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ИЗ ИСТОРИИ МЕДИЦИНЫ

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ARCHITECTURE OF SAINT PETERSBURG HOSPITALS: FROM PETROVSKY BAROQUE TO HI-TECH. PART V. MODERN

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ABSTRACT. This article continues the research project on hospital architecture in St. Petersburg from a historical perspective: from Baroque on to High-Tech. The fifth part of the cycle is devoted to the Art Nouveau era, a trend that emerged at the turn of the 19th and 20th centuries as a counterweight to eclecticism. During this period, old artistic forms and techniques were rethought, and various types and genres of art were brought together and merged. The architectural and artistic image of an Art Nouveau building necessarily took into account the functional purpose of the structure — primary attention was paid to the layout of the interior spaces, which in turn influenced the external forms. Architectural structures of this period are distinguished by asymmetry, abundance of fancifully curved lines and shapes, liana-like twists and interweavings. The artistic and architectural-compositional features of the style are considered using the example of the Children's City Hospital "In Memory of the Sacred Coronation of Their Imperial Majesties", the Orthopedic Institute, Olga's Shelter for the Sick in Memory of Gregory, the Community of Sisters of Mercy of St. George and the Kronstadt Naval Community of Sisters of Mercy of the Russian Red Cross Society, the St. Petersburg City Hospital for the Mentally Ill in the Name of the Holy Great Martyr and Healer Panteleimon, the A.E. Bari Hospital, Maternity Hospital No. 1, and the Central Hospital of the Post and Telegraph Department. Art Nouveau architecture, which replaced eclecticism, marked the beginning of a new art, creatively transforming the entire history of European art. While using all the architectural innovations of this style, the hospital buildings of St. Petersburg retained classical austerity, but what was most important, they were entirely functional. The Art Nouveau era was reflected not only in the decorative design of buildings, but above all in the functional equipment of hospitals, the competent planning of buildings, and the creation of a more comfortable environment for medical institutions.

KEYWORDS: Saint Petersburg, hospital architecture, modern, Children's City Hospital in memory of the Holy Coronation of Their Imperial Majesties, Orthopedic Institute, Olgas' shelter for the sick in memory of Gregory

АРХИТЕКТУРА БОЛЬНИЦ САНКТ-ПЕТЕРБУРГА: ОТ ПЕТРОВСКОГО БАРОККО К ХАЙ-ТЕКУ. ЧАСТЬ V. МОДЕРН

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РЕЗЮМЕ: Статья продолжает исследовательский проект о больничной архитектуре Санкт-Петербурга в историческом ракурсе: от барокко к хай-теку. Пятая часть цикла посвящена эпохе модерна — направления, которое сформировалось на рубеже XIX–XX вв. в противовес эклектике. В этот период происходило переосмысление старых художественных форм и приемов, сближение и слияние различных видов и жанров искусства. Архитектурно-художественный образ здания стиля модерн обязательно учитывал функциональное назначение строения — первостепенное внимание стало уделяться планировке внутренних помещений, что, в свою очередь, влияло на внешние формы. Архитектурные сооружения этого периода отличаются асимметрией, обилие причудливо изогнутых линий и форм, лианообразные извивы и переплетения. Художественные и архитектурно-композиционные особенности стиля рассмотрены на примере Детской городской больницы «В память Священного коронования Их Императорских Величеств», Ортопедического института, Ольгиного приюта для больных в память Григория, Общины сестер милосердия Святого Георгия и Кронштадтской Морской Общины сестер милосердия Российского общества Красного Креста, Петербургской городской больницы для душевнобольных во имя святого великомученика и целителя Пантелеймона, лечебницы А.Э. Бари, родильного дома № 1, центральной больницы Почтово-телеграфного ведомства. Архитектура модерна, пришедшая на смену эклектике, стала творческим переосмыслением всей истории европейского искусства и ознаменовала собой начало искусства нового. При использовании всех архитектурных новшеств этого стиля больничные здания Петербурга сохраняли классическую строгость, но главное — были максимально функциональными. Эпоха модерна нашла отражение не только в декоративном оформлении зданий, но, прежде всего, в оснащении, грамотной планировке, создании более комфортной среды лечебных учреждений.

КЛЮЧЕВЫЕ СЛОВА: Санкт-Петербург, больничная архитектура, модерн, Детская городская больница «В память Священного коронования Их Императорских Величеств», Ортопедический институт, Ольгин приют для больных в память Григория

Modern style (French moderne from the Latin modernus — new, contemporary) emerged at the turn of the XIX–XX centuries, significantly displacing retrospective stylization [1–4]¹. The main focus of this period was a desire of artists and architects to contrast their work with the eclecticism and historicism of the second half of the XIX century. Art Nouveau is characterized by a free layout that meets the functions of buildings, the use of new construction and finishing materials such as metal, reinforced concrete, glass, facing brick. This period saw a

rethinking of old artistic forms and techniques. Architectural buildings of this time are characterized by asymmetrical volumes, which were created using oriel windows, towers, balconies, an abundance of intricately curved lines and shapes, flowing silhouettes, liana-like twists and weaves, emphasized decorativeness, the use of mosaics, majolica, stained glass as decorations, the predominance of pastel muted shades in the color scheme [5–7].

An example of a medical institution built in the Art Nouveau style is the St. Petersburg City Children's Hospital "In Memory of the Holy Coronation of Their Imperial Majesties" (2 Litovskaya Street). By the end of the XIX century, the high incidence of infectious diseases among

¹ This article continues a series of articles on hospital architecture in St. Petersburg that were published in previous editions of the journal Medicine and Health Care Organization [1–4].

children and the limited number of places for hospitalization led to the insufficiency of three children's hospitals in St. Petersburg¹. In 1896, the City Duma decided to open a new children's hospital, scheduling its establishment to coincide with the upcoming day of the Holy Coronation of Their Imperial Majesties. The beginning of construction was preceded by the need to develop a project and select a location for the hospital. To solve these issues, a Preparatory Commission was established, consisting of members of the city government, renowned scientists and pediatric practitioners².

A pavilion type of hospital was considered to be the most appropriate when the project was developed, thus, it became the basis for the project. The famous Art Nouveau architect P.Y. Suzor (1844–1919) presented sketches of various types of children's hospitals; the outstanding pediatrician, the author of the project of children's hospitals of Prince P.G. Oldenburgsky in St. Petersburg and St. Vladimir's in Moscow (pavilion type) K.A. Raukhfus (1835–1915) outlined requirements for building arrangement in accordance with their tasks. The hospital project was drawn up by architect M.I. Kitner (1868–1942), who later supervised the construction.

On August 23, 1901 the works started, and on September 22 the hospital was laid down. A plot of 15,497 square sazhen (a Russian unit of length equal to approx. 7 feet) was set aside for construction. In 1903 the buildings were finished in a rough form. In 1904 the premises were finished, equipment and inventory were imported: various medical devices, furniture, linen and dishes. The hospital was opened on May 25, 1905.

According to the pavilion system, the hospital consisted of 18 separate buildings (Fig. 1). Putilov rubble slab was used for the foundations,

the walls were brick, and concrete ceilings were reinforced with iron beams [9]. The appearance of the hospital complex was characterized by laconism (Fig. 2). The building facade is covered with smooth plaster, decorative details are laid with red face brick: horizontal and vertical belts with dentils in corner parts of the buildings; round medallions in the gable³, archivolt⁴ with dentils, gauged arches of windows, lintels of window openings, highlighted with bricks, including those with styled keystone. The buildings are completed with an iron pitched roof with wide overhangs with wooden purlins on wooden rafter tails⁵ (Fig. 3).

Oak floors were made in wards, and the rest of the rooms were covered with mettlach tiles. The hospital's chief physician D.A. Sokolov (1861–1915) decided to decorate the hospital by placing paintings by prominent artists that were understandable and interesting to children, the permanent residents of the hospital, and would also speak to the heart of their parents. Some of these pictures were painted on linoleum or porcelain tiles for easier washing and disinfecting. Most of the paintings were ordered from the Society for the Encouragement of Artists. Reproductions of paintings by G. Hoffman "Healing of the Sick" were placed at the entrance and "Blessing of Children" were placed in the hall of the outpatient clinic. The infectious pavilions were decorated with "Mother of God" by V.A. Bouguereau and "Christ in the Garden of Gethsemane" by G. Hoffman, the corridor of the diphtheria department was decorated with "Christ with Sheep" by G.P. Parker, and the hall for children's games was designed with "The Nativity of Christ" by J.K. Stieler. D.A. Sokolov himself made a sketch for the chapel — "Christ, scattering flowers to meet the souls of children who have left the earth". The only surviving painting is a copy of V.A. Bouguereau's work "The Virgin and Angels" found in a niche in the wall of the preoperative room of the surgical department during the renovation of the mid-1980s (Fig. 4) [10].

The buildings were subdivided into three groups: non-infectious and infectious departments, household

¹ In 1834, the Nicholas Children's Hospital was opened in St. Petersburg; in 1844, the Elizabeth Clinical Hospital for Young Children was established; and in 1869, the Prince P.G. Oldenburgsky Children's Hospital was opened.

² In the early 1900s the commission was transformed into the Construction Commission. New members were admitted: P.I. Lelyanov (head of the city government) was appointed as chairman, V.A. Troinitsky, M.A. Anichkov, V.S. Petrov, M.P. Botkin — as members of the Board, M.P. Botkin — as a chairman of the Hospital Commission, A.N. Oppenheim — as a chairman of the Sanitary Commission, V.A. Aleksandrov — as a councillor of the City Duma. K.A. Raukhfus and I.P. Korovin were invited as pediatricians in ordinary; S.V. Posadsky, N.I. Chernyaev, V.N. Reitz, L.I. Tomashevsky and, in the last year of construction, Prof. D.A. Sokolov were appointed as chief physicians of the hospital under construction.

³ Gable — a double sloping top of the wall, passing without projections into its main plane.

⁴ Archivolt — relief edging of the arch bending along its edge.

⁵ Rafter tail is a roof framing element that serves to extend the rafters and form an eave.

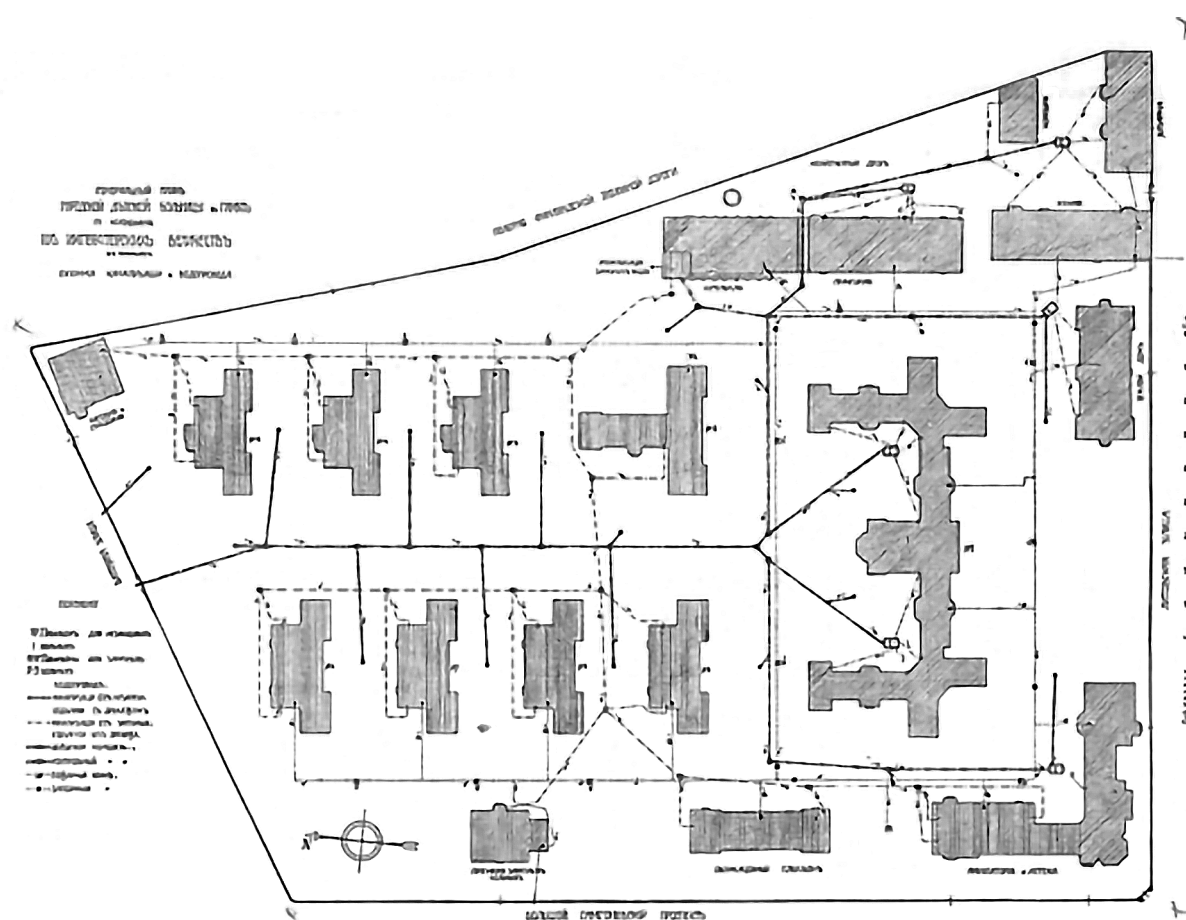


Fig. 1. General plan of the Children's City Hospital "In Memory of the Sacred Coronation of Their Imperial Majesties"

Рис. 1. Генеральный план детской городской больницы «В память Священного коронования Их Императорских Величеств» [8]



Fig. 2. View of the Children's City Hospital "In Memory of the Sacred Coronation of Their Imperial Majesties"

Рис. 2. Вид детской городской больницы «В память Священного коронования Их Императорских Величеств»¹

¹ Photo from the collection of the museum of the St. Petersburg State Pediatric Medical University.



Fig. 3. Decorative elements on the façade of the main building of the Children's City Hospital "In Memory of the Sacred Coronation of Their Imperial Majesties". Photo V.I. Makeeva

Рис. 3. Декоративные элементы на фасаде главного здания детской городской больницы «В память Священного коронования Их Императорских Величеств». Фото: В.И. Макеева



Fig. 4. Copy of V.A. Bouguereau's painting "Our Lady of Angels" in the pre-operative room of the surgical department [10]

Рис. 4. Копия картины В.А. Бугро «Богородица и ангелы» в предоперационной хирургического отделения [10]

Fig. 5. Children's City Hospital "In Memory of the Sacred Coronation of Their Imperial Majesties". Entrance to the outpatient clinic building with a pharmacy, emergency room and hospital office

Рис. 5. Детская городская больница «В память Священного коронования Их Императорских Величеств». Вход в здание амбулатории с аптекой, приемным покоем и конторой больницы¹

¹ Photo from the collection of the museum of the St. Petersburg State Pediatric Medical University.



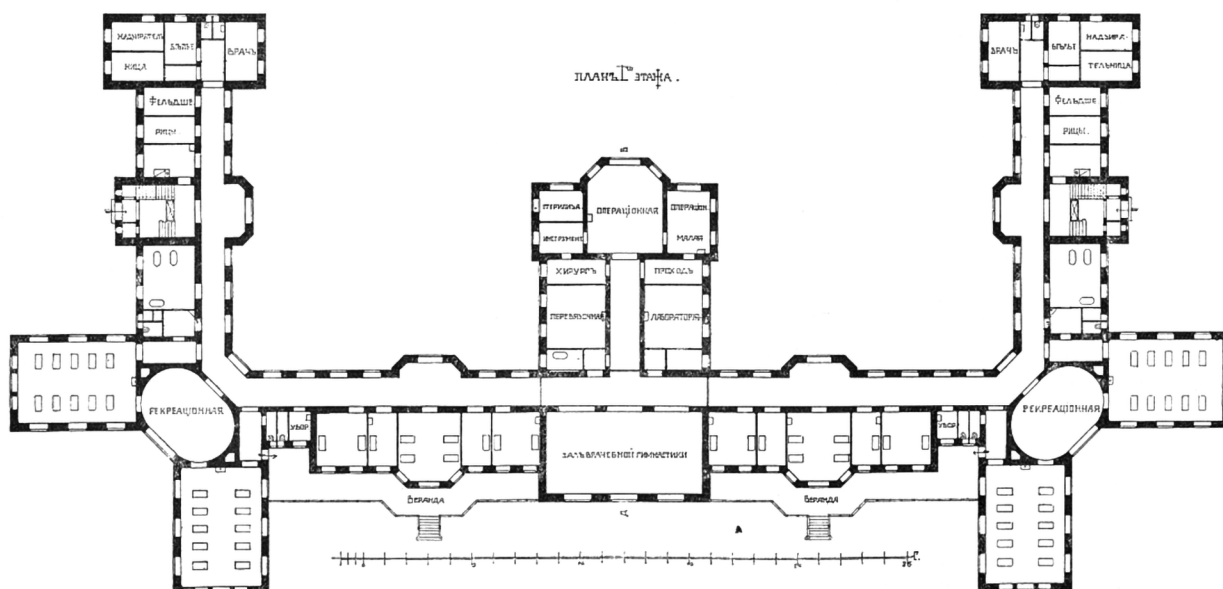


Fig. 7. Children's City Hospital "In Memory of the Sacred Coronation of Their Imperial Majesties". Pavilion for 120 beds for non-infectious patients. Plan of the first floor [8]

Рис. 7. Детская городская больница «В память Священного коронования Их Императорских Величеств». Павильон на 120 кроватей для незаразных больных. План первого этажа [8]



Fig. 8. Children's City Hospital "In Memory of the Sacred Coronation of Their Imperial Majesties". Open veranda of the pavilion for non-infectious patients

Рис. 8. Детская городская больница «В память Священного коронования Их Императорских Величеств». Открытая веранда павильона для незаразных больных¹

¹ Photo from the collection of the museum of the St. Petersburg State Pediatric Medical University.

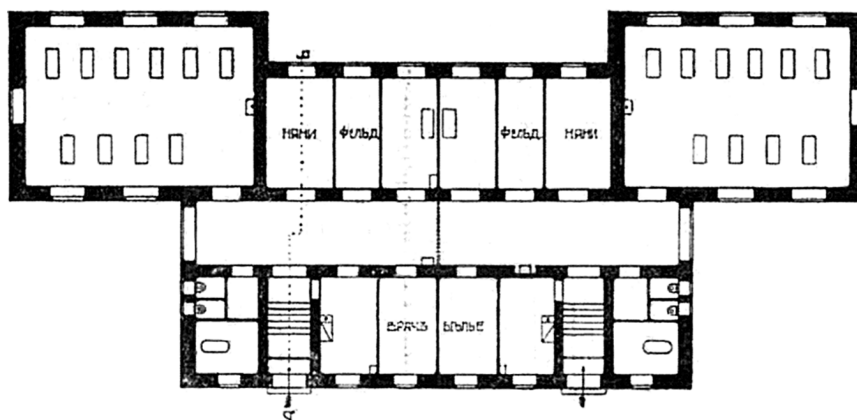


Fig. 9. Children's City Hospital "In Memory of the Sacred Coronation of Their Imperial Majesties". Plan of the pavilion for 22 beds [11]

Рис. 9. Детская городская больница «В память Священного коронования Их Императорских Величеств». План павильона на 22 кровати [11]



Fig. 10. Children's City Hospital "In Memory of the Sacred Coronation of Their Imperial Majesties". Plan of the observation pavilion for 18 beds [11]

Рис. 10. Детская городская больница «В память Священного коронования Их Императорских Величеств». План обсервационного павильона на 18 кроватей [11]



Fig. 11. Children's City Hospital "In Memory of the Sacred Coronation of Their Imperial Majesties". Isolation department

Рис. 11. Детская городская больница «В память Священного коронования Их Императорских Величеств». Изоляционное отделение¹

¹ Photo from the collection of the museum of the St. Petersburg State Pediatric Medical University.

pavilions had two entrances and could be divided into two independent halves by existing partitions in case of the need to isolate combined infections.

The admission of obviously contagious patients was well organized. Sanitary carriages were to bring children to a separate building at the infectious department. Assistant physicians were housed on the second floor of this building to prevent infection from spreading from one building to another. Accommodations for nannies and paramedics who provided direct care for the sick were also provided in the pavilions where they directly worked. In 1908–1909, a three-storey stone barracks building was constructed for employees of the infectious department. The barracks was located on the part of the hospital site behind the Finnish railroad track. The number of permanent hospital staff amounted to 250 people.

The most remote part of the hospital site was chosen for a funeral parlor with an autopsy room and a chapel. A laboratory and a servants' room were placed nearby.

A one-story building with two entrances — the observatory pavilion — was located next door to the outpatient clinic. The premise was divided into eighteen wards, each with one bed (Fig. 10). The wards were separated from a corridor by glass partitions for convenient control by the medical staff. The same partitions between the wards gave patients an opportunity to observe life in the pavilion (Fig. 11). The purpose of the pavilion was to temporarily house children whose illness was not determined during admission.

The hospital included a whole group of household premises: a kitchen, laundry with disinfection chamber, boiler room, electrical station, sewage sterilization room, barracks for lower service personnel, stables, barns, and an icehouse.

The hospital kitchen was located in the kitchen wing in the center of the first floor. There was a separate room for washing dishes and cleaning vegetables, as well as a bakery and a milk pasteurization room. On the first floor there was also a kitchen and a canteen for the staff. The second floor was allocated for the accommodation of servants. There were castellanesses, housekeepers, housekeepers' assistants, laundresses and all kitchen staff.

The work of the laundry was organized in an interesting way, which was able to wash 1600 kilograms of linen per day. Contagious linen was soaked, disinfected and fed into a common laundry room equipped with three washing machines and

three centrifuges for wringing linen. The laundry room was equipped with an elevator that took the laundry up to the second floor to the ironing room and down to the linen storage room.

All pavilions were heated by low-pressure steam and water heating. A steam line, laid in a separate tunnel, was connected to all buildings. Automatic pumps pumped condensation water back to the boilers. Two cisterns placed underground stored oil residue as fuel. The hospital rooms were mechanically ventilated. Electric fans pumped heated and humidified air into the rooms and sucked out the spoiled air. Instead of the standard 3 cubic centimeters of air per patient of the time, the new hospital was designed to use 5.13 cubic centimeters per bed.

In the course of the planning of the hospital complex, a place was identified for the construction of a hospital church to enable the numerous service personnel to fulfill their Christian duties without being away from their service for long periods of time. In the spring of 1905, on behalf of the St. Petersburg City Administration, the Imperial St. Petersburg Society of Architects announced a competition for the design of a stone single-altar church in Byzantine style with a capacity of 300 people [12]. Out of nine projects submitted to the competition, the first prize of 500 rubles was awarded to the project of Professor of Architecture A.N. Pomerantsev (1849–1918) under the motto “Triangle in a circle”, made in the spirit of Athenian churches [13, 14]. However, this project was not realized because there was not enough money for its construction. By the opening of the hospital was built and consecrated only a temporary chapel at the intersection of Batenina Street (now Alexander Matrosov Street) and the Finnish Railroad (Fig. 12). The construction of the hospital church began only in 1908–1909 under the direction of architect A.K. Pavlovsky (1861–1923). The church was located on the second floor of the existing chapel, it was divided into two isolated rooms — for contagious and noncontagious patients. A special building for waiting relatives was attached to the lower floor. In 1910 the church was consecrated in honor of the heavenly patrons of the royal couple — St. Nicholas the Wonderworker and the Holy Martyr Tsarina Alexandra. In 1922 the church was closed, church valuables were taken away. The building was used for some time as a laboratory, then it was demolished, and in 1933 on the site of the temple began construction of the anatomical building. The modern temple, bearing the name



Fig. 12. Chapel at the city children's hospital "In Memory of the Sacred Coronation of Their Imperial Majesties"

Рис. 12. Часовня при городской детской больнице «В память Священного коронования Их Императорских Величеств»¹

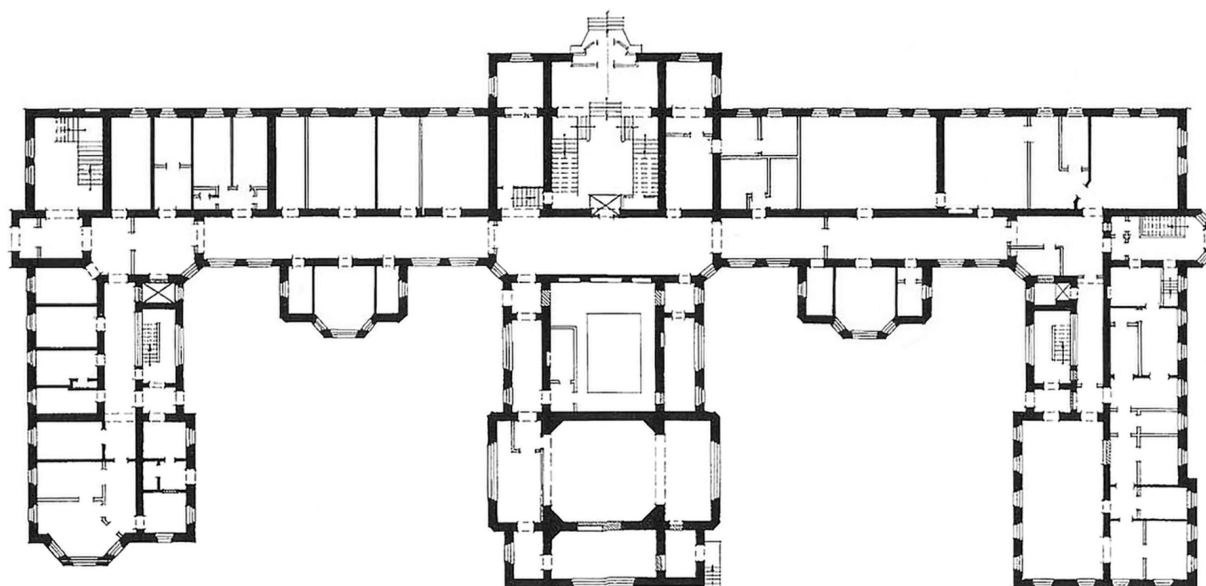


Fig. 13. Saint Petersburg Orthopedic Clinical Institute. Plan of the first floor

Рис. 13. Санкт-Петербургский ортопедический клинический институт. План первого этажа [19]

of the Holy Passion-Bearers Tsar Nicholas and Tsarina Alexandra, is its successor and is located in the premises of the former outpatient clinic and emergency room.

¹ Photo from the collection of the museum of the St. Petersburg State Pediatric Medical University.

In 1925, on the basis of the hospital was opened the Scientific and Practical Institute of Maternal and Infant Health Care, on the basis of which in 1932 appeared the educational institution "Hospital — Medical university", since 1935 — the Leningrad Pediatric Medical Institute, currently — St. Petersburg State Pediatric Medical University [8, 11, 15, 16].

An example of the rationalist version of the modern is the building of the Orthopedic Clinical Institute (Alexandrovsky Park, 5). The construction of the orthopedic clinic was started by order of Empress Alexandra Fyodorovna (1872–1918)¹. The program of the building construction was developed by orthopedic doctor K.H. Horn (1851–1905), the project was designed by architect R.-F. Melzer (1860–1943). The City Duma donated an extensive plot of land in the Alexander Park for the construction. In 1902 the magazine “Zodchiy” reported on the successful progress of works — it was expected that the building would be put under the roof and finished in the fall, during the winter the interior finishing of the building would be completed, so that it would be possible to finish the construction of the hospital in the summer of 1903 [18]. The beginning of the Russian-Japanese war prevented the completion of the project within these terms. The consecration of the Orthopedic Institute building took place on August 8, 1906.

The building is three-storeyed, W-shaped in plan (Fig. 13). The plinth is finished with gray Serdobol granite, the facade is completely faced with light glazed bricks imported from Germany. The apertures of high windows are emphasized by lighter color of stone and decorated with beam lintels using yellow and green bricks. The facade of the central part of the building, where the church was built, is decorated with a majolica image of the Mother of God with a child, created after the original by the artist K.S. Petrov-Vodkin (Fig. 14). Initially, with the approval of R.-F. Melzer it was planned to install a panel with the image of St. Tsarina Alexandra in honor of the Empress. But the Emperor and Empress recognized this as unnecessary, recommending that the project be replaced by an image of the Mother of God. The five-meter panel, made at the Royal Doulton ceramic factory in London in the summer of 1904, was the artist’s first grandiose work [20].

¹ Alexandra Fyodorovna suffered from sacro-lumbar pain from a young age. Her attending physician since 1896 was the orthopedic surgeon K.H. Horn, who had been the head of the orthopedic department of the Maximilianov Hospital since 1894 and who also had his own orthopedic hospital (Fontanka Embankment, 83). The doctor was recommended to the Empress by her German doctors. During treatment procedures, Alexandra Feodorovna and Karl Khristianovich discussed “orthopedic topics”. K.H. Horn familiarized the Empress with the statistics of various diseases, mentioning that children also suffer from orthopedic diseases. Since Alexandra Feodorovna had always been close to children’s problems, she agreed with the proposal of her attending physician to open a state orthopedic hospital [17].



Fig. 14. The Virgin Mary with Child. Ceramic panel by K.S. Petrov-Vodkin on the building of the Orthopedic Institute

Рис. 14. Богоматерь с младенцем. Керамическое панно К.С. Петрова-Водкина на здании Ортопедического института

The building has oak vestibules, metal balconies and bindings, iron umbrellas and balcony grilles; the floors and the lower parts of the walls in some rooms are finished with metlacha tiles. Much attention was paid to the issue of lighting, which was of great importance for the buildings of dusky northern St. Petersburg. The main rooms of the hospital were oriented towards the sunny side, while the corridors, where lighting does not play a decisive role, were oriented towards the shadow side. The operating room of the left wing received volumetric glazing. Solid glazing was used for the stairwells of the side wings of the building. Ten-meter rectangular openings, covered with metal beams, looked truly gigantic in the eyes of others.

The building of the Institute was located in the middle of a large courtyard, surrounded by a high fence, and represented three interconnected buildings, in the middle of which was arranged a small church of Christ the Healer (Fig. 15). According to the plan of K.H. Horn, the entire free territory was turned into a garden. At the Empress’s insistence, a vegetable garden with vegetable beds was built in the garden.

On the first floor there was a library, mechanical, blacksmith, sewing workshops with electric machines



Fig. 15. Saint Petersburg Orthopedic Clinical Institute [21]

Рис. 15. Санкт-Петербургский ортопедический клинический институт [21]



Fig. 16. Gymnasium of the Orthopedic Institute [22]

Рис. 16. Гимнастический зал Ортопедического института [22]

for making prostheses, a dormitory for nurses, a dining room for servants, closets for storing patients' clothes, and a kitchen with a special room for sterilizing dishes. On the second floor there was a reception room for patients, where they passed to outpatient and dressing rooms, a room for making plaster casts, an X-ray room, apartments for the director of the institute and assistants, a gymnasium with devices for physical treatment of different

kinds of patients: curvature of the back, cervical vertebrae, leg and arm joints, etc. (Fig. 16). The third floor housed an inpatient ward with 40 beds (the number could be increased). One side of the corridor housed paid patients and the other side housed free patients. Their rooms did not differ in any way and had absolutely identical furnishings. There were also an operating room, an X-ray room, service rooms, baths, a common dining room, a lounge for resting

and reading. In summer patients could use a large well-furnished balcony.

The organization of catering deserves attention. Food was served in a common dining room, located on the third floor, with the help of a lifting machine. Iron cabinets heated by steam were installed in the corridors of the second and third floors to keep the food cold. Movable tables were created and attached to the beds for patients who could not get up.

A mechanical laundry, power house and living quarters for employees, a disinfection chamber and a sectional room were housed in buildings of unplastered brick. The main building and the two service wings were connected by an underground passage.

The Orthopedic Institute accepted patients in need of orthopedic treatment: patients with congenital abnormalities of the musculoskeletal system, tuberculosis of the bones, paralysis and injuries of different parts of the body. Patients were admitted free of charge and for a fee: 30–50 rubles per month for a stay in a general ward for 3–6 people and 80–120 rubles — in a separate room. It was stipulated that the fee was charged mainly not for the maintenance of the institute, but for the manufacture of expensive devices for the poor [23, 24]. The Institute was annually allocated 112 thousand rubles from the Ministry of Internal Affairs, since it was assigned to the Ministry [25]. The construction was carried out on generous donations of Empress Alexandra Fyodorovna, subsidies of the Ministry of Internal Affairs, and together with the complete equipment cost 1 million rubles. The press emphasized that the layout and technical equipment of the institute corresponded to the latest scientific achievements of the time [26]. Doctor of Surgery, Professor R.R. Vreden (1867–1934) was appointed director instead of K.H. Horn, who passed away in 1905.

The building currently houses the North-West branch of the Russian State University of Justice¹.

¹ In 1918 the Orthopedic Institute was transferred to the People's Commissariat of Education as an educational and medical institution. In January 1924 it was merged with the Physio-Surgical Institute opened in 1917 to form the State Traumatologic Institute. In 1952 it received a new name — Research Institute of Traumatology and Orthopedics, in 1967 the Institute was named after its first director R.R. Vreden. In 1988 the Institute moved to a new building on Akademika Baikov Street, and since 1995 the historical building has housed the St. Petersburg Medical Academy of Post-Diploma Education and Medical and Social Management. Since 2003 the Tax Academy was located here, and from 2009 the North-West Branch of the Russian Academy of Justice, College of the Russian Academy of Justice was situated here.

An example of northern Art Nouveau is the building of the Community of the Sisters of Charity of St. George (Mozhaisky settlement, 25th October Avenue, 105). A tower with a high hipped roof in the center of the stone two-storey building makes it look like a fairy-tale castle (Fig. 17). The plinth is faced with stone, walls are covered with textured plaster and faced with brick, wooden decorations of the pediment and tower refer to images of timber framing architecture². Corners of the building, entrance and window apertures are decorated with rustication³. A sign in the semi-circular niche of the pediment indicates that the building belongs to the Red Cross Society. Crosses can also be seen on the chimneys.

In 1899, the Sisters of Charity of St. George began collecting donations for the construction of a cancer hospital for poor people on the outskirts of Duderhof⁴. Barracks for cancer patients were built in memory of the Mother Superior of the Community E.P. Kartseva (1823–1898)⁵ in 1900–1902 according to the project of architect G.I. Lyutsedarsky (1870–1946). The center of the first floor housed a reception hall with windows on both sides. Right side of the first floor was allocated for women's department, left side was assigned for men's department. The building was designed for 30 beds. Wards differed in various capacities — for one or two and several beds — and were characterized by high ceilings, plenty of light and air. The walls and all the hospital furniture were white in color. A dressing room was located at the end of the corridor; the upper floor was intended for the sisters' dormitory.

² Timber framing — or “post-and-beam” construction — a framework of walls consisting of vertical, horizontal and inclined beams, the gaps between which are filled with clay, stone, brick.

³ Rustication — a recurring element of rockwork — a decorative processing of a wall surface, resembling a masonry of large stones in the form of horizontal strips of equal width, protruding in relief above the background.

⁴ Duderhof is a historical district of Krasnoye Selo in the Krasnoselsky District of St. Petersburg, located on the eastern shore of Lake Duderhof.

⁵ Elizaveta Petrovna Kartseva — one of the first Russian nurses of mercy and organizers of nursing in Russia. She participated in the Crimean (1853–1856), Serbian-Turkish (1875–1877) and Russian-Turkish (1877–1878) wars. In 1860–1867 she headed the Community of Sisters of Mercy of the Holy Cross, and from 1870 she chaired the Community of Sisters of Mercy of St. George of the Russian Red Cross Society until her death in 1898.

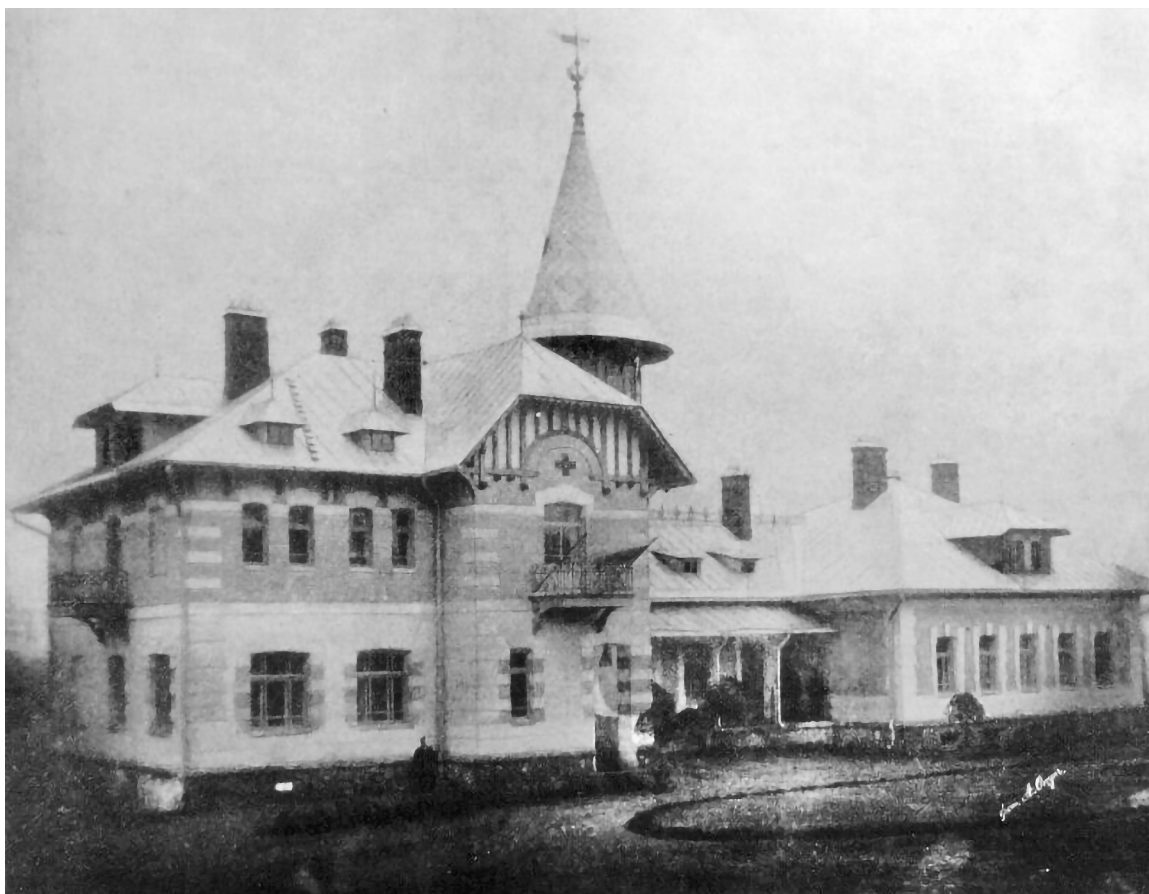


Fig. 17. Building of the hospital of the Community of Sisters of Mercy of St. George in Duderhof. 1902. Photo: A. Otsup

Рис. 17. Здание больницы Общины сестер милосердия Святого Георгия в Дудергофе. 1902 г. Фото: А. Оцуп [22]



Fig. 18. Building of the hospital of the Community of Sisters of Mercy of St. George in Duderhof. Modern view [22]

Рис. 18. Здание больницы Общины сестер милосердия Святого Георгия в Дудергофе. Современный вид [22]



Fig. 19. Women's boarding house of the Saint Petersburg City Hospital for the Mentally Ill in the name of the Holy Great Martyr and Healer Panteleimon [22]

Рис. 19. Женский пансионный корпус Петербургской городской больницы для душевнобольных во имя святого великомученика и целителя Пантелеймона [22]

The barracks for the sick, built by the trusteeship of the Community of the Sisters of Charity of St. George, was solemnly consecrated in memory of the late Sister Superior E.P. Kartseva on August 2, 1902 in the presence of Empress Maria Fyodorovna (1847–1928) [27, 28]. The hospital worked until 1914. After that the building housed a children's orphanage, Finnish and Soviet schools, children's sanatorium for patients with bone tuberculosis. Since 1979 the building has been occupied by a skiing base of the Krasnoselsky district children's and youth sports school (Fig. 18).

The master of Northern Art Nouveau architect G.I. Lyutseradsky also built buildings for the St. Petersburg City Hospital for the mentally ill in the name of the Holy Great Martyr Healer Panteleimon (36 Fermskoye Shosse)¹.

In 1900, a boarding² house for women was erected (Fig. 19). The first floor housed 22 restless patients, the second floor housed 28 calm patients, and the third floor housed warders and servants. The storey division is emphasized by the different design of window openings and the combination of textures of finishing materials and

colors: red brick, gray stone, and light plaster imitating rustication. The windows of the first floor are completely framed with alternating brickwork and plaster. The windows of the second floor are decorated with a brick beam lintel with plastered imitation of castle stone. The contrasts of color disappear at the level of the third floor — the windows are decorated with shaped protrusions under the window sills.

In 1904, according to the assignment made by the chief physician of the hospital A.V. Timofeev (1861–1925), two stone two-storied buildings were built: men's and women's ones, also called "officers" and "maid of honor" (Fig. 20, 21). They were intended for troubled patients and were designed for 50 beds each. Basements housed ammosov stoves for air heating, the first floors were occupied by rooms for the sick, the second floors were intended for the staff. The wards of the main room for the sick were separated by a wide corridor from four isolation rooms, which could accommodate one particularly restless patient each. These "isolation rooms" had strong doors with a peephole for observation, and instead of beds they had mattresses on the floor. The window frames in the wards were steel, with ship's glass that could not be broken with a fist, the doors were strong oak, and the main wards had doorways only [29, 30].

The building of A.E. Bari's hospital is an interesting combination of Art Nouveau and brick style (Fig. 22). In 1884, Dr. A.Y. Frey (1847–1899) bought a plot of house No. 60 on

¹ The St. Petersburg City Hospital for the Mentally Ill was opened in the name of St. Panteleimon the Great Martyr and Healer in 1885 next to Emperor Alexander III's House of Care for the Mentally Ill. In 1919 they were merged into the Udelninskaya Psychiatric Hospital, since 1931 it has been the I.I. Skvortsov-Stepanov City Psychiatric Hospital No. 3.

² Boarders were patients for whom relatives paid from 5 to 500 rubles a month.



Fig. 20. Women's ("maid of honor") building of the Saint Petersburg City Hospital for the Mentally Ill in the name of the Holy Great Martyr and Healer Panteleimon [22]

Рис. 20. Женский («фрейлинский») корпус Петербургской городской больницы для душевнобольных во имя святого великомученика и целителя Пантелеймона [22]

the 5th line of Vasilyevsky Island, where he placed new departments of the hospital for the mentally ill, located nearby. After his death in 1899 the hospital became the property of psychoneurologist, doctor of medicine A.E. Bari (1870–1937). In 1910 the engineer K.I. Niman (1854–?) built a stone three-storey building according to his order. The faceted stained-glass window¹ with geometric pattern (Fig. 23) preserved above the door of the front entrance is especially interesting. A stove faced with green tiles with floral ornamentation has been left in the interiors [31]. After 1917 the hospital was reorganized into the city psychiatric hospital No. 5. Nowadays the building houses the city narcological hospital.

Maternity Hospital No. 1 (14th line of Vasilyevsky Island, 19) in the late 1970s was located in the building of a profitable house built in Art Nouveau style by D.N. Zverev in 1909.

¹ A facet is a transparent strip along the edge of thick polished glass that forms an obtuse angle with the main surface.



Fig. 21. The male ("officers") building of the Saint Petersburg City Hospital for the Mentally Ill in the name of the Holy Great Martyr and Healer Panteleimon [22]

Рис. 21. Мужской («офицерский») корпус Петербургской городской больницы для душевнобольных во имя святого великомученика и целителя Пантелеймона [22]



Fig. 22. The building of the A.E. Bari hospital [22]

Рис. 22. Здание лечебницы А.Э. Бари [22]



Fig. 23. The transom with faceted and colored glass above the door of the main entrance of the A.E. Bari clinic [31]

Рис. 23. Фрамуга с фацетным и цветным стеклом над дверью парадного входа клиники А.Э. Бари [31]

The six-storey building with a bay window¹ is faced with light yellow brick, decorated with shaped niches, masonry made of colored bricks, belts made of colored ceramic tiles (Fig. 24).

The building of V.B. Perovskaya's hospital for the poor, or "Olga's shelter for the sick in memory of Gregory" (2nd Murinsky pr., 12, k. 3) is a monument of Art Nouveau architecture. The basement of the W-shaped two-storied building (Fig. 25) is faced with red-gray granite, the first floor is lined with red brick, the second floor is covered with plaster painted in light color. The

¹ A bay window is a prismatic or cylindrical vertical volume with windows protruding from the facade plane, which increases the area of the interior room and improves its illumination.



Fig. 24. The building of the maternity hospital No. 1 [22]

Рис. 24. Здание родильного дома № 1 [22]

central and side facades are finished with triangular pinnacles, the entrances are decorated with columns supporting a balcony with a balustrade and a triangular bay window on the second floor. The corner pentagonal two-story bay window with a porch attracts attention; at the second floor level, its large windows are divided by Doric

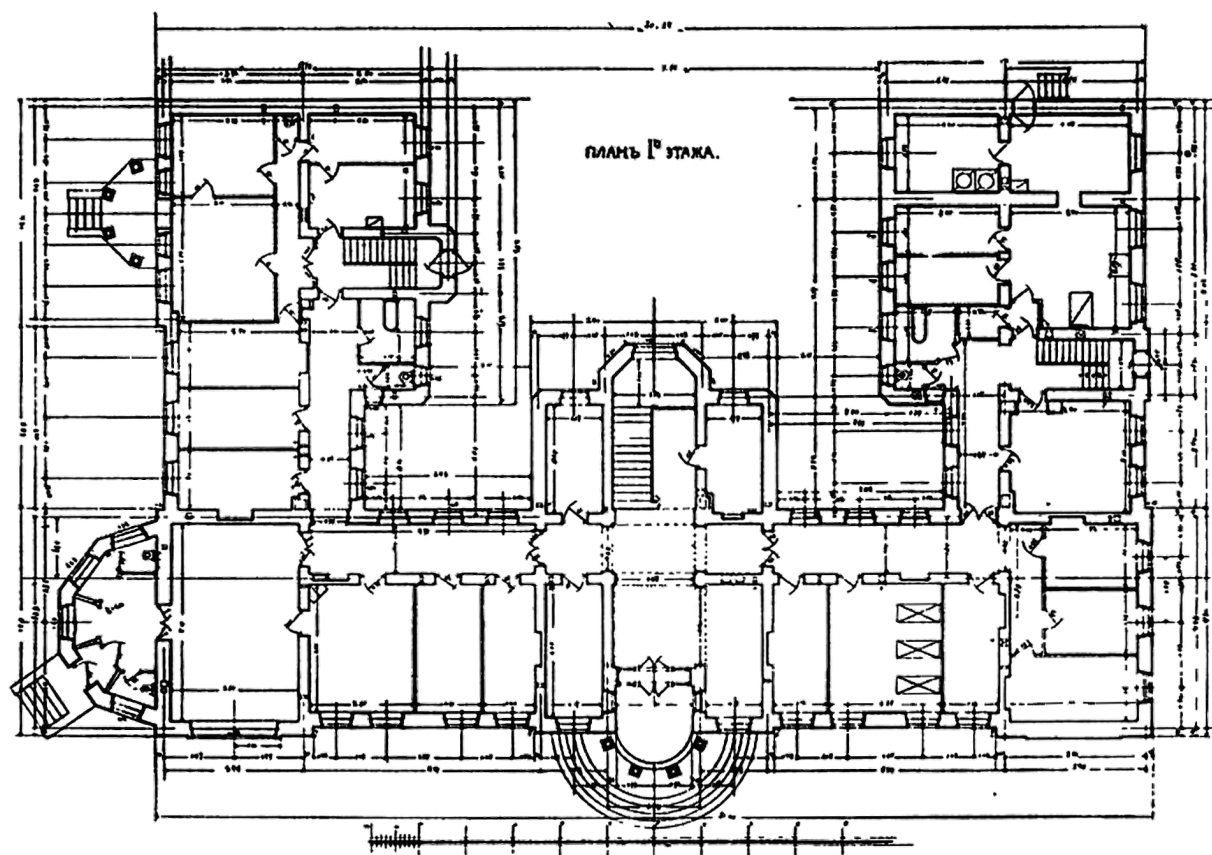


Fig. 25. The building of the V.B. Perovskaya hospital for the poor. First floor plan [32]

Рис. 25. Здание больницы В.Б. Перовской для бедных. План первого этажа [32]

semi-columns. Rectangular platbands of other windows are painted in the color of plaster.

The orphanage was founded by Countess V.B. Perovskaya (1856–1931), a maid of honor of the imperial court. The orphanage was named in her honor after the death of her sister Olga, who contracted diphtheria while visiting the orphanage in Tsarskoye Selo¹. Initially, the institution was housed in an old wooden building on Spasskaya Street, where 26 patients were accommodated. They were treated and kept free of charge and could be treated for any illnesses, except for contagious ones. Having received an inheritance after the death of her nephew G.M. Petrovo-Solo-

vo in 1911, V.B. Perovskaya decided to build a new stone building for the orphanage. Her nephew's name was added to its title. The founder of the orphanage ordered the project to the famous St. Petersburg architect V.I. Van der Gucht (1876–1943), who, in turn, invited the architect G.E. Ginz (1879–?) to cooperate. The former colleagues from the Academy of Arts completed the project with a wooden two-story house for medical and service staff. The project also included a park with a natural pond and summer pavilions for the sick.

In 1913, the “Olga’s Orphanage for the Sick in Memory of Gregory” was opened (Fig. 26). The shelter was intended for the treatment of children and women with diseases of the musculoskeletal system. They managed to create an atmosphere of home comfort inside. The wards were decorated with tasseled curtains, paintings, pouffes, marble fireplaces, fine furniture, carpets, and toys.

From the beginning of the First World War until the spring of 1918 the building housed a 75-bed Red Cross infirmary No. 64 for wounded lower ranks, which was also funded by

¹ The 1877 orphanage named after Her Imperial Highness the Grand Duchess Maria Alexandrovna (29a Leontievskaya Street, Tsarskoye Selo) was founded in Tsarskoye Selo on the initiative of the Grand Duchess Maria Alexandrovna, Duchess of Saxe-Coburg-Gotha (1853–1920), and was originally intended for the care of thirteen orphans — children of soldiers killed in the Russo-Turkish War, then for 20 girls, orphans and half-orphans of poor parents. Countess Olga Borisovna Perovskaya (1853–1898), appointed by the Grand Duchess, became a trustee of the orphanage from the moment of its foundation.

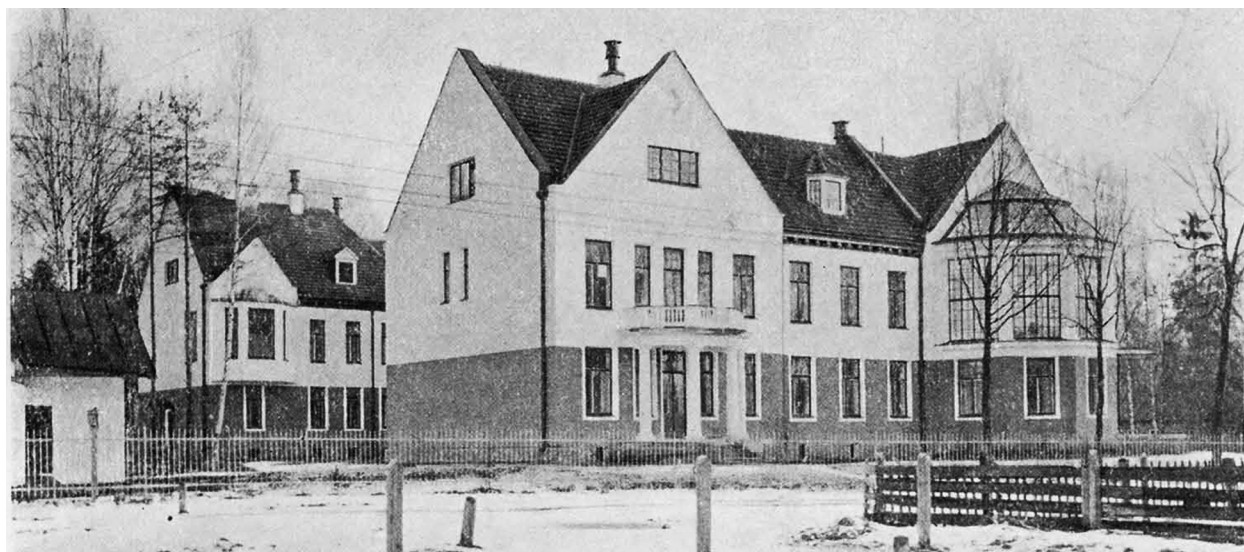


Fig. 26. The building of the V.B. Perovskaya hospital for the poor [32]

Рис. 26. Здание больницы В.Б. Перовской для бедных [32]

V.B. Perovskaya. After the revolution of 1917, there was a need to close the institution due to lack of funds for its maintenance. Vera Borisovna proposed to transfer the building with all the equipment to the Women's Medical Institute of Petrograd for a surgical orthopedic clinic, mainly for bone and tuberculosis patients. In March 1919 the building with all the equipment and land plot was transferred to the jurisdiction of the Provincial Health Department. The medical institution for patients with bone and joint tuberculosis was named Sanitary and Surgical Clinical Hospital¹. Since 1921 the hospital became the Clinic of the Petrograd Medical Institute and a base for training students, and since 1922 — a base for advanced training of doctors in surgical tuberculosis. In 1924, the pediatric department of the Research Institute of Surgical Tuberculosis was located here [33, 34]. After the Children's Surgical Clinic for Bone and Joint Tuberculosis moved to a new modern building on Polytechnicheskaya Street in 2012, the building was reconstructed to house the Children's Pulmonology Center of the St. Peters-

burg Research Institute of Phthisiatrics and Pulmonology (Fig. 27).

The central hospital of the Post and Telegraph Department (1 Tyushina St. / 143 Ligovskiy Ave.), built in 1913–1914 by M.V. Kobelev (1870–1934), a senior architect of the Main Department of Posts and Telegraphs, was designed in the spirit of national romanticism, which was characteristic for Art Nouveau. Decorative frames of the arched windows of the first and second floors resemble kokoshnik². The third, fourth and fifth floors have brovka³, balconies are adorned with floral ornamentation (Fig. 28).

Another example of Art Nouveau architecture is the building of the Kronstadt Sea Island Community of Sisters of Mercy of the Russian Red Cross Society (Kronstadt, Proletarskaya Street, 30 / Lazarevsky Lane, 1h). The Sea Island Community of Sisters of Mercy was established on the territory of the Kronstadt Naval Fortress in 1877. It was the only Community that trained sisters to provide medical assistance to the troops at sea. For a long time the Community did not have its own premises. Some of the sisters lived in wards of the Naval Hospital, which was operated by the Community. Trustee

¹ According to a special order of the board of the Regional Health Department, V.B. Perovskaya was left at the hospital, where she worked as a nurse-educator until 1923, when she was forced to leave the service for health reasons. The former countess spent her last years in a wooden staff house (her apartment in the asylum building was occupied by the new head doctor P.G. Kornev), living out her days in poverty, without a pension, selling paintings and other family valuables and relics.

² Kokoshnik — semicircular or keel-shaped external decorative element in the form of a false zakomara.

³ Brovka — a decorative relief arch over an opening or niche.



Fig. 27. The Children's Pulmonology Center. Current view [22]

Рис. 27. Детский пульмонологический центр. Современный вид [22]



Fig. 28. The Central Hospital of the Post and Telegraph Department [22]

Рис. 28. Центральная больница Почтово-телеграфного ведомства [22]



Fig. 29. The Admiral Lazarev Estate hotel-mansion [22]

Рис. 29. Отель-особняк «Усадьба адмирала Лазарева» [22]

of the Community K.N. Makarova (1859–1946) appealed to the main department of the Russian Red Cross Society with a request for the construction of its own building for the dormitory of the sisters and the hospital [35]. After the petition was satisfied in 1915, the architect V.M. Lopatin (1869–?) built a spacious stone house which used to belong to the estate of Admiral M.P. Lazarev. The two-storey L-shaped building looked spectacular. The central entrance, located on the corner, was distinguished by a high porch with a balcony and a turret. The side facades, crowned with gables, were decorated with rich window trim and figurative patterns.

In 1917 the Kronstadt Community ceased its activity, and in 1922 a TB dispensary was opened in the building. However, after the Community moved to a new building on Zosimova Street in the 1990s, the building fell into disrepair. In 2018–2023, a major renovation with restoration was carried out, the adjoining park was also restored. Now the building houses a hotel-mansion “Admiral Lazarev’s Estate” (Fig. 29).

Art Nouveau architecture, which replaced eclecticism, became a creative rethinking of the entire history of European art and marked the beginning of the New Art. Using all the architectural innovations of this style, hospital buildings in St. Petersburg retained the classical rigor, but most importantly – they were as functional as possible. The Art Nouveau era was reflected both in the decorative design of buildings, and in the equipment of hospitals, the competent layout of buildings, and the creation of a more comfortable environment for medical institutions.

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Author contribution. Thereby, all authors made a substantial contribution to the conception of the study, acquisition, analysis, interpretation of data for the work, drafting and revising the article, final approval of the version to be published and agree to be accountable for all aspects of the study.

Competing interests. The authors declare that they have no competing interests.

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