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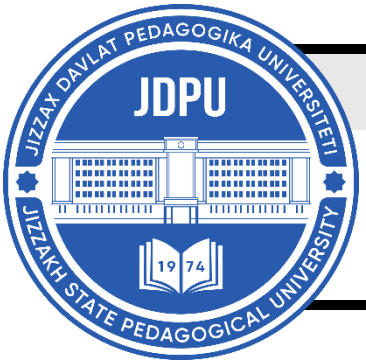


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# EXPANSION OF PUBLIC SPACES IN THE CITY AT THE EXPENSE OF COASTAL ZONES

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## ABOUT ARTICLE

**Key words:** coastal zones, public spaces, park, square, canal, river, trees, benches, temperature, city

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**Abstract:** It is well-known that the extensive development of open spaces in Tashkent has resulted in a reduction of public areas, with residential buildings, shops, and other retail outlets taking their place. This has led to the destruction of playgrounds in front of multi-storey buildings, the cutting down of perennial trees, and the demolition of ancient monuments and historical buildings. A public opinion poll has shown that citizens prefer to vacation in the coastal areas along the canals and rivers of the city. This study aims to investigate the feasibility of expanding the city's public spaces by creating and expanding coastal zones.

## INTRODUCTION

Public spaces are areas free of transport, including pedestrian zones, squares, streets, boulevards, as well as ground, underground, and aboveground parts of buildings and structures such as galleries, passages, and atriums. They are designed for use by an unlimited number of people for

leisure purposes, holding mass events, and organizing pedestrian flows on the territories of public, business, and passenger transport facilities. Public space is an urban area accessible for use by all citizens and is an important part of the urban environment. People can walk with friends along the embankments, sit on a bench and read the newspaper, or get acquainted with random passers-by in the park thanks to public spaces.

We are currently in a time of paradigm shift in urban planning, and city management. The modern city should be safe, lively, interesting, attractive, and sustainably developing [1,2]. Public spaces play an important role in the development of modern cities [3,4] as they form the life of the city and are its "face" and "soul". Public spaces are not a luxury for the elite but a condition for the existence and development of a harmonious city in the twenty-first century for modern citizens with their requests and needs [5,6].

At the moment, there is practically no "design" of public spaces in our cities. These territories are formed according to the residual principle – after the houses of various purposes and roads are designed. The empty space that remains between them is now taken for "public spaces". In reality, these are just empty, undeveloped areas. There is no special understanding of the principles of their work, the tasks that they will solve for their users, and that form the basis of their design [7,8].

## MATERIALS AND METHODS

The climate of Tashkent is sharply continental, characterized by hot, dry summers and changeable but generally warm autumn-winter-spring weather. It is especially hot from May to September. The table shows the average monthly temperature in these months in Tashkent during the day and at night.

Table 1. The average monthly temperature of Tashkent in the hot months: day and night.

| | may | june | july | august | september |
|---|---|---|---|---|---|
| In the afternoon | **30,1** | **35,3** | **38,1** | **36,4** | **31,0** |
| At night | **19,3** | **23,4** | **25,7** | **23,9** | **19,3** |

Tashkent residents go to rest in parks, squares, and recreation areas after a hard day during these months.

Tashkent used to have many green spaces, with straight streets lined with double alleys of trees such as poplars, elms, plane trees, oaks, mulberry, or acacias. Water flowing from the irrigation system ran in ditches along the streets, creating a cool and pleasant feeling on hot sunny days. People would spray this water on dusty roads using buckets and universal kerosene cans.

Unfortunately, Tashkent faced a problem of illegal tree felling at the end of the 2000s. The destruction of Amir Temur Square in November 2009 was a landmark event and the starting point. The square was laid out in 1882, and a year later, plane trees were planted here, which became the only surviving witnesses of the events of their 126-year existence.

On December 30, 2021, the President of the Republic of Uzbekistan, Sh.Mirziyoyev, issued Decree No. UP-46 "On measures to accelerate landscaping and further effective organization of tree protection in the Republic" [9].

The Decree sets out tasks related to the protection and expansion of green areas, as well as ways to effectively organize the activities of the Khokimiyats responsible for this area. The ways of solving the tasks defined in the President's Decree dated October 30, 2019, No. UP-5863 "On approval of the Concept of Environmental Protection of the Republic of Uzbekistan until 2030" [10] have been identified, these include:

- Implementation of the Nationwide project "Green Edge" throughout the country, which aims to increase the number of trees and create green zones in the regions. Special attention is paid to caring for trees after planting and increasing responsibility for damaging or destroying trees.

- Extension of the moratorium on cutting down valuable species of trees and shrubs for an indefinite period.

- The establishment of additional administrative fines with an increase in their size by five times — for violating the requirements of the moratorium;

- An increase in the recovery of the amount of damage, from their size by half — for illegal felling and damage to trees and shrubs;

- To prevent the allocation of less than 25 percent of the total area of land allocated for the project for landscaping in territories adjacent to newly erected buildings.

All of these measures will undoubtedly contribute to the preservation and development of recreational areas for the population.

Recently, active work has begun in Tashkent to create and expand coastal recreation areas along canals, rivers, and other bodies of water. This has been greatly facilitated by the adoption of the President of the Republic of Uzbekistan's Resolution "On the legal experiment on the introduction of a special management procedure in Tashkent" UP 5515, dated August 17, 2018 [11]. According to the Resolution, the Tashkent city khokimiyat has proposed the creation of the Department for the Operation of Canals and Improvement of Adjacent Territories in the city of Tashkent, whose main tasks include:

-maintaining channels and structures at an appropriate level,

-keeping channels in working condition,

-implementing works on cardinal improvement of sanitary cleaning of canals,

-improving the territory adjacent to the canals,

-concreting urban sections of canals along the embankments of the recreational area using modern architecture,

-effectively using allocated funds through modern technologies.

Tashkent residents are delighted to see the appearance of new beautiful embankments and improvements to canals.

Ancient Tashkent owes its birth to a large river, Chirchik, which is a tributary of the Syr Darya. More than two thousand years ago, an urban planning culture was born in the valley of the Chirchik River, which is the progenitor of modern Tashkent. As we know, the oldest civilizations originated in river valleys such as Egypt on the banks of the Nile, the Harappan civilization in the Indus Valley, Mesopotamia located on the plain between the Tigris and Euphrates, and Margush on the Murghab River. Ancient Tashkent was no exception because water is the source of life.

Favorable geographical conditions played a key role in choosing a place to live for the first settlers of Ancient Tashkent.

From the last ice age 11700 years ago to the present day, Chirchik has changed its position in space. The border of Chirchik's maximum approach to the city can be traced along the current Shota Rustaveli Street. If you move along it from the Southern Railway Station to the city center, the relief on the left is higher, and on the right it gently descends to Chirchik, which is the valley of the river. The movement of the river in space is due to the great Baer law, according to which all rivers in the northern hemisphere wash away the right bank, making it steeper. Over millennia, Chirchik has moved kilometers to the south.

It should be noted that this process continues today. The canals and rivers of Tashkent take their sources from mountain rivers, so they are clean and transparent. The water temperature in them does not rise above 15 degrees Celsius even in the sultry summer, providing both coolness and freshness. Water is the source of life, and its veneration, along with fire, air, and earth, formed the basis of the worldview of ancient peoples in Central Asia. Keeping these elements clean guaranteed civilization a long existence, and contamination by humans was considered sinful. Before the advent of water supply networks in Tashkent, the waters of canals and rivers were used for drinking, and the population of the city carefully treated the purity of water. This tradition has been preserved to this day, as no one would even consider throwing garbage or spitting into the water.

As an example, consider the embankment of the Ankhor Canal (Fig. 1). It is very popular among locals and guests of the capital, providing a cool and fresh respite on hot summer days. People walk along the shore and enjoy the fresh air. In the cold winter, a real cluster of birds gathers here, which everyone is happy to feed. But regardless of the time of year, it is always beautiful and well-groomed, with blooming trees and flowers. Lovers and families enjoy taking walks here.

Fig.1. Ankhor Canal embankment

Figure 2 shows a charming café situated on the canal bank.

Apart from **Ankhor**, Tashkent is home to several other significant canals and rivers:

**Bozsu** is the most extensive canal that supplies water to many other canals in Tashkent, which is the right branch of Chirchik.

**Karasu** is the left branch of the Bozsu, which starts from the Akkavak HPP.

**Salar** is the left branch of the Bozsu, which begins in the village of Tashgres of the Kibrai district of the Tashkent Viloyat.

**Jun** is the right branch of the Salar, begins in the southwest of Tashkent, near the city border.

**Chauli** – the left branch of the Bozsu, originated in the area of Victory Park.

**Kalkauz** is the right branch of the Bozsu, an ancient canal that once fed the Old City with water.

**Damashchi** is the right branch of the Kalkauz, which begins in the Takhtapul area.

**Burjar** is the left branch of Ankhor.

**Aktepa** is the right branch of the Burjar.

Fig.2. Cafe on the river bank, where visitors can enjoy sitting by the water

**Results and their discussions**

The map (Fig. 3) shows the water systems and parks of the city. One way to increase public spaces in the city, according to many residents, is to create recreational areas along canal embankments.

In accordance with the Decree of the President of the Republic of Uzbekistan [9], the city has started working on creating these zones.

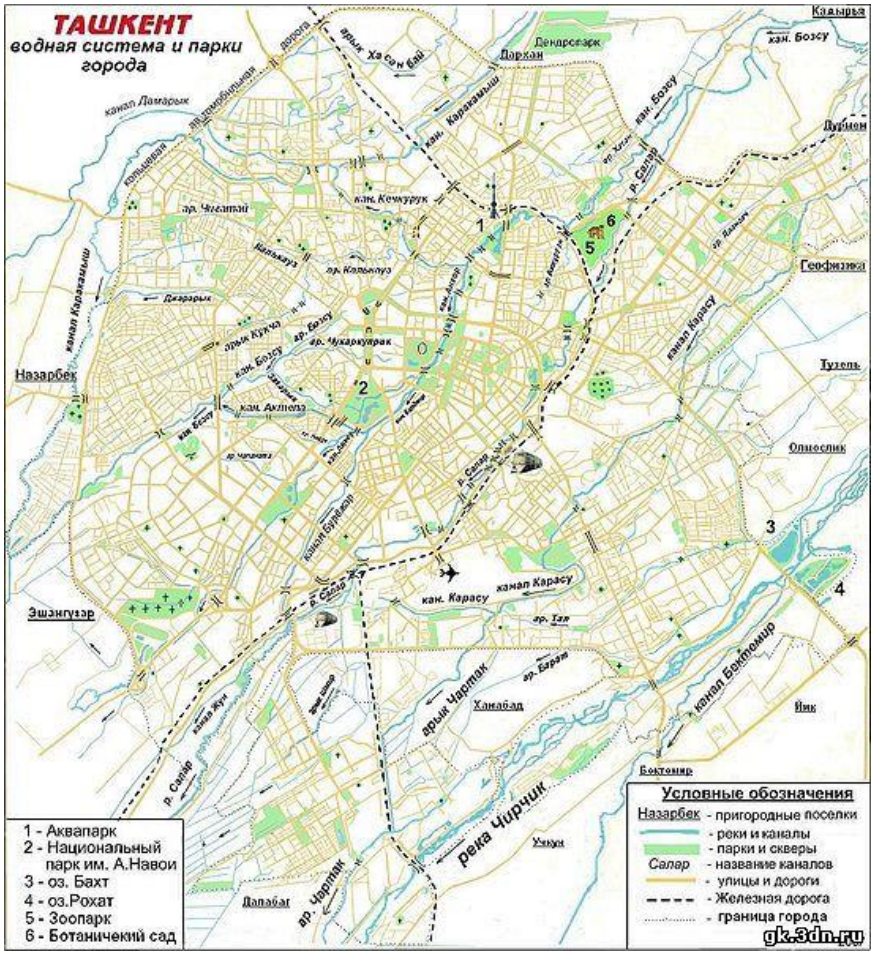


Fig.3. Water systems and parks of the city.

Concrete work has been done in the coastal zone, fences have been installed along the Salar Canal from A. Kakhkhora Street to Babur Street, and a walking embankment has been constructed. The coastal section of the Shokir collector in the Sergeli district has been reinforced, and work has been done to strengthen the 2.5-kilometer coastal zone of the Karasu canal in the Mirzo-Ulugbek district.

The Bozsuv Canal, which flows through the Shaikhantakhur and Chilanzar districts from Aktepa Square to Aktepa Hydroelectric Power Station (HPP-9), has been fenced for safety. During the cleaning of 320 and 400 linear meters of collectors, parts of the Chimboy and Sagbon collectors in the Almazar district were cleaned, and conditions for dumping groundwater into the river were improved while increasing throughput.

The reconstruction of 1,500 linear meters of the Karasu Canal has begun on the segment from Boysun Street to Fargon Yuli Street in Yashnabad district. This work is being performed by a contractor. Six hundred meters of the Karasu Canal from Fargon Yuli Street in Mirabad district were covered with concrete slabs, coastal areas were cleaned, and pedestrian sidewalks were created.

A project has been prepared for the reconstruction of the 500-meter Khasan Canal in Yunusabad district, and the investor has already started work. Autumn-winter cleaning of channels of 21.8 km of pipelines, 5.2 km of collectors, and technical inspection of water distribution facilities are being carried out. The list of such works can be continued for a long time.

The reconstruction of the Salar Canal with a total length of 1,600 linear meters from the Durmon Yuli Road to Zielilar Street is being completed. The section from A. Kakhkhora Street to Babur Street in Yakkasarai district has been completed. The work will be continued in stages as funding becomes available. The condition of the water in the canal is monitored by the State Sanitary and Epidemiological Inspection with the help of laboratory tests. The ingress of various wastewater into the canal is under close control, and responsible government agencies are involved in this, taking administrative measures against violators.

However, the pace is very slow.

The length of more or less large rivers and channels in Tashkent is more than 120 km. Simple calculations show that if we create recreation areas with a width of 20 m along channels and rivers at a length of 50 km, we will get an additional recreation area of more than 100 hectares. It should be noted that currently, the total area of parks and squares in Tashkent is about 200 hectares.

As you can see, the creation of coastal recreation areas will increase the total area of recreation areas by 1.5 times. This will undoubtedly make it easier for residents of Tashkent to endure the summer heat.

**CONCLUSION**

The modern city has a wide range of open spaces, including city squares of varying urban planning significance, parks, boulevards, gardens, embankments, open esplanades of memorable places, fragments of the natural landscape, and courtyards of residential complexes. Their role in forming an integral urban organism, the "image of the city," and implementing special and universal functional processes is significant and multifaceted [12,13].

In this paper, the theoretical and methodological foundations of geoinformation support of public spaces of the city are analyzed.

Tashkent, being a modern city, has preserved its national flavor with illustrations of mosques, madrassas, and other traditional buildings next to modern structures such as metro stations and hotels. One of the mosques houses a copy of the Koran written in the 7th century [14].

Special attention is given to the creation of coastal recreation areas, which have become a favorite vacation spot for citizens. Through a small calculation, it is shown that creating such zones will increase the area of existing recreation areas in Tashkent by one and a half times [15].

In conclusion, there is a need to accelerate the creation of coastal recreation areas.

**REFERENCES:**

[1]. Abaydulova D.A., Kuspangaliev B.U., Musabayeva V.A. Open urban spaces through the prism of participatory design: classification and functions of public urban spaces // System Technologies, No. 2 (No. 35), 2020. P. 55-60. https://thesystemtechnologies.com/wp-content/uploads/2022/10/35vipusk.pdf.

[2]. Modern public spaces. Materials of the interregional scientific and practical conference St. Petersburg. 2018. p. 161.

[3]. Blyankinstein O.N. P.N.A.S.M.V. Socio-cultural basis of urban planning regulation of open public spaces of cities // Bulletin of Tomsk State University, No. 41, 2021. pp. 18-40. https://doi.org/10.17223/22220836/41/2

[4]. Shimko V. T. Architectural formation of the urban environment. — M., 1990.

[5]. Radchenko D.A. (2019). After the ball: how to evaluate landscaping with the help of anthropology. Folklore and anthropology of the city, // (3-4), 270-291. https://ufajournal.ranepa.ru/home/archive/2019/398820/#398804

[6]. Shimko V. T. Architectural formation of the urban environment. — M., 1990.

[7]. Gorokhov V.A. Green nature of the city. – M.: Stroyizdat, 2003. 528 p.

[8]. Gostev, V.F. Designing gardens and parks: textbook for technical schools / V.F. Gostev, N.N. Yuskevich. – M.: Stroyizdat, 1991. – 416 p.

[9]. Decree of the President of the Republic of Uzbekistan Sh.Mirziyoyev No. UP-46 dated December 30, 2021 "On measures to accelerate landscaping and further effective organization of tree protection in the Republic".

[10]. Decree of the President of the Republic of Uzbekistan No. UP-5863 dated October 30, 2019 "On approval of the Concept of Environmental Protection of the Republic of Uzbekistan until 2030".

[11]. Resolution of the President of the Republic of Uzbekistan Sh.Mirziyoyev No. UP 5515 dated August 17, 2018 "On the legal experiment on the introduction of a special management procedure in Tashkent".

[12]. Berlyant, A.M. Cartography [Text] : textbook. for universities / A.M. Berlyant. – M.: Aspect Press, 2002. – 336c.

[13]. A.Mukhammadkarimov, A.Obidov, Z.Iskandarov. "Toshkentning tabarruk ziyoratgohlari" ("Sights of Tashkent"). Navruz Publishing House, 2016, Tashkent.

[14]. Kosmarsky A.A., Chernets E.A. (2019). "Tashkent loves you": Public spaces, problems of development of the urban environment. Folklore and anthropology of the city, //(3-4), 199-207. DOI; 10.22394/26583895-2019-2-3-4-199-207. https://ufajournal.ranepa.ru/home/archive/2019/398820/#398792

[15]. Bugaevsky, L.M. Geoinformation systems [Text]: textbook. for universities / Bugaevsky L.M., Tsvetkov V.Ya. – M. : Zlatoust – 2000. – 342 p.