

16. The Future of the New Past: Changes in Public Spaces in the Novo-melnikovo District in Irkutsk

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Introduction

The dynamics of change in large cities, caused by changes in social and economic life, urban mobility, and changes in the living environment, act as catalysts that affect the transformation of the physical environment of cities, neighborhoods, and the existing housing stock. Modern trends of change in the residential environment of large cities are accelerated and caused by a pandemic: a growing interest in health and well-being, the need for contact with nature, and the emergence of new forms and functions in the densely built-up space of large residential areas. At the same time, these trends have caused partial disappointment with places of concentration of people and flows (public transport, busy streets, etc.). This brings us back to a discussion about the limits of population density and the complexity associated with the fact that almost all jobs and services are located in megacities and large regional centers. The events of recent years have brought about changes in the way of life of cities and have drawn attention to the quality of open urban space, which has made it necessary to determine the prospects for the planning and development of the city.

A consistent series of restrictions in society has increased the focus on the development of open spaces and nature, as well as on their importance for physical and mental health. New living conditions in the city have allowed some families to question their way of life and open up new opportunities. Choosing where to live and work, finding calmer rhythms, reclaiming personal time and space, taking care of oneself, and enjoying the small pleasures available in a neighborhood context are all possible. What factors can we activate to make

neighborhoods attractive? How can neighborhoods be made more livable by providing new accompanying health and environmental conditions? How can the living environment and territory be made more convenient by using new types of public space?

The planning and spatial concept for construction of the residential area Novomelnikovo was based on the principles of combining industrialization with the artistic environment of residential complexes. The metaphorical idea of the relationship between natural and urban principles is supported by artistic elements that have survived from the time of design and implementation. Novomelnikovo includes two microdistricts separated by large landscape boundaries and terrain relief.

The transformation of the Pervomaisky microdistrict in recent decades has revealed the significant potential of its spatial and planning structure: the concentration of commercial objects and the placement of services on the main roadway and near transport hubs. It is noteworthy that the commercial and social attractiveness of the microdistrict's central street has increased, despite the creation of new shopping centers on transit routes. The analysis of this microdistrict sheds light on the practice of developing public spaces of various urban scales and locations. The primary elements of public space are large planning axes and flowing spaces of residential courtyards, which contribute to the formation of a healthy and safe living environment. From the point of view of ownership, all the spaces of the microdistrict remained municipal at the design, construction, and operation stages—which, due to a lack of funds, determined the simplicity of their organization and arrangement.

The public spaces of the Pervomaisky microdistrict currently have a number of problems associated not only with the moral and physical aging of the housing stock, but also with a large number of unformed open spaces, which are often unstructured and “nobody's” property. In the existing microdistricts, in some quarters, there is practically no clear differentiation between private and public spaces. In modern realities, the public and courtyard areas of residential developments are often disorganized: these areas are occupied by parking lots, garages, kiosks, or are simply abandoned. This raises the question: How can the attractiveness and accessibility of the existing interconnection of public spaces in the microdistrict be improved?

In the last decade, various national and municipal programs aimed at creating a comfortable urban environment have been implemented. In the administrative regions as well as in large and small cities, experience has been accumulated in their implementation, which is of particular importance for urban areas of mass settlement and is one of the priority tasks of modern urban planning.

Methods, Models, and Materials

In the dynamics of social and economic changes, the importance of public and open spaces increases. They become key structural elements of the urban environment, especially for areas of mass housing. Their inhabitants experience a polarization of relations between public and private, and the desire to develop the uniqueness of the residential area as a whole and of specific yards.

The urban planning conditions of the existing open architectural spaces of the analyzed area of a mass housing district comprise three levels of residential environment: the “frame” of the residential area, the microdistrict “fabric”, and local elements. In 2016, at the initiative of the President of the Russian Federation, a large-scale project titled “Formation of a comfortable urban environment” was established (Ministry of Building of Russian Federation, 2016). And since 2017, the all-Russian competition “Best Municipal Practice” has been held (Government of Russian Federation, 2016). In Presidential Decree No. 204 from 7 May 2018 “On national goals and strategic objectives of the development of the Russian Federation for the period up to 2024”, the need to increase the urban environment quality index by 30 percent was noted, and thus a project of the same name was implemented (Ministry of Building of Russian Federation, 2019). In addition, the “Public Initiatives” program was implemented in the Irkutsk region, aimed at improving settlements (Government of Irkutsk region, 2017). All these programs are aimed at creating conditions for improving the quality and comfort of the urban environment by combining the planning and implementation of a set of priority measures in the annual improvement of cities and by involving the population in the implementation of these programs.

Figure 1: Scheme of implemented programs in the Pervomaisky microdistrict.



Source: E. Gladkova, M. Tumureeva, 2021.

Figure 2: Square named after Vampilov in the Pervomaisky microdistrict.



Source: R. Malinovic, 2020.

In Pervomaisky, one of the largest residential microdistricts of Irkutsk, several improvement projects have been implemented in recent years in selected public and courtyard areas as local objects of the living environment (fig. 1). Over the past few years, a number of projects for a comfortable urban environment have also been implemented in Irkutsk, most of which were implemented in peripheral residential areas and were based on a functional approach to design. For example, within the framework of the national project “Formation of a comfortable urban environment,” Vampilov square, which is an amphitheater overlooking the playground, was landscaped in 2017. On the wall of the heat pumping station located on the premises of the park, graffiti was painted—dedicated to the work of Siberian writer Alexander Vampilov, after whom the main transport and pedestrian axis of the district was named. Such objects make up the microdistrict fabric of the living environment (fig. 2). In 2019, the improvement project “Pad Dolgaya” was developed between the Pervomaisky and Universitetsky microdistricts (fig. 3). The natural area with dynamic topography and large open spaces, through which the Demyanovka river flows, is a framework of green spaces in the Novomelnikovo residential area. The main urban planning goal of the project was to preserve the threatened landscape that unites two residential neighborhoods. It included work

on asphaltting the pedestrian zone, installing small architectural forms, erecting lighting poles, construction of an information stand, and landscaping. An analysis of changes in public spaces was made in order to identify new typologies of construction in the modernist neighborhood and spatial adequacy, as well as to ask what aesthetics can contribute to the growing question of urbanization, flexibility, and quality in the processes of transformation and contraction that allow and characterize the renaissance of the city.

Figure 3: Fragment of the implemented Dolgmaya Pad project.

Figure 4: Model, M 1:2000, Irkutskgrazhdanproject, 1985.



Source: E. Gladkova, 2021.

Source: Archive of N. Zhukovskiy

The project of building large residential complexes as microdistricts reflected the social ideas of the development of complexity and rationalization of construction technology. To provide a solution, measures were taken that significantly reduce the unit cost of an apartment: a reduction in the living area of each apartment and in the range and size of auxiliary premises; a decrease in the height of premises; a transition to standard design and industrialization of construction and installation works; the use of 4–5 story residential buildings in the development of economic viability for the city, making it possible to do without elevator equipment, garbage chutes, et cetera. Projects for the rationalization of buildings and effective use of the territory included methods of creating blocks of buildings using inserts between houses, which achieved the effect of a closed residential courtyard with children's playgrounds and recreational opportunities for adults and with appropriate landscaping and paving. Residential buildings with brick facades were given sculptural treatment with

the inclusion of panels, plastered surfaces, or open concrete elements. There were various interpretations of traditional balconies, loggias, bay windows, and attics. These architectural techniques significantly expanded the palette and appearance of residential groups.

An analysis of the practice of changes to public places in the Pervomaisky microdistrict proves that the structural forms of public space, determined at the stage of the project, are perceived regardless of what functions are placed in them. They are described by more or less regular morphological changes that have nothing to do with semiotic meanings. The identities of the places of social activity in the microdistrict were sacrificed during the development phase to the benefit of global manufacturing standards and new industrial materials and technologies. Despite the fact that the implemented programs and projects have improved the overall qualitative characteristics of both public and courtyard spaces of the microdistrict, they have been implemented on a piecemeal basis, forming a living environment according to the principle of local fragments. The implemented courtyard projects, for the most part, are reduced to laying out children's play equipment, asphalt parking lots for cars, and arranging lawns. In the projects' implementation, the fragmentation of the improvement is notable, a concept or strategy for the development of public spaces is lacking, the allocated funds for the implementation of creative projects are insufficient, respectively, and the improvements generally suffer from low quality. For example, in the description of the priority project "Formation of a comfortable urban environment," no definitions of "urban environment" and "comfort" are given, nor any description of the prospective planning, functional zoning, or development (Minshinin, 2018). In addition, insufficient attention is paid to supporting small and medium-sized businesses: no shopping streets or objects of attraction for residents are created, and no bike paths are provided (Voloshinskaya, 2019). As a result, there are problems associated with the uncertainty of funding (Dmitrieva, Ipatova, 2018). There are problems in organizing interaction with the population (Terskaya, Cherevko, 2019), including a low turnout for public discussions of improvement projects: only a third of the population of Pervomaysky participated in the design and implementation of the improvement projects.

The projects do not pretend to conclusively define all issues of public space design in their current form. It is a guideline for everyday use to represent a future binding standard for the selection of artistic elements of public space. At the same time, fewer and fewer urban design principles are coming to the forefront as concrete, viable options for the use of various paving surfaces and

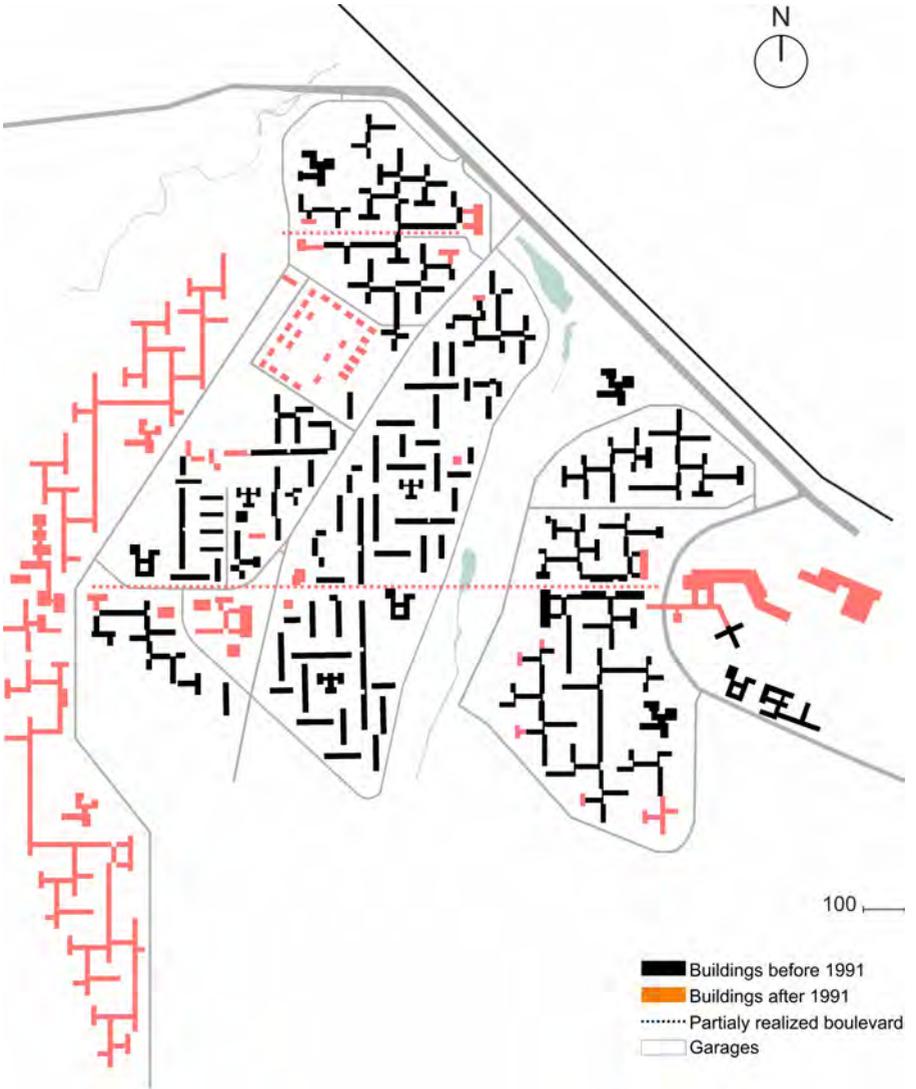
outdoor furniture. Evaluation of the experience of public space development in the microdistricts of individual cities in recent decades has been proposed as a means for compiling a “transitional collection” of standards for upgrading public places on a regular basis. Separate standards cover different types of buildings and areas with diverse equipment. The provisions of the standards are accepted as the basis for the development of specific projects and requirements for the economics of using the spatial resources of microdistricts, taking into account the costs of production and maintenance.

Results and Discussion

Living in mass housing, a unique form of urban life, makes it possible to look in a special and even more meaningful way for opportunities for the spatial densification of buildings and the metamorphosis of the transformation of open spaces, which must be explored. Public spaces can be defined as new centralities and can be defined for their morphological design and perception. The planned project seeks to provide innovative contributions in three areas: (1) theoretical debate about the modern Siberian model of public spaces in the microdistrict; (2) practical application of mixing used; and (3) integrative perspective in the areas of politics, strategy, and social activity in the microdistrict context. Prefabricated residential complexes have a specific character in planning (modernism) and architectural form (industrialism). At the same time, industrial construction has its own logic and leads to certain rules for its transformation.

Federal and municipal large-scale initiatives taken to create an improved, comfortable urban environment and aimed at the development of new projects for public and courtyard areas reveal the potential for adaptability and social activity of a microdistrict's inhabitants. The implemented programs have a number of positive and negative aspects. The adjacent microdistricts of Pervomaysky and Universitetsky have a pronounced difference in topography, which influenced the planning and layout of their buildings. The topographic characteristic of the place was used in projects for the detailed planning of the microdistricts: in contrast to the picturesque landscape of the area, a clear orthogonal planning structure was proposed for the buildings; the placement of high-rise buildings at high elevations enhanced the architectural contrast and expressiveness of the housing complexes' appearance.

Figure 5a: Comparative analysis of the planned 1970 project and the current state of microdistricts in 2020.



Source: M. Tumureeva, 2020.

Figure 5b: Comparative analysis of the planned 1970 project and the current state of microdistricts in 2020.



Source: M. Tumureeva, 2020.

At the same time, large open spaces along the stream have long remained unoccupied and empty, with significant recreational potential.

The structure of the planning framework for the adjoining microdistricts has a general principle of development of buildings along a main axis with residential buildings in different positions in relation to this axis (inside—on the periphery). Axial spaces presently establish the prerequisites for the intensive development of new commercial functions with a pronounced difference in the polarization of such buildings. The main ideas of the planning connection of the two microdistricts, laid down when the project was planned in the 1970s, are the pedestrian axis that connected the two microdistricts (figs. 4, 5). The main pedestrian axis, starting as an open passage with a developed service system at Universitetsky and Pervomaisky, began in the community center of each of the microdistricts. As envisioned, this alignment was to be actively “saturated” with sports and recreation facilities for both residential areas in Pad Dolgaya, along with service facilities. Therefore, when considering the concept for the development of public spaces in today’s residential areas, one should take into account the planning decisions laid down by the initial planning schemes as the formation of the identity of the environment (fig. 6). A new typology of public spaces in microdistricts must aim to respond to the question of what spatial typologies for urban life can and will arise in microdistricts, and which ones can answer the high aesthetic and functional requirements of today’s society. What new typologies in the current neighborhood can offer spatial and aesthetically adequate responses to the growing demand for urbanization, flexibility, and environmental quality that characterizes the renaissance of public spaces in our neighborhoods?

An analysis of the practice of implementing municipal improvement programs for the Novomelnikovo residential area, including the Pervomaisky and Universitetsky microdistricts, has made it possible to identify the basic forms of the local environment of residential mass development: linear spaces at the district, microdistrict, and local levels and compact spaces belonging to various residential groups. All these spaces integrate the activity of the population of diverse social groups among the inhabitants of the microdistrict. The systematic empirical analysis of changes and their social and spatial consequences remains insufficient and does not integrate numerous assessments made about microdistricts of mass housing. We are seeking to close this gap in research by studying general patterns and specific trends of spatial, social, economic, and political changes in Irkutsk and their impact on the living conditions of residents in four key areas: (1) changes in the labor market, (2) accessibility of services and the comfort of the living environment, (3) self-organization and participation of the population, and (4) environmental sustainability.

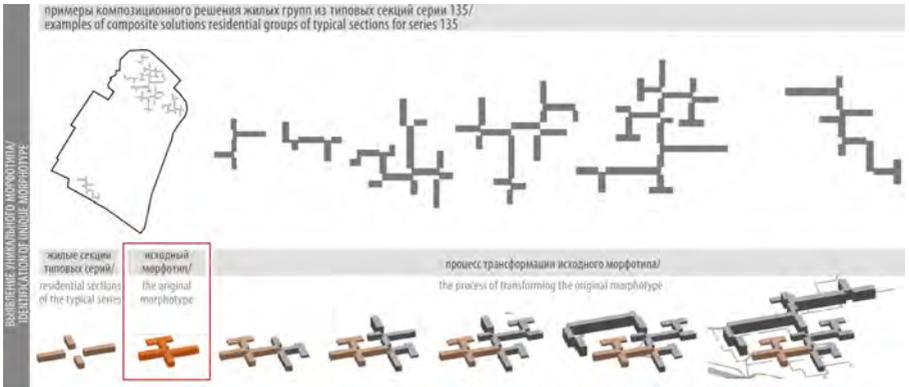
Figure 6: Reconstruction of the boulevard with the proposed location of the Living Lab.



Source: E. Gladkova, 2020.

Based on the analysis of the prevailing morphotypes as basic units of residential development consisting of a compact group of buildings and allocated in the space of the microdistrict, residential units are determined based on the compactness and site density and spatial connectivity (fig. 7). Subsequently, we studied the current meanings of the typology and identified the basic morphotypes of mass development that were applied by specific designers. In order to understand the typology of the public spaces of the microdistrict, enough material was collected to take another step in assessing the potential for changing public spaces of different scales. At the same time, the analysis of each basic morphotype and yard space should be divided into three sections: context, structure, and form of housing. It is necessary to note an additional component, which, in our opinion, is inevitable: time, which is encountered in any scientific or project activity.

Figure 7: Morphotypes of the district.



Source: Student Kishchenko, 2019.

Conclusions

Irkutsk, like many cities in Russia, has its own experience in creating a comfortable urban environment and has its own interpretations of the prospects and implementation of national programs. As a historical city, Irkutsk has, from the outset, aimed at using the social and spatial potential of the place and its technologies for the creation of its new microdistricts in the second half of the twentieth century on the periphery of the historical city. Thus, the microdistrict of a large Siberian city serves as a model in the research. However, long-term changes associated with postindustrialism, shifting population structures, and the declining welfare of the state, have an impact on Siberian cities. These changes, to varying degrees, affect the economic, political, and social development of cities: government initiatives at different levels have the same impact as structural factors, activating the ability of local institutions to cope with new social needs and problems. Against this background, this research project has focused on changes and their consequences in Irkutsk since 1990. Due to its history in the use of public spaces of microdistricts integral to the urban development of Irkutsk, the experience of Pervomaisky is an exemplary model of a Siberian city. Large Siberian cities and their microdistricts are historically characterized by the development of social activity, high quality of life for the region, and economic competitiveness. Community

spaces in the neighborhood were encouraged by accessibility, support for forms of democratic community participation, recognition of diversity, and reduction of socio-spatial inequalities.

Analysis of the impact of federal and regional programs on the development of public spaces in the panel microdistricts of Irkutsk revealed problems associated with the lack of a unified concept for the improvement of interconnected public spaces, and the implemented projects to create a comfortable urban environment have been reduced to fragmentary interventions; no apparent attempts to attract commercial business investments have been made in the microdistricts. To this day, the function and appearance of public spaces remain a mirror of the urban community. They reflect social values and patterns, commonalities and differences, and the degree of independence and freedom of each. They reflect the basic ideas about living together in the city. The principles of organizing open architectural spaces in the structure of a city require taking into account all factors that influence the organization of space, along with factors that influence the formation of one or another type of existing living environment. Despite the lack of a general concept for the development of public spaces, the implemented project for the Pad Dolgaya improvement connects the two microdistricts and preserves the natural landscape of the area, establishing the prerequisites for the creation of a large planned connection—a pedestrian boulevard. In order to implement a successful project, it will be necessary to take into account the attraction of small and medium-sized businesses, functionally fill the space, create centers of attraction, and involve local residents in the design process.

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