Specifıcs of the Implementation of Architectural and Urban 
Utopias in the Large Regional Center of Russia (on the 
Example of Samara)

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Abstract. The article is devoted to the problem of implementing the idea in architecture and 
urban planning. Historically, the construction of exemplary models of life was left to the 
utopian genre, as evidenced by countless models of ideal forms of social structure. Any urban 
development project explicitly or implicitly contains an element of utopia, the proportion of 
which varies depending on the goals and objectives of a specific example. In the presented 
study, for the first time in architectural scientific discourse, a set of key factors is formulated 
that determines the feasibility of a utopian model in non-capital cities of Russia. Since the large 
regional centers of Russia have a cultural, natural, mental and historical identity, they can 
become an experimental sites for testing the modern urban development strategy. On the 
example of the development of the city of Samara, a large regional center of Russia, the main 
causes are identified, and also features of the implementation of architectural and urban utopias 
are revealed. Chronologically, the study includes historical, industrial, and post-industrial 
periods. As a result of the study, a forecast is given on the application of modern urban 
planning concepts in Samara. The proposed conclusions can be recommended for further use in 
the conditions of the Samara region, and if adapted, for use in other regions of the country.

1. Introduction 
The urgent task of modern urban development is the formation of perspective models of the spatial 
planning of the country that meet the requirements of modern society. These models are developed in 
reliance on the existing ‘city paradigm’ formed over the course of the 20th century mainly based on 
the image of the western city and the experience of its implementation. But the western model is not 
always applicable to Russian conditions, especially for regions with their own specifics. Therefore, to 
plan a development strategy for Russian cities, it is necessary to consider the evolution of the 
formation and implementation of utopian urban models in the historical, industrial and post-industrial 
periods.

The purpose of the study is to determine the potential feasibility of perspective modern urban 
planning concepts for the socio-economic and spatial development of Samara.

To achieve the goal, the following research objectives were set:
• To determine at a theoretical level the place of utopia in urban models.
• To study the prerequisites for the formation and development of urban models.
To highlight the main factors for the implementation of urban models at different periods of the social development on the example of Samara.

The theoretical and practical significance of the study lies in the development of recommendations that can be used in the implementation of territory planning projects. Some of provisions can also be applied in the integrated development strategy of the city of Samara.

2. Methods
The methodology of the study bases on the fundamental principles of Russian and foreign theorists of urban planning. The research includes monographs, scientific articles, internet resources and the government’s programs in the Samara Region. The study used various scientific approaches to the analysis of implemented architectural and urban utopias: the method of logical and comparative analysis, the method of statistical analysis, the method of scientific abstraction, graphoanalytical method, historical-evolutionary method, and the cognitive method. Comparison of implemented urban models of past periods helped to identify key factors contributing to the introduction of a particular model in the future.

3. Discussion
Architectural and urban planning has historically acted as a projective field of ideal visions about the world order. More effective than other spheres of human activity, the comprehension of utopias took shape in urban planning, since in this area of design the spatial-temporal, socio-economic and technological aspects of a future settlement or city are clearly defined.

3.1. Architectural and urban utopia of the historical period. The regular plan as a model of compositional geometric perfection
The concept of a regular city was theoretically framed in the period of antiquity and received the name ‘Hippodamus Grid’. The basis of the urban model was compositional geometric perfection - a symbol of the triumph of civilization, expressed by the regularity of planning. Its main features were the open nature of the layout and building up from the center to the periphery, zoning of the territory according to the main functional features, a single quarterly plan grid for streamlining the life of the population. The first city where the principles of a regular city were realized was Antique Piraeus, rebuilt in the 5th century BC [1].

In the Renaissance European urban planning, the model of ‘geometric’ equality became an expression of the order in space, extending to human society through the planning structure [2]. A unique attempt to harmonize life on the fortification principles was realized during the construction of the octagonal bastion fortress of Neuf-Brisach in 1698 according to the project of Sebastian Le Prestre de Vauban.

The traditions of regular urban development in Russia go back to the end of the 16th century, however, the turning point of the 17th-18th centuries was related to the reforming the army and navy by Peter I. This led to a change in the structure of military settlements. Since the beginning of the 18th century also new construction and reconstruction of existing cities began to be carried out on a regular basis in order to give their plans a regular configuration. So, the Trinity Fortress (Taganrog) in 1698 became the first Russian city created according to a regular plan.

The main center for the implementation of regular planning composition in the Russian Empire was the construction of St. Petersburg, which began in 1703. A prime example of the city as a single architectural organism was the unrealized project of Jean-Baptiste Le Blond.

In 1763 Catherine II issued a decree on the need to develop master plans for all existing and new cities of the Russian Empire. From 1763 to 1796 over 400 regular city master plans were developed, one of which was Samara.

Samara was founded in 1586 at the intersection of the most important transport routes. The city received its first geometric plan in 1782. Its basis, with the exception of the territory of the old trapezoidal fortress, was made up of rectangular quaters with side dimensions of 128x256 m. In the
center was a square area with side dimensions of 70x70 m. In total, 50 quarters were designed, each of which was divided into 16 courtyards. Thus, in the city there were 800 courtyards [3, 4]. Further development of the city was carried out on the basis of the continuous development of a rectangular grid of streets in the master plans of 1804, 1839-1840, 1852-1853. The master plan of 1887 was the last classic master plan in which a clear geometric planning grid of the city changed direction according to the relief plastic.

3.2. Industrial period

European urbanization, which began in the XIX century characterized by the rapid growth of cities and an increase in their number. By 1900, London, Paris, Berlin, Vienna, St. Petersburg, Birmingham, Manchester, Moscow, Glasgow became the millionaire cities [5]. The “gray” ring of chaotically forming industrial territories and workers' settlements surrounded the historically formed quarters of the classical city, poisoning the air with smog, water, and reducing forest spaces. The need was ripened for adapting existing cities to changing socio-economic conditions.

3.2.1. Garden city. Since ancient times, the city was the subject of utopias, so it is natural that it remained them in the progressive utopias of industrial period. In 1898, Ebenezer Howard's book was published, in which he proposed a solution to the problem of urban overcrowding and the outflow of rural residents in the form of creating limited-sized garden cities that combined the benefits of urban and rural life [6]. The revolutionary idea of the garden city was conceived as the existence of a cooperative housing movement, where there was no place for speculation with real estate, partnership was conceived as a means of resolving housing needs. In 1902, a company was created that bought a plot of land for the construction of the first garden city, called Letchworth.

In Russia, Vladimir Nikolaevich Semenov was a supporter of the concept of a garden city [7]. He made one of the first attempts in Russia to implement progressive urban planning principles - in 1913 he developed a project for a large village for employees of the Moscow-Kazan Railway at the Prozorovskaya station [8].

As a first example of the implementation of urban utopia in Samara, can be considered the implementation of an idea similar to the concept of a garden city in the village of Zubchaninovka from 1910 to 1919. In the planning of the village, the idea of a new type of public settlement with equal self-government was realized. The village of Zubchaninovka created by Leo Tolstoy, who founded an independent commune here. However, in the village of Zubchaninovka there was no city-forming enterprise, which does not comply with the principles of Howard’s utopia, as a result of which the district can be considered a special form of countryside rather than an independently existing garden city [9].

In Russia, the ideas of the garden city were adopted in a simplified form and were interpreted as abundantly landscaped residential villages of low-rise buildings. Therefore, it is especially interesting to consider the partially implemented project of the garden city, developed in 1922 for the workers of the Sazherez plant in Samara. The project of the village between the railway and Smyshlyaevskoye Highway, included about 700 sections and was designed for 3500 inhabitants. The project was partially implemented, becoming a unique example of the utopian principles of the garden city, taking into account the specific features of the place and the real social demand [10].

3.2.2. Industrial city. The main idea of the modernist urban planning model was the concept of the ‘Industrial City’, proposed by the French architect Tony Garnier in 1904. The author considered industry the main factor in technological progress, which, in his opinion, was a necessary condition for social progress. The industrial city was a linear structure (an analogue of the flow organization of industrial production), tied to the landscape situation. A significant achievement of Garnier was the understanding that in the new conditions a successful urban development model should not offer a finalized project, but a development program [11].
Garnier’s ideas were partly implemented in Lyon, as a result of which appeared Industrial Boulevard in the southeastern part of the outskirts of Lyon, workers' houses, Slaughterhouse and Stockyard (1908-1928), Grange-Blanche Hospital, built from several pavilions connected by a network of underpasses (1911-1933), the low-cost housing Quartier des Etats-Unis (1919-1935) on United-States avenue. Being a fan of socialist ideas, Garnier saw a city of the 20th century based on new social principles, which was almost impossible to implement in a capitalist society.

Soviet architects tried to implement the ideas of the industrial city of Garnier during the construction of the Sotsgorod I microdistrict in Nizhny Novgorod (1930s). Sotsgorod I near the Automobile Plant was conceived as an exemplary city - a commune in which the ideal of future collectivist forms of life will be embodied. In the microdistrict, the idea of zoning was sustained: industrial (automobile plant), transport, green and residential zones.

The concept of ‘social city’ appeared in the USSR in the 1930s, at the height of industrialization. These were independent, enclosed territorial entities at industrial enterprises and had an almost identical layout, area and population. Sotsgorod performed the organizing, administrative, cultural, and public functions, being the center of the nearby agricultural zone. This was in accordance with the communist doctrine of blurring the boundaries between town and country. As in any social city, the district had everything that residents needed - a hospital, a stadium, post offices, shops, schools, kindergartens, baths, a park and two cultural palaces. One of these social cities was formed in Samara in connection with the construction of the Kuybyshesvskiy oil refinery for 116 km [12].

3.2.3. Linear city. The linear city was first described by the Spanish architect Arturo Soria y Mata in the early 1880s. The planning was based on the idea of a transit-oriented city, which was based on a properly organized transport network. The linear city was not supposed to have a center in the project, so the cost of land in it was evenly distributed over the entire length of the transport network, which excluded land speculation. The connecting link between the settlements scattered near a large city was to be the tram line, which was as the axis of the city's future development.

To realize the ideas of a linear city, a Spanish architect created the company Madrilena de Urbanization in 1892. The company's plans were to build the ‘linear suburbs’ of Madrid and link them with ring railways (48 km) and radial tram tracks (7 km). Despite serious problems with financing, the project began in 1894, culminating in the creation of a 5 km stretch in 1910, after which speculative development, with the growth of the capital, embraced and dissolved the dreams of the architect.

Despite the great interest in the linear city model, there are very few practical implementations of the concept. In Russian urban planning, an example of a city with a linear planning structure is Volgograd, where a functional flow diagram was implemented during the construction of the settlement of the Stalingrad Tractor Plant. Subsequently, the linear system became decisive for the master plans of 1931, 1939, 1943-1945, 1951, as a result of which a unique linear planning structure of the metropolis was created, stretching almost 100 km along the Volga [13].

The theoretical scheme of the linear structural-planning approach, reminiscent of a linear city, was presented by Vitaly Alekseevich Lavrov in relation to specific urban situations. This experimental scheme turned out to be somewhat predictive, since it anticipated the future development of the planning structure of Samara in the south and south-east direction - the modern implementation of the Southern City microdistrict, the perspective development of the Lopatino, the construction of the Southern Trade Corridor [14].

3.3. Post-industrial period
Since the XXI century characterized by unprecedented dynamics in the development of science and technology, a manifold increase in the amount of information, globalization of all spheres of human activity, urban planning also faces the challenges of the time and actively responds to the restructuring of socio-economic systems that have developed over centuries.

Urban planning predicts its own scenarios for the future, responding to the ever-increasing demands of a post-industrial society. Modern urban directions - greening, informatization,
democratization, clustering, gentrification, digitalization - offer their utopian models, the principles of which are reduced to the creation of a humanistic city [15].

High competition for human resources sets higher requirements for the standard of living and the quality of the environment of the post-industrial city. In this case, improving the quality of life of the population becomes a priority for the socio-economic development of several countries.

Active implementation of the model of humanization of the environment can be observed, for example, in the strategy for socio-economic development of the Kaluga Region until 2030, ‘Man is the center of investment’. This document is being developed in accordance with the priorities of the state socio-economic policy, providing a solution to the problems in the field of socio-economic development of the Kaluga region, where human capital and the quality of the environment are recognized as a key resource [16, 17].

In 1967, Samara acquired the status of a million-plus city. Today, the metropolis ‘Big Samara’ is the third largest metropolitan area in Russia. The dynamic growth of the construction industry and the lack of an urban development strategy for the city in the early 2000s necessitated the design of the 2008 Master Plan, which determines the development of the emerging metropolis ‘Big Samara’.

The ways of further development of Samara are determined by the strategy of socio-economic development of the Samara region for the period until 2030 [18, 19]. The key directions in the strategy are: clustering and digitalization of the economy, and the development of cluster associations (the creation and development of modern production infrastructure - industrial, chemical, agri-food parks); development of the connecting infrastructure in Samara-Tolyatti Agglomeration (improvement of the transport model, creation of passenger transport hubs, development of a network of high-speed rail public transport, organization of expedited rail communication Samara-Kurumoch-Tolyatti, construction of new crossings over the Volga, Sok, Samara rivers); development of tourism infrastructure; the formation of an interregional transport and logistics center; renovation of production sites; development of an aerotropolis at the Kurumoch airport base [20, 21].

Of the changes already achieved, it should be noted that gradually the understanding of the need to conduct integrated development of territories with accompanying both engineering and social infrastructure gradually comes. Complex development is underway in the suburbs of Samara, designed to reduce social tension in providing low-cost housing (an example is the Southern City, which implements an integrated approach to the development of the territory, observing the scale of quarterly development and publishing its own intra-district newspaper).

4. Conclusions
Founded far from the Russian capital, the city of Samara occupies a significant place in a number of cities characterized by vivid examples of implemented urban utopias. Thanks to the regular planning in 1782, the city quarter began to be divided into separate sections (parcels, borders). This structure perfectly matched the densification caused by the development of market relations and population growth.

Thus, the complex of objective and subjective reasons has become a factor in the implementation of the urban utopian model of the historical period. On the one hand, as an element of state reform, the regular structure of the city became the personification of a new civilized system of government, a kind of symbol of restoring order instead of chaos. On the other hand, frequent devastating fires, causing significant damage to the pre-regular city, became the natural prerequisites for developing a regular plan.

In pre-revolutionary Samara, utopian models were often implemented simultaneously with European examples and were often caused by external factors (for example, fortification reasons). The factor in the implementation of urban utopian models in the industrial period was accelerated industrialization, which made industrial a city-forming basis.

Under the influence of changing socio-economic conditions, a new paradigm was formed in Russian urban planning, and utopian thinking was subordinated to the implementation of a grandiose-scale social experiment to build a new society. This period was characterized by the active interaction
of utopian and realistic decisions in urban development. Russian cities, including Samara, have become a site for testing the most radical, innovative and progressive urban utopias.

The period of the 1990-2000s characterized by a decline in urban development in Russia. Therefore, the implementation of modern urban planning models in Russian non-capital cities is at the initial level of research and application nowadays. However, as European practice shows, the next stage after research is the practical implementation of large urban development projects aimed at overcoming the problems that arose in response to mistakes made at the previous stage.

Russian regions are undergoing a transformation of the urban structure, completing the ‘functional city’ stage and embarking on post-industrial changes. Therefore, it is critically important to comprehend the European experience in the formation of modern ‘human-oriented’ cities. In this regard, Russia has a significant ‘advantage for latecomers’. If after the 1960s. Europe and America, realizing the shortcomings of urban models of modernism, moved almost blindly, affirming the model of a new urbanism and a democratic city. Guided by international experience, Russia has an advantage and can move more selectively and purposefully, which will allow it to overcome a significant almost thirty-year distance in urban planning faster and better.

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