Regulating architectural and civil engineering process in Russia in the 18th – the beginning of the 20th century

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Abstract. The establishment and development of authorities regulating and controlling the architectural and civil engineering practice are governed by a variety of components that include not only artistic and aesthetic ones, but also political and economic, social, legal and other aspects in the 21st century. The scientific novelty of the study is as follows: results of a comprehensive research of the system for control and regulation of the architectural and civil engineering process in Russia from the 18th century till the beginning of the 20th century as a part of central, industry-specific, territorial and local authorities are given. It is demonstrated that qualitative changes in the centralized system regulating the architectural and civil engineering process manifested in the needs of relevant stages of social and economic as well as political development of the country (transformations during the rule of Peter the Great, Catherine the Great, Alexander I, and Nicholas I; accelerated development of capitalism after the abolition of serfdom, drastic increase in the rate and scale of rental housing construction in cities). Development of operation of various authorities governing and regulating (central, industry-specific, territorial, local) architectural and civil engineering activities is shown.

1. Introduction
The history of any kind of practice repeats the history of the country, its statehood, and legal fundamentals applicable in a particular area of activity. Naturally, the architectural and civil engineering practice in Russia is not an exception. Consideration of architectural and civil engineering activities at the level of developing their regulation and legal framework allows for better understanding of regularities in the architects’ practice, as well as specifics of volumetric and spatial solutions. In turn, studying the history of architecture from this perspective makes it possible to see the theory and practice of architecture in a new light [1].

Implementing this approach to the architectural and civil engineering process, the author clarifies the boundaries of spatial and temporal periods in the history of architecture in the 18th – beginning of the 20th century on reasonable grounds. Within the approach, processes of statehood development, formation of the legislation in the field of architecture and civil engineering, governance and regulation in this area, as well as theoretical concepts and principles, stylistic and aesthetic directions are taken into account.
2. Regulation of architectural and construction activity and architectural and town-planning process

2.1. First period (1710s–1761)

At this time the stylistics was influenced by baroque trends in architecture. Those included the Petine architectural and construction ideology, as well as functional feasibility; splendour and decoration characteristic of the reign of Anna Ivanovna and Elizabeth Petrovna [2].

At the time, the idea of regularity became a political concept of statehood. It included regularity of such components as the state government structure, estates institutions, army, and police. The idea of regularity had a direct impact on the urban-planning, as well as the architectural and civil engineering concept that involved formation of populated areas, urban planning structure, social and functional division of urban territories [3] (city center and its suburbs), regularity of real estate development and its ranking according to the property status of dwellers, etc.

In the first half of the 18th century, the ideas of urban development as well as architectural and civil engineering activities acquired national and political sense. Therefore, development of legislative initiatives in architecture and construction, governance and control became a matter of supreme power [4]. The laws regulating the rules of urban planning and real estate development were issued by central authorities and signed by the monarch personally. This is demonstrated by laws and regulations specified in the Code of Laws of the Russian Empire [5].

Uncodified laws made during the reign of Peter the Great, determined by specific urban-planning as well as governmental programs in the field of architecture and construction, allowed defining general features of an ideal city and set the direction for development of new principles of city planning in general and planning individual components of a city for several centuries ahead.

A plan of a new capital city made by Jean-Baptiste Alexandre Le Blond was the programmatic document of regular construction (Figure 1). Essentially, it is an urban-planning programmatic document determining the basics of creating an ideal city. Dealing with the existing volumetric and spatial objects located in the territories near the Neva river, Le Blond was forced to step back from the traditional centric urban layout. The city was surrounded by a belt of fortifications and had the form of a regular oval. Le Blond assumed that the central part of the city would be on Vasilyevsky Island and, therefore, included the existing facilities — the Peter and Paul Fortress and the Admiralty — in the planning structure, outlined general areas of the city, and designed the location of the suburbs [6].

Figure 1. Le Blond’s plan developed for Saint Petersburg.
During that period, the "Duties of the Department of Architecture" treatise, a programmatic legislative document that was almost a century ahead of the building code, was developed. The hierarchy of regularity and order in that period manifested in stronger administrative centralization and power of the monarch, in strictly co-subordinate and structurally justified top-down governance. At the time, basics that allowed further efficient operation of the "center – ministerial authority (collegiate authorities) – local authority (governorate authorities)" system were laid [7].

2.2. Second period (1761–1802)
It was the time when global ideals of the Enlightenment reflected in the ideology of absolutism were introduced to the Russian statehood.

Urban-planning laws of that period intended to set a certain vector of future development of cities, and a new concept of an ideal city was created in its classic sense. A layout of the Kremlin Palace by V.I. Bazhenov became the guide and the programmatic document of the Classicism era [8] (Figure 2). That epic design triggering associations with Roman forums declared a new stylistic direction. Practical activities of the period made it possible to embody new urban-planning ideas in more than 400 cities [9].

![Figure 2. The project of the Kremlin Palace in Moscow. The Architect V. I. Bazhenov.](image)

The empress, "the only enthroned European", initiated many programmatic enactments, including those on urban planning as well as its control and oversight. The supreme power leaned towards stage-by-stage reforming of political and public institutions, having started with writing a new Code.

The main reforms during 1761–1802 included: reforming governorate institutions, establishing new police authorities, improving the administrative and territorial status of the city. Vicegeral and provincial governing bodies generally managed administrative and territorial entities and were fully responsible for the territory in their jurisdiction. The reform made it possible to decentralize the supreme power, having transferred the power to vicegeral bodies. Knowledge of the
governorate specifics was required of governors, which is why they had to define the territorial boundaries of districts (uyezds) and statuses of populated localities [10]. Establishment of the Police Authority made it possible to form particular bodies in the police structure for oversight over real estate development and improvements in populated localities.

New approaches to the organization of public governance in cities allowed developing an efficient structure of city construction and city property regulation and government as early as in the next century.

2.3. Third period (1802–1833)
It was the last period related to implementation of large-scale projects of ensembles in capital cities. The imperial image of Saint Petersburg was created by the genius of the greatest architects of the first third of the 19th century in the forms of Late Classicism [11]. (Figure 3). The principle of ensemble construction was also used in reconstruction of Moscow [12]. The triumph of Classicism in Russian cities manifested in development of central squares and residential buildings according to exemplary designs [13].

![Figure 3. Ensembles of the historical center of St. Petersburg. Architect K. I. Rossi.](image)

It was the time of complete reconstruction of the system of state and local government. Further centralization and bureaucratization of the government apparatus started to develop, and individual governing bodies became more specialized. The manifesto on "establishment of ministries" laid the foundation for a new form of industry-specific governance. The structure and tasks of the Ministry of Internal Affairs were fundamentally new. The Ministry was responsible for regulation of construction in Russia. Individual construction departments not subordinate to the Ministry of Internal Affairs were also established in new industry-specific authorities.

Among the significant events of the time, continuation of the legislative work on the new Code shall be noted. As a result, a complete code of laws for state governance and activities of industry-specific authorities was developed. In 1832, the Building Code, the main document regulating real estate development, was authorized for issuance. Introduction of the Building Regulations that became the main document on standardization in construction allowed standardizing all stages of the construction process.

Centralization of construction governance and control manifested in establishment of the co-subordinate administrative and territorial structure "governorate – district (uyezd) – volost". This made
it possible to efficiently solve the matters of land organization for governance and regulation of construction activities in situ.

Foundations for efficient reformation of city governance were laid in that period. As early as in the next period, the state control over the city's public funds contributed to efficient work of city authorities with regard to the increase of the city property and budget revenues [6,14].

2.4. Fourth period (1833–1865)
Public and cultural worldview theories and awareness of cultural continuity were reflected in architecture oriented towards stylistic concepts of "historicism". Eclectic stylistic search continued during the second half of the 19th century [15]. However, it was relevant for capitals and large Russian cities only. Due to the recommendations to develop cities of the Empire according to the approved exemplary designs (with some corrections possible), in provinces, classical traditions still prevailed [16].

Centralization of the construction authority during that period allowed developing a single system of road and civil construction within the new Main Department of Transportation and Civil Buildings. The militarized nature of the authority was meant to guarantee well-coordinated governance of construction in Russia. District authorities established as early as in the beginning of the 18th century, regulating construction of roads in governorates, became the organizing basis for civil engineering that guided activities of governorate construction committees. Construction activities in situ were controlled by governorate offices (Figure 4).

As for that period, improvement of the Building Code, new versions of which were issued in 1842 and 1857, as well as clarification of the Building Regulations can be mentioned as law-making initiatives of the Main Department of Transportation and Civil Buildings [17]. In order to intensify works, working hours were reduced by 30%. The number of workers performing construction operations was also decreased.

Large volumes of construction works, establishment of managerial structures at various levels and authorities required a significant number of specialists with architectural education. In 1832, the College of Civil Engineers was founded. Its graduates could solve engineering and construction as well architectural and artistic tasks.

One of the functions of the Ministry of Internal Affairs at the time was development of the new City Regulations that would match the complicating structure of city governance and the nature of
tasks solved by city public authorities. At the same time, the Ministry controlled commercial activities in populated localities of different levels.

The control over the city budget by the state contributed to the increase in revenue, which made it possible for city communities to take necessary construction measures, as well as conduct works to improve city territories.

2.5. Fifth period (1865–1900)
Active urbanization processes, typological diversity of buildings, development of science and technology affected the architectural and civil engineering activities of that period. Technical advancement facilitated development of many industries, occurrence of new ways to perform works, emergence of new construction materials and structures.

The city becomes the center of social, sanitary and hygienic, residential, transport and other matters demanding urgent solution. Changes in values and stylistic preferences characterize the artistic and aesthetic aspect of the architectural and civil engineering practice [18].

The second half of the 19th century is characterized by solutions to the matters related to the reforms in all areas of public life, starting with economics and ending with politics [19]. That modernization had to be conducted in the large territory of the country with many feudal relics of the past and strong conservative traditions. Besides state governing authorities, city, country and peasant public organizations appeared in the legal terrain [20]. This required improvement of the legal framework, including in the area of the land as well as architectural and civil engineering laws.

The Compiled Codes, Building Regulations and technical reporting rules were still the main legislative documents in the field of land use and construction.

In 1865, the Ministry of Internal Affairs became the central governing body in civil engineering in Russia [8]. Technical and Construction Committee within the Ministry of Internal Affairs became the governing body in terms of construction in Russia. It conducted technical and police oversight. However, it not only performed oversight and regulatory functions, but also functioned as a law-making, expert and approving authority.

Construction Departments forming a part of governorate authorities became the representative bodies of the Technical and Construction Committee. Each department was headed by a governorate engineer and included an architect. The police conducted general oversight over construction and improvements, monitored compliance with law in those areas as well as compliance of construction activities with legal regulations and circular notes of the government in cities and in the countryside.

Buildings and structures of other ministries (Ministry of the Imperial Court and Domains, Ministry of National Education, Ministry of War, Naval Ministry, Ministry of Railways, Office of the Institutions of Empress Maria, Department of the State Treasury, etc.) did not fall under the responsibility of the Ministry of Internal Affairs being the central body for construction regulation in Russia. Due to increasing volumes of construction and reconstruction works conducted by those authorities in the second half of the 19th century, construction departments staffed with engineers and architects started to play a significant role in the structure of those ministries.

Among other things, the reforms of the second half of the 20th century resulted in extension of city communities' rights. Increasing welfare of cities and city public property (such as land, buildings and structures), as well as delegation of responsibilities for construction in cities to City Councils required establishment of Construction Departments within such City Councils. The position of the city architect was also introduced.

Technical departments engaged in construction management and improvements were established within country authorities.

3. Conclusions
Practical efficiency at each level of regulation for the architectural and civil engineering process (state, industry-specific, local) corresponded to the domain of their competence, but the ultimate efficiency was almost always a result of the transforming influence of a multi-level regulatory system. The
historical experience in governance and regulation of the architectural and civil engineering process in the 18th – the beginning of the 20th century provides a complete picture of architectural and civil engineering activities. The stages of social, economic and political development of the country, qualitative changes in the centralized system of regulation and control over the architectural and civil engineering process allowed dividing the historical development of architecture into periods.

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