

# Priorities for the Development of Large Cities of the Central Black Earth Region From Their Foundation to the 20th Century

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## ABSTRACT

**One of the main focal points of current state regional policy is the priority development of regions that are critical for the Russian economy and the implementation of its geopolitical strategy. The Central Black Earth Region is endowed with resources and has a rich history and requires special attention from contemporary urban planners. Identifying urban planning priorities for five large cities: Voronezh, Lipetsk, Tambov, Belgorod, and Kursk from their very foundation to the 20<sup>th</sup> century allows determining their role in the current socio-economic development of the country. This study devoted to specific features of the cities of a single cultural and historical region reveals the breadth and diversity of its social and spatial issues.**

*Keywords: settlement system, urban settlement, large city, urban planning priority*

## I. INTRODUCTION

The study retrospectively identifies the urban planning priorities for the development of large Central Black Earth Region cities, which have been directly dependent and depend on the state policy and economic system. The urban planning stages are associated with a regional settlement system. At each stage, priorities differed causing disparate development of cities in southern Russia.

## II. THE DEFENSE (ABATIS) STAGE: FORTRESS CITIES

In the 16th and 17th centuries, Russia's interests in the territory considered were determined by not economic but strategic grounds. The governmental policy was to build new defensive lines and fortresses to protect the rural population. Colonizing southern borderlands acquired the national significance. This was particularly important given the fact that fertile but heavy black soil was difficult to cultivate. This indicates the priority of military-strategic grounds for colonizing the southern steppes over the economic significance of this process, which will manifest itself later [1]. Circumstances under which the Kursk, Voronezh, Tambov, and Belgorod defensive fortresses have been constructed are briefly described below.

The city of Kursk arose at the close of the 10th century and took a place favorable from both defensive

(ravine highland surrounded by the Kura and Tuskar rivers) and commercial (three full-flowing rivers) perspectives. In 1238, the city was completely burned, and severe fires occurred in Kursk almost every 100 years until the 18th century. Rehabilitation proceeded slowly; the city's growth intensified in 1597, and a fortress was built to defend it. The fortress scheme is now known as the ‘Kursk outline design 1722’. The fortress contour had the shape of an irregular triangle elongated toward a high cape between the Kura and Tuskar rivers. In the fortress center, there was the old Znamensky Monastery. By the middle of the 17th century, there have been 599 yards in Kursk. The stone construction began in the city only in 1649 and was related mainly to public buildings and structures. Until the 18th century, Kursk had developed chaotically. City blocks of various shapes were divided into separate land plots of different sizes and ranged from small 600 sq. m. yards to large estates with an area of 1,500 sq. m. and more. Their boundaries often had irregular shapes determined mainly by the target of the territory use. Such unregulated development, which did not consider both the fire and sanitary safety requirements resulted in huge losses from large fire in August 1781 [2].

In 1585, the construction of Voronezh began at a sentry point of Russia under the supervision of Governor S.F. Saburov [3]. The city became a large Don fortress standing on one of the ways of the Tatars invading Russia. The construction of Voronezh entailed a complication of Russian-Crimean relations, since the

Tatars believed that the Russians should not cross the Bystraya Sosna River. As a result, in 1587, the forty-thousand Crimean army in response struck the city of Krapivna and destroyed it. The Tatars also devastated the surrounding villages and settlements, captured many people, and reaved cattle [4]. Then, the Polish-Lithuanian Commonwealth detachments made several attacks on the Upper Don and captured and destroyed Voronezh by deceit in 1590 [3]. Soon it was decided to restore the city and in 1594, it was rebuilt.

In 1636, Tambov was founded as the Muscovy state stronghold in the steppe frontier region. For Tambov, a hill was chosen at the confluence of the Tsna and Studenets rivers. Due to its size, good hardness, and the fact that Tambov was the largest southeast Muscovy Tsardom fortress capable of accepting and accommodating a lot of military people and equipment, in 1682, this fortress city became the center of the newly established Tambov diocese. At the close of the 17th century, for the first time in the city's history, brick production was organized there to ensure the first stone construction of the Episcopal yard and the Cathedral of the Transfiguration (laid in 1694), which had survived to this day. The first stone construction was suspended due to the start of the Azov campaigns in 1695–1696. After the Azov campaigns, nomadic peoples no longer came to Tambov, so it began to gradually turn from a military fortress into a civilian administrative center [5].

The Boyar Duma decided to build Belgorod in 1593, and probably at the same time, a settlement arose on the future city site. However, the Belgorod fortress was built by the decree of Tsar Fedor Ivanovich in the fall of 1596. The construction was led by the voivodes M.V. Nozdrevaty-Zvenigorodsky and A.R. Volkonsky. Initially, the fortress was located on the White Mountain on the right bank of the Seversky Donets River at the confluence of the Yachnev Kolodez brook. In 1612, the Belgorod fortress was captured and burned by a Poltava Cossack detachment under the command of Prince S. Lyko, who came from the Polish-Lithuanian Commonwealth. In 1613, the fortress was rebuilt by the remaining inhabitants under the leadership of the voivode N.P. Likharev, but already on the opposite left bank of the Seversky Donets River. In 1650, the Belgorod fortress was moved to the right bank of the Seversky Donets River to the Karpovsky rampart of the Belgorod line, the current city center location place [6].

In 1635-1658, a continuous line of defensive military fortifications – the Belgorod abatis line-fortress was built, in which Belgorod took a central place. This line stretched for 800 km. It passed along the territory of five modern regions – Sumy, Belgorod, Lipetsk, Voronezh, and Tambov from the Vorskla River – the Dnieper tributary which was the Russia-Poland border

until 1654, to the Chelnova River – the Tsna tributary [7].

### **III. PROVINCIAL CENTER – RAPID SETTLEMENT OF THE SOUTH**

During the reign of Peter I in the late 17<sup>th</sup> - early 18<sup>th</sup> centuries, there was no special governing body for the construction business and the Emperor was personally involved in the most important construction issues. In Peter's time, the central management of cities had been arranged. Along with St. Petersburg, the fortress, factory, port, and residence cities were built. To build the fleet, Peter chose the city of Voronezh. Two factors influenced the choice: firstly, the city location – the Voronezh River was navigable (by that time, river ships had been sailing for already 100 years), and secondly, it flowed into the Don River not far from the fortress.

Lipetsk has been founded later than Kursk, Voronezh, Belgorod, and Tambov; 1703 is considered the year of its foundation. The Lipetsk Sloboda arose near the village of Malye Lipsky Studenki. Several single-yard and peasant villages were located nearby: Bolshiye Studenki, Syrskoye, Dikoe, and Korovino. These villages and later, the village of Sokolskoye (the former city of Sokolsk) have been gradually annexed by Lipetsk. The military activity of Peter I and the need to create a navy in the south of Russia in Voronezh and equip the fleet with guns, cannonballs, anchors, chains, and other cast iron and iron pieces gave a powerful impetus to the development of Lipetsk metallurgy at the beginning of the 18<sup>th</sup> century. The presence of forests, cheap water energy, good waterway connection with Voronezh along the Voronezh River, and the close distance from this city have determined the place to construct ironworks [8].

In 1779, by decree of Catherine II, the Sloboda was transformed into the Lipetsk uyezd town of the Tambov Viceroyalty (from 1796 – the Tambov Governorate). All the first known Lipetsk and the Lipetsk uyezd plot plans of the 18<sup>th</sup> century were drawn up by the uyezd surveyor Pyotr Nemtsov.

Until the 18<sup>th</sup> century, the Central Black Earth Region cities have been developed chaotically. Such unregulated development, which had not considered the requirements of both fire and sanitary safety caused huge losses from large fires in all cities. At that time, urban planning had become one of the important areas of Catherine II activity (1762-1796). Catherine has cherished the idea that the welfare of any state consists in the progress and prosperity of crafts, industry, and trade and that the urban estate development should become a priority area of the central power policy. An analysis of the totality of measures taken by Catherine II in this area allows concluding that their main

advantage is a systemic nature, since they have covered all transformation stages from substantiating the goals and ways of reforming urban settlement to monitoring the implementation of government decisions and making the necessary adjustments [9].

The main tasks of the grandiose all-Russian urban planning reform were:

- straightening, expanding, and improving streets;
- fire breaks between neighboring buildings;
- ribbon building of blocks along the red line of streets;
- settlement by social and financial status: in the central city part - noble and merchant houses and buildings, and in the Sloboda and city suburbs – wooden houses of poor citizens;
- regulation and improving the architectural and artistic planning qualities through the implementation of ‘pattern projects’;
- training of qualified architectural and civil engineering personnel.

At that time, the Regular plans have been developed for Belgorod (architect A.V. Kvasov, 1768), Voronezh (1774, after the fire), Tambov (1781), and Kursk (1782, after the fire).

Later in the second half of the 18<sup>th</sup> century, the region was actively developed as the main producer and supplier of agricultural products. The Central Black Earth Region cities of that period served mainly as the administrative-economic-military regional centers.

By the beginning of the 19<sup>th</sup> century, with the saturation of the settlement network, the spatial resources of the Black Earth Region have been exhausted and the economic development possible under serfdom completed. The Voronezh, Kursk, and Tambov took leading positions as governmental centers.

In the 19<sup>th</sup> century, the Lipetsk Mineral Water resort was opened in Lipetsk, thanks to which the city regained wide popularity. In 1805, Emperor Alexander I approved a new plan for the city development with a rectangular street layout.

#### **IV. INDUSTRIALIZATION: RAPID CONSTRUCTION OF RAILWAY HUBS**

By the end of the 19<sup>th</sup> century, the capitalist mode of production has become dominant. New industrial centers have emerged. Russia has turned from a feudal country into a capitalist one. Despite the penetration of industrial and commercial capital into the Central Black Earth Region, it has remained among the most backward ones in the country in industrial terms. The

decline in the Central Black Earth Region economy was caused by the feudalism remnants in this field, as well as the preservation of the serfdom vestiges. At that time, the construction of railways began to connect the central regions of Russia with the Volga region, Ukraine, and the North Caucasus. The emergence of railways entailed industrial development. The prominent agrarian economic system of the Central Black Earth Region has served as the basis to develop industry based on mainly the processing of agricultural raw materials.

At the first stage (1866-1874), the Ryazan-Kozlov (Michurinsk), Moscow-Tula-Kursk, Ryazhsk-Morshansk, Tambov-Saratov, Borisoglebsk-Tsaritsyn (Volgograd), and other railroads were laid. Among them, major railways of the meridional direction: Oryol-Kursk-Belgorod-Kharkiv, Moscow-Michurinsk-Voronezh-Liski-Rostov and the latitudinal direction: Oryol-Yelets-Gryazi-Borisoglebsk stood apart.

The first-stage roads played an important role in the Black Earth Region's life. New sales markets emerged and the bread export to other country's regions and abroad increased, the specialization of agricultural production changed (areas under more valuable crops expanded), and the development of food and other industries began.

At the second stage (the 90s), large railways in the Central Black Earth Region were built mainly in a latitudinal direction: Kursk-Voronezh, Kharkiv-Liski-Balashov, Tambov-Kamyshin, etc. A network of railways laid on the territory of the Central Black Earth Region in meridional and latitudinal directions has acquired a lattice-type configuration.

The emergence of several new settlements is associated with the construction of railways. Thus, Liski (Georgiu-Dezh) and Povorino (1870), Astapovo (Lev Tolstoy) (1890), Semiluki (1894), Talovaya (1895), and other settlements appeared near the railway stations. Railway construction has not played a proper role in regional development. It has largely contributed to the further independence of Russia's southern regions, narrowing sales markets for the Black Earth Center, and accelerating its impoverishment. In the Black Earth Region, the railways circumvented the cities and caused an unhealthy growth of some minor settlements that appeared to be in the junction points and hubs (Liski station, etc.) and were still unable to cope with their utilitarian role.

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Up to the Great October Socialist Revolution, enterprises that consumed local agricultural raw

materials have formed the basis of the Central Black Earth Region industry. Thus, in 1913, in the Voronezh and Kursk Governorates, 90.6 and 90.1 % of all food industry products were produced, respectively. The factory industry in the region could not change its agrarian image. Up to 90 % of its population was engaged in agriculture. Agriculture was the main occupation for a significant part of the population of uyezd cities, like for peasants. Enterprises processing agricultural raw materials were concentrated mostly not in cities but near the sources of raw materials and thus affected negligibly on the economic basis of cities. Under the prevailing historical and economic conditions, they did not attract the rural population but on the contrary, were agrarized themselves.

At the end of the 19<sup>th</sup> - beginning of the 20<sup>th</sup> century, the imbalance in the development of governorate centers and small uyezd towns increased; they did not grow and were often behind the large villages in industrial terms.

## V. STUDY ON THE WAY TO AGGLOMERATION

From 1917, a new stage began in the formation of the Central Black Earth Region settlement system. The revolutionary transformations that changed the economic and social foundations of the country affected both former governorate and uyezd cities and unimportant ones. With the abolition of private production means ownership and taking the construction under state control, the chaotic development of cities has ended. After the revolution of 1917 in the USSR, the large-scale industrial and civil construction has necessitated the space planning within not only the boundaries of individual populated areas but also the vast industrial, resort, and other ones. Thus, in the post-revolutionary years in our country, a scientific and design work system in the field of urban planning has been developed and spread representing a hierarchically arranged set of design and planning documents covering a wide range of territorial objects (from the residential microdistricts to the entire country).

In the time of the country's socialist industrialization, in the Central Black Earth Region, large industrial enterprises were concentrated in cities with a population of 70-120 thousand (Voronezh, Kursk, Lipetsk, Tambov), which gave a significant impetus for their further growth.

With a steady long-term decrease in the total population of the region due to a sharp excess of mechanical outflow over natural growth, the proportion of the urban habitancy increases. The urban population grows mainly in large cities. Thus, according to the 1979 census, only in the regional centers of Voronezh, Lipetsk, Kursk, Belgorod, and Tambov about half of the total urban population of the Central Black Earth

Region lived. Simultaneously, with a decrease in the rural habitancy, a steady stabilization of the population is observed in small towns and urban-type settlements. The urban population is growing due to natural increase, migration, as well as administrative and territorial transformations (incorporating rural settlements into urban areas and changing the city boundaries).

The idea of the transition from the autonomous growth of urban and rural localities to the interrelated system-based settlement was expressed in the 70s - 80s, during the period of the greatest efflorescence in sciences associated with the planned economic development in the USSR. In 1972-1980, a group of research institutions developed the USSR General Scheme of Settlement, which was a scientifically grounded program to improve migration throughout its territory [10].

Individual research areas on the population settlement group system issues were developed, specializing in subsystems such as economic basis, transport, settlement, inter-settlement services, environmental optimization, ecological framework formation, and comprehensive studies on program-targeted planning of the population settlement systems [11], [12], [13], [14].

Planned objects with desired properties were designed to avoid the main agglomeration drawbacks, i.e. spontaneous development along highways, uniting settlements, suburban territory absorption and the green space destruction, overlapping residential and industrial zones, and aggravation of environmental issues. The idea of predetermined development of interrelated settlements contained the prerequisites for a constructive solution to the concentration issues due to the territorial and functional redistribution in the actual design practice [15].

When studying the development level of the Central Black Earth Region urban agglomerations, the Voronezh, Kursk, Tambov, and Lipetsk ones may be considered formed yet in 1989.

## VI. CONCLUSION

The study has identified the urban planning priorities for the Central Black Earth Region cities at each stage of their development from the construction of wooden fortresses to the growth of urban agglomerations.

The first defense (abatis) stage is characterized by the construction of wooden fortress cities in southern Russia. A continuous line of defensive military fortifications – the Belgorod abatis line-fortress was built to protect the Muscovy state borders from raids, in which Belgorod took a central place. At that time, the

military-strategic grounds for colonizing the southern steppes prevailed.

The second stage is associated with the rapid settlement of southern Russia and the formation of governorate centers. The urban estate development has become a priority area of the central power policy. Due to the state reforms, Belgorod, Voronezh, Kursk, and Tambov at different times became the central governorate cities, which served as military districts. These cities have become not only administrative but also cultural and spiritual centers. The main function of the Central Black Earth Region cities of that period was to serve as administrative-economic-military regional centers.

At the third stage in the country, the process of accelerated increase in industrial production and the rapid construction of railway hubs dominated. Priority was given to the industrialization of the entire country. The prominent agrarian economic system of the Central Black Earth Region has served as the basis to develop industry based on mainly the processing of agricultural raw materials. Despite the penetration of industrial and commercial capital into the Central Black Earth Region, it has remained among the most backward ones in the country in industrial terms. Enterprises processing agricultural raw materials were concentrated mostly not in cities but near the sources of raw materials and thus affected negligibly on the economic basis of cities. Under the prevailing historical and economic conditions, they did not attract the rural population but on the contrary, were agrarized themselves.

After the revolution of 1917, a new fourth stage began in the formation of the Central Black Earth Region settlement system due to the proclamation of a new Soviet ideology. The priority of a planned economy has affected all life spheres of the country's population, including urban planning. In the scientific community, the idea of a transition from the autonomous growth of urban and rural localities to the interrelated system-based settlement prevails. With the abolition of private ownership and taking the construction under state control, the chaotic development of cities has ended.

At that time, large industrial enterprises were concentrated in the cities of Voronezh, Kursk, Lipetsk, and Tambov that gave a significant impetus for their further growth and affected the urban agglomeration development.

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