power plant, talking about times when he worked as an engineer at the city’s water infrastructure company]

In this quote from an interview in the local media, the plant manager acknowledges the crisis and tries to explain that technicians are doing everything they can to keep the infrastructure running.




Figure 3. The 4th neighbourhood, Aktau, repairing the breakage. Taken by the author

At the same time, it raises the question for those left to deal with the deteriorating infrastructure as to why it happened in the first place:

“At every given moment, the deterioration of the pipeline continues, deterioration of reinforced concrete structures, roofing, everything deteriorates – it is regulated by the construction norms. Like, one part can serve, for example, for 15 years. 11-15 years. After 15 year, you have to perform major repairs, or maybe after 25. After 25 years, you definitely need to redo the roofing – not just repair, but all the wiring, constructive element. And it’s been 52 years for us. None of it was done. So in these 24 years since we are here, we technically keeping these buildings in a bearable condition.” [The head of the local maintenance cooperative]

Here, the head of the local maintenance cooperative tells the same story of fighting the crisis with what you have. However, there is a sense of who is responsible for the crisis. The local maintenance cooperatives, although legally they have different responsibilities and a different place in the maintenance system, are largely made up of the same people who worked in such cooperatives in the late Soviet period. But their





work has changed: buildings are ageing, pipes are clogged, resources are limited. So even a similar perception of the crisis by people with similar maintenance tasks leads to different conversations about who is to blame.

### **4.3. An unmitigated decline that we can't keep up with**

Some actors acknowledge the existence of a crisis, but fail to see how it can be resolved. One of the typical reactions to the water cut-off is to say: "Who remembers the day when we had all the water running? This news became our daily reality and part of our routine" [from the interview with the long-time resident]. At some point, even the local media, which is usually not too critical of the local authorities and sometimes publishes complimentary articles, began to report the news under the headline "Summer tradition! Hot water supply in Aktau to be cut off indefinitely" [Lada KZ, 31 May]. By acknowledging the depth of the crisis and its permanence, the actors are claiming it as a new norm.

In this perception, the coping mechanism is to give up hope and internalise the crisis. Because the crisis exists for so long, even as it intensifies, actors find a way to adapt to it. There are several ways in which residents prepare for power cuts and water cuts: collecting water in advance, visiting friends to charge all the appliances, always having some candles. The difference with the second strategy, however, is in perception: here the actors do not believe that the crisis can be resolved. For example, commentators in the local media say in response to the blackout: "This is more interesting. It was getting boring. Sometimes it was cold water, sometimes hot water, sometimes industrial water - there was no variety" [local resident]. Such a position is an observatory: whatever happens next, even if it is much worse than before, can be interpreted as an expected continuation of today.

### **4.4. "At some point, it was even worse"**

In some situations, the actors address the temporality of the crisis and perceive it in relation to what they have experienced before. Most often, people who were in Aktau in the 1990s talk about how bad it was then and how they had to cope with it:

"In the 90-s, probably, in 1992 or 1993, everything has stopped. There was no water, no power, no electricity, no heating. Some year in summer, everyone was wearing black. I had water at that time, I lived in the 9-storey building in the 5<sup>th</sup> micro district. So they were giving us water for 2 hours every day, and it was going through the pipes in the basement. So people were queueing up, collecting that *orange juice*, that's the colour that it had. And then, of course, elevators were not working, so they were carrying it up themselves. That was it. And also people were going to the see with the flasks and bottles, to collect the water and to have at least something to flush with." [long-time Aktau resident]

The crisis of the 1990s became an important relative benchmark over time, as it was perceived as the worst state of infrastructure in Aktau. In comparison with that crisis, which many Aktau residents remember, regular power cuts and water cuts, if they occur with the same frequency as expected, do not stand up to comparison and are perceived as a lesser evil.

Some technicians working on specific parts of the infrastructure, when involved in its improvement, focus on the important parts that have been done and overshadow everything that still needs to be repaired, replaced, rethought. As a plumber from the 5th district says, "before, everything here was in holes, like it is now in the 4th district". As the former head of the city's water company points out, a decade ago, with the help of the EBRD grant, they managed to replace the pipes between the neighbourhoods

in the lower part of the city. This had never happened since the city was built, and it helped to reduce the number of breaks. Even though the infrastructure is so interconnected that such measures cannot eliminate the problem, because the pipes within the neighbourhoods and inside the buildings should also be replaced, this measure was definitely a big step forward. This kind of perception allows you to do both: deal with the terrible moments of the past and come to terms with the present, or see the nuances of how the infrastructure worked before and how it can be improved now.

#### **4.5. “We need to act now, otherwise it will be too late”: addressing the condition as crisis**

Another response is to label the situation as a crisis, as something that needs to be addressed immediately. For some actors, there is a line beyond which the state of infrastructure requires special attention. Most often this is the scarcity of water resources:

“Dear sir Usenov [the current head of the city’s water management], what are you waiting for? Are you waiting for another protest, what are you pushing people into? What should we, the residents of the 7-storey buildings, do? What if we all come by your house tomorrow to wash our clothes and cook?” [resident in the chat reacting on the news about the indefinite delay of water pump installation; 7<sup>th</sup> of May]


Here, this resident, who is experiencing a constant lack of water pressure that is preventing water from reaching the 7th floor, tries to open the eyes of the city's water officials. Shocked by the delay, the resident assumes that the officials do not fully understand the urgency of the situation.

The declared urgency could be a means of facilitating change. In June, the plant's management initiated the official emergency declaration. The Caspian Sea, the source of the desalinated water that supplies the entire city, is shallowing. The coastline is moving further away every year. The power station's water intake canal, which was designed for different sea levels, is often blocked by silt. In December 2022, the top of the water in the Caspian Sea froze, causing the plant to stop working for a few days. After these events, it became clear that we were on the verge of a major breakdown and total collapse. Operating on the brink of failure, navigating through brokenness, the management decided to push forward the eternal decision-making process on the modernisation of the power plant by declaring a state of emergency.

## **5. What comes next?**

In all the perceptions of the state of infrastructure described above, actors recognise that certain problems exist and need to be solved. However, there are different ways of obscuring these problems, of overshadowing them, of diverting attention elsewhere, or of emphasising problems that have existed for a long time but are slowly getting worse.

The different ways of dealing with the slowly unfolding crisis outlined above emphasise that infrastructure functionality is not binary. Deciding what is broken or not involves many actors, it is processual and happens through negotiation. Materiality to some extent shapes and directs these negotiations. In the case of mass housing in the post-socialist space, especially in Aktau, where almost all the buildings were built within a few decades, the question of infrastructure cannot be resolved without centrally made decisions. Just as the infrastructure was designed in a top-down manner, so it has to be managed and repaired.



As the case of Aktau shows, the crisis does not happen all at once. Breakdowns do not happen suddenly: many different actions, decisions, changes in materiality precede them. Brokenness is an inseparable part of any infrastructure. By looking at different ways of navigating through it, we can observe how actors ignore it, cope with it or make it work.

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## Informal Transformation of Socialist Living Space: Village of Powers in Harbin, China

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### ABSTRACT

*This paper studies the informal transformation of workers' living spaces within the post-socialist industrial neighbourhood in Harbin, a major capital in Northeast China. Since the national marketization reform around the 1990s, collective housings built for state-owned factory workers during the socialist era have changed dramatically, both inside and outside. Based on the case study of Village of Powers (Harbin, China), this study focuses on the indoor transformations conducted mainly from the bottom-up everyday practices. By using fieldwork and spatial analysis as the main methods, the paper presents the diverse transformation approaches. It argues that informal spatial transformations are applied as a solution to improve the living conditions. Such transformations give benefits, but can however also create new conflicts within the community. In some cases, those transformations unconsciously affect the collective behaviour mode in the neighbourhood and empowers the local connection. This research aims to expose within the complexity of China's decaying workers' villages the real-life difficulties and local endeavour, providing insights on the new possibilities of the post-socialist housing heritage and the dialogues with the past.*

### KEYWORDS

*socialist housing, industrial workers, collective space, spatial transformation, informal appropriation*

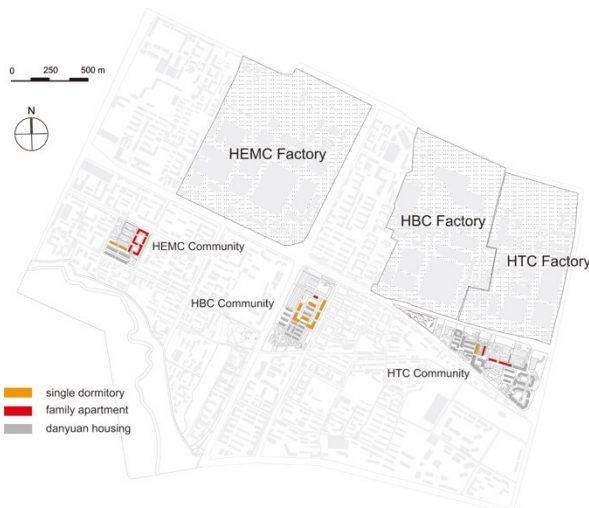


Figure 1. (Left) Village of Powers, Harbin; (right) a Soviet-style block in HEMC Community (Source: Yiping Zhang)

## 1. Introduction

During the decades of 1950-1970 China built, under Soviet influence, many workers' villages. Workers villages can be defined as urban housing districts that were built by the State and directly affiliated with a factory or a group of factories. Those projects served as a crucial container for -at the time- the novel collective communist life (Bray, 2005). However, since the Chinese marketization reform around the 1990s such state-owned factories underwent a sharp setback (Lv, 2017). During recent decades, this process resulted in deterioration in the former workers' villages and poverty of its inhabitants (Hong and Chen, 2009). Also, the ambitions toward ideological communal life from the country have partly changed. Those changes have put and are putting pressure on the original collective and private spaces, and by this on the communal and personal life in the workers' villages (Yang, 2019).

This paper concentrates on the change of the interior spaces in China's initial socialist housings built in the early 1950s: the single dormitory and the family apartment. Because of the referring to USSR's prototype, these two kinds are also called by locals Soviet-style housing (*Sushi Lou*). These usually 3- or 4- storey dwellings are in concrete and bricks, with hipped roofs and Soviet communism and/or Chinese traditional ornaments on facades (Zhang et al. 2023).

Soviet-style housings in the *Village of Powers* (VoP) workers' village are chosen as cases. The VoP, situated in Harbin, is composed of three Soviet-style communities, affiliated to three interconnected power-driven factories (Harbin Electric Machinery Company [HEMC]; Harbin Boiler Company [HBC], and Harbin Turbine Company [HTC]). Because of Harbin's fast urban renewal, the original Soviet blocks in the VoP were partially destroyed, and the remaining buildings are pressed between modern high-rise apartments. (See Figure 1.) Since the factories have struggled for years and the national regulation of disconnecting social functions with factories, the former honourable residence has been neglected and decaying for many years. In addition, because it is not listed as Official Protection Site/Heritage at any level, exterior supports or conservation plans for this neighbourhood are lacking. Through in-depth fieldwork (in situ observations and semi-structured interviews) and spatial analysis, the informal transformations are investigated.

## 2. Spatial-functional transformations

Single dormitories – called by Chinese people as *Tongzi Lou* (Tube-shaped housing) – are the most collective form of housing in workers' villages. Typology-wise they have on each floor a middle corridor with left and right a row of single rooms. Each floor has several shared kitchens and washrooms. Single dormitories were initially designed to accommodate unmarried workers. However, with the heavy shortage of living space provision, already in the late 1950s such dormitories were officially allotted by the factory to employees with a family. The other type is the family apartment. It is comprised of several living units. Every living unit was originally designed as a two- or three-room apartment with a private toilet and kitchen. However, because the amount of apartments was scarce and the number of workers grew rapidly, the supposed one household-suite had to be allotted to several families, causing the only toilet and kitchen to be shared (Lv et al. 2001). Such collective living condition continues to the present day in many workers' housings. During China's rapid urbanization and regeneration period in the new millennium, although many of these socialist housings were torn down to make room for new urban projects, however there are still many left today although mostly with transformations at varied extents. In below are the observed transformations in the dormitories and apartments in VoP.

### 2.1. Extension of private space

Over time the organisation of both types altered. According to the communist lifestyle, the original floor plans were designed fitting the very limited living surface and restricted facilities. Families with several children had to live in a single dormitory-unit of 14 to 20m<sup>2</sup>. This was obviously insufficient. Due to the limitation of private space the residents in the post-reform era pursued gradually for more living areas. Informal extensions took place both internal as external. Internal transformations commonly happened through the private appropriation of a collective space in the wide corridor or in the staircases. (See *Figure 2: d, e, f, g.*) This was more advantageous for the people that lived at the end of a corridor. They could easily occupy those spaces without hindering the circulation. (See *Figure 2: e.*) For other locations, private areas were subtly extended by setting furniture in those area's but leaving enough space for pass-through. In the "L-shape" dormitories the "elbow" position was also often used for extensions. In *Figure 2d* one can see the realization of an extra room in this area, resulting in cutting off the whole corridor.

On the ground level temporary external extensions to enlarge the private space were mostly realized by occupying the sidewalk or open garden space. Ground-floor residents extended the window into a door and fenced a yard on the greenbelt or sidewalk. There they could grow plants/vegetables or feed poultries. Sometimes it was used for storage. More permanent extensions are building annexes next to one's home, and thus transform the public community space into one's private space. (See *Figure 2: c.*)

### 2.2. New spatial division

The Communism-disciplined lifestyle has vanished in the new socio-economic context of the last decades. The original collective kitchens/washrooms in single dormitories can hardly fit novel living standards anymore. On some floors, the big kitchen was divided into pieces by wooden partition walls. (See *Figure 2: i.*) For security reasons, some original open kitchens were secluded with doors. This also applied to washrooms. Due to the rising awareness of privacy, some residents constructed a

separate private shower in the collective bathroom. (See Figure 2: h.) In other cases, a door-opening was realized in the interior walls between two bedrooms (See Figure 2: b.), or the wall was totally removed for creating a bigger room. Often those spaces were even being used as restaurants.



Figure 2. Informal transformations in Soviet-style housings, VoP (Source: Yiping Zhang)

### 2.3. Functional transformation

Only a few housings were totally transformed to another function. Like HBC-6 (No.6 Housing in HBC Community), officially changed from a single dormitory to an office building by the factory in the early 2000s. Functional partly alterations in family apartments and single apartments, are however quite frequent. The major changes are profit motivated like transforming bedrooms into shops or restaurants on the ground floor. This was especially performed for the room facing the municipal street. (See *Figure 2: a.*) Bedrooms were sometimes used as storage units, offices, etc. or, in contrast, more collective spaces were altered to bedrooms. Surprisingly, even some of the staircase areas were transformed into bedrooms by demolishing the stairs or constructing a room above the stairwell on the top floor. (See *Figure 2: f, g.*) Next to the informal transformations, the authority also made changes. The reading rooms of dormitories, for example, were generally changed into bedrooms during the housing reform era in the 1990s. By this, more living areas were created to allot more workers. (See *Figure 2: j.*)

### 2.4. The general trend of transformations

The boundaries between private and public is of course not always sharp and can be even dynamic over time (Gantois, 2021). This phenomenon of privatization of public/collective space in China's post-socialist housings was unveiled through observations on spatial-functional changes in the workers' village VoP. To clarify this, we defined the gradation between private and public into four categories, comparing their floorages in the original plan and today.

1. spaces that are exclusively used by one person or one family, like the bedroom in a single dormitory or a bedroom in a shared suite in a family apartment;
2. spaces that are used by several roommates or families, meaning outsiders cannot enter without permission, like a shared toilet within a suite in a family apartment;
3. spaces that are shared by a group of people on the same floor during daily life with unwritten rules, that however could be entered in by outsiders without legal problems, like circulation spaces and collective facilities;
4. spaces that are occupied and normally managed by the local governmental institution, and open to the local community as well as outsiders, like neighbourhood streets, parks, accessible unbuild spaces. (Note: this kind of space is always outdoor public space, and thus not included in the analysis here.)





First, we calculated the total floorage of the socialist housing of our case (ten dormitories and eight apartments in total) originally and at present. Second, we determined each piece of area one of the first three categories (space 1, space 2, and space 3) and calculated the floorage and proportions of each category in the original plan and today. Thirdly, we compared the floorage and proportions originally and at present. This gave us following results.

- The total floorage of most housings only grew slightly. Since the original space is generally too small to accommodate today's living needs, the residents in single dormitories or family apartments need to extend their small rooms or suites outwards, resulting in the rise of total private floorage. Extensions are commonly seen on the ground floor, but as they know it is not proper, the built appendixes are normally not eye-catching; (See *Figure 2: c. and Figure 3.*)
- In single dormitories, the proportion of private space (space 1) comparing of the original plan is raised. This, of course results in the fact that by this the proportion of collective space is declining. The reason is that residents commonly occupy the collective area which single dormitories consist of a lot (corridors, staircases, kitchens, and toilets) and transform them through informal constructions into his/her own place; (See *Figure 4: left.*)
- In family apartments, the changes in proportions of the three categories are subtle, although a lot of commercialization-type transformations took place. As the shop or restaurant is still owned privately, the spatial category did not change. (See *Figure 4: right.*)

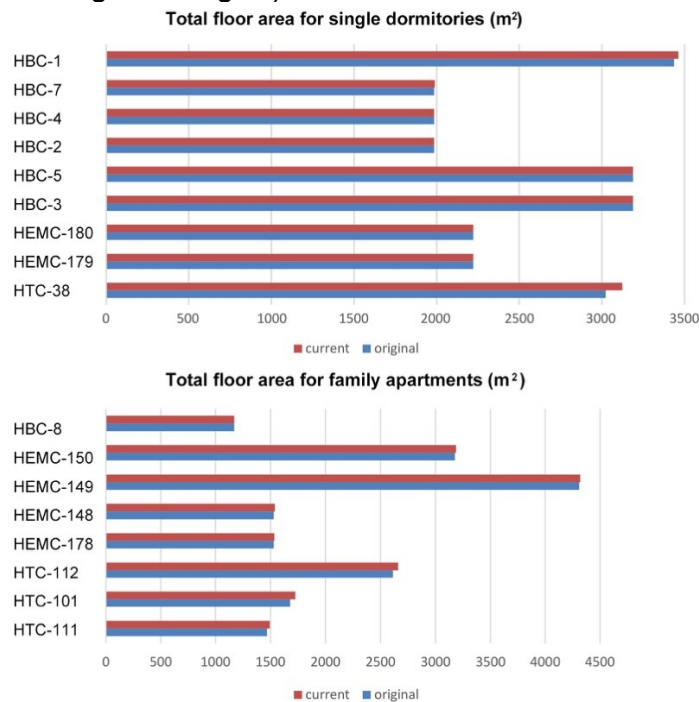


Figure 3. General changes of housing floor areas (Source: Yiping Zhang)

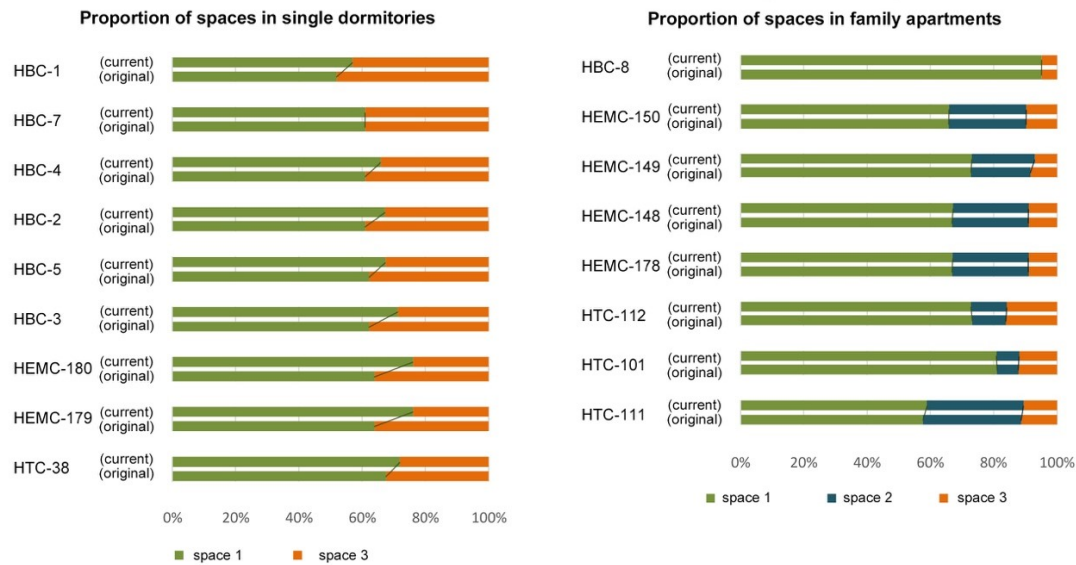


Figure 4. General changes in floorages and proportions of different spaces in single dormitories and family apartments (Source: Yiping Zhang)

### 3. Socio-spatial complexity and possibilities

#### 3.1. profit-orientated and life-improvement-orientated transformations

There are basically two orientations of informal transformations: profit-orientated and life-improvement-orientated. In this part, representative transformations are selected to showcase the process and logic behind them.

##### *Profit orientation*

The first case is a grocery located on the ground floor of HBC-3 housing, a single dormitory. The current resident is a family formed of a couple with two children. They have rented these two rooms since 2017 for the low rent and large “free parking lot” (roads and green spaces in the block). Over time three main transformations were realized. (See Figure 5.)

- The original staircase (b) was partly demolished. Currently, this room is used as a bedroom for the drivers working for the logistics company which is owned by the grocery owner.
- The other room (d) was a bedroom, and has now a hybrid function. The outer half is used as a grocery while the inner half separated by a goods shelf is a sleeping place for the family.
- An extra wall was put in the corridor at the end between the two rooms, creating a new private space (c). However, on the other side of that space, the window was enlarged to a door as a shop entrance. It was said by the shop proprietor that the end of the corridor is accessible only for the persons in the building. The proprietor regards it as her semi-private space, and people who want to pass it needs acquiescent permission.

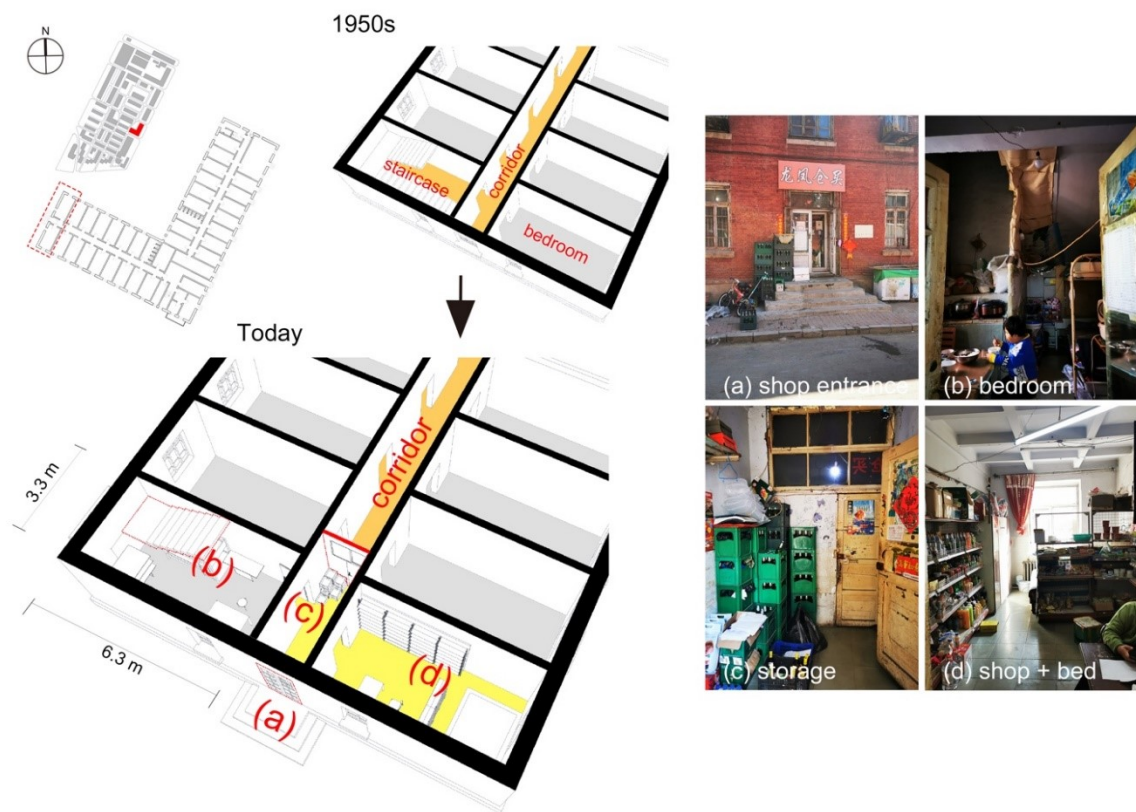


Figure 5. Transformation of LF Grocery on 0 F, HBC-3 (Source: Yiping Zhang)

#### Life-improvement orientation

For the rooms on the upper floors or not directly connecting the city road, transformations were generally conducted for pursuing a better living condition, i.e. more space, more privacy, some outdoor area, etc. Here the story of the 77-year-old resident – we call him Old Q – living alone is selected out of several interviews in 2021, to show how the resident's life-improvement intention drives transformation. (See Figure 6.)

This room was originally purchased by his son-in-law in 1995 during the housing marketizing era, when he was working in the HEMC factory. Later the daughter's family moved out because of the fast-decreasing qualities of this community and housing, and this room was left as a storage. After Old Q's retirement (in another city) around 2014 he moved to Harbin to live with his daughter and her family in a tower apartment of another estate. After a while, he proposed to live in this room in HEMC Community. The daughter then also rented the neighbouring room. They connected internally both rooms with a new wall opening. This gave Old Q a bedroom plus a living room/kitchen. Since he has a strong willingness to have a yard for growing plants, he extended one of the back windows into a door to access easily the outdoor green land. He then fenced a piece of land and started his "farming life". However, as he told, afterward the resident's committee visited and asked him to pay a fine. "Of course, I did not pay," he said, "these people are too bad. My biggest wish however is that the resident's committee can officially allow residents to grow plants or vegetables in the empty green land."



Figure 6. Old Q's small yard and home on 0 F, HEMC-180 (Source: Yiping Zhang)

## 3.2. Tensions exposed

### *Tension between the inhabitant and the housing*

From the above analysis, we detect a gap between the needs of current residents and the original living spaces and facilities provided by the socialist housing, like sharing a small toilet cubicle or a collective kitchen with three other families. From time to time, in the shared areas quarrels occur between neighbours. (Interview with a resident in 2021). In this condition, some people set their kitchen just out of their private room and cook in the corridor. (See *Figure 7.*) Not only unsatisfied with the collective facilities in single dormitories, but locals also complain a lot about the general quality of these old dwellings and equipment, like electric systems, sewage, sound insulation, etc.



*Figure 7. Privatization of the corridor in dormitories, HBC Community (Source: Yiping Zhang)*

### *Relationship between the neighbours*

During the fieldwork another prominent problem rose: namely the segregation between the original residents who are mostly retired workers and homeowners, and the new immigrants from the countryside who are mainly tenants doing humble jobs in the city. In the single dormitories, the different lifestyles of the distinct dwellers cause many dissatisfactions and even conflicts between them. The two groups do hardly mingle and distrust each other. “Personal cookers need to be locked after cooking, otherwise, it is hard to say if they will be stolen in the shared kitchen.” (Interview in HBC Community). While admitting the possibility of thievery, the owner of the grocery store, as a new immigrant herself who have lived there for 5 years (interviewed in 2021), believes that the security level depends highly on the mobility rate. Long-term inhabitants, raises the safety and sometimes a bond of neighbourship. “My neighbours have different occupations, like street vendors, fruit sellers, street cleaners... The old couple living next to my room are street cleaners. Sometimes we cook together and borrow each other’s condiments or sauces. Occasionally when I cooked too much, I would share some with them...” (Interviewee grocery owner in HBC-5)

### *Deficiency of management*

Based on collected interviews one can state that this neighbourhood is without any management or planned interventions. Both the quality of the building with its

private and community spaces are decaying. The local government is just neglecting this situation. “Nobody manages this land, nobody cares about it, nobody repairs the buildings.” (Interviewee DY in HEMC Community). However, the resident representative (hired by local government) of the HEMC-182 housing does mingle in the discussion. She commented Old Q occupying a piece of green land (as we mentioned before) as his “private yard”, and explained the reason why it is prohibited to occupy public land for personal use.

“Last year (2020) the committee tried to remove all the informal additions and self-created ploughs and yards. The flourishing flowers raised by our residents were all destroyed. They [the committee] think it is too tanglesome as the green land was divided into irregular small pieces for different plants. Forbidding individuals farming the green land or constructing additions/parterre is for developing the neighbourhood environment. For me personally, I support this prohibition. Before, the fruit or vegetables grown in the “privatized” green land can be stolen and such things make neighbours argue every day. Now, nobody can farm, no more troubles.” (Interviewee RR in HEMC Community)

### 3.3. Informal transformation’s contribution to community life

Although there are many disadvantages existing in the communities, the informal transformations also create new opportunities for people to gather in some cases. During my two field visits it struck me that groceries and small restaurants transformed from a bedroom or a suite, are not only a proof of their economic pursuit, but also illustrate transformations’ positive effect on community life over time. It was proved around the world that the most attractive element of people is other people and their activities (Whyte, 1980; Gehl, 2006). In the workers’ village, it was demonstrated clearly. As we can see from Figure 8 top, a window of a suite was used for selling stuff, and a bunch of furniture were added spontaneously by nearby residents around the “window shop”. Neighbours are used to gather here every day having gossips, and also chatting with costumers of the shop. Similarly, restaurants can also stimulate connections by unintentionally providing stools, tables, and sunshade for nearby neighbours. (See *Figure 8: bottom.*) Collective spaces incorporate and ensure social interaction and cohesion (Schoonjans and Zhang, 2020). Such self-constructed collective places in decaying blocks are even more valuable because they are the only social stage for many of the deprived inhabitants. (Interview in the VoP) It is the same allowing people to grow their vegetables or flowers could contribute to the exchange of the inhabitants.



Figure 8. Transformations create collective spaces: (top) “window shop” in HBC Community; (bottom) outdoor eating space in HTC Community (Source: Yiping Zhang)

#### 4. Conclusion

In a quick glance, one could conclude that the buildings of the workers’ Village of Powers in Harbin are decrepit. Apartments are too small, and the buildings are lapidated. The original aim of the workers villages was to improve the quality of the workers’ housing units. And these were at the time in the 1950s much better than their own original housing. In addition, the aim was also to generate a collectivity steered by the communist State, and to create new ideological communities with collective facilities.

The workers villages as large-constructed social housings in early New China, are an indispensable part of the socialist heritage which witnessed the political, economic, social, and cultural transitions in China. Those historical blocks and buildings are also part of China’s recent heritage built with and for a community, adding qualities to urban life and place identity. Collectivity is, what you could call, an essential conceptual aspect of the heritage itself. It is therefore important to understand its past and contemporary conditions in function of future interventions.

Due to the original plan guided by the collective ideology and restricted by the very small living areas, the designed private area in socialist housings cannot easily meet today’s life needs. The initial collectivity has today shifted from a state initiative to private, often spontaneous, initiatives and interventions. This research presents the diverse transformation approaches in the Village of Powers in Harbin and demonstrates the transformation logics and related socio-spatial complexity of tensions but also possibilities.

This research argues that most informal transformations are motivated by life-improvement and personal profit intentions. In some cases, it harms public/collective interest and triggers new conflicts, but at the same time it prolongs the possibilities of

a more collective living still today. In contrast to the average modern apartment-buildings in Harbin where there is hardly a possibility for a sense of collectivity, some transformations bring convenience and empower community life for providing valuable collective spaces. For many years since the marketization reform, as original owners (factory workers) moved out and the neglect of administration, the neighborhood shows ghettoization characteristics. But to understand the quality of such post-socialist living spaces, one can not only focus on the direct material element, but also on the everyday practices and interactions between the space and the residents are even more significant.

### 5. Recommendation

Under China's national strategical transition on urban development from incremental construction to inventory renovation, the government is endeavouring to improve the living environment of old residential areas, represented by workers' villages (General Office of the State Council, 2020). Instead of imposing prohibitions on spontaneous transformations, city authorities should actively facilitate the integration of new lifestyles into historic buildings, and the buildings into the urban fabric. Based on the results of this study, general suggestions for upcoming improvements might be made for the numerous dilapidated workers' villages. Firstly, a collaborative working mechanism involving multiple parties (the government, the residents' committee, residents, and professionals) must be formed. Renovations are more feasible when directed and sponsored by local governments, according to lessons learned from prior projects. (Zhou et al., 2023). The residents' committee is responsible for collecting voices from the bottom, and provides a negotiation platform for stakeholders. Secondly, the boundary between private and public property needs to be clarified. Informal alterations that infringe on public interests should be reversed, while residents' actual difficulties can be addressed with individualized design proposals without damaging the interests of others. Thirdly, within one's private area, the spatial adjustments which were orientated by life improvement or stimulate neighbourhood communication should be supported. The designer should assist with adapting the inherited space to current requirements. Fourthly, in order to foster community cohesiveness and social sustainability, residents are urged to construct their own collective spaces (gardens, playgrounds, etc.) in conjunction with professional advice.





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# Late Modern Architectural Heritage of Balatonalmádi in the Online Space

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## ABSTRACT

*In the recent period, an intense discourse on the evaluation of late modern architecture in Hungary has been observed in connection with the demolition of several important buildings of the era. While protests from the profession were noticed in several cases, antipathy or distaste for these buildings can be observed on the part of a significant part of society. This issue is increasingly present in the Balaton region, thereby the traces of this era are gradually disappearing. This study aims to demonstrate the means of communication with which the social activity can be created in the case of a specific settlement, Balatonalmádi. This paper aims to compare theoretical approaches with the results of a practical research. In doing so, this study focuses on the role of online communication. This paper presents primarily social science approaches that can be used to make architectural communication more effective. The result of this study shows that both online and offline tools are needed to create engagement. Related to this, the role of the profession is to convey the values on the basis of which the society is able to develop its own attitude towards late modern architectural heritage.*

## KEYWORDS

*late modern architecture, communication, social media, social memory*



*Figure 1. Bus station of Balatonalmádi (Source: Fortepan / UVATERV)*

## **1. Introduction**

In the recent period, the case of late modern architectural heritage has become the focus of attention for both the profession and the wider public in connection with the demolition of several buildings from this period in Hungary. The inadequacy of traditional heritage preservation frameworks, the lack of institutional professional control, hence the individual decisions of investors have a significant impact on the development of the buildings of this era (Ferkai, 2018). Another problem is that these buildings are often poorly maintained or due to renovations, the original architectural intentions are no longer noticeable, which makes it difficult for society to relate to them (Hartmann, 2018). In addition to the general historical preservation and architectural reasons the preservation of these buildings would be desirable due to economic and climate protection principles as well.

The interpretation of the heritage of the recent past and its place in social memory should be studied. It is a question of how the developments of the post-war socialist system fit into the personal city image of wider social strata. While these buildings and the urban environment are witnesses of the history that is part of our collective memory, thus they are unwittingly rather an identity-creating factor, nevertheless a high degree of rejection can be observed (Sonkoly, 2018). The question is therefore what effect the Hungarian society's view of historical continuity and the memory of socialism have on the social interpretation of the built heritage of the era.

In line with this, bottom-up and community-based approaches become extremely important. A significant aspect in this is the possibilities of access to information, as well as the task and role of the architect in their communication. Appearing of social activity-based processes is necessary, in which each community could think about its own heritage and, with adequate information, decide which heritage are valuable and should be preserved for them. Hence the community could be ready to actively do something for the chosen heritage (Harrison, 2013).

## 2. Late Modern Architectural Heritage in Hungary

### 2.1. Monument Protection of Socialist Modernist Buildings in Hungary

The possibility of direct professional control over modernist buildings in Hungary decreased with the reorganization, and cutbacks of the monument protection institutions from the early 2010s. In 2016, a socialist modernist building was demolished on the Kossuth square to replace it with a historicizing building that previously only existed in plans. However, the situation appears most spectacularly in the Buda castle district, where important socialist modernist buildings have recently been demolished (Diplomataház – György Jánossy, László Lazckovics; Országos Villamos Teherelosztó – Csaba Virág). But many other important monuments were destroyed both in the capital and in the countryside as well (Lővei, 2021).

At the same time, it also appears that the monument protection of socialist modernist buildings is not realized even within today's Hungarian institutional framework. Although many buildings from this architectural era have been placed under local monument protection in Budapest in the recent years, but national processes have not followed this until now (Octogon, 2020). Only a few houses are under full monument protection across the country, or even under local protection in rural settlements. By way of illustration, in the database created by the Association of Hungarian Architects, which lists the most significant 99 Hungarian socialist modernist buildings, only 8 are under national monument protection (Zubek, 2021).

In addition to complete demolitions, a problem with possible renovations is that many reconstructions are carried out with the disappearance of the original character. In this connection, the limitations of the applicability of traditional monument reconstruction principles arise in the case of the socialist modernist heritage. The technological solutions used in the case of these buildings requires a different approach (Hartmann, 2022).

In the case of the buildings around the Lake Balaton with the change in vacation habits, the appreciation of certain areas, and the lack of institutional monument control, these houses are exposed to the intentions of individual investors. Many resorts have been demolished in the recent years, or during renovations, the original architectural intentions disappeared, for example, due to the thickening of the structures (Wettstein, 2019). Several key monuments have destroyed (OMFB resort - Csaba Virág, Orion bar - István Márton) or have been significantly transformed (Tihany ferry waiting room - János Dianóczky), while only the Tátika restaurant (Ferenc Callmeyer) received monument protection, and only a few houses received local protection.

### 2.2. Late Modern Heritage of Balatonalmádi

Since Balatonalmádi is one of the important settlements on the Balaton shore, especially due to the booming tourism from the 1960s, many investments were made in the area of the city. Balatonalmádi was given a privileged position in the regional plan of Balaton region in 1958 as well, which served as the framework for the developments. In this plan, a large hotel in Balatonalmádi was envisaged. While the early rise in the number of developments appeared at the same time as the lifestyle, especially tourism, changed, thus experimentation in both technological and functional terms can be observed in architecture (Marton, 2018). This series of initial experimental constructions includes, for example, the Balatonalmádi tourist hotel designed by György Tiry, where a modern abstract approach and a smaller scale matching the environment can be observed (Wettstein, 2018).



Figure 2. Hotel Aurora, Balatonalmádi  
(Source: Fortepan / Sándor Bauer)

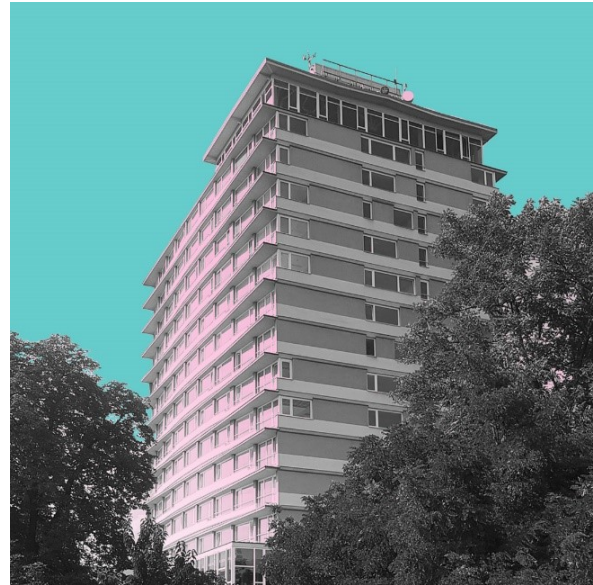


Figure 3. Hotel Aurora, Balatonalmádi  
(Source:  
[https://www.instagram.com/spacelab\\_urban  
design](https://www.instagram.com/spacelab_urban_design))

However, parallel with the national processes, schematization can also be observed on the shores of Balaton from the seventies. Due to the rise of industrialized technologies, as a result of which the waterfront began to show an increasingly urban image. With the start of major developments, in response to the rising tourism, they became more and more detached from the local approach. The Auróra hotel in Balatonalmádi is one of the high-capacity hotels (See Figure 2.). Its construction was justified by the growing tourism of the Lake Balaton in the 1960s. Due to its size, the building was less connected to the character of the settlement and rises above the city and the bay. Ferenc Raáb's Pannónia restaurant also follows general modern architectural principles and reflects less on the character of Balatonalmádi. A building, which is more suited to the local environment, is the restaurant of the resort of Vegyipari Gépgyár designed by Imre Gózon, which is made of local sandstone and the wooden cladding. One of the most characteristic buildings of Balatonalmádi, the bus station building is connected to the landscape as well (See Figure 1.). It was designed by Mária Nyíri, and it aims to reflect the patterns of the environment with its abstract, undulating forms. From the end of the seventies, rehabilitation in the surroundings of Lake Balaton become significant, adapting to the place became more and more important. The building of the bilingual high school in Balatonalmádi fits into this line, which can be classified more as a postmodern, regionalist building (Wettstein, 2016).

Among the mentioned buildings, only the bus station and the high school can be found in their original form. The character of the Pannónia restaurant and the Auróra Hotel changed significantly during the renovations (See Figure 3.), only traces of their original architectural attributes can be discovered. The restaurant of the resort of "Vegyipari Gépgyár" has already been demolished. Furthermore, none of Balatonalmádi's socialist modernist buildings are under national or local monument protection. In the case of these houses, the risk is therefore high.

### 3. Methodology

This paper presents both theoretical and practical approaches to the communication of socialist modernist architecture. During this, this study aims to compare the fundamentals of the related sciences with a practical pilot project. The pilot project deliberately focuses on the processing of an easily identifiable architectural heritage. Through the late modern heritage of Balatonalmádi, this study would like to examine how a built heritage could be communicated to the local population. The practical research took place in 2021 and conducted together with Krisztina Kovács (Kovács, 2021; Zubek, 2021). In doing so, the goal was to reach the local community of Balatonalmádi, which was realized through a five-week online campaign. We also managed to meet the people of Balatonalmádi twice in person. The most important element of the personal meetings was the city walking tour. In the process, it was possible to get to know the built environment experientially, and information could be passed on to the participants in an entertaining way. Organized city walking tours are based on the methodology of shared perception and experience. (Thibaud, 2013). These were supplemented by focus group interviews and smaller workshops.

Among the most popular social media platforms among Hungarian users, Facebook and Instagram were used as online communication platforms during the study. Facebook was regularly used by 85% of the entire Hungarian population in the period under review, Instagram by 30%. Facebook was primarily used by older people, and Instagram by younger generations (ResearchCenter, 2020). Another aspect was that these platforms are suitable for communicating visual content and active dialogue. During this study, empirical experiences were mostly important, but the feedback given on the shared content was subjected to qualitative and quantitative examination. The data published by Meta Platforms, Inc. for content producers were used. But it is important to emphasize that this analysis was based on a short period of time and a small number of data, so rather than specific results, mostly trends can provide guidance for understanding the processes.

### 4. Targeted Population

Since one of the most important aspects of this paper is the social rejection of socialist modernism, social science approaches could help to further interpret the relationship between the architectural heritage of socialism and the present society. By understanding behavioural patterns and analysing the impact of people's experiences during socialization, we could understand the processes that affect the decisions and interpretation of locals (Pál et al., 2017). Regarding this study, it is significant what place Balaton's tourism holds in the social memory. Another particularly important question regarding this topic is the associations related to the political-economic organization of the era.

Based on these it is worth dividing the people into 3 age groups. The oldest met the late modern buildings in their new, original state. For them, the Balaton holiday and its modern surroundings are symbols of progression (Bauer, 2021). The experiment conducted in Balatonalmádi revealed that members of this generation are the most active regarding this topic. Naturally, a kind of nostalgia factor also plays a role regarding this issue. Since it used to be the urban environment of their youth. At the same time, recalling the past does not necessarily contribute to active participation in the present, therefore this could be supported by additional means.

Much more contradictory processes can be observed among the current middle-aged people - who were young at the time of the regime change in 1989. For them, all

elements of socialism, including the built environment, are part of the past they want to erase (Bauer, 2021). Addressing this age group is therefore much more difficult in relation to the topic. In their case, content focusing on the present proved somewhat more successful.

Last but not least the youngest generations no longer have any personal memories of the era, for them it is all part of history. Thus in their case, there is no need to deal with the relationship between the built environment and the political system, but at the same time, these buildings were only known in their current, often dilapidated state. In addition, a kind of retro culture can also be observed in the past period, in which the built environment is included only to a limited extent and on a case-by-case basis (Szabó et al., 2013). Coupled with all this are the high visual needs of the youngest generations, as well as the habits of using social media based on interactivity (Pais, 2013).

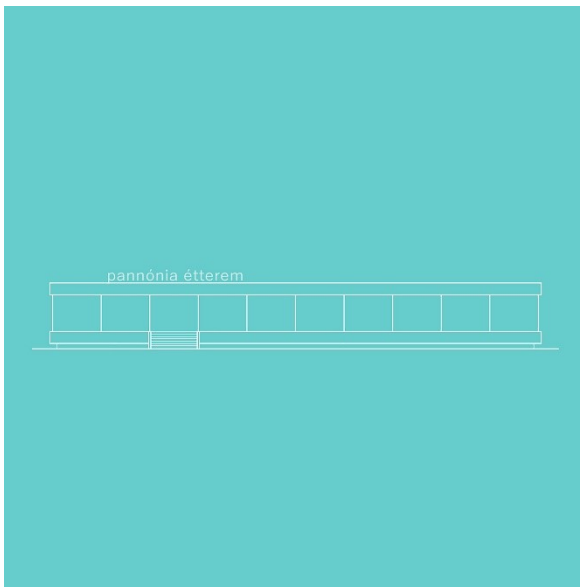


Figure 4. Pannónia restaurant

(Source:

[https://www.instagram.com/spacelab\\_urban\\_design](https://www.instagram.com/spacelab_urban_design))

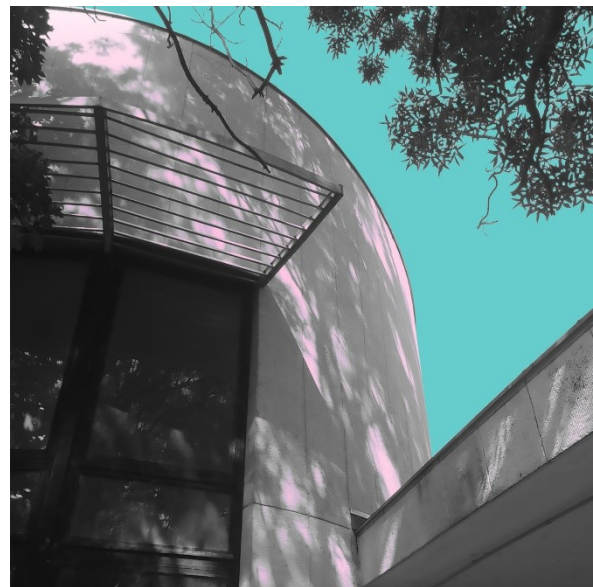


Figure 5. Bus station of Balatonalmádi

(Source:

[https://www.instagram.com/spacelab\\_urban\\_design](https://www.instagram.com/spacelab_urban_design))

## 5. Online Communication

### 5.1. Social Media Communication

In the case of online communication, the social media platforms to be used are necessarily embedded in the process, along with their advantages and difficulties. Since the use of social media has become an integral part of our days, regularly use of these platforms allows the delivery of information to large masses. For this communication process to be established, it is necessary to know and apply the methods and strategies that can be used to make our message stand out from the current flow of information (Manning, 2014).

During communication in the online space, the dynamic operation of social media platforms shows a significant difference from the approach of traditional media. It is important to emphasize that communication in social media is not only a one-way process, but rather is based on continuous interaction and active social contact (Evans

et al., 2021). In doing so, a personal and direct tone is of particular importance, so personal addresses and posts in a light style can greatly contribute to reaching users and maintaining contact (Cover, 2021).

Regarding the above mentioned aspects, the message should be presented in an understandable form, with appropriate visual appearance and the content should be created actively. With all of this, the aim is to transform the engagement experienced on the social media platforms into an engagement for activism in the field of architecture. However, this is an extremely complex process. Social media can help participants learn about the problem, generate debate, and lead to political participation. Although, it is important that all this should be combined with social stake and a sense of empowerment. Since there are no exact answers to all of this, and due to the constantly changing communication channels, there is a need for continuous testing and monitoring (Smith et al., 2019).

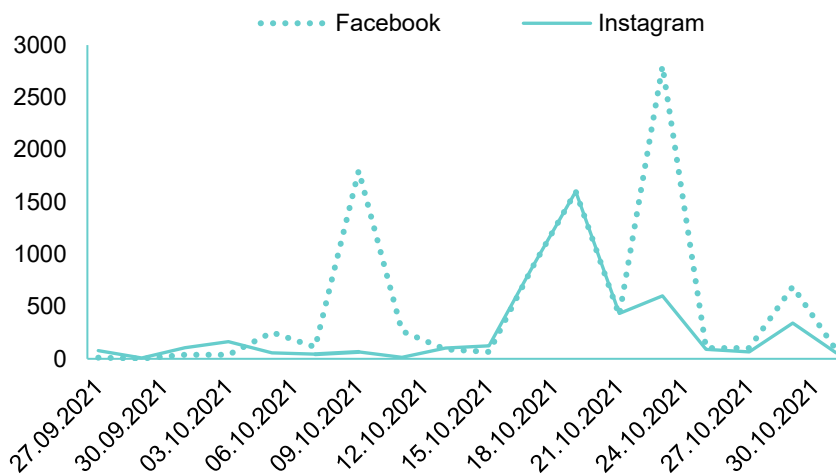


Figure 6. Number of users reached in the period under review (Source: Meta, Inc.)





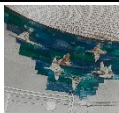

## 5.2. Infotainment

In our overstimulated world, the most efficient content created is not only functions as a source of information but also has entertaining value. This type of online communication called infotainment (Boukes, 2019). Within the framework of the project Balatonalmádi, the sharing of unique graphics and archive images proved to be such attention-grabbing content. In the examined period of the project the highest access data were all achieved with archive images (See Figure 6.). These images provided an opportunity to present the original architectural intentions and to unravel the layers of meaning that have been added to the buildings over time. And at the same time this type of content could be interesting for the users as well.

In doing so, especially in the case of online communication, the importance of visual language cannot be ignored. In addition to the general aesthetic quality, this often also means a well-recognizable image, which can become a kind of brand of the content (Cover, 2021). In the case of the Balatonalmádi project, the unique graphics also reached a relatively large number of users (See Table 1.). This visual character made the site easily identifiable, and also emphasized the values of the buildings (See Figure 4. and 5.). The aim of all of this is that the values represented by the profession can reach the widest possible audience in an understandable form. Other popular contents were video and moving image contents, which are related to the change in general social media usage preferences (Evans et al., 2021)



**Table 1. Contents with the highest organic (unpaid) reach during the examined period  
(Source: Meta, Inc)**

Content	Type	Publication	Total reach	Reactions	Comments	Shares
	Facebook event	2021.10.18	4,2k	--	--	--
	Facebook post	2021.10.08.	3,4k	138	4	15
	Facebook post	2021.10.27.	1,3k	64	6	4
	Instagram post	2021.10.18.	982	10	0	0
	Facebook post	2021.10.02.	613	20	0	0
	Instagram post	2021.10.01.	224	38	0	0

### 5.3 The Role of Online and Offline Communication

It was an important aspect during the research that the messages should appear both online and in the offline space. The online space, including social media, played an important role in this, as a first step in raising awareness and popularizing the topic, and later as providing a platform for dialogue (Manning, 2014). Having found the right type of content, it was manageable to advertise personal meetings. Feedback from participants on the offline occasions revealed that they found the event through the brand-like graphic content. However, within the framework of the pilot project, the dialogue in online space only took place sporadically, mainly in relation to the archive images, in which the nostalgia factor also played a strong role. The lack of stronger commitment is partly due to the shortness of the project. Moreover, it seems that the type of shared content was more informative and less conducive to involvement.

In addition, the importance of personal meetings should not be overlooked. Because there is a chance for deeper and more meaningful conversations in the offline space (See Figure 7.). In Balatonalmádi, the locals who were contacted were happy to talk about their experiences and shared their thoughts about the presented houses. And there is space for this mainly on such occasions. Another lesson learned from the walk was that they came across stories that only the locals actually know, so it showed that they are the real experts of their own environment (Kovács, 2021).

In the case of Balatonalmádi, those who participated in the in-person events reported that they had already followed the content that was shared online, and this encouraged them to participate in the city walk and workshop. During this pilot project, it was possible to reach local, socially engaged people, for whom the fate of their city is of paramount importance. Through the organization of the local community (with the help of KÉK – Contemporary Architecture Center TÁJTÉKA project and Veszprém-Balaton European Capital of Culture 2023 project) an open houses weekend program obtained in September 2023, in which the bus station appeared as an important location, representing socialist modernist architecture.



Figure 7. City walk in Balatonalmádi on 24<sup>th</sup> October 2021 (Source: Author)

## 6. Discussion and Conclusion

It can be seen that due to the institutional shortcomings of today's Hungarian monument protection, the protection of socialist modernist buildings is only incompletely implemented. But due to the lack of social commitment, monument protection alone would not necessarily be a complete solution. Effective decisions about the present and future of late modern heritage should be made with the widest possible social participation. Participants must have thorough information to make responsible decisions.

From the example of Balatonalmádi, both online communication and personal presence are essential for this process. The online space, including social media, plays an important role in the first steps: in raising awareness, addressing, advertising events, and later in maintaining attention and creating engagement. For the information to reach the users, it is necessary to know both the exact preferences of the users and the operating mechanisms of the used platforms. In this case, it is finding the appropriate visual language and delivering it in a targeted manner (archive images for older generations, unique graphics, and video content for younger generations). Personal presence can help to further deepen the connection and space for dialogue.

The role of the profession in the process appears as an additional aspect. It is often difficult to filter out the important and real data from the information flow of our time. The profession has a really important role in this: it is essential to convey the values on the basis of which a given community is able to develop its own attitude towards buildings.

The purpose of this process is to keep the topic afloat. After all, this is how a discourse can develop, on the basis of which a community can formulate its thoughts about this heritage. The present and future of the late modern architectural heritage fundamentally depends on the judgment of society, the shaping of which requires diverse responses.

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