

Historic Gardens Restoration: St. Petersburg Case Study



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St. Petersburg Historic Gardens Restoration



St. Petersburg

- Tsar **Peter the Great** (1682-1725) aspired to emulate all aspects of European civilisation.
- That is why all principles of politics, economy, science, art--including the garden art--came to Russia.
- St. Petersburg--"Window to Europe"



St. Petersburg

- Capital of Russian Empire (1712-1917)
- Naval and Mercantile port (Neva River, Gulf of Finland)
- Application of the principles of ***Baroque landscape design to urban planning***



Historic Centre of Saint Petersburg and Related Groups of Monuments was included in the UNESCO World Heritage Site in 1991



Main axis: Nevski Prospekt (3 km)

St. Petersburg: tragic days

- Leningrad: the 900 days
Siege (“Blokada”):
1941-1944
- 2 million Russians lost
their lives
- 500 000 people are
buried in the
Piskarevskoye
Cemetery’s 186 mass
graves
- A lot of destruction in the
city
- All famous tsar’s
residence in the nearest
suburbs were destroyed



Tsar's Russian Parks and Gardens

- Despite substantial Western influence, the parks of all the large Imperial residences of **Peter the Great, Elizabeth Petrovna, Catherine the Great** (both formal and landscape) had features that differed markedly from their **European counterparts**.
- Russian parks have a specific approach to planning structure and to separate details (parterres, bosquets, species of trees, shrubs and flowers).

Historical gardens and parks restoration. Creation of strong scientific school of restoration and garden conservation



Historical Gardens Restoration School



Peterhof: Upper Park in
1944

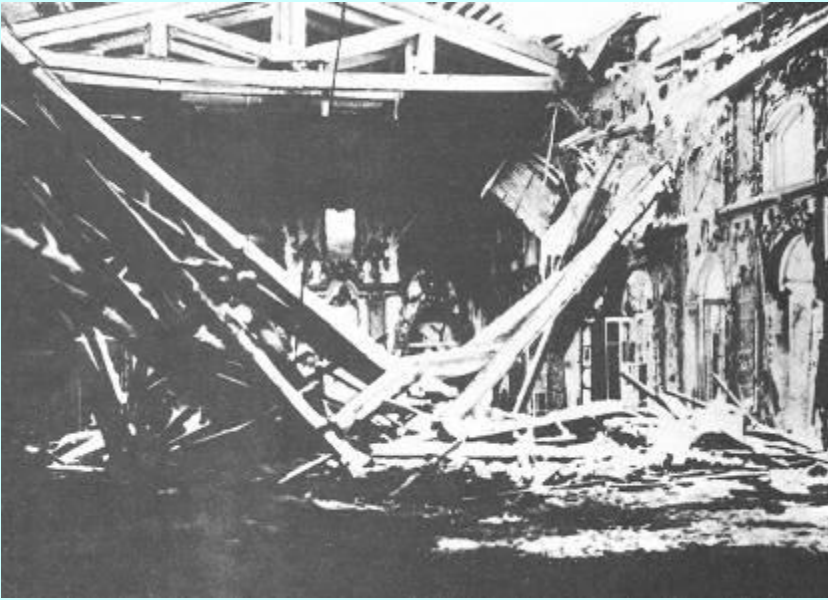


Peterhof: Upper Park in 1998



Шахматная гора с уцелевшей скульптурой
"Орел" архитектора Бенуа Н.Л. 1943

Amber Room (Ekaterininsky Palace), Tsarskoye Selo



Restoration traditions in St. Petersburg

- Started with theoretical foundation in 1930's in St. Petersburg by ***Tatyana Dubyago***
- After the ***WWII*** beginning of restoration in barbarically destroyed parks and palaces of St. Petersburg and its suburbs
- Developing of ***strong scientifically based restoration concept***
- All restoration works were financed by the **Soviet Government**
- **The matter of prestige**



Restoration, Reconstruction and Conservation experience over 50 years

- Book of *N. Ilyinskaya*
“Restoration of Landscape Architecture Historical Monuments. St. Petersburg. 1993
- Summary of St. Petersburg park and garden restoration, reconstruction and conservation experience



St. Petersburg School of Garden Restoration. The Process:

I Preliminary works

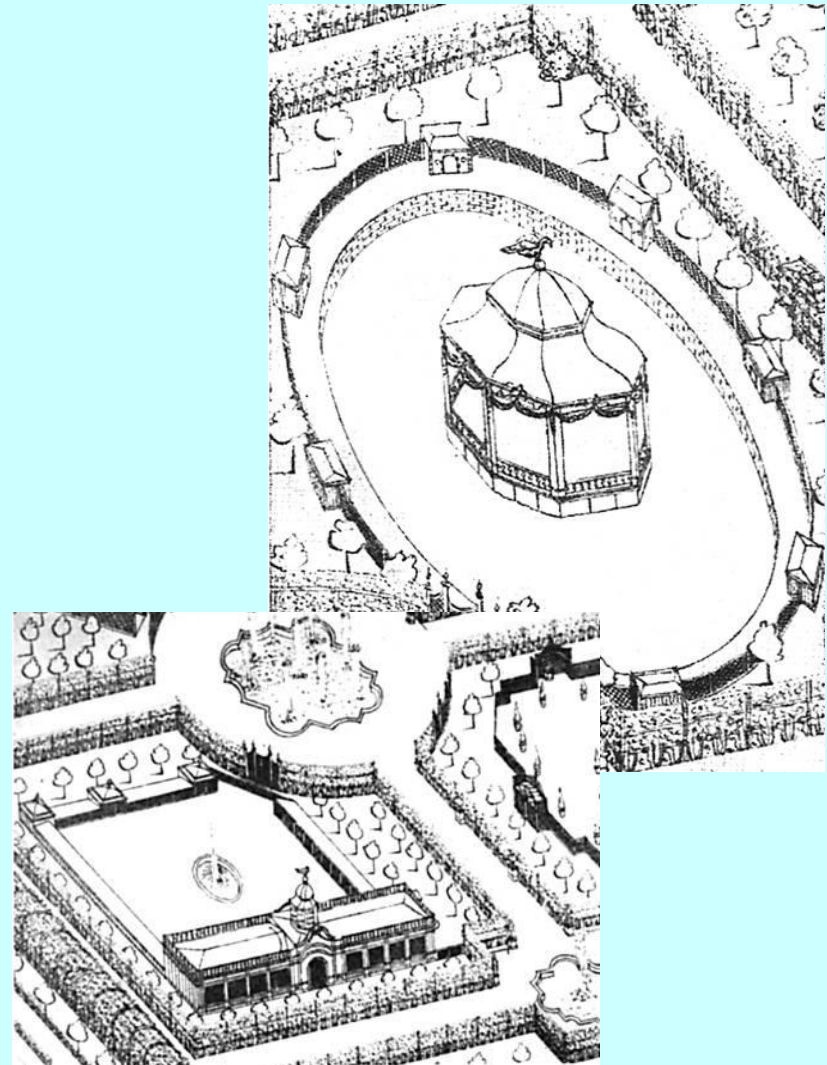
- **Field works and inventory** (geodesic survey, engineering geology, soils, water system, topography, road system, vegetation condition, architecture)
- **Archeological excavations**
- **Archive**, museums, library research: work with historical documents, maps, photos, engravings



Archeological works in Summer Garden, St. Petersburg

II Restoration projects

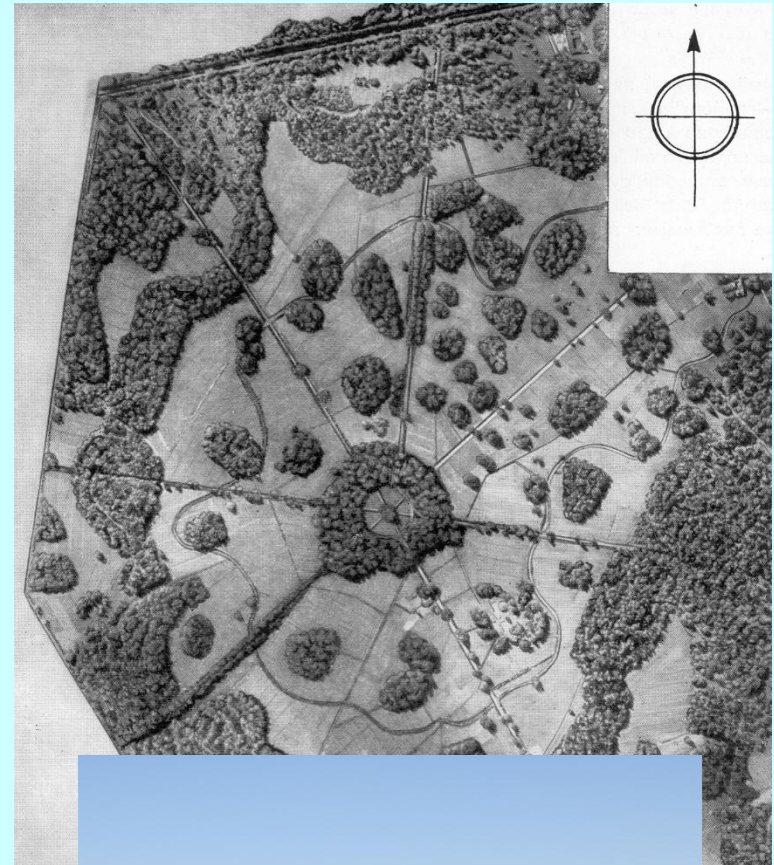
- ***St. Petersburg concept***: if park has not experienced serious changes during the history, the recommendation is to ***restore*** this park on the period “the prosperity of park and palace complex”



3 Project Documentation

Example of White Birch Area of Pavlovsky Park

- Pre-project documentation
- Analyses of historical plans (scale 1: 2000)
- Dendrological plan
- Combined plan of aero photo survey (1940) with current proposed plan
- Graphic analysis of park's perspectives (special method proposed by architect Tverskoy)
- Sketches of existing landscapes from the most crucial points
- Scheme of restoration steps (1, 2, 3 etc.)
- Model (1:1000)
- General plan
- Photos before and after restoration
- Projects of individual details in bigger scales
- Vertical planning and the road construction
- Drainage project
- Budget



The most recent examples of a major restoration: Strelna Palace and Park (2003)



Strelna Palace



Examples of restoration and reconstruction of historic parks in St. Petersburg and its suburbs

Panoramic view of Peterhof



Peterhof: Upper Park

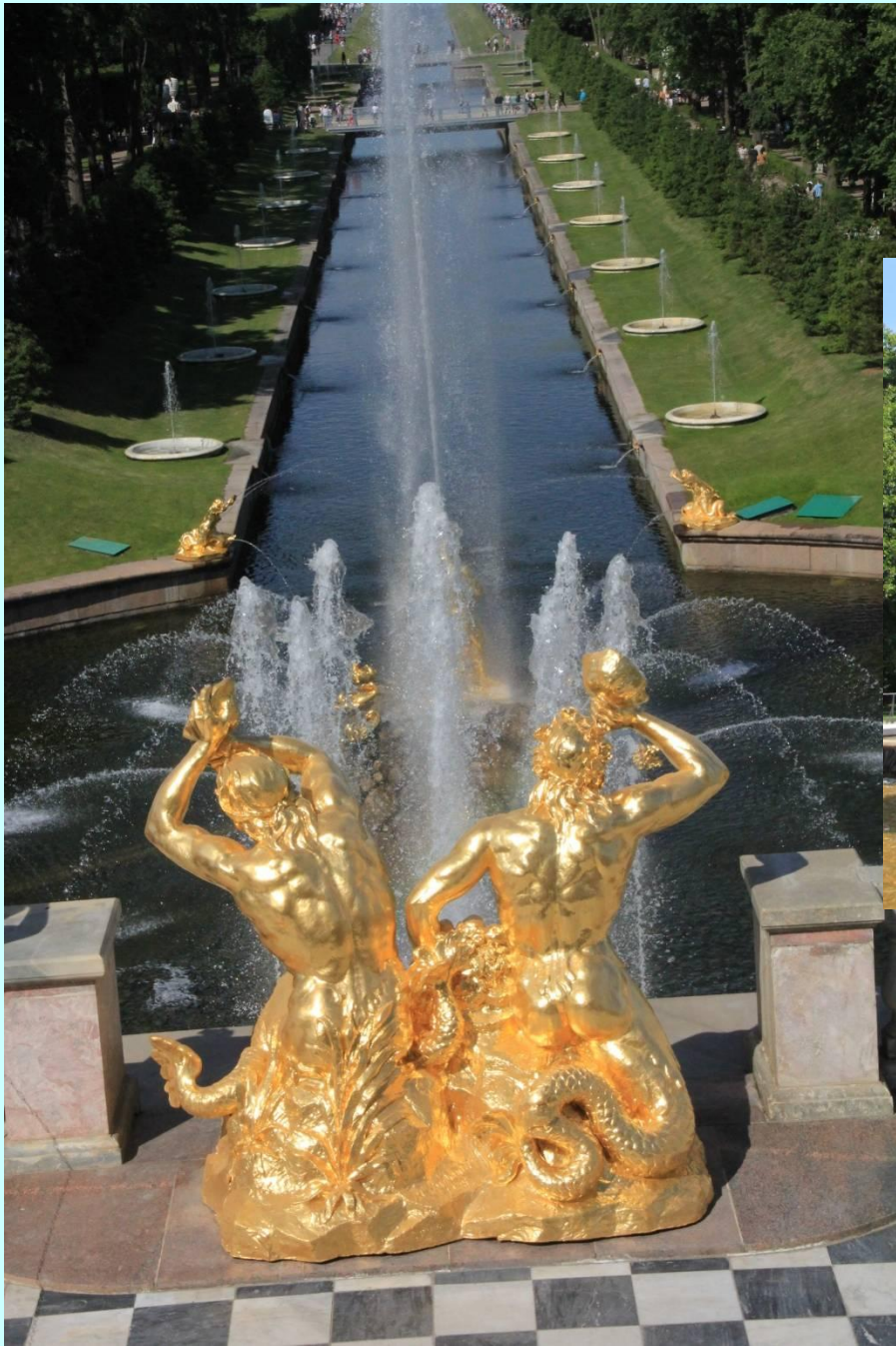


Peterhof: Lower Park









Peterhof: Marli

1981



2009













Peterhof: aviary



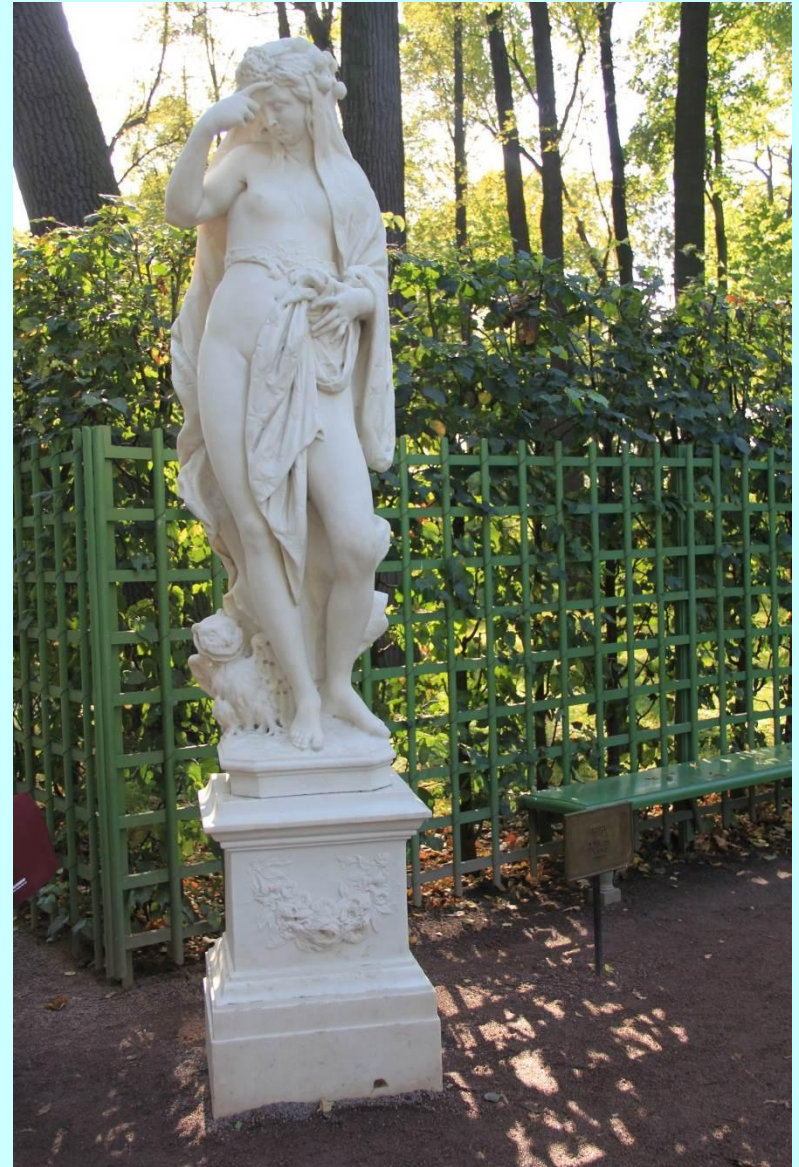
HISTORY AND RESTORATION OF ST. PETERSBURG SUMMER GARDEN:

RETURNING TO THE ROOTS



Summer Garden – the biggest restoration project in Europe at the beginning of the 21st century

- The oldest garden in St. Petersburg (1704)
- Peter the Great favourite city's residence
- Russian interpretation of European formal garden principles
- 11 hectares

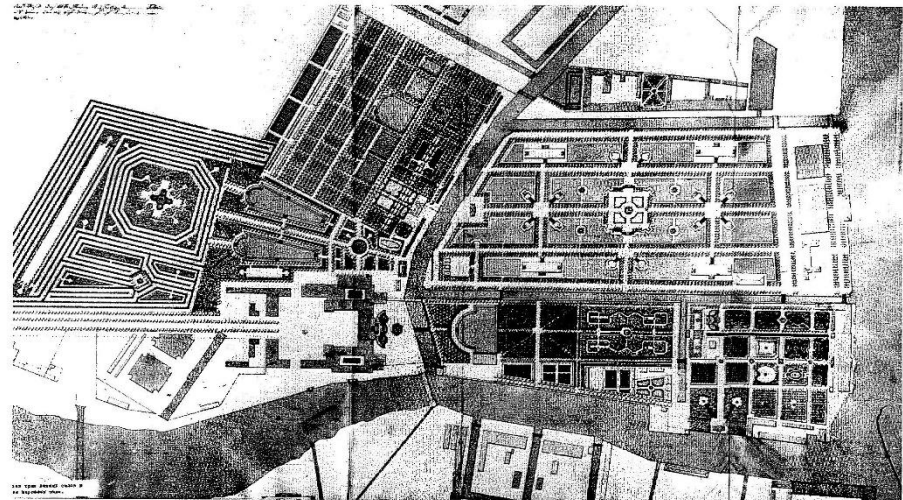


Summer Garden

- Several periods in the garden's history construction and development (1704-1711; 1711-1716; 1717-1727; 1727-1762; 1762-1800)
- The place, where the garden was founded, was open and swampy.
- Prior to St. Petersburg's foundation: the Swedish estate, Usadiss Hoff



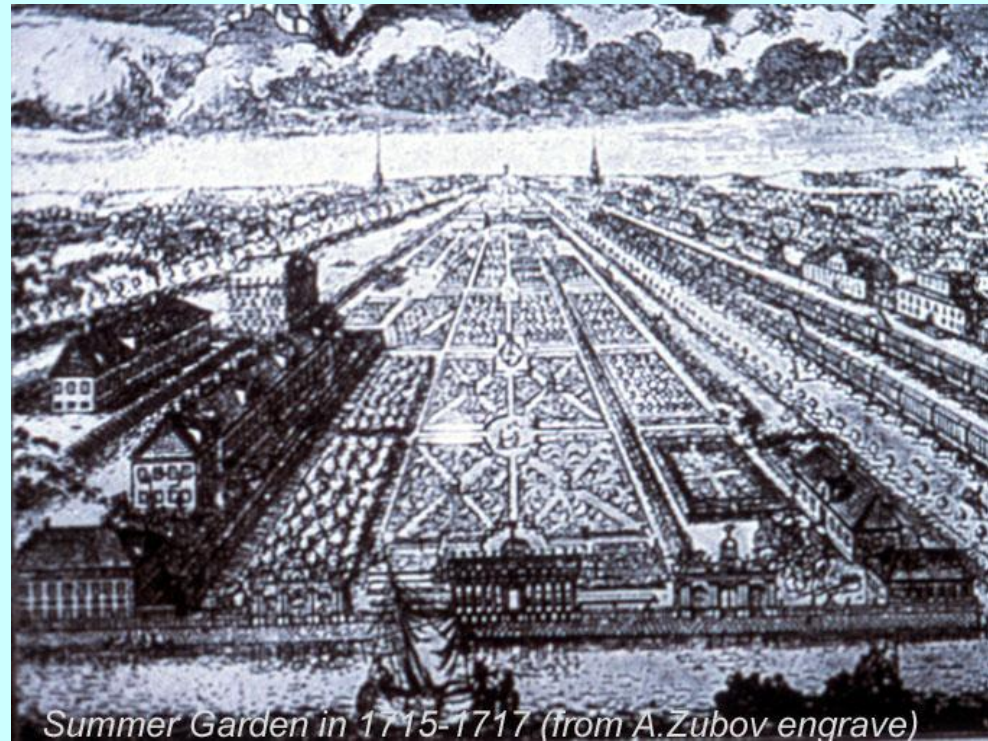
- Boundaries of the Summer Garden: **identified from the beginning**
- Part of the **garden complex**: the **First** and **Second** Garden (the area of Peter the Great's Summer Garden), the **Third Garden** which is now the current Mikhailovsky Garden, and the **“Big Meadow”** (current Mars Field).



75. Ф.-Б. Растрелли (?). План Четырех Летних садов. Середина 1740-х гг.

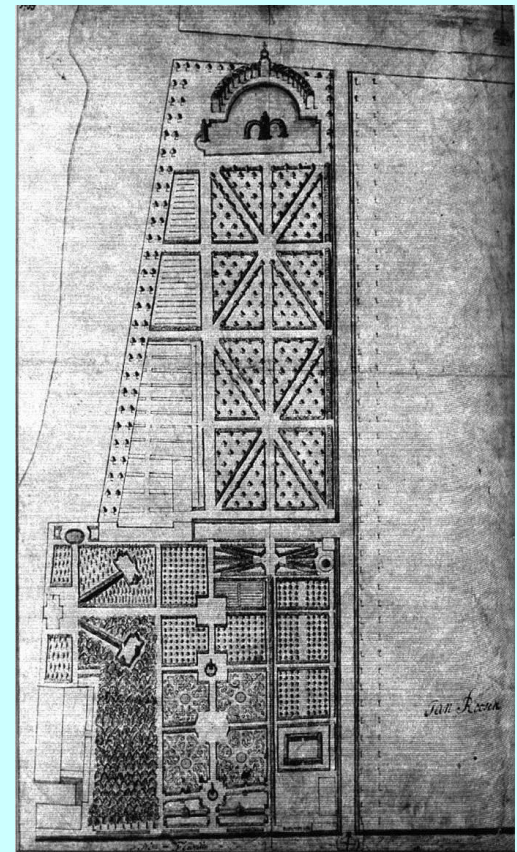
Summer Garden

- **Typical** early eighteenth century **formal structure** with a geometrical system of alleys, parterres, and bosquets.
- **Unusual** feature of the planning structure is the *asymmetrical location of the palace*



Summer Garden in 1715-1717 (from A. Zubov engrave)

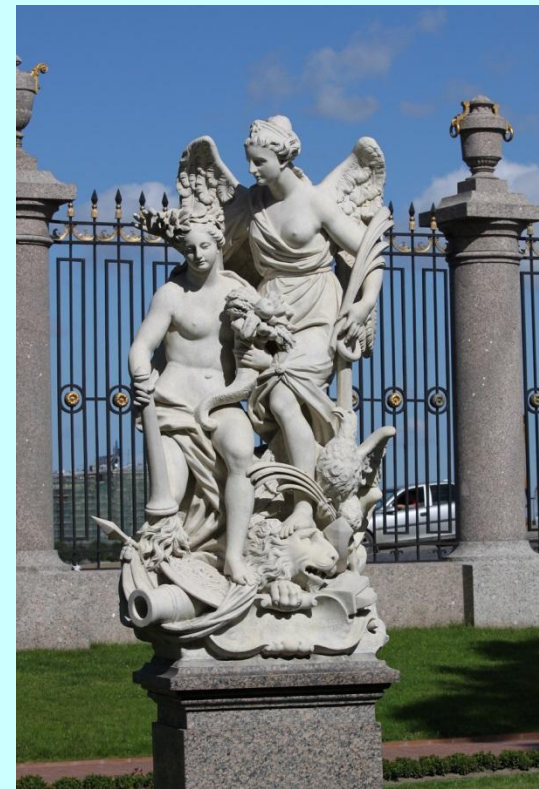
- Probably the **Tsar** himself suggested the **initial plan** of the Garden.
- **Peter the Great**: interested in garden art and ordered books from abroad to study gardens and fountains.
- Invited talented architects and gardeners such as Ivan Matveev, Andreas Schluter, Jan Roosen, Ivan Zemtsov, and Alexander Le Blond.
- Used for official receptions and celebrations.
- Peter's true paradise.



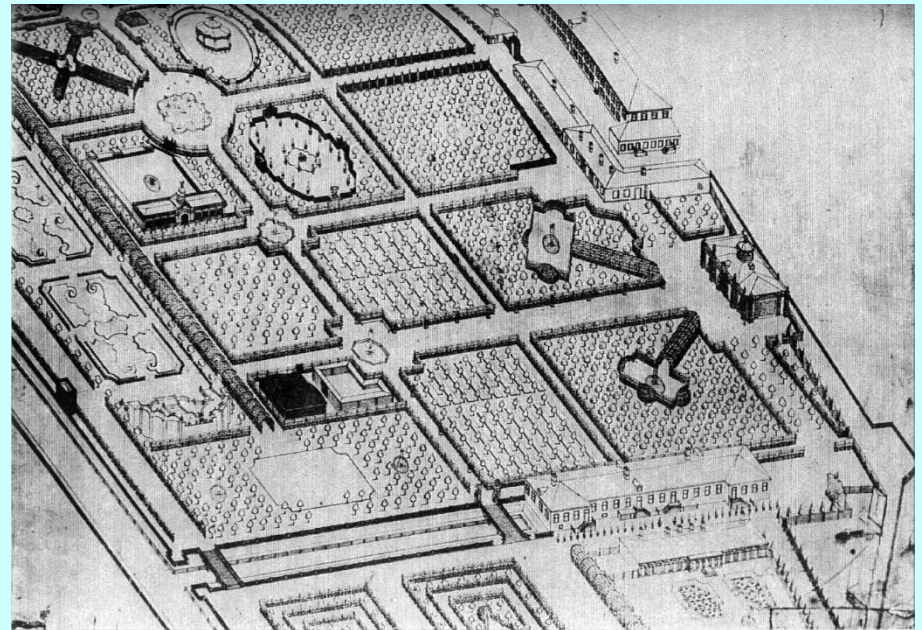
- Very peculiar garden in St. Petersburg: the only composition which is associated with the early period of **Dutch garden culture**.
- Surrounded by two natural rivers and the artificially made Lebyazhy (Swan) canal.
- **Water came straight to the palace wall.**
- Abundance of water and the chamber character of the Garden with its cosy green rooms create the space in a very *human scale*.



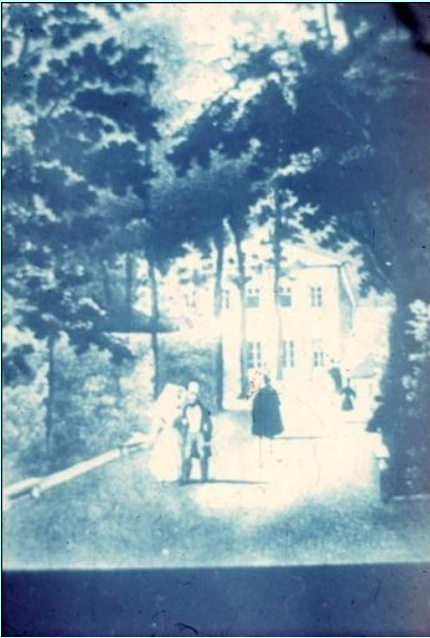
- European marble sculpture: *new 'sign system', the iconography* for a new Russian baroque art.
- **Allegorical glorification** the activity of *Russian Tsar* as a successful politician and patron of the arts who was leading his state to prosperity and peace.



- **Middle of the 18th century:** golden age of the Summer Garden.
- **222** sculptures from Roman and Venetian schools,
- **50 fountains**, the amphitheatre and cascade, the Carp Pond, the palace, the Grotto with **Water Organ**, bosquets with different decorative elements, several **greenhouses**, the **Labyrinth** and a series of other buildings.

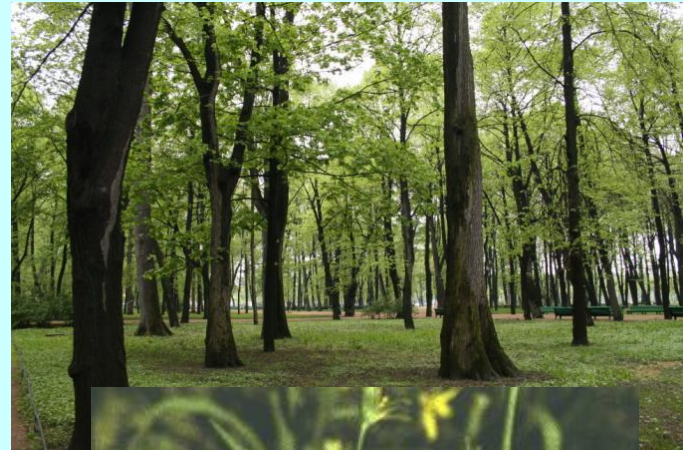


- Flood **1777** **destroyed** the fountain system
- Vegetation grew without trimming
- Transferred to the **public garden.**



Summer Garden in the 20th Century

- Survived **the Blockade** (no one tree was cut) in 1941-1944
- Replacement of damaged trees and conservation management **after the Second World War**
- Shady garden
- One of the most favourite places for citizens



Summer Garden – the people's place

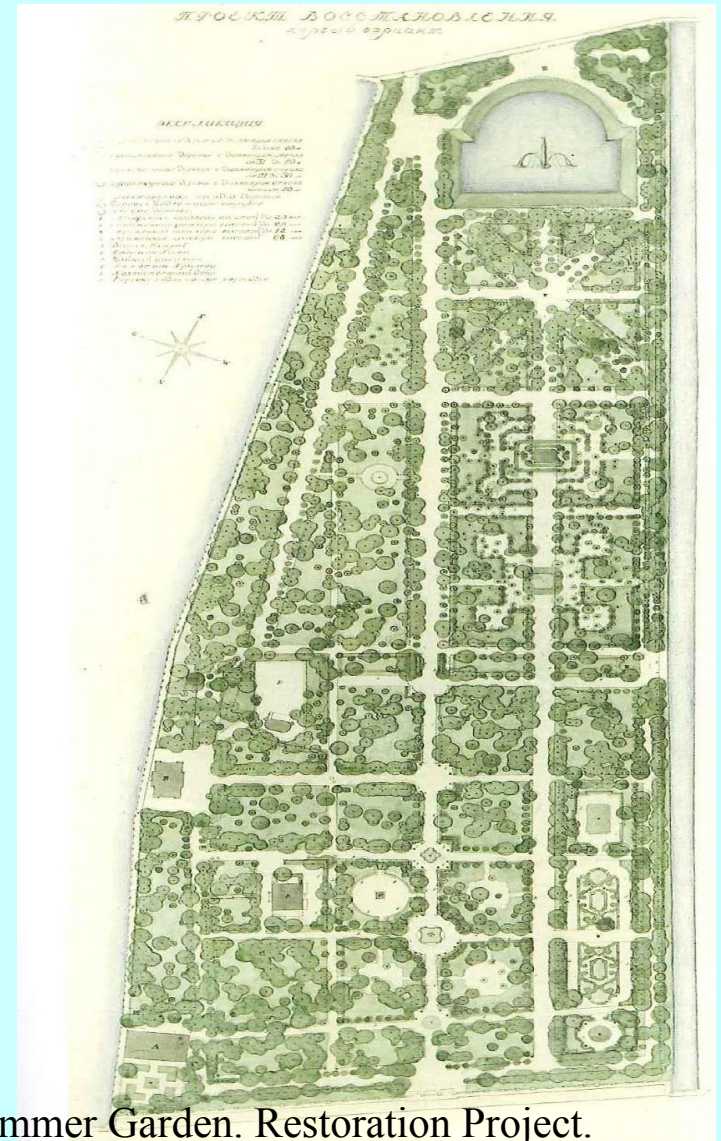


- In the 20th century, the Summer Garden is the main part of the historic green "heart" of St. Petersburg
- It is included in the UNESCO World Heritage List (Historic Centre of St. Petersburg and related group of monuments) in 1991



Summer Garden: Restoration

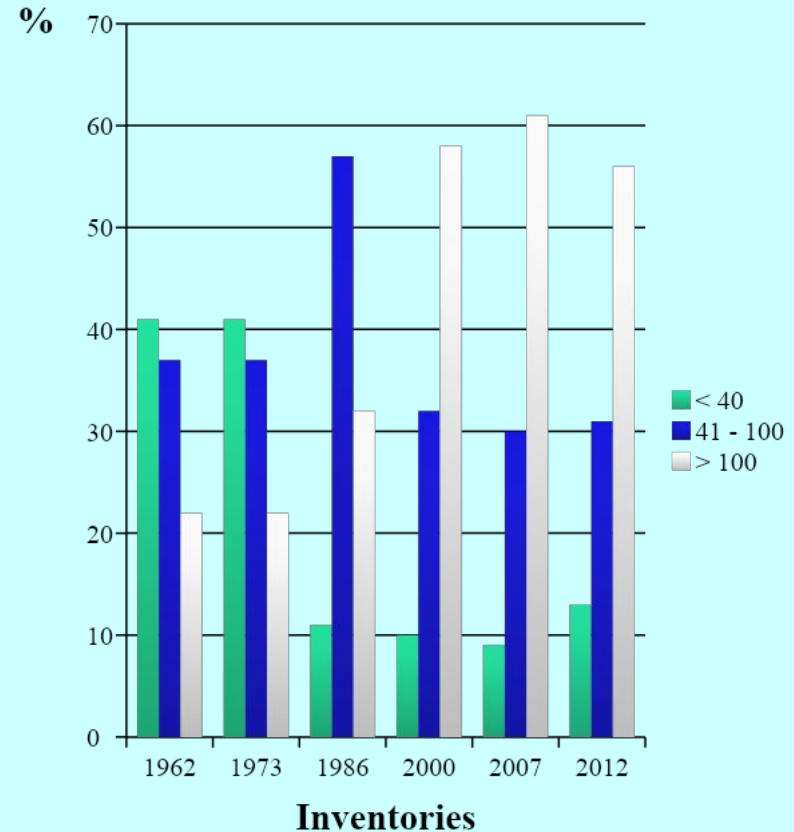
- Question of restoration has been raised *since the 1940's*
- First scientifically sound restoration work in the Summer Garden (led by **Professor Dubyago**)
- This work was interrupted by the **Second World War**. During the Blockade on the territory a few bombs were dropped on the garden, but the trees were generally not affected.
- **1940** and **1970**: two restoration projects were suggested.
- Both projects were never fully implemented.



Summer Garden. Restoration Project.
Masterplan. Architect T. Dubyago. 1947-1948.
Courtesy: KGIOP

DEVELOPMENT OF THE SUMMER GARDEN VEGETATION

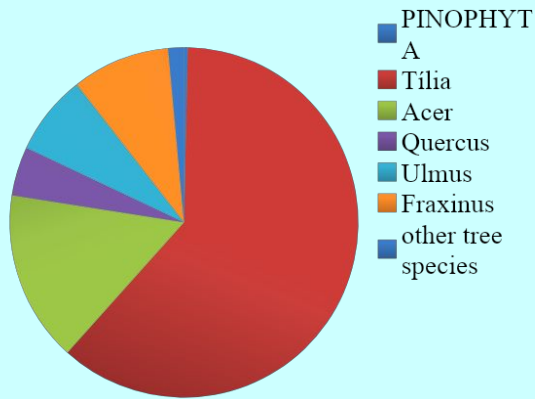
- From the beginning:
broad-leaved trees
domination: lime
(*Tilia cordata* and
Tilia platyphyllos),
maple (*Acer
platanoides*), oak
(*Quercus robur*), ash
(*Fraxinus excelsior*)



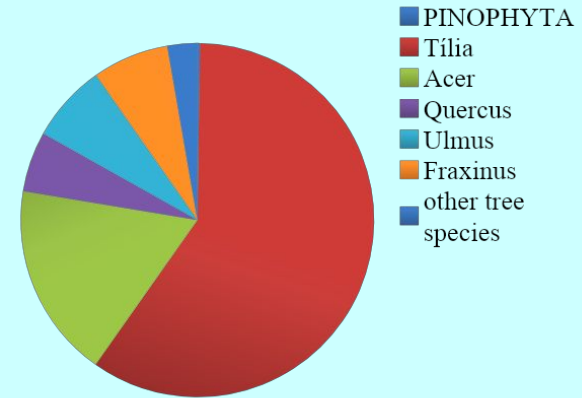
Dynamic of the age
composition of Summer
Garden trees

Changes of the tree species composition in the Summer Garden

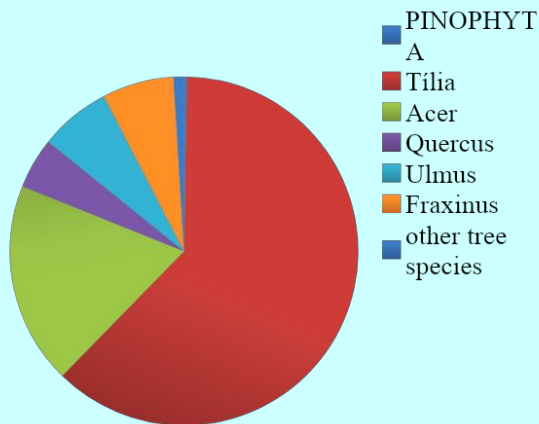
1940 th



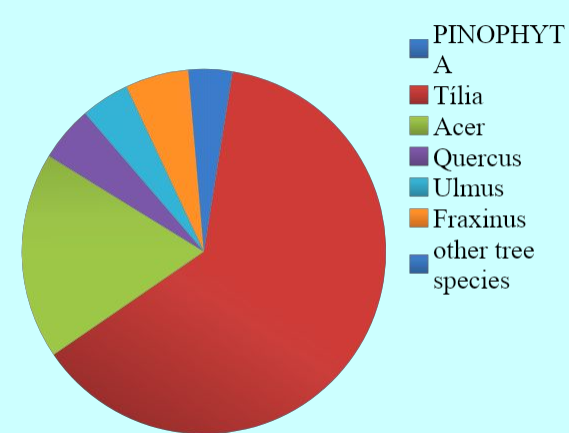
1986 th



2000 th



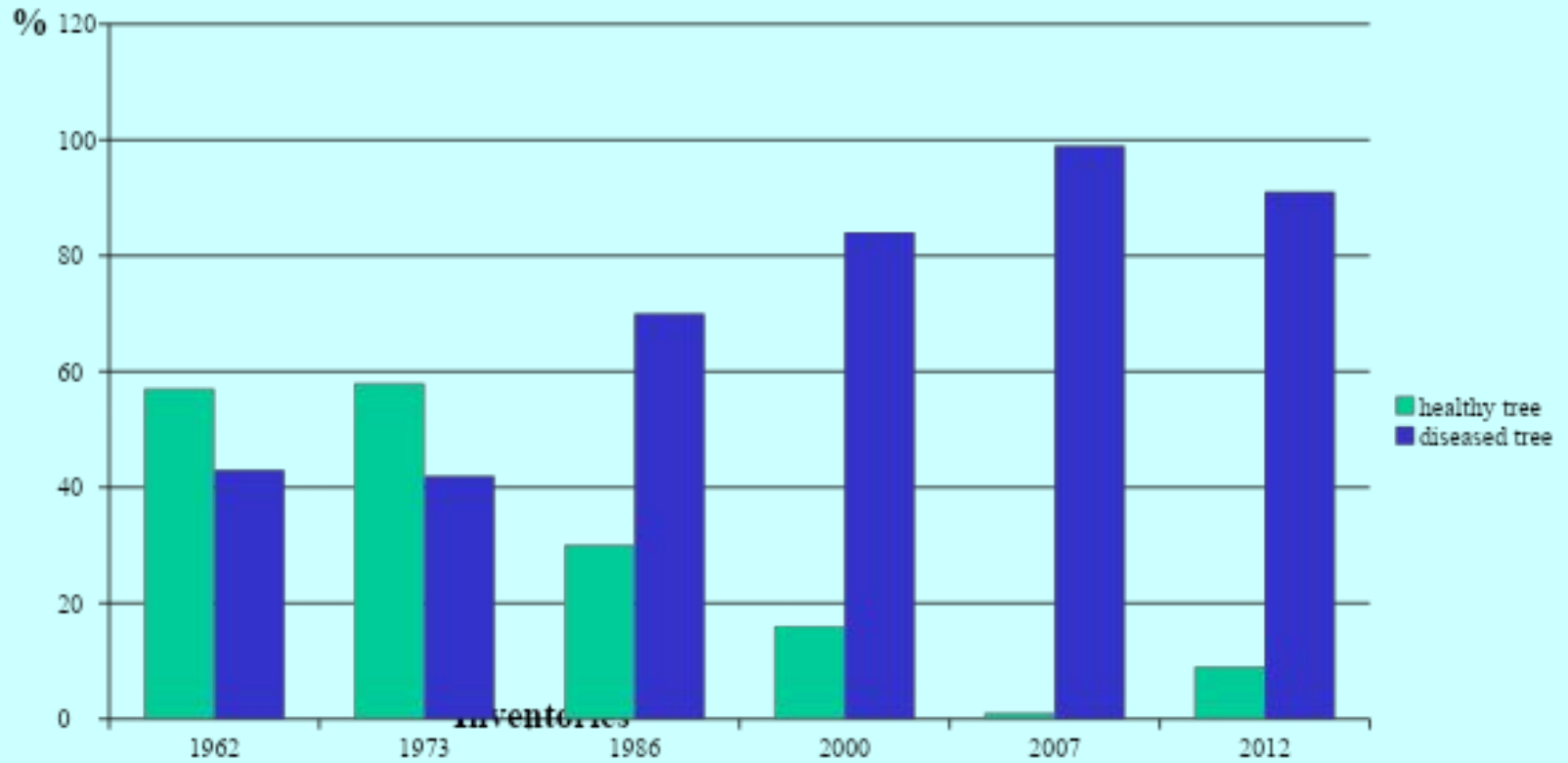
2012 th



Summer Garden: Restoration

- **In 2004:** the Summer Palace and Summer Garden moved under the jurisdiction of **the State Russian Museum**.
- For the first time the conceptual design of the garden restoration has been displayed for **public consideration**.
- The project, designed by architects of Lenproektrestavratsiya Institute, **initiated a serious discussion**.
- Not all of the suggested ideas have been recognized and accepted for implementation.
- The restoration concept had been constantly discussed at the special Committee consisting of specialists from the Russian Museum, **State Inspection for Monument Protection** and the project's authors.
- The garden project **took six years** to complete.

Proportion of diseased and healthy trees

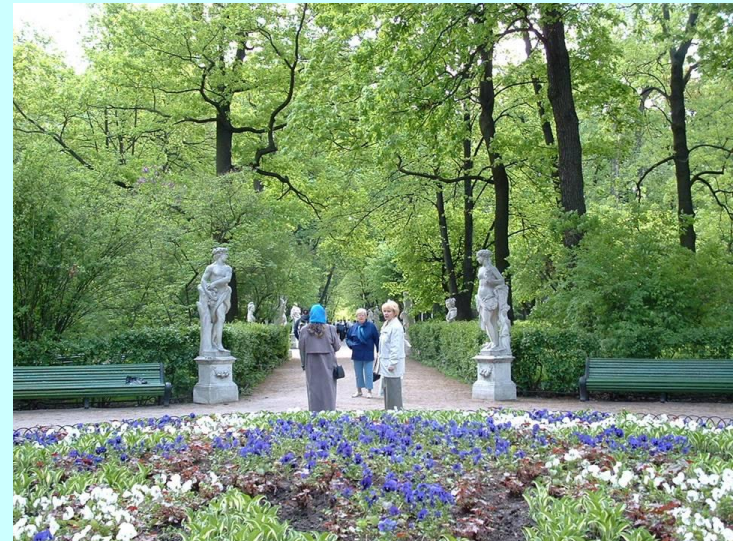




Master plan of the Summer Garden restoration. Architects N. Ivanov, N. Mirzoeva. St. Petersburg Institute “Lenproektrestavratsiya”.
OOO”Rest-Art-Proekt”. Courtesy: S. Renny

Summer Garden in the 21st Century: restoration project

- **Realisations: Private firms** with expertise from the *St. Petersburg Inspection of the Monument Protection*
- Multimillion project
- Very controversial, many debates, protests and multimedia involvement



Restoration Project

- To restore formal structure (by the time of the "golden age" - the middle of the 18th century)
- Major treatment works for old trees
- To cut ill trees in the bosquets-groves (lightning, thinning).
- Restore wooden bersos and pavillions.



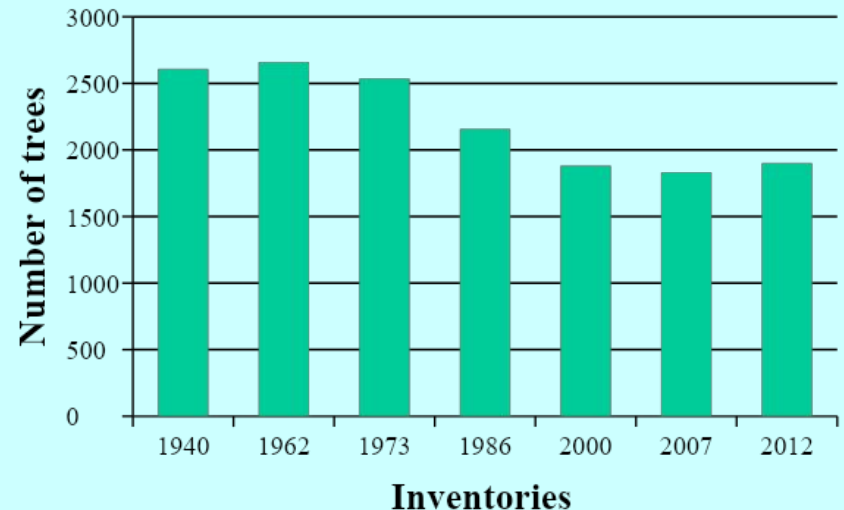
Summer Garden Restoration

- During the archaeological excavations **10 fountains** from the beginning of the XVIII century and a **small harbour foundation** were discovered in the southern facade of the Summer Palace.



Summer Garden: Restoration

- Main concern: the condition of trees in the garden, some of them are at least **300 years old**.
- The trees have grown, and the garden started to **be very shady**.
- Creation of favorable conditions for fungal disease
- 24 species of pests were recorded. The most dangerous among them is **wood fungi**, because they spread rapidly and are able to **destroy** not only the old or young trees, but damage the **marble sculpture** as well.
- Some damaged trees were removed and replaced with new plantings of appropriate tree species, suitable to our climate.



Trees treatment procedure

- Three hundred tree came through the process of special treatment (pruning, root fertilising, hollows treatment): aiming to protect and improve their condition.
- **Root fertilization** with mineral fertilizers
- Special investigation of old trees was performed by an impulse **tomograph 'Arbotom'** which helps to estimate the inner trunk conditions.
- Crown thinning was done by the method of **industrial alpinism** when specially trained people climbed on trees and **manually performed** required pruning.



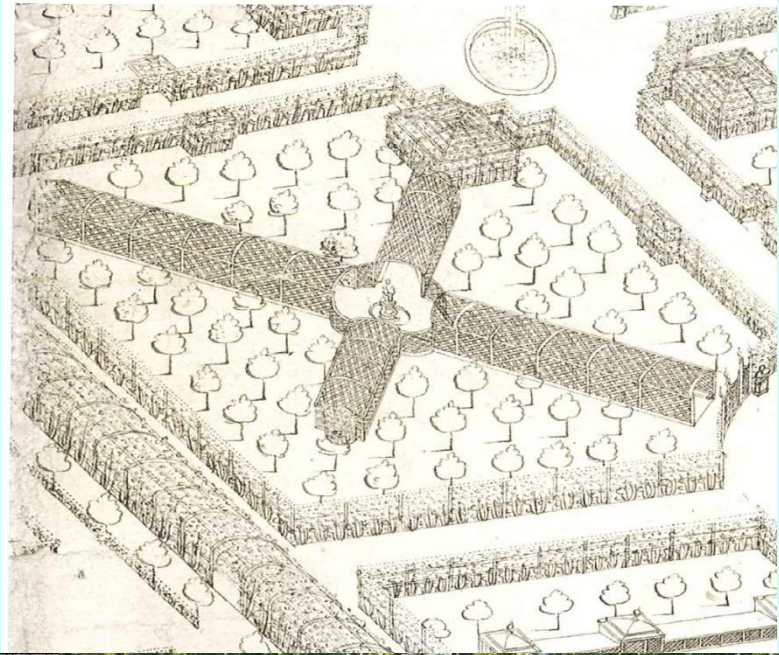
Summer Garden Restoration

- Some of the fountains were recreated according to historic documents and archeological studies



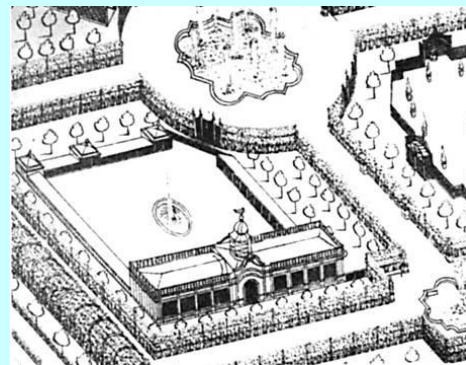
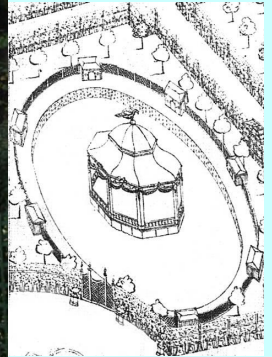
Summer Garden Restoration

- Some of bosquets: reconstruction according to historical data.



Restoration Project

1. Restored some fountains
2. Restored *4 main bosquets* according to the Peter the Great time (including small pond)
3. Highlighted the formal structure by resoring the **wooden trellises**
4. Restored the parterre with historical plant material (*lingon*)



Bosquet "Menazheriyny Pond" is an artificial reservoir



"The Bird Yard" where visitors can see the specially made houses for the birds.



Restoration concept

- During the restoration works there was a *special attitude towards preserving the garden's character.*
- Spatial composition of this garden - **a big volume of trees** which plays a significant role in the densely built historic centre - was preserved.



Towards formal garden of early 18th century

- Many other reconstructed elements which were typical for *formal gardens of Peter the Great's time*:
trimmed hedges along the alleys, berso and the embroidery parterre along the Swan canal.





- Unique marble sculpture was restored as well
- Severe damage by time and **air pollution**: it was decided to keep the original sculpture inside the museum and **replace it with copies.**



Restoration concept

- Keep its *historical meaning and identity* during the reconstruction of the Garden.
- Using historical plant material
- *Vaccinium vitis-idaea* as substitution of box tree



Maria's Master's Thesis: Restoration of 18th Century Baroque Parterres in Parks of Peterhof and Strelna

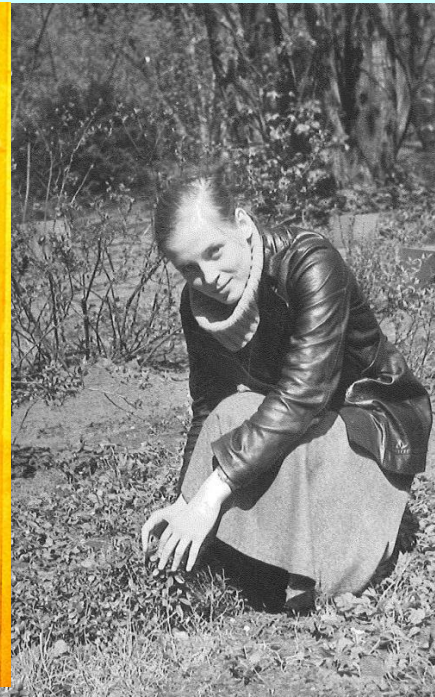
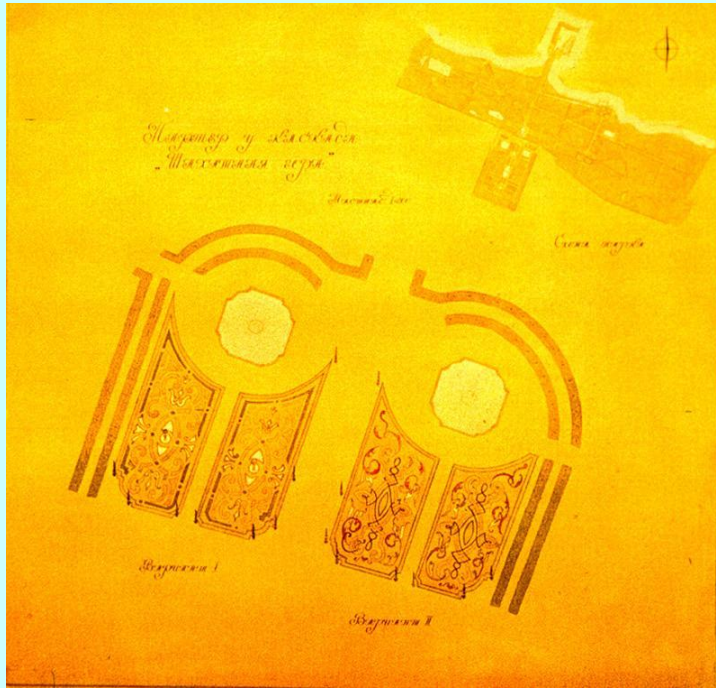


Use of *Vaccinium vitis-idaea*
(*lingon*)

as a substitution of *Buxus sempervirens*
(*box tree*)



Maria's experiments with lingon in historic parterres



Using lingon in the Summer Garden, planting of 2011



Restoration: the concept

- Important task to maintain and improve ecological condition and to become the urban biodiversity hotspot



Summer Garden Restoration: debates

- *Historic Garden*: not one garden , *but several gardens* (beginning, middle of 18th century, 19th century and 20th century)
- During latest restoration, *19th century* Summer Garden was lost



Summer Garden was open in May 2012

- Many questions are still there:
- How old trees would be doing after significant pruning and major construction works?
- We can lose an important spatial structure (big trees)-the green "Heart"?
- How the new spatial structure will be accepted by citizens?
- New museum regime (may be the fee entrance?). How would it work?



European Garden Heritage Network or the EGHN partnership

<http://cmsen.eghn.org>

- 2003: 11 partners from Germany, England and France joined to form the EGHN within the European INTRERREG IIIB NorthWestEurope Programme
- Task: policies and measures to improve the framework, conditions and support for management and enhancement of parks and gardens.
- Activities were taken to improve the way they market their park and garden landscapes and to inspire greater interest in them.
- Introduction of innovative measures and projects, signalling their intention to change the way we think about parks and gardens and the part they can play in the sustainable development of their regions.
- In 2013 includes more than 150 parks and gardens in ten European countries.
- **European Garden Award started in 2010.**
- Nominations are based on: innovative implementation and management, urban development aspects, sustainability, good visitor services or voluntary work as well as on high quality of restoration or modern design of a park or garden. **The finalists and winners are sought after as inspirational and as models for other projects.**

European Garden Award 2013

Three categories:

- Best Development of a Historic Park or Garden
- Most Innovative Contemporary Concept or Design of a Park or Garden
- Special Award of the Schloss Dyck Foundation

In the first category “Best Development of a Historic Park or Garden“ **Park of Monserrate** (Portugal) was the winner, while the **Summer Garden in St. Petersburg** (Russia) and **Gunnebo Castle and Garden** (Sweden) were selected as finalists.

