Artistic and Industrial Institutions in Russian Education
Structure in XIXth Century

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Abstract. The article briefly describes the history of the Russian design education in the XIXth century within the context of the single pan-European artistic process development. The attention is drawn to the peculiar features and causes of insufficient efficiency. The article specifies the role of architecture as a style-forming type of the artistic and technical activity in the establishment of the art industry. It emphasizes the importance of the designation of a designer profession as a special type of design activities going beyond the limits of “the art for art’s sake”. It asserts its right to independence, emphasizes its applied relevance and cross-disciplinary nature. It reveals the determining role of such historical and cultural phenomenon as the Russian style in the establishment and self-determination of the national art industry. The article links the growth rates of the Russian art industry with the industrial production development level and the level of social and legal relations in the state.

1. Introduction
In Russia, design as an independent type of professional activities began to form in the XIX century and is connected with the industrial production development. The term “design” was not used at that time, and the design product belonged to the “art industry” or was more seldom named “fine industry”. Even in the XXI century in Russia, the term “arts and industry” has been used in the name of all specialized universities. Although the multi-stage establishment and development of the art industry in Russia was in line with the pan-European artistic process, chronologically these changes were passing several decades later than in Western Europe. It is connected with the peculiar features of the historical path of Russia and its economic development level. Some peculiar features of this path different from the pan-European process maintain their influence on design even in the XXI century. This article deals with studying the pan-European design development trends and the peculiar features of its establishment in Russia.

2. Problems and Trends in the Russian Design Education in the Historical Context.
The works of the following authors were used as a scientific base for this article: E.I. Kirichenko, V.I. Butovskiy, V.V. Stasov, L.M. Chernevich, E.A. Borisova, G.Yu. Sternin, N.P. Parfentiev, N.V. Parfentieva, A.F. Gartvig, A.N. Shulgina, I.A. Pronina, N.I. Bryzgov, E.A. Borovskaya. It is necessary to outline several problems, which retard the development of the Russian artistic and industrial education. Overcoming of the negative trends in the design education will increase its current efficiency and competitiveness and make a contribution to the scientific and technical progress:
• Problem of professional identification. Place and role of design in the structure of the national education and industrial production.

• Problem of social and legal relations in the art industry field.

• Problem of choosing the national development vector: West - East. Distribution in the social values hierarchy scale, interaction of the national and the universal (European).

• Gap between the theoretical education and the practical application of the obtained skills in the conditions of production.

In Russia, starting from the end of the XVII century, the nation-wide objective of the sociopolitical national development has lied in reaching a public, economic and cultural level and the political status of the peoples of Europe. The Moscow tzardom was transformed into the Russian Empire – an absolutist monarchy of the European type. The path chosen by Peter I resulted in shifting the accents, values and artistic traditions. Pushing the boundaries of the Byzantian-type culture connected with Orthodoxy was performed by a forcible propagation of the European culture genetically linked with other variants of Christianity. The new governmental policy was focused on: European education, European sciences, European way of life, European art and objective-spatial life environment [1]. Peter’s reforms gave a strong boost to the development of Russia but simultaneously led to the greatest social, spiritual and cultural split of the Russian society. This split turned into one of the realias of the Russian life and provoked a counter-motion aimed at its liquidation. The objective was to revive the former unity of the two cultures independently developing in the XVIII century: folklife culture connected with the pre-Peter culture by a continuous tradition and Europeanized culture of the educated clusters [1].

In Russia, before Peter’s reforms, there were various artistic crafts, landlords’ and court workshops engaged in discipline-making, which served the foundation for the future development of the applied arts school, including the academic school. However, the home-bred craftsmen could not fully satisfy the nobility’s demand for interior pieces of art made of metal, porcelain, glass, fabric, etc. Therefore, starting from the middle of the XVIII century, there appeared manufactories owned by landlords, merchants and the Emperor’s court. But there were few of them, which enabled European manufacturers to flood the market with their products. Foreigners receiving the Russian citizenship did not only freely imported their goods to Russia but also opened companies (in particular, art industrial companies) and brought foreign workers to keep their industrial secrets [2].

In 1724, mechanic, designer, artist, head of the Academy of Sciences and Arts Nartov A.K. presented the project of creating the Academy of Various Arts, in which he proposed to teach students not only painting, drawing, sculpture and architecture, but also various technical sciences: construction, metalworking, design [3]. But the first artistic and industrial educational institution appeared in the Russian Empire only 100 years later.

In the XIX century, the pan-European rise of interest in the Middle Ages and the national cultural heritage was primarily manifested in architecture. The greatest contribution to the spread of romanticism (the initial phase of eclecticism) in Russia, as part of a single pan-European process, belongs to Germany. The ruling circles of both countries did not only belong to one social class, but sometimes to one nationality - German, which contributed to the involvement of Russia in this process. At that time, the political and cultural influence of the Germans in the Russian Empire was significant: officers of the Russian Guard (ethnic Germans) actively participated in suppressing the Decembrist uprising in 1825.

The cultural dependence of the ruling class on the European countries balked progress in the artistic and industrial education, making the very existence of educational institutions in Russia, which trained applied artists, irrelevant. Only during the reign of Emperor Nicholas I, there was a divergence from the course for the total Europeanization at the state level, there appeared an understanding that the existing monopoly of European manufacturers in the art industry field in the market makes the Russian consumer "a tribute and a slave of foreign fashions and fancies" [4]. This imbalance caused a public need to create artistic and industrial educational institutions in Russia to train relevant specialists.
The founder of artistic and industrial education in Russia was Colonel of the Cavalry, Count Sergey Grigorievich Stroganov, who founded a Drawing School related to Arts and Crafts in 1825 in Moscow using his own funds. Stroganov S.G. actually continued the traditions of his family, who had acted as patrons of various arts since the XVI century. In their patrimony, in Solvychegodsk, several types of applied arts were developed. Those were an icon-painting studio, a book-workshop (scriptorium), workshops for fine sewing, enamel workshops, workshops of silverware, etc. The activities of the workshops were focused on the needs of the churches under construction and intertwined with the entrepreneurial activities of the Stroganovs at the development of lands in Perm region [5]. Stroganov S.G. wrote that the idea to found an educational institution of applied arts was inspired by the experience of the drawing schools in France and England: "We will imitate those who have predated us in the field open to human abilities; we will borrow from them what they have acquired by time and experience" [4]. He proclaimed the following purpose of the institution: "... to enable young people aged from 10 to 16, who devoted themselves to various crafts and craftsmanship, to learn the art of drawing, without which no craftsman is able to perfect his products" [4]. It was planned to give classes in the classroom twice a week, two hours each, since it was taken into account that the students could work in factories. The training course lasted for 6 years.

When the curriculum was approved, disagreements arose between the school's founder and the ministry, which proposed to establish an educational institution of narrowly technical drawing. But Stroganov did not strive to train skilled craftsmen or draftsmen, but "inventors", masters with developed artistic and creative abilities. The founder saw the perspectives of the school in that the students could "turn into" masters, whose names "will shine near the names of the most distinguished artists of France and England". A feature of the Russian school distinguishing it from European schools was that it had a broader program, which included teaching such subjects as geometry, architectural drawing, while in France they taught only drawing in similar schools [2].

In 1832, in St. Petersburg, at the initiative of Reussig Kornelia Khristianovich, a German scientist in the field of precision mechanics, astronomy and cartography who came to Russia in 1810, public classes of painting and drawing were opened and a program of "graphic classes" was developed for students of St. Petersburg Institute of Technology. According to Borovskaya E.A., it was the first in Russia (and perhaps the first in Europe) design training course for the higher technical school. The success of the drawing classes in the Institute of Technology prompted Reissig K. Kh., under patronage of his compatriot, Minister of Finance of Russia, Count Kankrin, E.F., to found a "Drawing School for Volunteer Students" in 1839 [6]. In 1876 in St. Petersburg, the Central School of Technical Drawing was founded at the expense of a banker and industrialist, as well as a native of the German lands, Baron Stieglitz Alexander Ludwigovich.

An important event in the cultural life of Russia was the opening of female classes in Reissig's School in 1842. In the early 40s of the XIX century, the attitude to women's education in the society was determined by prejudices that cast doubt on the women's ability to learn. The female classes of the Drawing School functioned as its organic part and were an element of the integral pedagogical system [6]. In the XXI century in Russia, in the field of artistic and industrial education (design) in certain areas of training, the percentage ratio of female to male, dominates and ranges from 70 to 100% of the number of students.

Industrial design was born in Europe in the middle of the XIX century. The reason was the crisis of the artistic situation in the field of the objective world form making: a decay of crafts, a gap between the meaning and the form of an object, a violation of the existing fundamental principles of form making. Design activities were formed as a reproduction of craft specimens by means of the industrial production. However, the adaptation of the new technology to the specimens created on another technological basis turned out to be non-technical and economically unprofitable for the industry. Therefore, there appeared a need to redesign the morphology of craft specimens taking into account the new technology, without changing the functional designation of items. To solve this problem, there appears morphological engineering (or design), which creates and implements projects of new
material forms based on process design, which does not deal now with craft specimens, but with morphological models created in the process of design[3].

The Great Reforms were carried out by Emperor Alexander II in the 60s of the XIX century, after the defeat of Russia in the Crimean War (1853-1856). In this war, the Russian Empire of Nicholas I faced the attacks of a coalition of states (Turkey, France, Sardinian Kingdom, England) with the potential involvement of Austria and Prussia in this union. The military and economic confrontation left its mark on the formation of Russia’s cautious attitude not only to the policy, but also to the cultural values of the Western world. Experiencing the hostility of Europe, the Russian society was forced to seek an alternative, new benchmarks in the field of art. The reforms of Alexander II, in this context, are more significant for the development of the Russian art and the artistic and industrial education than the reforms of his predecessor Peter I. The first Russian emperor made an attempt to mechanically connect Russia to Europe in terms of culture, actually subordinating the first one to the pan-European "prototype". The reforms of Alexander II contributed to an active inclusion of the Russian culture as a full-fledged independent phenomenon into the mainstream of the global artistic process.

The conservative policy of Alexander III following the reforms put an emphasis on the development of the internal forces of the country. The growth of the industrial production, development of the railway transport, creation of the all-Russian market, holding of artistic and industrial exhibitions, establishment of museums and societies, the artists’ addressing industrial subjects - all these contributed to the success in the economy and culture. There appeared a need for printed products - mass print advertising, where the national symbols and images became a tool of the competitive struggle for consumers (used as a marker for domestic goods as opposed to foreign products). The development of capitalism was accompanied by the devastation of villages and the aggravation of social conflicts. In the 1970s, among the progressive layers of the society, the ideas of "populism" penetrating into literature and art became popular. "Going to the people" attracted the attention of the cultural layer of the Russian society to the life of its people, their manners and history. In the society, there were discussions between the two social groups: "Slavophiles" and "Westerners" concerning the further national development ways. The subject of the dispute is the choice of the way: capitalist, typical of the Western European countries, or its own one. The battlefield is the state structure, economy, policy, culture, art. Discussions in Russia were fundamental and fierce, which was unprecedented for other countries. The world outlook separation barrier also passed through the national artistic and industrial education, where the struggle for the right to independence of the Russian art, for the "Russian style", was triggered.

Art critic Chernevich E.V. believes that the origin and the development of the Russian style were not only an internal professional matter concerning the areas of the creative activity. Raising the question of the Russian style and concrete manifestation forms are obliged to the participation of the entire Russian thought - social, philosophical, historical, artistic, socio-political[7]. Kirichenko E.I. asserts that the concept of "Russian style" is narrower than the concept of "Russian art". However, in the art of Russia of the XVIII-XIX century, there was no style direction comparable with the "Russian style" by the integrity of ideas, meaning and distribution width. By the term "Russian style" he implies a historical phenomenon born by the social need to express the ideas of originality, folk character and nationality in the art, visualizing the things, which, in a certain period of time, are identified with the people's spirit in the minds of contemporaries[1].

In 1860, Butovskiy Viktor Ivanovich (1815-1881) became a director of the Central Stroganov School of Technical Drawing. He was a historian by education and an economist by profession, who had connections with the industrial circles of Russia and Europe. His brother Butovsky A.I. headed the Department of Manufactures and Trade at the Ministry of Finance (to which jurisdiction the school belonged)[8]. Butovsky V.I. set an objective to oppose "the excessive commitment of our manufacturers to foreign sources and to copying foreign images and forms ... to point at sources of the original artistic style to our manufacturers"[9]. The curriculum of Stroganov School included the reproduction of folk art objects, church utensils, ornaments of Russian manuscript books, headpieces,
drawing of the architectural decor of ancient temples. For this purpose, expeditions were sent to the ancient Russian cities: Great Novgorod, Suzdal, Vladimir.

In 1873, the government awarded the educational institution the title "Central Stroganov School of Technical Drawing", whereas "it is assigned to serve as a nursery of the artistic education in the industrial and working population with the help of its branches"[10]. The school becomes known in Europe and overseas, which was manifested after its participation in the international exhibition in 1876 in Philadelphia (USA). Then, the school received a diploma for ceramics with a national specific character. The methodological developments presented by Stroganov School encouraged to revise the pedagogical system of American elementary schools[2].

In 1870, director of St. Petersburg Drawing School for Volunteer Students Grigorovich D.V. issued a brochure "The Drawing School and the Arts and Industries Museum in St. Petersburg" presenting a program of the development of arts and crafts and the art industry of Russia. He sees his school as a central link in the system of the artistic and industrial education: "An artistic institution ... would not half-achieve its objective if it limited its activities only by the capital; its duty would be dealing with the industrial cities of provinces, sending drawing teachers to them, supplying them with drawings and samples of all kinds with regard to local products. Its structure would be an example for future institutions of the same kind." Grigorovich regards the lagging of the Russian artistic and industrial education behind Europe as a gap in the general educational system - "with it, both the general education will be incomplete, and the special education will not achieve its objective"[6].

The two main artistic and industrial institutions of the country: Stroganov Central School of Technical Drawing in Moscow and the Central School of Technical Drawing of Baron Stieglitz in St. Petersburg personified two opposing centers. In the "Collection of Compositions of Stroganov School over 1894-1899" published in 1900, most compositions are dedicated to the design of temples and religious objects, which style-forming elements were ancient Russian ornaments and religious images. Designs of everyday items repeated traditional folk forms. The prevalence of compositions in the Russian and Neo-Russian style is determined by the ideology of the Moscow institution - it is a promotion of the national trend in the art industry [10]. In Petersburg, however, the "Vienna" or "German modern style" was widespread. In the products of the Imperial Porcelain Factory, this direction was cultivated by artists, graduates of Stieglitz School, who perceived the stylistic techniques and the spirit of Western European modernist style during their foreign educational trips [9].

The Russian style was not a homogeneous phenomenon and had internal stylistic peculiar features and its adherents. An ideologist and a propagandist of the democratic variant of the Russian style was authoritative art critic, democrat, humanist and atheist Stasov V.V. (1824-1906). The main thing for him is a moral and ethical criterion, by which the art is non-national, serving the aristocracy, "ethically turns into a category of unworthy and devalued. Beauty and art, in the view of Stasov V.V., exist only as a derivative and subordinate to moral and socially significant things. Stasov V.V.’s unreasonable enthusiasm concerning the democratic version of the "Russian" style is associated with the personification, in his eyes, of the highest degree of artistry due to the combination of the function and design democracy with a literal folk character of the style-forming form[11].

After he visited the exhibitions of pieces of art and industrial educational institutions in the 90's of the XIX century, Stasov V.V. published an article, in which he criticized the Central School of Technical Drawing founded by Baron Stieglitz A.L. in St. Petersburg. Noting that “Over this year, Stieglitz School has had a lot of good things, worthy of respect”, Stasov V.V., wrote: "... It is not national. It is not Russian, it is pan-European, it is unknown what it is. The school of Stieglitz teaches too much ... the German rococo and Jesuit style - and almost does not want to know the Russian style at all. .... National-Russian ... Oriental note ... - this is what should be the main concern of all those who give our scientific and artistic education. Without this, the art coming out of our hands will always be colorless and tasteless for us and pale and insignificant for the rest of Europe ... You will not go far with the monkey style and mere copying[12].

In Moscow and St. Petersburg, the national artistic and industrial education was born, and for a long time, they remained the two centers of the design culture for the entire great empire. The capital's
educational institutions were burdened by the promotion of relevant knowledge through the establishment of their branches in the province, organization of courses for advanced training of provincial teachers, trips of graduates from the capital to the regions and populated settlements of the country. This situation became a peculiar feature of the Russian system of artistic and industrial education in the XIX - XX century, partially preserved in the beginning of the XXI century.

3. Conclusion
Design as a kind of professional activity is not self-sufficient but has an applied value. Its nature requires from the designer to have a balance between humane and technical competencies. This unique feature of design throughout its historical path made it difficult to classify it, predetermined its erroneous positioning and caused its inefficiency. In the historical context, the relevance of the designer's profession was not questioned, but the place of design in the economic and educational system, the social and legal status of the designer, his belonging to art, and more broadly, to a special kind of creative activity, was a subject of discussions. In addition, there was a problem of self-determination for Russian design, in the context of asserting the right of the Russian art to its originality. It became obvious in the XX century, but in the XIX century it still required proof and carrying out additional scientific studies.

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