Models and prototypes of Voronezh construction of the first third of the 19th

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Abstract. For the first time, the authors of the article publish the results of a comparative study of unique historical and architectural monuments of Voronezh built in the period of classicism, their compositional, decorative, and space-planning features, similarities and differences as compared to the architectural prototypes of Russian capitals, and their correspondence to the “model” projects of the late 18th and early 19th centuries. The results of the architectural-decorative, structural-compositional, morphological, and factor analysis, based on the most outstanding examples of Voronezh architecture of the first half of the 19th century, can enhance the understanding and deepen the scientific knowledge on the origins of the development of the classicist tradition in the provincial architecture of Voronezh. A correlation was found between Moscow buildings of the school of M. F. Kazakov and his contemporaries, as models and prototypes, and the classical architectural monuments of Voronezh. The prototypes of “model” projects designed by the architect V. P. Stasov, which completely correspond to the Voronezh buildings of the first half of the 19th century, were established. The determination of architectural analogues and models of classical Russian architecture, which have become the prototypes of provincial Voronezh architecture, based on the regulation and state control of the construction will significantly expand the attribution of historical and architectural monuments of classicism in Voronezh as an integral part of all-Russian architecture.

1. Introduction
Unfortunately, there are not many remaining architectural monuments of the period of classicism in Voronezh, which is an old Russian city. Above all, this can be explained by its total destruction during the Great Patriotic War. Post-war reconstruction of the city also influenced the original appearance of some architectural monuments as more floors were added to historical buildings and their initial appearance and even style was changed for the sake of ideological preferences of those times.

However, due to high professionalism and love to the history of Voronezh, architects A.V. Mironov, V.N. Troitsky, and L.V. Rudnev, who was invited from Moscow, put thirty architectural monuments on the list of protection and restoration while rebuilding the city from ruins. The Central Board for protection and restoration of architectural monuments developed a general plan for the protection of architectural monuments approved by the State Committee for Construction under the Council of People's Commissars of the USSR. As a result of these measures, a number of historical architectural monuments of Voronezh still exist in their initial form. In the middle of 1980s and later, the first studies on the history of Voronezh architecture appeared conducted by the following architects: V.A. Mitin [1], A.E. Yenin [2], and G.A. Chesnokov [3].
The studies of these authors present a comprehensive vision on the development of provincial Voronezh architecture and explore architectural-compositional and constructional characteristics of some architectural monuments, however, the subject of architectural prototypes and the problem of cause-and-effect relationship between the provincial and capital architecture was not addressed. The present work provides an answer to the question whether provincial architecture is a direct copy of capital samples of architecture or it is a revision of Voronezh architects and reproduction of classicist forms based on outstanding architectural works.

2. Methods
The analytical method applied by the authors is used to study the historical buildings of the first third of the 19th century in the city of Voronezh as compared to the architectural works of Moscow and St. Petersburg, which serve as the examples of grand style and have become the prototypes of significant architectural buildings in a provincial city.

The principle of analogies and the method of comparative analysis address not only the external appearance and the decorative devices used by architects, but also the features of constructional and space-planning solutions. The comprehensive approach of this study consists in the use of methods of stylistic, architectural-compositional, morphological, historical-genetic, and typological analysis, as well as in the use of materials of an on-site inspection of historical and architectural monuments, literary sources, and archives.

The method of the study of historical buildings used by the authors is based on the principle of equivalence between the capital and provincial architecture as it reflects the general process of development of all-Russian architecture, being an integral part of it. The method of factor analysis presented a more comprehensive vision and allowed studying Voronezh architecture of the period of classicism in correlation with multiple factors that affected its development.

3. Results and discussion
The architectural and constructional standards of classicism, which were mandatory not only for the capital cities, but also for the provincial ones, neutralized the differences in the architectural and decorative appearance of capital and provincial architecture.

However, this reveals the influence of natural, climatic, and city planning features, colour culture of the region, and local folk traditions. In addition, some delays in the arrival of the latest trends from the capital in a certain way influenced the nature of provincial architecture.

Voronezh nobles and merchants could not afford the construction of such large-scale and luxurious houses and mansions as the ones that were built in Moscow and St. Petersburg. As compared to the building in the capital city, Voronezh buildings of the late classicism period had more modest and ascetic decorations.

The Tulinov’s house (30 Revolyutsii Pr.) is one of the best examples of manor houses of the late classicism period in Voronezh. It was built in 1813 at the request of V.V. Tulinov, merchant and entrepreneur, owner of Voronezh textile factories, commerce adviser, at the corner of Bolshaya Dvoryanskaya (Revolyutsii Pr.) and Tulinovskaya (Komissarzhevskoy St.) streets and designed by Voronezh architect T.S. Kondratyev, who became the first City architect of Voronezh has soon as (7 July, 1805) this position was first introduced [4].

In 1808, he was already appointed Gubernial Architect and occupied this position for two years, and later he served as a Gubernial Architect two more times: for one year starting from 1816 and from 1819 to 1831. From 1810 to 1816, T.S. Kondratyev was free from this work and could completely dedicate himself to working on private orders.

The Russian Emperor Alexander I stayed in the Tulinov’s house on his return from a holiday in the south in 1818. In July 1837, Grand Duke Alexander Nikolaevich, the heir to the Russian throne (Emperor Alexander II from 1855), accompanied by the poet V.A. Zhukovsky, academician K.I. Arsenyev, and other high-ranking figures, stayed in this house for two days. The stately and solemn
appearance of the building of the Empire style, with its precise proportions of the facades, compositionally accentuates and “holds” the corner of two streets, having a U-shaped structure on the plan.

The Tulinov’s house and the manor, one of the largest and most prominent manors in Voronezh, is well-seen on the general plan of 1851-1852, occupying a whole block, stretching westward along Tulinovskaya Street to Pervaya Dvoryanskaya (Fr. Engels St.), and bordering with the manor house of Voronezh pharmacist Werner and a large orchard on the northern side. An elegant portico with a triangular pediment and a semicircular dormer window is supported by four smooth entasis columns of the Ionic order, which rest on a mighty, three-span entrance arcade with keystones. The walls of the first floor are decorated with linear rust. The walls of the second floor are smooth, rhythmically divided by pilasters and topped with Ionic capitals. The wide and smooth belt over the windows of the second floor is decorated with rosettes and panels with strict geometric and laconic floral ornaments. The facade is crowned with a cornice with a corona, which is rhythmically decorated with denticles from below (figure 1).

Figure 1. Tulinov’s house. 30 Revolyutsii pr., Voronezh. Architect T.S. Kondratyev, 1813. a) front facade, b) plan of the first floor. Restoration design by S.N. Guriev.

Studying the “Albums of private buildings” [5] compiled by M.F. Kazakov, master and one of the founders of the architecture of Russian Classicism, one cannot but notice two projects that could have been prototypes of the Tulinov’s house. Despite the fact that the albums compiled by Matvey Kazakov were not published, Voronezh architect T.S. Kondratyev was undoubtedly familiar with the architecture of the latest fashion from the capital city, which he could study on location instead of studying it from the projects. However, it is possible that he also knew about the projects. Otherwise, it is hard to explain the same space-planning structure, similar scale, and the same structure of the facade down to the smallest details of the decorations. One of the prototypes of the Tulinov’s house could well have been the House of Prince A.A. Prozorovsky, just like the Tulinov’s house, has a U-shaped plan and an extended four-column portico. Both two-storeyed houses have the same compositional structure of the facade, consisting of eleven axes of window openings, a triangular pediment, and an Ionic order. The differences can be seen in the more elongated proportions of window openings on the second floor, the enlarged arched front entrance, and the presence of a basement in the House of A.A. Prozorovsky (figure 2.a).
The second prototype from the collection of projects of private buildings in Moscow compiled by Kazakov is the House of A.I. Nesvitskaya on 30 Sadovaya-Sennaya street (figure 2.b). This example corresponds even more to the compositional structure of the front facade and the plan of Tulinov’s house, almost exactly reproducing its forms, details, and scale. The difference is that the House of A.I. Nesvitskaya has the front portico with double columns of the Ionic order, while the Voronezh building by T.S. Kondratyev has four single columns. These insignificant differences only prove the professionalism of Voronezh architects who borrowed the main proportions, forms, and details of outstanding architectural works of the capital and changed them in a creative way, bringing new elements to the compositional structure of their projects and adapting them to the surrounding architectural context.

Another unique monument of civil architecture of Voronezh classicism, which quite accurately reproduces a “model” project, is the House of the nobleman T.S. Borodin (the cantonist school). In 1817, it was sold in an unfinished state to a collegiate counselor Nenarokomova, and two years later the house was purchased by a military department for a military orphanage, the cantonist school, where orphaned sons of soldiers were trained and prepared for military service. Due to side risalits oriented towards the back facade, the plan of the building is U-shaped. The high basement floor faced with smooth rustication, has five small square windows at the base of the central portico and three windows each in the side risalits. The walls of the central portico are smooth, with a compositional accent on the mezzanine and the second floor, the centric quality of which is emphasized by six three-quarter columns of the Tuscan order.

The compositional structure of the central portico is completed with a mighty cornice with denticles and is crowned with a rectangular attic. The walls of the front, back, and side facades of the risalits are covered with linear rustication. The windows of the side sections of the front facade of the building are completed with mighty wedge-shaped key stones made of natural white stone. The back facade has a central portico, which is very similar to the portico of the front facade, and the facades of the risalits decorated with elegant porticoes of the Tuscan order with corner pilasters, a powerful frieze with a semicircular niche in the centre, and a triangular pediment. It is likely that the building was constructed following the “model” project No. 57 designed by the architect V.P. Stasov and published in the engraving album “A collection of facades... Part 1. No. 57” in 1809 [6].

Stasov’s “model” project precisely reproduces a fragment of the plan and the structure of the front facade of the House of T.S. Borodin with the only insignificant difference in the height of the basement floor. On the prototype, the height of the basement floor is much lower as compared to the Voronezh building, which was due to a significant increase in the relief towards the back facade. As a result, the front facade obtained a higher basement than the back facade. Graphic-analytical comparison of the facade structures of the House of T.S. Borodin and his “model” prototype is presented below (figure 3).
Figure 3. a) The House of T.S. Borodin. Reconstructed by the authors. b) “model” project No. 57. In Stasov V.P. A collection of facades. Approved by his Imperial Majesty for private buildings in the cities of the Russian Empire. 1809. Part 1. No. 57.

The building of the Uspenskaya Church (37aSophyiPerovskoy St.) is a unique and the only surviving architectural monument of the standard construction in Russia, which fully corresponds to the original architectural concept of the “model” facade No. 23 designed by the architect V.P. Stasov in one of the five engraving albums “A collection of facades. Approved by his Imperial Majesty for private buildings in the cities of the Russian Empire. Part 3. 1812” [7], [8].

A two-storeyed stone residential house was built in 1830-1840s, probably by one of the wealthy Voronezh merchants, and later bought out and rebuilt for the needs of the church clergy which required an accommodation for the ministers of the Uspenskaya Church.

By this time, the “model” projects designed in 1809-1812 no longer satisfied the modern tastes of the capital residents and were superseded by new styles, however, in Voronezh they were still popular, judging by the fact of construction of the Uspenskaya Church building. It was probably due to the lack of professional awareness of the architect or in order to save some monetary resources for an individual design of the customer. According to local historians of Voronezh, P.A. Popov and A.N. Akinshin, the author who implemented this project could be A.I. Denisenkov, who served as the Gubernial architect from 1835 to 1839. He had studied architecture on his own and did not have enough experience in design or professional knowledge for remaking and arranging “model” projects [9].

Initially, without further extensions, the building had a rectangular plan with the length of 13.8 m along the front facade (6.5 sazhen), 10.7 m. (5 sazhen) along the side facade, and the height of the building of 8.5 m (4 sazhen), as well as five window axes. The window openings with a two-to-one ratio are framed by profiled surrounds on the first floor. The upper surrounds of the window openings of the entire first floor of the building have single-piece wedge-shaped key stones. Above the central and side window openings of the second floor (along three axes), there are triangular-shaped fascias on elegant brackets [10]. The perimeter of the building is encircled with a laconic window-sill and interfloor cornice, as well as a profiled crowning cornice decorated with denticles. Previously, the building had had an attic in accordance with the “model” project, but it was lost, although a part of the attic remained in the south-eastern section of the facade.

Evolution of the architecture in capital and provincial cities of the Russian Empire in late 18th – mid-19th centuries (Table 1).
Table 1. Evolution of the architecture in capital and provincial cities.

| Cities/time period | Architecture of Russian capitals | Provincial architecture |
|--------------------|----------------------------------|-------------------------|
| Architecture of late 18th century | Classicism as a style became firmly established in Russian capitals deriving from the rich traditions of European architecture | Reproduction of the capital models and architectural prototypes of strict classicism |
| Architecture of the first third of the 19th century | Empire as a stage of decay of the style system of classicism is perceived as a “frozen” canon and leads to the search for a new style | Formation of the planning structure of provincial cities according to new general plans, construction of buildings based on “model” projects |
| Architecture of the middle of the 19th century | Change of stylistic direction. Rejection of classicism in favour of eclectic architecture | Temporary delay before the appearance of a new style in provincial cities, construction based on “model” projects continues |

The volumetric planning structure of Voronezh, which was based on a new regular plan, consisted of three parts of the city - Moskovskiy, Dvoryansky and Meshchansky. The total area of estates, built up and undeveloped, was 475 hectares. A small part of the estate (0.4%) was allocated for vegetable gardens, and 3.9% were just wastelands. A quarter of the entire area of the estates was occupied by gardens, and the rest of the space (68.7%) - by yards, which amounted to 211.8 hectares. The area of the estate, with its subdivision by types for separate parts of Voronezh (in hectares and in percent, according to statistical data) [11] (Table 2).

Table 2. The area of the estate, with its subdivision by types for separate parts of Voronezh.

| Part of the city | Yards | Gardens | Vegetable gardens | Wastelands |
|-----------------|-------|---------|-------------------|------------|
| MOSKOVSKIY      | 129.2 | 48.8    | 0.5               | 9.2        |
| DVORYANSKIY     | 99.5  | 48.4    | 0.9               | 2.8        |
| MESHCHANSKIY    | 97.7  | 31.1    | 0.3               | 6.4        |
| City (475 GA)   | 326.4 | 128.3   | 1.7               | 18.4       |

4. Summary
The conducted study of the unique monuments of history and architecture of the classicism period of Voronezh and their comparison with the architectural prototypes of Russian capitals, as well as their correspondence to the “model” projects of the late 18th and early 19th centuries showed similarities and differences in their structural-compositional, space-planning, and decorative features. The correlation was found between the Moscow buildings by M.F. Kazakov and his contemporaries that were used as the prototypes for the design and construction of the Tulinov’s House in Voronezh.

The “model” projects designed by the architect V.P. Stasov were found that served as the prototypes for Voronezh buildings of the first half of the 19th century fully corresponding to their visual and space-planning structure. The results of the conducted study on the determination of architectural analogues, prototypes, and examples of the classical style of Russian architecture broaden the theoretical knowledge on the origins of provincial Voronezh architecture of the first third of the 19th century as an integral part of all-Russian architecture.

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