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## Creating urban spaces and medium-sized cities

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The research relevance is determined by the need to draw up a specific reference, regulatory and procedural documents that take into account regional features in designing public spaces. The analysis of urban spaces is carried out based on the example of the city of Severodonetsk to identify the spatial planning pattern of these elements and issues of their creation. It is found out that the main problem in creating public spaces is uncertainty in the regulations on urban development, namely, their number in the city, functionality, spatial planning pattern, design. There is revealed the unstructuredness of some elements of public spaces; lack of clear ranking and functional zoning in some cases; detachment of urban public spaces from the natural landscape.

**Key words:** public space, community space, square, city.

## Формування міських просторів малих та середніх міст

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Організація міських просторів має важливий містобудівний статус, оскільки вони призначені для соціального, політичного, економічного спілкування громадян. Актуальність роботи визначається необхідністю формування окремих довідкових, нормативно-методичних документів, які враховують регіональні особливості в проектуванні публічних просторів малих та середніх міст. Існують тільки нормативні документи у галузі будівництва, які встановлюють розміри громадських центрів залежно від чисельності населення. Проведено аналіз міських просторів на прикладі м. Северодонецька з метою виявлення просторово-планувальної структури таких елементів і проблем у їх формуванні. Визначено, що основною проблемою у формуванні публічних просторів є невизначеність їх у нормативних документах з містобудування, а саме: кількості, функціональності, просторово-планувальної структури, формування. Виникає необхідність створення умов подальшої взаємодії містобудівних, еколого-ландшафтних, соціальних пріоритетів у розвитку середовища міських просторів як територій з підвищеною концентрацією активності громадян, з урахуванням необхідності створення сприятливих умов проживання й індивідуалізації міського середовища та створення нормативних документів. Виявлено неструктурованість окремих елементів суспільних просторів; відсутність у ряді випадків чітко вираженого ранжирування і функціонального зонування території; відірваність міських публічних просторів від природного ландшафту. Складові елементи міських просторів розглянуто як окремо взяті містобудівні об'єкти (громадські центри, міські вулиці та площі, озеленення), що відірвані від ландшафтної підоснови і загальної екологічної ситуації. Громадські й публічні простори можуть виникати та успішно функціонувати тільки при більш уважному ставленні до них з боку міської адміністрації, соціально відповідального бізнесу і самих громадян, тоді як ефективність роботи може бути досягнута лише завдяки їхнім спільним зусиллям. Зроблено прогноз точок появи нових публічних і громадських просторів.

**Ключові слова:** громадський простір, публічний простір, площа, місто



## Introduction

A city is a complex dynamic and multifunctional organism, where urban spaces as centers of social, cultural, and social life are changing together with the environment. Therefore, the issues of creating urban spaces are becoming increasingly important. These elements of the urban environment have an urban-development significance and are made for social, political, economic communication of citizens. The peculiarity of these spaces is liveliness, crowds, high attendance, friendly social atmosphere, which is explained by their main functional content – to be a center of activity and exchange of information. However, in the theory and practice of urban development, there is no systematic approach to the design of these urban spaces from the standpoint of sustainable development of their environment, especially for small and medium-sized cities. The constituent elements of urban spaces are considered as separate urban-development facilities (public centers, city streets, squares, landscaping) detached from the landscape foundation and the general environmental state. The result is environmental and landscape degradation; in compliance with the created planning pattern of functional use with the requirements of creating favorable conditions for a person; the impossibility of constant use by different groups of the population at different times of the year and day. All this reduces the urban-development and social efficiency of territories and requires active environmental and landscape intervention as well as the development of methods of spatial planning, functional, socio-aesthetic change of environmental characteristics to create sustainable, self-regulatory natural and anthropogenic systems of urban spaces.

It should be noted that many authors provide different definitions of urban spaces in their research: some call them public, others – community. However, they have similar definitions.

## Review of the research sources and publications

The development and transformation of the urban environment are studied in the works of Lynch K. [1], Posatskyi B.S. [2], Tyshchenko I.M. [3], Ladniuk M.I. [4], and others.

The author [1] defines that public space as a city cultural component expressed through the creation and recreation of urban culture, lifestyle, and the highest standards of cultural activity. Its main features are pedestrian accessibility and excess of possibilities.

According to [5, 6], a public space is a place that is open and accessible to all people (parks, squares, sidewalks, streets, etc.).

In the 1970s, “Placemaking” (development of public spaces) became popular. This term first formulated by J. Jacobs and W. White [7, 8, 9] refers to a multifaceted approach to planning, design, and management of public spaces. The idea of “Placemaking” is the opportunity to create new places that will fit harmoniously into the existing buildings based on knowledge, opportunities, and ideas of the local community.

Great importance is given to the short-term rest, which means recreation and comprehensive harmonious development of a person with clear territoriality. Short-term rest accounts for up to 90% of the recreational time during a five-day working week. However, it is mostly disorganized, semi-spontaneous, so it necessitates the search for management opportunities.

Public space is currently becoming the so-called “third place” – a place, where a person spends time between home and communication with family members (“first place”) and the workspace (“second place”). This place is a “neutral territory”, where different age and social groups of the city population spend their free time.

Public space is a place for exercising political and public human rights [4, 10], and is characterized by the following functions:

- political – creating space for political discourse;
- social – interaction of people between themselves and the government;
- recreational – places for leisure;
- educational – a tool for preserving historical and cultural monuments.

The typology of urban spaces is determined by the urban function [11]:

- linear – the city’s street network that solves the issues of communication, transport;
- local – open spaces, where accumulation or redistribution of transport or human masses, the concentration of trade, communication take place;
- dispersed – closed spaces that form “work fields” of dispersed processes of work and life (recreation, living environment, production). This type of spatial pattern of the urban environment is the alternation of residential yards and areas of public buildings in the residential area.

In their turn, linear urban spaces are divided into:

- frontal – the field of view is “filled” with a planar image of a facility;
- three-dimensional – a facility is perceived in the perspective;
- deep – a facility goes into the view depths forming a “spatial body”.

The architectural features of public spaces are accessibility; convenience, safety; multifunctionality (ability to transform according to the needs of different social groups). These are city squares, streets, sidewalks, parks, cafes, etc. In this case, the form is secondary, because it is a process taking place there that is an important criterion.

The meanings of community space and public space in some cases coincide, but there is a significant difference between them: community space is associated with a common and accessible place for public activity, and public – with something happening in front of everyone, but deeply and personally significant at the same time [12].

Urban geosystems of small and medium-sized cities have a much lower dynamism compared to the large ones making urban planning more relevant along with their most important role in the social division of work

and the whole life of society. It is important to understand that community and public spaces can appear and function successfully only with a more attentive attitude to them on the part of the city administration, socially responsible business, and the citizens themselves, while efficiency can be achieved only through their joint efforts.

### Definition of unsolved aspects of the problem

The research relevance is determined by the need to draw up the currently absent reference, regulatory and procedural documents that take into account regional features in designing public spaces of small and medium-sized cities. There are only regulations in the field of construction, which determine the size of community centers depending on the city population [13, 14]. There are many features in creating spaces in such cities: climatic, natural, historical, etc. For example, the change in the city status (Severodonetsk has the status of the oblast center since 2014), the consequences of hostilities, unsatisfactory environmental state as a result of chemical industry activities, and unsatisfactory level of landscaping [15] require a special approach to urban spaces from the standpoint of sustainable development.

As a result of the above, there is a need to create conditions for further interaction of urban-development, environmental, landscape, social priorities in the development of the urban environment as spaces with a high concentration of citizens taking into account the need to create favorable living conditions and individualization of the urban environment, and to draw up the regulations.

### Problem statement

To analyze urban spaces of small and medium-sized cities based on the example of Severodonetsk, to identify the spatial planning pattern of these elements and issues of their creation.

### Basic material and results

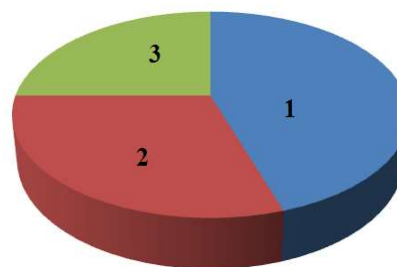
In modern architectural and urban-development practice, there is a problem of lack of developed, citizen-oriented comfortable, and accessible public spaces. According to world standards, public places should be primarily safe, free, comfortable for all groups of the population. In modern Ukrainian cities, most public spaces do not meet these criteria. This is especially true for small and medium-sized cities. Severodonetsk is no exception.

The generally accepted typology of urban public spaces [11] can be used to categorize the public spaces of Severodonetsk. However, it is subjected to clarification and adjustment due to the specific urban situation. Thus, according to the spatial planning conditions of Severodonetsk, except for configuration and size, the typology also includes the connection of the space (local, linear, dispersed) with elements of the planning pattern “framework” of the city, i.e. highways of different types.

According to the analysis, it has been found out that 45% of the public spaces of Severodonetsk are the local

ones (Fig. 1). In their turn, local spaces are divided into the following subtypes:

- squares with buildings at the corners – 43% of the total number of spaces of this subtype (Victory Square, the square near the City Council – Peace Square).
- squares with a decorative fence (the square near the Ukrainian Music and Drama Theater, the square near the city’s Palace of Culture of Builders).



**Figure 1 – Typology of Severodonetsk public places:**

1 – local, 45%; 2 – linear, 30%; 3 – dispersed, 25%

All these squares are multi-purpose with a predominance of administrative and business, cultural and entertainment establishments, trade functions. These are areas of the city or district significance.

The second type of space is linear - 30%. Among them the following subtypes are distinguished:

- designed between two high-traffic highways – residential streets formed by a chain of segments and sites of local significance - 33% (Tsentralnyi Prospect);
- spaces intersected by one or several highways of the city or district significance – 57% (Hvardiiskiyi Prospect, Khimikiv Prospect);
- spaces intersected by neighboring local spaces - 10% (Khimikiv Prospect – Peoples’ Friendship Boulevard).

Such spaces are created by the sequential connection of facilities of visual perception. Spaces of this type are multifunctional and most often belong to areas of district significance depending on the rank of their elements.

The third type - dispersed spaces – comprise 25% of the total number of public spaces in the city and are made up of a set of local and linear elements. The constituent parts of these spaces are often separated by buildings, and their visual connections are difficult (e.g. the ensemble of public spaces of the Holy Christmas Cathedral is compositionally connected with the main axis of Hvardiiskiyi Prospect). These systems belong to areas of the city significance.

It is necessary to distinguish public spaces based on their interaction with the natural landscape (spaces adjacent to the natural landscape make up 15% of the total number of urban public spaces):

- local spaces adjacent to the landscape - 10% of the total number of spaces of this subtype (Lake Chyste, Lake Parkove, city park);
- linear spaces adjacent to the landscape - 66% (Tsentralnyi Prospect – “Jazz” shopping and entertainment complex).

According to their functional purpose, all public spaces of the city of Severodonetsk can be divided into political, social, and recreational functions.

According to the political function, it is possible to name such spaces as the square near the City Council – Peace Square (Fig. 2, a). It was the main square for various political events. In 2014, Victory Square (Fig. 2, b) acquired the same status due to the location near the Civil and Military Administration of Luhansk oblast. In addition, during election campaigns, this function is acquired by the places of concentration of the city's residents (the intersections of Hvardiyskiy Prospect and

Kurchatova Street, Hvardiyskiy Prospect and Donetska Street, Khimikiv and Tsentralnyi Prospects).

At the same time, these squares perform both social and recreational functions, because there are held not only political, social but also cultural events. First of all, this applies to Victory Square. The square near the Ukrainian Music and Drama Theater performs a social function.

Public spaces that perform a recreational function may also include Lake Chyste (Fig. 2, c), the city park with Lake Parkove (Fig. 2, d), and the territory of “Jazz” shopping and entertainment complex.



**Figure 2 – Severodonetsk Public Spaces:**

a – Peace Square; b – Victory Square; c – Lake Chyste; d – Lake Parkove and the city park

A distinctive feature of creating public spaces of small and medium-sized cities is their small number, compactness, and multifunctionality.

The analysis of the typology of public spaces in Severodonetsk has been conducted to identify the spatial planning patterns of these elements of urban spaces. It has shown numerous problems with these spaces, the main of which is the following:

- unstructured elements of public spaces;
- the absence of a clear ranking and functional zoning in some cases;
- detachment of urban public spaces from the natural landscape (only 15% of public spaces in Severodonetsk somehow interact with the natural environment, and the established connection of public spaces exists only in the central (second) and partly in the first planning areas of the city).

The problem of creating public spaces in cities, particularly small and medium-sized, is that in the current DBN B.2.2-12:2019 “Planning and development of territories”, a “public center” is an independent object of urban development, and public or community space is its component. In the same DBN B.2.2-12:2019, the consolidated indicators of the area of a multipurpose city center are provided: for medium-sized cities – 5-10 m<sup>2</sup>/person; for small – 10-20 m<sup>2</sup>/person. When making new master plans of cities, there is a need to clearly define the concept of a “public space” and its size.

The historical formation of the city of Severodonetsk began with the first planning area in the 30-50s of the last century, the second was formed in the 70-80s. The third planning area began to be built at the end of the 20th - beginning of the 21st century. It is found out that most urban spaces are located in the first planning area

- points 1-4 in Fig. 3. This is mainly the squares of the Prospect, where mass events take place, e.g. flash mobs, rallies, concerts, fairs. In the second area, there are few such places. First of all, it is a leisure area of Lake Chyste (Fig. 3, p. 5). In the third planning area, they were not planned at all.

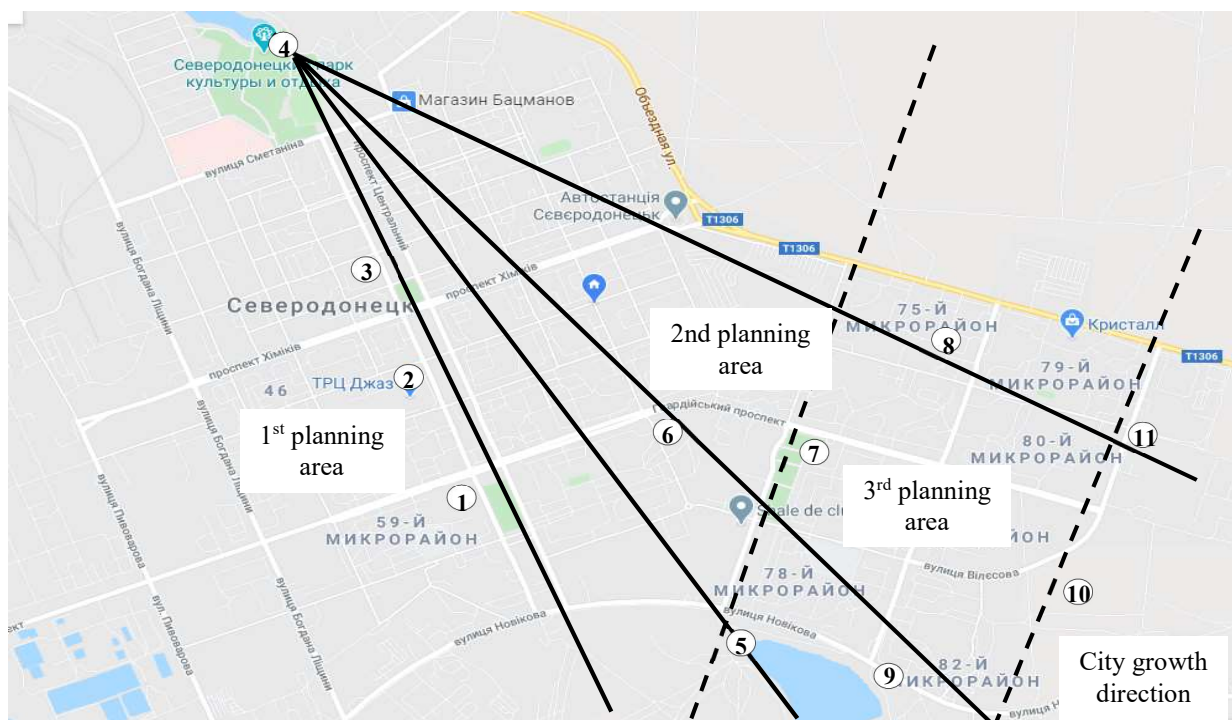
The city development is presupposed by its territory, and it goes in the southeast direction. Therefore, the concentration of the population and the city center is gradually shifting. In this regard, places of communication, recreation, agitation sites are beginning to appear spontaneously. They are gradually designed and created. For example, the park, children's and sports grounds began to be created around the built Cathedral (point 6). Shopping malls and a network of cafes have also been built here.

If we draw the main axis of the urban space of the city built in the first planning area (Fig. 3, points 1-4), we can see that it has now shifted to the second one (Fig. 3, p. 5-6). Currently, the process of creating public and community places continues. A skate park is being built in the second planning area (Fig. 3, point 7). On the line of axis 2 – point 8, the residents have created the best yard of the city. There is a campus near

Volodymyr Dahl East Ukrainian National University. That is, the further development of the city has led to the creation of new public spaces.

If we draw another line of creation of urban spaces of the city through points 4, 5, and 6, and also continue them in the form of a fan on the map of Severodonetsk, it is possible to forecast where the needed public spaces may arise. On the example of the city of Severodonetsk, these are places corresponding to points 9-11 (Fig. 3). It should be noted that the “Sever Lake” project is already being prepared by Severodonetsk Youth Council together with the Center for Modern Change, which provides the development of the shoreline near Lake Chyste for cultural and active recreation of residents and guests (Fig. 3, point 9). It is clear that the next spontaneous point of growth of public or community space will be the place specified by points 10 and 11. Therefore, in urban development, there is a need to plan and organize such spaces, to allot the necessary areas for them.

Currently, the city needs new public spaces in the third planning area to reduce the radius of accessibility and the time to get to them.



**Figure 3 - Public spaces in the city planning pattern of Severodonetsk**  
 1 – Victory Square; 2 – Palace of Culture of Builders, 3 – Peace Square; 4 – City Park;  
 5 – Lake Chyste, 6 – “Tank” Memorial, 7 – the church and the adjacent park,  
 8 – the best yard, 9 – the planned design of a recreation area,  
 10, 11 – promising areas of urban space

### Conclusions

According to the analysis of urban spaces based on the example of Severodonetsk, it is established that the main problem in creating public spaces is their uncertainty in the regulations on urban development, namely, their number for the city, functionality, spatial planning pattern.

There have been revealed unstructured individual elements of public spaces; the absence of a clear ranking and functional zoning in some cases; detachment of urban public spaces from the natural landscape.

The forecast of new community and public spaces appearance is made.

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