

ALIRZA MAMEDOV

ORCID: 0000-0003-4703-2694

Kyiv National University of Building and Architecture, Ukraine

LIUBOV APOSTOLOVA-SOSSA

ORCID: 0000-0002-4273-8885

Kyiv National University of Building and Architecture, Ukraine

A BEAUTIFUL CITY: MYTH OR TRUTH?

PIĘKNE MIASTO: MIT CZY PRAWDA?

Abstract

There has always been a discussion concerning cities; bold proposals of ideal cities were formulated. They were to be functional, comfortable and beautiful. Some of these ideas were purely theoretical, such as the Walking City by Archigram.

Today, we once again ponder the notion of the city of the future – a smart, compact, green city that is also to be beautiful, and in which each of us would want to live. One of the greatest hurdles here is the assessment of the beauty of the city. Each of us can understand this beauty differently.

This paper presents the authors' thoughts on the contemporary city – its aesthetic and functional features. This presentation has also been backed by urban analyses and a sociological study.

Keywords: urban planning, questionnaires, beauty, city, Lviv

Streszczenie

Dyskusja o miastach toczy się od zawsze; formułowane były śmiałe propozycje miast idealnych. Miały być funkcjonalne, wygodne i piękne. Niektóre z tych pomysłów były czysto teoretyczne, jak na przykład Walking City autorstwa grupy Archigram.

Dziś po raz kolejny rozważamy koncepcję miasta przyszłości – inteligentnego, spójnego, zielonego miasta, które ma być także piękne i w którym każdy z nas chciałby mieszkać. Jedną z największych przeszkód stanowi tu sama ocena piękna miasta. Każdy z nas może to piękno pojmować inaczej.

Artykuł prezentuje przemyślenia autorów dotyczące współczesnego miasta – jego cech estetycznych i funkcjonalnych. Rozważania te zostały poparte analizami urbanistycznymi i studium socjologicznym.

Słowa kluczowe: urbanistyka, kwestionariusze, piękno, miasto, Lwów

1. INTRODUCTION

The beauty of the city is a complex subject and is difficult to develop as a subject of research. The history of cities shows that the subject has been investigated for centuries, yet it has been impossible to clearly define what the beauty of the city actually is. It should be noted that it is subjected to the times when it is shaped. Different periods had different rules and trends, which resulted in both buildings and public spaces. Fixed urban layouts are a legacy of the past and include squares that often act as their hallmarks. They are one of the things that define the beauty of cities, but also often show neglect and growing conflicts that emerge in

their function-spatial structures. These phenomena, when entrenched, make the assessment of public spaces, including market squares, a non-uniform procedure, and can sometimes indicate that the discussion on the beauty of cities is subjective and can therefore be perceived in the category of myth.

Even in prestigious areas like a city's downtown area, one can observe a non-uniformity of design solutions, including architectural styles, building scale and the proportions of spaces with different functions and characters. Chaotic spatial solutions and poor building technical condition make the beauty of a city no longer obvious, despite space itself forming a potential and specific buildings demonstrating high architectural quality.

Interesting observations on the individual perception of cities were presented by P.G. Mackintosh.¹ He noted that the process of sensitising society to beauty should begin at an early stage of a child's development, during which it should be familiarised with visual values and art. This can include the subject under discussion and be performed as a part of school curricula. The very necessity of familiarising children with aesthetic values in educational facilities should be motivated by the co-responsibility of the users of urban spaces for their embellishment. Mackintosh outlined this subject by demonstrating a link between city embellishment and art. To do so, he presented the ideas of George Agnew Reid, an artist, urbanist and arts pedagogue. Reid believed that the beauty of the city is a result of professed moral principles and the human behaviours that can be observed in a city. He saw effective measures intended to ennoble social groups belonging to the working class, and those residents who remained immigrants and thus felt little in the way of ties with their new place of residence, as a success in this regard. Sensitising society to the beauty of the city and co-responsibility for it can, according to Reid's idea, form a 'moral ecologism', that allows one to effectively plan cities at the start of their development, which is closely tied to the geographical conditions of cities. The authors of this paper also made use of the improvement of teaching methods in their work. Their curriculum was targeted at students who were familiarised with the possibilities of studying the city and its in-depth analysis. The case chosen for study was the city of Lviv, Ukraine. The observations made during the study of the city have been presented in detail in this paper, as have the methods of its study as adopted by the authors.

E. Horswill, J. Martin and A. Guy² also discussed the beauty of a city's areas. They referenced their observations to the beauty of the natural landscape, which is also an element that shapes the image of the city and requires preservation of the highest order. For this preservation to be effective and for it to be possible to maintain its beauty, Horswill et al. argued that constant monitoring of environmental interventions was necessary, one that would include their unplanned outcomes. The authors also noted the necessity to coordinate state-wide and local environmental monitoring while using indicators that enable observing oft-complex landscape changes. This allows for the identification of effective means of its conservation within formulated programmes of managing said landscape. Based on a comparative analysis

¹ P.G. Mackintosh, *The development of higher urban life and the geographic imagination: beauty, art, and moral environmentalism in Toronto, 1900–1920*, *Journal of Historical Geography*, 2005, no. 31(4), pp. 688–722, <https://doi.org/10.1016/j.jhg.2004.08.002>.

² E. Horswill, J. Martin, A. Guy, *Establishing functional framework for monitoring protected landscapes; with a case study of English Areas of Outstanding Natural Beauty (AONB)*, *Ecological Indicators*, 2020, no. 119, art. 106806, <https://doi.org/10.1016/j.ecolind.2020.106806>.

of indicators monitored by Natural England (FMEOPL) and indicators included in the British environmental improvement plan (25YEP), 158 factors were identified, which the authors saw as having the greatest impact on the beauty of the landscape and adhering to the precepts of its conservation.

In this paper, the authors did not confine themselves solely on assessing the natural landscape, but instead, aware of its significance, they included it in their analyses as a major element that affects the beauty of the city. In their studies, the authors accounted for numerous factors so that their observations could result in the widest possible image of the city.

The beauty of wildlife was noted as significant in building the aesthetic value of cities by G. Lehman.³ He presented an idea based on responsibility for the state of the environment using the principles of Truth. Truth is an inalienable element of emancipation, crucial from the standpoint of the desire to preserve the beauty of the environment. It is impossible to put a price on these values; analysis requires the expression of commentary, visualisation and description, so as to reach the goal of an environment free of interpretation as a 'preserve of consumerism.'

It is likewise notable that natural elements and their beauty affect our psychological wellbeing and, to a degree, define the quality of our lives. This subject was discussed by, among others, Alex Levering, Diego Marcos and Devis Tuia,⁴ who used their Scenic Net model to survey the landscape. The use of satellite imagery and crowdsourced findings from over two hundred thousand images of Great Britain's landscape proved another essential tool to the effective analysis of the area. As shown by the study, the landscape assessment model is useful not only in the analysis of urban space in itself but can also be used in education and crowd preference in terms of landscape aesthetics.

A slightly different research problem associated with the beauty of the city was presented by D. Grimaldi and V. Fernandez,⁵ who noted the potential offered by new technologies, including the Internet of Things – which is conducive to improving living conditions, including environmental, social and transport conditions. This approach is aligned with the idea of smart cities. The authors analysed a project that was being implemented in Nice, France, which featured the placement of over 5000 sensors in parking spaces. To demonstrate the benefits of using information technology and its methods, data from Nice was compared with those of Marseilles and Toulon. These observations can effectively support city development strategies.

The use of digital technologies in the planning of city development was also discussed by, among others, Jianxiang Huang, Hanna Obracht-Prondzyska, Dorota Kamrowska-Zaluska, Yiming Sun and Lishua Li.⁶ In their paper, they tried to confront K. Lynch's principles with

³ G. Lehman, *The language of environmental and social accounting research: The expression of beauty and truth*, *Critical Perspectives on Accounting*, 2017, no. 44, pp. 30–41.

⁴ A. Levering, D. Marcos, D. Tuia, *On the relation between landscape beauty and land cover: A case study in the U.K. at Sentinel-2 resolution with interpretable AI*, *ISPRS Journal of Photogrammetry and Remote Sensing*, 2021, no. 177, pp. 194–203.

⁵ D. Grimaldi, V. Fernandez, *Performance of an internet of things project in the public sector: The case of Nice smart city*, *The Journal of High Technology Management Research*, 2019, no. 30(1), pp. 27–39.

⁶ J. Huang et al., *The image of the City on social media: A comparative study using "Big Data" and "Small Data" methods in the Tri-City Region in Poland*, *Landscape and Urban Planning*, 2021, no. 206, art. 103977.

the potential offered by digital technology, including social media, in a study of elements that define the image of the city. The authors presented analyses of perception of images of urban spaces and used big data and small data methods.

Two main research questions were formulated: whether an analysis based on information collected through social media can identify Lynch's elements of the image of the city on par with conventional methods, and whether the rating of indicators based on the methods and data used could be useful to planning praxis.

Information collected using Instagram and Twitter was used as a source of data. Images were processed using Text-Mining and the results were compared with benchmarks constructed based on an official GIS database. The investigation also used a survey study and employed sketch maps. Furthermore, the study used social media data on the frequency of visits to places where selected buildings and tourist attractions were presented. The study also wanted to determine their significance to the everyday lives of local communities. The study ultimately found that the research methods used can be useful in urban planning praxis.

The authors of this study also used data collected using online platforms. The data was used to perform urban analyses that were helpful in assessing the conditions found, including the ones responsible for the beauty of the city. The authors used Geospatial data and performed analyses using Space Syntax software.

2. RESEARCH AND FINDINGS

Two research methods were used to analyse the beauty of the city of Lviv: urban analysis based on Geospatial Data, with the use of situational plans outside of field visits and Open Street Map, as well as a survey study.

The urban analyses focused on many problem areas, including a rating of a given area's function, the size of its population, its morphology and composition, including city views. Some of the analyses were performed using the Space Syntax method, which allowed the authors to perform a detailed assessment of Mayorivka in terms of integration and mean depth. The study was performed by students of the Faculty of Spatial Planning of the Kyiv National University of Construction and Architecture and student members of the Sustainable Design Academic Students' Club of the Chair of the housing Environment of the Faculty of Architecture of the Cracow University of Technology. Students of the Cracow University of Technology Faculty of Architecture focused primarily on surveying one of Lviv's residential districts – Mayorivka – and on performing the previously mentioned analyses (Space Syntax).⁷ The findings were presented in the form of a multimedia presentation during an International Academic Conference organised by the City of Lviv Development Institute.

Apart from detailed urban analyses, a general site visit to the city was performed as a part of the study and was used to identify areas of high significance to Lviv's visual reception.

The analyses were supplemented by surveys performed in cooperation with the Institute. They included numerous questions, including: What do You mostly like in Mayorivka

⁷ The analyses were performed by CUT FoA Doctoral School student MSc Eng. Arch. J. Olesiak.

district? What is the symbol of Mayorivka district? What hinders the development of the Mayorivka district? What areas mostly need investment to develop the district? Respondents also rated: the access to services, social and commercial infrastructure, the quality of public spaces, etc.

A total of 39 respondents took part in the survey. They answered questions presented to them in the survey forms.

The results were insufficient. They provide highly cursory insight into the issue and, together with land analyses and the field visit to the public spaces of the city, shall be continued during a Summer School. The school shall be attended by students from the Kyiv University of Construction and Architecture, by invitation of the City Development Institute, with support given by the Eberhard-Schöck-Stiftung foundation.

Below is a presentation of the findings of urban analyses concerning the rating of the infrastructure system's integration with the downtown area (Ill. 1) and total depth (Ill. 2). In the street grid system, most can be rated as having a high integration coefficient. Transport linkages with a high integration coefficient have been marked with warm colours (Ill. 1). In addition, the angular dimension of the angle between intersections was presented in the study. An angle of 45 degrees yielded a value of 0.5 and an angle of 90 degrees yielded a value of 1 (Ill. 2).



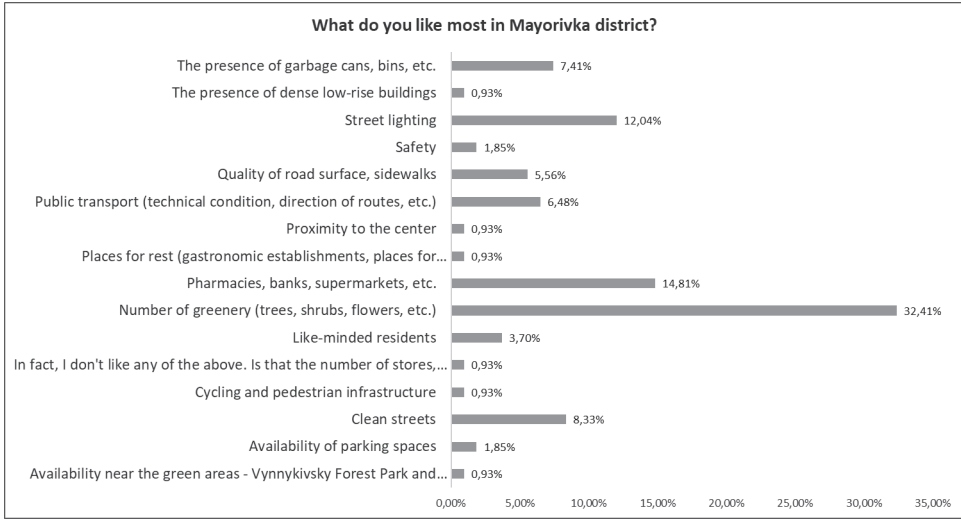
Ill.1. Transport network integration coefficient.



Ill. 2. Total depth.

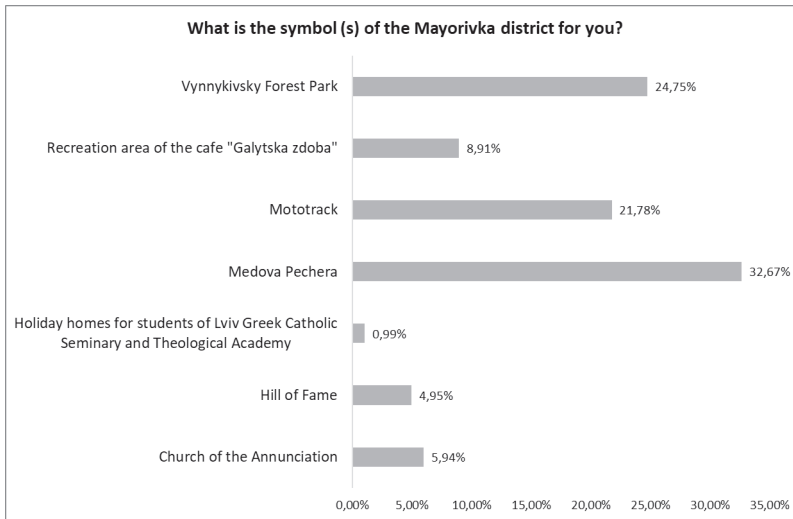
Integration shows the cognitive complexity of space accessibility and can forecast local traffic along an axis. The field visit further showed that, although the area was not found to be well-linked, it created potential for integration with Lviv's central area.

The results of analyses were confirmed by the survey study, which showed that the majority of residents/respondents (32.41%) appreciated Mayorivka's green spaces. The lowest ratings were given to, among others, recreational spaces and gastronomic establishments (Ill. 3).



III. 3. The results of the survey which asked respondents to rate individual elements that shaped the quality of Mayorivka's housing environment.

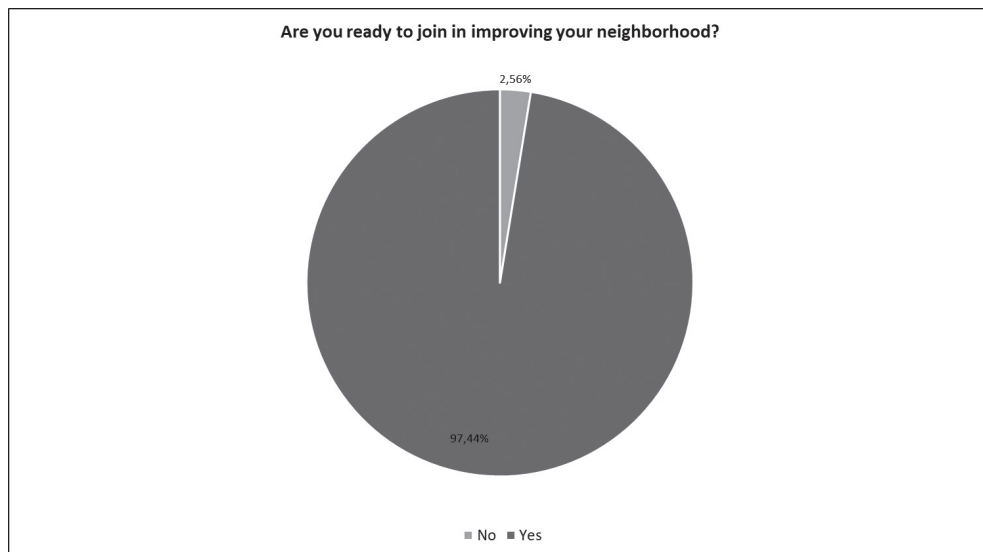
The results of the surveys showed that the area under analysis features areas that are significant to residents. They build the image of Mayorivka and allow the residents to practice their preferred lifestyle (III. 4).



III. 4. Survey results concerning the presence of significant spaces/buildings in Mayorivka.

Major symbols of the area can be identified as Medova Pechera (32.6% respondents claimed so) and Vynnykivsky Forest Park (as reported by 24.75% of respondents). The third significant element was the Mototrack (21.78%).

The results concerning the readiness of residents to engage in joint action are of great importance from the standpoint of pursuing an improvement of the area's image. Such a readiness was expressed by 97.4% of residents/respondents.



III. 5. Results concerning resident declarations on taking initiative to improve Mayorivka's image.

3. CONCLUSIONS

The analyses and survey studies performed showed that historical buildings, historical public spaces and greenery are an essential element that shape the image and beauty of a city. Tendencies in city development indicate that green areas are shrinking as a result of the dynamic increase in developed land.

Analyses concerning the selected residential area (Mayorivka) allowed for identifying areas that act as the district's symbols within its area. They are not only significant to the area's functioning, but also to its beauty. In this case, natural elements were appreciated the most by the residents.

The field visit to Lviv showed that squares, including the market square which acts as Lviv's 'heart', were highly significant as spaces that contributed to the city's beauty. These spaces and the buildings that accompany them do require urgent interventions in the form of refurbishment. As the city has a historical character, these interventions should primarily focus on renovation.

The application of several research methods allowed the performance of a detailed assessment of the area under study and answer the question about which elements can define the beauty of a city.

The involvement of students in the study provided it with additional educational value and confirmed the fact that the discussion about beauty is not a myth, but a truth that can be determined.

References:

- [1] Grimaldi D., Fernandez V., *Performance of an internet of things project in the public sector: The case of Nice smart city*, The Journal of High Technology Management Research, 2019, no. 30(1), pp. 27–39.
- [2] Horswill E., Martin J., Guy A., *Establishing functional framework for monitoring protected landscapes; with a case study of English Areas of Outstanding Natural Beauty (AONB)*, Ecological Indicators, 2020, no. 119, art. 106806, <https://doi.org/10.1016/j.ecolind.2020.106806>.
- [3] Huang J. et al., *The image of the City on social media: A comparative study using “Big Data” and “Small Data” methods in the Tri-City Region in Poland*, Landscape and Urban Planning, 2021, no. 206, art. 103977.
- [4] Lehman G., The language of environmental and social accounting research: The expression of beauty and truth, *Critical Perspectives on Accounting*, 2017, no. 44, pp. 30–41.
- [5] Leveringa A., Marcosa D., Tuiiaa D., *On the relation between landscape beauty and land cover: A case study in the U.K. at Sentinel-2 resolution with interpretable AI*, ISPRS Journal of Photogrammetry and Remote Sensing, 2021, no. 177, pp. 194–203.
- [6] Mackintosh P.G., *The development of higher urban life and the geographic imagination: beauty, art., and moral environmentalism in Toronto, 1900–1920*, Journal of Historical Geography, 2005, no. 31(4), pp. 688–722, <https://doi.org/10.1016/j.jhg.2004.08.002>.

Authors' Note:

Alirza Mamedov, PhD

Dean of the Faculty of Urban and Spatial Planning, Kyiv National University of Construction and Architecture, author of numerous publications on the subject of cities, sustainable development and the role of architecture in public spaces. He has also developed his scientific interests in other areas which include didactic, research and creative work (in the field of design).

ali.mamedov@mistobuduvannya.net

Assoc. Prof. Liubov Apostolova-Sossa, PhD

Associate Professor of the Kyiv National University of Building and Architecture. Chief architect of the projects of the City General Plan Department of Municipal Organisation Institute of General Plan of Kyiv City. Experienced in the development and coordination of spatial and urban planning documentation, municipal authorities, urban and cultural heritage research. ICOMOS member. Author of more than 30 scientific and methodological works, curator of urban studies programme.

lasossa@gmail.com