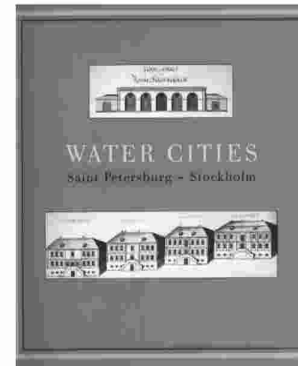


Saint Petersburg in Perspective

Saint-Hilaire–Sokolov–Gorikhvostov City Plan 1765–1773

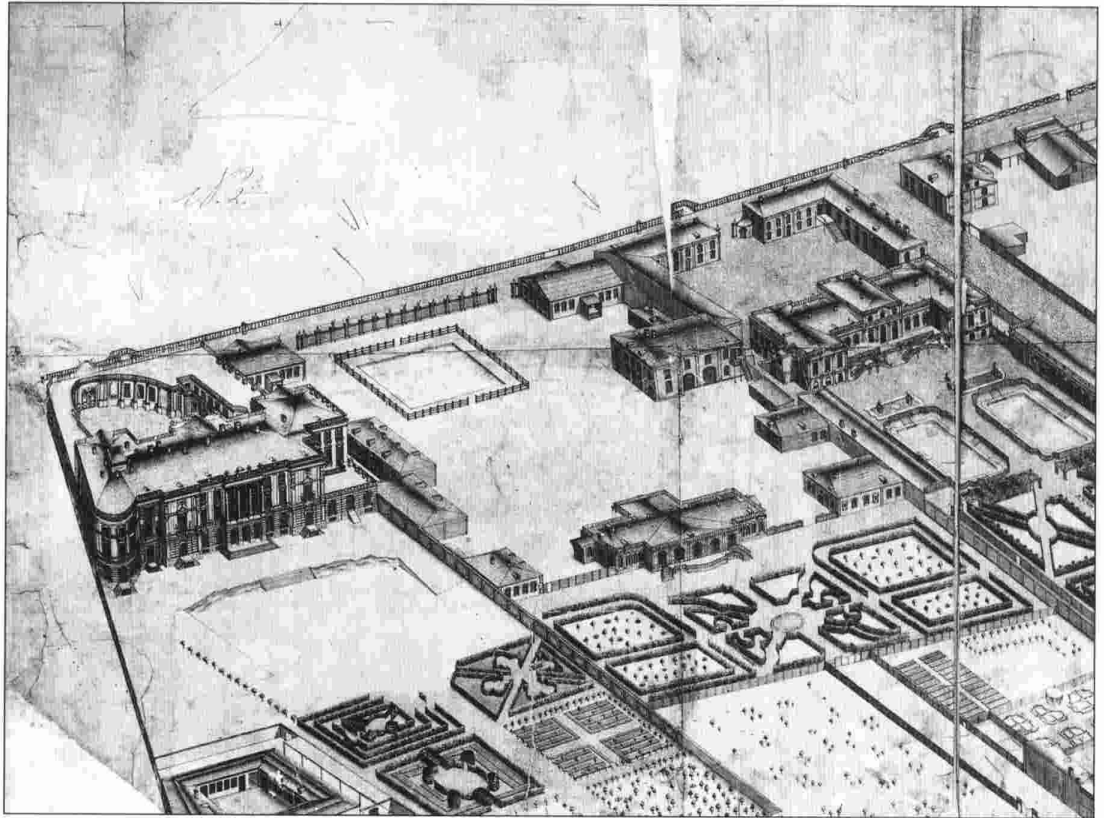
TAMARA P. MAZUR



The Axonometric Plan of St. Petersburg 1765–1773, known by the names of its principal creators, P. Saint-Hilaire, I. Sokolov, and Gorikhvostov, has a special place among the unique works of Russian graphic art and cartography which have survived to the present day. This outstanding piece of drawing was the most important undertaking of Russian cartography. Still, axonometric representations of buildings were not new in the history of Russian city planning. The tradition of depicting the whole perspective of buildings dates from the 16th century. In the 16th and 17th centuries, the practice of making an all-encompassing representation of buildings for city plans was widespread. Still, the Plan of St. Petersburg 1765–1773 is the only attempt of its kind to record in an axonometric form the image of the whole city. In accuracy of representation it surpasses all known axonometric plans of European capitals. Even the so-called Turgot Plan of Paris cannot compare. Catherine II based her socio-political reforms on the ideology of Enlightened Absolutism. The idea of the rational construction of the state also made its mark on city planning policy. In the second half of the 18th century, St. Petersburg became the political and economic centre of Russia. The position of the Russian state and its prestige in the international arena required a fitting representation in the architectural appearance of the capital. The face of the city – the banks of the Neva – had to be made up of major, monumental buildings in a uniform architectural idiom. The Commission for the Stone Construction of St. Petersburg and Moscow, established in 1762, was given the responsibility of completing this task. Its architectural section was headed by Aleksei Kvasov.¹

The Background

In 1764, the President of the Academy of Fine Arts, I. Betsky, presented Catherine II with “panoramas in perspective” of the Dutch capital, The Hague,



126. Buildings on the Moika Embankment. In the extreme left is the Chernyshov palace. The third plot from the left is Demidov's mansion. Axonometric plan of St. Petersburg, 1765–1773. RGA VME, f. 3 l, op. 25, d. 1946, sheets 11–12.

along with a project to create a plan of St. Petersburg, both of which had been prepared by the French cartographer, mathematician, and draughtsman Pierre Antonio de Saint-Hilaire. The Empress very much liked both and wanted to have a similar plan of her capital. On 25 October 1764, Betsky reported to the Commission for Stone Construction, informing them of Catherine II's approval and her order to take Saint-Hilaire into the service of the Commission with the aim of preparing a plan of the city.

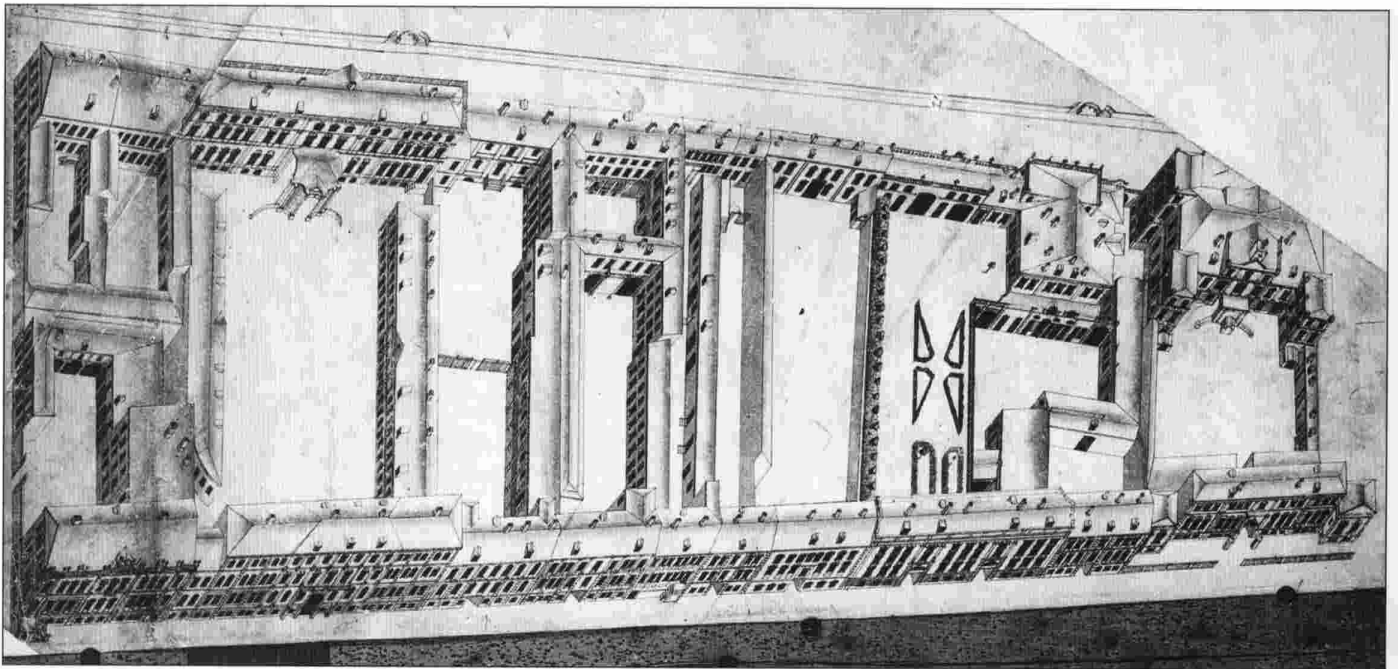
A memorandum by Saint-Hilaire, headed "A Project to establish how to make a geometrical and vertical plan of the city of St. Petersburg", was added to Betsky's report.² The author did not intend the plan to take the form of a map, but to be a graphic representation of the city, showing each house and details of the building, including the stucco moulding of the façades. The plan would include rivers, channels, embankments, bridges, all the streets and squares of the city, and blocks of residential buildings. The level of detail required tremendous accuracy of representation and a sufficiently large scale (approximately 5 *sazhen* to 1 decimetre). As a result, the general area of the plan would be equivalent to approximately 590 m².

*The purpose in creating such a plan is to enable us to see objects as a bird flying past would see them, one house after the other, from which we would gain a consistently even and accurate impression.*³

In his memorandum, the French cartographer set out in full detail the technique for an architectural survey of the city, in which geodetic work combined with the sketching and measuring of all buildings, gardens, embankments, and fences. He suggested the use of portable sheds equipped with work tables. Once the work was done, Saint-Hilaire proposed to engage Russian engravers, whom he considered very well qualified. In another memorandum, he asked for fifteen young people with experience in architectural drawing to be commandeered for work on the plan, while he specified the name of Gorikhvostov as “a highly artistic man”. Saint-Hilaire was probably acquainted with the work of Gorikhvostov, since he proposed giving him full responsibility for the direction of all surveying and of the verification of the sketches made by the apprentices, while Saint-Hilaire himself would make the final plan.

As records show, the first surveys began immediately after the presentation of the report. Soon, the planners met with various difficulties, and the inadequate training of the apprentices also became apparent. On 7 November 1764, at the urgent request of Saint-Hilaire, Ivan Sokolov was appointed his assistant. Sokolov was later to become the chief director and creator of the axonometric plan. In February 1765, the Commission presented Catherine II with an account of the conditions under which the “plan with façades” was being prepared. The report was approved by the Empress. At the imperial command of Catherine II, on February 3rd 1765, Pierre Saint-Hilaire was taken into the service of the Commission, and the rank of Ober-Officer was conferred on him, “so that during his work he has the respect of the people”. His salary was set at 1500 roubles per year “taking into account his foreign origin and also his prom-

127. Millionaya Street and the Palace Embankment.
Axonometric plan of St. Petersburg, 1765–1773.
RGA VMF, f. 3 l, op. 25, d. 1946 sheet 11.



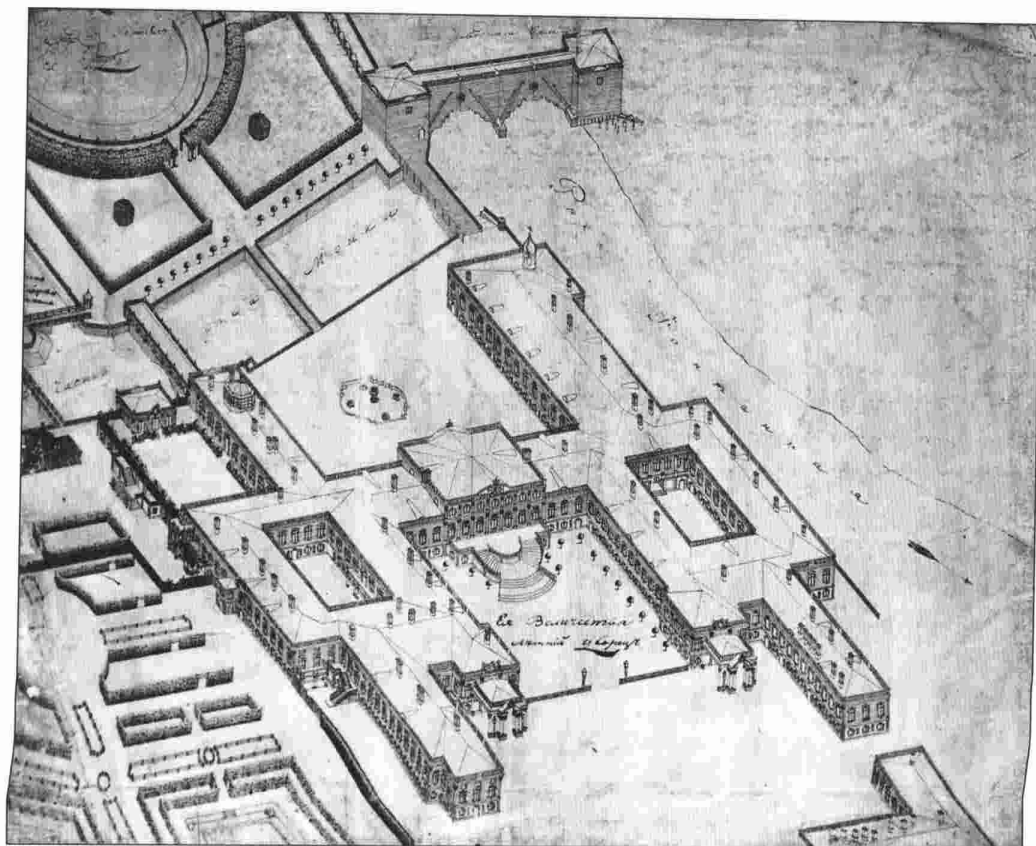
ise to complete the plan in no more than three years”.⁴ As Saint-Hilaire had requested, Gorikhvostov was sent to help him as a “fellow of architecture”. The money for the realization of the work was taken from Cabinet funds.

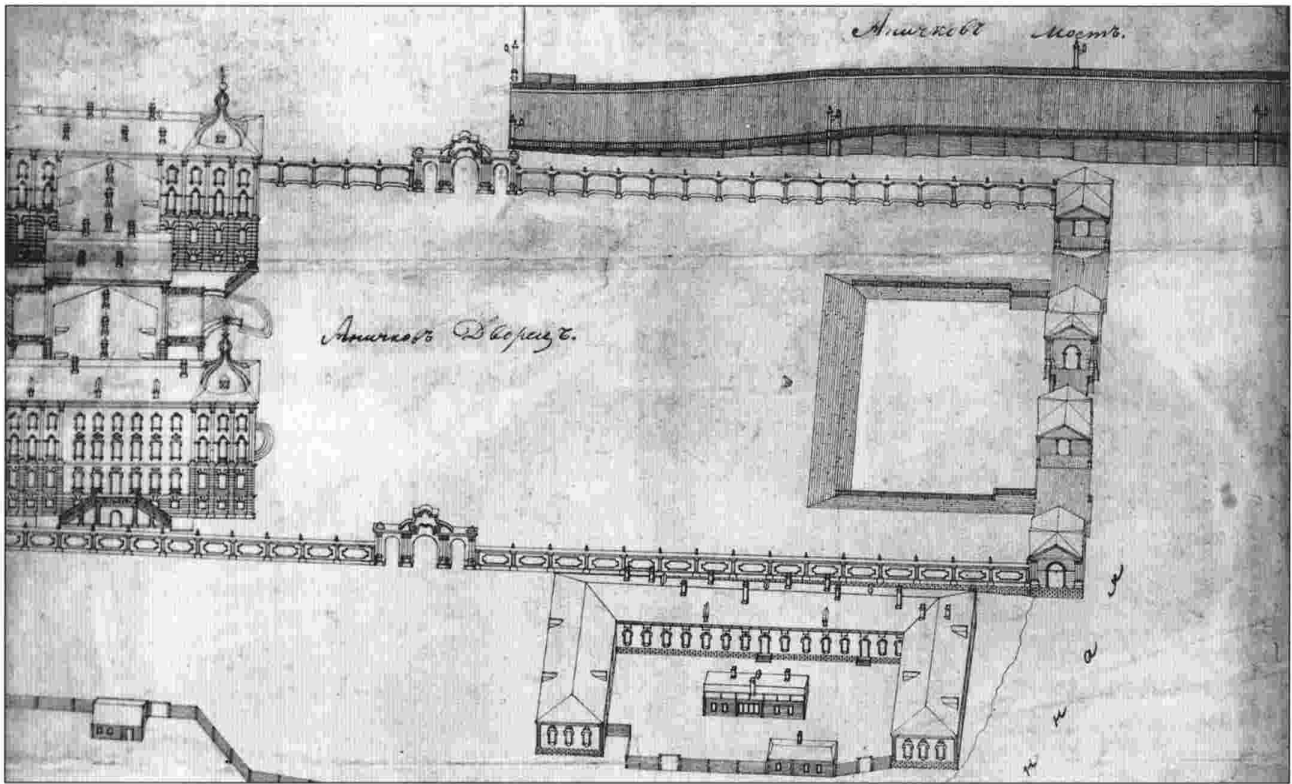
In the spring of 1765, the team was complete. Ten apprentices from the Academy of Fine Arts and ten “soldiers’ children” from the St. Petersburg Garrison School were commandeered to carry the instruments. The team was made up of apprentices from the Academy of Fine Arts: Ivan Sokolov, Boris Poliakov, Udesov, Pilnikov, Sudakov, Efimov, Smirnov, and Blokhin, together with a prospective apprentice of the Academy of Sciences who was to complete his practice in the science of perspective, and the son of the architect Iakov Alekseev.⁵ In June 1765, Ivan Kondakov, Radion Khabarov, and Peter Isatsky were commandeered from the Land Shliakhetsky (Gentry) Cadet Corps.⁶ Subsequently Peter Demidov, Grigorii Dmitriev, and Larion Shalin joined the team. One may consider the moment of the team’s completion as the starting point of real work on the plan.

The Execution

The work on the Axonometric Plan of St. Petersburg can be divided into two periods according to leadership: Saint-Hilaire 1765–1768 and I. Sokolov

128. Buildings on the Fontanka Embankment, including Empress Elisabeth’s palace, the bridge over the Fontanka, and part of the Summer Gardens. Axonometric plan of St. Petersburg, 1765–1773. RGA VME, f. 3 l, op. 25, d. 1946 sheet 13.





1768–1773. During the first three years of work, surveys were completed of the Winter Palace, Millionaya Street, the Admiralty, the left bank of the Neva, Isaakievsky Street, and the Land Shliakhetsky Cadet Corps on Vasilyevsky Island. No more than 100 sheets were drawn in all, and these were only in draft form.⁷ On 5 May 1768, the Commission informed Catherine II that it would be impossible to complete the plan in time. The Commission asked for an extension of time and money for a further three years, which was granted.

However, the director, Saint-Hilaire, no doubt having soberly evaluated the chances of meeting the new deadline, rendered his resignation “on grounds of very poor health” on 19 July 1768. His resignation was accepted.⁸ The chief architect of the Commission, Aleksei Kvasov, now assumed direct responsibility for work on the plan and is mentioned as being “in situ during the completion of the plan of perspectives”.⁹ After the death of A. Kvasov on 9 February 1772, I. Starov took over the supervision.

Ivan Sokolov stood out among those who participated in the work on the axonometric plan. It was he who, after the resignation of Saint-Hilaire, was entrusted with the practical execution of all work, although he was only an assistant. From the middle of 1768, work on the plan was carried out exclusively by Russian craftsmen. In the next three years they did far more than under Saint-Hilaire. The graphic material that has been preserved confirms that most of the sheets were completed by I. Sokolov and his assistants. In the Commis-

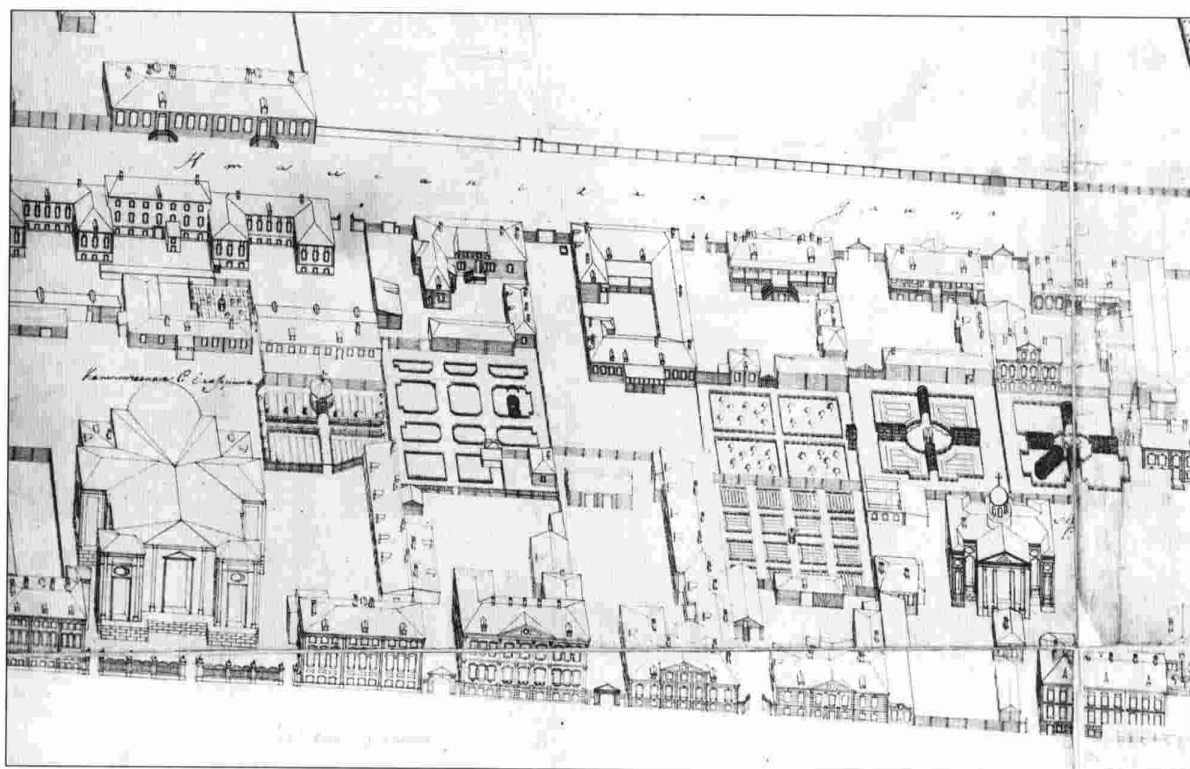
129. *The Anishkov palace.*
Axonometric plan of St. Petersburg, 1765–1773.
RGA VME, f. 3 l, op. 25, d. 1946, sheet 13.

sion Report submitted to Catherine II on 5 March 1772, we are told that Russian craftsmen have shown “through their endeavours that they can prepare plans of perspectives such as have never been prepared in Russia before”.¹⁰

At the end of 1773, work on the plan was curtailed and it was never returned to subsequently. At the request of the Military Collegium, I. Sokolov was taken into its administration, having handed over the sketches and “architectural instruments” to I. Starov.¹¹ However, it is more likely that I. Sokolov never did deliver the sketches to the Commission but proposed to complete them himself. This may explain the fact that the plan was later found among the records of the Chief Engineers of the Military Department. In January 1774, I. Kondakov and R. Khabarov were posted to work on the plans for Tsarskoye Selo. Some of those who had worked on the axonometric plan were employed by the Commission with I. Starov, others were posted to work in Moscow.

Thus the grand undertaking was never fully realized, but what was completed is unique. The following were surveyed and drawn: Vasilyevsky Island in its entirety and the principal buildings of the left bank of the city, covering the district bordered from north to south by the Neva and the Fontanka, and from west to east by the Gulf of Finland and the Fontanka. The sketches made of St. Petersburg Island have not survived to the present day. The Liteiny area is not covered by the remaining sheets, but that was probably never intended, since that area belonged to the Commission for the Modernization of St. Petersburg.

130. Buildings along Nevsky Prospekt.
Axonometric plan of St. Petersburg, 1765–1773.
RGA VMF, f. 3 l, op. 25, d. 1946 sheet 11.



What the Plan Describes

The Axonometric Plan of St. Petersburg 1765–1773 recorded the capital of the Russian Empire as it appeared in the middle of the 1760s, before the commencement of a new layout for the capital. In their report to the Empress Catherine II in 1772, Z. Chernyshev and N. Chicherin pointed out that:

*(...) the plan of perspectives represents an accurate depiction of each house and indicates what was built prior to the creation of new designs in St. Petersburg, and what will be built in accordance with those projects for the further adornment of the city. For this reason, such a plan is absolutely essential, not only for people at the academy for printing and sale to the public, but also for the police.*¹²

Every building, from palaces, churches, and houses of ordinary townspeople to sheds and warehouses, is depicted in axonometric progression. It is unfortunate, however, that the creators drew the panorama from the south side. The façades on the embankments stand out only on one side. The wonderful architectural creations of the city centre and of the districts on the left bank of the Neva and the right bank of the Moika are visible only from the inner side.

The creators of the plan have presented us with a layout of the city with no embellishments or conventions. The photographic precision of the survey gives no cause for doubt. Each site has been recorded by three parameters: a sketch of the façade, a survey of the ground-plan, and a measurement of height and width. All these data were coordinated and adjusted several times, before being taken to the design-board. The creators sometimes returned to sites they had already surveyed when under construction. Variants of individual sheets bear witness to this. That certain buildings – the Academy of Fine Arts, New Holland, the Kunstammer, the Admiralty Courtyard (until recently thought to be an incomplete fragment), and the Catholic Church on Nevsky Prospekt – are depicted in the process of construction or reconstruction indicates that we are being shown the real St. Petersburg. A comparison between the buildings that have remained intact to this day and their depiction on the plan provides further proof of the great accuracy of the plan.

This unique monument to national graphic art and cartography has remained unpublished. For a long time it was forgotten, hidden in the archives, to be rediscovered in the 1930s. In 1934, two fragments were published in a book by S. Iaremich entitled *The Russian Artistic School in the 18th century*. Various fragments of the plan have since been published in a range of publications. A few original sheets have been shown at exhibitions, three times in all and only once abroad (8 sheets in Lugano, Switzerland).

In 1946, a study of the plan was undertaken at the Institute of the History and Theory of Architecture at the Soviet Academy of Architecture. Staff at the State Inspectorate for the Protection of Leningrad Monuments (GIOP) used the plan for restoration work in the city after the Second World War. At the request of GIOP the plan was transferred from the Central State Archives

of Military History in Moscow to its branch in Leningrad for safe-keeping. When the latter institution was re-located to Moscow, the Axonometric Plan of St. Petersburg 1765–1773 and other plans of the city and its environs were left for safe-keeping at the Russian State Archives of the Navy.¹³

What, then, does this plan of Russia's capital represent? It is drawn in one copy on paper. Some of the sheets (60 of them) have been coloured with pigmented ink or shaded in green. Most sheets are approximately 0.80 m. by 0.95 m. Those sheets depicting the left bank of the Neva are much larger, 2.0 m. by 1.5 m. 116 sheets of the plan and 16 fragments have been preserved. They form two distinct parts. The full depiction of Vasilyevsky Island consists of 55 sheets. The joining of these sheets is almost perfect. The total size of this part is 5.77 m. by 9.25 m. For the left bank between the Neva and the Fontanka, drawn on 61 sheets, there is no overall plan but only depictions of individual blocks. Time has not spared the plan. Details have been lost on many of the sheets. From 1961 to 1964 the plan was restored by the Laboratory of Conservation and Restoration of Documents at the Academy of Sciences. The sheets were then pasted onto canvas.

Although it is far from complete, the plan is of great importance for the study of Russian history and the history of architecture and city planning. Measuring work on such a scale has never been carried out in any other country, anywhere. The artistic merits of the plan render it a unique work of Russian graphic art of the 18th century. The plan recorded Russia's capital as it appeared in the first half of the 18th century. It allows us to follow the process of creation of the classic ensembles of St. Petersburg as well as the construction of its more ordinary buildings. We can study the realization of the intentions of the city founder, Peter the Great, the plans of the Commission for the Construction of St. Petersburg under the leadership of P. Eropkin, and the work performed by the architects Trezzini, Zemtsov, Korobov, Rastrelli, Chevakin, and many others.

Among the sheets of the plan which have survived, those covering the Admiralty side and Vasilyevsky Island are of special interest. These show the architectural ensembles which made the city famous and placed it among the most beautiful cities in the world. The panorama of the banks of the Neva holds a special place. The line along the bank of Vasilyevsky Island from the Strelka to the sea stands out on the plan in all its splendour: the Kunstkammer, the Twelve Collegia, the palaces of Peter II and Prince Menshikov, the Land Shliakhetsky Cadet Corps, and the Academy of Fine Arts (under construction). It is thanks to the skill of the apprentices of the institution last mentioned that their descendants have the opportunity of seeing the city as it once appeared.

The idea of a stepped layout on the Neva embankment, developed by the first architect of the city, Domenico Trezzini, can be seen in all its splendour. The continuous line of two-storey houses of the same type (the so-called "model houses for distinguished people") was created by Domenico Trezzini in 1717. Many of the buildings on Vasilyevsky Island are connected with this architect, and this is where he lived. On Sheet 10 we can see the house of C. G. Trezzini,

where the architect lived with his uncle. The house is located not far from Gostiny Dvor, also a creation of Trezzini and depicted on the plan (Sheets 12–14). In the right-hand corner of Sheet 35, on the Neva embankment, there is a two-storey house with a mezzanine and porch, designed and built by the architect for his own use.

In the beginning of the 18th century, the rule was “no one may build without permission”, and the axonometric plan demonstrates clearly the significance of the “model houses”. Several variations on the model houses were indulged in on the Admiralty Side, as is clearly shown by the drawings. One of the items depicted is Millionaya Street, with an unbroken row of two-storey houses following the façade line or drawn back from the street. The situation in Little Morskaya is of interest in that one side has an unbroken row of houses, while the other side consists of detached two-storey houses of the old type. To a certain extent the same scheme applies to Nevskij Prospekt. The plan shows a number of easily indetified buildings that are still recognizable today, such as the Peter and Paul Cathedral and the Catholic Church of St. Catherine, flanked by two buildings designed by Trezzini – an ensemble that is purely urban in character.

The network of streets shown on the plan bears witness to the layout which had developed by the mid-18th century. The extensive gardens on huge sites owned by the nobility are depicted with the same care as the manorial buildings. The sheets recording the Moika embankments are especially interesting. A significant part of the sites is taken up by the private palaces of the nobility: the Stroganov, Iusupov, Demidov, and Chernyshev Palaces, with parks lined by trimmed hedges behind them. Laid-out gardens with paths, ponds, and fountains take up a large part of the plan. One example is the Summer Gardens and the extensive Gardens beside the building of the Twelve Collegia.

The plan shows the central squares of the city before they were reconstructed according to the design of the Commission for the Stone Construction. The Palace Square appears, but not in the magnificent version of today. Lugovaya Street, lined with ordinary buildings, is now the site of the ensemble of the General Staff buildings. Whereas there is a combination of palaces and a regularized network of streets in the centre, in the more outlying districts the plan shows houses “with one storey above a cellar”.

One widespread architectural motif in the plan is the open, outdoor porch. This has its origin in the traditional Russian type of housing. The plan also depicts the new buildings on “places burnt by fire”. In these areas, we can see a system of perimeter blocks leading from one to the other. The number of storeys has been increased, generally up to three storeys, and the size of the courtyards has been reduced. The outbuildings also have an increased number of storeys. The advent of Classicism is demonstrated in the change from the splendid stucco façades with an abundance of details, to the stricter idiom of early Classicism. The streets have been transformed into wide stone corridors.

The change in architectural order can also be seen in the depiction of manorial buildings, which are built as integrated entities. An example of this is the

house of Count Chernyshev, built according to the design of Vallin de la Mothe in 1763–1766. State buildings were also built in the style of early Classicism. The development of one of them, the Academy of Fine Arts, is shown on the plan.

Several bridges are depicted on the plan. A bridge of interesting design was built across the Fontanka where the waters of the Moika and the Fontanka converse, close to the palace of the Empress Elizabeth. The first Anichkov Bridge is next to the Anichkov Palace. The plan also shows the bridge across the Neva from the Menshikov Palace to St. Isaac's Square, uniting the two main parts of the city.

The Axonometric Plan of St. Petersburg 1765–1773, having remained unfinished and practically unpublished, still serves as an important source of information for restoration work on the city buildings. It is documentary evidence of the maturity of the Russian architectural school, which was capable of creating an architecturally harmonious city that has long delighted visitors from all over the world – and continues to do so.

Notes

1. Decree of December 11th (22nd) 1762 “On the establishment of a Commission for Construction of the Cities of Saint Petersburg and Moscow”, PSZRI, Collection I, Book 16, Number 11723, St. Petersburg Library (1830), pp. 127–128. (PSZ=see p. 108)
2. RGIA, f. 1310, op. 1417, d. 14., pp. 1–12.
3. *Ibid.*
4. *Ibid.*, pp. 24–26.
5. RGIA, f. 1310, op. 1417, d. 3, pp. 7, 11.
6. *Ibid.*, p. 15.
7. RGIA, f. 1310, op. 1417, d. 14, pp. 24–26.
8. *Ibid.*, pp. 22, 23.
9. RGIA, f. 1310, op. 1417, d. 8, p. 14.
10. RGIA f. 1310, op. 1417, d. 14, pp. 24–26.
11. *Ibid.*, d. 11, p. 121.
12. *Ibid.*, d. 14, p. 24–26.
13. RGA VMF, f. 31., Op. 25, d. 1946.