

# Historical Industrial Ensembles in the Landscape of Saint Petersburg: Renovations and Losses

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## ABSTRACT

**In the article, problems of transformation of industrial territories of St. Petersburg are analyzed, taking into account that these territories include numerous monuments of industrial architecture. The author presents results of some transformations of the kind; she notes the possible ways of realization of a program of urban planning with some considerations on the historical and cultural significance of such cityscapes.**

**Keywords:** *architecture of St. Petersburg, historical industrial ensembles, monuments of industrial architecture, functional aim, conservation, reconstruction, restoration*

## I. INTRODUCTION

The general cityscape, river panoramic views, and ensembles of squares shape a unique milieu of St. Petersburg. The industrial belt around the solemn centre completes and accents its preciousness. Nowadays, this specific fragment of the landscape is subject to changes typical for many big cities.

Vacating and reprofiling of old industrial buildings, complexes, and entire industrial landscapes significantly transforms not only the material environment, but also the humanitarian field and requires solution of a number of problems: ecological, socio-economic, technical, and urban planning. In particular, problems of the historical and cultural type arise, involving various measures to preserve the heritage and its cultural identity.

Reconsideration of all the city structure, as well as some changes of attitudes to its transformation, were started in 1970-s. Redevelopment of industrial territories as one of measures for the sake of improvement of the city environment is actively practiced in Europe. Restoration, reconstruction, and museumification of objects became a part of the urban policy. The intense activity in the sphere of transformation of natural-artificial landscapes formed in the industrial epoch covers the developed countries.

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\*Fund: The article has been written in the cause of researches financed by the State programme of the Russian Federation "Development of science and technology" for 2013-2020 within the framework of the Plan of fundamental scientific researches of the Ministry of Construction of Russia and RAACS, theme 1.4.2.

Wide-scale works in such big cities as London, Manchester, Liverpool, and Birmingham, were the earliest examples of the kind [1].

Significant transformation was spent in Berlin, in the Oberschöneeweide District at the Spree River, where the well-known AEG factory complex, a symbol of the German industry, was located. Works similar in scale took place in Lisbon, where they transformed the bank of the Tejo River with its warehouse and port facilities for the EXPO-98. Projects of the complex developing the industrial part of those cities were implemented according a similar scenario. First of all, they set a strategic aim — the development of the depressive territory; then, a specific program and a plan of corresponding actions were worked out. The process of re-functionalization is actual also for St. Petersburg — historically the leading industrial centre of Russia.

## II. URBAN PLANNING ROLE OF HISTORICAL INDUSTRIAL ENSEMBLES OF ST. PETERSBURG

Industrial architecture takes a special place in the space of the northern capital, it is oriented at water. Shipyards and port complexes, textile and cotton manufactories occupy vast areas of the river banks and the coast of the gulf. Masses of plants' constructions become an integral part of the multi-layered city image, of the riverbanks landscapes. Full of harsh expression, ensembles of factories dominate the seaside, in the panoramas of the banks of the Neva, its tributaries and canals.

In many ways, the historical environment of St. Petersburg, similar to European industrial cities, has its

own specific features. Its uniqueness lies in the lack of serious urban events in the city at the beginning of the twentieth century (unlike other European capitals), which predetermined the safety of industrial enterprises in these areas, wedged into residential quarters. The paradox lies in the fact that this current significant drawback of the urban environment provides a rich potential for its improvement through the ‘disclosure’ of degraded spaces and their inclusion into a new context. These ‘closed’ territories serve as that very reserve which allows to unload the historical districts and to accelerate the process of shaping new spaces and landscapes.

Industrial monuments, as a part of the general array of historical buildings, were included into the List of newly identified cultural heritage sites of St. Petersburg, approved by the Government of St. Petersburg in 2001. It contains both single industrial buildings, and vast territories of giant plants: Obukhovskiy, Admiralteyskiy, Baltiyskiy, Izhorskiy, Sestroretskiy, and others. The huge potential of the heritage of the Neva capital reflects all periods of domestic industrial history: manufacturing (the eighteenth century); initial industrialization (first half of the nineteenth century); late industrial (second half of the nineteenth — the early twentieth centuries); early Soviet period (1917–1930-s) [2].

Nowadays, the process of translating the identified objects into the category of regional or federal monuments is ongoing. However, some of them deserve a higher status that would meet international criteria. This group of objects includes architectural monuments of the avant-garde era and the oldest enterprises founded back in the reign of Peter the Great and occupying vast territories. They could become important world heritage sites and tourist attractions.

### III. REPROFILING OF INDUSTRY AS AN INFLUENCE FACTOR FOR HISTORICAL LANDSCAPES

The plan for transformation of industrial territories was adopted by the city authorities in 1994; and, two years later, the Federal Target Program “Preservation and Development of the Historical Center of St. Petersburg” was approved. The program included a list of environmentally unreliable enterprises that were selected for closing, reprofiling, or relocation to new sites on the periphery of the city by 2013. Within the boundaries of the historical part of the city, “industrial enterprises having historical and architectural significance, environmentally friendly, and generating income for the city” should be kept working at the same places. Despite the fact that the program was approved, its implementation is still at the initial stage, without taking into account the historical and cultural factor and without a certain strategies.

To achieve some results, they worked out a system of criteria for the investment potential, including the following positions: marketing attractiveness of a location, functional zoning, level of engineering and transport development, degree of readiness of enterprises for going out of the existing territories. At the same time, the historical and cultural factor is not taken into account, and various measures for the preservation of the heritage are not suggested.

The results of the transformation of historical industrial ensembles can be traced to specific industrial complexes, differing in their industry affiliation, compositional and stylistic peculiarities, a degree of preservation of their cultural identity in the process of re-functionalization [3].



Fig. 1. The industrial belt of St. Petersburg in the early twenty first century.

#### **IV. TIMBER DEPOTS OF NEW HOLLAND**

Among the oldest enterprises from the field of shipbuilding are the timber depots of New Holland. This monument of the epoch of early Classicism became one of the symbols of the city, but in the Soviet times the ensemble was a closed territory; it was used as military warehouses. Since the early 1990s, unsuccessful attempts were made to revive, restore, and redesign it into a multifunctional cultural and touristic complex. For many years, the triangular island in the centre of St. Petersburg was the ‘Bermuda Triangle’: owners changed, the territory was cleared, in the course of which not only low-value buildings were dismantled, but also the laboratory of D. I. Mendeleev, the ‘experimental’ pool, and the building of the radio station, which were of great importance for the history of technology and for the social memory [4].

As a result of all transformations and changes in ownership, in accordance with the project prepared by the WorkAC architectural bureau that won the competition in 2011, restoration and adaptation of the preserved historical buildings into a multifunctional cultural and commercial center is underway. The new owner has begun its real development, guided with the ‘starting landscape’ methods.

Along with the conservation and restoration of single buildings, there is a work on the reviving and landscaping of the space. Such approach allows them to

attract public interest, improving the environmental situation, which is rather relevant for the central part of the city. The island serves as a platform for cultural programs and large urban projects, often proposed and organized by inhabitants of the city. Over a short period of the existence of summer programs, it became clear that such a site is vital for the city, and, therefore, it was decided to divide the restoration and the launch of the project into some stages in order to carry out restoration work without interfering with the park activity.

Summing up, we can state that, despite the loss of a number of components that occurred due to an underestimation of the entire system of criteria, the cultural identity of the territory of New Holland is generally preserved in the process of its refunctionalization.

#### **V. NEVSKAYA SPINNING AND THREAD MANUFACTURE OF BARON STIEGLITZ**

The history of the manufacture dates back to the early nineteenth century, when the first multi-story buildings of spinning factories were built in the capital, earlier than in other cities of Russia; and it was a start of the country's industrialization. The multifaceted composition of the factory complex unfolds frontally along the embankment and to the depth of the quarter, dominating in the panoramic view from the opposite bank of the river [5].



Fig. 2. Panoramic view at the Nevskaya spinning and thread manufacture before its reconstruction.

<sup>a</sup>. Red brick masses conjoin with the openwork truss Bolsheokhtinsky Bridge and the silhouette of the Smolny Nunnery in the Neva landscape, shaping a unique picturesque view. Photo of 2000-s

The dense historical planning along the perimeter of the quarters played an important compositional role in the panorama of the Neva embankment, determining the general direction of the transformation of this complex with the predominance of restoration of historical buildings, with partial reconstruction, and minimal new inclusions of purely technical elements. Such options were developed in some graduating projects.

Nowadays, the production has been withdrawn from a part of the industrial area, while their historical and

cultural status has been removed from historical buildings, which negatively affected at the result of the reprofiling of the ensemble. In the course of the reconstruction, a boiler room and three brick factory stack-furnaces were lost, despite the interesting design of their podiums and constructions in a whole; those stack-furnaces had lyrical names ‘Faith’, ‘Hope’, and ‘Love’; several other low-size industrial buildings hidden behind the huge faces of the frontal ensemble line were also demolished.

Thus, the result of the reprofiling of the historical industrial territory of the Nevskaya spinning manufacture indicates insufficient consideration of the entire system of evaluation criteria, which led to a decrease in compositional and semantic components.

## **VI. KNITTING FACTORY ‘KRASNOE ZNAMYA’**

The largest losses in the process of reprofiling happened at the industrial complexes formed in the twentieth century. Monuments of the avant-garde era outside the United Protected Zone are most exposed to such danger. The industrial architecture of Leningrad, which coincided with the heyday of the Russian avant-garde, is represented with outstanding monuments including world-class masterpieces. First of all, there is a new part of the ‘Krasnoe znamya’ knitting factory built in 1926–1930-s (project by the famous German architect Erich Mendelsohn). The construction was a result of cooperation of the famous master with Leningrad colleagues — cooperation full of conflicts. The complex includes a four-storied knitting production building, three workshops, and a power station. Bold in plastic, located in the corner of a residential quarter and

dominating in the ensemble, this complex combines the features of expressionism and functionalism in the composition and embodies the author's postulate ‘function plus dynamics’ [6].

Initially, it was supposed to use three methods determined by the prevailing environment: restoration of a power station, reconstruction of workshop buildings which to a large extent lost their historical details, and minimize invasion of new buildings, to come as close as possible to the original plan of the great German architect.

However, in the course of working out the investment plan, the historical territory was divided between two owners, each of which started to build it up according his own ideas. In the immediate vicinity of the monument of regional importance — the power station of the factory ‘Krasnoe znamya’ — a multi-storied residential complex was built, exceeding the height of the monument. Formally, the parameters of the new buildings correspond to the development regulation regime established for a given territory, however, the dominant role of the monument has been lost.



Fig. 3. A project of the new residential complex ‘Mendelson’ on the territory of the ‘Krasnoe znamya’, Architectural Bureau Intercolumnium.

<sup>a.</sup> Location in the direct vicinity of the dominant of contemporary massive buildings caused irreparable damage to the ensemble

## **VII. S. M. KIROV MEAT PROCESSING PLANT**

This masterpiece of the Soviet architecture of the avant-garde era is one of the most significant achievements of the Leningrad Constructivism. For its engineering and architectural merits, the monument was awarded with the ‘Grand Prix’ at the Paris International Exhibition in 1937 [7].

The complex was created by a group of engineers and architects under the general supervision of one of the leading Leningrad architects, N. A. Trotsky, in 1931–1933. The meat processing plant, built on the southern outskirts of the city, became the urban-planning dominant of the vast territory thanks to its

memorable silhouette. The ensemble is best perceived from the side of Moscow Highway. The ensemble of historical production buildings is inextricably linked into a single compositional and technological system, which forms a general architectural and spatial composition with a park and a square. The core of the historical complex of buildings of the Meat processing plant consists of four multi-storied buildings, in which the main production process took place. The buildings are located with gaps, along one central axis; they are interconnected by passages on the level of the first and second floors.



Fig. 4. A panoramic view at the S. M. Kirov Meat processing plant.

Auxiliary buildings are located on the both sides of the main production buildings. This part of the utilitarian development was repeatedly rebuilt and expanded in the 1960-s — 1980-s. Nowadays, the production is withdrawn from the territory, the transformation of which involves new construction works around the historical core of the central part. In the course of restoration and reconstruction of historical buildings, it is required to maintain their dominant importance and the space necessary for perception. An acute problem is the choice of a new function of the historical object, which, ultimately, would determine the future destiny of the monument.

“Speaking about the functional use of the old building, it should be kept in mind that it is important not only to find a function that matches the parameters and the figurative structure of the monument, but also that one, not requiring in its development some decisive and dangerous transformations of the heritage elements, dangerously ‘dynamic’ [8].

### VIII. IZHORA PLANT

A way to preserve the environment and the memory of the passing era in the most optimal way is to create a museum of the history of technology on the basis of one of the old factories, which would save rare equipment and documentary exhibits in a combination with historical production buildings. Such museum-resort is necessary and possible in St. Petersburg. It can be located in one of the most valuable industrial landscapes, for example, on the historical territory of the Izhora Plant. In its significance for the national history, this monument of the federal level can be correlated with the world-famous Darby metallurgical plants in the UK, on the base of which the Ironbridge Gorge Museums resort has been created. The natural and artificial ensemble of the Izhora Plant, founded by Peter the Great, includes a complex system of hydraulic structures: a dam, a diversion channel, and an artificial pool for shipbuilding, as well as workshops with unique metal structures, and archaeological remains of an underground plant; it could be a museum of the industrial history of St. Petersburg, no less impressive than the British one [9].

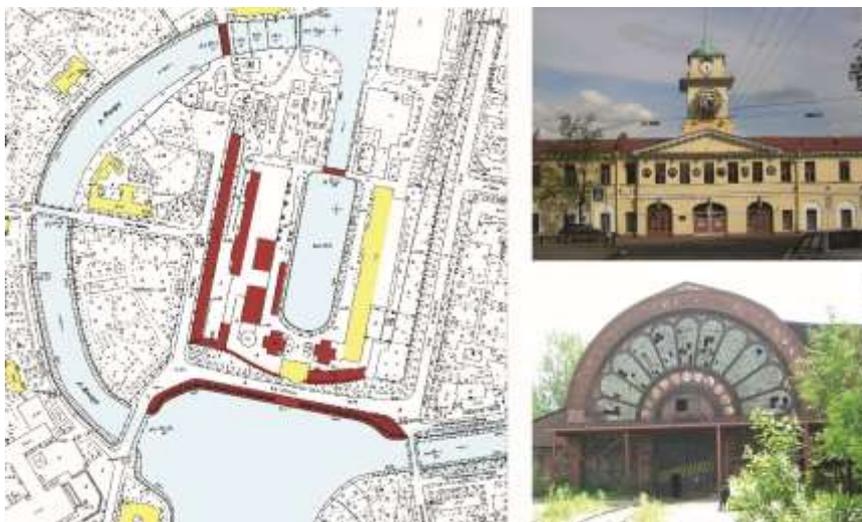


Fig. 5. The historical part of the territory of the Izhora Plant.

## IX. CONCLUSION

All the monuments of industrial architecture existing in the city can be divided into three groups, not only in accordance with their historical and cultural status, but also depending on the type of their exploitation. Objects that preserve the production profile which does not require changes of the original image; objects where the changing conditions of the technological process distort the historical appearance; buildings partially or completely unused. Most part of the heritage sites belong to the second and the third groups of this classification. The analysis of the existing state of historical industrial landscapes reveals only the initial manifestation of modern trends of re-functionalization. In many ways, the historical and industrial environment of St. Petersburg, similar to European industrial cities, is being updated and reformed at an insufficient pace.



Fig. 6. ‘Krasnaya nit’ factory in a contemporary panoramic view of the Vyborgskaya Emb.

The development of a comprehensive strategy for the re-functionalization of industrial territories of St. Petersburg should be preceded by an analysis of the specific features of the vacated industrial territories and a definition of their historical and cultural components, and the priority of such methods of transforming historical industrial complexes as restoration, reconstruction, reconstruction, and ‘starting landscape’ [11].

This approach is applied only partially in the case of New Holland. Nevertheless, such vast industrial areas as the Triangle on the Obvodny Canal, the Obukhovsky Plant, and other enterprises of the industrial belt, could be mastered with one and the same method. It would allow to predict and optimize the process of

However, already at this stage, the landscape environment suffers noticeable losses. “The drama of the current situation does not lie in the destiny of single monuments, but in the tendency to change urban landscapes, panoramic views, and perspectives. The visual interconnections and the scale of certain spaces are violated; the honoured skyline of St. Petersburg is deformed. That is, we speak about those features that primarily made up the unique face and spectacle of the Northern capital... The destruction of the spectacular integrity of the Vyborgskaya Embankment — recently, one of the most beautiful places in the city, can be considered a tank strike. Among the different parts and corners of Old Petersburg, coloured with individual hues and notable for the memory of the place, the embankment of Bolshaya Nevka stood out for its rare picturesque and peculiar expression of the industrial landscape. The expressive plasticity of its volumes, the rich silhouette and rich colour of the red brick workshops and towers are now leveled by simplified geometric forms of new building” [10].

transformation of industrial territories, maintaining the uniqueness of the historical environment of St. Petersburg.

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