History of the "Green City" in Russia

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Abstract

This paper deals with the stages of the development of the green city concept by Russian authors for 100 years. It is noted that these concepts have always been associated with the dominant ideology and socio-economic processes. Due to fundamental changes in the social structure of Russia and a number of critical states (wars, changing types of social production), the linear trajectory of the development of the concept of a "green city" in Russian science and practice could not have developed. Throughout the years there has been a struggle between two social and town-planning concepts: urbanization and de-urbanization, the desire for socialization of everyday life and its individualization. The development of the concept and programs of "greening" of Russian cities continues today, taking into account modern realities.

Keywords: Paper architecture, Garden city, De-urbanization, Green city, Ideology, Settlement, Theory, Eco-city, Urbanization.

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Introduction

The greening concepts in Russia have always been associated with the dominant ideology and socio-economic processes. Throughout the years there has been a struggle between two social and town-planning concepts: urbanization and de-urbanization, the desire for socialization of everyday life and its individualization. The ideological expression of property and social stratification was the division into "architecture" and "simple construction". However, the historically established cities of Russia retained their historical and cultural continuity, while the new ones reflected the changing ideological attitudes. Actually, the concept of the "green city" was formulated only once during the discussion about the "socialist city". However, the development of the concept and programs of "greening" of Russian cities continues today.

Research methods

This work was carried out within the framework of a desk study based on a review of the scientific literature and a secondary analysis of the data of the Environmental Archive by O.N. Yanitsky and his team consisting of interviews with activists of the Russian environmental movement conducted over 40 years, as well as analytical notes, made in the framework of the included monitoring of the implementation of the program "Ecopolis".

First period (1900-1914)

Two tendencies were dominant: cultural-historical and ideological. The first was expressed in the development of the manor building of the last century, which interspersed "profitable houses" for wealthy citizens. Or in the construction of a semi-rural type of workers' settlements. The dominant style in the individual development of large cities was Art Nouveau, widely using natural forms and motifs in both facades and interiors. The second was implemented in the creation of factory-built villages of barracks type with minimal sanitary and hygienic amenities. The idea of garden cities by E. Howard (1902) was widely welcomed and advertised (Mizhuev, 1916), but in reality it was implemented only in a number of settlements along the railways, where the engineers and maintenance staff of railways lived (Meerovich, 2007).

The capitals, St. Petersburg and Moscow, retained their social structure and layout, and new industrial enterprises were built on their periphery and in individual towns (Ivanovo, Orekhovo-Zuevo, Tosno). These capitals, despite the civil war and a radical change in the production methods, preserved and developed their representative functions and historically formed urban structure. However, under the rigid framework of these structures, various civil organizations developed rapidly, from charitable to educational, literary, artistic, theatrical, etc.

Second period (1917-28s)

Civil war and devastation did not contribute to the development of the ideas of a "green city" in Russia. Although the urban population of the country decreased, the idea of implementing the concept of a "garden city" continued in the early years of Soviet power. For example, the principle of a "garden city" was laid in the restoration plan of Petrograd already in the first years of the revolution (Yanitsky, 2007). The historical and cultural environment of existing cities resisted the new order, so it was only possible to design and build a "garden city" on the periphery of Moscow (Sokoliniki settlement). Simultaneously, these years were the golden age of the so-called "paper architecture", during which the school of the Russian architectural avant-garde was formed (Khan-Magomedov, 1994). The ideas of this avant-garde 127 were partly borrowed...
in Europe (Bau House), but since they could not be realized at that time, they were purely mental and projected only on paper, regardless of the specific conditions of the natural and social landscape. One of the outstanding representatives of this period was architect K.S. Melnikov (1990-1974), the leader of Russian functionalism and constructivism, although he called himself the creator of "kinetic architecture". Melnikov's "Dynamic" buildings opposed themselves to the surrounding landscape. Nevertheless, he created the project of Gorky Park of Culture and Rest in Moscow (1928), but it was, rather, a piece work. But another, less noticeable trend in the next period played a decisive role. It is about the emergence in the 1920's a lot of architectural, artistic and literary circles, which subsequently took shape as participants (and competitors) in the discussion about the socialist city (ASNOVA, OSA, AGU and others) (Khan-Magomedov, 1994). During these years two opposite concepts of a "green city" emerged: urbanistic and de-urbanistic. The authors of the both concepts, acting simultaneously as cityplanners and social designers, created their brilliant "dynamic" cities on a sheet of paper.

Third period: discussion about a socialist city (1928-31)

This period was very different from the previous ones: intensive industrialization began, and existing cities could not accommodate a huge influx of workers from the village. Some industrial centers almost had to be built anew; real projects were needed; to develop their plans, outstanding masters from different countries of Europe were involved. Hence, the city's concept of a new, socialist model was urgently needed. Its creation in the form of a "green city" was a leap into the future. The idea of creating a new settlement of humanity belonged to Lenin. In 1928-31, "a discussion about the socialist city", initiated by the Central Committee of the CPSU, was launched, since the development of mass forms of "socialist hostel" was required. Representatives of various urban trends (urbanists, de-urbantists, apologists for the idea of everyday life socialization), as well as statesmen, scientists, engineers, foreign city planners, representatives of various professional groups took part in the discussion: N.K. Krupskaia, A.V. Lunacharskii, L.B. Krasin, G.M. Krzhizhanovskii, Swiss urbanist Le Corbusier, German E. May, Russian M.Ia. Ginzburg and M.O. Barsch, historians, local lore specialists, students, etc. (Sabsovich, 1929; Khazanova, 1980). Such a large-scale and lengthy discussion of the problems of the city of the future in the history of Russia never happened again. There was a division of the Soviet intellectuals into adherents of the humanistic tradition, and "social constructivists", adherents of the idea of creating a "socialist city of a new type". Its model was proposed by Le Corbusier, arguing about the need to create everything anew in Moscow, first destroying everything (Khazanova, 1980). The idea of social engineering prevailed, involving not only writers, but also town planners to become "engineers of human souls". The historical memory of the past (with the exception of such sacred places as the Red Square and the Kremlin) was denied, and the local history movement became the first victim of this turn (Smidovich, 1930; Likhachev, 1982). The ideological guidelines of the Bolshevik Party were clear: the state-building of urban development, its ultimate rationalization and the mobilization of resources. These attitudes were reflected in the resolution of the Central Committee of the All-Union Communist Party of the Bolsheviks "On the General Plan of Moscow" (1935). The search for the model of the "city of the future" was over. However, the very idea of the "garden city", transformed into the concept of a "green city", became the guiding principle in the construction of new industrial centers (Magnitogorsk, Chelyabinsk and Stalingrad). According to the idea of the leading party of the country, Moscow was to become an "exemplary socialist city". The city planners, similarly to the leaders of this movement, were infected with a virus of radical restructuring. Here is its example: architecture is the science of the class organization of the production and everyday processes of people with the help of material means. And further: "There is no family in its usual sense". Children, from "infancy to adolescents, live in age groups", "old people and old women also live collectively in special, reserved rooms for them", all "economic and sanitary-hygienic services are 128 socialized", "beds [in the daytime - auth.] can recline". Finally, the master
plan (microdistrict) is a consequence of the schemes: the life graph and the graphs of the dynamic connection of its functional zones (Kuzmin, 1930, pp. 14-17). The basis for the life of the future socialist city is a radical maximization: the socialization of everyday life and the household, the maximum coverage of children by scientific control and public education, the maximum use of cheap local building materials, etc. (Ialovkin, 1930).

Fourth period: post-war recovery and development (1945-57)

Since the most densely urbanized European part of the territory was badly damaged, the main forces were abandoned to rebuild its cities and villages. All that was built over those years differed in reasonable planning and organization of the public life. Basically, these were 2-4-storey high-quality residential houses with small plots (vegetable gardens were preserved for a long time). Among the so-called "green" cities, Stalingrad was destroyed almost to the ground. However, its "tape" (de-urbanistic) layout was only partially improved. In our opinion, the planning and development of those years was strongly influenced by the experience the Soviet people acquired while in Germany, Austria, and Czechoslovakia. The post-war years were the period when the urban life started to be organized as a neighborhood, which was borrowed from Great Britain, that is, a group of 2-4-storeyed and then five-story houses with a population of 6-10 thousand inhabitants, with a trade and consumer service network. During 1954-60s some city planners, inspired by the authorities' struggle with "excesses" (the period of the division into architecture and simple construction), tried to revive the idea of "the house of a new way of life" (Gradov, 1968), popular in the 1920s, with the separate residence of children, employed and old people. However, the matter did not get any farther than publication. The more intensive the industry of panel housing construction developed, the more equally-faceless microdistricts appeared in the country. The more intensified was the self-organization of their population with the aim of gardening the surrounding areas, and giving at least a minimal variety to the environment of their immediate habitat.

Fifth period: 1958-90s: searching for new approaches

In 1959-61, the students of Moscow Architecture Institute under the leadership of Prof. M.O. Barsch created "A new element of settlement" (Gutnov et al., 1966). Its subsequent development combined two planning approaches: radial-circular and linear. The authors of this model proceeded from the fact that in the USSR with its huge territories the city should not grow, so the population of such a city should not exceed 200 thousand inhabitants, which was already an utopia. The theoretical foundations of the concept were the convenience of transport and pedestrian accessibility, the development of a service system. In the presence of free areas, sufficient gardening seemed to be taken for granted. However, this was another utopia. The development of a comprehensive ecological approach to the city was laid by scientists of the Moscow State University and the USSR Academy of Sciences in the early 1980s in the program "Ecopolis", originally intended for a small city (Brudny & Kavtaradze, 1981). Its principal novelty was the following: (1) it was created by an interdisciplinary group of scientists; (2) its development involved volunteers and representatives of city authorities; (3) the image of Ecopolis had a strong impact, both on professional and on mass consciousness; (4) the concept of "Ecopolis" emphasized that the obligatory condition for the implementation of the program is environmental upbringing and education, as well as the daily participation in the environmental activities of the majority of the city's population. The supreme power and, above all, Gosstroy and Gosplan of the USSR, began to worry, as they saw in this program a challenge to the modern one-sided urban policy. The urgent development of the program "Polis" began, which went nowhere.
Later, the idea of an "ecosystem linear city" was proposed, according to which the population and economy are concentrated in long corridors along the lines of communications in the provincial-scale regions. At the same time, a large part of the territory is preserved for natural processes with a sparing anthropogenic load (Glazychev, 1984). O. Yanitsky (1987) first proposed to consider the ecological approach as a general scientific and interdisciplinary one. Accordingly, the city is a system of external and internal economic, social, resource, cultural and other links, and its "sustainability" is the main value orientation of its development. This author was developing an "environmental approach" to the analysis of city problems.

**Sixth period: 2000s: “a virtual turn”**

The fourth industrial revolution (nanotechnologies, bioengineering and information technologies) changed not only the structural and functional structure of Russian society, but also the very understanding of the "living space" of the population of megacities. They and other major cities remain, but globalization together with a new industrial revolution increasingly turns them into business and service centers, or into the zones of tourism and entertainment. The social polarization of the urban population has been increasing. One "pole" locates a stable secured life, residential complexes with service and protection, children studying at the best universities abroad. Another "pole" - poverty, casual earnings, substandard food, limited access to educational and medical institutions, criminal communities. The previously developed system of resettlement degraded, as resource-oriented capital doesn’t need them, but new places of extraction or primary processing of raw materials. Potentially problematic communities (scientific and university campuses) are outside the boundaries of the largest cities. Information production and retail systems are developing rapidly, but due to the lack of the necessary legal regulation, they parasitize on the potential of the urban environment. Business, seeking to minimize its costs, turns the city into its corporate environment. The city authorities do not control the sphere of information production due to their "pre-industrial" education. This is a rapidly developing, extremely mobile and territorially unattached production, a modern form of management of city administration, business and service sector. Information needs and the corresponding structures of the modern city grow so rapidly that neither sociology nor urban planning theory has time to theoretically comprehend them. This production is guided by the same principles of minimax. "IT specialists, taking into account their specifics, have long learned to use all sorts of schemes to minimize their costs and avoid taxation" (Murunov, 2015). In addition, e-banks, e-businesses and similar "cloud services" vanish without a trace just like they arise. The transition of mankind to payments in bit-currency in general is not subject to comprehension in terms of the local-global. This is the transition of urban life into virtual reality, where "green spaces" can be visited and consumed both physically and biopsychologically, if the image of "greenery" is supported by visual, sound effects and smells. Nevertheless, the concept of an eco-city is being developed, involving the maximum use of ecocompatible solutions. Here are its theoretical bases: negative entropic nature, homeostatic equilibrium with the environment, ecologically equivalent replacement, biosphere compatibility, deep bioanalogy, ecological support, environmental restoration, beauty, harmony, and proportionality (Tetior, 2016).

In the territorial organization of the whole society there are two opposite trends. This is the "capital-centrism", when the financial and best human resources are being drawn to Moscow, St. Petersburg and several other major cities. However, outside the suburbia, the "human desert" has been increasingly forming, as the population of villages and small towns lives or works in a few large cities. The force that partially reduces this negative effect of "resource-oriented production" is secondary urbanization, which manifests itself in the form of development by city people of wasteland and abandoned agricultural lands. But this is just a recreational development, burdened by conflicts between the temporary and indigenous population. As a result of the process of "desertification" of the Russian periphery, we got our migration crisis. If forest and steppe are in fire on the periphery, this means that the local population
survives due to the exploitation of nature. Finally, two generations of urban population have already grown in the socio-cultural matrix of Western mass culture, but now they are trying to turn to traditional values through political rhetoric. There arises a sociocultural hybrid with a split consciousness and an indefinite identity that will transfer its divided state to those around it, which already happens in the form of unmotivated crimes or actions of radical groups.

Conclusion

Due to fundamental changes in the social structure of Russia and a number of critical states (wars, changing types of social production), the linear trajectory of the development of the concept of a "green city" in Russian science and practice could not have developed. For 100 years, there has been an oscillation of theoretical thought between the radicalism of the directive type and attempts to comprehensively design the "organic" model of this city. If such a model for a small city had already been created more than once, then for a metropolis it could not be built in view of its extreme complexity, dynamic nature and growing dependence on the global geopolitical situation. Predictability and safety of life come to the fore.

The complexity of modern cities and the dynamic nature of their development suggest the fact that any model of "optimization" of the structural and functional organization of a metropolis is temporary by default. And, in our opinion, there is a multidimensional task before the researchers developing the concepts of city greening: to build models of an ideal city, a city in its normal (real) state, and also a city in a critical situation, using the already accumulated practical experience and theoretical reserve.

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