

PAPER • OPEN ACCESS

## The history of development of three historical public gardens in the city of Perm

To cite this article: L I Atkina *et al* 2021 *IOP Conf. Ser.: Earth Environ. Sci.* **876** 012008

View the [article online](#) for updates and enhancements.

You may also like

- [Comparative characteristic of plankton microbial community in the waterway and coastal areas of the Kama reservoirs cascade](#)

N G Tarasova, S V Bykova, M Yu Gorbunov et al.

- [Modeling of changing hydrogeological conditions during construction of pier foundations on the Kama river bank](#)

D Purgina, L Strokova and K Kuzevanov

- [The Content of Metals in Tissues and Organs of Fish of Different Trophic Levels in the Estuary of the Kama River](#)

L V Novikova, A R Gaisin and N Yu Stepanova



The Electrochemical Society  
Advancing solid state & electrochemical science & technology

### 241st ECS Meeting

May 29 – June 2, 2022 Vancouver • BC • Canada

Extended abstract submission deadline: Dec 17, 2021

Connect. Engage. Champion. Empower. Accelerate.  
Move science forward



Submit your abstract



# The history of development of three historical public gardens in the city of Perm

L I Atkina<sup>1</sup>, I I Zbrueva<sup>2</sup> and A S Sharafeeva<sup>1</sup>

<sup>1</sup>Department of landscape construction, *Ural state forest engineering university*, 36 Siberian Tract, Yekaterinburg 620100, Russian Federation

<sup>2</sup>Department of Forestry and Landscape Architecture, *D. N. Pryanishnikov Perm State Agrarian and Technological University*, 23 Petropavlovskaya Street, Perm 614990, Russian Federation

Corresponding e-mail: atkina@mail.ru

**Abstract.** The city of Perm, founded in 1723, has turned into a metropolis within three centuries. The Kama River plays an important role in development of the city; the first large environmental objects are also connected with the river. Some of them have been preserved to the present day, these are the embankment, F M Reshetnikov public garden, and Ural Volunteers public garden. The purpose of the presented work is to determine the degree of transformation of the appearances of the mentioned above public gardens, basing on a comprehensive survey of their current state and a retrospective analysis.

## 1. Introduction

Perm is a city located in the Cis-Ural region, and the administrative center of Perm Krai (the Perm region), which was founded in 1723 as the Yegoshikhinsky copper smelter. For almost three centuries, it has become a major industrial, cultural, and scientific center with a population of more than a million people. The Kama River plays an important role in development of the city, along which formation of both housing development and industrial facilities (factories, plants, commercial wharves) took place. For this reason, the first large objects of the urban environment are also connected with the river. Some of them have survived to the present day, among which there are: the public garden on the lower part of the Kama River embankment, the public garden named after F M Reshetnikov, and Ural Volunteers public garden. They appeared on the cusp of the 18th and 19th centuries and went through a long path of transformation along, with the appearance of the city changing.

The society strives to preserve the historical values of cities, as they are reflections of the collective identity, besides, they help to maintain the sense of continuity and tradition, aesthetic pleasure and entertainment [1]. The development of such sites reflects the dynamic interaction of natural and cultural forces in the city [2]. Historical heritage issues have always been of concern for researchers of urban green infrastructure [3-6]. The relevance of the current analysis is determined by the necessity for assessment of the degree of safe-keeping and integrity of the historical urban environment [7], which is also relevant for the city of Perm.

The purpose of the presented work is to determine how well the historical appearance of these objects, united by a common predominant functional feature, has been preserved.



## 2. Methods and Materials

### 2.1. Research objects

1. F. M. Reshetnikov Public Garden is located between Sibirskaya and 25 Oktyabrya streets. The total area of the object is 0.6 hectares. 2. The public garden on the lower part of the embankment of the Kama River is located from the River boat station to the cargo port (including the slopes to the branch of the railway). The total area of the object is 9.5 hectares. 3. Ural Volunteers Public Garden is located at the intersection of Sovetskaya, Kuibysheva and Petropavlovskaya streets. The total area of the object is 1.25 ha (figure 1) [8]. All the public gardens have a common landscape connection, as Ural Volunteers Public Garden and F. M. Reshetnikov Public Garden are located in the Medvedka River Valley which is currently enclosed in an underground pipe and brought to the Kama River near the embankment.



**Figure 1.** Object placement diagram. 1. F. M. Reshetnikov Public Garden. 2. Ural Volunteers Public Garden. 3. The public garden on the lower part of the embankment of the Kama River.

### 2.2. Methods

The research of the history of foundation and stages of changing of the objects was carried out with the use of materials put at free access on historical websites [9], as well as scientific publications devoted to the history of landscape architecture of the city [10].

The current condition of the objects has been examined with account for the methodological guidelines reflected in the Regulations for Creation, Protection and Maintenance of Green Spaces in the cities of the Russian Federation [11]. The species composition of plantings is determined with consideration to the updated data on plants [12], land use distribution, and the modern architectural and planning solution has been analyzed basing on photographic materials.

## 3. Results and Discussion

F M Reshetnikov Public Garden is one of the most historical public gardens in Perm. In 1860, this area was used for grazing cattle of local residents, that is why it obtained the name "goat pen". It was just as big as one planning quarter in area and was located between the streets Obvinskaya and Sibirskaya. The "Goat Pen" became a popular attraction for the population after an orchestra appeared in it in 1882 [13]. In 1883, when, at the insistence of the governor, the city streets were being greened, the Paddock was planted with poplars [14]. In 1907, the territory acquired a more aesthetic appearance due to young linden trees planted and two large flower beds arranged in the middle of the garden. A wooden pavilion was built there for summer premises of the trading exchange in the form of a traceried tower

chamber with small turrets (figure 2) [15].



**Figure 2.** F M Reshetnikov Public Garden (1908).

During the period from 1860 to 1917, the space had a decorative appearance, and the planning solution was geometrically verified, not "spontaneous". The central part of the public garden was decorated with an arabesque of flowers, the idea was discernible, the composition was balanced. During this period, the territory had the most expressive and attractive appearance. The architectural and planning solution of the public garden development corresponded to the style of landscape architecture of that time. Along similar lines, landscaping was carried out in Moscow and other central cities of Russia.

In 1928, the territory came into notice again, and it was named after the writer Fyodor Mikhailovich Reshetnikov. In 1960, the tower was broken down. There was also a fountain in the public garden. At the beginning, it had the appearance of a vase, then of a stone slide, above which a ballerina towered. In 1985, a four-figured sculptural composition was erected on the site of the fountain – a monument to the "Heroes of the Civil War" [13]. Thereafter, the formation of a new image of the space began, i.e. the stage of simplification of the territory. At this point, not only the planning solution underwent changes but also the terrain of the space. The Medvedka River which is the right tributary of the Kama River and which previously flowed through this territory, was enclosed in a collector, however, for a long time after that, the ravine remaining from the river was a specific feature of the public garden (figure 3) [9]. From the city garden meant to be a place for entertainment and recreation of citizens, it turned into a modest memorial public garden.

For the time being, the original plantings of poplars have not been preserved; there are only a few exemplars of old-age linden trees. Events held in the city within the framework of landscaping programs contribute to the diversity of the plant assortment. 17 plant species were found in the garden, the main from which are: *Tilia cordata* Mill., *Acer negundo* L., *Betula pendula* Roth, *Larix sibirica* Ledeb., *Amelanchier spicata* C. Koch., *Cotoneaster lucidus* Schlecht., *Malus baccata* Borkh., *Malus niedzwetzkyana* Dieck., *Rosa rugosa* Thunb., *Sorbus aucuparia* L., *Salix viminalis* L. [10]. The terrain of the territory has become more leveled, since the public garden is bordered on one side by highways, and by a railway on the other. Since the 1980s, the types of road and path network coverings have also changed, the flower garden has acquired the form of a ridge ('rabatka'), and the species composition has changed.





**Figure 3.** F M Reshetnikov Public Garden (1950-1960).

F M Reshetnikov Public Garden is used for transit traffic and short-term leisure of pedestrians. The area covered with vegetation occupies 59 % of the total area, which is slightly insufficient, according to MGSN (Moscow City Construction Regulations) 1. 01-99 [16] (table 1).

**Table 1.** The balance of the modern territory of the objects (according to the information provided by the City administration of Perm).

Indicator	An object					
	F. M. Reshetnikov Public Garden		Ural Volunteers Public Garden		The public garden on the lower part of the Embankment	
	Qty	Share, %	Qty	Share, %	Qty	Share, %
The length of the object along the main axis, meters p.	211.6 meters p.	-	87.2 meters p.	-	2227.3 meters p.	-
Total area of the object, m <sup>2</sup>	6075.8 m <sup>2</sup>	100	12496.5 m <sup>2</sup>	100	95205.7 m <sup>2</sup>	100
Sidewalks, m <sup>2</sup>	2486.4 m <sup>2</sup>	41	3699.4 m <sup>2</sup>	30	22155.6 m <sup>2</sup>	34
Area covered with vegetation, m <sup>2</sup>	3538.7 m <sup>2</sup>	59	9123.8 m <sup>2</sup>	70	62530.8 m <sup>2</sup>	66
Small architectural forms, pcs	17 pcs	-	113 pcs	-	96 pcs	-

For 161 years, F M Reshetnikov Public Garden has undergone significant changes: the relief has significantly changed from the natural hilly to a more smooth-faced and low-sloped one; the size of the territory has changed; the species range has significantly expanded; during the 3 periods of transformation, the architectural and planning solution has changed to planning of a simplified, minimalistic space. At the same time, the area under plantings decreased, whereas the area under paving expanded.

Ural Volunteers Public Garden is the territory known as the "Black Market" since 1798. The place got its name due to presence of greasy black mud on the territory which was difficult to get rid of. On the territory of the market there were various shopping stalls. Since the first half of the XIX century, there was a wooden chapel in the name of Elijah the Prophet (Elijah's Chapel) on the shopping square. Eventually, it grew dilapidated and in 1923 the chapel was destroyed (figure 4) [17].



**Figure 4.** Ural Volunteers Public Garden (May 1, 1921).

After liquidation of the market in 1929, country and regional fairs were held on its territory which was eventually named Okulov Square. In the 1930s and 1940s, the former commercial buildings housed manufacturing enterprises with additional warehouse and utility buildings, which led to reduction of the former area of the square. For a while, the area was the main city square used for holding festive demonstrations, parades, and other city events. From this square volunteers and conscripts were sent off to the fronts during the period of the Great Patriotic War. In 1945, on Victory Day, a salute was given there. In the 1950s, a public garden was laid out on Okulov Square, which in 1977 was named Ural Volunteers Public Garden. Reconstruction of the public garden was performed by students, workers of the Leninsky district, non-manual workers, and specialists of the "Gorzelenstroy". Willows were planted (their age is more than 40 years now), a fountain was built, benches were put in, and paths were made [10].

Nowadays the public garden is mainly used for transit traffic and short-term leisure of pedestrians. In the course of the research (2013-2014 by Molganov), 11 plant species were identified in the garden. The most important of them are *Acer negundo* L., *Betula pendula* Roth, *Viburnum opulus* L., *Swida alba* (L.) Opiz, *Larix sibirica* Ledeb., *Malus baccata* Borkh., *Malus niedzwetzkyana* Dieck., *Philadelphica coronaries* L., *Rosa rugosa* Thunb., *Salix fragilis* L., *Salix alba* L.. The area covered with vegetation occupies 70 % of the total area of the public garden, which is sufficient according to MGSN. 1. 01-99 [16] (table 1).

Ural Volunteers Public Garden has undergone significant changes throughout its existence. It has evolved from the trading territory to the green space of public use. There were significant changes after 1950, mass housing construction took place and there was a need in more recreational facilities. The last reconstruction of the public garden was in 2008, and, as a result, new benches and garbage bins were installed. Besides, during the reconstruction, the fountain was modified, from the style of that time to a contemporary design (figure 5) [18, 19].

The linear public garden is located along the Kama River – it is a public garden on the lower part of the Kama embankment. Prior to the construction of the embankment the space along the river was used as berths for boats. The beginning of the development can be considered the filling of the shore with rubble stone by the decree of the Governor K F Moderekh. According to the project by the architect V I Fedoseev, in 1961-1969 the space along the Kama River was reconstructed. Reinforced concrete slabs were laid along the shore for 4 km, and a narrow green space stretched for 2.3 km (figure 6) [10, 20, 21].



**Figure 5.** Ural Volunteers Public Garden (1977, 2020).



**Figure 6.** The public garden on the lower part of the Kama embankment (1941, 2020).

More than 51 species of woody plants have been identified in the park on the lower part of the embankment. The most predominant among them are *Acer ginnala* Maxim., *Acer negundo* L., *Acer platanoides* L., *Acer tataricum* L., *Betula pendula* Roth, *Lonicera tatarica* L., *Samucus racemose* L., *Viburnum opulus* L., *Swida alba* (L.) Opiz, *Juniperus sabina* L., *Juniperus sibirica* L., *Thuja occidentalis* L., *Caragana arborescens* Lam., *Fraxinus lanceolate* Borkh., *Fraxinus pennsylvanica* Marsh., *Syringa villosa* Vahl., *Syringa vulgaris* L., *Amelanchier ovalis* Medik., *Cotoneaster lucidus* Schlecht., *Crataegus sanguinea* Pall., *Dasiphora fruticose* (L.) Rydb., *Malus baccata* Borkh., *Malus domestica* Borkh., *Padus avium* Mill., *Padus maackii* (Rupr.) Kom., *Pyrus ussuriensis* Maxim., *Rosa canina* L., *Rosa glabrifolia* C.A.Mey. ex Rupr., *Rosa rugosa* Thunb., *Rosa spinosissima* L., *Rubus idaeus* L., *Sorbus aucuparia* L., *Spiraea japonica* L. fil., *Populus berolinensis* (K.Koch) Dipp., *Populus deltoides* Marsh., *Populus laurifolia* Ledeb., *Populus siewertica pyramidalis* Jabl., *Populus suaveolens* Fisch., *Populus tremula* L., *Salix alba* L., *Salix cinereal* L., *Salix fragilis* L., *Salix viminalis* L., *Ribes hispidulum* (Janch.) Pojark., *Ribes spicatum* Robson, *Ulmus glabra* Huds., *Ulmus laevis* Pall. [10].

The total area of the territory is more than 9.5 ha, 6.55 ha of which is covered with vegetation and comprises 66 % of the total area (table 1).

The public garden on the lower part of the Kama River embankment is used for short-term recreation, cultural events, and transit traffic. The area along the Kama River has remained virtually unchanged throughout its existence. Significant reconstructions of the territory began only since 2009. By 2013, the territory was reconstructed from the sewage pumping station to the water intake pumping

station. The next stage of transformation of the public garden from Sobornaya Square to the port of Perm began in 2018 and is going to end in 2021, and, as a result, there shall be playgrounds for children, zones for recreation and walking, areas for sports and cultural events.

#### 4. Conclusion

As a result of the research, it can be affirmed that all three historical public gardens have passed through different development paths. The public garden on the embankment has changed to the least extent, as its main functions – to provide transit traffic along the bank of the Kama River and to attract visitors with river landscapes – have been preserved. F M Reshetnikov public garden has undergone changes almost by all the parameters during its existence: its functional purpose, style, planning solution, yet it has always been a public garden. Ural Volunteers Public Garden, for comparison, had been a city square for a long period, and only after the 1950s its status was changed. It should be noted that over the last few years all the objects have a fairly rich assortment of plantings. If the original assortment consisted largely of native species, now the plantings are dominated by decorative introduced species.

Modern use of public gardens makes it impossible (F M Reshetnikov public garden) or impractical (the public garden on the Kama embankment and Ural Volunteers Public Garden) to restore their historical appearance. Nowadays the techniques of decorative design of F M Reshetnikov public garden can be used to recreate the historical appearance (flower beds and small architectural forms) of environmental objects of the city, for example, on the embankment near V N Meshkov's estate.

#### References

- [1] Hayden D The Power of Place: Claiming Urban Landscapes as People's History *Journal of Urban History*, vol 20, 4 pp 466-485
- [2] Antrop M 2005 Why landscapes of the past are important for the future *Landscape and urban planning*, (Elsevier)
- [3] Bandarin F and Van Oers R 2014 The Historic Urban Landscape: Managing Heritage in an Urban Century Available at: <https://onlinelibrary.wiley.com/doi/book/10.1002/9781119968115>
- [4] Wei Z and W Zhang 2016 Evaluation of landscape relevance in Shanghai's historical landscape places *International Journal of Wireless and Computing* DOI:10.1504/IJWMC.2016.080174
- [5] Kajzer N V 2020 Transformaciya istoricheskikh obshchegorodskih ob"ektov ozeleneniya v gorode Ekaterinburge, avtoreferat na soiskanie stepeni k.s-h.nauk po special'nosti 06.03.03 «Agrolesomeliyaciya, zashchitnoe lesorazvedenie i ozelenenie naselennykh punktov, lesnye pozhary i bor'ba s nimi» Ekaterinburg p 20
- [6] Shevlyakova M I and Atkina L I 2017 Preobrazovaniya znakovykh landshaftnykh elementov sada Haritonova, (Ekaterinburg: Prirodoobustrojstvo) pp104-110
- [7] Carmen Hidalgo M, Berto R, Paz Galindo M and Getrevi A 2006 Identifying attractive and unattractive urban places: categories, restorativeness and aesthetic attributes *Medio Ambiente y Comportamiento Humano* 7(2) pp 115-133
- [8] Postanovlenie Administracii g. Permi ot 29 aprelya 2011 goda № 188 «Ob utverzhdenii Perechnya ob"ektov ozeleneniya obshchego pol'zovaniya goroda Permi» (s izmeneniyami ot 01 avgusta 2019 goda)
- [9] Available at: <http://www.archive.perm.ru>
- [10] Molganova N A and Ovesnov S A 2014 Derevy'a i kustarniki skverov Leninskogo rajona g. Permi *Vestnik Permskogo universiteta. Biologiya*. vol 4 pp 5–11
- [11] Pravila sozdaniya, ohrany i sodержaniya zelenykh nasazhdenij v gorodah Rossijskoj Federacii [Elektron. resurs]. – Rezhim dostupa: <https://base.garant.ru/2320051/>
- [12] Available at: <http://www.theplantlist.org>
- [13] Speshilova E 1999 *Staraya Perm': Doma. Ulicy. Lyudi. 1723 – 1917*. (Perm': Izdatel'stvo



Kursiv) p 580

- [14] Trapeznikov V N 1998 *Letopis' goroda Permi Gosudarstvennyj arhiv Permskoj oblasti* p 132
- [15] *Available at:* [http://numismat.su/main/index.html?id=4&parent\\_id=4&pg=1](http://numismat.su/main/index.html?id=4&parent_id=4&pg=1)
- [16] Teodoronskij V S and Bogovaya I O 2003 *Ob"ekty landshaftnoj arhitektury. Izdatel'stvo Moskovskogo gosudarstvennogo universiteta lesa* pp 114
- [17] *Available at:* <https://perm.yapl.ru/484/>
- [18] *Available at:* <https://perm.yapl.ru/2047/>
- [19] *Available at:* <https://yandex.ru/images/s>
- [20] *Available at:* <https://pastvu.com/p/525026?share=1>
- [21] *Available at:* <https://news.myseldon.com/ru/news/index/234750630>