The development of the Mordvinovs’ estate park territory as an element of the green belt of Saint-Petersburg

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Abstract. The Mordvinovs’ estate is an object of cultural heritage of federal significance, an element of the green belt of St. Petersburg. Pre-design surveys include the study of green plantations and the territory itself, the stages of their development. Based on the study of cartographic material, six stages of the formation of the estate park complex were distinguished and the thriving period was identified, which should be referred to while developing a project for the restoration and adaptation of the estate to the realities of the present.

1. Introduction

The landscaping level and the state of public green spaces, the attractiveness of which has a great aesthetic and ecological importance for humans, is determined both by the modern environment of the object territory and by its gradual historical development.

2. Methods and Materials

The relevance of the study is the existing need to identify the stages of shaping the current appearance of the Mordvinovs’ estate park as a base for recommendations for its restoration or reconstruction until the condition of a full-fledged element to be included into a structure of the green belt of St. Petersburg.

Research methodology: visual study and analysis of existing iconographic materials, historical diagrams and plans, as well as archival maps of St. Petersburg and the Leningrad region.

2.1. Characteristics of the object of study

The object of our research is Mordvinovs’ estate park [1]. The park territory has a rich history and is interesting for several reasons:

1. The object is located in the city of Lomonosov, it’s a historic district of Martyshkino. The modern relief of the city is formed under the influence of many geological processes connected with the activity of the ice sheet. The Baltic-Ladoga scarp, on which the investigated object is located, rises from the coast of the Gulf of Finland to the south, forming three terraces. The soils throughout the city are formed on sedimentary parent rocks such as sand and clay. Climate changes are also connected with the effects of glaciers. It is noteworthy that there are both mechanical and structural differences between the soils in the coastal lowland and the highlands. This can also explain the characteristic differences in the composition of green spaces between the eastern and western parts of the investigated object.
2. The object is named after its last owners The Mordvinov Counts who owned the estate for almost a century. But the other prominent people were the owners of this territory too, and it is interesting for the history of the object, which is now in disrepair. It should be noted that these were summer cottages attracted art workers. For example, the beauty of the estate landscapes was reflected in the Ivan Ivanovich Shishkin paintings.

3. The estate is famous for its magnificent, huge oaks; we don’t know who planted these oaks, but probably they were planted in the times of Peter the 1st or perhaps earlier.

4. In 1990, the Mordvinovs’ estate was included in the UNESCO list of the World Heritage Sites. It was recognized as a monument of urban planning and architecture and is included in the list of objects of federal significance by the Decree of the Government of the Russian Federation “On the list of objects of historical and cultural heritage of federal significance located in St. Petersburg” No. 527 dated 10.07.2001 [2], the object (which includes: a water tower, early XIX century; greenhouse, 2nd half of the XIX century; park, XVIII-XIX centuries; four ponds, XVIII-XIX centuries). The entire territory of the Mordvinovs’ estate with the only surviving greenhouse, is in the public domain. The only exception is the water tower, which is privately owned with closed access to it.

The Mordvinovs’ estate is one of the most famous estates on the Peterhof road. Local history publications dedicated to this object reflect its great memorial value.

The first owners of these lands were Tsarevich Alexei Petrovich (until 1718) and his son, Pyotr Alekseevich. Later, the lands were granted to Alexander Ivanovich Rumyantsev. At the end of the 1740s, the estate passed to the chief equestrian Pyotr Spiridonovich Sumarokov.

In 1751, the land was acquired by Roman Illarionovich Vorontsov, brother of the statesman of the Elizabethan reign Mikhail Illarionovich Vorontsov. From 1777 to 1786, the estate was owned by the son of Roman Illarionovich - Alexey.

After the Vorontsov Counts, the estate was owned by many people. In 1822, the western part of estate was bought by Nikolai Semyonovich Mordvinov, an admiral, a Russian naval commander, a prominent state and a public figure.

In 1840, in the depths of the estate, in the forest, beekeeping was organized.
In 1843 a new one was built on the site of the old greenhouse.
In 1862, the forest area of the estate was cut by the Oranienbaum (now Baltic) railway.
In 1891, the famous painter I I Shishkin worked at the estate.
Picturesque canvases "Mordvin's oaks", "A group of oaks at the dacha of Countess Mordvinova", "In the forest of Countess Mordvinova", "Forest. Mordvinovo" preserved the views of the Mordvinovs' estate for descendants.
In 1892, Count Mordvinov bought and attached to the family estate the eastern part of the territory —Bek's dacha.
On the upper terrace at the beginning of the XX century, a water tower was built in the Art Nouveau style. The architect is unknown.
The descendants of N S Mordvinov owned the estate until 1917.
After the revolution, a children's colony was located on this territory, in 1919 there was an agricultural technical school there.
During the Great Patriotic War, at the western border of the estate, near the road, they began to bury the dead who defended the "Oranienbaum bridgehead". In 1970, a memorial was organized at this place.

3. Results and Discussion
In the process of studying the current state of the object, we developed an interest in the historical stages of its formation. For this, it was decided to study the history of this object more deeply.

It is known that until the middle of the 18th century, the territory often changed owners, but was undeveloped. The list of the studied maps, presented in table 1, reflect the dynamics of changes in the Mordvinovs’ estate landscape and its features at different stages of its formation.
A visual study of the available iconographic materials, historical illustrations and plans, as well as archival maps allows us to draw the following conclusions.

The object is divided by a road (Morskaya Street) into relatively equal-sized parts, which are shaped as the upper and lower terraces of the estate. On the map of 1870-1890 the boundaries of the object are clearly defined.

**Table 1.** Characteristics of the Mordvinovs’ estate park territory formation.

| No | Year of publication, the map name | Description | Note |
|----|----------------------------------|-------------|------|
| 1  | 1781 Land-surveying plan of the estate of I.F.Bek (fragment), RGADA [3] | The plan clearly shows the central axis, which is a clearing leading to the Gulf of Finland. There is a pond at an angle to the clearing, at the edge of the lower terrace. Across the road from the pond, on the upper terrace, several structures are marked. The road and path network, tracts of trees are marked. A winding road leads inland, towards the opposite border of the estate. | p. 88 |
| 2  | Layout (1870—1890) Detailed topographic map of the environs of St. Petersburg [4] | The map covers the entire territory - both western and eastern parts. By this time, the composition of the eastern part had changed - it became centric. The buildings are outlined. The main compositional axis is cut further to the south. In the western part, several buildings are indicated, both on the upper and lower terraces. We can see areas that most likely differed in purpose. The composition is also tied to the central axis, which is parallel to the clearing in the eastern part. The road and path network is well developed. | Pic. 1 |
| 3  | 1939—1942 German aerial photography of Leningrad during the Second World War [4] | The aerial photo shows the buildings in the western part of the estate. The compositional axis of both the western and eastern parts of the estate is clearly visible. A pond is visible on the lower terrace. Almost the entire upper terrace is covered with the forest. You can see a glade with Mordvin’s oaks. The structure of the manor landscape has not been changed. | - |
| 4  | 1991—2001 Detailed topographic map of the Leningrad Region [4] | The map clearly shows the boundaries of private buildings, memorials and burials. A pond is visible on the lower terrace. The surviving sights of the estate - oaks and 2 buildings - are marked. | sheet O-35-12 |
| 5  | 2020 Google Earth Satellite Image | On the satellite image, the entire territory of the park of the Mordvinov estate is occupied by a green massif. On the lower terrace you can see ponds and a road network. On the upper terrace, a clearing in the center is poorly revealed. Ruins of a building are visible at the western border of the territory. | - |

The following compositional features of the development of the estate territory were revealed based on the results obtained in the course of a visual study of the available iconographic materials, historical schemes and plans, as well as archival maps.

The object is divided by a road (Morskaya Street) into relatively equal parts, which are the upper and lower terraces of the estate. On the map of 1870-1890 the boundaries of the investigated object are clearly defined.
Apparently, the eastern part of the territory until 1780 already had the structure of a manor ensemble. It was attended by: a large garden, symmetrically located buildings, the main compositional axis of the estate was clearly marked, open and closed spaces alternated.

The western part was owned by Vorontsov and also had quite a complete composition in these years. Thus, an important event, which happened in 1892, changed the overall appearance of the estates was the merger of two “dachas” into one.

Immediately after the acquisition of Bek’s dacha by Count Mordvinov, the Landing Plan of the estate was drawn up. On the fragment, we can see in detail its central part.

In 1895, the issue of water supply to the estate was resolved. On the lower terrace, by the pond, steam engines were built, and on the upper terrace a red brick water tower was built. The last one has survived to this day. The estate remained in this form until the Great Patriotic War.

After 1917, the structure of the landscape did not change. According to the maps of this period, some buildings were lost, including the main house of Bek’s dacha. The appearance of the Mordvinovs’ estate had significant changes in the post-war years. Currently, the main buildings and the garden have not been preserved, the park has been partially preserved. The greenhouse is in a ruined state. The water tower and cellar are better preserved.

The most accurate idea of the territory appearance in different periods is given by the combined scheme [3], which was provided by the local history museum of the city of Lomonosov (figure 1). The diagram shows the most significant stages in the landscape change of the investigated object, as well as existing and lost buildings.

Let’s turn to the modern satellite image of the Mordvinovs’ estate. Now the territory is visually divided into three parts: one part has turned into a single array of trees and shrubs, the other is built up with private houses, and the third is given over to a memorial and burial place. It became impossible to return the territory to its historical layout. Unfortunately, there are no steps have been taken to revive even part of the historical layout of the facility. Only two alleys of the park have survived: one that leads to the water tower and runs along the central clearing. The buildings of the estate, as we can see, are almost completely lost.

4. Conclusion

According to the research and analysis of the available iconographic materials, historical schemes and plans, we have identified the following stages in the history of the Mordvinovs’ estate park territory development:

Stage 1 (1751—1786). The stage of the estate formation during the Vorontsov Counts possession. Then the western part of estate acquired its original appearance. A manor house, greenhouses and services were built. A pond was dug on the lower terrace, which still exists today. The initial composition of the object was conceived, the features of which were preserved until the Great Patriotic War.

Stage 2 (1822—1892). The stage is associated with Count N S Mordvinov, whose name the estate still bears. Many services were concentrated on the territory of the estate. A park stretched to the Gulf of Finland. On the lower terrace there were vegetable gardens, and on the upper terrace there was a garden and a pond, the last one has survived to this day.

Stage 3 (1892—1917). During this period, Count Mordvinov expanded the boundaries of the family estate, adding Bek’s dacha to it. The estates had their own compositional centers and main road axes. A large garden united both estates.

Stage 4 (1918—1940). Post-revolutionary period. The territory of the estate and its structures were used in different ways. Most of the buildings were preserved, in general, the landscape of the estate remained the same.
Figure 1. Scheme of the Mordvinovs’ estate (combined) [3].

Stage 5 (1941—1970). During the war and post-war years, the wooden buildings of the estate were destroyed. Burials of the dead appeared at the western border of the object, a memorial was built with
a bronze figure of a soldier slain by a bullet. The foundation of the manor house has been partially preserved, on the site of which a rectangular kindergarten building was built.

Stage 6 (1971—present). The period is characterized by a change in the boundaries of the estate for the worse. The appearance of the estate is irretrievably lost. The central part of Bek's former dacha was set aside for private development. The part of the forest of the Mordvinovs' estate was cut down for building also at the western border, to the south of the greenhouses and up to the central clearing.

It is recommended to make a possible restoration of the estate complex at the third stage of the territory's development.

References
[1] Mordvinova N N 1873 Memories of the admiral, Count Nikolai Semyonovich Mordvinov and his family. Notes of the daughter of his Countess N N Mordvinova (St. Petersburg: Printing House of the Marine Ministry) pp 65
[2] Resolution of the Government of the Russian Federation "On the list of objects of historical and cultural heritage of federal significance, located in St. Petersburg" No 527 of 10.07.2001. from 2
[3] Gorbatenko S B 2001 Peterhof road. Oranienbaum historical and landscape complex (St. Petersburg: publishing house "Dmitry Bulavin"), pp 85-90
[4] 2020 Old maps of St. Petersburg and the Leningrad region (St. Petersburg: EtoMesto). Available at: http://www.etomesto.ru/peterburg/. (Date of treatment: 12/15/2020)